Prepared for:
Kraft Heinz Food Company, Inc.

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1690016505

ELECTRON DONOR INJECTION DOCUMENTATION REPORT

FORMER DRUM STORAGE AREA
ROWE INDUSTRIES SITE
SAG HARBOR, NEW YORK

RAMBOLL

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ACRONYMS AND ABBREVIATIONS

AMSL	above mean sea level
ARARs	Applicable or Relevant and Appropriate Requirements
bgs	below ground surface
CVOCs	chlorinated volatile organic compounds
cDCE	cis-1,2-dichloroethene
COCs	contaminants of concern
Dhc	*Dehalococcoides*
DO	dissolved oxygen
EVO	emulsified vegetable oil
ERD	enhanced reductive dechlorination
FP&T	focused pump and treat
FDSA	former drum storage area
FSP&T	full-scale pump and treat
ISB	*in-situ* bioremediation
ISCR	*in-situ* chemical reduction
Kraft	Kraft Heinz Foods Company, Inc.
LBGHES	LBG Hydrogeologic and Engineering Services, P.C.
MCL	Maximum Contaminant Level
µg/L	micrograms per liter
NOAA	National Oceanic and Atmospheric Administration
ORP	oxidation reduction potential
Ramboll	Ramboll US Corporation
ROD	Record of Decision
SVE	soil vapor extraction
PCE	tetrachloroethene
TOC	total organic carbon
TCE	trichloroethene
USEPA	United States Environmental Protection Agency
USGS	United States Geological Survey
VC	vinyl chloride
VOC	volatile organic compound
WSP	WSP USA
ZVI	zero valent iron

1. INTRODUCTION

On behalf of Kraft Heinz Foods Company, Inc. (Kraft Heinz), Ramboll US Corporation (Ramboll) has prepared this *Electron Donor Injection (EDI) Documentation Report* to document February 2020 remedial actions designed to treat chemicals of concern (COCs) (primarily tetrachloroethene [PCE] and its anaerobic degradation products) in groundwater at the former drum storage area (FDSA) on the Rowe Industries Superfund Site (the "Site") located in Sag Harbor, New York (Figures 1 and 2). This EDI Report has been prepared as a follow-up to the Ramboll November 2019 *Work Plan for In-Situ Groundwater Remediation, Former Drum Storage Area (FDSA), Rowe Industries Site*, and the subsequent United States Environmental Protection Agency (USEPA) email dated January 22, 2020, which provided approval of the November 2019 Work Plan.

2. BACKGROUND

2.1 Site History

The Site was historically used to manufacture various electrical components such as copper coils for toy slot cars. Degreasers used in the manufacturing process were disposed of in several drywells and were also stored in drums in the FDSA of the Site that eventually leaked to the ground surface. The contamination was detected in nearby drinking water wells during the mid-1980s, and a Suffolk County Department of Health investigation identified the source as the property occupied by Sag Harbor Industries (SHI). A subsequent remedial investigation identified COCs as PCE, trichloroethene (TCE) and 1,1,1-trichloroethane (TCA). Groundwater impacted with these COCs was found to extend northwesterly from the FDSA over a distance in excess of ½ mile toward a brackish estuary named Ligonee Creek and also Sag Harbor Cove. The subject of this report is residual impacted soil and groundwater within the FDSA, which is located on an upgradient adjacent property to SHI (107 Laurel Lane in Sag Harbor, New York). The following sections provide a summary of soil and groundwater remedial actions conducted at the FDSA.

2.2 Previous Unsaturated Zone Treatment Within the FDSA

Excavation of contaminated soil from the surface to 4 feet below ground surface (bgs) was completed in the FDSA in 1998. To treat remaining chlorinated volatile organic compound (CVOC) soil in the unsaturated zone, a soil vapor extraction (SVE) system was installed and operated from 1998 to 2003. In January 2005, LBG Hydrogeologic and Engineering Services, P.C. (LBGHES) submitted to the USEPA a report entitled *Addendum to Soil Remedial Action Report, Closure Request for Source Soils in the Former Drum Storage Area*. The 2005 LBGHES report demonstrated that soil quality in the unsaturated zone of the FDSA had achieved Applicable or Relevant and Appropriate Requirements (ARARs), and the USEPA subsequently approved the report conclusions. Remaining cleanup efforts within the FDSA therefore focus on treating the identified COCs in the saturated zone and capillary fringe near the water table.

As part of the information presented in the January 2005 LBGHES report, exceedances of the ARAR for PCE in soil were identified from soil samples collected at borings C3-2 and C3-4 in January 2003. The detected PCE in these soil boring samples was located at depths below the annual highwater table, such that the PCE was located within the saturated soil for a portion of the year and therefore not considered to represent the vadose zone. The January 2005 LBGHES report concluded that this detected PCE would be more effectively treated via a groundwater remedy.

2.3 Previous and Existing Saturated Zone Treatment Within and Downgradient of the FDSA

In November 2000, a focused groundwater pump and treat (FP&T) remediation system began operating with four focused recovery wells (FRW-1, 2, 3, and 4) within the FDSA. The primary objective of groundwater extraction from these four focused recovery wells is to prevent the COCs from migrating beyond the FDSA.

In December 2002, a Site full-scale groundwater pump and treat (FSP&T) system consisting of nine recovery wells (identified as RW-1 through RW-9), an equalization tank, bag filters, tower air stripper, and transfer tank was installed and began operation for the purpose of recovering dissolved-phase COCs in groundwater downgradient of the FDSA.

In November 2004, approximately 10,800 pounds of EHC® product, which contained a micron-scale zero-valent iron (ZVI) and a carbon substrate, was injected into the saturated zone of the FDSA to enhance abiotic and biotic reductive dechlorination. The EHC® injection facilitated limited degradation of PCE to degradation products cis-1,2-dichloroethene (cDCE) and vinyl chloride (VC). However, COC concentrations in groundwater persisted at concentrations above ARARs so the pump and treat operations in the FDSA were resumed.

Between July 2005 and January 2014, in accordance with the Site's Consent Decree, eight of the recovery wells located downgradient of the FDSA were shut down with USEPA's approval once the water quality in those wells had achieved ARARs for at least 3 consecutive years. FP&T wells FRW-1 through FRW-4, and also downgradient FSP&T well RW-2, currently remain in operation. Since 2000, the results of ongoing groundwater monitoring have confirmed that COCs in groundwater have not migrated beyond the FDSA. However, due to continued elevated concentrations in the FDSA groundwater, the recently-completed *in-situ* groundwater remedial actions documented herein were implemented to further treat COC-impacted groundwater within the FDSA.

As indicated in Section 2.2, residual PCE is located at depths below the annual high water table, such that electron donor injection for the purpose of in-situ groundwater remediation should occur during high water table conditions. An evaluation of local precipitation and associated groundwater elevation patterns was therefore conducted prior to the February 2020 electron donor injection event to gain an understanding of expected water table conditions at the time of injection.

3. *IN-SITU REDUCTIVE* DECHLORINATION GROUNDWATER REMEDIATION

Ramboll proposed additional *in-situ* treatment of soil and groundwater within the FDSA in the November 2019 Work Plan. Specifically, Ramboll proposed additional remedial action via *in-situ* chemical reduction (ISCR) and *in-situ* anaerobic bioremediation (ISB) within a vertical zone that ranged from approximately 16 to 31 feet bgs over an approximately 2,000 square foot area (Figure 4 and Figure 5). This treatment zone encompasses previously-detected CVOC concentrations in soil associated with a clay lens and interbedded sands and silts beneath the FDSA. The proposed treatment included the injection of approximately 5,800 pounds of micron scale ZVI in combination with approximately 8,700 pounds of carbon substrate, as well as 5 liters of microbial culture that includes *Dehalococcoides* (*Dhc*) to facilitate dechlorination. *Dhc* are the only group of microorganisms documented to promote the complete dechlorination of chlorinated ethenes to non-toxic ethene. The reagents are combined with potable water using guar to suspend the ZVI and also sodium sulfite to reduce dissolved oxygen (DO) in solution to support *Dhc-induced* halorespiration.

3.1 Pre-Injection Activities

Prior to conducting the injections, water table elevations at monitoring wells MW-45A and MW-98-04 were monitored on a monthly basis to verify that the injections were conducted during high water table conditions. Figure 3 shows the results of the recent and historic water level monitoring near the FDSA along with the local USGS monitoring well. Water table levels in the FDSA prior to and during the injections ranged from 9 to 10 feet above mean sea level (AMSL), which corresponds to the high end of the historic water table level range in the FDSA.

The FRW wells were shut down in early February 2020 such that the groundwater extraction system would not depress groundwater elevations within the FDSA, which allowed for an understanding of ambient groundwater elevations prior to implementation of amendment injection. The FRWs will remain off following the EDR injections to facilitate development of anaerobic conditions to reductively dechlorinate CVOCs.

3.2 February 2020 Groundwater Monitoring Event

A baseline groundwater monitoring event was conducted on February 19 and 20, 2020, 1 week prior to the ISCR/ISB injection event, to document ambient groundwater conditions within and adjacent to the groundwater treatment zone. These results will be used to compare against post-injection monitoring results to evaluate how conditions change in response to the amendment addition. Pursuant to the November 2019 Ramboll Work Plan, the following monitoring wells were sampled as part of the February 2020 quarterly groundwater monitoring event: FRW-1, MW-45A, MW-98-01A, MW-98-04, and MW-98-05AR. Groundwater sampling field logs are provided as Appendix D. Monitoring wells FRW-2, FRW-3, and FRW-4 were not sampled during the baseline event due to issues with accessing the groundwater with the extraction pumps in place. The extraction well pumps will be removed prior to the next sampling event so that all wells may be sampled as part of future groundwater monitoring events. The collected groundwater samples were submitted to York Analytical Laboratories, Inc., a New York-certified laboratory, and the laboratory reports are provided in Appendix E.

3.2.1 Water Table Elevations

As indicated in Table 1, measured depths to the water table below top of well casing ranged from 18.2 feet at monitoring well MW-45A to 20.7 feet at monitoring well MW-98-01A. The measured water table elevations ranged from 9.00 to 9.77 feet AMSL, which is within the high end of historic water table elevations measured at the Site. Based on the measured water table elevations, the inferred direction of shallow groundwater flow is to the north-northeast (Figure 8), at an estimated horizontal hydraulic gradient of 0.018. Historical inferred directions of shallow groundwater flow have been to the north-northwest within the FDSA. However, it should be noted that groundwater elevations were not obtained from the FRW wells as part of the February 2020 monitoring event, based on the presence of extraction pumps in the wells as indicated above. Future groundwater monitoring events should yield more reliable inferred directions of groundwater flow, based on water table elevations from all of the monitored wells.

3.2.2 Groundwater Field Parameter Results

Prior to collection of groundwater samples for laboratory analysis, each monitoring well was opened and allowed to equilibrate, and an electronic water-level meter was used to measure static groundwater levels. Once the static water levels were recorded, the wells were purged using low-flow techniques, and groundwater samples were collected using a bladder or peristaltic pump fitted with new, disposable tubing. The monitoring wells were purged until the field parameters of pH, specific conductance, and temperature stabilized, followed by sampling of the wells. Field parameters

consisting of pH, specific conductivity, temperature, DO, and oxidation-reduction potential (ORP) were measured at all sampled monitoring wells and the results are documented in Table 2.

The field parameter data obtained as part of the February 2020 baseline groundwater monitoring event are summarized as follows:

- Groundwater is under anaerobic to mildly aerobic conditions as the monitoring wells revealed baseline DO concentrations that ranged from 0.11 milligrams per liter (mg/L) at MW-45A to 4.95 mg/L at FRW-1.
- The ORP of the groundwater samples from the performance monitoring wells ranged from +81 millivolts (mV) at MW-98-01A, to +215 mV at FRW-1. These results indicate that the groundwater is under mildly oxidizing conditions.
- The pH of the groundwater ranged from pH 5.20 at FRW-1 to 6.14 at MW-98-05AR; in general, microbes prefer a pH range of 5 to 9 and *Dhc* microbial development is supported at pH values between 6 and 8. The injected ABC® carbon substrate contains a phosphate pH buffer, and hydroxyl ions produced from corrosion of ZVI should also increase pH within the treatment zone to levels favorable for *Dhc* development.
- The temperature of the groundwater ranged from 9.85 to 11.38 degrees Celsius, which is in a range that is favorable for most microbial enzymatic reactions.

3.2.3 Geochemical Analytical Results

Detected geochemical constituent concentrations in collected groundwater samples are summarized in Table 3, and laboratory analytical reports are provided in Appendix E.

3.2.3.1 Total Organic Carbon

TOC is an indicator of natural organic carbon as part of baseline site characterization and is an indicator of substrate distribution during anaerobic bioremediation performance monitoring. TOC concentrations greater than 20 mg/L are desired within an anaerobic treatment zone. Stable or declining total organic carbon concentrations less than 20 mg/L, in conjunction with elevated concentrations of CVOCs and alternate electron acceptors indicate that additional substrate is required to sustain the treatment zone (AFCEE, 2004). February 2020 TOC concentrations in the monitoring wells ranged from 2.16 to 2.66 mg/L, confirming that addition of carbon substrate is likely required to sustain an anaerobic bioremediation treatment zone.

3.2.3.2 Sulfate

Sulfate is an alternate electron acceptor for microbial respiration in the absence of oxygen, nitrate, and ferric iron. Depleted concentrations of sulfate relative to background values indicate that the groundwater environment is sufficiently reducing to sustain sulfate reduction and for anaerobic dechlorination to occur. Sulfate concentrations less than 20 mg/L are desirable, but not required, for anaerobic dechlorination to occur. High concentrations of sulfate in conjunction with the absence of TOC indicate that additional substrate may be required to promote anaerobic dechlorination. February 2020 sulfate concentrations detected in the monitoring wells ranged from 6.84 to 12.1 mg/L; these relatively low native sulfate concentrations should not pose a high electron donor demand within the groundwater treatment zone.

3.2.3.3 Nitrate

Nitrate is another alternate electron acceptor for microbial respiration in the absence of oxygen. Depleted concentrations of nitrate relative to background values indicate that the groundwater environment is sufficiently reducing to sustain nitrate reduction. Nitrate concentrations less than 1 mg/L are desirable for anaerobic dechlorination to occur. February 2020 nitrate concentrations in the monitoring wells ranged from 0.166 to 1.17 mg/L, indicating that addition of carbon substrate would be beneficial to sustain an anaerobic bioremediation treatment zone.

3.2.3.4 Ferrous Iron

In some cases, ferric iron is used as an electron acceptor during anaerobic biodegradation of organic carbon; however, ferric iron is typically present in solid mineral form. During this process, ferric iron is reduced to ferrous iron, which is soluble in water. Elevated concentrations of ferrous iron indicate that the groundwater environment is sufficiently reducing to sustain iron reduction and for anaerobic dechlorination to occur. However, ferrous iron concentrations may be biased low due to co-precipitation with sulfides. Dependent on the amount of fermentable substrate and bioavailable iron already present in the aquifer, a site may not exhibit a substantial increase in ferrous iron if ferric iron is already low or depleted. February 2020 dissolved iron concentrations ranged from <0.010 to 0.465 mg/L. These relatively low baseline dissolved iron concentrations are not consistent with strongly reducing conditions.

3.2.3.5 Methane/Ethane/Ethene

During methanogenesis, acetate is split to form carbon dioxide and methane, or carbon dioxide is used as an electron acceptor and is reduced to methane. Elevated concentrations of methane indicate that fermentation is occurring in a highly anaerobic environment and that reducing conditions are appropriate for anaerobic dechlorination of CVOCs to occur. Elevated concentrations of ethene and ethane indicate that anaerobic dechlorination of CVOCs is already occurring. Methane concentrations greater than 1 mg/L are desirable, but not required, for anaerobic dechlorination to occur. Methane concentrations less than 1 mg/L and the accumulation of cDCE or VC may indicate that additional substrate is required to drive reducing conditions into an environment suitable for reduction of these compounds. If elevated concentrations of ethene or ethane are not detected, potential accumulation of cDCE or VC should be monitored. February 2020 baseline methane concentrations ranged from <0.010 to 0.25 mg/L, and none of the monitoring wells contained detectable concentrations of ethene or ethane. These findings indicate that the addition of carbon substrate would likely be required for further reduction of the CVOCs in site groundwater.

3.2.4 Volatile Organic Compounds

Based on concentration and frequency of detection, the predominant constituent of interest detected in the February 2020 baseline groundwater samples is PCE (Table 3). The other detected VOCs at substantially lower concentrations were cDCE, VC, and 1,1,1-trichloroethane. The following PCE concentrations were detected in groundwater samples obtained as part of the February 2020 baseline sampling event within the target treatment area:

- FRW-1: 320 ug/L;
- MW-98-01A: 4.1 ug/L; and

- MW-98-05AR: 26 J[1] ug/L.

For monitoring wells located outside of the target treatment area, hydraulically downgradient monitoring well MW-45A and hydraulically trans-gradient monitoring well MW98-04 did not contain detectable concentrations of PCE. As expected, groundwater conditions in the FDSA prior to injection were similar to historic measurements which were used to design the amendments mixture for the injection event.

3.3 February 2020 FDSA Groundwater Remedial Action

Ramboll contracted Redox Tech, LLC (Redox Tech) to implement ISCR/ISB via electron donor injection within the FDSA at the Rowe Industry Site in Sag Harbor, New York. Redox Tech, LLC. mobilized to the Site on February 24, 2020, for injection operations. Ramboll also contracted with GPRS for subsurface utility clearance prior to conducting the intrusive work. Public utility locations were confirmed by Ramboll, and GPRS proceeded to scan the entire treatment area (approximately 2,000 square feet) and identify locations of observed utilities such as electrical supply and piping to the recovery wells and former soil vapor extraction and air sparge wells. The GPRS underground utility locating report is provided as Appendix A.

Redox Tech arrived with the ISCR/ISB reagents which included five 1,000-liter totes of Anerobic BioChem (ABC®) carbon substrate, 5 liters of *Dhc-containing* bacteria (commercially known as "RTB-1") stored in a stainless steel canister inside a chilled cooler, and 6,000 pounds of micron-scale ZVI on pallets. In addition to the ISCR/ISB reagents, Redox Tech used guar on an as-needed basis to suspend the ZVI particles in prepared injection fluid, sodium sulfite to reduce dissolved oxygen in the injected amendment to support *Dhc* development, and granular bentonite for sealing the injection points.

Injection of reagents was conducted from February 25 to 28, 2020. A total of 19 injection points were advanced within the target injection area. The ABC® carbon substrate was added to a 500-gallon poly tote for each injection point, and mixed into solution with tap water and the sodium sulfite. Each injection location received 495 gallons of slurry that included approximately 474 pounds of ABC®, 316 pounds of ZVI, approximately 0.3 liters of RTB-1, and potable water that was deoxygenated using small quantities of sodium sulfite. The total quantities of injected amendment included 9,000 pounds of ABC®, 6,000 pounds of micron-scale ZVI and 5 liters of RTB-1, for a total of approximately 15,000 pounds of injected amendment that is commercially known as "ABC+."

The injections were performed at depths ranging from approximately 15 to 32 feet bgs at each injection location, as determined by surface topography and existing stratigraphic information (Figure 6 and Figure 7). The injections were performed using a direct push drill rig with hollow stem rods, the rods were advanced to the target depth and a hose fitting was threaded to the top of the rods connected to a diaphragm pump to deliver the amendments to the subsurface. The amendments were delivered in 1-foot intervals to facilitate adequate and uniform vertical distribution of reagent. At each interval, approximately 33 gallons of amendment was delivered for a total of approximately 495 gallons of amendment delivered per injection point as indicated above. The formation readily received the injected slurry with no daylighting and minimal injection pressures (approximately 100 pounds per square inch [psi]). The injected flow rates exceeded 8 gallons per minute (gpm). Each boring was sealed at the completion of the injections using granular bentonite, and subsequently hydrated. The electron donor injection activities are further documented in the Redox Tech field services report provided as Appendix B, and a photolog of the injection activities is provided as Appendix C.

[1] Qualified by project laboratory as an estimated value between the limit of detection and limit of quantification.

3.4 Post-Injection Monitoring Program

To evaluate the effectiveness of the ISCR/ISB remedial actions, baseline and post-injection sampling of wells FRW-1 through FRW-4, MW98-05AR, and MW-98-01A will include analysis of the following parameters: VOCs (Method 8260), sulfate (Method 300), ethene/ethane/methane (Method 8015), dissolved iron (Method 6010B/200.8), TOC (Method 5310C), and nitrate+nitrite (Method 300). For data quality purposes, one field duplicate sample will be submitted for laboratory analysis of the parameters identified above. The field parameters dissolved oxygen (DO), pH, oxidation-reduction potential (ORP), specific conductivity and temperature will also be analyzed in the field as part of each sampling event. Additionally, monitoring wells MW98-04 and MW-45A will be monitored for VOCs.

The groundwater monitoring will continue on a quarterly basis for 1 year (four sampling events), followed by 2 years of semi-annual monitoring (four additional sampling events), followed by annual groundwater monitoring thereafter. Wells MW-28A/B, 44A/B/C, 58A/B, 59A/B, 98-04B, 45B, and N-32 and 32B will continue to be sampled on their regular annual monitoring schedule. The frequency of groundwater monitoring and scope of laboratory analyses may be modified during the groundwater monitoring program in response to results and field observations. A report documenting the results of each monitoring event will be submitted to the USEPA. The first post-injection groundwater monitoring event is scheduled to be completed in late May 2020. The focused recovery wells have been turned off to prevent removal of the injected reagents; however, downgradient extraction well RW-2 will remain active and follow the current monitoring and operation schedule until post-injection monitoring confirms that PCE concentrations have stabilized.

It should be noted that the monitoring schedule identified above assumes that the field work will proceed as planned and that current conditions and limitations associated with the COVID-19 pandemic will not affect our ability to complete the work in a timely manner. Adjustments to the schedule may be required once issues related to work limitations due to COVID-19 are better understood.

4. REFERENCES CITED

Air Force Center for Environmental Excellence (AFCEE). 2004. "Principles and Practices of Enhanced Anaerobic Bioremediation of Chlorinated Solvents." Environmental Security Technology Certification Program, Arlington, Virginia.

TABLES

Table 1
Groundwater Elevation Measurements
Former Rowe Industries Superfund Site
Sag Harbor, New York

Well ID	MW-98-01A		MW-98-04		MW-98-05AR		FRW-1		FRW-2		FRW-3		FRW-4		MW-45A	
PVC Well Casing Elevation	30.47		28.00		29.26		31.00		NS		29.36		28.73		27.44	
Top of Well Screen Elevation	13		12		11		11		NS		NS		NS		14	
Bottom of Well Screen Elevation	3		2		1		1		NS		NS		NS		-1	
Sample Date	Depth to Water	GW Elevation	Depth to Water	GW Elevation	Depth to Water	GW Elevation	Depth to Water	GW Elevation	Depth to Water	GW Elevation	Depth to Water	GW Elevation	Depth to Water	GW Elevation	Depth to Water	GW Elevation
2/19/2020-2/20/2020	20.70	9.77	18.30	9.70	20.00	9.26	22.00	9.00	NM	NM	NM	NM	NM	NM	18.20	9.24
2/24/2020	NM	NM	18.41	9.59	NM	NM	21.31	9.69	19.85	NS	19.70	9.66	19.05	9.68	18.28	9.16

Abbreviations:
GW -- Groundwater
NM -- Not measured
NS -- Not surveyed

Notes:
1. Elevation is reported as feet above mean sea level using North American Vertical Datum of 1988 (NAVD88)
2. Depth is reported as feet below PVC Well Casing Elevation

Table 2
Groundwater Field Parameter Results
Former Rowe Industries Superfund Site
Sag Harbor, New York

Parameter		pH	Dissolved oxygen	Oxidation Reduction Potential	Specific Conductivity	Temperature
Units		S.U.	mg/L	mV	uS/cm	°C
Monitoring Well ID	Sample Date					
MW-98-01A	2/19/2020	5.70	1.20	+81	141	10.90
MW-98-04	2/19/2020	5.67	0.48	+130	157	10.44
MW-98-05AR	2/19/2020	6.14	0.88	+82	151	11.38
FRW-1	2/19/2020	5.20	4.95	+215	85	11.23
MW-45A	2/20/2020	6.00	0.11	+124	149	9.85

Notes:
S.U. = Standard Units
mg/L = milligrams per Liter
mV = millivolts
uS/cm = microsiemens per centimeter
°C = Celsius

TABLE 3
Summary of Groundwater Sample Analytical Results

	Location	NY State Ambient Groundwater Standards	FRW1	FRW1	MW-45A	MW-98-01A	MW-98-04	MW-98-05AR
	Sample Date		2/20/2020	2/20/2020	2/20/2020	2/20/2020	2/19/2020	2/19/2020
	Comments			Field Duplicate				
VOC								
	cis-1,2-Dichloroethene	5	U (0.2)	U (0.2)	U (0.2)	U (0.2)	U (0.2)	1.4 (0.2)
	Tetrachloroethene	5	**320 (2)**	**320 (2)**	U (0.2)	4.1 (0.2)	U (0.2)	**26 J (0.2)**
	1,1,1-Trichloroethane	5	0.57 (0.2)	0.68 (0.2)	U (0.2)	U (0.2)	U (0.2)	3.5 (0.2)
	Trichloroethene	5	1.4 (0.2)	1.4 (0.2)	U (0.2)	U (0.2)	U (0.2)	1.2 (0.2)
WQ								
	Nitrate	10000	166 (50)	179 (50)	---	1170 (50)	---	649 (50)
	Sulfate	250000	12100 (1000)	11800 (1000)	---	8890 (1000)	---	6840 (1000)
TOC								
	Organic Carbon (total)		2170 (1000)	2340 (1000)	---	2160 (1000)	---	2660 (1000)
PDIST								
	Ethane		U (10)	U (10)	---	U (10)	---	U (10)
	Ethene		U (10)	U (10)	---	U (10)	---	U (10)
	Methane		U (10)	U (10)	---	250 (10)	---	250 (10)
INORG (dissolved)								
	Iron		U (10)	U (10)	---	232 (10)	---	465 (10)

Notes:

1 All concentrations are presented in ug/L .

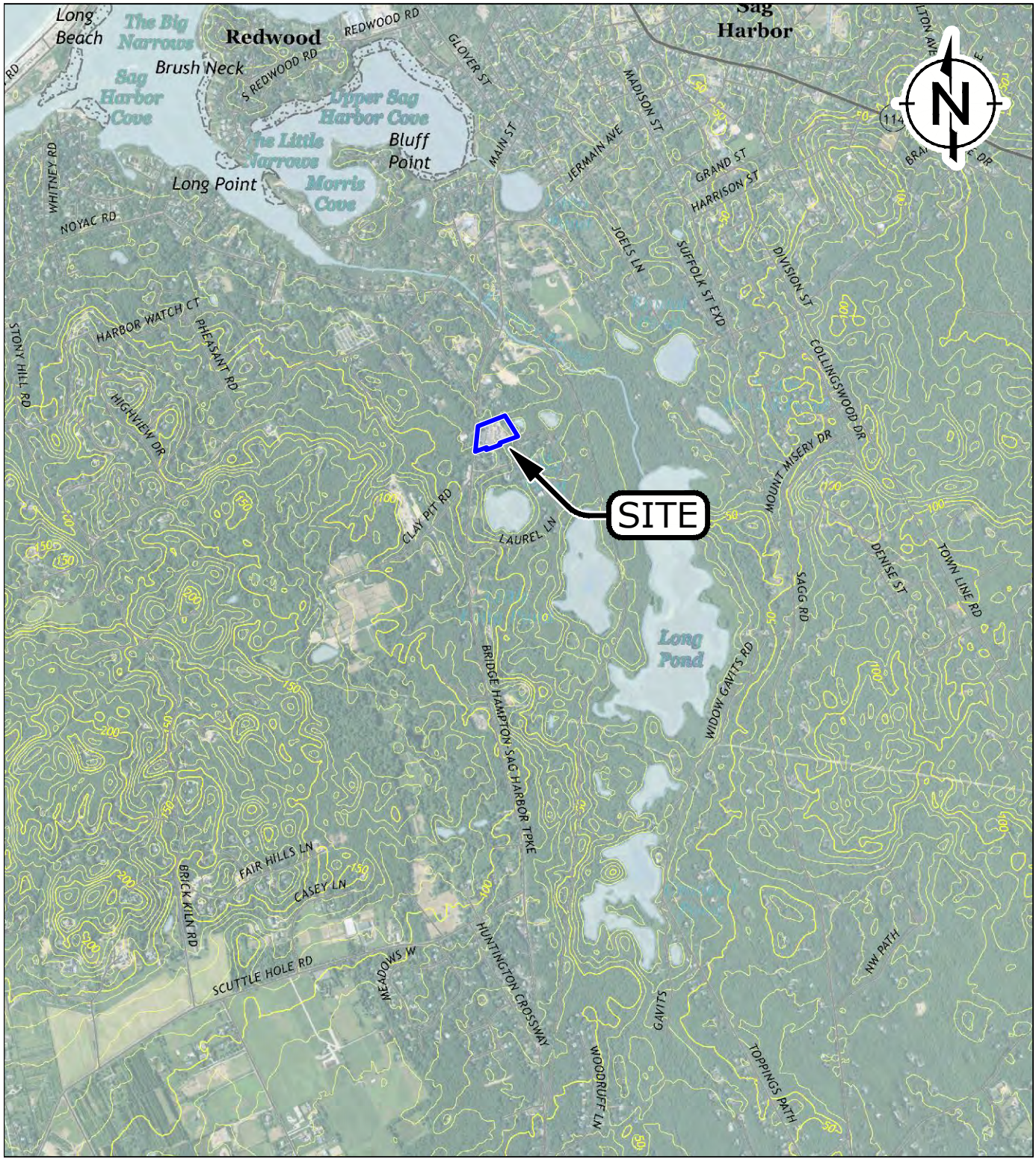
2 Only compounds with at least one detection are shown.

3 Concentrations that exceed the NY State Ambient Groundwater Standards are **boldfaced**.

Abbreviations:

VOC -- Volatile Organic Compounds.
WQ -- Water Quality.
TOC -- Total Organic Carbon.
PDIST -- Petroleum Distillates.
INORG -- Inorganic.
U -- Not Detected.
J -- Estimated Concentration.
( ) -- Detection Limit.
--- Not Analyzed.

FIGURES



CONTOUR INTERVAL 10 FEET

0 1/2 1 MILE

0 2000 4000 FEET

LEGEND:

PROPERTY BOUNDARY (APPROXIMATE)

QUADRANGLE LOCATION

SOURCE:
2016 USGS 7.5 Minute Series Sag Harbor, New York Topographic Quadrangle.
Site Location; N: 40.9831° W: 72.3008° WGS84

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RAMBOLL

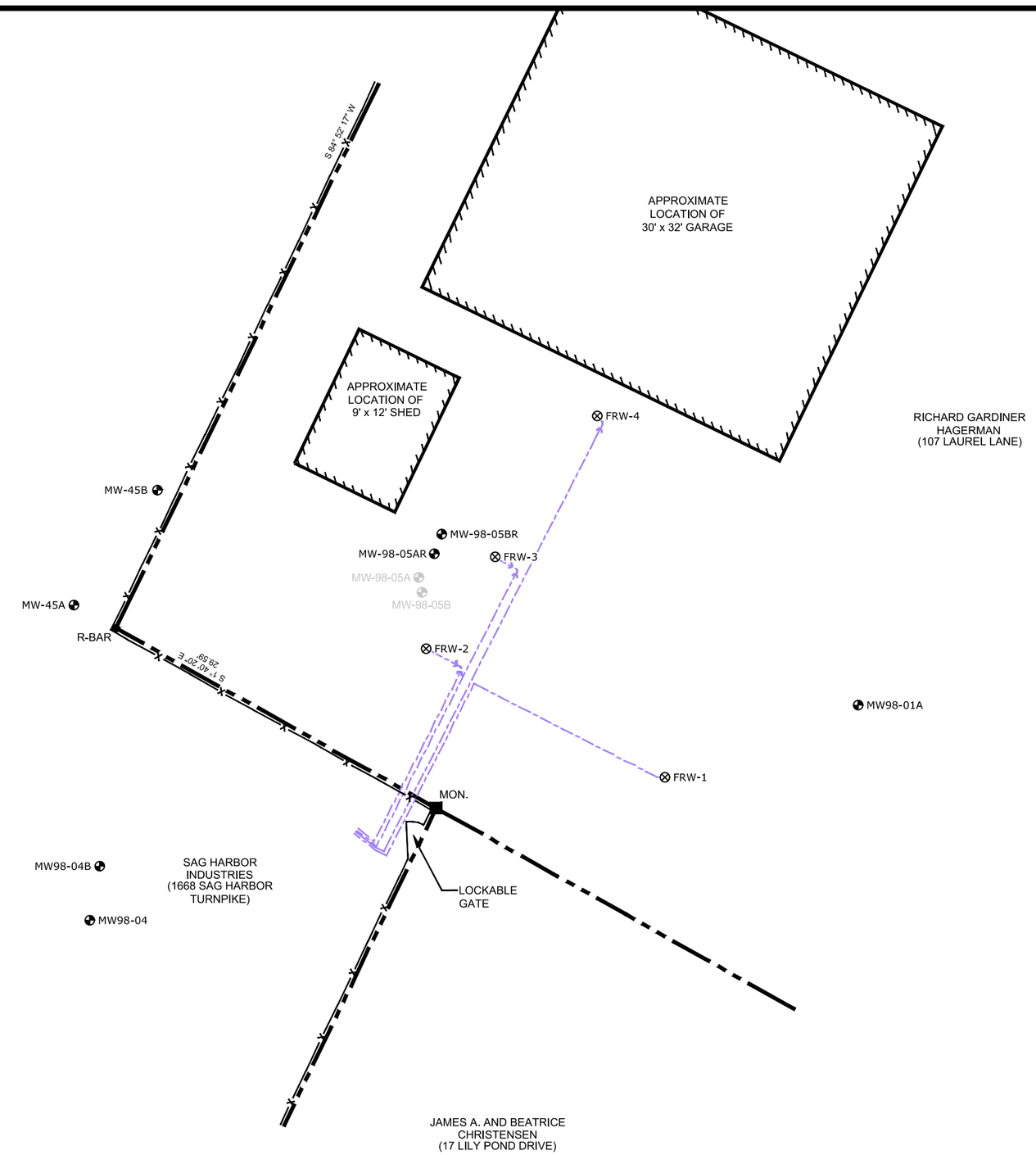
DRAFTED BY: HJW | DATE: 4/9/2020

SITE LOCATION MAP

FORMER ROWE INDUSTRIES SUPERFUND SITE
1668 SAG HARBOR TURNPIKE
SAG HARBOR, NEW YORK

FIGURE
1

1690016505



LEGEND

- PROPERTY BOUNDARY
- CHAIN LINK FENCE
- APPROXIMATE LOCATION OF FOCUSED REMEDIATION GROUNDWATER RECOVERY PIPING
- FRW-3 — FOCUSED REMEDIATION RECOVERY WELL (APPROXIMATE LOCATION)
- MW-98-04 — GROUNDWATER MONITOR WELL
- MW-98-05B — DAMAGED MONITOR WELL DECOMMISSIONED IN DECEMBER 2015

NOTE:

1. 'R' IN WELL DESIGNATION INDICATES REPLACEMENT WELL.

0 10
SCALE IN FEET

SOURCE: WSP USA, SEPTEMBER 2018 PCE PLUME MAP, 11/06/2018.

SITE LAYOUT
FORMER DRUM STORAGE AREA

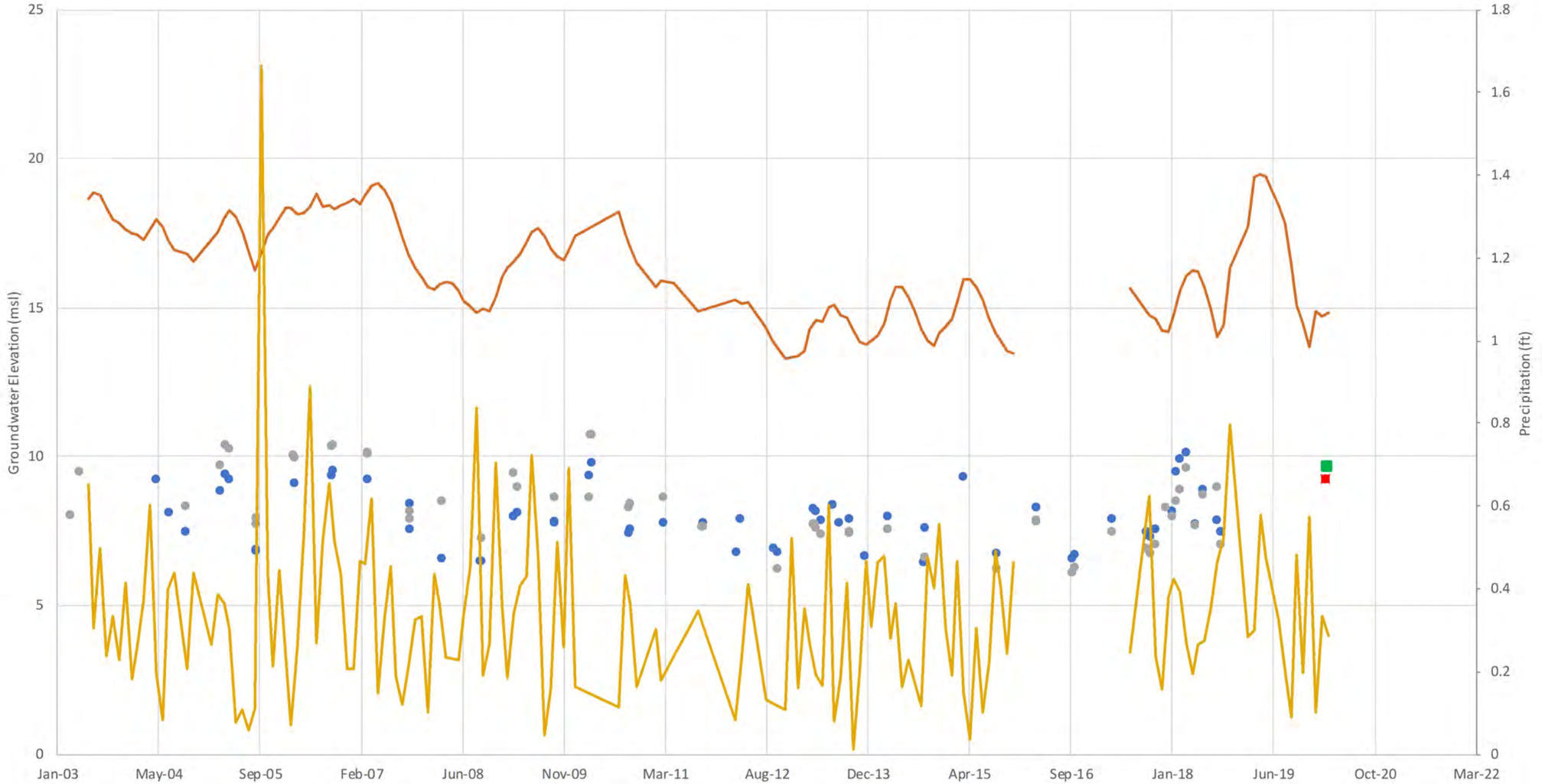
FORMER ROWE INDUSTRIES SUPERFUND SITE
1668 SAG HARBOR TURNPIKE
SAG HARBOR, NEW YORK

RAMBOLL

FIGURE
2

DRAFTED BY: HJW	DATE: 4/9/2020	1690016505

L:\Loop Project Files_CAD\1690016505_Kraft_Sag_Harbor\Acad\2020-04\02_Site Layout.dwg



LEGEND

- USGS WELL
- MW-98-04
- MW-45A
- MW-45A (2020)
- MW98-04 (2020)
- PRECIPITATION

WATER TABLE ELEVATIONS AND MONTHLY TOTAL PRECIPITATION

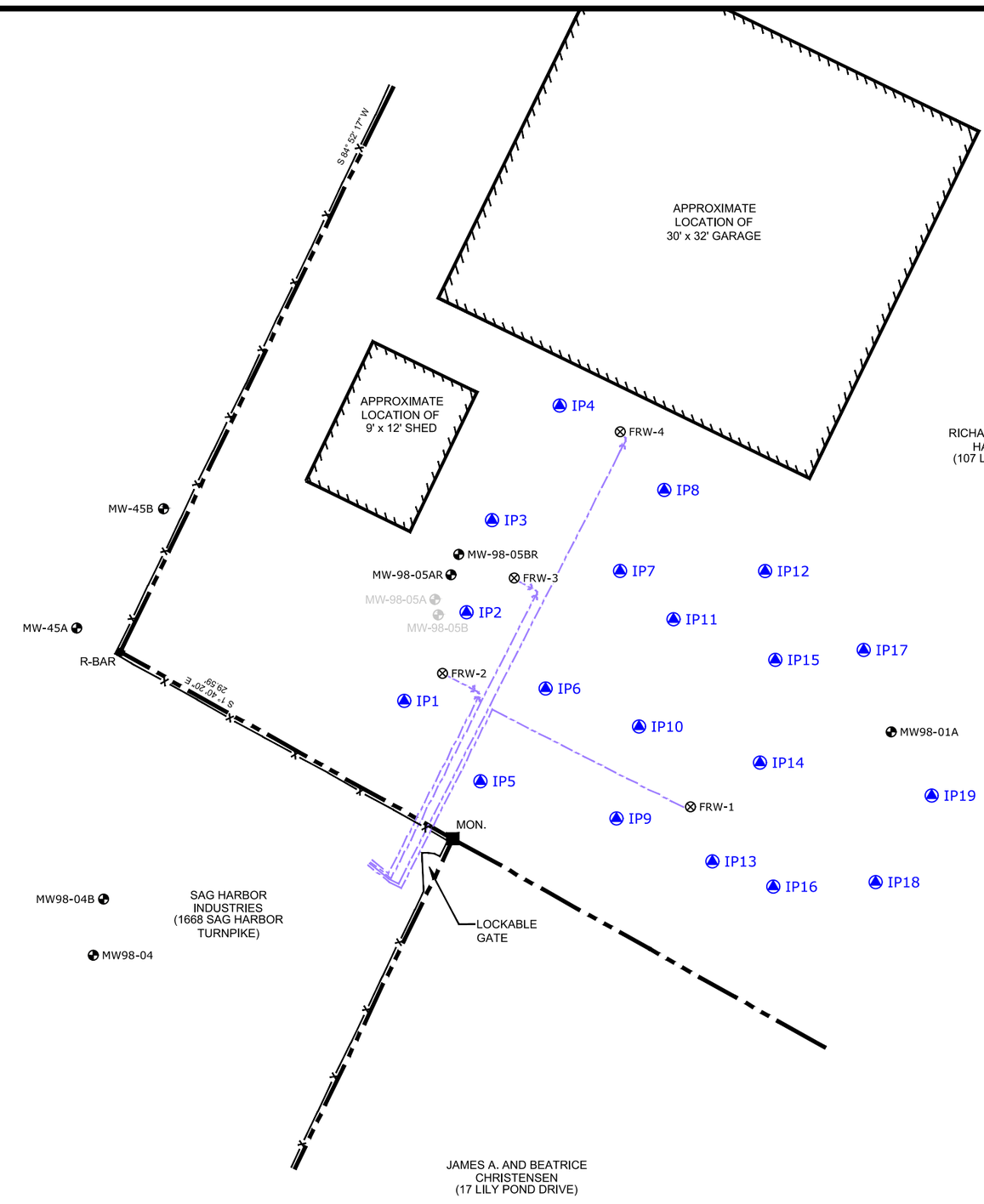
FORMER ROWE INDUSTRIES SUPERFUND SITE
1668 SAG HARBOR TURNPIKE
SAG HARBOR, NEW YORK

RAMBOLL

FIGURE 3

DRAFTED BY: HJW | DATE: 4/9/2020 | 1690016505

L:\Loop Project Files_CAD\1690016505_Kraft_Sag_Harbor\Acad\2020-04\03_Water Table Elevations and Monthly Total Precipitation.dwg



LEGEND

- PROPERTY BOUNDARY
- CHAIN LINK FENCE
- APPROXIMATE LOCATION OF FOCUSED REMEDIATION GROUNDWATER RECOVERY PIPING
- FRW-3 — FOCUSED REMEDIATION RECOVERY WELL (APPROXIMATE LOCATION)
- MW-98-04 — GROUNDWATER MONITOR WELL
- MW-98-05B — DAMAGED MONITOR WELL DECOMMISSIONED IN DECEMBER 2015
- FEBRUARY 2020 INJECTION LOCATION

NOTE:
1. 'R' IN WELL DESIGNATION INDICATES REPLACEMENT WELL.

0 10
SCALE IN FEET

SOURCE: WSP USA, SEPTEMBER 2018 PCE PLUME MAP, 11/06/2018.

FEBRUARY 2020 ELECTRON DONOR INJECTION LOCATIONS

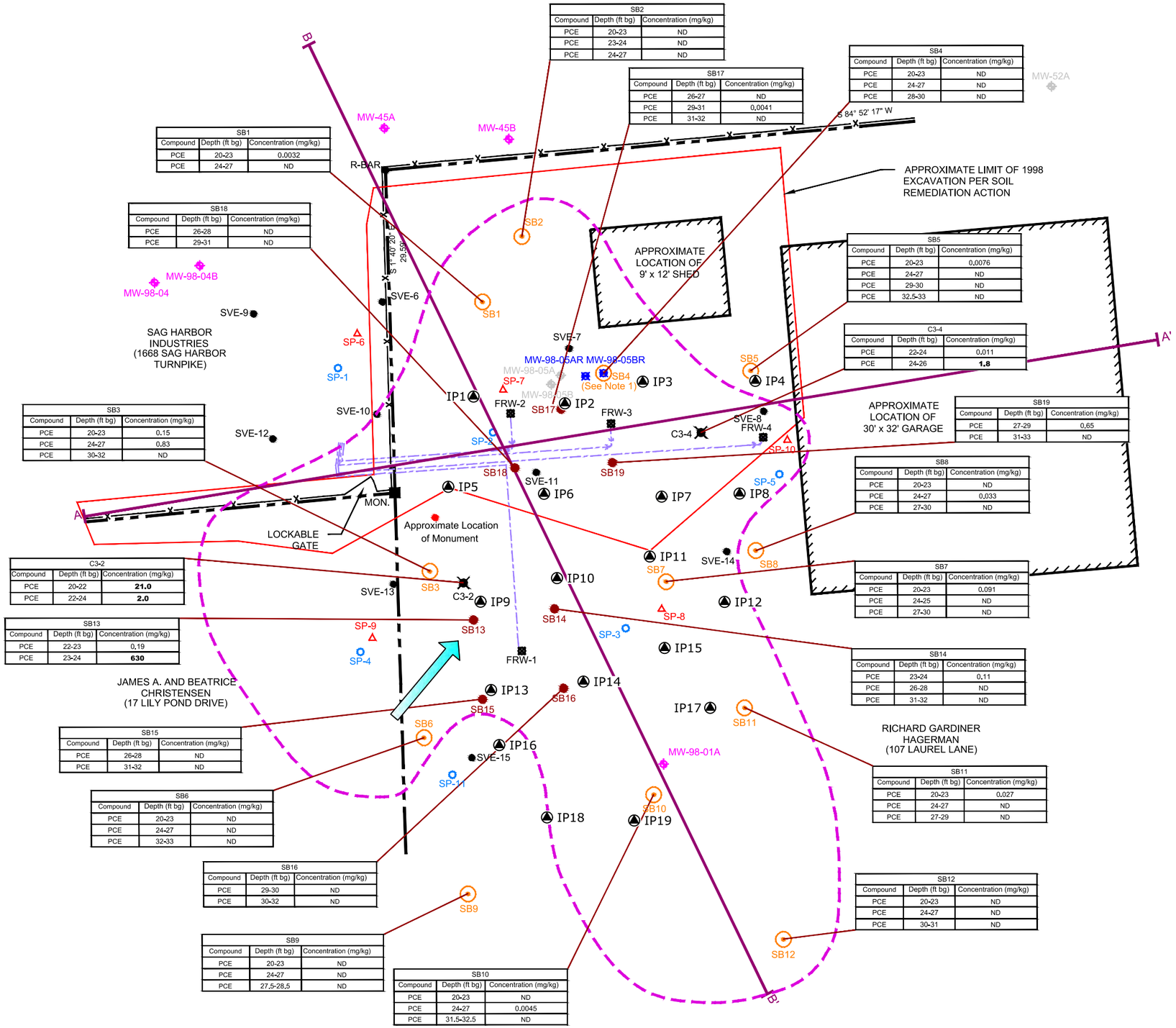
FORMER ROWE INDUSTRIES SUPERFUND SITE
1668 SAG HARBOR TURNPIKE
SAG HARBOR, NEW YORK

RAMBOLL

FIGURE 4

DRAFTED BY: HJW | DATE: 4/9/2020 | 1690016505

L:\Loop Project Files_CAD\1690016505_Kraft_Sag_Harbor\Acad\2020-04\04_February 2020 Electron Donor Injection Locations.dwg



SB1		
Compound	Depth (ft bg)	Concentration (mg/kg)
PCE	20-23	0.0032
PCE	24-27	ND

SB2		
Compound	Depth (ft bg)	Concentration (mg/kg)
PCE	20-23	ND
PCE	23-24	ND
PCE	24-27	ND

SB3		
Compound	Depth (ft bg)	Concentration (mg/kg)
PCE	20-23	0.15
PCE	24-27	0.83
PCE	30-32	ND

SB4		
Compound	Depth (ft bg)	Concentration (mg/kg)
PCE	20-23	ND
PCE	24-27	ND
PCE	28-30	ND

SB5		
Compound	Depth (ft bg)	Concentration (mg/kg)
PCE	20-23	0.0076
PCE	24-27	ND
PCE	29-30	ND
PCE	32.5-33	ND

SB6		
Compound	Depth (ft bg)	Concentration (mg/kg)
PCE	20-23	ND
PCE	24-27	ND
PCE	32-33	ND

SB7		
Compound	Depth (ft bg)	Concentration (mg/kg)
PCE	20-23	0.091
PCE	24-25	ND
PCE	27-30	ND

SB8		
Compound	Depth (ft bg)	Concentration (mg/kg)
PCE	20-23	ND
PCE	24-27	0.033
PCE	27-30	ND

SB9		
Compound	Depth (ft bg)	Concentration (mg/kg)
PCE	20-23	ND
PCE	24-27	ND
PCE	27.5-28.5	ND

SB10		
Compound	Depth (ft bg)	Concentration (mg/kg)
PCE	20-23	ND
PCE	24-27	0.0045
PCE	31.5-32.5	ND

SB11		
Compound	Depth (ft bg)	Concentration (mg/kg)
PCE	20-23	0.027
PCE	24-27	ND
PCE	27-29	ND

SB12		
Compound	Depth (ft bg)	Concentration (mg/kg)
PCE	20-23	ND
PCE	24-27	ND
PCE	30-31	ND

SB13		
Compound	Depth (ft bg)	Concentration (mg/kg)
PCE	22-23	0.19
PCE	23-24	**630**

SB14		
Compound	Depth (ft bg)	Concentration (mg/kg)
PCE	23-24	0.11
PCE	26-28	ND
PCE	31-32	ND

SB15		
Compound	Depth (ft bg)	Concentration (mg/kg)
PCE	26-28	ND
PCE	31-32	ND

SB16		
Compound	Depth (ft bg)	Concentration (mg/kg)
PCE	29-30	ND
PCE	30-32	ND

SB17		
Compound	Depth (ft bg)	Concentration (mg/kg)
PCE	26-27	ND
PCE	29-31	0.0041
PCE	31-32	ND

SB18		
Compound	Depth (ft bg)	Concentration (mg/kg)
PCE	26-28	ND
PCE	29-31	ND

SB19		
Compound	Depth (ft bg)	Concentration (mg/kg)
PCE	27-29	0.65
PCE	31-33	ND

C3-2		
Compound	Depth (ft bg)	Concentration (mg/kg)
PCE	20-22	**21.0**
PCE	22-24	**2.0**

C3-4		
Compound	Depth (ft bg)	Concentration (mg/kg)
PCE	22-24	0.011
PCE	24-26	**1.8**

LEGEND

- PROPERTY BOUNDARY
- CHAIN LINK FENCE
- APPROXIMATE LOCATION OF FOCUSED REMEDIATION GROUNDWATER RECOVERY PIPING
- APPROXIMATE EXTENT OF CLAY LENS (~25 - 33 ft.bg.)
- FRW-3 — FOCUSED REMEDIATION RECOVERY WELL (APPROXIMATE LOCATION)
- MW-98-04 — GROUNDWATER MONITOR WELL LOCATION
- JANUARY 2003 BORING LOCATION
- DECEMBER 2015 BORING LOCATION
- MW-98-05B — DECOMMISSIONED MONITOR WELL
- REPLACEMENT MONITOR WELL INSTALLED IN DECEMBER 2015
- SP-10 — SHALLOW AIR SPARGE WELL LOCATION
- SP-5 — DEEP AIR SPARGE WELL LOCATION
- SVE-9 — SVE WELL LOCATION
- JUNE 2018 SOIL BORING
- GROUNDWATER FLOW DIRECTION
- FEBRUARY 2020 INJECTION LOCATION

NOTES:
1. BORING SB4 WAS COMPLETED AS MW-98-05BR.
2. A BOLD VALUE INDICATES AN EXCEEDANCE OF THE ARAR.

0 10
SCALE IN FEET

SOURCE: WSP USA, FDSA CONCENTRATIONS IN SOIL, 02/21/2019.

PCE CONCENTRATIONS IN SOIL

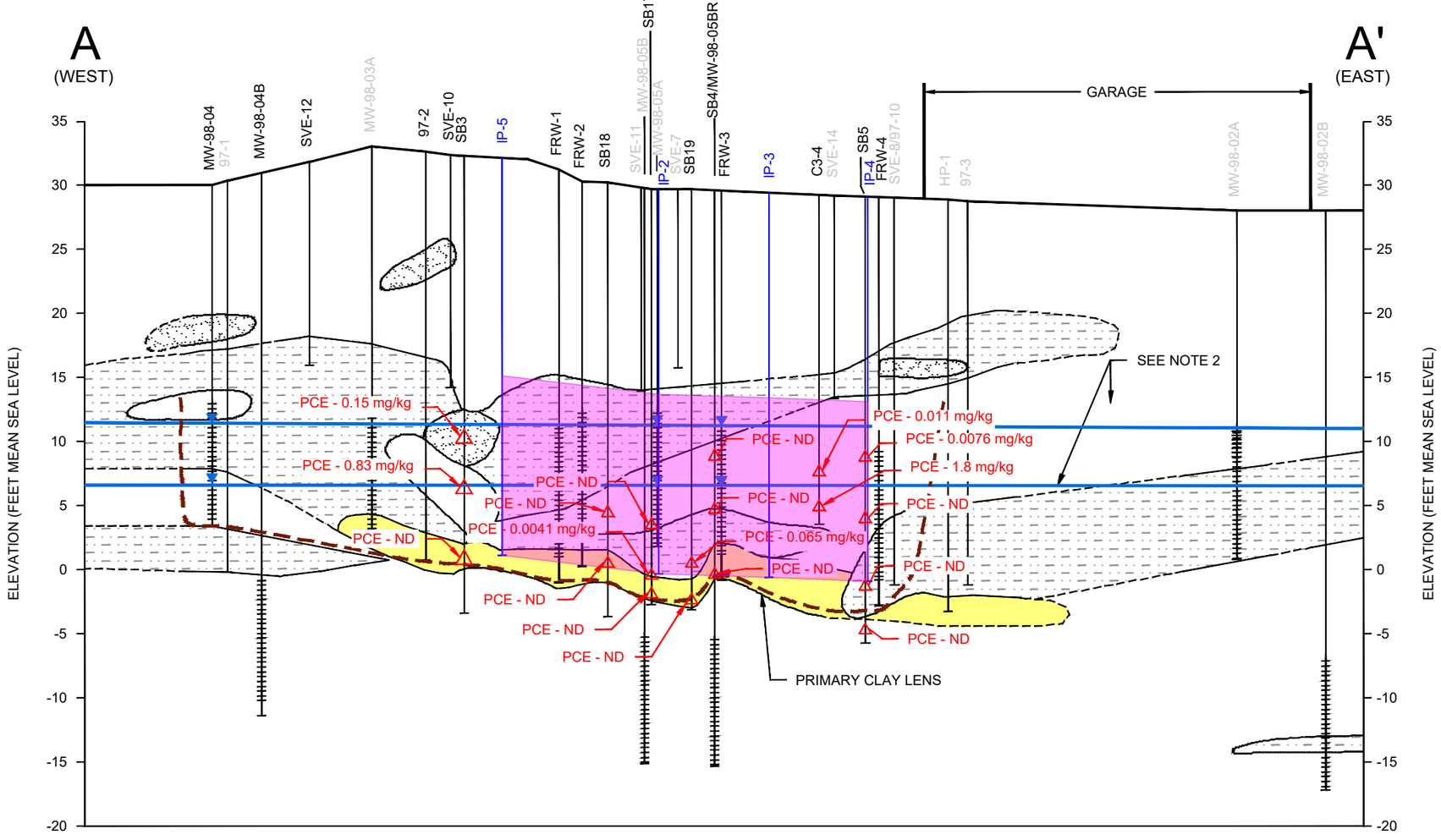
FORMER ROWE INDUSTRIES SUPERFUND SITE
1668 SAG HARBOR TURNPIKE
SAG HARBOR, NEW YORK

RAMBOLL

FIGURE 5

DRAFTED BY: HJW | DATE: 4/10/2020 | 1690016505

L:\Loop Project Files_CAD\1690016505_Kraft_Sag_Harbor\Acad\2020-04\05_PCE Concentrations in Soil.dwg



LEGEND

- WATER TABLE ELEVATION
- SCREEN SETTING
- DEPTH OF BORING
- FINE TO COARSE SAND
- FINE TO COARSE SAND AND SILTY CLAY
- FINE SAND AND SILT
- SILT AND CLAY
- MW-98-03A — UNLOCATED OR DECOMMISSIONED MONITOR WELL, NOT USED IN DETERMINING GROUNDWATER ELEVATION, ONLY GEOLOGY
- ESTIMATED GEOLOGIC BOUNDARY
- FEBRUARY 2020 INJECTION LOCATION
- APPROXIMATE BOUNDARY WHERE PCE CONCENTRATIONS IN THE GROUNDWATER EXCEED THE ARAR AT LEAST PART OF THE TIME
- △ SATURATED SOIL SAMPLE LOCATION
- INJECTION INTERVAL

NOTES:

1. HORIZONTAL CROSS SECTION LINES ARE DEPICTED ON FIGURE 5.
2. LOW AND HIGH GROUNDWATER ELEVATIONS SHOWN ARE FOR RECORDED WATER ELEVATION DATA FROM 2003 TO 2018 AND RANGE FROM APPROXIMATELY 6.1 FT TO 11 FT ABOVE MEAN SEA LEVEL.
3. BOLD VALUE INDICATES AN EXCEEDANCE OF THE ARAR.

0 10 HORIZONTAL SCALE IN FEET

0 10 VERTICAL SCALE IN FEET

SOURCE: WSP USA, FDSA CROSS-SECTION A-A', 02/21/2019.

GEOLOGIC CROSS-SECTION A-A'

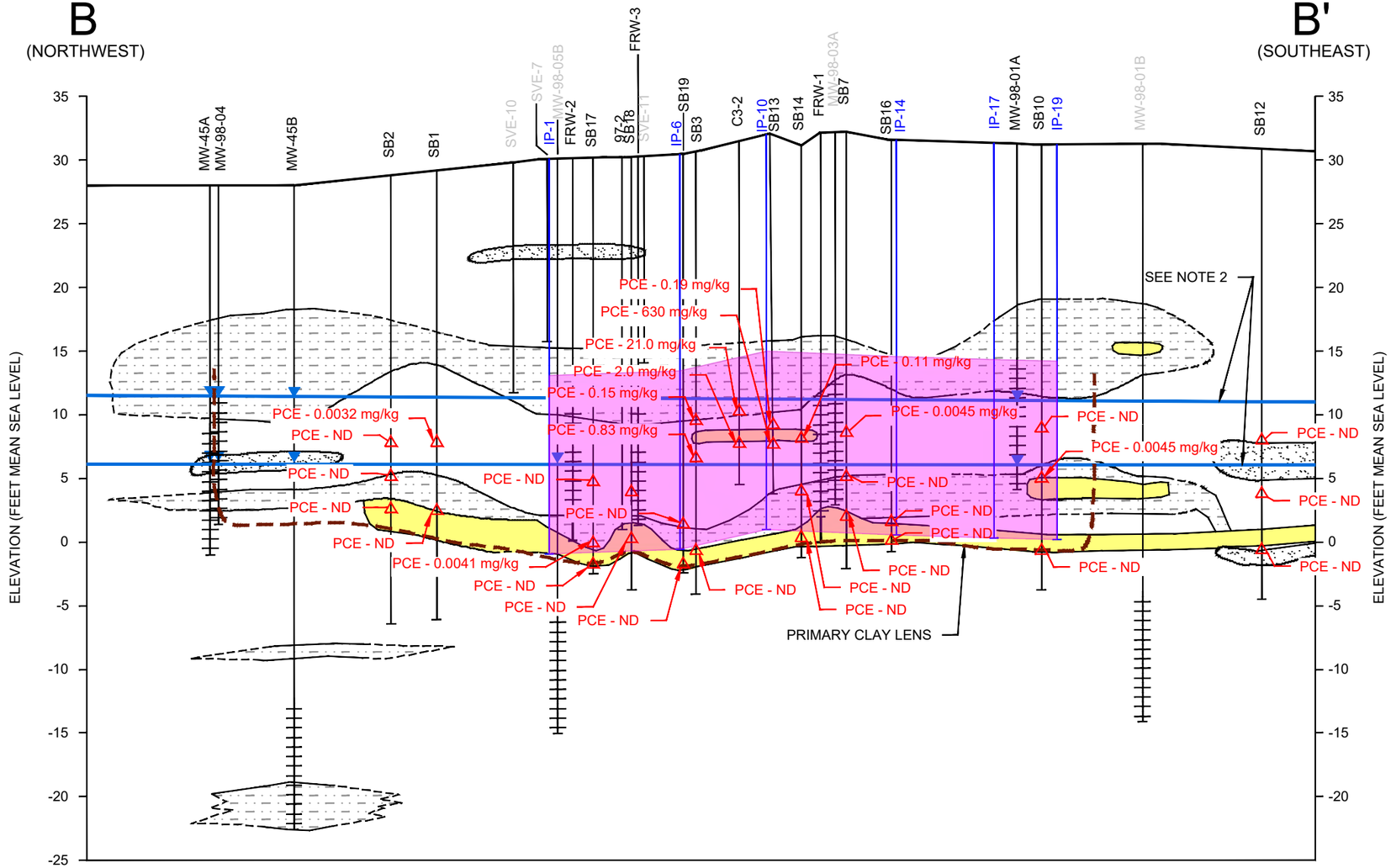
FORMER ROWE INDUSTRIES SUPERFUND SITE
1668 SAG HARBOR TURNPIKE
SAG HARBOR, NEW YORK

RAMBOLL

FIGURE 6

DRAFTED BY: HJW | DATE: 4/10/2020 | 1690016505

L:\Loop Project Files_CAD\1690016505_Kraft_Sag_Harbor\Acad\2020-04\06_Cross-Section A-A'.dwg



LEGEND

- WATER TABLE ELEVATION
- SCREEN SETTING
- DEPTH OF BORING
- FINE TO COARSE SAND
- FINE TO COARSE SAND AND SILTY CLAY
- FINE SAND AND SILT
- SILT AND CLAY
- MW-98-03A — UNLOCATED OR DECOMMISSIONED MONITOR WELL, NOT USED IN DETERMINING GROUNDWATER ELEVATION, ONLY GEOLOGY
- ESTIMATED GEOLOGIC BOUNDARY
- FEBRUARY 2020 INJECTION LOCATION
- APPROXIMATE BOUNDARY WHERE PCE CONCENTRATIONS IN THE GROUNDWATER EXCEED THE ARAR AT LEAST PART OF THE TIME
- △ SATURATED SOIL SAMPLE LOCATION
- INJECTION INTERVAL

NOTES:
1. HORIZONTAL CROSS SECTION LINES ARE DEPICTED ON FIGURE 5.
2. LOW AND HIGH GROUNDWATER ELEVATIONS SHOWN ARE FOR RECORDED WATER ELEVATION DATA FROM 2003 TO 2018 AND RANGE FROM APPROXIMATELY 6.1 FT TO 11 FT ABOVE MEAN SEA LEVEL.
3. BOLD VALUE INDICATES AN EXCEEDANCE OF THE ARAR.

0 10 HORIZONTAL SCALE IN FEET

0 10 VERTICAL SCALE IN FEET

SOURCE: WSP USA, FDSA CROSS-SECTION B-B', 12/19/2018.

GEOLOGIC CROSS-SECTION B-B'

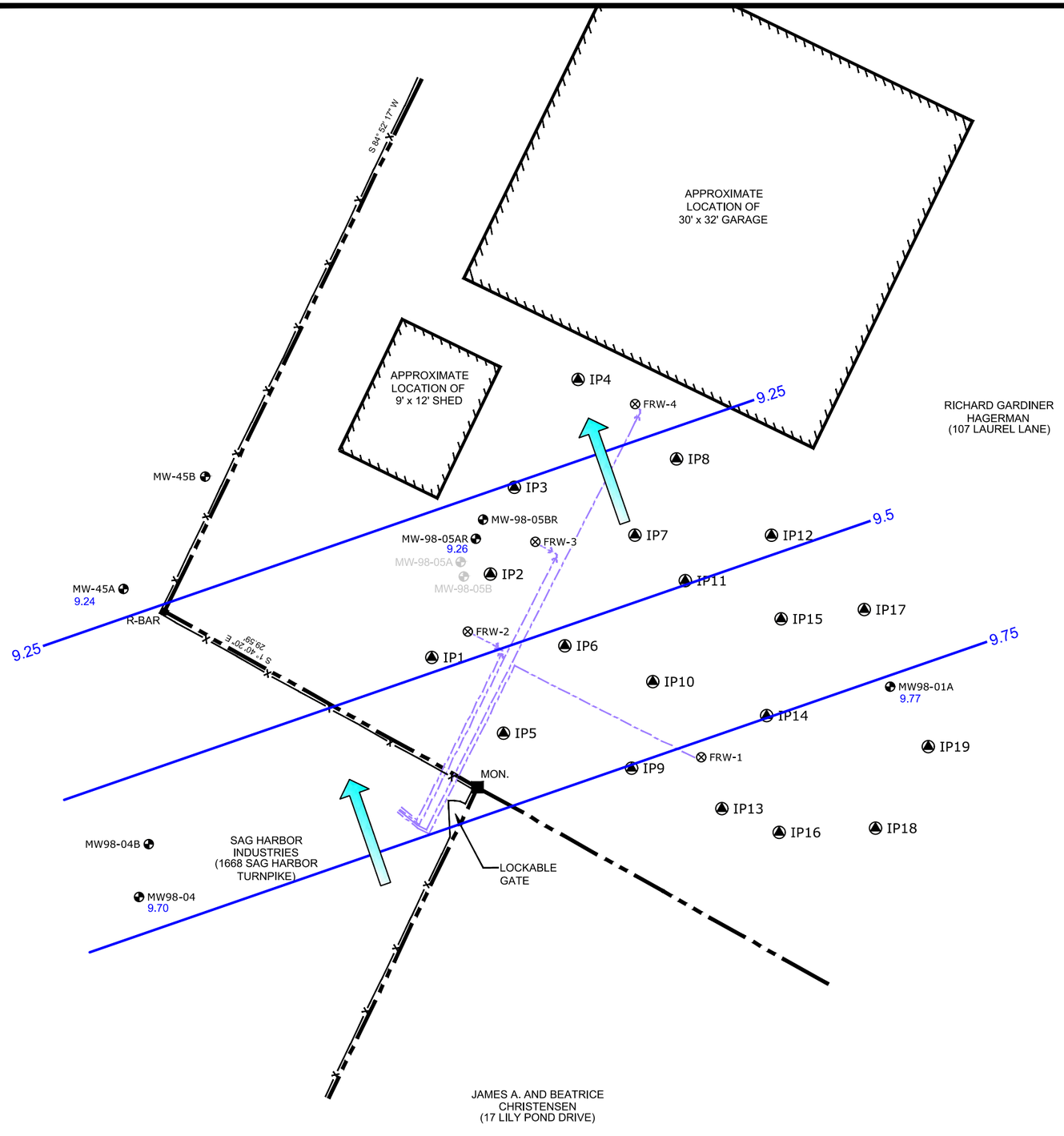
FORMER ROWE INDUSTRIES SUPERFUND SITE
1668 SAG HARBOR TURNPIKE
SAG HARBOR, NEW YORK

RAMBOLL

FIGURE 7

DRAFTED BY: HJW | DATE: 4/10/2020 | 1690016505

L:\Loop Project Files_CAD\1690016505_Kraft_Sag_Harbor\Acad\2020-04\07_Cross-Section B-B'.dwg



LEGEND

- PROPERTY BOUNDARY
- CHAIN LINK FENCE
- APPROXIMATE LOCATION OF FOCUSED REMEDIATION GROUNDWATER RECOVERY PIPING
- FRW-3 — FOCUSED REMEDIATION RECOVERY WELL (APPROXIMATE LOCATION)
- MW-98-04 — GROUNDWATER MONITOR WELL
- MW-98-05B — DAMAGED MONITOR WELL DECOMMISSIONED IN DECEMBER 2015
- 9.26 — POTENTIOMETRIC SURFACE ELEVATION (FT MSL)
- 9.25 — POTENTIOMETRIC SURFACE ELEVATION CONTOUR (0.25-FOOT INTERVALS)
- GROUNDWATER FLOW DIRECTION
- FEBRUARY 2020 INJECTION LOCATION

NOTES:

1. 'R' IN WELL DESIGNATION INDICATES REPLACEMENT WELL.

0 10
SCALE IN FEET

SOURCE: WSP USA, SEPTEMBER 2018 PCE PLUME MAP, 11/06/2018.

POTENTIOMETRIC SURFACE MAP (FEBRUARY 19-20, 2020)

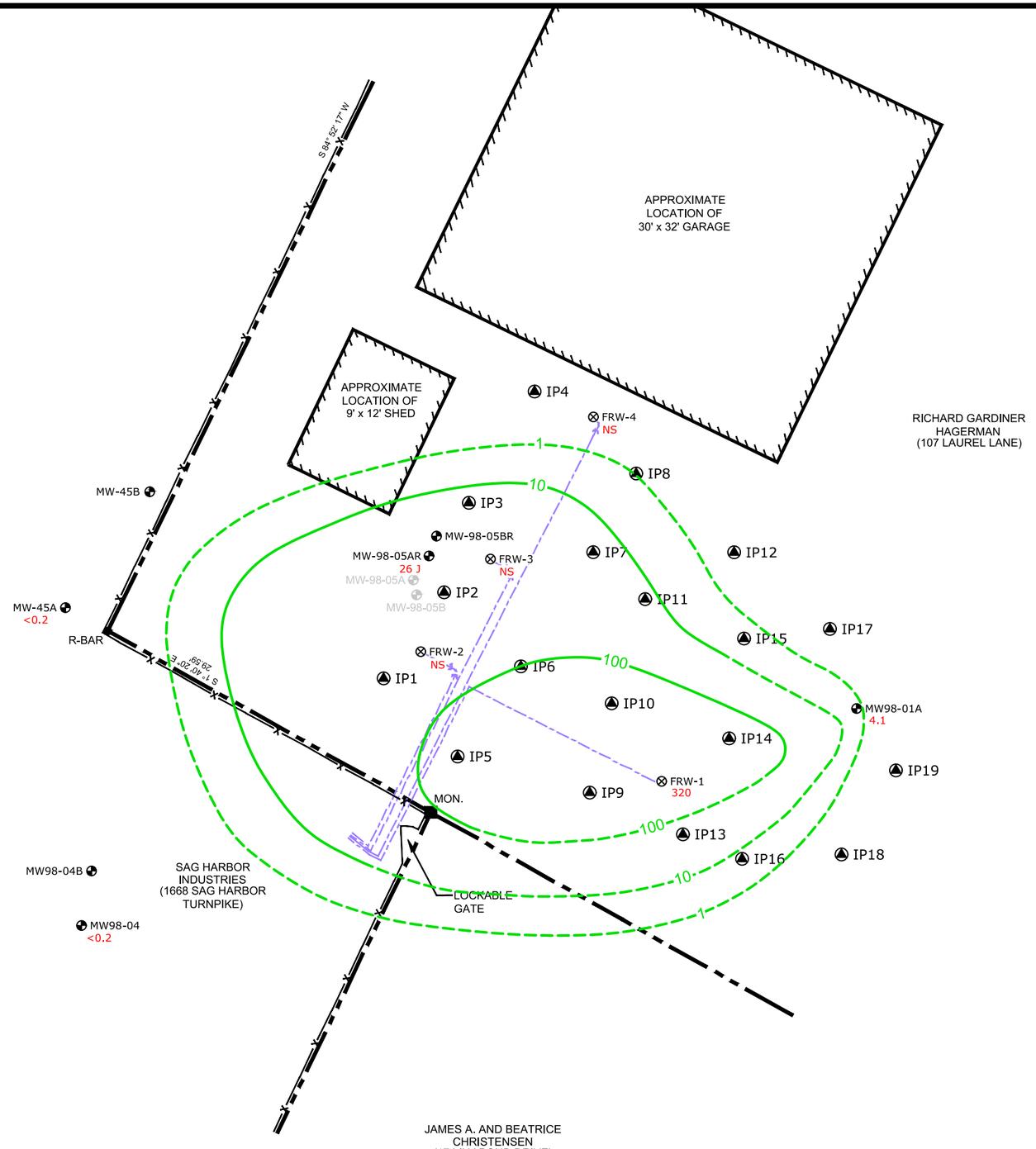
FORMER ROWE INDUSTRIES SUPERFUND SITE
1668 SAG HARBOR TURNPIKE
SAG HARBOR, NEW YORK

RAMBOLL

FIGURE 8

DRAFTED BY: HJW | DATE: 4/10/2020 | 1690016505

L:\Loop Project Files_CAD\1690016505_Kraft_Sag_Harbor\Acad\2020-04\08_Potentiometric Surface Map.dwg



LEGEND

- PROPERTY BOUNDARY
- CHAIN LINK FENCE
- APPROXIMATE LOCATION OF FOCUSED REMEDIATION GROUNDWATER RECOVERY PIPING
- FRW-3 — FOCUSED REMEDIATION RECOVERY WELL (APPROXIMATE LOCATION)
- MW-98-04 — GROUNDWATER MONITOR WELL
- 2.63 — PCE CONCENTRATION (µg/L)
- NS — NOT SAMPLED
- MW-98-05B — DAMAGED MONITOR WELL DECOMMISSIONED IN DECEMBER 2015
- 1 — PCE CONCENTRATION CONTOURS (µg/L) (DASHED WHERE INFERRED)
- FEBRUARY 2020 INJECTION LOCATION

NOTES:

1. J = ESTIMATED CONCENTRATION AT OR ABOVE THE LEVEL OF DETECTION AND BELOW THE LEVEL OF QUANTIFICATION
2. 'R' IN WELL DESIGNATION INDICATES REPLACEMENT WELL.

0 10
SCALE IN FEET

SOURCE: WSP USA, SEPTEMBER 2018 PCE PLUME MAP, 11/06/2018.

PCE CONCENTRATIONS IN GROUNDWATER (FEBRUARY 19-20, 2020)

FORMER ROWE INDUSTRIES SUPERFUND SITE
1668 SAG HARBOR TURNPIKE
SAG HARBOR, NEW YORK

RAMBOLL

FIGURE 9

DRAFTED BY: HJW | DATE: 4/9/2020 | 1690016505

L:\Loop Project Files_CAD\1690016505_Kraft_Sag_Harbor\Acad\2020-04\09_PCE Concentrations in GW.dwg

APPENDIX A

GPRS UNDERGROUND UTILITY LOCATING REPORT

Summary of Underground Utility Locating for Soil Borings

Prepared For: Ramboll

Prepared By:
Michael Kiernan
michael.kiernan@gprsinc.com
Project Manager-New York
(347) 213-8681

Ramboll
Attn: Matthew Sweet
Site: 107 Laurel Lane, Sag Harbor, NY

We appreciate the opportunity to provide this report for our work completed on February 24, 2020.

PURPOSE

The purpose of the project was to search for underground utilities within a radius of approximately 5' around each proposed boring location. The scope of work consisted of 1 location. The client marked the desired location prior to our scanning and our markings were then placed onto the surface using spray paint.

EQUIPMENT

- **Underground Scanning GPR Antenna**. The antenna with frequencies ranging from 250 MHz-450 MHz is mounted in a stroller frame which rolls over the surface. The surface needs to be reasonably smooth and unobstructed in order to obtain readable scans. Obstructions such as curbs, landscaping, and vegetation will limit the feasibility of GPR. The data is displayed on a screen and marked in the field in real time. The total depth achieved can be as much as 8' or more with this antenna but can vary widely depending on the types of materials being scanned through. Some soil types such as clay may limit maximum depths to 3' or less. As depth increases, targets must be larger in order to be detected and non-metallic targets can be especially difficult to locate. Depths provided should always be treated as estimates as their accuracy can be affected by multiple factors. For more information, please visit: Link
- **Electromagnetic Pipe Locator**. The EM locator can passively detect the electromagnetic fields from live AC power or from radio signals travelling along some conductive utilities. It can also be used in conjunction with a transmitter to connect directly to accessible, metallic pipes or tracer wires. A current is sent through the pipe or tracer wire at a specific frequency and the resulting EM field can then be detected by the receiver. A utility's ability to be located depends on a variety of factors including access to the utility, conductivity, grounding, interference from other fields, and many others. Depths provided should always be treated as estimates as their accuracy can be affected by multiple factors. For more information, please visit: Link

PROCESS

The process typically begins with using the EM pipe locator to locate pipes or utilities throughout the scan area. First, the transmitter is used to connect to and trace any visible risers, tracer wires, or accessible, conductive utilities provided that there is an exposed, metallic surface. The areas are then swept with the receiver to detect live power or radio frequency signals. Locations and depths are painted or flagged on the surface. Depths cannot always be provided depending on the location method and can be prone to error.

Initial GPR scans were then collected in order to evaluate the data and calibrate the equipment. Based on these findings, a scanning strategy is formed, typically consisting of scanning the entire area in a grid with 3' scan spacing in order to locate any potential utilities that were not found with the pipe locator. The GPR data is viewed in real time and anomalies in the data are located and marked on the surface along with their depths using spray paint, pin flags, etc. A higher frequency concrete scanning antenna is typically used for locations that are placed on reinforced concrete.

LIMITATIONS

Please keep in mind that there are limitations to any subsurface investigation. The equipment may not achieve maximum effectiveness due to soil conditions, above ground obstructions, reinforced concrete, and a variety of other factors. No subsurface investigation or equipment can provide a complete image of what lies below. Our results should always be used in conjunction with as many methods as possible including consulting existing plans and drawings, exploratory excavation or potholing, visual inspection of above-ground features, and utilization of services such as One Call/811. Depths are dependent on the dielectric of the materials being scanned so depth accuracy can vary throughout a site. Relevant scan examples were saved and will be provided in this report.

FINDINGS

The subsurface conditions at the time of the scanning allowed for maximum GPR depth penetration of 4' in most areas. Multiple utilities were able to be located and were either identified by type or marked as an unknown. Utilities that were able to be identified by type include power and unknown. Some utilities were not able to be located such as water, gas, drainage, sewage, and communications. Unknowns marked within the scope of work may represent utilities but they could not be traced to a termination point or identifying structure. The following pages will provide further explanation of the findings.

107 Laurel Ln E-W: Photo of the site location containing 19 soil borings in total going East to West. The pink lines shown above illustrate unknown utilities that were found.

107 Laurel Ln N-S: Photo of the site location containing 19 soil borings in total going North to South. The pink lines shown above illustrate unknown utilities that were found while the few red lines show power tones that were found.

107 Laurel Ln S-N: Photo of the site location containing 19 soil borings in total going South to North. The pink lines shown above illustrate unknown utilities that were found.

107 Laurel Ln W-E: Photo of the site location containing 19 soil borings in total going West to East. The pink lines shown above illustrate unknown utilities that were found while the few red lines show power tones that were found.

Prepared for: Ramboll
Prepared By: Michael Kiernan
Date of Scanning: February 24, 2020

Terms and Conditions

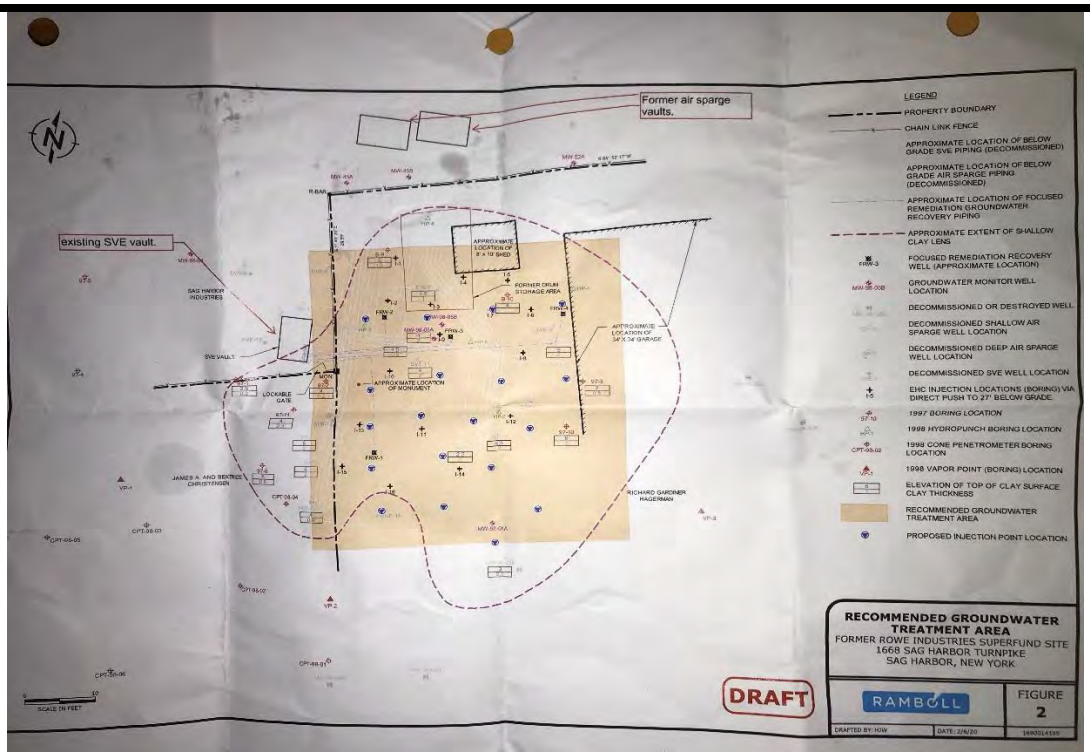
GPRS does not provide land survey or civil engineering data collection or documentation. This is provided as a reference map of the field markings and is not survey-grade.

LEGEND

	ELECTRIC		SANITARY
	WATER		STORM
	COMM		UNKNOWN
	GAS		

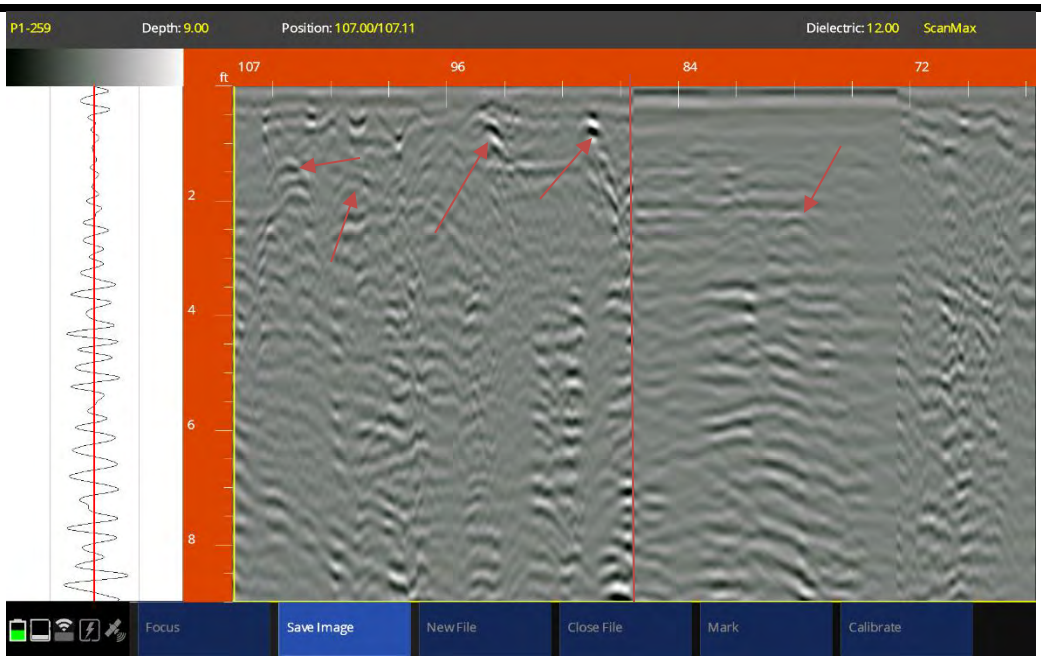
107 Laurel Lane, Sag Harbor, NY

Prepared by:

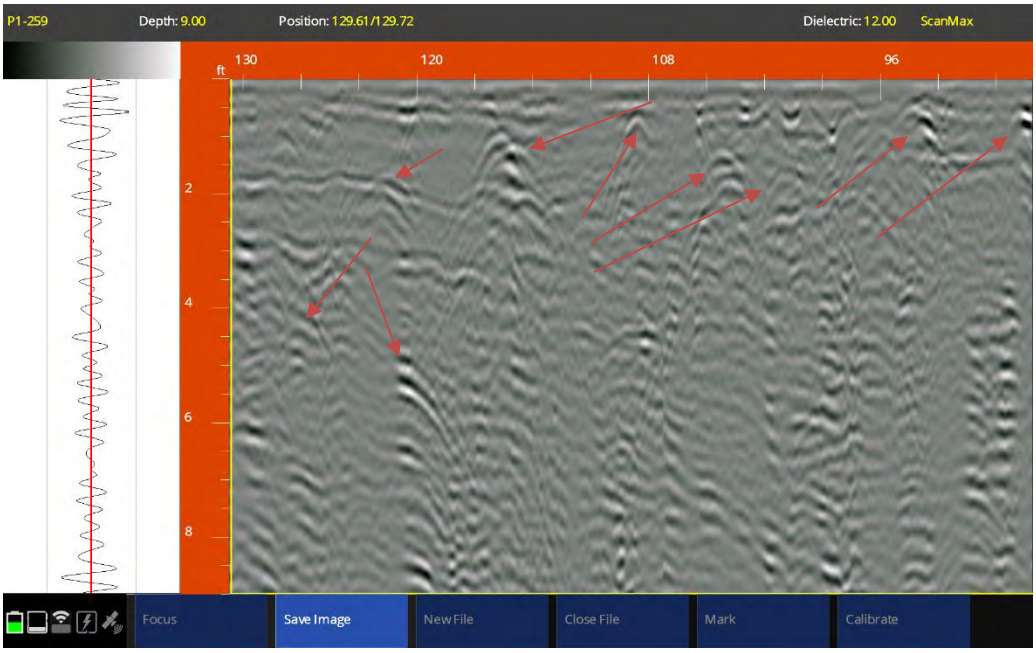


Ramboll Provided Site Map: This map was provided to us by the site contact Matthew Sweet. This illustrates the suspected piping and wiring used for old recovery wells and the direction they were running in. This map was used as a reference to try and locate the suspected direction of much of the anomalies seen with the GPR and was beneficial to the locating process.

GPR Data Screenshots and Photos	107 Laurel Lane, Sag Harbor, NY	GPRS



Scan Going Both Directions: This scan illustrates the data taken from a scan East to West (left of red line) and North to South (right of red line). The red arrows indicate the anomalies seen while scanning through the area and where utilities were traced out and marked on the ground. Many of these were at varying depths as shown by the depth table to the left of the scan above.



Long Scan Going E-W: This is a long scan of the entire area going East to West showing various unknown utilities all at different depths across the area. As illustrated by the red arrows above there were many anomalies in the ground that were traced out and marked in spray paint.

LOSING

GPRS, Inc. has been in business since 2001, specializing in underground storage tank location, concrete scanning, utility locating, and shallow void detection for projects throughout the United States. I encourage you to visit our website (www.gprsinc.com) and contact any of the numerous references listed.

With the utilization of both the EM pipe locator and the underground GPR antenna, multiple utilities were able to be located and marked out in the area in order for soil borings to be dug throughout the area. The process began with the EM pipe locator being implemented in order to detect any power lines of which two were located and marked out immediately. After this was completed the GPR was used in order to locate everything else illustrated in the pictures above on page 3. After everything was located and marked out, a site walk was taken with the client in order to re-establish proper boring locations. All the new proposed locations were away from any utility lines marked by at least 2' and were to commence with a hand dig due to the density of utility lines in the area and the limitations of the GPR scan depth.

GPRS appreciates the opportunity to offer our services, and we look forward to continuing to work with you on future projects. Please feel free to contact us for additional information or with any questions you may have regarding this report.

Signed,

Michael Kiernan
Project Manager—New York

Direct: (347) 213-8681

michael.kiernan@gprsinc.com

www.gprsinc.com

APPENDIX B

REDOX TECH FIELD SERVICES REPORT

REDOX TECH, LLC

"Providing Innovative In Situ Soil and Groundwater Treatment"

February 28, 2020

Mr. Mark Mejac
Senior Managing Consultant
Ramboll US Corporation
175 North Corporate Drive, Suite 160
Brookfield, WI 53045
Email: mmejac@ramboll.com

RE: Summary Letter for Field Services at the Former Rowe Industries Superfund Site
Sag Harbor, NY

Dear Mr. Mejac,

This letter provides a brief summary of the field events performed from February 24 through February 27, 2020 at the Former Rowe Industries Superfund Site in Sag Harbor, NY. The purpose of this work was to inject our Anaerobic BioChem Plus (ABC^+) solution with DHC culture (i.e. RTB-1) to promote reductive dechlorination of PCE and daughter products.

Injection of ABC^+ was conducted via direct push drilling techniques at nineteen (19) locations spaced approximately 10 feet apart. The locations of all injection locations were determined by Ramboll personnel and pre-cleared using a private utility locator (also arranged by Ramboll). Injections targeted a 15 foot zone from 16 to 30 feet bgs and 17 to 31 feet bgs. The different target depths were defined by Ramboll personnel and are summarized on the log sheets provided (**Appendix A**).

A total of 15,000lbs of ABC^+ (i.e. 9,000 lbs of ABC® and 6,000lbs of ZVI) in addition to 5L of RTB-1 were injected. The ZVI component was added at 40% by weight with respect to the ABC® mass. The ABC® was prepared in 250 gallon batches with potable water (which was deoxygenated using small quantities of sodium sulfite) at a 15 weight percent solution. Once mixed, approximately 0.13L of RTB-1 was mixed into each 250 gallon batch to distribute the bacteria. This solution was then transferred into the mixing hopper on our injection trailer where appropriate amounts of ZVI were added. A minimal amount of guar was also used to help keep the ZVI in suspension.

Each injection location received ~495 gallons of slurry for a total of 9,405 gallons. Injections were conducted at 1-foot intervals beginning at the bottom of the borehole and working upwards at each location to ensure proper vertical distribution was achieved. Therefore, each interval received approximately ~33 gallons of slurry. The formation received the slurry easily with minimal injections pressures (~100psi) and flow rates exceeding 8 gpm consistently.

At the completion of injection work, all equipment was removed from site. If there are any questions regarding the work, please do not hesitate to email me at markesic@redox-tech.com, or via phone at (248) 564-3403.

Regards,

Steve Markesic

APPENDIX A

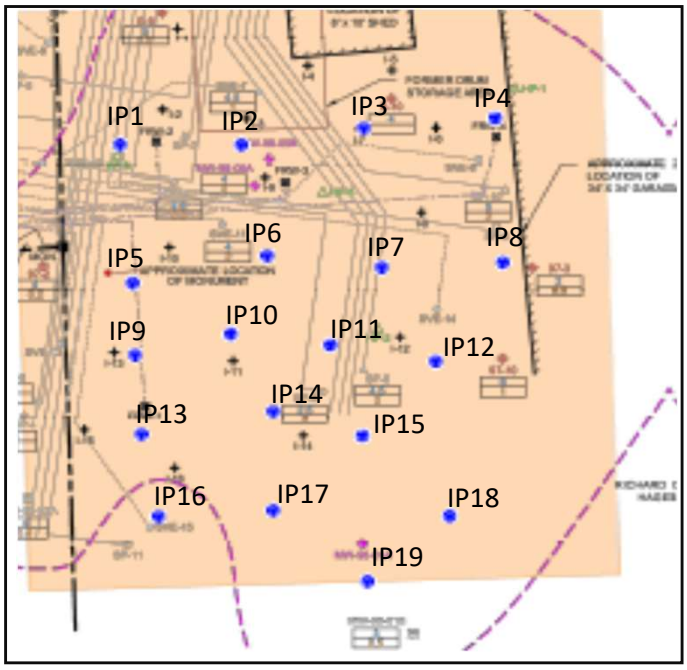
INJECTION LOGS
(INCLUDING SUMMARY
TABLE AND INJECTION LOCATION MAP)

Table 1: Injection Summary Table for Sag Harbor, NY

Injection Point	Date	Number of Intervals	Solution Injected (gal)	ABC Injected (gal)	DHC Injected (L)	ABC Injected (lbs)	ZVI Injected (lbs)	ABC+ Injected (lbs)
IP-1	2/27/2020	15	495	58.0	0.26	473.7	315.8	789.5
IP-2	2/26/2020	15	495	58.0	0.26	473.7	315.8	789.5
IP-3	2/26/2020	15	495	58.0	0.26	473.7	315.8	789.5
IP-4	2/26/2020	15	495	58.0	0.26	473.7	315.8	789.5
IP-5	2/26/2020	15	495	58.0	0.26	473.7	315.8	789.5
IP-6	2/26/2020	15	495	58.0	0.26	473.7	315.8	789.5
IP-7	2/26/2020	15	495	58.0	0.26	473.7	315.8	789.5
IP-8	2/26/2020	15	495	58.0	0.26	473.7	315.8	789.5
IP-9	2/25/2020	15	495	58.0	0.26	473.7	315.8	789.5
IP-10	2/25/2020	15	495	58.0	0.26	473.7	315.8	789.5
IP-11	2/26/2020	15	495	58.0	0.26	473.7	315.8	789.5
IP-12	2/27/2020	15	495	58.0	0.26	473.7	315.8	789.5
IP-13	2/25/2020	15	495	58.0	0.26	473.7	315.8	789.5
IP-14	2/25/2020	15	495	58.0	0.26	473.7	315.8	789.5
IP-15	2/25/2020	15	495	58.0	0.26	473.7	315.8	789.5
IP-16	2/25/2020	15	495	58.0	0.26	473.7	315.8	789.5
IP-17	2/27/2020	15	495	58.0	0.26	473.7	315.8	789.5
IP-18	2/25/2020	15	495	58.0	0.26	473.7	315.8	789.5
IP-19	2/27/2020	15	495	58.0	0.26	473.7	315.8	789.5

Totals	**9,405**	**1102**	**5**	**9,000**	**6,000**	**15,000**

Figure 1: Injection Location Map Sag Harbor, IN



Redox Tech Data Collection Sheet

Date:	2/27/2020	**Page No:**	1
Client:	Ramboll	**Data Taker:**	Keith Precious
Rig Type:	Geoprobe 6620	**Site Name:**	Sag Harbor, NY
Inj. Tool:	Bottom - Up	**Fluid Conc:**	Each interval receives ~33 gallons ABC solution (15 wt%) and ~21 lbs ZVI
Pipe Diam (in):	1.25"	**Area:**	~0.26L RTB-1 per location
Point Names:	IP-1		
Fluid Injected:	ABC+ slurry with RTB-1		

Depth (ft bgs)	Start Time	End Time	Elapsed Time	Flowrate (gpm)	Injection Pressure (psi)	Solution Injected (gal)	Notes (flow change, etc:)
31	8:52	8:55	3	11.00	100	33	
30	8:55	8:58	3	11.00	100	33	
29	8:58	9:00	2	16.50	100	33	
28	9:00	9:03	3	11.00	100	33	
27	9:03	9:06	3	11.00	100	33	
26	9:06	9:09	3	11.00	100	33	
25	9:09	9:11	2	16.50	100	33	
24	9:11	9:14	3	11.00	100	33	
23	9:14	9:17	3	11.00	100	33	
22	9:17	9:20	3	11.00	100	33	
21	9:20	9:23	3	11.00	100	33	
20	9:23	9:26	3	11.00	100	33	
19	9:26	9:29	3	11.00	100	33	
18	9:29	9:32	3	11.00	100	33	
17	9:32	9:35	3	11.00	100	33	

Redox Tech Data Collection Sheet

Date:	2/26/2020	**Page No:**	2
Client:	Ramboll	**Data Taker:**	Keith Precious
Rig Type:	Geoprobe 6620	**Site Name:**	Sag Harbor, NY
Inj. Tool:	Bottom - Up	**Fluid Conc:**	Each interval receives ~33 gallons ABC solution (15 wt%) and ~21 lbs ZVI
Pipe Diam (in):	1.25"	**Area:**	~0.26L RTB-1 per location
Point Names:	IP-2		
Fluid Injected:	ABC+ slurry with RTB-1		

Depth (ft bgs)	Start Time	End Time	Elapsed Time	Flowrate (gpm)	Injection Pressure (psi)	Solution Injected (gal)	Notes (flow change, etc:)
30	13:46	13:49	3	11.00	100	33	
29	16:49	13:52	3	11.00	100	33	
28	13:52	13:55	3	11.00	100	33	
27	16:55	13:58	3	11.00	100	33	
26	16:58	14:01	3	11.00	100	33	
25	14:01	14:04	3	11.00	100	33	
24	14:04	14:07	3	11.00	100	33	
23	14:07	14:10	3	11.00	100	33	
22	14:10	14:13	3	11.00	100	33	
21	14:13	14:16	3	11.00	100	33	
20	14:16	14:19	3	11.00	100	33	
19	14:19	14:22	3	11.00	100	33	
18	14:22	14:25	3	11.00	100	33	
17	14:25	14:28	3	11.00	100	33	
16	14:28	14:31	3	11.00	100	33	

Redox Tech Data Collection Sheet

Date:	2/26/2020	**Page No:**	3
Client:	Ramboll	**Data Taker:**	Keith Precious
Rig Type:	Geoprobe 6620	**Site Name:**	Sag Harbor, NY
Inj. Tool:	Bottom - Up	**Fluid Conc:**	Each interval receives ~33 gallons ABC solution (15 wt%) and ~21 lbs ZVI
Pipe Diam (in):	1.25"	**Area:**	~0.26L RTB-1 per location
Point Names:	IP-3		
Fluid Injected:	ABC+ slurry with RTB-1		

Depth (ft bgs)	Start Time	End Time	Elapsed Time	Flowrate (gpm)	Injection Pressure (psi)	Solution Injected (gal)	Notes (flow change, etc:)
30	16:11	16:15	4	8.25	100	33	
29	16:15	16:18	3	11.00	100	33	
28	16:18	16:21	3	11.00	100	33	
27	16:21	16:24	3	11.00	100	33	
26	16:24	16:27	3	11.00	100	33	
25	16:27	16:30	3	11.00	100	33	
24	16:30	16:33	3	11.00	100	33	
23	16:33	16:36	3	11.00	100	33	
22	16:36	16:39	3	11.00	100	33	
21	16:39	16:42	3	11.00	100	33	
20	16:42	16:45	3	11.00	100	33	
19	16:45	16:48	3	11.00	100	33	
18	16:48	16:51	3	11.00	100	33	
17	16:51	16:54	3	11.00	100	33	
16	16:54	16:57	3	11.00	100	33	

Redox Tech Data Collection Sheet

Date:	2/26/2020	**Page No:**	4
Client:	Ramboll	**Data Taker:**	Keith Precious
Rig Type:	Geoprobe 6620	**Site Name:**	Sag Harbor, NY
Inj. Tool:	Bottom - Up	**Fluid Conc:**	Each interval receives ~33 gallons ABC solution (15 wt%) and ~21 lbs ZVI
Pipe Diam (in):	1.25"	**Area:**	~0.26L RTB-1 per location
Point Names:	IP-4		
Fluid Injected:	ABC+ slurry with RTB-1		

Depth (ft bgs)	Start Time	End Time	Elapsed Time	Flowrate (gpm)	Injection Pressure (psi)	Solution Injected (gal)	Notes (flow change, etc:)
30	11:57	12:00	3	11.00	100	33	
29	12:00	12:03	3	11.00	100	33	
28	12:03	12:06	3	11.00	100	33	
27	12:06	12:09	3	11.00	100	33	
26	12:09	12:13	4	8.25	100	33	
25	12:13	12:16	3	11.00	100	33	
24	12:16	12:19	3	11.00	100	33	
23	12:19	12:23	3	11.00	100	33	
22	12:23	12:27	4	8.25	100	33	
21	12:27	12:30	3	11.00	100	33	
20	12:30	12:33	3	11.00	100	33	
19	12:33	12:37	4	8.25	100	33	
18	12:37	12:40	3	11.00	100	33	
17	12:40	12:43	3	11.00	100	33	
16	12:43	12:46	3	11.00	100	33	

Redox Tech Data Collection Sheet

Date:	2/26/2020	**Page No:**	5
Client:	Ramboll	**Data Taker:**	Keith Precious
Rig Type:	Geoprobe 6620	**Site Name:**	Sag Harbor, NY
Inj. Tool:	Bottom - Up	**Fluid Conc:**	Each interval receives ~33 gallons ABC solution (15 wt%) and ~21 lbs ZVI
Pipe Diam (in):	1.25"	**Area:**	~0.26L RTB-1 per location
Point Names:	IP-5		
Fluid Injected:	ABC+ slurry with RTB-1		

Depth (ft bgs)	Start Time	End Time	Elapsed Time	Flowrate (gpm)	Injection Pressure (psi)	Solution Injected (gal)	Notes (flow change, etc:)
31	10:39	10:42	3	11.00	100	33	
30	10:42	10:45	3	11.00	100	33	
29	10:45	10:48	3	11.00	100	33	
28	10:48	10:52	4	8.25	100	33	
27	10:52	10:55	3	11.00	100	33	
26	10:55	10:59	4	8.25	100	33	
25	10:59	11:02	3	11.00	100	33	
24	11:02	11:05	3	11.00	100	33	
23	11:05	11:08	3	11.00	100	33	
22	11:08	11:11	3	11.00	100	33	
21	11:11	11:14	3	11.00	100	33	
20	11:14	11:17	3	11.00	100	33	
19	11:17	11:20	3	11.00	100	33	
18	11:20	11:23	3	11.00	100	33	
17	11:23	11:26	3	11.00	100	33	

Redox Tech Data Collection Sheet

Date:	2/26/2020	**Page No:**	6
Client:	Ramboll	**Data Taker:**	Keith Precious
Rig Type:	Geoprobe 6620	**Site Name:**	Sag Harbor, NY
Inj. Tool:	Bottom - Up	**Fluid Conc:**	Each interval receives ~33 gallons ABC solution (15 wt%) and ~21 lbs ZVI
Pipe Diam (in):	1.25"	**Area:**	~0.26L RTB-1 per location
Point Names:	IP-6		
Fluid Injected:	ABC+ slurry with RTB-1		

Depth (ft bgs)	Start Time	End Time	Elapsed Time	Flowrate (gpm)	Injection Pressure (psi)	Solution Injected (gal)	Notes (flow change, etc:)
31	8:13	8:16	3	11.00	100	33	
30	8:16	8:20	4	8.25	100	33	
29	8:20	8:23	3	11.00	100	33	
28	8:23	8:26	4	8.25	100	33	
27	8:26	8:29	3	11.00	100	33	
26	8:29	8:32	3	11.00	100	33	
25	8:32	8:35	3	11.00	100	33	
24	8:44	8:48	4	8.25	100	33	
23	8:48	8:51	3	11.00	100	33	
22	8:51	8:54	3	11.00	100	33	
21	8:54	8:57	3	11.00	100	33	
20	8:57	9:00	3	11.00	100	33	
19	9:00	9:03	3	11.00	100	33	
18	9:03	9:06	3	11.00	100	33	
17	9:06	9:36	3	11.00	100	33	

Redox Tech Data Collection Sheet

Date:	2/26/2020	**Page No:**	7
Client:	Ramboll	**Data Taker:**	Keith Precious
Rig Type:	Geoprobe 6620	**Site Name:**	Sag Harbor, NY
Inj. Tool:	Bottom - Up	**Fluid Conc:**	Each interval receives ~33 gallons ABC solution (15 wt%) and ~21 lbs ZVI
Pipe Diam (in):	1.25"	**Area:**	~0.26L RTB-1 per location
Point Names:	IP-7		
Fluid Injected:	ABC+ slurry with RTB-1		

Depth (ft bgs)	Start Time	End Time	Elapsed Time	Flowrate (gpm)	Injection Pressure (psi)	Solution Injected (gal)	Notes (flow change, etc:)
31	9:36	8:16	3	11.00	100	33	
30	9:39	8:20	4	8.25	100	33	
29	9:43	8:23	3	11.00	100	33	
28	9:46	8:26	4	8.25	100	33	
27	9:49	8:29	3	11.00	100	33	
26	9:53	8:32	3	11.00	100	33	
25	9:56	8:35	3	11.00	100	33	
24	9:59	8:48	4	8.25	100	33	
23	10:02	8:51	3	11.00	100	33	
22	10:06	8:54	3	11.00	100	33	
21	10:09	8:57	3	11.00	100	33	
20	10:13	9:00	3	11.00	100	33	
19	10:17	9:03	3	11.00	100	33	
18	10:21	9:06	3	11.00	100	33	
17	10:24	9:36	3	11.00	100	33	

Redox Tech Data Collection Sheet

Date:	2/26/2020	**Page No:**	8
Client:	Ramboll	**Data Taker:**	Keith Precious
Rig Type:	Geoprobe 6620	**Site Name:**	Sag Harbor, NY
Inj. Tool:	Bottom - Up	**Fluid Conc:**	Each interval receives ~33 gallons ABC solution (15 wt%) and ~21 lbs ZVI
Pipe Diam (in):	1.25"	**Area:**	~0.26L RTB-1 per location
Point Names:	IP-8		
Fluid Injected:	ABC+ slurry with RTB-1		

Depth (ft bgs)	Start Time	End Time	Elapsed Time	Flowrate (gpm)	Injection Pressure (psi)	Solution Injected (gal)	Notes (flow change, etc:)
30	14:32	14:34	2	16.50	100	33	
29	14:34	14:36	2	16.50	100	33	
28	14:36	14:39	3	11.00	100	33	
27	14:39	14:42	3	11.00	100	33	
26	14:42	14:45	3	11.00	100	33	
25	14:45	14:48	3	11.00	100	33	
24	14:48	14:51	3	11.00	100	33	
23	14:51	14:54	3	11.00	100	33	
22	14:54	14:57	3	11.00	100	33	
21	14:57	15:00	3	11.00	100	33	
20	15:00	15:03	3	11.00	100	33	
19	15:03	15:06	3	11.00	100	33	
18	15:06	15:09	3	11.00	100	33	
17	15:09	15:12	3	11.00	100	33	
16	15:12	15:15	3	11.00	100	33	

Redox Tech Data Collection Sheet

Date:	2/25/2020	**Page No:**	9
Client:	Ramboll	**Data Taker:**	Keith Precious
Rig Type:	Geoprobe 6620	**Site Name:**	Sag Harbor, NY
Inj. Tool:	Bottom - Up	**Fluid Conc:**	Each interval receives ~33 gallons ABC solution (15 wt%) and ~21 lbs ZVI
Pipe Diam (in):	1.25"	**Area:**	~0.26L RTB-1 per location
Point Names:	IP-9		
Fluid Injected:	ABC+ slurry with RTB-1		

Depth (ft bgs)	Start Time	End Time	Elapsed Time	Flowrate (gpm)	Injection Pressure (psi)	Solution Injected (gal)	Notes (flow change, etc:)
31	16:31	16:34	3	11.00	100	33	
30	16:34	16:37	3	11.00	100	33	
29	16:37	16:40	3	11.00	100	33	
28	16:40	16:43	3	11.00	100	33	
27	16:43	16:46	3	11.00	100	33	
26	16:46	16:50	4	8.25	100	33	
25	16:50	16:54	4	8.25	100	33	
24	16:54	16:58	4	8.25	100	33	
23	16:58	17:01	3	11.00	100	33	
22	17:01	17:04	3	11.00	100	33	
21	17:04	17:07	3	11.00	100	33	
20	17:07	17:11	4	8.25	100	33	
19	17:11	17:15	4	8.25	100	33	
18	17:15	17:18	3	11.00	100	33	
17	17:18	17:21	3	11.00	100	33	

Redox Tech Data Collection Sheet

Date:	2/25/2020	**Page No:**	10
Client:	Ramboll	**Data Taker:**	Keith Precious
Rig Type:	Geoprobe 6620	**Site Name:**	Sag Harbor, NY
Inj. Tool:	Bottom - Up	**Fluid Conc:**	Each interval receives ~33 gallons ABC solution (15 wt%) and ~21 lbs ZVI
Pipe Diam (in):	1.25"	**Area:**	~0.26L RTB-1 per location
Point Names:	IP-10		
Fluid Injected:	ABC+ slurry with RTB-1		

Depth (ft bgs)	Start Time	End Time	Elapsed Time	Flowrate (gpm)	Injection Pressure (psi)	Solution Injected (gal)	Notes (flow change, etc:)
31	9:05	9:08	3	11.00	100	33	
30	9:08	9:11	3	11.00	100	33	
29	9:11	9:14	3	11.00	100	33	
28	9:14	9:17	3	11.00	100	33	
27	9:18	9:21	3	11.00	100	33	
26	9:21	9:24	3	11.00	100	33	
25	9:24	9:29	5	6.60	100	33	
24	9:29	9:32	3	11.00	100	33	
23	9:32	9:35	3	11.00	100	33	
22	9:35	9:39	4	8.25	100	33	
21	9:39	9:42	3	11.00	100	33	
20	9:42	9:46	4	8.25	100	33	
19	9:46	9:49	3	11.00	100	33	
18	9:49	9:52	3	11.00	100	33	

Redox Tech Data Collection Sheet

Date:	2/26/2020	**Page No:**	11
Client:	Ramboll	**Data Taker:**	Keith Precious
Rig Type:	Geoprobe 6620	**Site Name:**	Sag Harbor, NY
Inj. Tool:	Bottom - Up	**Fluid Conc:**	Each interval receives ~33 gallons ABC solution (15 wt%) and ~21 lbs ZVI
Pipe Diam (in):	1.25"	**Area:**	~0.26L RTB-1 per location
Point Names:	IP-11		
Fluid Injected:	ABC+ slurry with RTB-1		

Depth (ft bgs)	Start Time	End Time	Elapsed Time	Flowrate (gpm)	Injection Pressure (psi)	Solution Injected (gal)	Notes (flow change, etc:)
31	15:18	15:21	3	11.00	100	33	
30	15:21	15:24	3	11.00	100	33	
29	15:24	15:27	3	11.00	100	33	
28	15:27	15:30	3	11.00	100	33	
27	15:30	15:33	3	11.00	100	33	
26	15:33	15:36	3	11.00	100	33	
25	15:36	15:39	3	11.00	100	33	
24	15:39	15:42	3	11.00	100	33	
23	15:42	15:45	3	11.00	100	33	
22	15:45	15:48	3	11.00	100	33	
21	15:48	15:51	3	11.00	100	33	
20	15:51	15:54	3	11.00	100	33	
19	15:54	15:57	3	11.00	100	33	
18	15:57	16:00	3	11.00	100	33	
17	16:00	16:03	3	11.00	100	33	

Redox Tech Data Collection Sheet

Date:	2/27/2020	**Page No:**	12
Client:	Ramboll	**Data Taker:**	Keith Precious
Rig Type:	Geoprobe 6620	**Site Name:**	Sag Harbor, NY
Inj. Tool:	Bottom - Up	**Fluid Conc:**	Each interval receives ~33 gallons ABC solution (15 wt%) and ~21 lbs ZVI
Pipe Diam (in):	1.25"	**Area:**	~0.26L RTB-1 per location
Point Names:	IP-12		
Fluid Injected:	ABC+ slurry with RTB-1		

Depth (ft bgs)	Start Time	End Time	Elapsed Time	Flowrate (gpm)	Injection Pressure (psi)	Solution Injected (gal)	Notes (flow change, etc:)
31	9:40	9:43	3	11.00	100	33	
30	9:43	9:45	2	16.50	100	33	
29	9:45	9:48	3	11.00	100	33	
28	9:48	9:51	3	11.00	100	33	
27	9:51	9:54	3	11.00	100	33	
26	9:54	9:57	3	11.00	100	33	
25	9:57	10:00	3	11.00	100	33	
24	10:00	10:03	3	11.00	100	33	
23	10:03	10:06	3	11.00	100	33	
22	10:06	10:09	3	11.00	100	33	
21	10:09	10:12	3	11.00	100	33	
20	10:12	10:15	3	11.00	100	33	
19	10:15	10:18	3	11.00	100	33	
18	10:18	10:21	3	11.00	100	33	
17	10:21	10:24	3	11.00	100	33	

Redox Tech Data Collection Sheet

Date:	2/25/2020	**Page No:**	13
Client:	Ramboll	**Data Taker:**	Keith Precious
Rig Type:	Geoprobe 6620	**Site Name:**	Sag Harbor, NY
Inj. Tool:	Bottom - Up	**Fluid Conc:**	Each interval receives ~33 gallons ABC solution (15 wt%) and ~21 lbs ZVI
Pipe Diam (in):	1.25"	**Area:**	~0.26L RTB-1 per location
Point Names:	IP-13		
Fluid Injected:	ABC+ slurry with RTB-1		

Depth (ft bgs)	Start Time	End Time	Elapsed Time	Flowrate (gpm)	Injection Pressure (psi)	Solution Injected (gal)	Notes (flow change, etc:)
31	15:26	15:30	3	11.00	100	33	
30	15:30	15:33	3	11.00	100	33	
29	15:33	15:36	3	11.00	100	33	
28	15:36	15:39	3	11.00	100	33	
27	15:39	15:43	4	8.25	100	33	
26	15:43	15:47	4	8.25	100	33	
25	15:47	15:50	3	11.00	100	33	
24	15:50	15:53	3	11.00	100	33	
23	15:53	15:56	3	11.00	100	33	
22	15:56	15:59	3	11.00	100	33	
21	15:59	16:02	3	11.00	100	33	
20	16:02	16:06	4	8.25	100	33	
19	16:06	16:09	3	11.00	100	33	
18	16:09	16:12	3	11.00	100	33	
17	16:12	16:15	3	11.00	100	33	

Redox Tech Data Collection Sheet

Date:	2/25/2020	**Page No:**	14
Client:	Ramboll	**Data Taker:**	Keith Precious
Rig Type:	Geoprobe 6620	**Site Name:**	Sag Harbor, NY
Inj. Tool:	Bottom - Up	**Fluid Conc:**	Each interval receives ~33 gallons ABC solution (15 wt%) and ~21 lbs ZVI
Pipe Diam (in):	1.25"	**Area:**	~0.26L RTB-1 per location
Point Names:	IP-14		
Fluid Injected:	ABC+ slurry with RTB-1		

Depth (ft bgs)	Start Time	End Time	Elapsed Time	Flowrate (gpm)	Injection Pressure (psi)	Solution Injected (gal)	Notes (flow change, etc:)
31	11:05	11:08	3	11.00	100	33	
30	11:08	11:11	3	11.00	100	33	
29	11:11	11:14	3	11.00	100	33	
28	11:14	11:17	3	11.00	100	33	
27	11:17	11:20	3	11.00	100	33	
26	11:20	11:23	3	11.00	100	33	
25	11:23	11:26	3	11.00	100	33	
24	11:26	11:29	3	11.00	100	33	
23	11:29	11:32	3	11.00	100	33	
22	11:32	11:35	3	11.00	100	33	
21	11:35	11:38	3	11.00	100	33	
20	11:38	11:42	4	8.25	100	33	
19	11:42	11:45	3	11.00	100	33	
18	11:45	11:48	3	11.00	100	33	
17	11:48	11:51	3	11.00	100	33	

Redox Tech Data Collection Sheet

Date:	2/25/2020	**Page No:**	15
Client:	Ramboll	**Data Taker:**	Keith Precious
Rig Type:	Geoprobe 6620	**Site Name:**	Sag Harbor, NY
Inj. Tool:	Bottom - Up	**Fluid Conc:**	Each interval receives ~33 gallons ABC solution (15 wt%) and ~21 lbs ZVI
Pipe Diam (in):	1.25"	**Area:**	~0.26L RTB-1 per location
Point Names:	IP-15		
Fluid Injected:	ABC+ slurry with RTB-1		

Depth (ft bgs)	Start Time	End Time	Elapsed Time	Flowrate (gpm)	Injection Pressure (psi)	Solution Injected (gal)	Notes (flow change, etc:)
31	13:26	13:29	3	11.00	100	33	
30	13:29	13:32	3	11.00	100	33	
29	13:32	13:35	3	11.00	100	33	
28	13:35	13:38	3	11.00	100	33	
27	13:38	13:41	3	11.00	100	33	
26	13:41	13:44	3	11.00	100	33	
25	13:44	13:47	3	11.00	100	33	
24	13:47	13:50	3	11.00	100	33	
23	13:50	13:52	2	16.50	100	33	
22	13:52	13:55	3	11.00	100	33	
21	13:55	13:57	2	16.50	100	33	
20	13:57	14:00	3	11.00	100	33	
19	14:00	14:03	3	11.00	100	33	
18	14:03	14:06	3	11.00	100	33	
17	14:06	14:09	3	11.00	100	33	

Redox Tech Data Collection Sheet

Date:	2/25/2020	**Page No:**	16
Client:	Ramboll	**Data Taker:**	Keith Precious
Rig Type:	Geoprobe 6620	**Site Name:**	Sag Harbor, NY
Inj. Tool:	Bottom - Up	**Fluid Conc:**	Each interval receives ~33 gallons ABC solution (15 wt%) and ~21 lbs ZVI
Pipe Diam (in):	1.25"	**Area:**	~0.26L RTB-1 per location
Point Names:	IP-16		
Fluid Injected:	ABC+ slurry with RTB-1		

Depth (ft bgs)	Start Time	End Time	Elapsed Time	Flowrate (gpm)	Injection Pressure (psi)	Solution Injected (gal)	Notes (flow change, etc:)
31	10:00	10:03	3	11.00	100	33	
30	10:03	10:07	4	8.25	100	33	
29	10:07	10:10	3	11.00	100	33	
28	10:10	10:12	2	16.50	100	33	
27	10:12	10:15	3	11.00	100	33	
26	10:15	10:18	3	11.00	100	33	
25	10:18	10:21	3	11.00	100	33	
24	10:21	10:24	3	11.00	100	33	
23	10:24	10:27	3	11.00	100	33	
22	10:27	10:30	3	11.00	100	33	
21	10:30	10:33	3	11.00	100	33	
20	10:33	10:36	3	11.00	100	33	
19	10:36	10:39	3	11.00	100	33	
18	10:39	10:42	3	11.00	100	33	
17	10:42	10:46	4	8.25	100	33	

Redox Tech Data Collection Sheet

Date:	2/27/2020	**Page No:**	17
Client:	Ramboll	**Data Taker:**	Keith Precious
Rig Type:	Geoprobe 6620	**Site Name:**	Sag Harbor, NY
Inj. Tool:	Bottom - Up	**Fluid Conc:**	Each interval receives ~33 gallons ABC solution (15 wt%) and ~21 lbs ZVI
Pipe Diam (in):	1.25"	**Area:**	~0.26L RTB-1 per location
Point Names:	IP-17		
Fluid Injected:	ABC+ slurry with RTB-1		

Depth (ft bgs)	Start Time	End Time	Elapsed Time	Flowrate (gpm)	Injection Pressure (psi)	Solution Injected (gal)	Notes (flow change, etc:)
31	10:34	10:37	3	11.00	100	33	
30	10:37	10:40	3	11.00	100	33	
29	10:40	10:43	3	11.00	100	33	
28	10:44	10:47	3	11.00	100	33	
27	10:47	10:50	3	11.00	100	33	
26	10:50	10:53	3	11.00	100	33	
25	10:53	10:56	3	11.00	100	33	
24	10:56	10:59	3	11.00	100	33	
23	10:59	11:02	3	11.00	100	33	
22	11:02	11:05	3	11.00	100	33	
21	11:05	11:08	3	11.00	100	33	
20	11:08	11:12	4	8.25	100	33	
19	11:12	11:15	3	11.00	100	33	
18	11:15	11:18	3	11.00	100	33	
17	11:18	11:21	3	11.00	100	33	

Redox Tech Data Collection Sheet

Date:	2/25/2020	**Page No:**	18
Client:	Ramboll	**Data Taker:**	Keith Precious
Rig Type:	Geoprobe 6620	**Site Name:**	Sag Harbor, NY
Inj. Tool:	Bottom - Up	**Fluid Conc:**	Each interval receives ~33 gallons ABC solution (15 wt%) and ~21 lbs ZVI
Pipe Diam (in):	1.25"	**Area:**	~0.26L RTB-1 per location
Point Names:	IP-18		
Fluid Injected:	ABC+ slurry with RTB-1		

Depth (ft bgs)	Start Time	End Time	Elapsed Time	Flowrate (gpm)	Injection Pressure (psi)	Solution Injected (gal)	Notes (flow change, etc:)
31	14:31	14:35	4	8.25	100	33	
30	14:35	14:38	3	11.00	100	33	
29	14:38	14:41	3	11.00	100	33	
28	14:41	14:45	4	8.25	100	33	
27	14:45	14:48	3	11.00	100	33	
26	14:48	14:51	3	11.00	100	33	
25	14:51	14:54	3	11.00	100	33	
24	14:54	14:57	3	11.00	100	33	
23	14:57	15:01	4	8.25	100	33	
22	15:01	15:05	4	8.25	100	33	
21	15:05	15:07	2	16.50	100	33	
20	15:07	15:11	4	8.25	100	33	
19	15:11	15:15	4	8.25	100	33	
18	15:15	15:19	4	8.25	100	33	
17	15:19	15:22	3	11.00	100	33	

Redox Tech Data Collection Sheet

Date:	2/27/2020	**Page No:**	19
Client:	Ramboll	**Data Taker:**	Keith Precious
Rig Type:	Geoprobe 6620	**Site Name:**	Sag Harbor, NY
Inj. Tool:	Bottom - Up	**Fluid Conc:**	Each interval receives ~33 gallons ABC solution (15 wt%) and ~21 lbs ZVI
Pipe Diam (in):	1.25"	**Area:**	~0.26L RTB-1 per location
Point Names:	IP-19		
Fluid Injected:	ABC+ slurry with RTB-1		

Depth (ft bgs)	Start Time	End Time	Elapsed Time	Flowrate (gpm)	Injection Pressure (psi)	Solution Injected (gal)	Notes (flow change, etc:)
31	11:45	11:48	3	11.00	100	33	
30	11:48	11:51	3	11.00	100	33	
29	11:51	11:54	3	11.00	100	33	
28	11:54	11:57	3	11.00	100	33	
27	11:57	12:00	3	11.00	100	33	
26	12:00	12:03	3	11.00	100	33	
25	12:03	12:06	3	11.00	100	33	
24	12:06	12:09	3	11.00	100	33	
23	12:09	12:12	3	11.00	100	33	
22	12:12	12:15	3	11.00	100	33	
21	12:15	12:18	3	11.00	100	33	
20	12:18	12:21	3	11.00	100	33	
19	12:21	12:24	3	11.00	100	33	
18	12:24	12:27	3	11.00	100	33	
17	12:27	12:30	3	11.00	100	33	

APPENDIX C

PHOTOLOG OF ELECTRON DONOR INJECTION ACTIVITIES

Photo 1: ZVI on palettes

Photo 2: Injection Point

Photo 3: Mixing hoppers

Photo 4: Mixing Hoppers

Photo 5: ZVI

Photo 6: Dehalococcoides

Cl  >

Photo 7: Sodium Sulfite additive for deoxygenation

Photo 8: Premixed ABC in 1000-liter totes

APPENDIX D

GROUNDWATER SAMPLING FIELD LOGS

RAMBOLL

Low Flow Groundwater Sampling Field Log

Monitoring Well - **FRW-1**

Sampling Information

Date (MM/DD/YY) - **02/19/20**
Personnel - **Eleanor Seery**
Weather - **35˚F, Sunny**
Sampling Device - **Geopump Peristaltic Pump**
Sampling Device - **35˚F, Sunny**

Pump Controller - **N/A**
Refill - **N/A** sec
Discharge - **N/A** sec
Pressure - **N/A** psi
Pressure - **N/A** psi

Well Information

Well Vault PID - **N/A** ppb
Well Casing PID - **N/A** ppb
PID # - **N/A**
Water Quality Meter # - **N/A**

Measured Depth to Bottom - **30.0** ft BTOC
Screened Zone - **20-30** ft BGS
Depth to Pump Intake - **25.00** ft BGS
Pre-Pump (Static) Depth to Water - **22.00** ft BTOC
Post-Pump Depth to Water - **22.00** ft BTOC

Well Evacuation Data

Stabilization Criteria			± 0.1 SU	± 3 %	± 10 %	± 3 %	± 10 mV	± 10 %	0.3 ft	
Time	**Vol.** L	**Rate** mL/min	**pH** Std	**Cond.** ms/cm	**Turb.** NTU	**Temp.** C	**ORP** mV	**DO** mg/L	**DTW** ft	**Appearance or Comments**
11:53	--	250	9.80	0.084	0.0	11.62	100	7.88	22.00	clear
11:58	1.3	250	5.73	0.083	0.0	11.31	237	6.25	22.00	clear
12:03	2.5	250	5.39	0.083	0.0	11.32	241	6.01	22.00	clear
12:08	3.8	250	5.40	0.083	0.0	11.28	237	5.96	22.00	clear
12:13	5.0	250	5.32	0.083	0.0	11.26	225	5.57	22.00	clear
12:18	6.3	250	5.27	0.084	0.0	11.22	218	5.40	22.00	clear
12:23	7.5	250	5.25	0.085	0.0	11.20	217	5.10	22.00	clear
12:28	***SAMPLE***	250	5.20	0.085	0.0	11.23	215	4.95	22.00	clear

Notes / Sample Information

Sample ID - FRW1-20200220
Sample Time - 12:28

Appearance at Start - **clear**
Appearance After Purging - **clear**

Additional Sample - Field Duplicate
Additional Sample ID - DUP-20200220

Total Volume Purged - **8.7** liters
Purge Rate - **250-250** mL/min

DTW After Purging - **22.00** ft bTOC
DTW at Time of Sampling - **22.00** ft bTOC

Analyses - Volatile Organic Compounds (EPA Method 8260), Sulfate (EPA Method 300), Ethene/Ethane/Methane (EPA Method 8015), Dissolved Iron (EPA Method 601B/200.7), Total Organic Carbon (EPA Method 9060), Nitrate + Nitrite (EPA Method 353.2)

Notes

RAMBOLL

Low Flow Groundwater Sampling Field Log

Monitoring Well - **MW-45A**

Sampling Information

Date (MM/DD/YY) - **02/20/20**
Personnel - **Eleanor Seery**
Weather - **35˚F, Sunny**
Sampling Device - **QED Sample Pro Bladder Pump**

Pump Controller - **MP50**
Refill - **N/A** sec
Discharge - **N/A** sec
Pressure - **N/A** psi

Well Information

Well Vault PID - **N/A** ppb
Well Casing PID - **N/A** ppb
PID # - **N/A**
Water Quality Meter # - **N/A**

Measured Depth to Bottom - **28.9** ft BTOC
Screened Zone - **13.9-28.9** ft BGS
Depth to Pump Intake - **18.90** ft BGS
Pre-Pump (Static) Depth to Water - **18.20** ft BTOC
Post-Pump Depth to Water - **18.30** ft BTOC

Well Evacuation Data

Stabilization Criteria			± 0.1 SU	± 3 %	± 10 %	± 3 %	± 10 mV	± 10 %	0.3 ft	
Time	**Vol.** L	**Rate** mL/min	**pH** Std	**Cond.** ms/cm	**Turb.** NTU	**Temp.** C	**ORP** mV	**DO** mg/L	**DTW** ft	**Appearance or Comments**
8:00	--	200	5.65	0.179	50.0	9.90	250	5.67	18.30	clear
8:05	1.0	200	5.65	0.155	43.0	10.13	213	3.20	18.30	clear
8:10	2.0	200	5.78	0.151	28.0	10.25	178	1.76	18.30	clear
8:15	3.0	200	5.86	0.150	14.0	10.23	163	1.11	18.30	clear
8:20	4.0	200	5.89	0.148	13.0	10.20	145	0.68	18.30	clear
8:25	5.0	200	5.90	0.148	0.0	10.10	148	0.53	18.30	clear
8:30	6.0	200	5.92	0.147	0.0	10.10	142	0.57	18.30	clear
8:35	7.0	200	6.00	0.147	0.0	10.05	138	0.30	18.30	clear
8:40	8.0	200	5.99	0.147	0.0	10.00	133	0.14	18.30	clear
8:45	9.0	200	6.02	0.148	0.0	9.90	130	0.10	18.30	clear
8:50	10.0	200	6.02	0.148	0.0	9.84	128	0.11	18.30	clear
8:55	***SAMPLE***	200	6.00	0.149	0.0	9.85	124	0.11	18.30	clear

Sample ID - MW45A-20200220
Sample Time - 8:55

Notes / Sample Information

Appearance at Start - **clear**
Appearance After Purging - **clear**

Additional Sample - None
Additional Sample ID - N/A

Total Volume Purged - **11.0** liters
Purge Rate - **200-200** mL/min

DTW After Purging - **18.30** ft bTOC
DTW at Time of Sampling - **18.30** ft bTOC

Analyses - Volatile Organic Compounds (EPA Method 8260)

Notes

RAMBOLL

Low Flow Groundwater Sampling Field Log

Monitoring Well - **MW-98-01A**

Sampling Information

Date (MM/DD/YY) - **02/19/20**
Personnel - **Eleanor Seery**
Weather - **35˚F, Partly Cloudy**
Sampling Device - **QED Sample Pro Bladder Pump**

Pump Controller - **MP50**
Refill - **N/A** sec
Discharge - **N/A** sec
Pressure - **N/A** psi

Well Information

Well Vault PID - **N/A** ppb
Well Casing PID - **N/A** ppb
PID # - **N/A**
Water Quality Meter # - **N/A**

Measured Depth to Bottom - **27.0** ft BTOC
Screened Zone - **17-27** ft BGS
Depth to Pump Intake - **23.00** ft BGS
Pre-Pump (Static) Depth to Water - **20.70** ft BTOC
Post-Pump Depth to Water - **20.70** ft BTOC

Well Evacuation Data

Stabilization Criteria			± 0.1 SU	± 3 %	± 10 %	± 3 %	± 10 mV	± 10 %	0.3 ft	
Time	**Vol.** L	**Rate** mL/min	**pH** Std	**Cond.** ms/cm	**Turb.** NTU	**Temp.** C	**ORP** mV	**DO** mg/L	**DTW** ft	**Appearance or Comments**
9:22	--	250	6.49	0.175	154.0	6.47	125	2.99	20.70	murky
9:27	1.3	250	6.25	0.157	45.0	10.54	98	1.00	20.70	murky
9:32	2.5	250	6.01	0.153	21.0	10.77	85	0.89	20.70	murky
9:37	3.7	250	5.86	0.150	0.0	10.94	81	0.87	20.70	murky
9:42	5.0	250	5.82	0.147	0.0	10.90	81	1.12	20.70	murky
9:47	6.2	250	5.78	0.144	0.0	10.90	81	1.11	20.70	murky
9:52	7.5	250	5.72	0.142	0.0	10.90	81	1.15	20.70	murky
9:57	8.7	250	5.72	0.142	0.0	10.91	80	1.17	20.70	murky
10:02	***SAMPLE***	250	5.70	0.141	0.0	10.90	81	1.20	20.70	murky

Notes / Sample Information

Sample ID - MW-98-01A-20200220
Sample Time - 10:02

Appearance at Start - **murky**
Appearance After Purging - **murky**

Additional Sample - None
Additional Sample ID - N/A

Total Volume Purged - **10.0** liters
Purge Rate - **250-250** mL/min

DTW After Purging - **20.70** ft bTOC
DTW at Time of Sampling - **20.70** ft bTOC

Analyses - Volatile Organic Compounds (EPA Method 8260), Sulfate (EPA Method 300), Ethene/Ethane/Methane (EPA Method 8015), Dissolved Iron (EPA Method 601B/200.7), Total Organic Carbon (EPA Method 9060), Nitrate + Nitrite (EPA Method 353.2)

Notes

RAMBOLL

Low Flow Groundwater Sampling Field Log

Monitoring Well - **MW-98-04**

Sampling Information

Date (MM/DD/YY) - **02/19/20**
Personnel - **Eleanor Seery**
Weather - **35˚F, Partly Cloudy**
Sampling Device - **QED Sample Pro Bladder Pump**

Pump Controller - **MP50**
Refill - **N/A** sec
Discharge - **N/A** sec
Pressure - **N/A** psi

Well Information

Well Vault PID - **N/A** ppb
Well Casing PID - **N/A** ppb
PID # - **N/A**
Water Quality Meter # - **N/A**

Measured Depth to Bottom - **26.5** ft BTOC
Screened Zone - **16.5-26.5** ft BGS
Depth to Pump Intake - **21.50** ft BGS
Pre-Pump (Static) Depth to Water - **18.30** ft BTOC
Post-Pump Depth to Water - **18.30** ft BTOC

Well Evacuation Data

Stabilization Criteria			± 0.1 SU	± 3 %	± 10 %	± 3 %	± 10 mV	± 10 %	0.3 ft	
Time	**Vol.** L	**Rate** mL/min	**pH** Std	**Cond.** ms/cm	**Turb.** NTU	**Temp.** C	**ORP** mV	**DO** mg/L	**DTW** ft	**Appearance or Comments**
15:37	--	150	7.85	0.161	157.0	9.90	108	3.43	18.30	murky
15:42	0.7	150	5.95	0.163	109.0	10.27	130	1.70	18.30	murky
15:47	1.5	150	5.66	0.162	54.0	10.38	130	1.07	18.30	murky
15:52	2.2	150	5.61	0.161	25.0	10.40	130	0.83	18.32	clearer
15:57	3.0	150	5.62	0.160	0.0	10.40	131	0.73	18.30	clearer
16:02	3.7	150	5.64	0.160	0.0	10.44	130	0.52	18.30	clearer
16:07	4.5	150	5.60	0.160	0.0	10.47	131	0.50	18.30	clearer
16:12	5.2	150	5.67	0.159	0.0	10.45	129	0.50	18.30	clearer
16:17	***SAMPLE***	150	5.67	0.157	0.0	10.44	130	0.48	18.30	clearer

Notes / Sample Information

Sample ID - MW-98-04-20200219
Sample Time - 16:17

Appearance at Start - **murky**
Appearance After Purging - **clearer**

Additional Sample - None
Additional Sample ID - N/A

Total Volume Purged - **6.0** liters
Purge Rate - **150-150** mL/min

DTW After Purging - **18.30** ft bTOC
DTW at Time of Sampling - **18.30** ft bTOC

Analyses - Volatile Organic Compounds (EPA Method 8260)

Notes

RAMBOLL

SAG HARBOR INDUSTRIES

Low Flow Groundwater Sampling Field Log

Monitoring Well - **MW-98-05AR**

Sampling Information

Date (MM/DD/YY) - **02/19/20**
Personnel - **Eleanor Seery**
Weather - **35˚F, Partly Cloudy**
Sampling Device - **QED Sample Pro Bladder Pump**

Pump Controller - **MP50**
Refill - **N/A** sec
Discharge - **N/A** sec
Pressure - **N/A** psi

Well Information

Well Vault PID - **N/A** ppb
Well Casing PID - **N/A** ppb
PID # - **N/A**
Water Quality Meter # - **N/A**

Measured Depth to Bottom - **28.0** ft BTOC
Screened Zone - **18-28** ft BGS
Depth to Pump Intake - **23.00** ft BGS
Pre-Pump (Static) Depth to Water - **20.00** ft BTOC
Post-Pump Depth to Water - **20.00** ft BTOC

Well Evacuation Data

Stabilization Criteria			± 0.1 SU	± 3 %	± 10 %	± 3 %	± 10 mV	± 10 %	0.3 ft	
Time	**Vol.** L	**Rate** mL/min	**pH** Std	**Cond.** ms/cm	**Turb.** NTU	**Temp.** C	**ORP** mV	**DO** mg/L	**DTW** ft	**Appearance or Comments**
13:18	--	100	5.48	0.189	125.0	10.60	205	2.91	20.00	murky
13:23	0.5	100	5.93	0.167	222.0	11.10	164	1.53	20.10	murky
13:28	1.0	150	5.94	0.158	80.0	11.38	125	0.80	20.10	clear
13:33	1.7	150	6.06	0.154	43.0	11.44	41	0.70	20.10	clear
13:38	2.5	150	6.07	0.153	33.0	11.43	95	0.63	20.10	clear
13:43	3.2	150	6.10	0.152	0.0	11.40	89	0.90	20.10	clear
13:48	4.0	150	6.10	0.151	0.0	11.40	84	0.80	20.10	clear
13:53	4.7	150	6.13	0.150	0.0	11.40	84	0.85	20.10	clear
13:58	***SAMPLE***	150	6.14	0.151	0.0	11.38	82	0.88	20.10	clear

Notes / Sample Information

Sample ID - MW-98-05-AR-20200219
Sample Time - 13:58

Appearance at Start - **murky**
Appearance After Purging - **clear**

Additional Sample - None
Additional Sample ID - N/A

Total Volume Purged - **5.5** liters
Purge Rate - **100-150** mL/min

DTW After Purging - **20.10** ft bTOC
DTW at Time of Sampling - **20.10** ft bTOC

Analyses - Volatile Organic Compounds (EPA Method 8260), Sulfate (EPA Method 300), Ethene/Ethane/Methane (EPA Method 8015), Dissolved Iron (EPA Method 601B/200.7), Total Organic Carbon (EPA Method 9060), Nitrate + Nitrite (EPA Method 353.2)

Notes

APPENDIX E

ANALYTICAL LABORATORY REPORT

Technical Report

prepared for:

Ramboll US Corp.
100 Pearl Street, East Tower, Third Floor
Hartford CT, 06102
Attention: Mark Mejac

Report Date: 02/27/2020
Client Project ID: 1690016505 Rowe Industries
York Project (SDG) No.: 20B0740

Report Date: 02/27/2020
Client Project ID: 1690016505 Rowe Industries
York Project (SDG) No.: 20B0740

Ramboll US Corp.
100 Pearl Street, East Tower, Third Floor
Hartford CT, 06102
Attention: Mark Mejac

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 February 19, 2020 with a temperature of 1.8 C. The project was identified as your project: **1690016505 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.

York Sample ID	Client Sample ID	Matrix	Date Collected	Date Received
20B0740-01	MW-98-05AR-20200219	Water	02/19/2020	02/19/2020
20B0740-02	MW-98-04-20200219	Water	02/19/2020	02/19/2020

General Notes for York Project (SDG) No.: 20B0740

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: 

Date: 02/27/2020

Benjamin Gulizia
Laboratory Director

Sample Information

Client Sample ID: MW-98-05AR-20200219 **York Sample ID:** 20B0740-01

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
20B0740	1690016505 Rowe Industries	Water	February 19, 2020 1:58 pm	02/19/2020

Volatile Organics, 8260 List - Low Level

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 5030B

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
630-20-6	1,1,1,2-Tetrachloroethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications:	02/21/2020 07:30	02/21/2020 16:05 CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	SS
71-55-6	**1,1,1-Trichloroethane**	**3.5**		ug/L	0.20	0.50	1	EPA 8260C Certifications:	02/21/2020 07:30	02/21/2020 16:05 CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	SS
79-34-5	1,1,2,2-Tetrachloroethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications:	02/21/2020 07:30	02/21/2020 16:05 CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	SS
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications:	02/21/2020 07:30	02/21/2020 16:05 CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	SS
79-00-5	1,1,2-Trichloroethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications:	02/21/2020 07:30	02/21/2020 16:05 CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	SS
75-34-3	1,1-Dichloroethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications:	02/21/2020 07:30	02/21/2020 16:05 CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	SS
75-35-4	1,1-Dichloroethylene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications:	02/21/2020 07:30	02/21/2020 16:05 CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	SS
563-58-6	1,1-Dichloropropylene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications:	02/21/2020 07:30	02/21/2020 16:05 NELAC-NY10854,NELAC-NY12058,NJDEP	SS
87-61-6	1,2,3-Trichlorobenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications:	02/21/2020 07:30	02/21/2020 16:05 NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	SS
96-18-4	1,2,3-Trichloropropane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications:	02/21/2020 07:30	02/21/2020 16:05 NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	SS
95-93-2	* 1,2,4,5-Tetramethylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications:	02/21/2020 07:30	02/21/2020 16:05	SS
120-82-1	1,2,4-Trichlorobenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications:	02/21/2020 07:30	02/21/2020 16:05 NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	SS
95-63-6	1,2,4-Trimethylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications:	02/21/2020 07:30	02/21/2020 16:05 CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	SS
96-12-8	1,2-Dibromo-3-chloropropane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications:	02/21/2020 07:30	02/21/2020 16:05 CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	SS
106-93-4	1,2-Dibromoethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications:	02/21/2020 07:30	02/21/2020 16:05 CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	SS
95-50-1	1,2-Dichlorobenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications:	02/21/2020 07:30	02/21/2020 16:05 CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	SS
107-06-2	1,2-Dichloroethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications:	02/21/2020 07:30	02/21/2020 16:05 CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	SS
78-87-5	1,2-Dichloropropane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications:	02/21/2020 07:30	02/21/2020 16:05 CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	SS
108-67-8	1,3,5-Trimethylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications:	02/21/2020 07:30	02/21/2020 16:05 CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	SS
541-73-1	1,3-Dichlorobenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications:	02/21/2020 07:30	02/21/2020 16:05 CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	SS
142-28-9	1,3-Dichloropropane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications:	02/21/2020 07:30	02/21/2020 16:05 NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	SS

Sample Information

Client Sample ID: MW-98-05AR-20200219 **York Sample ID:** 20B0740-01

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
20B0740	1690016505 Rowe Industries	Water	February 19, 2020 1:58 pm	02/19/2020

Volatile Organics, 8260 List - Low Level

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 5030B

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
106-46-7	1,4-Dichlorobenzene	ND		ug/L	0.20	0.50	1	EPA 8260C	02/21/2020 07:30	02/21/2020 16:05	SS
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJ		
594-20-7	2,2-Dichloropropane	ND		ug/L	0.20	0.50	1	EPA 8260C	02/21/2020 07:30	02/21/2020 16:05	SS
								Certifications:	NELAC-NY10854,NELAC-NY12058,NJDEP,PAL		
78-93-3	2-Butanone	ND		ug/L	0.20	2.0	1	EPA 8260C	02/21/2020 07:30	02/21/2020 16:05	SS
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJ		
95-49-8	2-Chlorotoluene	ND		ug/L	0.20	0.50	1	EPA 8260C	02/21/2020 07:30	02/21/2020 16:05	SS
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJ		
591-78-6	2-Hexanone	ND		ug/L	0.20	0.50	1	EPA 8260C	02/21/2020 07:30	02/21/2020 16:05	SS
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJ		
106-43-4	4-Chlorotoluene	ND		ug/L	0.20	0.50	1	EPA 8260C	02/21/2020 07:30	02/21/2020 16:05	SS
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJ		
108-10-1	4-Methyl-2-pentanone	ND		ug/L	0.20	0.50	1	EPA 8260C	02/21/2020 07:30	02/21/2020 16:05	SS
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJ		
67-64-1	Acetone	ND		ug/L	1.0	2.0	1	EPA 8260C	02/21/2020 07:30	02/21/2020 16:05	SS
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJ		
71-43-2	Benzene	ND		ug/L	0.20	0.50	1	EPA 8260C	02/21/2020 07:30	02/21/2020 16:05	SS
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJ		
108-86-1	Bromobenzene	ND		ug/L	0.20	0.50	1	EPA 8260C	02/21/2020 07:30	02/21/2020 16:05	SS
								Certifications:	NELAC-NY10854,NELAC-NY12058,NJDEP,PAL		
74-97-5	Bromochloromethane	ND		ug/L	0.20	0.50	1	EPA 8260C	02/21/2020 07:30	02/21/2020 16:05	SS
								Certifications:	NELAC-NY10854,NELAC-NY12058,NJDEP,PAL		
75-27-4	Bromodichloromethane	ND		ug/L	0.20	0.50	1	EPA 8260C	02/21/2020 07:30	02/21/2020 16:05	SS
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJ		
75-25-2	Bromoform	ND		ug/L	0.20	0.50	1	EPA 8260C	02/21/2020 07:30	02/21/2020 16:05	SS
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJ		
74-83-9	Bromomethane	ND		ug/L	0.20	0.50	1	EPA 8260C	02/21/2020 07:30	02/21/2020 16:05	SS
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJ		
75-15-0	Carbon disulfide	ND		ug/L	0.20	0.50	1	EPA 8260C	02/21/2020 07:30	02/21/2020 16:05	SS
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJ		
56-23-5	Carbon tetrachloride	ND		ug/L	0.20	0.50	1	EPA 8260C	02/21/2020 07:30	02/21/2020 16:05	SS
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJ		
108-90-7	Chlorobenzene	ND		ug/L	0.20	0.50	1	EPA 8260C	02/21/2020 07:30	02/21/2020 16:05	SS
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJ		
75-00-3	Chloroethane	ND		ug/L	0.20	0.50	1	EPA 8260C	02/21/2020 07:30	02/21/2020 16:05	SS
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJ		
67-66-3	Chloroform	ND		ug/L	0.20	0.50	1	EPA 8260C	02/21/2020 07:30	02/21/2020 16:05	SS
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJ		
74-87-3	Chloromethane	ND		ug/L	0.20	0.50	1	EPA 8260C	02/21/2020 07:30	02/21/2020 16:05	SS
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJ		
156-59-2	**cis-1,2-Dichloroethylene**	**1.4**		ug/L	0.20	0.50	1	EPA 8260C	02/21/2020 07:30	02/21/2020 16:05	SS
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJ		

Sample Information

Client Sample ID: MW-98-05AR-20200219 **York Sample ID:** 20B0740-01

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
20B0740	1690016505 Rowe Industries	Water	February 19, 2020 1:58 pm	02/19/2020

Volatile Organics, 8260 List - Low Level

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 5030B

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
10061-01-5	cis-1,3-Dichloropropylene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications:	02/21/2020 07:30	02/21/2020 16:05 CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	SS
124-48-1	Dibromochloromethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications:	02/21/2020 07:30	02/21/2020 16:05 CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	SS
74-95-3	Dibromomethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications:	02/21/2020 07:30	02/21/2020 16:05 NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	SS
75-71-8	Dichlorodifluoromethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications:	02/21/2020 07:30	02/21/2020 16:05 NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	SS
100-41-4	Ethyl Benzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications:	02/21/2020 07:30	02/21/2020 16:05 CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	SS
87-68-3	Hexachlorobutadiene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications:	02/21/2020 07:30	02/21/2020 16:05 NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	SS
98-82-8	Isopropylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications:	02/21/2020 07:30	02/21/2020 16:05 CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	SS
1634-04-4	Methyl tert-butyl ether (MTBE)	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications:	02/21/2020 07:30	02/21/2020 16:05 CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	SS
75-09-2	Methylene chloride	ND		ug/L	1.0	2.0	1	EPA 8260C Certifications:	02/21/2020 07:30	02/21/2020 16:05 CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	SS
91-20-3	Naphthalene	ND		ug/L	1.0	2.0	1	EPA 8260C Certifications:	02/21/2020 07:30	02/21/2020 16:05 NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	SS
104-51-8	n-Butylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications:	02/21/2020 07:30	02/21/2020 16:05 CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	SS
103-65-1	n-Propylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications:	02/21/2020 07:30	02/21/2020 16:05 CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	SS
95-47-6	o-Xylene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications:	02/21/2020 07:30	02/21/2020 16:05 CTDOH,NELAC-NY10854,NELAC-NY12058,PA	SS
179601-23-1	p- & m- Xylenes	ND		ug/L	0.50	1.0	1	EPA 8260C Certifications:	02/21/2020 07:30	02/21/2020 16:05 CTDOH,NELAC-NY10854,NELAC-NY12058,PA	SS
105-05-5	* p-Diethylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications:	02/21/2020 07:30	02/21/2020 16:05	SS
622-96-8	* p-Ethyltoluene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications:	02/21/2020 07:30	02/21/2020 16:05	SS
99-87-6	p-Isopropyltoluene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications:	02/21/2020 07:30	02/21/2020 16:05 CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	SS
135-98-8	sec-Butylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications:	02/21/2020 07:30	02/21/2020 16:05 CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	SS
100-42-5	Styrene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications:	02/21/2020 07:30	02/21/2020 16:05 CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	SS
98-06-6	tert-Butylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications:	02/21/2020 07:30	02/21/2020 16:05 CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	SS
127-18-4	**Tetrachloroethylene**	**26**	SCAL-E	ug/L	0.20	0.50	1	EPA 8260C Certifications:	02/21/2020 07:30	02/21/2020 16:05 CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	SS

Sample Information

Client Sample ID: MW-98-05AR-20200219 **York Sample ID:** 20B0740-01

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
20B0740	1690016505 Rowe Industries	Water	February 19, 2020 1:58 pm	02/19/2020

Volatile Organics, 8260 List - Low Level

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 5030B

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
108-88-3	Toluene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	02/21/2020 07:30	02/21/2020 16:05	SS
156-60-5	trans-1,2-Dichloroethylene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	02/21/2020 07:30	02/21/2020 16:05	SS
10061-02-6	trans-1,3-Dichloropropylene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	02/21/2020 07:30	02/21/2020 16:05	SS
79-01-6	**Trichloroethylene**	**1.2**		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	02/21/2020 07:30	02/21/2020 16:05	SS
75-69-4	Trichlorofluoromethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	02/21/2020 07:30	02/21/2020 16:05	SS
75-01-4	Vinyl Chloride	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	02/21/2020 07:30	02/21/2020 16:05	SS
1330-20-7	Xylenes, Total	ND		ug/L	0.60	1.5	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	02/21/2020 07:30	02/21/2020 16:05	SS

	Surrogate Recoveries	Result	Acceptance Range
17060-07-0	*Surrogate: SURR: 1,2-Dichloroethane-d4*	*92.8 %*	*69-130*
2037-26-5	*Surrogate: SURR: Toluene-d8*	*96.1 %*	*81-117*
460-00-4	*Surrogate: SURR: p-Bromofluorobenzene*	*116 %*	*79-122*

Methane, Ethane & Ethylene

Log-in Notes:

Sample Notes:

Sample Prepared by Method: Preparation for GC Analysis

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
74-82-8	* **Methane**	**250**		ug/L	10	1	GC/Headspace Certifications:	02/27/2020 08:00	02/27/2020 10:32	RB
74-84-0	* Ethane	ND		ug/L	10	1	GC/Headspace Certifications:	02/27/2020 08:00	02/27/2020 10:32	RB
74-85-1	* Ethylene (Ethene)	ND		ug/L	10	1	GC/Headspace Certifications:	02/27/2020 08:00	02/27/2020 10:32	RB

Iron, Dissolved by EPA 200.8

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 200.8

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7439-89-6	* **Iron**	**465**		ug/L	10.0	1	EPA 200.8 Certifications: CTDOH	02/25/2020 10:17	02/26/2020 13:34	BML

Sample Information

Client Sample ID: MW-98-05AR-20200219 **York Sample ID:** 20B0740-01

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
20B0740	1690016505 Rowe Industries	Water	February 19, 2020 1:58 pm	02/19/2020

Nitrate as N

Log-in Notes: **Sample Notes:**

Sample Prepared by Method: EPA 300

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
14797-55-8	**Nitrate as N**	**0.649**		mg/L	0.0500	1	EPA 300.0	02/20/2020 18:01	02/21/2020 02:42	MAO
							Certifications:	NELAC-NY10854,CTDOH,NJDEP,PADEP		

Nitrite as N

Log-in Notes: **Sample Notes:**

Sample Prepared by Method: EPA 300

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
14797-65-0	Nitrite as N	ND		mg/L	0.0500	1	EPA 300.0	02/20/2020 18:01	02/21/2020 02:42	MAO
							Certifications:	NELAC-NY10854,CTDOH,PADEP		

Sulfate as SO4

Log-in Notes: **Sample Notes:**

Sample Prepared by Method: EPA 300

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
14808-79-8	**Sulfate**	**6.84**		mg/L	1.00	1	EPA 300.0	02/20/2020 18:01	02/21/2020 02:42	MAO
							Certifications:	NELAC-NY10854,CTDOH,NJDEP,PADEP		

Total Organic Carbon

Log-in Notes: **Sample Notes:**

Sample Prepared by Method: Analysis Preparation

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
	Total Organic Carbon (TOC)	**2.66**		mg/L	1.00	1	SM 5310C	02/25/2020 11:16	02/26/2020 09:26	AD
							Certifications:	NELAC-NY10854,CTDOH,NJDEP,PADEP		

Sample Information

Client Sample ID: MW-98-04-20200219 **York Sample ID:** 20B0740-02

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
20B0740	1690016505 Rowe Industries	Water	February 19, 2020 4:17 pm	02/19/2020

Volatile Organics, 8260 List - Low Level

Log-in Notes: **Sample Notes:**

Sample Prepared by Method: EPA 5030B

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
630-20-6	1,1,1,2-Tetrachloroethane	ND		ug/L	0.20	0.50	1	EPA 8260C	02/21/2020 07:30	02/21/2020 16:34	SS
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJ		
71-55-6	1,1,1-Trichloroethane	ND		ug/L	0.20	0.50	1	EPA 8260C	02/21/2020 07:30	02/21/2020 16:34	SS
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJ		
79-34-5	1,1,2,2-Tetrachloroethane	ND		ug/L	0.20	0.50	1	EPA 8260C	02/21/2020 07:30	02/21/2020 16:34	SS
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJ		

Sample Information

Client Sample ID: MW-98-04-20200219 **York Sample ID:** 20B0740-02

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
20B0740	1690016505 Rowe Industries	Water	February 19, 2020 4:17 pm	02/19/2020

Volatile Organics, 8260 List - Low Level

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 5030B

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications:	02/21/2020 07:30	02/21/2020 16:34 CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	SS
79-00-5	1,1,2-Trichloroethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications:	02/21/2020 07:30	02/21/2020 16:34 CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	SS
75-34-3	1,1-Dichloroethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications:	02/21/2020 07:30	02/21/2020 16:34 CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	SS
75-35-4	1,1-Dichloroethylene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications:	02/21/2020 07:30	02/21/2020 16:34 CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	SS
563-58-6	1,1-Dichloropropylene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications:	02/21/2020 07:30	02/21/2020 16:34 NELAC-NY10854,NELAC-NY12058,NJDEP	SS
87-61-6	1,2,3-Trichlorobenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications:	02/21/2020 07:30	02/21/2020 16:34 NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	SS
96-18-4	1,2,3-Trichloropropane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications:	02/21/2020 07:30	02/21/2020 16:34 NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	SS
95-93-2	* 1,2,4,5-Tetramethylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications:	02/21/2020 07:30	02/21/2020 16:34	SS
120-82-1	1,2,4-Trichlorobenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications:	02/21/2020 07:30	02/21/2020 16:34 NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	SS
95-63-6	1,2,4-Trimethylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications:	02/21/2020 07:30	02/21/2020 16:34 CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	SS
96-12-8	1,2-Dibromo-3-chloropropane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications:	02/21/2020 07:30	02/21/2020 16:34 CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	SS
106-93-4	1,2-Dibromoethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications:	02/21/2020 07:30	02/21/2020 16:34 CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	SS
95-50-1	1,2-Dichlorobenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications:	02/21/2020 07:30	02/21/2020 16:34 CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	SS
107-06-2	1,2-Dichloroethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications:	02/21/2020 07:30	02/21/2020 16:34 CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	SS
78-87-5	1,2-Dichloropropane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications:	02/21/2020 07:30	02/21/2020 16:34 CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	SS
108-67-8	1,3,5-Trimethylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications:	02/21/2020 07:30	02/21/2020 16:34 CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	SS
541-73-1	1,3-Dichlorobenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications:	02/21/2020 07:30	02/21/2020 16:34 CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	SS
142-28-9	1,3-Dichloropropane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications:	02/21/2020 07:30	02/21/2020 16:34 NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	SS
106-46-7	1,4-Dichlorobenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications:	02/21/2020 07:30	02/21/2020 16:34 CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	SS
594-20-7	2,2-Dichloropropane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications:	02/21/2020 07:30	02/21/2020 16:34 NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	SS
78-93-3	2-Butanone	ND		ug/L	0.20	2.0	1	EPA 8260C Certifications:	02/21/2020 07:30	02/21/2020 16:34 CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	SS

Sample Information

Client Sample ID: MW-98-04-20200219 **York Sample ID:** 20B0740-02

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
20B0740	1690016505 Rowe Industries	Water	February 19, 2020 4:17 pm	02/19/2020

Volatile Organics, 8260 List - Low Level

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 5030B

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
95-49-8	2-Chlorotoluene	ND		ug/L	0.20	0.50	1	EPA 8260C	02/21/2020 07:30	02/21/2020 16:34	SS
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJ		
591-78-6	2-Hexanone	ND		ug/L	0.20	0.50	1	EPA 8260C	02/21/2020 07:30	02/21/2020 16:34	SS
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJ		
106-43-4	4-Chlorotoluene	ND		ug/L	0.20	0.50	1	EPA 8260C	02/21/2020 07:30	02/21/2020 16:34	SS
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJ		
108-10-1	4-Methyl-2-pentanone	ND		ug/L	0.20	0.50	1	EPA 8260C	02/21/2020 07:30	02/21/2020 16:34	SS
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJ		
67-64-1	Acetone	ND		ug/L	1.0	2.0	1	EPA 8260C	02/21/2020 07:30	02/21/2020 16:34	SS
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJ		
71-43-2	Benzene	ND		ug/L	0.20	0.50	1	EPA 8260C	02/21/2020 07:30	02/21/2020 16:34	SS
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJ		
108-86-1	Bromobenzene	ND		ug/L	0.20	0.50	1	EPA 8260C	02/21/2020 07:30	02/21/2020 16:34	SS
								Certifications:	NELAC-NY10854,NELAC-NY12058,NJDEP,PAI		
74-97-5	Bromochloromethane	ND		ug/L	0.20	0.50	1	EPA 8260C	02/21/2020 07:30	02/21/2020 16:34	SS
								Certifications:	NELAC-NY10854,NELAC-NY12058,NJDEP,PAI		
75-27-4	Bromodichloromethane	ND		ug/L	0.20	0.50	1	EPA 8260C	02/21/2020 07:30	02/21/2020 16:34	SS
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJ		
75-25-2	Bromoform	ND		ug/L	0.20	0.50	1	EPA 8260C	02/21/2020 07:30	02/21/2020 16:34	SS
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJ		
74-83-9	Bromomethane	ND		ug/L	0.20	0.50	1	EPA 8260C	02/21/2020 07:30	02/21/2020 16:34	SS
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJ		
75-15-0	Carbon disulfide	ND		ug/L	0.20	0.50	1	EPA 8260C	02/21/2020 07:30	02/21/2020 16:34	SS
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJ		
56-23-5	Carbon tetrachloride	ND		ug/L	0.20	0.50	1	EPA 8260C	02/21/2020 07:30	02/21/2020 16:34	SS
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJ		
108-90-7	Chlorobenzene	ND		ug/L	0.20	0.50	1	EPA 8260C	02/21/2020 07:30	02/21/2020 16:34	SS
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJ		
75-00-3	Chloroethane	ND		ug/L	0.20	0.50	1	EPA 8260C	02/21/2020 07:30	02/21/2020 16:34	SS
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJ		
67-66-3	Chloroform	ND		ug/L	0.20	0.50	1	EPA 8260C	02/21/2020 07:30	02/21/2020 16:34	SS
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJ		
74-87-3	Chloromethane	ND		ug/L	0.20	0.50	1	EPA 8260C	02/21/2020 07:30	02/21/2020 16:34	SS
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJ		
156-59-2	cis-1,2-Dichloroethylene	ND		ug/L	0.20	0.50	1	EPA 8260C	02/21/2020 07:30	02/21/2020 16:34	SS
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJ		
10061-01-5	cis-1,3-Dichloropropylene	ND		ug/L	0.20	0.50	1	EPA 8260C	02/21/2020 07:30	02/21/2020 16:34	SS
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJ		
124-48-1	Dibromochloromethane	ND		ug/L	0.20	0.50	1	EPA 8260C	02/21/2020 07:30	02/21/2020 16:34	SS
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJ		
74-95-3	Dibromomethane	ND		ug/L	0.20	0.50	1	EPA 8260C	02/21/2020 07:30	02/21/2020 16:34	SS
								Certifications:	NELAC-NY10854,NELAC-NY12058,NJDEP,PAI		

Sample Information

Client Sample ID: MW-98-04-20200219 **York Sample ID:** 20B0740-02

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
20B0740	1690016505 Rowe Industries	Water	February 19, 2020 4:17 pm	02/19/2020

Volatile Organics, 8260 List - Low Level

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 5030B

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
75-71-8	Dichlorodifluoromethane	ND		ug/L	0.20	0.50	1	EPA 8260C	02/21/2020 07:30	02/21/2020 16:34	SS
								Certifications:	NELAC-NY10854,NELAC-NY12058,NJDEP,PAL		
100-41-4	Ethyl Benzene	ND		ug/L	0.20	0.50	1	EPA 8260C	02/21/2020 07:30	02/21/2020 16:34	SS
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJ		
87-68-3	Hexachlorobutadiene	ND		ug/L	0.20	0.50	1	EPA 8260C	02/21/2020 07:30	02/21/2020 16:34	SS
								Certifications:	NELAC-NY10854,NELAC-NY12058,NJDEP,PAL		
98-82-8	Isopropylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C	02/21/2020 07:30	02/21/2020 16:34	SS
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJ		
1634-04-4	Methyl tert-butyl ether (MTBE)	ND		ug/L	0.20	0.50	1	EPA 8260C	02/21/2020 07:30	02/21/2020 16:34	SS
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJ		
75-09-2	Methylene chloride	ND		ug/L	1.0	2.0	1	EPA 8260C	02/21/2020 07:30	02/21/2020 16:34	SS
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJ		
91-20-3	Naphthalene	ND		ug/L	1.0	2.0	1	EPA 8260C	02/21/2020 07:30	02/21/2020 16:34	SS
								Certifications:	NELAC-NY10854,NELAC-NY12058,NJDEP,PAL		
104-51-8	n-Butylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C	02/21/2020 07:30	02/21/2020 16:34	SS
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJ		
103-65-1	n-Propylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C	02/21/2020 07:30	02/21/2020 16:34	SS
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJ		
95-47-6	o-Xylene	ND		ug/L	0.20	0.50	1	EPA 8260C	02/21/2020 07:30	02/21/2020 16:34	SS
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,PA		
179601-23-1	p- & m- Xylenes	ND		ug/L	0.50	1.0	1	EPA 8260C	02/21/2020 07:30	02/21/2020 16:34	SS
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,PA		
105-05-5	* p-Diethylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C	02/21/2020 07:30	02/21/2020 16:34	SS
								Certifications:			
622-96-8	* p-Ethyltoluene	ND		ug/L	0.20	0.50	1	EPA 8260C	02/21/2020 07:30	02/21/2020 16:34	SS
								Certifications:			
99-87-6	p-Isopropyltoluene	ND		ug/L	0.20	0.50	1	EPA 8260C	02/21/2020 07:30	02/21/2020 16:34	SS
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJ		
135-98-8	sec-Butylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C	02/21/2020 07:30	02/21/2020 16:34	SS
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJ		
100-42-5	Styrene	ND		ug/L	0.20	0.50	1	EPA 8260C	02/21/2020 07:30	02/21/2020 16:34	SS
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJ		
98-06-6	tert-Butylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C	02/21/2020 07:30	02/21/2020 16:34	SS
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJ		
127-18-4	Tetrachloroethylene	ND		ug/L	0.20	0.50	1	EPA 8260C	02/21/2020 07:30	02/21/2020 16:34	SS
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJ		
108-88-3	Toluene	ND		ug/L	0.20	0.50	1	EPA 8260C	02/21/2020 07:30	02/21/2020 16:34	SS
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJ		
156-60-5	trans-1,2-Dichloroethylene	ND		ug/L	0.20	0.50	1	EPA 8260C	02/21/2020 07:30	02/21/2020 16:34	SS
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJ		
10061-02-6	trans-1,3-Dichloropropylene	ND		ug/L	0.20	0.50	1	EPA 8260C	02/21/2020 07:30	02/21/2020 16:34	SS
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJ		

Sample Information

Client Sample ID: MW-98-04-20200219 **York Sample ID:** 20B0740-02

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
20B0740	1690016505 Rowe Industries	Water	February 19, 2020 4:17 pm	02/19/2020

Volatile Organics, 8260 List - Low Level

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 5030B

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
79-01-6	Trichloroethylene	ND		ug/L	0.20	0.50	1	EPA 8260C	02/21/2020 07:30	02/21/2020 16:34	SS
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJ		
75-69-4	Trichlorofluoromethane	ND		ug/L	0.20	0.50	1	EPA 8260C	02/21/2020 07:30	02/21/2020 16:34	SS
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJ		
75-01-4	Vinyl Chloride	ND		ug/L	0.20	0.50	1	EPA 8260C	02/21/2020 07:30	02/21/2020 16:34	SS
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJ		
1330-20-7	Xylenes, Total	ND		ug/L	0.60	1.5	1	EPA 8260C	02/21/2020 07:30	02/21/2020 16:34	SS
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJ		

	Surrogate Recoveries	Result	Acceptance Range
17060-07-0	*Surrogate: SURR: 1,2-Dichloroethane-d4*	*98.5 %*	*69-130*
2037-26-5	*Surrogate: SURR: Toluene-d8*	*96.3 %*	*81-117*
460-00-4	*Surrogate: SURR: p-Bromofluorobenzene*	*114 %*	*79-122*

Volatile Analysis Sample Containers

Lab ID	Client Sample ID	Volatile Sample Container
20B0740-01	MW-98-05AR-20200219	40mL Clear Vial (pre-pres.) HCl; Cool to 4° C
20B0740-02	MW-98-04-20200219	40mL Clear Vial (pre-pres.) HCl; Cool to 4° C

Sample and Data Qualifiers Relating to This Work Order

SCAL-E	The value reported is ESTIMATED. The value is estimated due to its behavior during initial calibration (average Rf>20%).
QL-02	This LCS analyte is outside Laboratory Recovery limits due the analyte behavior using the referenced method. The reference method has certain limitations with respect to analytes of this nature.
CCV-E	The value reported is ESTIMATED. The value is estimated due to its behavior during continuing calibration verification (>20% Difference for average Rf or >20% Drift for quadratic fit).

Definitions and Other Explanations

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

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

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

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

Certification for pH is no longer offered by NYDOH ELAP.

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

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

York Analytical Laboratories, Inc.
120 Research Drive Stratford, CT 06615
132-02 89th Ave Queens, NY 11418
clientservices@yorklab.com
www.yorklab.com

Field Chain-of-Custody Record

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

YORK Project No. 20B0740

YOUR Information	Report To:	Invoice To:
Company: Ramboll	Company: Ramboll	Company: Ramboll
Address: 315 W 36th St. 4th Floor NY, NY 10018	Address: 234 W Florida St. 5th Flr Milwaukee WI 53204	Address: 234 W Florida St 5th Flr Milwaukee WI 53204
Phone: 6469409972	Phone: 262-901-0127	Phone: 262-901-0127
Contact: Claire Elias / Ellie Seery	Contact: Mark Mejac	Contact: Mark Mejac
E-mail: CElias@ramboll.com / eseery@ramboll.com	E-mail: mmejac@ramboll.com	E-mail: mmejac@ramboll.com

YOUR Project Number: 1690016505

YOUR Project Name: Rowe Industries

YOUR PO#:

Turn-Around Time

RUSH - Next Day	
RUSH - Two Day	
RUSH - Three Day	
RUSH - Four Day	
Standard (5-7 Day)	X

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.

Samples Collected by: (print your name above and sign below)
Claire Elias
Ellie Seery

Matrix Codes
S - soil / solid
GW - groundwater
DW - drinking water
WW - wastewater
O - Oil ¦ Other

Samples From
New York X
New Jersey
Connecticut
Pennsylvania
Other

Report / EDD Type (circle selections)
Summary Report | CT RCP | Standard Excel EDD
QA Report | CT RCP DQA/DUE | EQuIS (Standard)
NY ASP A Package | NJDEP Reduced Deliverables | NYSDEC EQuIS
NY ASP B Package | NJDKQP | NJDEP SRP HazSite
Other: EQuIS 4

YORK Reg. Comp.
Compared to the following Regulation(s): (please fill in)

Sample Identification	Sample Matrix	Date/Time Sampled	Analysis Requested	Container Description
MW-98-05AR-20200219	GW	2/19/20 13:53	VOCs (8260) / Sulfate (300) / Ethane/Ethene/Methane (RSK175) / 6010B/200.7 / 9060 / 353.2	500/250 plastic U.P. / 6 HCl / 3 U.P.
MW-98-04-20200219	GW	2/19/20 16:17	VOCs (8260)	3 HCl vials

Comments: Lab - Filtering for Dissolved Iron

Preservation: (check all that apply)
HCl X MeOH ___ HNO3 ___ H2SO4 ___ NaOH ___ ZnAc ___
Ascorbic Acid ___ Other: ___

Special Instruction
Field Filtered ___
Lab to Filter X

Samples Relinquished by / Company	Date/Time	Samples Received by / Company	Date/Time	Samples Relinquished by / Company	Date/Time
Ramboll Claire Elias	16:30 2/19/20	KBarkwork	2/20/20 430pm	KBarkwork	2/19/20 1958
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 / Temp. Received at Lab
				TGark	2/19/2020 1958 / 1.8 Degrees C

Technical Report

prepared for:

Ramboll US Corp.
100 Pearl Street, East Tower, Third Floor
Hartford CT, 06102
Attention: Mark Mejac

Report Date: 02/27/2020
Client Project ID: 1690016505 Rowe Industries
York Project (SDG) No.: 20B0768

Report Date: 02/27/2020
Client Project ID: 1690016505 Rowe Industries
York Project (SDG) No.: 20B0768

Ramboll US Corp.
100 Pearl Street, East Tower, Third Floor
Hartford CT, 06102
Attention: Mark Mejac

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 February 20, 2020 with a temperature of 14.6 C. The project was identified as your project: **1690016505 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.

York Sample ID	Client Sample ID	Matrix	Date Collected	Date Received
20B0768-01	MW-45A-20200220	Water	02/20/2020	02/20/2020
20B0768-02	FRW1-20200220	Water	02/20/2020	02/20/2020
20B0768-03	DUP-20200220	Water	02/20/2020	02/20/2020
20B0768-04	TB01-20200220	Water	02/20/2020	02/20/2020
20B0768-05	MW-98-01A-20200220	Water	02/20/2020	02/20/2020

General Notes for York Project (SDG) No.: 20B0768

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: 

Date: 02/27/2020

Benjamin Gulizia
Laboratory Director

Sample Information

Client Sample ID: MW-45A-20200220 **York Sample ID:** 20B0768-01

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
20B0768	1690016505 Rowe Industries	Water	February 20, 2020 8:55 am	02/20/2020

Volatile Organics, 8260 List - Low Level

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 5030B

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
630-20-6	1,1,1,2-Tetrachloroethane	ND		ug/L	0.20	0.50	1	EPA 8260C	02/25/2020 19:29	02/26/2020 06:31	LLJ
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJ		
71-55-6	1,1,1-Trichloroethane	ND		ug/L	0.20	0.50	1	EPA 8260C	02/25/2020 19:29	02/26/2020 06:31	LLJ
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJ		
79-34-5	1,1,2,2-Tetrachloroethane	ND		ug/L	0.20	0.50	1	EPA 8260C	02/25/2020 19:29	02/26/2020 06:31	LLJ
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJ		
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND		ug/L	0.20	0.50	1	EPA 8260C	02/25/2020 19:29	02/26/2020 06:31	LLJ
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJ		
79-00-5	1,1,2-Trichloroethane	ND		ug/L	0.20	0.50	1	EPA 8260C	02/25/2020 19:29	02/26/2020 06:31	LLJ
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJ		
75-34-3	1,1-Dichloroethane	ND		ug/L	0.20	0.50	1	EPA 8260C	02/25/2020 19:29	02/26/2020 06:31	LLJ
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJ		
75-35-4	1,1-Dichloroethylene	ND		ug/L	0.20	0.50	1	EPA 8260C	02/25/2020 19:29	02/26/2020 06:31	LLJ
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJ		
563-58-6	1,1-Dichloropropylene	ND		ug/L	0.20	0.50	1	EPA 8260C	02/25/2020 19:29	02/26/2020 06:31	LLJ
								Certifications:	NELAC-NY10854,NELAC-NY12058,NJDEP		
87-61-6	1,2,3-Trichlorobenzene	ND		ug/L	0.20	0.50	1	EPA 8260C	02/25/2020 19:29	02/26/2020 06:31	LLJ
								Certifications:	NELAC-NY10854,NELAC-NY12058,NJDEP,PAI		
96-18-4	1,2,3-Trichloropropane	ND		ug/L	0.20	0.50	1	EPA 8260C	02/25/2020 19:29	02/26/2020 06:31	LLJ
								Certifications:	NELAC-NY10854,NELAC-NY12058,NJDEP,PAI		
95-93-2	* 1,2,4,5-Tetramethylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C	02/25/2020 19:29	02/26/2020 06:31	LLJ
								Certifications:			
120-82-1	1,2,4-Trichlorobenzene	ND		ug/L	0.20	0.50	1	EPA 8260C	02/25/2020 19:29	02/26/2020 06:31	LLJ
								Certifications:	NELAC-NY10854,NELAC-NY12058,NJDEP,PAI		
95-63-6	1,2,4-Trimethylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C	02/25/2020 19:29	02/26/2020 06:31	LLJ
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJ		
96-12-8	1,2-Dibromo-3-chloropropane	ND		ug/L	0.20	0.50	1	EPA 8260C	02/25/2020 19:29	02/26/2020 06:31	LLJ
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJ		
106-93-4	1,2-Dibromoethane	ND		ug/L	0.20	0.50	1	EPA 8260C	02/25/2020 19:29	02/26/2020 06:31	LLJ
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJ		
95-50-1	1,2-Dichlorobenzene	ND		ug/L	0.20	0.50	1	EPA 8260C	02/25/2020 19:29	02/26/2020 06:31	LLJ
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJ		
107-06-2	1,2-Dichloroethane	ND		ug/L	0.20	0.50	1	EPA 8260C	02/25/2020 19:29	02/26/2020 06:31	LLJ
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJ		
78-87-5	1,2-Dichloropropane	ND		ug/L	0.20	0.50	1	EPA 8260C	02/25/2020 19:29	02/26/2020 06:31	LLJ
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJ		
108-67-8	1,3,5-Trimethylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C	02/25/2020 19:29	02/26/2020 06:31	LLJ
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJ		
541-73-1	1,3-Dichlorobenzene	ND		ug/L	0.20	0.50	1	EPA 8260C	02/25/2020 19:29	02/26/2020 06:31	LLJ
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJ		

Sample Information

Client Sample ID: MW-45A-20200220 **York Sample ID:** 20B0768-01

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
20B0768	1690016505 Rowe Industries	Water	February 20, 2020 8:55 am	02/20/2020

Volatile Organics, 8260 List - Low Level

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 5030B

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
142-28-9	1,3-Dichloropropane	ND		ug/L	0.20	0.50	1	EPA 8260C	02/25/2020 19:29	02/26/2020 06:31	LLJ
								Certifications:	NELAC-NY10854,NELAC-NY12058,NJDEP,PAL		
106-46-7	1,4-Dichlorobenzene	ND		ug/L	0.20	0.50	1	EPA 8260C	02/25/2020 19:29	02/26/2020 06:31	LLJ
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJ		
594-20-7	2,2-Dichloropropane	ND		ug/L	0.20	0.50	1	EPA 8260C	02/25/2020 19:29	02/26/2020 06:31	LLJ
								Certifications:	NELAC-NY10854,NELAC-NY12058,NJDEP,PAL		
78-93-3	2-Butanone	ND		ug/L	0.20	0.50	1	EPA 8260C	02/25/2020 19:29	02/26/2020 06:31	LLJ
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJ		
95-49-8	2-Chlorotoluene	ND		ug/L	0.20	0.50	1	EPA 8260C	02/25/2020 19:29	02/26/2020 06:31	LLJ
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJ		
591-78-6	2-Hexanone	ND		ug/L	0.20	0.50	1	EPA 8260C	02/25/2020 19:29	02/26/2020 06:31	LLJ
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJ		
106-43-4	4-Chlorotoluene	ND		ug/L	0.20	0.50	1	EPA 8260C	02/25/2020 19:29	02/26/2020 06:31	LLJ
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJ		
108-10-1	4-Methyl-2-pentanone	ND		ug/L	0.20	0.50	1	EPA 8260C	02/25/2020 19:29	02/26/2020 06:31	LLJ
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJ		
67-64-1	Acetone	ND		ug/L	1.0	2.0	1	EPA 8260C	02/25/2020 19:29	02/26/2020 06:31	LLJ
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJ		
71-43-2	Benzene	ND		ug/L	0.20	0.50	1	EPA 8260C	02/25/2020 19:29	02/26/2020 06:31	LLJ
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJ		
108-86-1	Bromobenzene	ND		ug/L	0.20	0.50	1	EPA 8260C	02/25/2020 19:29	02/26/2020 06:31	LLJ
								Certifications:	NELAC-NY10854,NELAC-NY12058,NJDEP,PAL		
74-97-5	Bromochloromethane	ND		ug/L	0.20	0.50	1	EPA 8260C	02/25/2020 19:29	02/26/2020 06:31	LLJ
								Certifications:	NELAC-NY10854,NELAC-NY12058,NJDEP,PAL		
75-27-4	Bromodichloromethane	ND		ug/L	0.20	0.50	1	EPA 8260C	02/25/2020 19:29	02/26/2020 06:31	LLJ
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJ		
75-25-2	Bromoform	ND		ug/L	0.20	0.50	1	EPA 8260C	02/25/2020 19:29	02/26/2020 06:31	LLJ
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJ		
74-83-9	Bromomethane	ND		ug/L	0.20	0.50	1	EPA 8260C	02/25/2020 19:29	02/26/2020 06:31	LLJ
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJ		
75-15-0	Carbon disulfide	ND		ug/L	0.20	0.50	1	EPA 8260C	02/25/2020 19:29	02/26/2020 06:31	LLJ
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJ		
56-23-5	Carbon tetrachloride	ND		ug/L	0.20	0.50	1	EPA 8260C	02/25/2020 19:29	02/26/2020 06:31	LLJ
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJ		
108-90-7	Chlorobenzene	ND		ug/L	0.20	0.50	1	EPA 8260C	02/25/2020 19:29	02/26/2020 06:31	LLJ
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJ		
75-00-3	Chloroethane	ND		ug/L	0.20	0.50	1	EPA 8260C	02/25/2020 19:29	02/26/2020 06:31	LLJ
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJ		
67-66-3	Chloroform	ND		ug/L	0.20	0.50	1	EPA 8260C	02/25/2020 19:29	02/26/2020 06:31	LLJ
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJ		
74-87-3	Chloromethane	ND		ug/L	0.20	0.50	1	EPA 8260C	02/25/2020 19:29	02/26/2020 06:31	LLJ
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJ		

Sample Information

Client Sample ID: MW-45A-20200220 **York Sample ID:** 20B0768-01

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
20B0768	1690016505 Rowe Industries	Water	February 20, 2020 8:55 am	02/20/2020

Volatile Organics, 8260 List - Low Level

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 5030B

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
156-59-2	cis-1,2-Dichloroethylene	ND		ug/L	0.20	0.50	1	EPA 8260C	02/25/2020 19:29	02/26/2020 06:31	LLJ
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJ		
10061-01-5	cis-1,3-Dichloropropylene	ND		ug/L	0.20	0.50	1	EPA 8260C	02/25/2020 19:29	02/26/2020 06:31	LLJ
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJ		
124-48-1	Dibromochloromethane	ND		ug/L	0.20	0.50	1	EPA 8260C	02/25/2020 19:29	02/26/2020 06:31	LLJ
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJ		
74-95-3	Dibromomethane	ND		ug/L	0.20	0.50	1	EPA 8260C	02/25/2020 19:29	02/26/2020 06:31	LLJ
								Certifications:	NELAC-NY10854,NELAC-NY12058,NJDEP,PAI		
75-71-8	Dichlorodifluoromethane	ND		ug/L	0.20	0.50	1	EPA 8260C	02/25/2020 19:29	02/26/2020 06:31	LLJ
								Certifications:	NELAC-NY10854,NELAC-NY12058,NJDEP,PAI		
100-41-4	Ethyl Benzene	ND		ug/L	0.20	0.50	1	EPA 8260C	02/25/2020 19:29	02/26/2020 06:31	LLJ
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJ		
87-68-3	Hexachlorobutadiene	ND		ug/L	0.20	0.50	1	EPA 8260C	02/25/2020 19:29	02/26/2020 06:31	LLJ
								Certifications:	NELAC-NY10854,NELAC-NY12058,NJDEP,PAI		
98-82-8	Isopropylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C	02/25/2020 19:29	02/26/2020 06:31	LLJ
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJ		
1634-04-4	Methyl tert-butyl ether (MTBE)	ND		ug/L	0.20	0.50	1	EPA 8260C	02/25/2020 19:29	02/26/2020 06:31	LLJ
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJ		
75-09-2	Methylene chloride	ND		ug/L	1.0	2.0	1	EPA 8260C	02/25/2020 19:29	02/26/2020 06:31	LLJ
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJ		
91-20-3	Naphthalene	ND		ug/L	1.0	2.0	1	EPA 8260C	02/25/2020 19:29	02/26/2020 06:31	LLJ
								Certifications:	NELAC-NY10854,NELAC-NY12058,NJDEP,PAI		
104-51-8	n-Butylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C	02/25/2020 19:29	02/26/2020 06:31	LLJ
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJ		
103-65-1	n-Propylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C	02/25/2020 19:29	02/26/2020 06:31	LLJ
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJ		
95-47-6	o-Xylene	ND		ug/L	0.20	0.50	1	EPA 8260C	02/25/2020 19:29	02/26/2020 06:31	LLJ
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,PA		
179601-23-1	p- & m- Xylenes	ND		ug/L	0.50	1.0	1	EPA 8260C	02/25/2020 19:29	02/26/2020 06:31	LLJ
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,PA		
105-05-5	* p-Diethylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C	02/25/2020 19:29	02/26/2020 06:31	LLJ
								Certifications:			
622-96-8	* p-Ethyltoluene	ND		ug/L	0.20	0.50	1	EPA 8260C	02/25/2020 19:29	02/26/2020 06:31	LLJ
								Certifications:			
99-87-6	p-Isopropyltoluene	ND		ug/L	0.20	0.50	1	EPA 8260C	02/25/2020 19:29	02/26/2020 06:31	LLJ
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJ		
135-98-8	sec-Butylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C	02/25/2020 19:29	02/26/2020 06:31	LLJ
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJ		
100-42-5	Styrene	ND		ug/L	0.20	0.50	1	EPA 8260C	02/25/2020 19:29	02/26/2020 06:31	LLJ
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJ		
98-06-6	tert-Butylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C	02/25/2020 19:29	02/26/2020 06:31	LLJ
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJ		

Sample Information

Client Sample ID: MW-45A-20200220 **York Sample ID:** 20B0768-01

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
20B0768	1690016505 Rowe Industries	Water	February 20, 2020 8:55 am	02/20/2020

Volatile Organics, 8260 List - Low Level

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 5030B

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
127-18-4	Tetrachloroethylene	ND		ug/L	0.20	0.50	1	EPA 8260C	02/25/2020 19:29	02/26/2020 06:31	LLJ
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJ		
108-88-3	Toluene	ND		ug/L	0.20	0.50	1	EPA 8260C	02/25/2020 19:29	02/26/2020 06:31	LLJ
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJ		
156-60-5	trans-1,2-Dichloroethylene	ND		ug/L	0.20	0.50	1	EPA 8260C	02/25/2020 19:29	02/26/2020 06:31	LLJ
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJ		
10061-02-6	trans-1,3-Dichloropropylene	ND		ug/L	0.20	0.50	1	EPA 8260C	02/25/2020 19:29	02/26/2020 06:31	LLJ
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJ		
79-01-6	Trichloroethylene	ND		ug/L	0.20	0.50	1	EPA 8260C	02/25/2020 19:29	02/26/2020 06:31	LLJ
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJ		
75-69-4	Trichlorofluoromethane	ND		ug/L	0.20	0.50	1	EPA 8260C	02/25/2020 19:29	02/26/2020 06:31	LLJ
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJ		
75-01-4	Vinyl Chloride	ND		ug/L	0.20	0.50	1	EPA 8260C	02/25/2020 19:29	02/26/2020 06:31	LLJ
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJ		
1330-20-7	Xylenes, Total	ND		ug/L	0.60	1.5	1	EPA 8260C	02/25/2020 19:29	02/26/2020 06:31	LLJ
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJ		

	Surrogate Recoveries	Result	Acceptance Range
17060-07-0	*Surrogate: SURR: 1,2-Dichloroethane-d4*	*115 %*	*69-130*
2037-26-5	*Surrogate: SURR: Toluene-d8*	*99.0 %*	*81-117*
460-00-4	*Surrogate: SURR: p-Bromofluorobenzene*	*99.4 %*	*79-122*

Sample Information

Client Sample ID: FRW1-20200220 **York Sample ID:** 20B0768-02

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
20B0768	1690016505 Rowe Industries	Water	February 20, 2020 12:28 pm	02/20/2020

Volatile Organics, 8260 List - Low Level

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 5030B

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
630-20-6	1,1,1,2-Tetrachloroethane	ND		ug/L	0.20	0.50	1	EPA 8260C	02/25/2020 19:29	02/26/2020 06:58	LLJ
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJ		
71-55-6	**1,1,1-Trichloroethane**	**0.57**		ug/L	0.20	0.50	1	EPA 8260C	02/25/2020 19:29	02/26/2020 06:58	LLJ
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJ		
79-34-5	1,1,2,2-Tetrachloroethane	ND		ug/L	0.20	0.50	1	EPA 8260C	02/25/2020 19:29	02/26/2020 06:58	LLJ
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJ		
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND		ug/L	0.20	0.50	1	EPA 8260C	02/25/2020 19:29	02/26/2020 06:58	LLJ
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJ		

Sample Information

Client Sample ID: FRW1-20200220 **York Sample ID:** 20B0768-02

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
20B0768	1690016505 Rowe Industries	Water	February 20, 2020 12:28 pm	02/20/2020

Volatile Organics, 8260 List - Low Level

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 5030B

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
79-00-5	1,1,2-Trichloroethane	ND		ug/L	0.20	0.50	1	EPA 8260C	02/25/2020 19:29	02/26/2020 06:58	LLJ
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJ		
75-34-3	1,1-Dichloroethane	ND		ug/L	0.20	0.50	1	EPA 8260C	02/25/2020 19:29	02/26/2020 06:58	LLJ
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJ		
75-35-4	1,1-Dichloroethylene	ND		ug/L	0.20	0.50	1	EPA 8260C	02/25/2020 19:29	02/26/2020 06:58	LLJ
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJ		
563-58-6	1,1-Dichloropropylene	ND		ug/L	0.20	0.50	1	EPA 8260C	02/25/2020 19:29	02/26/2020 06:58	LLJ
								Certifications:	NELAC-NY10854,NELAC-NY12058,NJDEP		
87-61-6	1,2,3-Trichlorobenzene	ND		ug/L	0.20	0.50	1	EPA 8260C	02/25/2020 19:29	02/26/2020 06:58	LLJ
								Certifications:	NELAC-NY10854,NELAC-NY12058,NJDEP,PAI		
96-18-4	1,2,3-Trichloropropane	ND		ug/L	0.20	0.50	1	EPA 8260C	02/25/2020 19:29	02/26/2020 06:58	LLJ
								Certifications:	NELAC-NY10854,NELAC-NY12058,NJDEP,PAI		
95-93-2	* 1,2,4,5-Tetramethylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C	02/25/2020 19:29	02/26/2020 06:58	LLJ
								Certifications:			
120-82-1	1,2,4-Trichlorobenzene	ND		ug/L	0.20	0.50	1	EPA 8260C	02/25/2020 19:29	02/26/2020 06:58	LLJ
								Certifications:	NELAC-NY10854,NELAC-NY12058,NJDEP,PAI		
95-63-6	1,2,4-Trimethylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C	02/25/2020 19:29	02/26/2020 06:58	LLJ
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJ		
96-12-8	1,2-Dibromo-3-chloropropane	ND		ug/L	0.20	0.50	1	EPA 8260C	02/25/2020 19:29	02/26/2020 06:58	LLJ
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJ		
106-93-4	1,2-Dibromoethane	ND		ug/L	0.20	0.50	1	EPA 8260C	02/25/2020 19:29	02/26/2020 06:58	LLJ
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJ		
95-50-1	1,2-Dichlorobenzene	ND		ug/L	0.20	0.50	1	EPA 8260C	02/25/2020 19:29	02/26/2020 06:58	LLJ
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJ		
107-06-2	1,2-Dichloroethane	ND		ug/L	0.20	0.50	1	EPA 8260C	02/25/2020 19:29	02/26/2020 06:58	LLJ
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJ		
78-87-5	1,2-Dichloropropane	ND		ug/L	0.20	0.50	1	EPA 8260C	02/25/2020 19:29	02/26/2020 06:58	LLJ
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJ		
108-67-8	1,3,5-Trimethylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C	02/25/2020 19:29	02/26/2020 06:58	LLJ
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJ		
541-73-1	1,3-Dichlorobenzene	ND		ug/L	0.20	0.50	1	EPA 8260C	02/25/2020 19:29	02/26/2020 06:58	LLJ
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJ		
142-28-9	1,3-Dichloropropane	ND		ug/L	0.20	0.50	1	EPA 8260C	02/25/2020 19:29	02/26/2020 06:58	LLJ
								Certifications:	NELAC-NY10854,NELAC-NY12058,NJDEP,PAI		
106-46-7	1,4-Dichlorobenzene	ND		ug/L	0.20	0.50	1	EPA 8260C	02/25/2020 19:29	02/26/2020 06:58	LLJ
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJ		
594-20-7	2,2-Dichloropropane	ND		ug/L	0.20	0.50	1	EPA 8260C	02/25/2020 19:29	02/26/2020 06:58	LLJ
								Certifications:	NELAC-NY10854,NELAC-NY12058,NJDEP,PAI		
78-93-3	2-Butanone	ND		ug/L	0.20	0.50	1	EPA 8260C	02/25/2020 19:29	02/26/2020 06:58	LLJ
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJ		
95-49-8	2-Chlorotoluene	ND		ug/L	0.20	0.50	1	EPA 8260C	02/25/2020 19:29	02/26/2020 06:58	LLJ
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJ		

Sample Information

Client Sample ID: FRW1-20200220 **York Sample ID:** 20B0768-02

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
20B0768	1690016505 Rowe Industries	Water	February 20, 2020 12:28 pm	02/20/2020

Volatile Organics, 8260 List - Low Level

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 5030B

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
591-78-6	2-Hexanone	ND		ug/L	0.20	0.50	1	EPA 8260C	02/25/2020 19:29	02/26/2020 06:58	LLJ
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJ		
106-43-4	4-Chlorotoluene	ND		ug/L	0.20	0.50	1	EPA 8260C	02/25/2020 19:29	02/26/2020 06:58	LLJ
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJ		
108-10-1	4-Methyl-2-pentanone	ND		ug/L	0.20	0.50	1	EPA 8260C	02/25/2020 19:29	02/26/2020 06:58	LLJ
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJ		
67-64-1	Acetone	ND		ug/L	1.0	2.0	1	EPA 8260C	02/25/2020 19:29	02/26/2020 06:58	LLJ
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJ		
71-43-2	Benzene	ND		ug/L	0.20	0.50	1	EPA 8260C	02/25/2020 19:29	02/26/2020 06:58	LLJ
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJ		
108-86-1	Bromobenzene	ND		ug/L	0.20	0.50	1	EPA 8260C	02/25/2020 19:29	02/26/2020 06:58	LLJ
								Certifications:	NELAC-NY10854,NELAC-NY12058,NJDEP,PAI		
74-97-5	Bromochloromethane	ND		ug/L	0.20	0.50	1	EPA 8260C	02/25/2020 19:29	02/26/2020 06:58	LLJ
								Certifications:	NELAC-NY10854,NELAC-NY12058,NJDEP,PAI		
75-27-4	Bromodichloromethane	ND		ug/L	0.20	0.50	1	EPA 8260C	02/25/2020 19:29	02/26/2020 06:58	LLJ
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJ		
75-25-2	Bromoform	ND		ug/L	0.20	0.50	1	EPA 8260C	02/25/2020 19:29	02/26/2020 06:58	LLJ
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJ		
74-83-9	Bromomethane	ND		ug/L	0.20	0.50	1	EPA 8260C	02/25/2020 19:29	02/26/2020 06:58	LLJ
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJ		
75-15-0	Carbon disulfide	ND		ug/L	0.20	0.50	1	EPA 8260C	02/25/2020 19:29	02/26/2020 06:58	LLJ
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJ		
56-23-5	Carbon tetrachloride	ND		ug/L	0.20	0.50	1	EPA 8260C	02/25/2020 19:29	02/26/2020 06:58	LLJ
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJ		
108-90-7	Chlorobenzene	ND		ug/L	0.20	0.50	1	EPA 8260C	02/25/2020 19:29	02/26/2020 06:58	LLJ
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJ		
75-00-3	Chloroethane	ND		ug/L	0.20	0.50	1	EPA 8260C	02/25/2020 19:29	02/26/2020 06:58	LLJ
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJ		
67-66-3	Chloroform	ND		ug/L	0.20	0.50	1	EPA 8260C	02/25/2020 19:29	02/26/2020 06:58	LLJ
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJ		
74-87-3	Chloromethane	ND		ug/L	0.20	0.50	1	EPA 8260C	02/25/2020 19:29	02/26/2020 06:58	LLJ
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJ		
156-59-2	cis-1,2-Dichloroethylene	ND		ug/L	0.20	0.50	1	EPA 8260C	02/25/2020 19:29	02/26/2020 06:58	LLJ
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJ		
10061-01-5	cis-1,3-Dichloropropylene	ND		ug/L	0.20	0.50	1	EPA 8260C	02/25/2020 19:29	02/26/2020 06:58	LLJ
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJ		
124-48-1	Dibromochloromethane	ND		ug/L	0.20	0.50	1	EPA 8260C	02/25/2020 19:29	02/26/2020 06:58	LLJ
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJ		
74-95-3	Dibromomethane	ND		ug/L	0.20	0.50	1	EPA 8260C	02/25/2020 19:29	02/26/2020 06:58	LLJ
								Certifications:	NELAC-NY10854,NELAC-NY12058,NJDEP,PAI		
75-71-8	Dichlorodifluoromethane	ND		ug/L	0.20	0.50	1	EPA 8260C	02/25/2020 19:29	02/26/2020 06:58	LLJ
								Certifications:	NELAC-NY10854,NELAC-NY12058,NJDEP,PAI		

Sample Information

Client Sample ID: FRW1-20200220 **York Sample ID:** 20B0768-02

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
20B0768	1690016505 Rowe Industries	Water	February 20, 2020 12:28 pm	02/20/2020

Volatile Organics, 8260 List - Low Level

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 5030B

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
100-41-4	Ethyl Benzene	ND		ug/L	0.20	0.50	1	EPA 8260C	02/25/2020 19:29	02/26/2020 06:58	LLJ
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJ		
87-68-3	Hexachlorobutadiene	ND		ug/L	0.20	0.50	1	EPA 8260C	02/25/2020 19:29	02/26/2020 06:58	LLJ
								Certifications:	NELAC-NY10854,NELAC-NY12058,NJDEP,PAL		
98-82-8	Isopropylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C	02/25/2020 19:29	02/26/2020 06:58	LLJ
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJ		
1634-04-4	Methyl tert-butyl ether (MTBE)	ND		ug/L	0.20	0.50	1	EPA 8260C	02/25/2020 19:29	02/26/2020 06:58	LLJ
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJ		
75-09-2	Methylene chloride	ND		ug/L	1.0	2.0	1	EPA 8260C	02/25/2020 19:29	02/26/2020 06:58	LLJ
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJ		
91-20-3	Naphthalene	ND		ug/L	1.0	2.0	1	EPA 8260C	02/25/2020 19:29	02/26/2020 06:58	LLJ
								Certifications:	NELAC-NY10854,NELAC-NY12058,NJDEP,PAL		
104-51-8	n-Butylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C	02/25/2020 19:29	02/26/2020 06:58	LLJ
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJ		
103-65-1	n-Propylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C	02/25/2020 19:29	02/26/2020 06:58	LLJ
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJ		
95-47-6	o-Xylene	ND		ug/L	0.20	0.50	1	EPA 8260C	02/25/2020 19:29	02/26/2020 06:58	LLJ
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,PA		
179601-23-1	p- & m- Xylenes	ND		ug/L	0.50	1.0	1	EPA 8260C	02/25/2020 19:29	02/26/2020 06:58	LLJ
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,PA		
105-05-5	* p-Diethylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C	02/25/2020 19:29	02/26/2020 06:58	LLJ
								Certifications:			
622-96-8	* p-Ethyltoluene	ND		ug/L	0.20	0.50	1	EPA 8260C	02/25/2020 19:29	02/26/2020 06:58	LLJ
								Certifications:			
99-87-6	p-Isopropyltoluene	ND		ug/L	0.20	0.50	1	EPA 8260C	02/25/2020 19:29	02/26/2020 06:58	LLJ
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJ		
135-98-8	sec-Butylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C	02/25/2020 19:29	02/26/2020 06:58	LLJ
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJ		
100-42-5	Styrene	ND		ug/L	0.20	0.50	1	EPA 8260C	02/25/2020 19:29	02/26/2020 06:58	LLJ
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJ		
98-06-6	tert-Butylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C	02/25/2020 19:29	02/26/2020 06:58	LLJ
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJ		
127-18-4	**Tetrachloroethylene**	**320**		ug/L	2.0	5.0	10	EPA 8260C	02/25/2020 19:29	02/27/2020 03:11	LLJ
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJ		
108-88-3	Toluene	ND		ug/L	0.20	0.50	1	EPA 8260C	02/25/2020 19:29	02/26/2020 06:58	LLJ
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJ		
156-60-5	trans-1,2-Dichloroethylene	ND		ug/L	0.20	0.50	1	EPA 8260C	02/25/2020 19:29	02/26/2020 06:58	LLJ
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJ		
10061-02-6	trans-1,3-Dichloropropylene	ND		ug/L	0.20	0.50	1	EPA 8260C	02/25/2020 19:29	02/26/2020 06:58	LLJ
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJ		
79-01-6	**Trichloroethylene**	**1.4**		ug/L	0.20	0.50	1	EPA 8260C	02/25/2020 19:29	02/26/2020 06:58	LLJ
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJ		
75-69-4	Trichlorofluoromethane	ND		ug/L	0.20	0.50	1	EPA 8260C	02/25/2020 19:29	02/26/2020 06:58	LLJ
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJ		

Sample Information

Client Sample ID: FRW1-20200220 **York Sample ID:** 20B0768-02

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
20B0768	1690016505 Rowe Industries	Water	February 20, 2020 12:28 pm	02/20/2020

Volatile Organics, 8260 List - Low Level

Log-in Notes: **Sample Notes:**

Sample Prepared by Method: EPA 5030B

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
75-01-4	Vinyl Chloride	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	02/25/2020 19:29	02/26/2020 06:58	LLJ
1330-20-7	Xylenes, Total	ND		ug/L	0.60	1.5	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	02/25/2020 19:29	02/26/2020 06:58	LLJ

	Surrogate Recoveries	Result	Acceptance Range
17060-07-0	*Surrogate: SURR: 1,2-Dichloroethane-d4*	*108 %*	*69-130*
2037-26-5	*Surrogate: SURR: Toluene-d8*	*99.9 %*	*81-117*
460-00-4	*Surrogate: SURR: p-Bromofluorobenzene*	*101 %*	*79-122*

Methane, Ethane & Ethylene

Log-in Notes: **Sample Notes:**

Sample Prepared by Method: Preparation for GC Analysis

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
74-82-8	* Methane	ND		ug/L	10	1	GC/Headspace Certifications:	02/27/2020 08:00	02/27/2020 10:51	RB
74-84-0	* Ethane	ND		ug/L	10	1	GC/Headspace Certifications:	02/27/2020 08:00	02/27/2020 10:51	RB
74-85-1	* Ethylene (Ethene)	ND		ug/L	10	1	GC/Headspace Certifications:	02/27/2020 08:00	02/27/2020 10:51	RB

Iron, Dissolved by EPA 200.8

Log-in Notes: **Sample Notes:**

Sample Prepared by Method: EPA 200.8

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7439-89-6	* Iron	ND		ug/L	10.0	1	EPA 200.8 Certifications: CTDOH	02/25/2020 10:17	02/26/2020 13:50	BML

Nitrate as N

Log-in Notes: **Sample Notes:**

Sample Prepared by Method: EPA 300

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
14797-55-8	**Nitrate as N**	**0.166**		mg/L	0.0500	1	EPA 300.0 Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	02/20/2020 18:32	02/20/2020 22:05	MAO

Nitrite as N

Log-in Notes: **Sample Notes:**

Sample Prepared by Method: EPA 300

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
14797-65-0	Nitrite as N	ND		mg/L	0.0500	1	EPA 300.0 Certifications: NELAC-NY10854,CTDOH,PADEP	02/20/2020 18:32	02/20/2020 22:05	MAO

Sample Information

Client Sample ID: FRW1-20200220 **York Sample ID:** 20B0768-02

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
20B0768	1690016505 Rowe Industries	Water	February 20, 2020 12:28 pm	02/20/2020

Sulfate as SO4

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 300

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
14808-79-8	**Sulfate**	**12.1**		mg/L	1.00	1	EPA 300.0	02/20/2020 18:32	02/20/2020 22:05	MAO
							Certifications:	NELAC-NY10854,CTDOH,NJDEP,PADEP		

Total Organic Carbon

Log-in Notes:

Sample Notes:

Sample Prepared by Method: Analysis Preparation

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
	Total Organic Carbon (TOC)	**2.17**		mg/L	1.00	1	SM 5310C	02/25/2020 11:16	02/26/2020 09:26	AD
							Certifications:	NELAC-NY10854,CTDOH,NJDEP,PADEP		

Sample Information

Client Sample ID: DUP-20200220 **York Sample ID:** 20B0768-03

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
20B0768	1690016505 Rowe Industries	Water	February 20, 2020 12:00 am	02/20/2020

Volatile Organics, 8260 List - Low Level

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 5030B

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
630-20-6	1,1,1,2-Tetrachloroethane	ND		ug/L	0.20	0.50	1	EPA 8260C	02/25/2020 19:29	02/26/2020 07:24	LLJ
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJ		
71-55-6	**1,1,1-Trichloroethane**	**0.68**		ug/L	0.20	0.50	1	EPA 8260C	02/25/2020 19:29	02/26/2020 07:24	LLJ
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJ		
79-34-5	1,1,2,2-Tetrachloroethane	ND		ug/L	0.20	0.50	1	EPA 8260C	02/25/2020 19:29	02/26/2020 07:24	LLJ
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJ		
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND		ug/L	0.20	0.50	1	EPA 8260C	02/25/2020 19:29	02/26/2020 07:24	LLJ
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJ		
79-00-5	1,1,2-Trichloroethane	ND		ug/L	0.20	0.50	1	EPA 8260C	02/25/2020 19:29	02/26/2020 07:24	LLJ
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJ		
75-34-3	1,1-Dichloroethane	ND		ug/L	0.20	0.50	1	EPA 8260C	02/25/2020 19:29	02/26/2020 07:24	LLJ
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJ		
75-35-4	1,1-Dichloroethylene	ND		ug/L	0.20	0.50	1	EPA 8260C	02/25/2020 19:29	02/26/2020 07:24	LLJ
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJ		
563-58-6	1,1-Dichloropropylene	ND		ug/L	0.20	0.50	1	EPA 8260C	02/25/2020 19:29	02/26/2020 07:24	LLJ
								Certifications:	NELAC-NY10854,NELAC-NY12058,NJDEP		
87-61-6	1,2,3-Trichlorobenzene	ND		ug/L	0.20	0.50	1	EPA 8260C	02/25/2020 19:29	02/26/2020 07:24	LLJ
								Certifications:	NELAC-NY10854,NELAC-NY12058,NJDEP,PAI		
96-18-4	1,2,3-Trichloropropane	ND		ug/L	0.20	0.50	1	EPA 8260C	02/25/2020 19:29	02/26/2020 07:24	LLJ
								Certifications:	NELAC-NY10854,NELAC-NY12058,NJDEP,PAI		

Sample Information

Client Sample ID: DUP-20200220 **York Sample ID:** 20B0768-03

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
20B0768	1690016505 Rowe Industries	Water	February 20, 2020 12:00 am	02/20/2020

Volatile Organics, 8260 List - Low Level

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 5030B

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
95-93-2	* 1,2,4,5-Tetramethylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C	02/25/2020 19:29	02/26/2020 07:24	LLJ
								Certifications:			
120-82-1	1,2,4-Trichlorobenzene	ND		ug/L	0.20	0.50	1	EPA 8260C	02/25/2020 19:29	02/26/2020 07:24	LLJ
								Certifications:	NELAC-NY10854,NELAC-NY12058,NJDEP,PAL		
95-63-6	1,2,4-Trimethylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C	02/25/2020 19:29	02/26/2020 07:24	LLJ
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJ		
96-12-8	1,2-Dibromo-3-chloropropane	ND		ug/L	0.20	0.50	1	EPA 8260C	02/25/2020 19:29	02/26/2020 07:24	LLJ
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJ		
106-93-4	1,2-Dibromoethane	ND		ug/L	0.20	0.50	1	EPA 8260C	02/25/2020 19:29	02/26/2020 07:24	LLJ
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJ		
95-50-1	1,2-Dichlorobenzene	ND		ug/L	0.20	0.50	1	EPA 8260C	02/25/2020 19:29	02/26/2020 07:24	LLJ
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJ		
107-06-2	1,2-Dichloroethane	ND		ug/L	0.20	0.50	1	EPA 8260C	02/25/2020 19:29	02/26/2020 07:24	LLJ
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJ		
78-87-5	1,2-Dichloropropane	ND		ug/L	0.20	0.50	1	EPA 8260C	02/25/2020 19:29	02/26/2020 07:24	LLJ
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJ		
108-67-8	1,3,5-Trimethylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C	02/25/2020 19:29	02/26/2020 07:24	LLJ
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJ		
541-73-1	1,3-Dichlorobenzene	ND		ug/L	0.20	0.50	1	EPA 8260C	02/25/2020 19:29	02/26/2020 07:24	LLJ
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJ		
142-28-9	1,3-Dichloropropane	ND		ug/L	0.20	0.50	1	EPA 8260C	02/25/2020 19:29	02/26/2020 07:24	LLJ
								Certifications:	NELAC-NY10854,NELAC-NY12058,NJDEP,PAL		
106-46-7	1,4-Dichlorobenzene	ND		ug/L	0.20	0.50	1	EPA 8260C	02/25/2020 19:29	02/26/2020 07:24	LLJ
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJ		
594-20-7	2,2-Dichloropropane	ND		ug/L	0.20	0.50	1	EPA 8260C	02/25/2020 19:29	02/26/2020 07:24	LLJ
								Certifications:	NELAC-NY10854,NELAC-NY12058,NJDEP,PAL		
78-93-3	2-Butanone	ND		ug/L	0.20	0.50	1	EPA 8260C	02/25/2020 19:29	02/26/2020 07:24	LLJ
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJ		
95-49-8	2-Chlorotoluene	ND		ug/L	0.20	0.50	1	EPA 8260C	02/25/2020 19:29	02/26/2020 07:24	LLJ
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJ		
591-78-6	2-Hexanone	ND		ug/L	0.20	0.50	1	EPA 8260C	02/25/2020 19:29	02/26/2020 07:24	LLJ
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJ		
106-43-4	4-Chlorotoluene	ND		ug/L	0.20	0.50	1	EPA 8260C	02/25/2020 19:29	02/26/2020 07:24	LLJ
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJ		
108-10-1	4-Methyl-2-pentanone	ND		ug/L	0.20	0.50	1	EPA 8260C	02/25/2020 19:29	02/26/2020 07:24	LLJ
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJ		
67-64-1	Acetone	ND		ug/L	1.0	2.0	1	EPA 8260C	02/25/2020 19:29	02/26/2020 07:24	LLJ
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJ		
71-43-2	Benzene	ND		ug/L	0.20	0.50	1	EPA 8260C	02/25/2020 19:29	02/26/2020 07:24	LLJ
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJ		
108-86-1	Bromobenzene	ND		ug/L	0.20	0.50	1	EPA 8260C	02/25/2020 19:29	02/26/2020 07:24	LLJ
								Certifications:	NELAC-NY10854,NELAC-NY12058,NJDEP,PAL		

Sample Information

Client Sample ID: DUP-20200220 **York Sample ID:** 20B0768-03

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
20B0768	1690016505 Rowe Industries	Water	February 20, 2020 12:00 am	02/20/2020

Volatile Organics, 8260 List - Low Level

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 5030B

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
74-97-5	Bromochloromethane	ND		ug/L	0.20	0.50	1	EPA 8260C	02/25/2020 19:29	02/26/2020 07:24	LLJ
								Certifications:	NELAC-NY10854,NELAC-NY12058,NJDEP,PAL		
75-27-4	Bromodichloromethane	ND		ug/L	0.20	0.50	1	EPA 8260C	02/25/2020 19:29	02/26/2020 07:24	LLJ
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJ		
75-25-2	Bromoform	ND		ug/L	0.20	0.50	1	EPA 8260C	02/25/2020 19:29	02/26/2020 07:24	LLJ
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJ		
74-83-9	Bromomethane	ND		ug/L	0.20	0.50	1	EPA 8260C	02/25/2020 19:29	02/26/2020 07:24	LLJ
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJ		
75-15-0	Carbon disulfide	ND		ug/L	0.20	0.50	1	EPA 8260C	02/25/2020 19:29	02/26/2020 07:24	LLJ
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJ		
56-23-5	Carbon tetrachloride	ND		ug/L	0.20	0.50	1	EPA 8260C	02/25/2020 19:29	02/26/2020 07:24	LLJ
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJ		
108-90-7	Chlorobenzene	ND		ug/L	0.20	0.50	1	EPA 8260C	02/25/2020 19:29	02/26/2020 07:24	LLJ
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJ		
75-00-3	Chloroethane	ND		ug/L	0.20	0.50	1	EPA 8260C	02/25/2020 19:29	02/26/2020 07:24	LLJ
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJ		
67-66-3	Chloroform	ND		ug/L	0.20	0.50	1	EPA 8260C	02/25/2020 19:29	02/26/2020 07:24	LLJ
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJ		
74-87-3	Chloromethane	ND		ug/L	0.20	0.50	1	EPA 8260C	02/25/2020 19:29	02/26/2020 07:24	LLJ
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJ		
156-59-2	cis-1,2-Dichloroethylene	ND		ug/L	0.20	0.50	1	EPA 8260C	02/25/2020 19:29	02/26/2020 07:24	LLJ
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJ		
10061-01-5	cis-1,3-Dichloropropylene	ND		ug/L	0.20	0.50	1	EPA 8260C	02/25/2020 19:29	02/26/2020 07:24	LLJ
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJ		
124-48-1	Dibromochloromethane	ND		ug/L	0.20	0.50	1	EPA 8260C	02/25/2020 19:29	02/26/2020 07:24	LLJ
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJ		
74-95-3	Dibromomethane	ND		ug/L	0.20	0.50	1	EPA 8260C	02/25/2020 19:29	02/26/2020 07:24	LLJ
								Certifications:	NELAC-NY10854,NELAC-NY12058,NJDEP,PAL		
75-71-8	Dichlorodifluoromethane	ND		ug/L	0.20	0.50	1	EPA 8260C	02/25/2020 19:29	02/26/2020 07:24	LLJ
								Certifications:	NELAC-NY10854,NELAC-NY12058,NJDEP,PAL		
100-41-4	Ethyl Benzene	ND		ug/L	0.20	0.50	1	EPA 8260C	02/25/2020 19:29	02/26/2020 07:24	LLJ
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJ		
87-68-3	Hexachlorobutadiene	ND		ug/L	0.20	0.50	1	EPA 8260C	02/25/2020 19:29	02/26/2020 07:24	LLJ
								Certifications:	NELAC-NY10854,NELAC-NY12058,NJDEP,PAL		
98-82-8	Isopropylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C	02/25/2020 19:29	02/26/2020 07:24	LLJ
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJ		
1634-04-4	Methyl tert-butyl ether (MTBE)	ND		ug/L	0.20	0.50	1	EPA 8260C	02/25/2020 19:29	02/26/2020 07:24	LLJ
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJ		
75-09-2	Methylene chloride	ND		ug/L	1.0	2.0	1	EPA 8260C	02/25/2020 19:29	02/26/2020 07:24	LLJ
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJ		
91-20-3	Naphthalene	ND		ug/L	1.0	2.0	1	EPA 8260C	02/25/2020 19:29	02/26/2020 07:24	LLJ
								Certifications:	NELAC-NY10854,NELAC-NY12058,NJDEP,PAL		

Sample Information

Client Sample ID: DUP-20200220 **York Sample ID:** 20B0768-03

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
20B0768	1690016505 Rowe Industries	Water	February 20, 2020 12:00 am	02/20/2020

Volatile Organics, 8260 List - Low Level

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 5030B

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
104-51-8	n-Butylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C	02/25/2020 19:29	02/26/2020 07:24	LLJ
								Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJ			
103-65-1	n-Propylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C	02/25/2020 19:29	02/26/2020 07:24	LLJ
								Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJ			
95-47-6	o-Xylene	ND		ug/L	0.20	0.50	1	EPA 8260C	02/25/2020 19:29	02/26/2020 07:24	LLJ
								Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,PA			
179601-23-1	p- & m- Xylenes	ND		ug/L	0.50	1.0	1	EPA 8260C	02/25/2020 19:29	02/26/2020 07:24	LLJ
								Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,PA			
105-05-5	* p-Diethylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C	02/25/2020 19:29	02/26/2020 07:24	LLJ
								Certifications:			
622-96-8	* p-Ethyltoluene	ND		ug/L	0.20	0.50	1	EPA 8260C	02/25/2020 19:29	02/26/2020 07:24	LLJ
								Certifications:			
99-87-6	p-Isopropyltoluene	ND		ug/L	0.20	0.50	1	EPA 8260C	02/25/2020 19:29	02/26/2020 07:24	LLJ
								Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJ			
135-98-8	sec-Butylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C	02/25/2020 19:29	02/26/2020 07:24	LLJ
								Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJ			
100-42-5	Styrene	ND		ug/L	0.20	0.50	1	EPA 8260C	02/25/2020 19:29	02/26/2020 07:24	LLJ
								Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJ			
98-06-6	tert-Butylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C	02/25/2020 19:29	02/26/2020 07:24	LLJ
								Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJ			
127-18-4	**Tetrachloroethylene**	**320**		ug/L	2.0	5.0	10	EPA 8260C	02/25/2020 19:29	02/27/2020 03:38	LLJ
								Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJ			
108-88-3	Toluene	ND		ug/L	0.20	0.50	1	EPA 8260C	02/25/2020 19:29	02/26/2020 07:24	LLJ
								Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJ			
156-60-5	trans-1,2-Dichloroethylene	ND		ug/L	0.20	0.50	1	EPA 8260C	02/25/2020 19:29	02/26/2020 07:24	LLJ
								Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJ			
10061-02-6	trans-1,3-Dichloropropylene	ND		ug/L	0.20	0.50	1	EPA 8260C	02/25/2020 19:29	02/26/2020 07:24	LLJ
								Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJ			
79-01-6	**Trichloroethylene**	**1.4**		ug/L	0.20	0.50	1	EPA 8260C	02/25/2020 19:29	02/26/2020 07:24	LLJ
								Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJ			
75-69-4	Trichlorofluoromethane	ND		ug/L	0.20	0.50	1	EPA 8260C	02/25/2020 19:29	02/26/2020 07:24	LLJ
								Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJ			
75-01-4	Vinyl Chloride	ND		ug/L	0.20	0.50	1	EPA 8260C	02/25/2020 19:29	02/26/2020 07:24	LLJ
								Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJ			
1330-20-7	Xylenes, Total	ND		ug/L	0.60	1.5	1	EPA 8260C	02/25/2020 19:29	02/26/2020 07:24	LLJ
								Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJ			

	Surrogate Recoveries	Result	Acceptance Range
17060-07-0	*Surrogate: SURR: 1,2-Dichloroethane-d4*	*115 %*	*69-130*
2037-26-5	*Surrogate: SURR: Toluene-d8*	*97.1 %*	*81-117*
460-00-4	*Surrogate: SURR: p-Bromofluorobenzene*	*98.0 %*	*79-122*

Sample Information

Client Sample ID: DUP-20200220 **York Sample ID:** 20B0768-03

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
20B0768	1690016505 Rowe Industries	Water	February 20, 2020 12:00 am	02/20/2020

Methane, Ethane & Ethylene

Log-in Notes:

Sample Notes:

Sample Prepared by Method: Preparation for GC Analysis

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
74-82-8	* Methane	ND		ug/L	10	1	GC/Headspace Certifications:	02/27/2020 08:00	02/27/2020 10:57	RB
74-84-0	* Ethane	ND		ug/L	10	1	GC/Headspace Certifications:	02/27/2020 08:00	02/27/2020 10:57	RB
74-85-1	* Ethylene (Ethene)	ND		ug/L	10	1	GC/Headspace Certifications:	02/27/2020 08:00	02/27/2020 10:57	RB

Iron, Dissolved by EPA 200.8

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 200.8

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7439-89-6	* Iron	ND		ug/L	10.0	1	EPA 200.8 Certifications: CTDOH	02/25/2020 10:17	02/26/2020 13:55	BML

Nitrate as N

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 300

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
14797-55-8	**Nitrate as N**	**0.179**		mg/L	0.0500	1	EPA 300.0 Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	02/20/2020 18:32	02/20/2020 23:13	MAO

Nitrite as N

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 300

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
14797-65-0	Nitrite as N	ND		mg/L	0.0500	1	EPA 300.0 Certifications: NELAC-NY10854,CTDOH,PADEP	02/20/2020 18:32	02/20/2020 23:13	MAO

Sulfate as SO4

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 300

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
14808-79-8	**Sulfate**	**11.8**		mg/L	1.00	1	EPA 300.0 Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	02/20/2020 18:32	02/20/2020 23:13	MAO

Total Organic Carbon

Log-in Notes:

Sample Notes:

Sample Prepared by Method: Analysis Preparation

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
	Total Organic Carbon (TOC)	**2.34**		mg/L	1.00	1	SM 5310C Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	02/25/2020 11:16	02/26/2020 09:26	AD

Sample Information

Client Sample ID: TB01-20200220 **York Sample ID:** 20B0768-04

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
20B0768	1690016505 Rowe Industries	Water	February 20, 2020 12:00 am	02/20/2020

Volatile Organics, 8260 List - Low Level

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 5030B

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
630-20-6	1,1,1,2-Tetrachloroethane	ND		ug/L	0.20	0.50	1	EPA 8260C	02/25/2020 19:29	02/26/2020 02:56	LLJ
								Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJ			
71-55-6	1,1,1-Trichloroethane	ND		ug/L	0.20	0.50	1	EPA 8260C	02/25/2020 19:29	02/26/2020 02:56	LLJ
								Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJ			
79-34-5	1,1,2,2-Tetrachloroethane	ND		ug/L	0.20	0.50	1	EPA 8260C	02/25/2020 19:29	02/26/2020 02:56	LLJ
								Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJ			
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND		ug/L	0.20	0.50	1	EPA 8260C	02/25/2020 19:29	02/26/2020 02:56	LLJ
								Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJ			
79-00-5	1,1,2-Trichloroethane	ND		ug/L	0.20	0.50	1	EPA 8260C	02/25/2020 19:29	02/26/2020 02:56	LLJ
								Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJ			
75-34-3	1,1-Dichloroethane	ND		ug/L	0.20	0.50	1	EPA 8260C	02/25/2020 19:29	02/26/2020 02:56	LLJ
								Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJ			
75-35-4	1,1-Dichloroethylene	ND		ug/L	0.20	0.50	1	EPA 8260C	02/25/2020 19:29	02/26/2020 02:56	LLJ
								Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJ			
563-58-6	1,1-Dichloropropylene	ND		ug/L	0.20	0.50	1	EPA 8260C	02/25/2020 19:29	02/26/2020 02:56	LLJ
								Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP			
87-61-6	1,2,3-Trichlorobenzene	ND		ug/L	0.20	0.50	1	EPA 8260C	02/25/2020 19:29	02/26/2020 02:56	LLJ
								Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PAI			
96-18-4	1,2,3-Trichloropropane	ND		ug/L	0.20	0.50	1	EPA 8260C	02/25/2020 19:29	02/26/2020 02:56	LLJ
								Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PAI			
95-93-2	* 1,2,4,5-Tetramethylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C	02/25/2020 19:29	02/26/2020 02:56	LLJ
								Certifications:			
120-82-1	1,2,4-Trichlorobenzene	ND		ug/L	0.20	0.50	1	EPA 8260C	02/25/2020 19:29	02/26/2020 02:56	LLJ
								Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PAI			
95-63-6	1,2,4-Trimethylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C	02/25/2020 19:29	02/26/2020 02:56	LLJ
								Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJ			
96-12-8	1,2-Dibromo-3-chloropropane	ND		ug/L	0.20	0.50	1	EPA 8260C	02/25/2020 19:29	02/26/2020 02:56	LLJ
								Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJ			
106-93-4	1,2-Dibromoethane	ND		ug/L	0.20	0.50	1	EPA 8260C	02/25/2020 19:29	02/26/2020 02:56	LLJ
								Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJ			
95-50-1	1,2-Dichlorobenzene	ND		ug/L	0.20	0.50	1	EPA 8260C	02/25/2020 19:29	02/26/2020 02:56	LLJ
								Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJ			
107-06-2	1,2-Dichloroethane	ND		ug/L	0.20	0.50	1	EPA 8260C	02/25/2020 19:29	02/26/2020 02:56	LLJ
								Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJ			
78-87-5	1,2-Dichloropropane	ND		ug/L	0.20	0.50	1	EPA 8260C	02/25/2020 19:29	02/26/2020 02:56	LLJ
								Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJ			
108-67-8	1,3,5-Trimethylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C	02/25/2020 19:29	02/26/2020 02:56	LLJ
								Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJ			
541-73-1	1,3-Dichlorobenzene	ND		ug/L	0.20	0.50	1	EPA 8260C	02/25/2020 19:29	02/26/2020 02:56	LLJ
								Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJ			
142-28-9	1,3-Dichloropropane	ND		ug/L	0.20	0.50	1	EPA 8260C	02/25/2020 19:29	02/26/2020 02:56	LLJ
								Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PAI			

Sample Information

Client Sample ID: TB01-20200220 **York Sample ID:** 20B0768-04

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
20B0768	1690016505 Rowe Industries	Water	February 20, 2020 12:00 am	02/20/2020

Volatile Organics, 8260 List - Low Level

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 5030B

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
106-46-7	1,4-Dichlorobenzene	ND		ug/L	0.20	0.50	1	EPA 8260C	02/25/2020 19:29	02/26/2020 02:56	LLJ
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJ		
594-20-7	2,2-Dichloropropane	ND		ug/L	0.20	0.50	1	EPA 8260C	02/25/2020 19:29	02/26/2020 02:56	LLJ
								Certifications:	NELAC-NY10854,NELAC-NY12058,NJDEP,PAI		
78-93-3	2-Butanone	ND		ug/L	0.20	0.50	1	EPA 8260C	02/25/2020 19:29	02/26/2020 02:56	LLJ
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJ		
95-49-8	2-Chlorotoluene	ND		ug/L	0.20	0.50	1	EPA 8260C	02/25/2020 19:29	02/26/2020 02:56	LLJ
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJ		
591-78-6	2-Hexanone	ND		ug/L	0.20	0.50	1	EPA 8260C	02/25/2020 19:29	02/26/2020 02:56	LLJ
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJ		
106-43-4	4-Chlorotoluene	ND		ug/L	0.20	0.50	1	EPA 8260C	02/25/2020 19:29	02/26/2020 02:56	LLJ
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJ		
108-10-1	4-Methyl-2-pentanone	ND		ug/L	0.20	0.50	1	EPA 8260C	02/25/2020 19:29	02/26/2020 02:56	LLJ
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJ		
67-64-1	Acetone	ND		ug/L	1.0	2.0	1	EPA 8260C	02/25/2020 19:29	02/26/2020 02:56	LLJ
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJ		
71-43-2	Benzene	ND		ug/L	0.20	0.50	1	EPA 8260C	02/25/2020 19:29	02/26/2020 02:56	LLJ
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJ		
108-86-1	Bromobenzene	ND		ug/L	0.20	0.50	1	EPA 8260C	02/25/2020 19:29	02/26/2020 02:56	LLJ
								Certifications:	NELAC-NY10854,NELAC-NY12058,NJDEP,PAI		
74-97-5	Bromochloromethane	ND		ug/L	0.20	0.50	1	EPA 8260C	02/25/2020 19:29	02/26/2020 02:56	LLJ
								Certifications:	NELAC-NY10854,NELAC-NY12058,NJDEP,PAI		
75-27-4	Bromodichloromethane	ND		ug/L	0.20	0.50	1	EPA 8260C	02/25/2020 19:29	02/26/2020 02:56	LLJ
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJ		
75-25-2	Bromoform	ND		ug/L	0.20	0.50	1	EPA 8260C	02/25/2020 19:29	02/26/2020 02:56	LLJ
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJ		
74-83-9	Bromomethane	ND		ug/L	0.20	0.50	1	EPA 8260C	02/25/2020 19:29	02/26/2020 02:56	LLJ
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJ		
75-15-0	Carbon disulfide	ND		ug/L	0.20	0.50	1	EPA 8260C	02/25/2020 19:29	02/26/2020 02:56	LLJ
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJ		
56-23-5	Carbon tetrachloride	ND		ug/L	0.20	0.50	1	EPA 8260C	02/25/2020 19:29	02/26/2020 02:56	LLJ
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJ		
108-90-7	Chlorobenzene	ND		ug/L	0.20	0.50	1	EPA 8260C	02/25/2020 19:29	02/26/2020 02:56	LLJ
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJ		
75-00-3	Chloroethane	ND		ug/L	0.20	0.50	1	EPA 8260C	02/25/2020 19:29	02/26/2020 02:56	LLJ
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJ		
67-66-3	Chloroform	ND		ug/L	0.20	0.50	1	EPA 8260C	02/25/2020 19:29	02/26/2020 02:56	LLJ
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJ		
74-87-3	Chloromethane	ND		ug/L	0.20	0.50	1	EPA 8260C	02/25/2020 19:29	02/26/2020 02:56	LLJ
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJ		
156-59-2	cis-1,2-Dichloroethylene	ND		ug/L	0.20	0.50	1	EPA 8260C	02/25/2020 19:29	02/26/2020 02:56	LLJ
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJ		

Sample Information

Client Sample ID: TB01-20200220 **York Sample ID:** 20B0768-04

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
20B0768	1690016505 Rowe Industries	Water	February 20, 2020 12:00 am	02/20/2020

Volatile Organics, 8260 List - Low Level

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 5030B

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
10061-01-5	cis-1,3-Dichloropropylene	ND		ug/L	0.20	0.50	1	EPA 8260C	02/25/2020 19:29	02/26/2020 02:56	LLJ
								Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJ			
124-48-1	Dibromochloromethane	ND		ug/L	0.20	0.50	1	EPA 8260C	02/25/2020 19:29	02/26/2020 02:56	LLJ
								Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJ			
74-95-3	Dibromomethane	ND		ug/L	0.20	0.50	1	EPA 8260C	02/25/2020 19:29	02/26/2020 02:56	LLJ
								Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PAI			
75-71-8	Dichlorodifluoromethane	ND		ug/L	0.20	0.50	1	EPA 8260C	02/25/2020 19:29	02/26/2020 02:56	LLJ
								Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PAI			
100-41-4	Ethyl Benzene	ND		ug/L	0.20	0.50	1	EPA 8260C	02/25/2020 19:29	02/26/2020 02:56	LLJ
								Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJ			
87-68-3	Hexachlorobutadiene	ND		ug/L	0.20	0.50	1	EPA 8260C	02/25/2020 19:29	02/26/2020 02:56	LLJ
								Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PAI			
98-82-8	Isopropylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C	02/25/2020 19:29	02/26/2020 02:56	LLJ
								Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJ			
1634-04-4	Methyl tert-butyl ether (MTBE)	ND		ug/L	0.20	0.50	1	EPA 8260C	02/25/2020 19:29	02/26/2020 02:56	LLJ
								Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJ			
75-09-2	Methylene chloride	ND		ug/L	1.0	2.0	1	EPA 8260C	02/25/2020 19:29	02/26/2020 02:56	LLJ
								Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJ			
91-20-3	Naphthalene	ND		ug/L	1.0	2.0	1	EPA 8260C	02/25/2020 19:29	02/26/2020 02:56	LLJ
								Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PAI			
104-51-8	n-Butylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C	02/25/2020 19:29	02/26/2020 02:56	LLJ
								Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJ			
103-65-1	n-Propylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C	02/25/2020 19:29	02/26/2020 02:56	LLJ
								Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJ			
95-47-6	o-Xylene	ND		ug/L	0.20	0.50	1	EPA 8260C	02/25/2020 19:29	02/26/2020 02:56	LLJ
								Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,PA			
179601-23-1	p- & m- Xylenes	ND		ug/L	0.50	1.0	1	EPA 8260C	02/25/2020 19:29	02/26/2020 02:56	LLJ
								Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,PA			
105-05-5	* p-Diethylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C	02/25/2020 19:29	02/26/2020 02:56	LLJ
								Certifications:			
622-96-8	* p-Ethyltoluene	ND		ug/L	0.20	0.50	1	EPA 8260C	02/25/2020 19:29	02/26/2020 02:56	LLJ
								Certifications:			
99-87-6	p-Isopropyltoluene	ND		ug/L	0.20	0.50	1	EPA 8260C	02/25/2020 19:29	02/26/2020 02:56	LLJ
								Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJ			
135-98-8	sec-Butylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C	02/25/2020 19:29	02/26/2020 02:56	LLJ
								Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJ			
100-42-5	Styrene	ND		ug/L	0.20	0.50	1	EPA 8260C	02/25/2020 19:29	02/26/2020 02:56	LLJ
								Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJ			
98-06-6	tert-Butylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C	02/25/2020 19:29	02/26/2020 02:56	LLJ
								Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJ			
127-18-4	Tetrachloroethylene	ND		ug/L	0.20	0.50	1	EPA 8260C	02/25/2020 19:29	02/26/2020 02:56	LLJ
								Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJ			

Sample Information

Client Sample ID: TB01-20200220 **York Sample ID:** 20B0768-04

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
20B0768	1690016505 Rowe Industries	Water	February 20, 2020 12:00 am	02/20/2020

Volatile Organics, 8260 List - Low Level

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 5030B

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
108-88-3	Toluene	ND		ug/L	0.20	0.50	1	EPA 8260C	02/25/2020 19:29	02/26/2020 02:56	LLJ
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJ		
156-60-5	trans-1,2-Dichloroethylene	ND		ug/L	0.20	0.50	1	EPA 8260C	02/25/2020 19:29	02/26/2020 02:56	LLJ
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJ		
10061-02-6	trans-1,3-Dichloropropylene	ND		ug/L	0.20	0.50	1	EPA 8260C	02/25/2020 19:29	02/26/2020 02:56	LLJ
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJ		
79-01-6	Trichloroethylene	ND		ug/L	0.20	0.50	1	EPA 8260C	02/25/2020 19:29	02/26/2020 02:56	LLJ
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJ		
75-69-4	Trichlorofluoromethane	ND		ug/L	0.20	0.50	1	EPA 8260C	02/25/2020 19:29	02/26/2020 02:56	LLJ
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJ		
75-01-4	Vinyl Chloride	ND		ug/L	0.20	0.50	1	EPA 8260C	02/25/2020 19:29	02/26/2020 02:56	LLJ
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJ		
1330-20-7	Xylenes, Total	ND		ug/L	0.60	1.5	1	EPA 8260C	02/25/2020 19:29	02/26/2020 02:56	LLJ
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJ		

	Surrogate Recoveries	Result	Acceptance Range
17060-07-0	*Surrogate: SURR: 1,2-Dichloroethane-d4*	*104 %*	*69-130*
2037-26-5	*Surrogate: SURR: Toluene-d8*	*99.0 %*	*81-117*
460-00-4	*Surrogate: SURR: p-Bromofluorobenzene*	*96.7 %*	*79-122*

Sample Information

Client Sample ID: MW-98-01A-20200220 **York Sample ID:** 20B0768-05

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
20B0768	1690016505 Rowe Industries	Water	February 20, 2020 10:02 am	02/20/2020

Volatile Organics, 8260 List - Low Level

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 5030B

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
630-20-6	1,1,1,2-Tetrachloroethane	ND		ug/L	0.20	0.50	1	EPA 8260C	02/25/2020 19:29	02/26/2020 07:51	LLJ
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJ		
71-55-6	1,1,1-Trichloroethane	ND		ug/L	0.20	0.50	1	EPA 8260C	02/25/2020 19:29	02/26/2020 07:51	LLJ
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJ		
79-34-5	1,1,2,2-Tetrachloroethane	ND		ug/L	0.20	0.50	1	EPA 8260C	02/25/2020 19:29	02/26/2020 07:51	LLJ
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJ		
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND		ug/L	0.20	0.50	1	EPA 8260C	02/25/2020 19:29	02/26/2020 07:51	LLJ
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJ		
79-00-5	1,1,2-Trichloroethane	ND		ug/L	0.20	0.50	1	EPA 8260C	02/25/2020 19:29	02/26/2020 07:51	LLJ
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJ		

Sample Information

Client Sample ID: MW-98-01A-20200220 **York Sample ID:** 20B0768-05

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
20B0768	1690016505 Rowe Industries	Water	February 20, 2020 10:02 am	02/20/2020

Volatile Organics, 8260 List - Low Level

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 5030B

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
75-34-3	1,1-Dichloroethane	ND		ug/L	0.20	0.50	1	EPA 8260C	02/25/2020 19:29	02/26/2020 07:51	LLJ
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJ		
75-35-4	1,1-Dichloroethylene	ND		ug/L	0.20	0.50	1	EPA 8260C	02/25/2020 19:29	02/26/2020 07:51	LLJ
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJ		
563-58-6	1,1-Dichloropropylene	ND		ug/L	0.20	0.50	1	EPA 8260C	02/25/2020 19:29	02/26/2020 07:51	LLJ
								Certifications:	NELAC-NY10854,NELAC-NY12058,NJDEP		
87-61-6	1,2,3-Trichlorobenzene	ND		ug/L	0.20	0.50	1	EPA 8260C	02/25/2020 19:29	02/26/2020 07:51	LLJ
								Certifications:	NELAC-NY10854,NELAC-NY12058,NJDEP,PAI		
96-18-4	1,2,3-Trichloropropane	ND		ug/L	0.20	0.50	1	EPA 8260C	02/25/2020 19:29	02/26/2020 07:51	LLJ
								Certifications:	NELAC-NY10854,NELAC-NY12058,NJDEP,PAI		
95-93-2	* 1,2,4,5-Tetramethylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C	02/25/2020 19:29	02/26/2020 07:51	LLJ
								Certifications:			
120-82-1	1,2,4-Trichlorobenzene	ND		ug/L	0.20	0.50	1	EPA 8260C	02/25/2020 19:29	02/26/2020 07:51	LLJ
								Certifications:	NELAC-NY10854,NELAC-NY12058,NJDEP,PAI		
95-63-6	1,2,4-Trimethylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C	02/25/2020 19:29	02/26/2020 07:51	LLJ
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJ		
96-12-8	1,2-Dibromo-3-chloropropane	ND		ug/L	0.20	0.50	1	EPA 8260C	02/25/2020 19:29	02/26/2020 07:51	LLJ
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJ		
106-93-4	1,2-Dibromoethane	ND		ug/L	0.20	0.50	1	EPA 8260C	02/25/2020 19:29	02/26/2020 07:51	LLJ
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJ		
95-50-1	1,2-Dichlorobenzene	ND		ug/L	0.20	0.50	1	EPA 8260C	02/25/2020 19:29	02/26/2020 07:51	LLJ
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJ		
107-06-2	1,2-Dichloroethane	ND		ug/L	0.20	0.50	1	EPA 8260C	02/25/2020 19:29	02/26/2020 07:51	LLJ
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJ		
78-87-5	1,2-Dichloropropane	ND		ug/L	0.20	0.50	1	EPA 8260C	02/25/2020 19:29	02/26/2020 07:51	LLJ
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJ		
108-67-8	1,3,5-Trimethylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C	02/25/2020 19:29	02/26/2020 07:51	LLJ
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJ		
541-73-1	1,3-Dichlorobenzene	ND		ug/L	0.20	0.50	1	EPA 8260C	02/25/2020 19:29	02/26/2020 07:51	LLJ
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJ		
142-28-9	1,3-Dichloropropane	ND		ug/L	0.20	0.50	1	EPA 8260C	02/25/2020 19:29	02/26/2020 07:51	LLJ
								Certifications:	NELAC-NY10854,NELAC-NY12058,NJDEP,PAI		
106-46-7	1,4-Dichlorobenzene	ND		ug/L	0.20	0.50	1	EPA 8260C	02/25/2020 19:29	02/26/2020 07:51	LLJ
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJ		
594-20-7	2,2-Dichloropropane	ND		ug/L	0.20	0.50	1	EPA 8260C	02/25/2020 19:29	02/26/2020 07:51	LLJ
								Certifications:	NELAC-NY10854,NELAC-NY12058,NJDEP,PAI		
78-93-3	2-Butanone	ND		ug/L	0.20	0.50	1	EPA 8260C	02/25/2020 19:29	02/26/2020 07:51	LLJ
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJ		
95-49-8	2-Chlorotoluene	ND		ug/L	0.20	0.50	1	EPA 8260C	02/25/2020 19:29	02/26/2020 07:51	LLJ
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJ		
591-78-6	2-Hexanone	ND		ug/L	0.20	0.50	1	EPA 8260C	02/25/2020 19:29	02/26/2020 07:51	LLJ
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJ		

Sample Information

Client Sample ID: MW-98-01A-20200220 **York Sample ID:** 20B0768-05

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
20B0768	1690016505 Rowe Industries	Water	February 20, 2020 10:02 am	02/20/2020

Volatile Organics, 8260 List - Low Level

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 5030B

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
106-43-4	4-Chlorotoluene	ND		ug/L	0.20	0.50	1	EPA 8260C	02/25/2020 19:29	02/26/2020 07:51	LLJ
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJ		
108-10-1	4-Methyl-2-pentanone	ND		ug/L	0.20	0.50	1	EPA 8260C	02/25/2020 19:29	02/26/2020 07:51	LLJ
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJ		
67-64-1	Acetone	ND		ug/L	1.0	2.0	1	EPA 8260C	02/25/2020 19:29	02/26/2020 07:51	LLJ
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJ		
71-43-2	Benzene	ND		ug/L	0.20	0.50	1	EPA 8260C	02/25/2020 19:29	02/26/2020 07:51	LLJ
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJ		
108-86-1	Bromobenzene	ND		ug/L	0.20	0.50	1	EPA 8260C	02/25/2020 19:29	02/26/2020 07:51	LLJ
								Certifications:	NELAC-NY10854,NELAC-NY12058,NJDEP,PAI		
74-97-5	Bromochloromethane	ND		ug/L	0.20	0.50	1	EPA 8260C	02/25/2020 19:29	02/26/2020 07:51	LLJ
								Certifications:	NELAC-NY10854,NELAC-NY12058,NJDEP,PAI		
75-27-4	Bromodichloromethane	ND		ug/L	0.20	0.50	1	EPA 8260C	02/25/2020 19:29	02/26/2020 07:51	LLJ
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJ		
75-25-2	Bromoform	ND		ug/L	0.20	0.50	1	EPA 8260C	02/25/2020 19:29	02/26/2020 07:51	LLJ
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJ		
74-83-9	Bromomethane	ND		ug/L	0.20	0.50	1	EPA 8260C	02/25/2020 19:29	02/26/2020 07:51	LLJ
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJ		
75-15-0	Carbon disulfide	ND		ug/L	0.20	0.50	1	EPA 8260C	02/25/2020 19:29	02/26/2020 07:51	LLJ
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJ		
56-23-5	Carbon tetrachloride	ND		ug/L	0.20	0.50	1	EPA 8260C	02/25/2020 19:29	02/26/2020 07:51	LLJ
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJ		
108-90-7	Chlorobenzene	ND		ug/L	0.20	0.50	1	EPA 8260C	02/25/2020 19:29	02/26/2020 07:51	LLJ
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJ		
75-00-3	Chloroethane	ND		ug/L	0.20	0.50	1	EPA 8260C	02/25/2020 19:29	02/26/2020 07:51	LLJ
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJ		
67-66-3	Chloroform	ND		ug/L	0.20	0.50	1	EPA 8260C	02/25/2020 19:29	02/26/2020 07:51	LLJ
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJ		
74-87-3	Chloromethane	ND		ug/L	0.20	0.50	1	EPA 8260C	02/25/2020 19:29	02/26/2020 07:51	LLJ
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJ		
156-59-2	cis-1,2-Dichloroethylene	ND		ug/L	0.20	0.50	1	EPA 8260C	02/25/2020 19:29	02/26/2020 07:51	LLJ
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJ		
10061-01-5	cis-1,3-Dichloropropylene	ND		ug/L	0.20	0.50	1	EPA 8260C	02/25/2020 19:29	02/26/2020 07:51	LLJ
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJ		
124-48-1	Dibromochloromethane	ND		ug/L	0.20	0.50	1	EPA 8260C	02/25/2020 19:29	02/26/2020 07:51	LLJ
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJ		
74-95-3	Dibromomethane	ND		ug/L	0.20	0.50	1	EPA 8260C	02/25/2020 19:29	02/26/2020 07:51	LLJ
								Certifications:	NELAC-NY10854,NELAC-NY12058,NJDEP,PAI		
75-71-8	Dichlorodifluoromethane	ND		ug/L	0.20	0.50	1	EPA 8260C	02/25/2020 19:29	02/26/2020 07:51	LLJ
								Certifications:	NELAC-NY10854,NELAC-NY12058,NJDEP,PAI		
100-41-4	Ethyl Benzene	ND		ug/L	0.20	0.50	1	EPA 8260C	02/25/2020 19:29	02/26/2020 07:51	LLJ
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJ		

Sample Information

Client Sample ID: MW-98-01A-20200220 **York Sample ID:** 20B0768-05

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
20B0768	1690016505 Rowe Industries	Water	February 20, 2020 10:02 am	02/20/2020

Volatile Organics, 8260 List - Low Level

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 5030B

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
87-68-3	Hexachlorobutadiene	ND		ug/L	0.20	0.50	1	EPA 8260C	02/25/2020 19:29	02/26/2020 07:51	LLJ
								Certifications:	NELAC-NY10854,NELAC-NY12058,NJDEP,PAL		
98-82-8	Isopropylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C	02/25/2020 19:29	02/26/2020 07:51	LLJ
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJ		
1634-04-4	Methyl tert-butyl ether (MTBE)	ND		ug/L	0.20	0.50	1	EPA 8260C	02/25/2020 19:29	02/26/2020 07:51	LLJ
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJ		
75-09-2	Methylene chloride	ND		ug/L	1.0	2.0	1	EPA 8260C	02/25/2020 19:29	02/26/2020 07:51	LLJ
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJ		
91-20-3	Naphthalene	ND		ug/L	1.0	2.0	1	EPA 8260C	02/25/2020 19:29	02/26/2020 07:51	LLJ
								Certifications:	NELAC-NY10854,NELAC-NY12058,NJDEP,PAL		
104-51-8	n-Butylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C	02/25/2020 19:29	02/26/2020 07:51	LLJ
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJ		
103-65-1	n-Propylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C	02/25/2020 19:29	02/26/2020 07:51	LLJ
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJ		
95-47-6	o-Xylene	ND		ug/L	0.20	0.50	1	EPA 8260C	02/25/2020 19:29	02/26/2020 07:51	LLJ
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,PA		
179601-23-1	p- & m- Xylenes	ND		ug/L	0.50	1.0	1	EPA 8260C	02/25/2020 19:29	02/26/2020 07:51	LLJ
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,PA		
105-05-5	* p-Diethylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C	02/25/2020 19:29	02/26/2020 07:51	LLJ
								Certifications:			
622-96-8	* p-Ethyltoluene	ND		ug/L	0.20	0.50	1	EPA 8260C	02/25/2020 19:29	02/26/2020 07:51	LLJ
								Certifications:			
99-87-6	p-Isopropyltoluene	ND		ug/L	0.20	0.50	1	EPA 8260C	02/25/2020 19:29	02/26/2020 07:51	LLJ
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJ		
135-98-8	sec-Butylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C	02/25/2020 19:29	02/26/2020 07:51	LLJ
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJ		
100-42-5	Styrene	ND		ug/L	0.20	0.50	1	EPA 8260C	02/25/2020 19:29	02/26/2020 07:51	LLJ
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJ		
98-06-6	tert-Butylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C	02/25/2020 19:29	02/26/2020 07:51	LLJ
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJ		
127-18-4	**Tetrachloroethylene**	**4.1**		ug/L	0.20	0.50	1	EPA 8260C	02/25/2020 19:29	02/26/2020 07:51	LLJ
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJ		
108-88-3	Toluene	ND		ug/L	0.20	0.50	1	EPA 8260C	02/25/2020 19:29	02/26/2020 07:51	LLJ
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJ		
156-60-5	trans-1,2-Dichloroethylene	ND		ug/L	0.20	0.50	1	EPA 8260C	02/25/2020 19:29	02/26/2020 07:51	LLJ
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJ		
10061-02-6	trans-1,3-Dichloropropylene	ND		ug/L	0.20	0.50	1	EPA 8260C	02/25/2020 19:29	02/26/2020 07:51	LLJ
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJ		
79-01-6	Trichloroethylene	ND		ug/L	0.20	0.50	1	EPA 8260C	02/25/2020 19:29	02/26/2020 07:51	LLJ
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJ		
75-69-4	Trichlorofluoromethane	ND		ug/L	0.20	0.50	1	EPA 8260C	02/25/2020 19:29	02/26/2020 07:51	LLJ
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJ		

Sample Information

Client Sample ID: MW-98-01A-20200220 **York Sample ID:** 20B0768-05

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
20B0768	1690016505 Rowe Industries	Water	February 20, 2020 10:02 am	02/20/2020

Volatile Organics, 8260 List - Low Level

Log-in Notes: **Sample Notes:**

Sample Prepared by Method: EPA 5030B

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
75-01-4	Vinyl Chloride	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	02/25/2020 19:29	02/26/2020 07:51	LLJ
1330-20-7	Xylenes, Total	ND		ug/L	0.60	1.5	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	02/25/2020 19:29	02/26/2020 07:51	LLJ

	Surrogate Recoveries	Result	Acceptance Range
17060-07-0	*Surrogate: SURR: 1,2-Dichloroethane-d4*	*112 %*	*69-130*
2037-26-5	*Surrogate: SURR: Toluene-d8*	*99.6 %*	*81-117*
460-00-4	*Surrogate: SURR: p-Bromofluorobenzene*	*99.6 %*	*79-122*

Methane, Ethane & Ethylene

Log-in Notes: **Sample Notes:**

Sample Prepared by Method: Preparation for GC Analysis

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
74-82-8	*** Methane**	**250**		ug/L	10	1	GC/Headspace Certifications:	02/27/2020 08:00	02/27/2020 11:06	RB
74-84-0	* Ethane	ND		ug/L	10	1	GC/Headspace Certifications:	02/27/2020 08:00	02/27/2020 11:06	RB
74-85-1	* Ethylene (Ethene)	ND		ug/L	10	1	GC/Headspace Certifications:	02/27/2020 08:00	02/27/2020 11:06	RB

Iron, Dissolved by EPA 200.8

Log-in Notes: **Sample Notes:**

Sample Prepared by Method: EPA 200.8

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7439-89-6	*** Iron**	**232**		ug/L	10.0	1	EPA 200.8 Certifications: CTDOH	02/25/2020 10:17	02/26/2020 14:01	BML

Nitrate as N

Log-in Notes: **Sample Notes:**

Sample Prepared by Method: EPA 300

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
14797-55-8	**Nitrate as N**	**1.17**		mg/L	0.0500	1	EPA 300.0 Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	02/20/2020 18:32	02/20/2020 23:36	MAO

Nitrite as N

Log-in Notes: **Sample Notes:**

Sample Prepared by Method: EPA 300

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
14797-65-0	Nitrite as N	ND		mg/L	0.0500	1	EPA 300.0 Certifications: NELAC-NY10854,CTDOH,PADEP	02/20/2020 18:32	02/20/2020 23:36	MAO

Sample Information

Client Sample ID: MW-98-01A-20200220 **York Sample ID:** 20B0768-05

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
20B0768	1690016505 Rowe Industries	Water	February 20, 2020 10:02 am	02/20/2020

Sulfate as SO4

Log-in Notes: **Sample Notes:**

Sample Prepared by Method: EPA 300

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
14808-79-8	**Sulfate**	**8.89**		mg/L	1.00	1	EPA 300.0	02/20/2020 18:32	02/20/2020 23:36	MAO
							Certifications:	NELAC-NY10854,CTDOH,NJDEP,PADEP		

Total Organic Carbon

Log-in Notes: **Sample Notes:**

Sample Prepared by Method: Analysis Preparation

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
	Total Organic Carbon (TOC)	**2.16**		mg/L	1.00	1	SM 5310C	02/25/2020 11:16	02/26/2020 09:26	AD
							Certifications:	NELAC-NY10854,CTDOH,NJDEP,PADEP		

Volatile Analysis Sample Containers

Lab ID	Client Sample ID	Volatile Sample Container
20B0768-01	MW-45A-20200220	40mL Clear Vial (pre-pres.) HCl; Cool to 4° C
20B0768-02	FRW1-20200220	40mL Clear Vial (pre-pres.) HCl; Cool to 4° C
20B0768-03	DUP-20200220	40mL Clear Vial (pre-pres.) HCl; Cool to 4° C
20B0768-04	TB01-20200220	40mL Clear Vial (pre-pres.) HCl; Cool to 4° C
20B0768-05	MW-98-01A-20200220	40mL Clear Vial (pre-pres.) HCl; Cool to 4° C

Sample and Data Qualifiers Relating to This Work Order

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

Definitions and Other Explanations

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

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

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

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

Certification for pH is no longer offered by NYDOH ELAP.

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

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

York Analytical Laboratories, Inc.
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www.yorklab.com

Field Chain-of-Custody Record

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

YORK Project No. 20B0768

YOUR Information	Report To:	Invoice To:	YOUR Project Number	Turn-Around Time
Company: Ramboll	Company: Ramboll	Company: Ramboll	1690016505	RUSH - Next Day
Address: 315 W 36th St 4th Flr NY, NY 10018	Address: 234 W Florida St 5th Flr Milwaukee, WI 53204	Address: 234 W Florida St. 5th Flr Milwaukee, WI 53204	YOUR Project Name: Rowe Industries	RUSH - Two Day
Phone: 6469409972	Phone: 262 901 0127	Phone: 262 901 0127		RUSH - Three Day
Contact: Claire Elias/Ellie Seery	Contact: MARK MEJAC	Contact: MARK MEJAC		RUSH - Four Day
E-mail: celias@ramboll.com/eseery@ramboll.com	E-mail: mmejac@ramboll.com	E-mail: mmejac@ramboll.com	YOUR PO#:	Standard (5-7 Day) X

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.

Samples Collected by: (print your name above and sign below)
Ellie Seery — Claire Elias

Matrix Codes
S - soil / solid
GW - groundwater
DW - drinking water
WW - wastewater
O - Oil ⋮ Other

Samples From
New York X
New Jersey
Connecticut
Pennsylvania
Other

Report / EDD Type (circle selections)
Summary Report | CT RCP | Standard Excel EDD
QA Report | CT RCP DQA/DUE | EQuIS (Standard)
NY ASP A Package | NJDEP Reduced Deliverables | NYSDEC EQuIS
NY ASP B Package | NJDKQP | NJDEP SRP HazSite
Other: EQuIS 4

YORK Reg. Comp.
Compared to the following Regulation(s): (please fill in)

Sample Identification	Sample Matrix	Date/Time Sampled	Analysis Requested	Container Description
MW-45A-20200220	GW	2/20/20 0855	VOCs (8260)	500, 250 pl. vp. / 3 vp vials / 6 HCl vials (3)
FRW1-20200220		2/20/20 1228	8260/300/8015/6010B/200.7/9060/353.2	500, 250 pl. vp. / 3 vp vials / 6 HCl vials
DUP-20200220		2/20/20 —	↓	↓
TB-20200220		—	VOCs (8260)	2 HCl vials
MW-98-01A-20200220	GW	2/20/20 1002	8260/300/8015/6010B/200.7/9060/353.2	500, 250 pl. vp. / 3 vp vials / 6 HCl vials

Comments: For Dissolved Iron - LAB TO FILTER

Preservation: (check all that apply)
HCl X MeOH ___ HNO3 ___ H2SO4 ___ NaOH ___ ZnAc ___
Ascorbic Acid ___ Other: ___

Special Instruction
Field Filtered ___
Lab to Filter X

Samples Relinquished by / Company	Date/Time	Samples Received by / Company	Date/Time	Samples Relinquished by / Company	Date/Time
Ramboll Claire Elias	2/20/20 16:34	YORK	2/20/20 1634	YORK	2/20/20 1700
Samples Received by / Company	Date/Time	Samples Relinquished by / Company	Date/Time	Samples Received by / Company	Date/Time
Tom A / York	2/20/20 1700	Tom A / York	2/20/20	Allie V York	2/20/20 6:50
Samples Relinquished by / Company	Date/Time	Samples Received by / Company	Date/Time	Samples Received in LAB by	Temp. Received at Lab
Allie V York	2/20/20 1940			J. Gale 2-20-20/1940	14.6 Degrees C