



LIMITED PHASE II SUBSURFACE INVESTIGATION REPORT

JPMC Branch Portfolio- New Rochelle Main Street

491 Main Street
New Rochelle, New York 10801

December 7, 2016
Partner Project Number: 16-171696.45

Prepared for:

Fortress Investment Group, LLC

10250 Constellation Boulevard
Los Angeles, California 90067



Engineers who understand your business

December 7, 2016

Mr. Joshua Pack
Fortress Investment Group, LLC
10250 Constellation Boulevard
Los Angeles, California 90067

Subject: Limited Phase III Subsurface Investigation Report
JPMC Branch Portfolio- New Rochelle Main Street
491 Main Street
New Rochelle, New York 10801
Partner Project Number: 16-171696.45

Dear Mr. Pack:

Partner Assessment Corp. (Partner) is pleased to provide the results of the assessment performed on the above-referenced property. The following report describes the field activities, methods, and findings of the Limited Phase III Subsurface Investigation conducted at the above-referenced property.

This assessment was performed utilizing methods and procedures consistent with good commercial or customary practices designed to conform to acceptable industry standards. The independent conclusions represent Partner's best professional judgment based upon existing conditions and the information and data available to us during the course of this assignment.

We appreciate the opportunity to provide these services. If you have any questions concerning this report, or if we can assist you in any other matter, please contact Chris Gregor at (310) 615-4500.

Sincerely,

Partner Engineering and Science, Inc.

Ally Hassler

Ally Hassler
Project Geologist



Chris Gregor
National Client Manager



Andres Simonson
Regional Manager- Subsurface Investigations

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1.0 INTRODUCTION

1.1 Purpose

The purpose of the investigation was to identify the location of on-site underground storage tanks (USTs,) former tankholds, and/or other associated features and investigate the impact of volatile organic compounds (VOCs) and polycyclic aromatic hydrocarbons (PAHs) to soil and groundwater, as well as VOCs to sub-slab soil gas, as a consequence of a release or releases from the reported UST system at the subject property. Fortress Investment Group, LLC provided project authorization of Partner Proposal Number P16-171696.45.

1.2 Limitations

This report presents a summary of work conducted by Partner. The work includes observations of site conditions encountered and the analytical results provided by an independent third party laboratory of samples collected during the course of the project. The number and location of samples were selected to provide the required information. It cannot be assumed that the limited available data are representative of subsurface conditions in areas not sampled.

Conclusions and/or recommendations are based on the observations, laboratory analyses, and the governing regulations. Conclusions and/or recommendations beyond those stated and reported herein should not be inferred from this document.

Partner warrants that the environmental consulting services contained herein were accomplished in accordance with generally-accepted practices in the environmental engineering, geology, and hydrogeology fields that existed at the time and location of work. No other warranties are implied or expressed.

1.3 User Reliance

Partner was engaged by Fortress Investment Group, LLC (the Addressee), or their authorized representative, to perform this investigation. The engagement agreement specifically states the scope and purpose of the investigation, as well as the contractual obligations and limitations of both parties. This report and the information therein, are for the exclusive use of the Addressee. This report has no other purpose and may not be relied upon, or used, by any other person or entity without the written consent of Partner. Third parties that obtain this report, or the information therein, shall have no rights of recourse or recovery against Partner, its officers, employees, vendors, successors or assigns. Any such unauthorized user shall be responsible to protect, indemnify and hold Partner, the Addressee and their respective officers, employees, vendors, successors and assigns harmless from any and all claims, damages, losses, liabilities, expenses (including reasonable attorneys' fees) and costs attributable to such use. Unauthorized use of this report shall constitute acceptance of, and commitment to, these responsibilities, which shall be irrevocable and shall apply regardless of the cause of action or legal theory pled or asserted.

This report has been completed under specific Terms and Conditions relating to scope, relying parties, limitations of liability, indemnification, dispute resolution, and other factors relevant to any reliance on

this report. Any parties relying on this report do so having accepted the Terms and Conditions for which this report was completed.

2.0 SITE BACKGROUND

2.1 Site Description

The subject property consists of one parcel of land totaling approximately 0.43 acres, located on the northern corner of Main Street and Lawton Street, within a mixed commercial area of Westchester County. The subject property is developed with a three-story structure with a basement and is currently occupied by Chase Bank for commercial use. Onsite operations consist of banking services on the first floor, and unused office spaces on the second and third floors. In addition to the current structure, the subject property is improved with asphalt-paved parking and storm water drains.

The immediately surrounding properties consist of a parking lot to the north, along Lawton Street; Restaurant Pizza, Nail City, Midea Shoes, El Michoacano (487 Main street) and an indoor shopping center (481 Main Street) to the east, along Main Street; Alicia's Bakery, Korean BBQ Grill, Fancy Photo (494-498 Main Street), Nick's New Hair Design, Jay's Boutique, Natural Nails and Family & Cosmetic Dentistry (490A-D Main Street) to the south, across Main Street; and The Mexican Corner Restaurant, Patrias Restaurant (497 Main Street) and Schweiger Dermatology-New Rochelle (14 Lawton Street) to the west, across Lawton Street.

Refer to Figure 1 for a site vicinity map showing site features and surrounding properties.

2.2 Site History

Partner completed a *Phase I Environmental Site Assessment Report* (Phase I), dated October 14, 2016, prepared on behalf of Fortress Investment Group, LLC. According to available historical sources, the subject property was previous developed with commercial structures and out buildings (1887); developed with commercial structures and out buildings, and a residential structure (1896); developed with two commercial structures and out buildings (1903); developed with a one-story bank, and a commercial structure (1911); and developed with the current bank building circa 1918.

Tenants on the subject property have included a saloon, tailor, residential tenants, a grocery store, a hardware store, a stable and a hand laundry facility (1887-1903); the National City Bank of New Rochelle and four commercial store fronts (1911); and multiple bank tenants (1931-Present).

The Phase I identified the following recognized environmental condition (REC):

- According to the regulatory database report and a Westchester County Health Department (WCHD) Petroleum Bulk Storage (PBS) Registration Certificate (PBS No. 3-164372), the subject property is identified as having operated a 2,000-gallon, steel underground storage tank (UST) that was closed-in-place as of April 5, 1990. The date of installation of the UST was not identified.

Partner's review of the regulatory database report also revealed that on August 23, 1989, a UST on the subject property failed a tank tightness test. A Leaking Tanks (LTANKS) listing for the subject property in the database report identified the tank as a 1,500-gallon, #2 fuel oil UST. No material was reported as released; however, limited information regarding the LTANKS case is available. Additionally, it was identified that the 1,500-gallon UST was removed in March 1991 and replaced (replacement information was not identified).

No other information regarding the 2,000-gallon or 1,500-gallon USTs was available. It is suspected that at least one of the USTs was installed along Main Street, as a fill pipe and two vent pipes were observed near the southeast corner of the subject property building. Partner presumes that the fill pipe and one of the vent pipes are associated with an active, 1,500-gallon aboveground storage tank (AST) observed during the site reconnaissance (further discussed below). The second observed vent pipe is presumed to have been associated with one of the former USTs.

Based on the information available to Partner, it appears that two USTs may have operated on the subject property. The lack of closure documentation for the USTs, along with the lack of information pertaining to the LTANKS case, is considered by Partner to represent a REC.

2.3 Geology and Hydrogeology

The United States Geological Survey (USGS) *Mount Vernon, New York* Quadrangle topographic map shows the subject property is situated at an elevation of approximately 94 feet above mean sea level, and the local topography is sloping moderately to the east. Based upon topographic map interpretation, the direction of groundwater in the vicinity of the subject property is inferred to flow to the east. Refer to Figure 2 for a topographic map of the site vicinity.

The subject property is situated within the northeastern portion of the Hudson River Valley, on the eastern edge of the Atlantic Coastal Plain physiographic province of the State of New York. The Adirondack Mountains, which extend through New York State, are located approximately 40 miles west of the subject property and run northeast to southwest along the eastern shelf of the United States. Geology in the vicinity of the subject property is comprised of the Hartland Formation which is characterized by a heavily metamorphosed complex of Precambrian and Paleozoic sedimentary and igneous rock at a depth of approximately 100 feet below ground surface (bgs). These rocks are of continental and oceanic in origin and are igneous and metamorphic in composition.

Based on information obtained from the United States Department of Agriculture (USDA), soils in the vicinity of the subject property are classified as Urban Land. Urban Land complex are those soils in which the soil's original structure and content have been so altered by human activities it has lost its original characteristics and is thus unidentifiable. Urban soils consist of nearly level to moderately steep areas where the soils have been altered or obscured by urban works and structures. Buildings and pavement cover more than 85 percent of the surface. Included in this unit in mapping are many small areas where the original soil material has been disturbed by construction and areas where fill has been added. Also included are small areas of undisturbed soils. The soil properties and characteristics of this unit vary.

Borings advanced during this investigation determined the underlying subsurface consists predominantly of brown silt and fine sand from 0.4 feet to approximately 4 feet bgs. From 4 to 8 feet bgs, the subsurface consists predominantly of brown silt with sandy clays. Refer to Appendix A for boring logs from this investigation.

Groundwater was encountered during this investigation at approximately 6 feet bgs.

3.0 FIELD ACTIVITIES

Refer to Table 1 for a summary of the borings, sampling schedule and laboratory analyses for this investigation. The scope of the Limited Phase II Subsurface Investigation included a limited geophysical survey, the advancement of one interior boring (B-1) for the collection of investigative soil and groundwater samples and one sub-slab soil gas sampling point (SG-1). Two boring and sub-slab sampling locations were originally proposed; however, a sub-slab pipe was encountered at the second boring location and the borehole was therefore abandoned.

The investigation was defined as limited because the area of concern (potential UST) is located within the public right-of-way (ROW) and ROW drilling permits could not be obtained prior to the requested turnaround time. Therefore, in lieu of drilling adjacent to the suspected UST location, borings and sub-slab soil gas sample points were proposed in the basement at the interior wall closest to the area of concern.

3.1 Preparatory Activities

Prior to the initiation of fieldwork, Partner completed the following activities.

3.1.1 Utility Clearance

Hawk Drilling, Inc. (Hawk) of Hampton, New Jersey notified New York's One Call (One Call) center to clear public utility lines as required by law at least 72 hours prior to drilling activities. One Call center issued ticket number 11176-900-006 for the project.

In addition, Partner subcontracted with Delta Geophysics, Inc. (Delta) of Catasauqua, Pennsylvania, on November 22, 2016 to clear boring locations of utilities. Borings were positioned based on the geophysical survey results to avoid damaging underground features.

3.1.2 Health and Safety Plan

Partner reviewed the site-specific Health and Safety Plan with on-site personnel involved in the project prior to the commencement of drilling activities.

3.2 Geophysical Survey

On November 22, 2016, Delta conducted a geophysical survey under the direction of Partner. The purpose of the geophysical survey was to clear boring locations of utilities and to evaluate the property exterior (public right-of-way sidewalk) for potential USTs. The limited geophysical survey was performed using a Geophysical Survey Systems Inc. SIR-3000 cart-mounted Ground Penetrating Radar (GPR) unit with a 400 Mhz antenna, TW-6 Metallic Locator, and Radio detection RD7000 precision utility locator.

A closely-spaced rectilinear grid was established at the suspected UST location in the ROW and within the basement at the proposed sampling locations. The grid was systematically traversed using electromagnetic induction (EM) equipment, GPR equipment, and/or utility tracers. The equipment data was interpreted in real time and compiled as necessary in order to identify subsurface anomalies consistent with utilities.

The geophysical survey identified subsurface utilities including former product lines, UST vent lines, and remote fill lines for the AST and other unknown pipes at the subject property, which were traced to clear proposed boring locations. A remote fill port and vent pipe were observed in the sidewalk along Main street south of the building and were traced to the AST in the basement. A suspect vent pipe adjacent to the south side of the building was traced south in the sidewalk for approximately 10 feet before it terminated. Four copper lines were observed protruding from the wall in AST room and were traced south in the sidewalk for approximately 10 feet before terminating. GPR transects in the sidewalk imaged reinforced concrete which limited GPR depth of penetration to less than 1 foot bgs; however, field interpretation of the data suggested an anomaly was present. Reinforced concrete also limited the use of TW-6 over the area. Based on the presence of former vent and fill lines, and the limited GPR imagery generated, the potential exists that a UST is located in the sidewalk south of the building. The approximate size of the feature was estimated at 12 feet by 6 feet in area.

Refer to Appendix B for a copy of the geophysical survey report, which provides additional details regarding the geophysical survey equipment and methodology.

3.3 Drilling Equipment

On November 22, 2016, Partner subcontracted with Hawk to provide and operate drilling equipment. Hawk, under the direction of Partner, advanced boring B-1 with a jack-hammer probe and installed sub-slab soil gas point SG-1 with a concrete coring machine. A proposed second boring and sub-slab soil gas location was abandoned due to an encountered apparent former product line directly below the basement slab floor. Sampling equipment was decontaminated between sample intervals and boring locations to prevent cross-contamination.

3.4 Boring Locations

Boring B-1 and sub-slab soil gas sampling point SG-1 were advanced along the southern basement interior wall, as near as possible to the potential UST located in the adjacent sidewalk ROW to facilitate the collection of representative soil, groundwater and sub-slab soil gas samples.

Refer to Figure 3 for a map indicating boring locations.

3.5 Sub-Slab Soil Gas Sampling

The sub-slab soil gas sampling point, consisting of a pre-fabricated stainless steel screen and casing, was manually inserted into a 3/8-inch diameter hole drilled within the concrete building slab using the rotary hammer drill. The sampling point was inserted to a point just below the concrete slab. Sand was poured into the annulus to form a sand pack around the probe screen. The annulus was backfilled with hydrated bentonite to the ground surface to form a seal. The point was located in the basement AST room, as close as possible to the sidewalk ROW where the potential UST is located.

Soil gas sample SG-1 was collected using a 2.7-liter, stainless-steel, cylindrical SUMMA batch certified canister. The sampling container was provided by Alpha Analytical (Alpha), a state-certified laboratory (New York Certification Number 11627), which subjected the canister to a rigorous cleaning process using a combination of dilution, heat, and high vacuum. After cleaning, the canister was certified as part of a

batch to be free of target contaminants to a specified reporting limit via gas chromatography/mass spectroscopy.

Partner received the SUMMA™ canister evacuated to approximately -29.34 inches of mercury. The SUMMA canister was fitted with a stainless-steel flow controller, which Alpha calibrated to maintain constant flow (approximately 0.18 liters per minute) for approximately 15 minutes of sampling time.

The sampling point was allowed to equilibrate for a minimum of 10 minutes after installation prior to sampling. Partner purged the soil sampling point by connecting the tubing to the PID for approximately two minutes to clear the point and tubing of ambient air. Elevated PID readings, up to 22.0 parts per million (ppm), were detected during purging of SG-1. The sampling end of the tubing was fitted to the sampling canister and the port valve was opened, allowing air to enter the sample container due to the pressure differential. Partner closed the valve after 15 minutes of sampling time, with pertinent data (e.g., time, canister vacuum) recorded at the start and end of sampling. After 15 minutes of sampling time, the canister used to collect sub-slab soil gas sample SG-1 was evacuated to -1.90 inches of mercury.

3.6 Soil Sampling

Boring B-1 was overlain by concrete, which upon completion of the nearby sub-slab soil gas sampling, was penetrated using a core drill. Boring B-1 was advanced to a terminal depth of 8 feet bgs.

Soil sample B-1 was collected using a 4-foot long by 1-inch diameter MacroCore sampler with a 4-foot long acetate liner, which was advanced by a jackhammer using 4-foot long by 1-inch diameter drill rods. The samplers were driven into the subsurface to allow undisturbed soil to enter the open MacroCore barrel and retrieved to recover the soil-filled liners. A lengthwise section of each acetate liner was removed with a splitting tool to expose the soil. The soil column at each boring was visually inspected for discoloration, monitored for odors, and classified in accordance with the Unified Soil Classification System (USCS). Additionally, the soil column was field-screened with a photoionization detector (PID) calibrated to 100 ppm isobutylene.

Visual and olfactory evidence of impacted conditions was observed in boring B-1. PID readings were detected at levels ranging from 0 to 22 ppm. Refer to Appendix A for a copy of the soil boring log.

Soil depths selected for laboratory analysis were sampled directly from the liners using an encore sampler in accordance with United States Environmental Protection Agency (EPA) Method 5035 sampling protocol. A sample was also collected by transferring soil into laboratory-supplied, four-ounce, wide-mouth, unpreserved high-density polyethylene (HDPE) sample jars, which were sealed with threaded, Teflon-lined lids. The jars were filled with soil to capacity to minimize headspace and reduce the potential for volatilization. The jar and encores were labeled for identification and stored in an iced cooler.

Soil sample intervals for boring B-1 targeted depths above encountered groundwater bearing units where odors and PID screenings were highest.

3.7 Groundwater Sampling

Upon completion of soil sampling to the terminal depth, a temporary groundwater sampling point was installed within soil boring B-1 using one-inch diameter polyvinyl chloride (PVC) screen and riser. The temporary well point was screened from approximately 0 feet to 8 feet bgs. Groundwater sample B-1 was

retrieved from the temporary groundwater sampling point on November 22, 2016 using a peristaltic pump and dedicated tubing and was conveyed into three hydrochloric acid-preserved, 40 milliliter (mL) vials and two 1-liter amber jars. Each vial was filled with no observable headspace or air bubbles to minimize the potential for volatilization, labeled for identification, and stored within an iced-cooler.

3.8 Post-Sampling Activities

Core barrels, temporary sub-slab soil gas sampling points, and temporary groundwater sampling points were removed from the subsurface and the boreholes were backfilled with hydrated bentonite chips following sampling activities. The borehole was capped with concrete patch to match existing ground cover after being backfilled.

4.0 LABORATORY ANALYSIS

4.1 Laboratory Analysis

Partner collected one soil sample and one groundwater sample from boring B-1, and one sub-slab soil gas sample from sampling point SG-1, on November 22, 2016, which were transported in an iced-cooler under proper chain-of-custody protocol to Alpha Analytical (Alpha), a state-certified laboratory (New York Certification Number 11148) in the City of Westborough, Massachusetts.

Soil sample B-1 and groundwater sample B-1 were analyzed for VOCs in accordance with EPA Method 8260 and SVOCs in accordance with EPA Method 8270. Sub-slab soil gas sample SG-1 was analyzed for VOCs in accordance with EPA Method TO-15.

4.2 Laboratory Analytical Results

Laboratory analytical results are included in Appendix C and discussed below.

4.2.1 *Sub-Slab Soil Gas Sample Analytical Results*

As shown in Table 2, several VOCs were detected at concentrations above the laboratory MDLs/RLs in sub-slab soil gas sample SG-1.

4.2.2 *Soil Sample Analytical Results*

As shown in Table 3, VOCs including naphthalene, 1,2,3-trichlorobenzene, 1,2,4,5-tetramethylbenzene, and 1,2,4-trimethylbenzene were detected at concentrations above the laboratory method detection limits (MDLs)/reporting limits (RLs) in the soil sample collected from boring B-1.

The PAH pyrene was detected at a concentration above the laboratory MDLs/RLs in the soil sample collected from boring B-1.

4.2.3 *Groundwater Sample Analytical Results*

As shown in Table 4, the VOCs chloroform and naphthalene were detected at concentrations above the laboratory MDLs/RLs in the groundwater sample collected from boring B-1.

Several PAHs were detected at concentrations above the laboratory MDLs/RLs in the groundwater sample collected from boring B-1.

5.0 DISCUSSION AND CONCLUSIONS

5.1 Regulatory Agency Guidance

The regulatory guidance used by Partner as part of the Limited Phase II Subsurface Investigation is presented below.

The sub-slab soil gas analytical results were compared to:

Currently, neither the NYSDEC nor the New State Department of Health (NYSDOH) provide sub-slab comparison criteria. Therefore, the sub-slab soil gas data was compared to EPA screening levels. The EPA Office of Solid Waste and Emergency Response (OSWER now known as Office of Land and Emergency Management – OLEM) issued the final document “OSWER Technical Guide for Assessing and Mitigating the Vapor Intrusion Pathway from Subsurface Vapor Sources to Indoor Air,” dated June 2015, to specifically address the “vapor intrusion pathway.” The intent of this guidance document is to provide a tool to help the user conduct a screening evaluation as to whether or not the vapor intrusion exposure pathway is complete and, if so, whether it poses an unacceptable risk to human health.

The analytical results of the soil gas samples collected during this investigation were compared to their EPA OSWER 10^{-6} (most conservative) Target Sub-Slab Soil Gas Concentrations for Carcinogens for the Commercial Exposure Scenarios that are provided in the USEPA Vapor Intrusion Screening Level (VISL) Calculator Version 3.5.1, updated May 2016. If a particular compound fails the 10^{-6} risk scenario, a discussion is provided regarding the compound’s 10^{-5} risk scenario, which in the EPA’s view is a generally acceptable screening criteria.

The soil analytical results were compared to:

- NYSDEC Commercial Criteria, New York Restricted Use, which is the soil to human direct contact criteria applicable to the subject property use
- NYSDEC Groundwater Criteria, New York Restricted Use, which is the screening level for potential soil to groundwater leaching concerns
- NYSDEC New York Unrestricted Use Criteria, which represents the most stringent NYSDEC criteria (and in this case, are equal to the NYSDEC Groundwater Criteria)

The groundwater analytical results were compared to:

- NYSDEC New York Technical & Operational Guidance Series (TOGS) 1.1.1 Ambient Water Quality Standards (AWQS)

5.2 Discussion

Soil Gas

Ethylbenzene and benzene were detected above the most stringent 10^{-6} risk scenario Commercial EPA VISLs in sub-slab soil gas sample SG-1. However, the compounds were below their respective 10^{-5} risk scenario VISLs. The remaining VOCs were not detected at concentrations above the Commercial EPA VISLs.

Soil

No VOCs or PAHs were detected at concentrations above the most stringent NYSDEC criteria.

Groundwater

Benzo(a)pyrene, benzo(b)fluoranthene and chrysene were detected at concentrations above the New York AWQS in the groundwater sample collected from boring B-1. The remaining VOCs and PAHs were not detected at concentrations above the AWQS.

5.3 Summary and Conclusions

Partner conducted a limited Phase II Subsurface Investigation at the subject property to identify the location of on-site USTs, former tankholds, and/or other associated features and investigate the impact of VOCs and PAHs to soil and groundwater, as well as VOCs to sub-slab soil gas, as a consequence of a release or releases from the potential UST system at the subject property. The investigation was defined as limited because the area of concern (potential UST) is located within the public ROW, and ROW drilling permits could not be obtained prior to the requested turnaround time. Therefore, in lieu of drilling adjacent to the suspected UST location, borings and sub-slab soil gas sample points were proposed in the basement at the interior wall closest to the area of concern.

The scope of the Limited Phase II Subsurface Investigation included a limited geophysical survey, the advancement of one boring (B-1) for the collection of investigative soil and groundwater samples and one sub-slab soil gas sampling point (SG-1). One soil and one groundwater sample were analyzed for VOCs and PAHs. One sub-slab soil gas sample was analyzed for VOCs.

Although GPR images could not be completed due to reinforced concrete, and therefore the geophysical survey was inconclusive, it appears that one or two USTs may remain in-place in the sidewalk in front of (south of) the building under the Main Street ROW sidewalk.

Groundwater was encountered during this investigation at 6 feet below the basement floor.

Ethylbenzene and benzene were detected above the most stringent 10^{-6} risk scenario Commercial EPA VISLs in sub-slab soil gas sample SG-1. However, the compounds were below their respective 10^{-5} risk scenario VISLs. The remaining VOCs were not detected at concentrations above the most conservative Commercial EPA VISLs.

No soil exceedances were identified in the collected soil sample.

Benzo(a)pyrene, benzo(b)fluoranthene and chrysene were detected at concentrations above the NY-AQWS in the groundwater sample collected from boring B-1. However, the compounds exceeding groundwater criteria are not paired with exceedances of common petroleum related compounds and may therefore be indicative of diffuse urban impact associated with historic fill, asphalt, and/or other sources.

Although the soil and groundwater samples did not indicate petroleum related exceedances below the subject property, field observations and the sub-slab soil gas data suggest potential impact. Further, the

geophysical survey suggests the presence of an anomaly (potential UST). Therefore, because of the time-sensitive limited extent of this investigation and because therefore no data is available directly adjacent to area of concern (potential UST), Partner recommends further investigation of the potential UST REC in the sidewalk ROW. If an out-of-service UST is confirmed, proper closure and further evaluation of soils and/or groundwater (if necessary) is recommended.

TABLES

Table 1
Summary of Investigation Scope
491 Main Street
New Rochelle, New York
Partner Project Number 16-171696.45

Borehole Identification	Location	Terminal Depth (feet bgs)	Sample Identification	Matrix Sampled	Sampling Depths (feet bgs)	Target Contaminants
B-1	AST room in the basement, towards southern side of Site building.	8.0	B-1	Soil	0-1 ft bgs	VOCs (8260), PAHs (8270)
			B-1	Groundwater	0-8 ft bgs	VOCs (8260), PAHs (8270)
SG-1	AST room in the basement, towards southern side of Site building.	1.0	SG-1	Sub-Slab Soil Gas	0-1 ft bgs	VOCs (TO-15LL)

Notes:

VOCs = Volatile Organic Compounds in accordance with EPA Method 8260

VOCs = Volatile Organic Compounds in accordance with EPA Method TO-15LL

PAHs = Polycyclic Aromatic Hydrocarbons in accordance with EPA Method 8270

bgs = below ground surface

Table 2: Sub-Slab Soil Gas Sample Laboratory Results Summary
 491 Main Street
 New Rochelle, New York 10801
 Partner Project Number 16-171696.45
 November 22, 2016

ANALYTE	VISL	SG-1
VOCs via EPA Method TO-15 (µg/m3)		
Ethylbenzene	160	303
Styrene	150000	2.45
1,3-Butadiene	14	3.23
4-Methyl-2-pentanone	440000	12.3
1,3,5-Trimethylbenzene	NE	50.6
Toluene	730000	637
Tetrahydrofuran	290000	5.87
n-Hexane	100000	28
Cyclohexane	880000	10.2
Tetrachloroethene	1600	8.61
Heptane	NE	53.3
p/m-Xylene	15000	547
4-Ethyltoluene	NE	56.5
Ethanol	NE	169
Isopropanol	29000	8.26
Acetone	4500000	238
Benzene	52	71.6
Chloromethane	13000	1.61
Carbon disulfide	100000	28.3
Tertiary butyl Alcohol	NE	14
Dichlorodifluoromethane	15000	13.2
2-Butanone	730000	47.2
o-Xylene	15000	155
1,2,4-Trimethylbenzene	1000	116

Notes:

VOCs = volatile organic compounds

EPA = United States Environmental Protection Agency

µg/m3 = microgram per cubic meter

VISL: Commercial EPA Vapor Intrusion Screening Levels for Soil Gas

NE = not established

Exceeds VISL

Table 3: Soil Sample Laboratory Results Summary
 491 Main Street
 New Rochelle, New York 10801
 Partner Project Number 16-171696.45
 November 22, 2016

Analyte	NY-UNRES	NY-RESGW	NY-RESC	B-1
VOCs via EPA Method 8260 (mg/kg)				
1,2,3-Trichlorobenzene	NE	NE	NE	0.071 J
1,2,4,5-Tetramethylbenzene	NE	NE	NE	0.047 J
1,2,4-Trimethylbenzene	3.6	3.6	190	0.031 J
1,4-Dioxane	0.1	0.1	130	< 5
Acetone	0.05	0.05	500	< 0.5
Methylene chloride	0.05	0.05	500	< 0.5
Naphthalene	12	12	500	0.11 J
SVOCs via EPA Method 8270 (mg/kg)				
Pyrene	100	1000	500	0.028 J

Notes:

VOCs = volatile organic compounds

SVOCs = semivolatile organic compounds

EPA = United States Environmental Protection Agency

mg/kg = milligrams per kilogram

< = not detected above indicated laboratory Reporting Limit (RL)

NY-RESC: Commercial Criteria, New York Restricted use current as of 5/2007

NY-RESGW: Groundwater Criteria, New York Restricted use current as of 5/2007

NY-UNRES: New York Unrestricted use Criteria current as of 5/2007

J = detected below laboratory RLs

NE = not established

RL exceeds one or more regulatory criteria

Table 4: Groundwater Sample Laboratory Results Summary
 491 Main Street
 New Rochelle, New York 10801
 Partner Project Number 16-171696.45
 November 22, 2016

ANALYTE	NY-AWQS	B-1
VOCs via EPA Method 8260 (µg/l)		
1,2,3-Trichloropropane	0.04	< 2.5
1,2-Dibromo-3-chloropropane	0.04	< 2.5
1,2-Dibromoethane	0.0006	< 2
Chloroform	7	0.97 J
Hexachlorobutadiene	0.5	< 2.5
Naphthalene	10	4.8
SVOCs via EPA Method 8270 (µg/l)		
2-Methylnaphthalene	NE	0.09 J
Acenaphthene	20	0.06 J
Anthracene	50	0.07 J
Benzo(a)anthracene	NE	0.14 J
Benzo(a)pyrene	0.001	0.09 J
Benzo(b)fluoranthene	0.002	0.08 J
Benzo(ghi)perylene	NE	0.05 J
Benzo(k)fluoranthene	0.002	< 0.2
Chrysene	0.002	0.13 J
Fluoranthene	50	0.44
Indeno(1,2,3-cd)pyrene	0.002	< 0.2
Phenanthrene	50	0.04 J
Pyrene	50	0.57

Notes:

VOCs = volatile organic compounds

SVOCs = semivolatile organic compounds

EPA = United States Environmental Protection Agency

µg/L = microgram per liter

< = not detected above indicated laboratory Reporting Limit (RL)

NY-AWQS: New York TOGS 111 Ambient Water Quality Standards criteria reflects all addendum to cr

J = detected below laboratory RLs

NE = not established

RL exceeds one or more regulatory criteria

Exceeds NY-AWQS

FIGURES

PARTNER

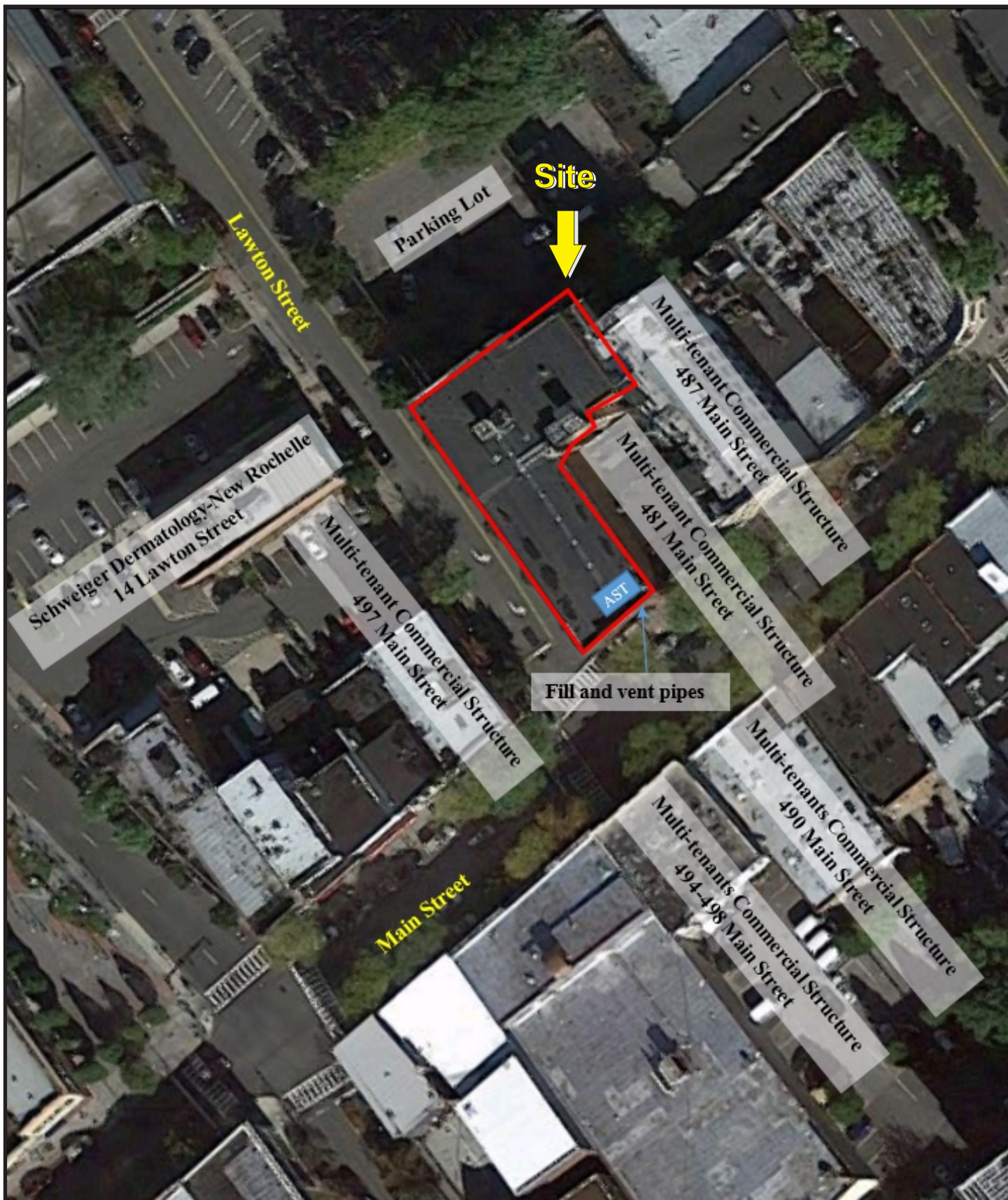


FIGURE 1: Site Location Map

Site Address:

491 Main Street
New Rochelle, New York 10801

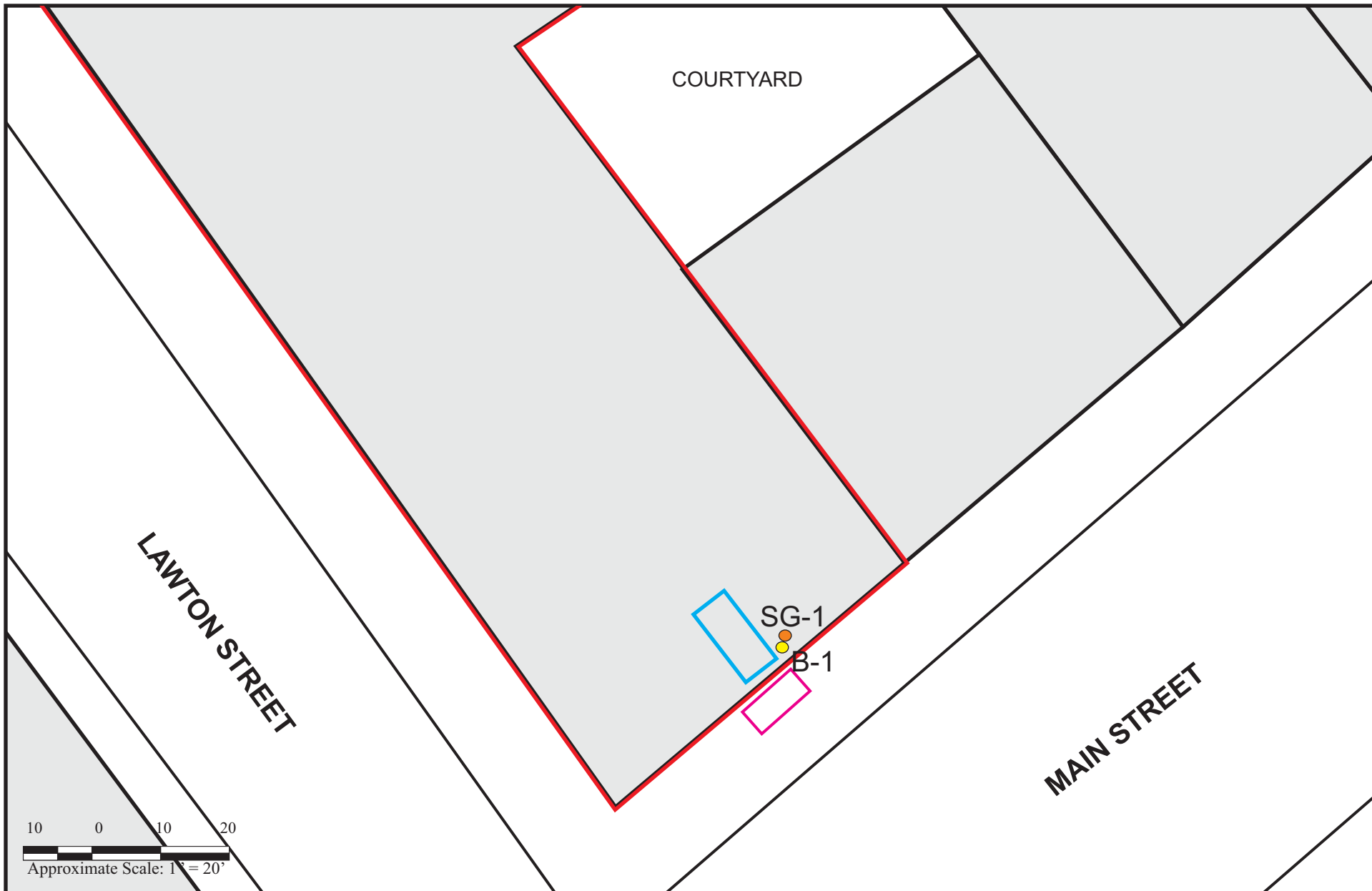


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Job Number: 17-171696.45





PARTNER

362 Fifth Avenue, Suite 501
New York, New York 10001

Project Number: 16-171696.45



Subject Site



Boring Location



Sub-Slab Soil Gas Sample



Legend

Suspect former UST(s) Location



Current active AST Location



Sample Location Map

Figure	Prepared By	Date
3	A. Hassler	Dec 2016

491 Main Street
New Rochelle, New York 10801

APPENDIX A: BORING LOGS

Boring Number:		B-1		Page 1 of 1	
Location:		Basement in AST Vault Area		Date Started:	11/22/2016
Site Address:	491 Main Street		Date Completed:		11/22/2016
	New Rochelle, New York		Depth to Groundwater:		6.0 ft bgs
Project Number:		16-171696.45		Field Technician:	AH
Drill Rig Type:		Hand-held Jack Hammer		Partner Assessment Corp	
Sampling Equipment:		4 ft MacroCore		362 5th Avenue, Suite 501	
Borehole Diameter:		1 inch		New York, New York 10001	
Depth	Sample	PID	USCS	Description	Notes
1	B-1	20.0	ML	Black stained silt; dry	Boring overlain by concrete slab (4 inches thick)
		22.0			
2		12.0	SM	Brown silty fine sand; dry	2.0 ft Recovery; Petroleum odors
		11.0			
3		8.0			
		8.0			
4		2.0			
		2.0			
5		2.0	CL	Brown silt with sandy clay; slightly moist	3.0 ft Recovery; no odors or staining
		2.0			
6		2.0			
		0.0			
7		0.0			
		0.0			
8		0.0			
9				Boring terminated at 8 ft bgs	Soil boring B-1 was converted into a temporary well point and screened from 0-8 ft bgs.
10					
11					
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25					

APPENDIX B: GEOPHYSICAL SURVEY REPORT



GEOPHYSICAL INVESTIGATION REPORT

SITE LOCATION:

**491 Main Street
New Rochelle, New York**

PREPARED FOR:

**Partner Engineering
611 Industrial Way
Eatontown, New Jersey**

PREPARED BY:

Mike Mesaros
Delta Geophysics Inc.
738 Front Street
Catasauqua, PA 18032

December 6, 2016

Delta Geophysics, Inc. (Delta) is pleased to provide the results of the geophysical survey conducted at 491 Main Street, New Rochelle, New York.

1.0 INTRODUCTION

On November 22nd, 2016 Delta Geophysics personnel performed a limited geophysical investigation at 491 Main Street, New Rochelle, New York. The area of interest was all accessible areas in close proximity to a suspect vent on the south side of the building and the basement AST room. Particular attention was given to potential UST's. Subsurface conditions were unknown at the time of survey.

2.0 SCOPE OF WORK

The survey was conducted to investigate the subsurface for anomalies consistent with underground storage tanks (UST) and former excavations. A secondary objective was to locate and mark detectable underground utilities in close proximity to client proposed soil boring locations.

3.0 METHODOLOGY

Selection of survey equipment is dependent site conditions and project objectives. For this project the technician utilized the following equipment to survey the area of concern:

- Geophysical Survey Systems Inc. SIR-3000 cart-mounted Ground Penetrating Radar (GPR) unit with a 400 Mhz antenna.
- Radiodetection RD7000 precision utility locator.
- Fisher M-Scope TW-6 pipe and cable locator.

Ground penetrating radar (commonly called GPR) is a geophysical method that has been developed over the past thirty years for shallow, high-resolution, subsurface investigations of the earth. GPR uses high frequency pulsed electromagnetic waves (generally 10 MHz to 1,000 MHz) to acquire subsurface information. Energy is propagated downward into the ground and is reflected back to the surface from boundaries at which there are electrical property contrasts. GPR is a method that is commonly used for environmental, engineering, archeological, and other shallow investigations.

The GSSI SIR-3000 GPR can accept a wide variety of antennas which provide various depths of penetration and levels of resolution. The 400 MHz antenna can achieve depths of penetration up to about 20 feet, but this depth may be greatly reduced due to site-specific conditions. Signal penetration decreases with increased soil conductivity. Conductive materials attenuate or absorb the GPR signal. As depth increases the return signal becomes weaker. Penetration is the greatest in unsaturated sands and fine gravels. Clayey, highly saline or saturated soils, areas covered by steel reinforced concrete, foundry slag, of other highly conductive materials significantly reduces GPR depth of penetration.

The GPR was configured to transmit to a depth of approximately 10 feet below the subsurface, but actual signal penetration was limited to less than 1 foot below ground surface (bgs). The limiting factor was signal attenuation from near surface soils and reinforced concrete.

The RD7000 precision utility locator uses radio emission to trace the location of metal bearing utilities. This radio emission can be active or passive. Active tracing requires the attachment of a radio transmitter to the utility, passive tracing uses radio emissions that are present on the utility. Underground electrical utilities typically emit radio signals that this device can detect.

The TW-6 is designed to find pipes, cables and other metallic objects such as underground storage tanks. One surveyor can carry both the transmitter and receiver together, making it ideally suited for exploration type searches of ferrous metal masses. Metal detectors of this type operate by generating a magnetic field at the transmitter which causes metallic objects in the subsurface to generate a secondary magnetic field. The induced secondary field is detected by the receiver, which generates an audible tone equal to the strength of the secondary field.

4.0 SURVEY FINDINGS

All accessible areas in close proximity to the suspect vent on the south side of the building and in the basement AST room were examined during this investigation. Each location was examined with the RD7000 for potential subsurface utilities then surveyed with GPR and TW-6 for other potential anomalies.

Potential UST

A remote fill port and vent pipe were observed in the sidewalk along Main street south of the building and were traced to the AST in the basement. A suspect vent pipe adjacent to the south side of the building was traced south in the sidewalk for approximately 10 feet before it terminated. Four copper lines were observed protruding from the wall in AST room and were traced south in the sidewalk for approximately 10 feet before terminating. GPR transects in the sidewalk imaged reinforced concrete which limited GPR depth of penetration to less than 1 foot bgs. Reinforced concrete also limited the use of TW-6 over the area.

Based on the presence of former vent and fill lines, the potential exists that a UST is located in the sidewalk south of the building. Based on the termination location of the former vent and fill lines an approximate size and orientation was depicted on site map (112216). Approximate size is 12 feet by 6 feet.

Utility Survey

A utility survey on the exterior of the property was not part of the scope of work outlined by the client. Client soil borings were located in the AST room adjacent to the south side of the building. One unknown utility was detected and marked with white paint. Former product lines enter the south wall of the building and then traverse north to the boiler room where they terminate.

A site map (112216) is included with all located subsurface features.

5.0 SURVEY LIMITATIONS

GPR depth of penetration was limited to less than 1 foot bgs. The limiting factor was due to conductive soils and reinforced concrete. TW-6 usage was also limited due to reinforced concrete. The AST in the basement prevented east / west GPR transects throughout the immediate area.

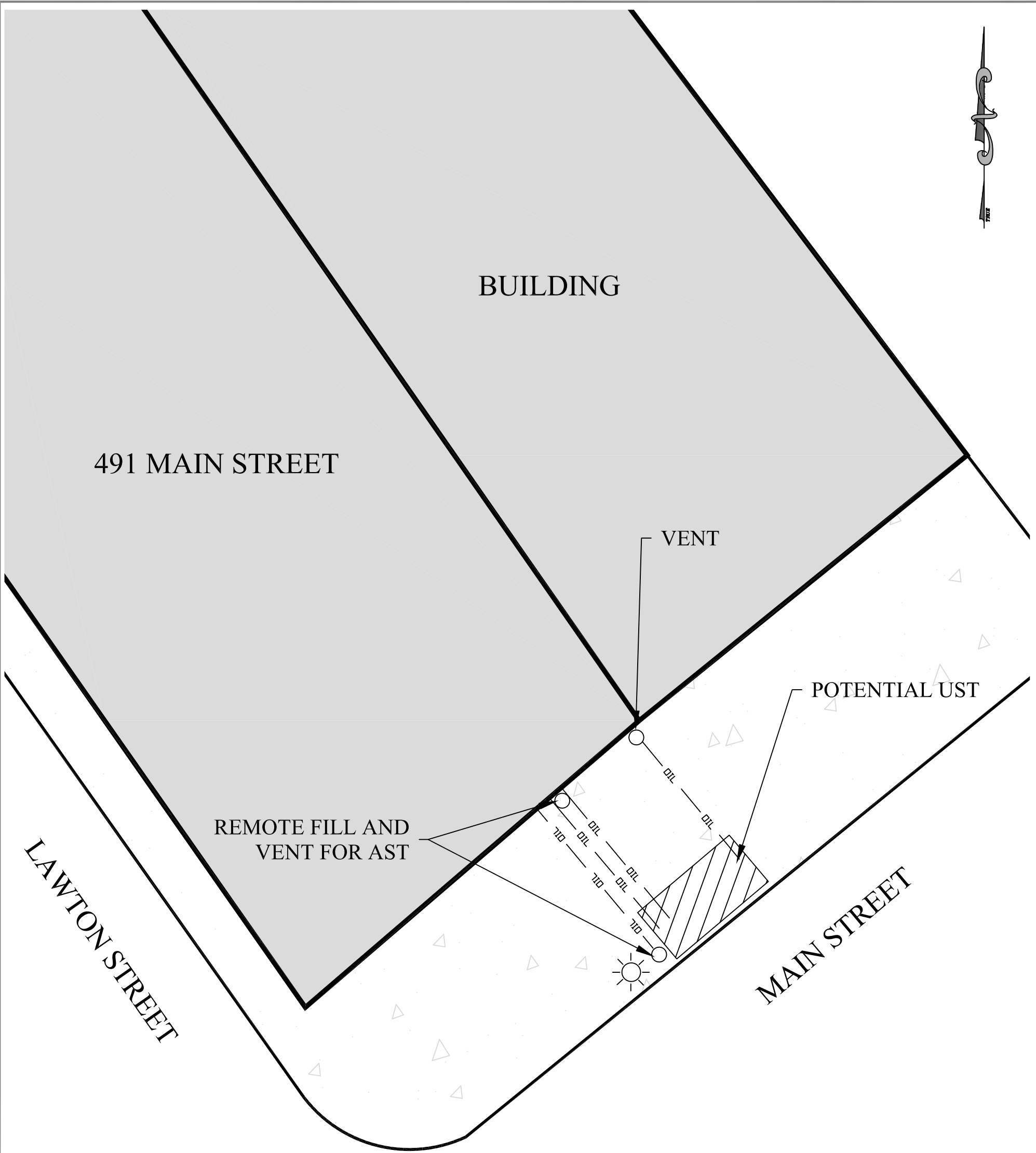
6.0 WARRANTIES AND DISCLAIMER

As with any geophysical method, it must be stressed that caution be used during any excavation or intrusive testing in proximity to any anomalies indicated in this report. In addition, the absence of detected signatures does not preclude the possibility that targets may exist. To the extent the client desires more definitive conclusions than are warranted by the currently available facts; it is specifically Delta's intent that the conclusions stated herein will be intended as guidance.

This report is based upon the application of scientific principles and professional judgment to certain facts with resultant subjective interpretations. Professional judgments expressed herein are based on the facts currently available within the limit or scope of work, budget and schedule. Delta represents that the services were performed in a manner consistent with currently accepted professional practices employed by geophysical/geological consultants under similar circumstances. No other representations to Client, express or implied, and no warranty or guarantee is included or intended in this agreement, or in any report, document, or otherwise.

This report was prepared pursuant to the contract Delta has with the Client. That contractual relationship included an exchange of information about the property that was unique and between Delta and its client and serves as the basis upon which this report was prepared. Because of the importance of the understandings between Delta and its client, reliance or any use of this report by anyone other than the Client, for whom it was prepared, is prohibited and therefore not foreseeable to Delta.

Reliance or use by any such third party without explicit authorization in the report does not make said third party a third party beneficiary to Delta's contract with the Client. Any such unauthorized reliance on or use of this report, including any of its information or conclusions, will be at the third party's risk. For the same reasons, no warranties or representations, expressed or implied in this report, are made to any such third party.

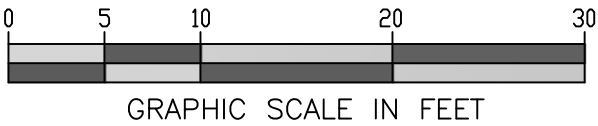


NOTES:

This site plan was produced from data positioned by differential GPS measurements collected in the field. Due to the errors normally present in DGPS data, this document is not intended or represented to be of survey precision. Caution should be used in all field measurements based on this site plan.

As with any geophysical method, it must be stressed that caution be used during any excavation or intrusive testing in proximity of any anomalies indicated in this document. The absence of detected signatures does not preclude the possibility that targets exist. The geophysical data and results presented in this site plan are based upon the application of scientific principles and professional judgements to certain facts with resultant subjective interpretations. Professional judgements expressed herein are based on the facts currently available within the limits of the existing data, scope of work, budget, and schedule.

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- LEGEND
- VENT / FILL
 - ☀ LIGHT POLE
 - OIL — PRODUCT PIPING

DATE	11/22/16
SCALE	1" = 10'
DWG NO.	112216
SHT NO.	1 OF 1
PROJECT.	

GEOPHYSICAL INVESTIGATION
491 MAIN STREET, NEW ROCHELLE, NEW YORK
FOR
PARTNER ENGINEERING AND SCIENCE



DELTA Geophysics Inc.

738 Front Street, Catasauqua, PA 18032
Phone: (610) 231-3701

APPENDIX C: LABORATORY ANALYTICAL REPORT



ANALYTICAL REPORT

Lab Number:	L1638268
Client:	Partner Engineering and Science, Inc. 611 Industrial Way West Eatontown, NJ 07724
ATTN:	Andres Simonson
Phone:	(732) 380-1700
Project Name:	NEW ROCHELLE
Project Number:	16-171696.45
Report Date:	11/29/16

The original project report/data package is held by Alpha Analytical. This report/data package is paginated and should be reproduced only in its entirety. Alpha Analytical holds no responsibility for results and/or data that are not consistent with the original.

Certifications & Approvals: MA (M-MA086), NY (11148), CT (PH-0574), NH (2003), NJ NELAP (MA935), RI (LAO00065), ME (MA00086), PA (68-03671), VA (460195), MD (348), IL (200077), NC (666), TX (T104704476), DOD (L2217), USDA (Permit #P-330-11-00240).

Eight Walkup Drive, Westborough, MA 01581-1019
508-898-9220 (Fax) 508-898-9193 800-624-9220 - www.alphalab.com



Project Name: NEW ROCHELLE
Project Number: 16-171696.45

Lab Number: L1638268
Report Date: 11/29/16

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L1638268-01	B-1	SOIL	NEW ROCHELLE, NY	11/22/16 13:40	11/23/16
L1638268-02	B-1	WATER	NEW ROCHELLE, NY	11/22/16 14:00	11/23/16

Project Name: NEW ROCHELLE
Project Number: 16-171696.45

Lab Number: L1638268
Report Date: 11/29/16

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet NELAP requirements for all NELAP accredited parameters unless otherwise noted in the following narrative. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. Tentatively Identified Compounds (TICs), if requested, are reported for compounds identified to be present and are not part of the method/program Target Compound List, even if only a subset of the TCL are being reported. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively. When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. All specific QC information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications. Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances the specific failure is not narrated but noted in the associated QC table. The information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications.

Please see the associated ADEx data file for a comparison of laboratory reporting limits that were achieved with the regulatory Numerical Standards requested on the Chain of Custody.

HOLD POLICY

For samples submitted on hold, Alpha's policy is to hold samples (with the exception of Air canisters) free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Client Service Representative and made arrangements for Alpha to continue to hold the samples. Air canisters will be disposed after 3 business days from the date the project is completed.

Please contact Client Services at 800-624-9220 with any questions.

Project Name: NEW ROCHELLE
Project Number: 16-171696.45

Lab Number: L1638268
Report Date: 11/29/16

Case Narrative (continued)

Report Submission

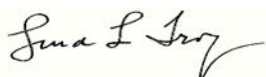
All non-detect (ND) or estimated concentrations (J-qualified) have been quantitated to the limit noted in the MDL column.

Volatile Organics

L1638268-01: The analysis of Volatile Organics by EPA Method 5035/8260 Low Level could not be performed due to the elevated concentrations of non-target compounds in the sample.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature:



Lura L Troy

Title: Technical Director/Representative

Date: 11/29/16

ORGANICS

VOLATILES

Project Name: NEW ROCHELLE

Lab Number: L1638268

Project Number: 16-171696.45

Report Date: 11/29/16

SAMPLE RESULTS

Lab ID: L1638268-01
 Client ID: B-1
 Sample Location: NEW ROCHELLE, NY
 Matrix: Soil
 Analytical Method: 1,8260C
 Analytical Date: 11/29/16 03:49
 Analyst: MV
 Percent Solids: 89%

Date Collected: 11/22/16 13:40
 Date Received: 11/23/16
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by 8260/5035 - Westborough Lab						
Methylene chloride	ND		ug/kg	500	55.	1
1,1-Dichloroethane	ND		ug/kg	74	4.2	1
Chloroform	ND		ug/kg	74	18.	1
Carbon tetrachloride	ND		ug/kg	50	10.	1
1,2-Dichloropropane	ND		ug/kg	170	11.	1
Dibromochloromethane	ND		ug/kg	50	7.6	1
1,1,2-Trichloroethane	ND		ug/kg	74	15.	1
Tetrachloroethene	ND		ug/kg	50	7.0	1
Chlorobenzene	ND		ug/kg	50	17.	1
Trichlorofluoromethane	ND		ug/kg	250	19.	1
1,2-Dichloroethane	ND		ug/kg	50	5.6	1
1,1,1-Trichloroethane	ND		ug/kg	50	5.5	1
Bromodichloromethane	ND		ug/kg	50	8.6	1
trans-1,3-Dichloropropene	ND		ug/kg	50	6.0	1
cis-1,3-Dichloropropene	ND		ug/kg	50	5.8	1
1,3-Dichloropropene, Total	ND		ug/kg	50	5.8	1
1,1-Dichloropropene	ND		ug/kg	250	7.0	1
Bromoform	ND		ug/kg	200	12.	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	50	5.0	1
Benzene	ND		ug/kg	50	5.9	1
Toluene	ND		ug/kg	74	9.7	1
Ethylbenzene	ND		ug/kg	50	6.3	1
Chloromethane	ND		ug/kg	250	15.	1
Bromomethane	ND		ug/kg	99	17.	1
Vinyl chloride	ND		ug/kg	99	5.8	1
Chloroethane	ND		ug/kg	99	16.	1
1,1-Dichloroethene	ND		ug/kg	50	13.	1
trans-1,2-Dichloroethene	ND		ug/kg	74	10.	1
Trichloroethene	ND		ug/kg	50	6.2	1
1,2-Dichlorobenzene	ND		ug/kg	250	7.6	1

Project Name: NEW ROCHELLE**Lab Number:** L1638268**Project Number:** 16-171696.45**Report Date:** 11/29/16**SAMPLE RESULTS****Lab ID:** L1638268-01**Date Collected:** 11/22/16 13:40**Client ID:** B-1**Date Received:** 11/23/16**Sample Location:** NEW ROCHELLE, NY**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by 8260/5035 - Westborough Lab						
1,3-Dichlorobenzene	ND		ug/kg	250	6.7	1
1,4-Dichlorobenzene	ND		ug/kg	250	6.9	1
Methyl tert butyl ether	ND		ug/kg	99	4.2	1
p/m-Xylene	ND		ug/kg	99	17.	1
o-Xylene	ND		ug/kg	99	17.	1
Xylenes, Total	ND		ug/kg	99	17.	1
cis-1,2-Dichloroethene	ND		ug/kg	50	7.1	1
1,2-Dichloroethene, Total	ND		ug/kg	50	7.1	1
Dibromomethane	ND		ug/kg	500	8.1	1
Styrene	ND		ug/kg	99	20.	1
Dichlorodifluoromethane	ND		ug/kg	500	9.5	1
Acetone	ND		ug/kg	500	52.	1
Carbon disulfide	ND		ug/kg	500	55.	1
2-Butanone	ND		ug/kg	500	14.	1
Vinyl acetate	ND		ug/kg	500	6.6	1
4-Methyl-2-pentanone	ND		ug/kg	500	12.	1
1,2,3-Trichloropropane	ND		ug/kg	500	8.1	1
2-Hexanone	ND		ug/kg	500	33.	1
Bromochloromethane	ND		ug/kg	250	14.	1
2,2-Dichloropropane	ND		ug/kg	250	11.	1
1,2-Dibromoethane	ND		ug/kg	200	8.7	1
1,3-Dichloropropane	ND		ug/kg	250	7.2	1
1,1,1,2-Tetrachloroethane	ND		ug/kg	50	16.	1
Bromobenzene	ND		ug/kg	250	10.	1
n-Butylbenzene	ND		ug/kg	50	5.7	1
sec-Butylbenzene	ND		ug/kg	50	6.1	1
tert-Butylbenzene	ND		ug/kg	250	6.7	1
o-Chlorotoluene	ND		ug/kg	250	7.9	1
p-Chlorotoluene	ND		ug/kg	250	6.6	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	250	20.	1
Hexachlorobutadiene	ND		ug/kg	250	11.	1
Isopropylbenzene	ND		ug/kg	50	5.2	1
p-Isopropyltoluene	ND		ug/kg	50	6.2	1
Naphthalene	110	J	ug/kg	250	6.9	1
Acrylonitrile	ND		ug/kg	500	26.	1
n-Propylbenzene	ND		ug/kg	50	5.4	1
1,2,3-Trichlorobenzene	71	J	ug/kg	250	7.3	1
1,2,4-Trichlorobenzene	ND		ug/kg	250	9.0	1
1,3,5-Trimethylbenzene	ND		ug/kg	250	7.1	1

Project Name: NEW ROCHELLE

Lab Number: L1638268

Project Number: 16-171696.45

Report Date: 11/29/16

SAMPLE RESULTS

Lab ID: L1638268-01

Date Collected: 11/22/16 13:40

Client ID: B-1

Date Received: 11/23/16

Sample Location: NEW ROCHELLE, NY

Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by 8260/5035 - Westborough Lab						
1,2,4-Trimethylbenzene	31	J	ug/kg	250	7.0	1
1,4-Dioxane	ND		ug/kg	5000	720	1
p-Diethylbenzene	ND		ug/kg	200	7.9	1
p-Ethyltoluene	ND		ug/kg	200	6.2	1
1,2,4,5-Tetramethylbenzene	47	J	ug/kg	200	6.5	1
Ethyl ether	ND		ug/kg	250	13.	1
trans-1,4-Dichloro-2-butene	ND		ug/kg	250	19.	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	107		70-130
Toluene-d8	95		70-130
4-Bromofluorobenzene	111		70-130
Dibromofluoromethane	100		70-130

Project Name: NEW ROCHELLE

Lab Number: L1638268

Project Number: 16-171696.45

Report Date: 11/29/16

SAMPLE RESULTS

Lab ID: L1638268-02
 Client ID: B-1
 Sample Location: NEW ROCHELLE, NY
 Matrix: Water
 Analytical Method: 1,8260C
 Analytical Date: 11/26/16 15:58
 Analyst: PD

Date Collected: 11/22/16 14:00
 Date Received: 11/23/16
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	0.97	J	ug/l	2.5	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.14	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	ND		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Trichlorofluoromethane	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14	1
1,1-Dichloropropene	ND		ug/l	2.5	0.70	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	ND		ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	ND		ug/l	0.50	0.17	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
Trichloroethene	ND		ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1

Project Name: NEW ROCHELLE**Lab Number:** L1638268**Project Number:** 16-171696.45**Report Date:** 11/29/16**SAMPLE RESULTS****Lab ID:** L1638268-02**Date Collected:** 11/22/16 14:00**Client ID:** B-1**Date Received:** 11/23/16**Sample Location:** NEW ROCHELLE, NY**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl tert butyl ether	ND		ug/l	2.5	0.70	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1
Xylenes, Total	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
1,2-Dichloroethene, Total	ND		ug/l	2.5	0.70	1
Dibromomethane	ND		ug/l	5.0	1.0	1
1,2,3-Trichloropropane	ND		ug/l	2.5	0.70	1
Acrylonitrile	ND		ug/l	5.0	1.5	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	ND		ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	5.0	1.0	1
2-Butanone	ND		ug/l	5.0	1.9	1
Vinyl acetate	ND		ug/l	5.0	1.0	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	ND		ug/l	5.0	1.0	1
Bromochloromethane	ND		ug/l	2.5	0.70	1
2,2-Dichloropropane	ND		ug/l	2.5	0.70	1
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1
1,3-Dichloropropane	ND		ug/l	2.5	0.70	1
1,1,1,2-Tetrachloroethane	ND		ug/l	2.5	0.70	1
Bromobenzene	ND		ug/l	2.5	0.70	1
n-Butylbenzene	ND		ug/l	2.5	0.70	1
sec-Butylbenzene	ND		ug/l	2.5	0.70	1
tert-Butylbenzene	ND		ug/l	2.5	0.70	1
o-Chlorotoluene	ND		ug/l	2.5	0.70	1
p-Chlorotoluene	ND		ug/l	2.5	0.70	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Hexachlorobutadiene	ND		ug/l	2.5	0.70	1
Isopropylbenzene	ND		ug/l	2.5	0.70	1
p-Isopropyltoluene	ND		ug/l	2.5	0.70	1
Naphthalene	4.8		ug/l	2.5	0.70	1
n-Propylbenzene	ND		ug/l	2.5	0.70	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,3,5-Trimethylbenzene	ND		ug/l	2.5	0.70	1

Project Name: NEW ROCHELLE

Lab Number: L1638268

Project Number: 16-171696.45

Report Date: 11/29/16

SAMPLE RESULTS

Lab ID: L1638268-02

Date Collected: 11/22/16 14:00

Client ID: B-1

Date Received: 11/23/16

Sample Location: NEW ROCHELLE, NY

Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,2,4-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,4-Dioxane	ND		ug/l	250	61.	1
p-Diethylbenzene	ND		ug/l	2.0	0.70	1
p-Ethyltoluene	ND		ug/l	2.0	0.70	1
1,2,4,5-Tetramethylbenzene	ND		ug/l	2.0	0.54	1
Ethyl ether	ND		ug/l	2.5	0.70	1
trans-1,4-Dichloro-2-butene	ND		ug/l	2.5	0.70	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	93		70-130
Toluene-d8	102		70-130
4-Bromofluorobenzene	100		70-130
Dibromofluoromethane	101		70-130

Project Name: NEW ROCHELLE

Lab Number: L1638268

Project Number: 16-171696.45

Report Date: 11/29/16

Method Blank Analysis Batch Quality Control

Analytical Method: 1,8260C

Analytical Date: 11/26/16 13:17

Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 02 Batch: WG955678-5					
Methylene chloride	ND		ug/l	2.5	0.70
1,1-Dichloroethane	ND		ug/l	2.5	0.70
Chloroform	ND		ug/l	2.5	0.70
Carbon tetrachloride	ND		ug/l	0.50	0.13
1,2-Dichloropropane	ND		ug/l	1.0	0.14
Dibromochloromethane	ND		ug/l	0.50	0.15
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50
Tetrachloroethene	ND		ug/l	0.50	0.18
Chlorobenzene	ND		ug/l	2.5	0.70
Trichlorofluoromethane	ND		ug/l	2.5	0.70
1,2-Dichloroethane	ND		ug/l	0.50	0.13
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70
Bromodichloromethane	ND		ug/l	0.50	0.19
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14
1,1-Dichloropropene	ND		ug/l	2.5	0.70
Bromoform	ND		ug/l	2.0	0.65
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17
Benzene	ND		ug/l	0.50	0.16
Toluene	ND		ug/l	2.5	0.70
Ethylbenzene	ND		ug/l	2.5	0.70
Chloromethane	ND		ug/l	2.5	0.70
Bromomethane	ND		ug/l	2.5	0.70
Vinyl chloride	ND		ug/l	1.0	0.07
Chloroethane	ND		ug/l	2.5	0.70
1,1-Dichloroethene	ND		ug/l	0.50	0.17
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70
Trichloroethene	ND		ug/l	0.50	0.18

Project Name: NEW ROCHELLE

Lab Number: L1638268

Project Number: 16-171696.45

Report Date: 11/29/16

Method Blank Analysis Batch Quality Control

Analytical Method: 1,8260C

Analytical Date: 11/26/16 13:17

Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 02 Batch: WG955678-5					
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70
Methyl tert butyl ether	ND		ug/l	2.5	0.70
p/m-Xylene	ND		ug/l	2.5	0.70
o-Xylene	ND		ug/l	2.5	0.70
Xylenes, Total	ND		ug/l	2.5	0.70
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70
1,2-Dichloroethene, Total	ND		ug/l	2.5	0.70
Dibromomethane	ND		ug/l	5.0	1.0
1,2,3-Trichloropropane	ND		ug/l	2.5	0.70
Acrylonitrile	ND		ug/l	5.0	1.5
Styrene	ND		ug/l	2.5	0.70
Dichlorodifluoromethane	ND		ug/l	5.0	1.0
Acetone	ND		ug/l	5.0	1.5
Carbon disulfide	ND		ug/l	5.0	1.0
2-Butanone	ND		ug/l	5.0	1.9
Vinyl acetate	ND		ug/l	5.0	1.0
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0
2-Hexanone	ND		ug/l	5.0	1.0
Bromochloromethane	ND		ug/l	2.5	0.70
2,2-Dichloropropane	ND		ug/l	2.5	0.70
1,2-Dibromoethane	ND		ug/l	2.0	0.65
1,3-Dichloropropane	ND		ug/l	2.5	0.70
1,1,1,2-Tetrachloroethane	ND		ug/l	2.5	0.70
Bromobenzene	ND		ug/l	2.5	0.70
n-Butylbenzene	ND		ug/l	2.5	0.70
sec-Butylbenzene	ND		ug/l	2.5	0.70
tert-Butylbenzene	ND		ug/l	2.5	0.70

Project Name: NEW ROCHELLE

Lab Number: L1638268

Project Number: 16-171696.45

Report Date: 11/29/16

Method Blank Analysis Batch Quality Control

Analytical Method: 1,8260C

Analytical Date: 11/26/16 13:17

Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 02 Batch: WG955678-5					
o-Chlorotoluene	ND		ug/l	2.5	0.70
p-Chlorotoluene	ND		ug/l	2.5	0.70
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70
Hexachlorobutadiene	ND		ug/l	2.5	0.70
Isopropylbenzene	ND		ug/l	2.5	0.70
p-Isopropyltoluene	ND		ug/l	2.5	0.70
Naphthalene	ND		ug/l	2.5	0.70
n-Propylbenzene	ND		ug/l	2.5	0.70
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70
1,3,5-Trimethylbenzene	ND		ug/l	2.5	0.70
1,2,4-Trimethylbenzene	ND		ug/l	2.5	0.70
1,4-Dioxane	ND		ug/l	250	61.
p-Diethylbenzene	ND		ug/l	2.0	0.70
p-Ethyltoluene	ND		ug/l	2.0	0.70
1,2,4,5-Tetramethylbenzene	ND		ug/l	2.0	0.54
Ethyl ether	ND		ug/l	2.5	0.70
trans-1,4-Dichloro-2-butene	ND		ug/l	2.5	0.70

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	90		70-130
Toluene-d8	104		70-130
4-Bromofluorobenzene	103		70-130
Dibromofluoromethane	100		70-130

Project Name: NEW ROCHELLE

Lab Number: L1638268

Project Number: 16-171696.45

Report Date: 11/29/16

Method Blank Analysis Batch Quality Control

Analytical Method: 1,8260C

Analytical Date: 11/28/16 20:34

Analyst: MV

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by 8260/5035 - Westborough Lab for sample(s): 01 Batch: WG956201-5					
Methylene chloride	76	J	ug/kg	500	55.
1,1-Dichloroethane	ND		ug/kg	75	4.3
Chloroform	ND		ug/kg	75	18.
Carbon tetrachloride	ND		ug/kg	50	10.
1,2-Dichloropropane	ND		ug/kg	180	11.
Dibromochloromethane	ND		ug/kg	50	7.7
1,1,2-Trichloroethane	ND		ug/kg	75	15.
Tetrachloroethene	ND		ug/kg	50	7.0
Chlorobenzene	ND		ug/kg	50	17.
Trichlorofluoromethane	ND		ug/kg	250	19.
1,2-Dichloroethane	ND		ug/kg	50	5.7
1,1,1-Trichloroethane	ND		ug/kg	50	5.5
Bromodichloromethane	ND		ug/kg	50	8.7
trans-1,3-Dichloropropene	ND		ug/kg	50	6.0
cis-1,3-Dichloropropene	ND		ug/kg	50	5.9
1,3-Dichloropropene, Total	ND		ug/kg	50	5.9
1,1-Dichloropropene	ND		ug/kg	250	7.1
Bromoform	ND		ug/kg	200	12.
1,1,2,2-Tetrachloroethane	ND		ug/kg	50	5.0
Benzene	ND		ug/kg	50	5.9
Toluene	ND		ug/kg	75	9.7
Ethylbenzene	ND		ug/kg	50	6.4
Chloromethane	ND		ug/kg	250	15.
Bromomethane	27	J	ug/kg	100	17.
Vinyl chloride	ND		ug/kg	100	5.9
Chloroethane	23	J	ug/kg	100	16.
1,1-Dichloroethene	ND		ug/kg	50	13.
trans-1,2-Dichloroethene	ND		ug/kg	75	11.
Trichloroethene	ND		ug/kg	50	6.2

Project Name: NEW ROCHELLE

Lab Number: L1638268

Project Number: 16-171696.45

Report Date: 11/29/16

Method Blank Analysis Batch Quality Control

Analytical Method: 1,8260C

Analytical Date: 11/28/16 20:34

Analyst: MV

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by 8260/5035 - Westborough Lab for sample(s): 01 Batch: WG956201-5					
1,2-Dichlorobenzene	ND		ug/kg	250	7.7
1,3-Dichlorobenzene	ND		ug/kg	250	6.8
1,4-Dichlorobenzene	ND		ug/kg	250	6.9
Methyl tert butyl ether	ND		ug/kg	100	4.2
p/m-Xylene	ND		ug/kg	100	18.
o-Xylene	ND		ug/kg	100	17.
Xylenes, Total	ND		ug/kg	100	17.
cis-1,2-Dichloroethene	ND		ug/kg	50	7.1
1,2-Dichloroethene, Total	ND		ug/kg	50	7.1
Dibromomethane	ND		ug/kg	500	8.2
Styrene	ND		ug/kg	100	20.
Dichlorodifluoromethane	ND		ug/kg	500	9.5
Acetone	ND		ug/kg	500	52.
Carbon disulfide	ND		ug/kg	500	55.
2-Butanone	ND		ug/kg	500	14.
Vinyl acetate	ND		ug/kg	500	6.6
4-Methyl-2-pentanone	ND		ug/kg	500	12.
1,2,3-Trichloropropane	ND		ug/kg	500	8.1
2-Hexanone	ND		ug/kg	500	33.
Bromochloromethane	ND		ug/kg	250	14.
2,2-Dichloropropane	ND		ug/kg	250	11.
1,2-Dibromoethane	ND		ug/kg	200	8.7
1,3-Dichloropropane	ND		ug/kg	250	7.3
1,1,1,2-Tetrachloroethane	ND		ug/kg	50	16.
Bromobenzene	ND		ug/kg	250	10.
n-Butylbenzene	ND		ug/kg	50	5.7
sec-Butylbenzene	ND		ug/kg	50	6.1
tert-Butylbenzene	ND		ug/kg	250	6.8
o-Chlorotoluene	ND		ug/kg	250	8.0

Project Name: NEW ROCHELLE

Lab Number: L1638268

Project Number: 16-171696.45

Report Date: 11/29/16

Method Blank Analysis Batch Quality Control

Analytical Method: 1,8260C

Analytical Date: 11/28/16 20:34

Analyst: MV

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by 8260/5035 - Westborough Lab for sample(s): 01 Batch: WG956201-5					
p-Chlorotoluene	ND		ug/kg	250	6.6
1,2-Dibromo-3-chloropropane	ND		ug/kg	250	20.
Hexachlorobutadiene	ND		ug/kg	250	11.
Isopropylbenzene	ND		ug/kg	50	5.2
p-Isopropyltoluene	ND		ug/kg	50	6.2
Naphthalene	ND		ug/kg	250	6.9
Acrylonitrile	ND		ug/kg	500	26.
n-Propylbenzene	ND		ug/kg	50	5.5
1,2,3-Trichlorobenzene	ND		ug/kg	250	7.4
1,2,4-Trichlorobenzene	ND		ug/kg	250	9.1
1,3,5-Trimethylbenzene	ND		ug/kg	250	7.2
1,2,4-Trimethylbenzene	ND		ug/kg	250	7.1
1,4-Dioxane	ND		ug/kg	5000	720
p-Diethylbenzene	ND		ug/kg	200	8.0
p-Ethyltoluene	ND		ug/kg	200	6.2
1,2,4,5-Tetramethylbenzene	ND		ug/kg	200	6.5
Ethyl ether	ND		ug/kg	250	13.
trans-1,4-Dichloro-2-butene	ND		ug/kg	250	20.

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	119		70-130
Toluene-d8	98		70-130
4-Bromofluorobenzene	92		70-130
Dibromofluoromethane	114		70-130

Lab Control Sample Analysis Batch Quality Control

Project Name: NEW ROCHELLE

Project Number: 16-171696.45

Lab Number: L1638268

Report Date: 11/29/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 02 Batch: WG955678-3 WG955678-4								
Methylene chloride	100		98		70-130	2		20
1,1-Dichloroethane	99		96		70-130	3		20
Chloroform	95		92		70-130	3		20
2-Chloroethylvinyl ether	33	Q	54	Q	70-130	48	Q	20
Carbon tetrachloride	97		92		63-132	5		20
1,2-Dichloropropane	95		92		70-130	3		20
Dibromochloromethane	98		96		63-130	2		20
1,1,2-Trichloroethane	90		91		70-130	1		20
Tetrachloroethene	99		98		70-130	1		20
Chlorobenzene	100		99		75-130	1		20
Trichlorofluoromethane	100		95		62-150	5		20
1,2-Dichloroethane	85		82		70-130	4		20
1,1,1-Trichloroethane	91		87		67-130	4		20
Bromodichloromethane	94		91		67-130	3		20
trans-1,3-Dichloropropene	91		86		70-130	6		20
cis-1,3-Dichloropropene	92		90		70-130	2		20
1,1-Dichloropropene	94		90		70-130	4		20
Bromoform	100		100		54-136	0		20
1,1,2,2-Tetrachloroethane	84		87		67-130	4		20
Benzene	100		96		70-130	4		20
Toluene	100		99		70-130	1		20

Lab Control Sample Analysis

Batch Quality Control

Project Name: NEW ROCHELLE

Project Number: 16-171696.45

Lab Number: L1638268

Report Date: 11/29/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 02 Batch: WG955678-3 WG955678-4								
Ethylbenzene	100		97		70-130	3		20
Chloromethane	88		100		64-130	13		20
Bromomethane	120		110		39-139	9		20
Vinyl chloride	100		100		55-140	0		20
Chloroethane	120		110		55-138	9		20
1,1-Dichloroethene	100		97		61-145	3		20
trans-1,2-Dichloroethene	100		98		70-130	2		20
Trichloroethene	96		93		70-130	3		20
1,2-Dichlorobenzene	95		99		70-130	4		20
1,3-Dichlorobenzene	98		100		70-130	2		20
1,4-Dichlorobenzene	97		100		70-130	3		20
Methyl tert butyl ether	78		76		63-130	3		20
p/m-Xylene	100		100		70-130	0		20
o-Xylene	100		100		70-130	0		20
cis-1,2-Dichloroethene	100		100		70-130	0		20
Dibromomethane	90		87		70-130	3		20
1,2,3-Trichloropropane	82		84		64-130	2		20
Acrylonitrile	85		83		70-130	2		20
Isopropyl Ether	96		94		70-130	2		20
tert-Butyl Alcohol	82		82		70-130	0		20
Styrene	100		100		70-130	0		20

Lab Control Sample Analysis

Batch Quality Control

Project Name: NEW ROCHELLE

Project Number: 16-171696.45

Lab Number: L1638268

Report Date: 11/29/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 02 Batch: WG955678-3 WG955678-4								
Dichlorodifluoromethane	75		71		36-147	5		20
Acetone	86		78		58-148	10		20
Carbon disulfide	97		90		51-130	7		20
2-Butanone	79		77		63-138	3		20
Vinyl acetate	77		76		70-130	1		20
4-Methyl-2-pentanone	74		76		59-130	3		20
2-Hexanone	65		70		57-130	7		20
Acrolein	78		84		40-160	7		20
Bromochloromethane	110		110		70-130	0		20
2,2-Dichloropropane	93		85		63-133	9		20
1,2-Dibromoethane	87		86		70-130	1		20
1,3-Dichloropropane	89		88		70-130	1		20
1,1,1,2-Tetrachloroethane	100		96		64-130	4		20
Bromobenzene	100		100		70-130	0		20
n-Butylbenzene	100		100		53-136	0		20
sec-Butylbenzene	100		100		70-130	0		20
tert-Butylbenzene	100		100		70-130	0		20
o-Chlorotoluene	100		100		70-130	0		20
p-Chlorotoluene	98		98		70-130	0		20
1,2-Dibromo-3-chloropropane	74		77		41-144	4		20
Hexachlorobutadiene	95		96		63-130	1		20

Lab Control Sample Analysis Batch Quality Control

Project Name: NEW ROCHELLE

Project Number: 16-171696.45

Lab Number: L1638268

Report Date: 11/29/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 02 Batch: WG955678-3 WG955678-4								
Isopropylbenzene	100		100		70-130	0		20
p-Isopropyltoluene	100		100		70-130	0		20
Naphthalene	69	Q	74		70-130	7		20
n-Propylbenzene	100		100		69-130	0		20
1,2,3-Trichlorobenzene	74		80		70-130	8		20
1,2,4-Trichlorobenzene	83		87		70-130	5		20
1,3,5-Trimethylbenzene	100		100		64-130	0		20
1,2,4-Trimethylbenzene	100		100		70-130	0		20
Methyl Acetate	88		88		70-130	0		20
Ethyl Acetate	76		77		70-130	1		20
Cyclohexane	100		97		70-130	3		20
Ethyl-Tert-Butyl-Ether	82		79		70-130	4		20
Tertiary-Amyl Methyl Ether	78		74		66-130	5		20
1,4-Dioxane	90		90		56-162	0		20
1,1,2-Trichloro-1,2,2-Trifluoroethane	100		98		70-130	2		20
p-Diethylbenzene	100		100		70-130	0		20
p-Ethyltoluene	110		100		70-130	10		20
1,2,4,5-Tetramethylbenzene	110		110		70-130	0		20
Tetrahydrofuran	76		75		58-130	1		20
Ethyl ether	99		98		59-134	1		20
trans-1,4-Dichloro-2-butene	81		78		70-130	4		20

Lab Control Sample Analysis**Batch Quality Control****Project Name:** NEW ROCHELLE**Lab Number:** L1638268**Project Number:** 16-171696.45**Report Date:** 11/29/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 02 Batch: WG955678-3 WG955678-4								
Iodomethane	82		95		70-130	15		20
Methyl cyclohexane	100		100		70-130	0		20

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,2-Dichloroethane-d4	87		84		70-130
Toluene-d8	102		101		70-130
4-Bromofluorobenzene	98		99		70-130
Dibromofluoromethane	100		98		70-130

Lab Control Sample Analysis

Batch Quality Control

Project Name: NEW ROCHELLE

Project Number: 16-171696.45

Lab Number: L1638268

Report Date: 11/29/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by 8260/5035 - Westborough Lab Associated sample(s): 01 Batch: WG956201-3 WG956201-4								
Methylene chloride	116		116		70-130	0		30
1,1-Dichloroethane	115		111		70-130	4		30
Chloroform	119		118		70-130	1		30
Carbon tetrachloride	112		108		70-130	4		30
1,2-Dichloropropane	104		104		70-130	0		30
Dibromochloromethane	105		102		70-130	3		30
2-Chloroethylvinyl ether	74		72		70-130	3		30
1,1,2-Trichloroethane	115		112		70-130	3		30
Tetrachloroethene	83		82		70-130	1		30
Chlorobenzene	102		100		70-130	2		30
Trichlorofluoromethane	152	Q	143	Q	70-139	6		30
1,2-Dichloroethane	122		119		70-130	2		30
1,1,1-Trichloroethane	120		117		70-130	3		30
Bromodichloromethane	110		108		70-130	2		30
trans-1,3-Dichloropropene	102		99		70-130	3		30
cis-1,3-Dichloropropene	102		101		70-130	1		30
1,1-Dichloropropene	95		93		70-130	2		30
Bromoform	96		69	Q	70-130	33	Q	30
1,1,2,2-Tetrachloroethane	119		115		70-130	3		30
Benzene	106		107		70-130	1		30
Toluene	101		99		70-130	2		30

Lab Control Sample Analysis

Batch Quality Control

Project Name: NEW ROCHELLE

Project Number: 16-171696.45

Lab Number: L1638268

Report Date: 11/29/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by 8260/5035 - Westborough Lab Associated sample(s): 01 Batch: WG956201-3 WG956201-4								
Ethylbenzene	103		100		70-130	3		30
Chloromethane	136	Q	131	Q	52-130	4		30
Bromomethane	143		137		57-147	4		30
Vinyl chloride	122		110		67-130	10		30
Chloroethane	140		127		50-151	10		30
1,1-Dichloroethene	105		100		65-135	5		30
trans-1,2-Dichloroethene	103		104		70-130	1		30
Trichloroethene	113		110		70-130	3		30
1,2-Dichlorobenzene	101		71		70-130	35	Q	30
1,3-Dichlorobenzene	101		102		70-130	1		30
1,4-Dichlorobenzene	101		100		70-130	1		30
Methyl tert butyl ether	111		110		66-130	1		30
p/m-Xylene	98		97		70-130	1		30
o-Xylene	96		96		70-130	0		30
cis-1,2-Dichloroethene	106		105		70-130	1		30
Dibromomethane	116		113		70-130	3		30
Styrene	97		95		70-130	2		30
Dichlorodifluoromethane	90		84		30-146	7		30
Acetone	111		105		54-140	6		30
Carbon disulfide	102		97		59-130	5		30
2-Butanone	89		88		70-130	1		30

Lab Control Sample Analysis Batch Quality Control

Project Name: NEW ROCHELLE

Project Number: 16-171696.45

Lab Number: L1638268

Report Date: 11/29/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by 8260/5035 - Westborough Lab Associated sample(s): 01 Batch: WG956201-3 WG956201-4								
Vinyl acetate	99		95		70-130	4		30
4-Methyl-2-pentanone	78		73		70-130	7		30
1,2,3-Trichloropropane	118		103		68-130	14		30
2-Hexanone	69	Q	67	Q	70-130	3		30
Bromochloromethane	114		116		70-130	2		30
2,2-Dichloropropane	115		112		70-130	3		30
1,2-Dibromoethane	103		98		70-130	5		30
1,3-Dichloropropane	105		102		69-130	3		30
1,1,1,2-Tetrachloroethane	109		106		70-130	3		30
Bromobenzene	96		67	Q	70-130	36	Q	30
n-Butylbenzene	118		78		70-130	41	Q	30
sec-Butylbenzene	103		92		70-130	11		30
tert-Butylbenzene	99		89		70-130	11		30
o-Chlorotoluene	114		102		70-130	11		30
p-Chlorotoluene	113		104		70-130	8		30
1,2-Dibromo-3-chloropropane	93		66	Q	68-130	34	Q	30
Hexachlorobutadiene	98		72		67-130	31	Q	30
Isopropylbenzene	96		69	Q	70-130	33	Q	30
p-Isopropyltoluene	99		94		70-130	5		30
Naphthalene	90		65	Q	70-130	32	Q	30
Acrylonitrile	106		94		70-130	12		30

Lab Control Sample Analysis Batch Quality Control

Project Name: NEW ROCHELLE

Project Number: 16-171696.45

Lab Number: L1638268

Report Date: 11/29/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by 8260/5035 - Westborough Lab Associated sample(s): 01 Batch: WG956201-3 WG956201-4								
Isopropyl Ether	93		93		66-130	0		30
tert-Butyl Alcohol	107		100		70-130	7		30
n-Propylbenzene	110		78		70-130	34	Q	30
1,2,3-Trichlorobenzene	89		64	Q	70-130	33	Q	30
1,2,4-Trichlorobenzene	80		59	Q	70-130	30		30
1,3,5-Trimethylbenzene	118		102		70-130	15		30
1,2,4-Trimethylbenzene	109		97		70-130	12		30
Methyl Acetate	98		87		51-146	12		30
Ethyl Acetate	84		84		70-130	0		30
Acrolein	86		92		70-130	7		30
Cyclohexane	81		80		59-142	1		30
1,4-Dioxane	91		87		65-136	4		30
1,1,2-Trichloro-1,2,2-Trifluoroethane	94		92		50-139	2		30
p-Diethylbenzene	94		69	Q	70-130	31	Q	30
p-Ethyltoluene	107		99		70-130	8		30
1,2,4,5-Tetramethylbenzene	88		65	Q	70-130	30		30
Tetrahydrofuran	108		102		66-130	6		30
Ethyl ether	149	Q	134	Q	67-130	11		30
trans-1,4-Dichloro-2-butene	112		87		70-130	25		30
Methyl cyclohexane	81		79		70-130	3		30
Ethyl-Tert-Butyl-Ether	102		100		70-130	2		30

Lab Control Sample Analysis

Batch Quality Control

Project Name: NEW ROCHELLE

Project Number: 16-171696.45

Lab Number: L1638268

Report Date: 11/29/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by 8260/5035 - Westborough Lab Associated sample(s): 01 Batch: WG956201-3 WG956201-4								
Tertiary-Amyl Methyl Ether	96		95		70-130	1		30

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,2-Dichloroethane-d4	116		113		70-130
Toluene-d8	100		101		70-130
4-Bromofluorobenzene	106		78		70-130
Dibromofluoromethane	118		114		70-130

SEMIVOLATILES

Project Name: NEW ROCHELLE**Lab Number:** L1638268**Project Number:** 16-171696.45**Report Date:** 11/29/16**SAMPLE RESULTS**

Lab ID: L1638268-01
Client ID: B-1
Sample Location: NEW ROCHELLE, NY
Matrix: Soil
Analytical Method: 1,8270D
Analytical Date: 11/24/16 18:48
Analyst: PS
Percent Solids: 89%

Date Collected: 11/22/16 13:40
Date Received: 11/23/16
Field Prep: Not Specified
Extraction Method: EPA 3546
Extraction Date: 11/24/16 00:18

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Acenaphthene	ND		ug/kg	150	19.	1
2-Chloronaphthalene	ND		ug/kg	180	18.	1
Fluoranthene	ND		ug/kg	110	21.	1
Naphthalene	ND		ug/kg	180	22.	1
Benzo(a)anthracene	ND		ug/kg	110	21.	1
Benzo(a)pyrene	ND		ug/kg	150	45.	1
Benzo(b)fluoranthene	ND		ug/kg	110	31.	1
Benzo(k)fluoranthene	ND		ug/kg	110	29.	1
Chrysene	ND		ug/kg	110	19.	1
Acenaphthylene	ND		ug/kg	150	28.	1
Anthracene	ND		ug/kg	110	36.	1
Benzo(ghi)perylene	ND		ug/kg	150	22.	1
Fluorene	ND		ug/kg	180	18.	1
Phenanthrene	ND		ug/kg	110	22.	1
Dibenzo(a,h)anthracene	ND		ug/kg	110	21.	1
Indeno(1,2,3-cd)pyrene	ND		ug/kg	150	26.	1
Pyrene	28	J	ug/kg	110	18.	1
2-Methylnaphthalene	ND		ug/kg	220	22.	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Nitrobenzene-d5	58		23-120
2-Fluorobiphenyl	55		30-120
4-Terphenyl-d14	46		18-120

Project Name: NEW ROCHELLE

Lab Number: L1638268

Project Number: 16-171696.45

Report Date: 11/29/16

SAMPLE RESULTS

Lab ID: L1638268-02
 Client ID: B-1
 Sample Location: NEW ROCHELLE, NY
 Matrix: Water
 Analytical Method: 1,8270D-SIM
 Analytical Date: 11/27/16 18:27
 Analyst: KL

Date Collected: 11/22/16 14:00
 Date Received: 11/23/16
 Field Prep: Not Specified
 Extraction Method: EPA 3510C
 Extraction Date: 11/24/16 04:11

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS-SIM - Westborough Lab						
Acenaphthene	0.06	J	ug/l	0.10	0.04	1
2-Chloronaphthalene	ND		ug/l	0.20	0.04	1
Fluoranthene	0.44		ug/l	0.20	0.04	1
Naphthalene	ND		ug/l	0.20	0.04	1
Benzo(a)anthracene	0.14	J	ug/l	0.20	0.02	1
Benzo(a)pyrene	0.09	J	ug/l	0.20	0.04	1
Benzo(b)fluoranthene	0.08	J	ug/l	0.20	0.02	1
Benzo(k)fluoranthene	ND		ug/l	0.20	0.04	1
Chrysene	0.13	J	ug/l	0.20	0.04	1
Acenaphthylene	ND		ug/l	0.20	0.04	1
Anthracene	0.07	J	ug/l	0.20	0.04	1
Benzo(ghi)perylene	0.05	J	ug/l	0.20	0.04	1
Fluorene	ND		ug/l	0.20	0.04	1
Phenanthrene	0.04	J	ug/l	0.20	0.02	1
Dibenzo(a,h)anthracene	ND		ug/l	0.20	0.04	1
Indeno(1,2,3-cd)pyrene	ND		ug/l	0.20	0.04	1
Pyrene	0.57		ug/l	0.20	0.04	1
2-Methylnaphthalene	0.09	J	ug/l	0.20	0.05	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	49		21-120
Phenol-d6	52		10-120
Nitrobenzene-d5	57		23-120
2-Fluorobiphenyl	46		15-120
2,4,6-Tribromophenol	54		10-120
4-Terphenyl-d14	43		41-149

Project Name: NEW ROCHELLE

Lab Number: L1638268

Project Number: 16-171696.45

Report Date: 11/29/16

Method Blank Analysis Batch Quality Control

Analytical Method: 1,8270D
 Analytical Date: 11/24/16 14:07
 Analyst: PS

Extraction Method: EPA 3546
 Extraction Date: 11/23/16 17:20

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 01 Batch: WG955388-1					
Acenaphthene	ND		ug/kg	130	17.
2-Chloronaphthalene	ND		ug/kg	160	16.
Fluoranthene	ND		ug/kg	98	19.
Naphthalene	ND		ug/kg	160	20.
Benzo(a)anthracene	ND		ug/kg	98	18.
Benzo(a)pyrene	ND		ug/kg	130	40.
Benzo(b)fluoranthene	ND		ug/kg	98	27.
Benzo(k)fluoranthene	ND		ug/kg	98	26.
Chrysene	ND		ug/kg	98	17.
Acenaphthylene	ND		ug/kg	130	25.
Anthracene	ND		ug/kg	98	32.
Benzo(ghi)perylene	ND		ug/kg	130	19.
Fluorene	ND		ug/kg	160	16.
Phenanthrene	ND		ug/kg	98	20.
Dibenzo(a,h)anthracene	ND		ug/kg	98	19.
Indeno(1,2,3-cd)pyrene	ND		ug/kg	130	23.
Pyrene	ND		ug/kg	98	16.
2-Methylnaphthalene	ND		ug/kg	200	20.

Surrogate	%Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	60		25-120
Phenol-d6	60		10-120
Nitrobenzene-d5	53		23-120
2-Fluorobiphenyl	61		30-120
2,4,6-Tribromophenol	77		10-136
4-Terphenyl-d14	81		18-120



Project Name: NEW ROCHELLE

Lab Number: L1638268

Project Number: 16-171696.45

Report Date: 11/29/16

Method Blank Analysis Batch Quality Control

Analytical Method: 1,8270D-SIM
 Analytical Date: 11/25/16 10:28
 Analyst: KL

Extraction Method: EPA 3510C
 Extraction Date: 11/24/16 04:11

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS-SIM - Westborough Lab for sample(s): 02 Batch: WG955463-1					
Acenaphthene	ND		ug/l	0.10	0.04
2-Chloronaphthalene	ND		ug/l	0.20	0.04
Fluoranthene	ND		ug/l	0.20	0.04
Naphthalene	ND		ug/l	0.20	0.04
Benzo(a)anthracene	ND		ug/l	0.20	0.02
Benzo(a)pyrene	ND		ug/l	0.20	0.04
Benzo(b)fluoranthene	ND		ug/l	0.20	0.02
Benzo(k)fluoranthene	ND		ug/l	0.20	0.04
Chrysene	ND		ug/l	0.20	0.04
Acenaphthylene	ND		ug/l	0.20	0.04
Anthracene	ND		ug/l	0.20	0.04
Benzo(ghi)perylene	ND		ug/l	0.20	0.04
Fluorene	ND		ug/l	0.20	0.04
Phenanthrene	ND		ug/l	0.20	0.02
Dibenzo(a,h)anthracene	ND		ug/l	0.20	0.04
Indeno(1,2,3-cd)pyrene	ND		ug/l	0.20	0.04
Pyrene	ND		ug/l	0.20	0.04
2-Methylnaphthalene	ND		ug/l	0.20	0.05

Surrogate	%Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	33		21-120
Phenol-d6	25		10-120
Nitrobenzene-d5	61		23-120
2-Fluorobiphenyl	49		15-120
2,4,6-Tribromophenol	46		10-120
4-Terphenyl-d14	43		41-149



Lab Control Sample Analysis **Batch Quality Control**

Project Name: NEW ROCHELLE

Project Number: 16-171696.45

Lab Number: L1638268

Report Date: 11/29/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01 Batch: WG955388-2 WG955388-3								
Acenaphthene	68		74		31-137	8		50
Benzidine	27		29		10-66	7		50
1,2,4-Trichlorobenzene	73		77		38-107	5		50
Hexachlorobenzene	82		92		40-140	11		50
Bis(2-chloroethyl)ether	68		73		40-140	7		50
2-Chloronaphthalene	75		81		40-140	8		50
1,2-Dichlorobenzene	67		71		40-140	6		50
1,3-Dichlorobenzene	67		69		40-140	3		50
1,4-Dichlorobenzene	66		70		28-104	6		50
3,3'-Dichlorobenzidine	49		56		40-140	13		50
2,4-Dinitrotoluene	76		82		40-132	8		50
2,6-Dinitrotoluene	86		94		40-140	9		50
Azobenzene	70		78		40-140	11		50
Fluoranthene	79		87		40-140	10		50
4-Chlorophenyl phenyl ether	76		85		40-140	11		50
4-Bromophenyl phenyl ether	83		91		40-140	9		50
Bis(2-chloroisopropyl)ether	61		64		40-140	5		50
Bis(2-chloroethoxy)methane	72		77		40-117	7		50
Hexachlorobutadiene	75		81		40-140	8		50
Hexachlorocyclopentadiene	94		101		40-140	7		50
Hexachloroethane	66		70		40-140	6		50

Lab Control Sample Analysis Batch Quality Control

Project Name: NEW ROCHELLE

Project Number: 16-171696.45

Lab Number: L1638268

Report Date: 11/29/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01 Batch: WG955388-2 WG955388-3								
Isophorone	68		72		40-140	6		50
Naphthalene	70		75		40-140	7		50
Nitrobenzene	69		74		40-140	7		50
NitrosoDiPhenylAmine(NDPA)/DPA	77		85		36-157	10		50
n-Nitrosodi-n-propylamine	71		75		32-121	5		50
Bis(2-Ethylhexyl)phthalate	72		80		40-140	11		50
Butyl benzyl phthalate	77		85		40-140	10		50
Di-n-butylphthalate	78		85		40-140	9		50
Di-n-octylphthalate	74		81		40-140	9		50
Diethyl phthalate	75		84		40-140	11		50
Dimethyl phthalate	78		86		40-140	10		50
Benzo(a)anthracene	74		82		40-140	10		50
Benzo(a)pyrene	79		85		40-140	7		50
Benzo(b)fluoranthene	76		84		40-140	10		50
Benzo(k)fluoranthene	78		86		40-140	10		50
Chrysene	71		80		40-140	12		50
Acenaphthylene	77		84		40-140	9		50
Anthracene	75		83		40-140	10		50
Benzo(ghi)perylene	76		82		40-140	8		50
Fluorene	74		81		40-140	9		50
Phenanthrene	73		80		40-140	9		50

Lab Control Sample Analysis Batch Quality Control

Project Name: NEW ROCHELLE

Project Number: 16-171696.45

Lab Number: L1638268

Report Date: 11/29/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01 Batch: WG955388-2 WG955388-3								
Dibenzo(a,h)anthracene	77		84		40-140	9		50
Indeno(1,2,3-cd)Pyrene	77		86		40-140	11		50
Pyrene	77		85		35-142	10		50
Biphenyl	83		89		54-104	7		50
Aniline	46		50		40-140	8		50
4-Chloroaniline	71		76		40-140	7		50
1-Methylnaphthalene	75		81		26-130	8		50
2-Nitroaniline	78		86		47-134	10		50
3-Nitroaniline	71		82		26-129	14		50
4-Nitroaniline	71		82		41-125	14		50
Dibenzofuran	73		81		40-140	10		50
2-Methylnaphthalene	76		81		40-140	6		50
1,2,4,5-Tetrachlorobenzene	81		88		40-117	8		50
Pentachloronitrobenzene	96		107		42-153	11		50
Acetophenone	80		85		14-144	6		50
n-Nitrosodimethylamine	59		60		22-100	2		50
2,4,6-Trichlorophenol	84		94		30-130	11		50
P-Chloro-M-Cresol	80		87		26-103	8		50
2-Chlorophenol	74		78		25-102	5		50
2,4-Dichlorophenol	81		87		30-130	7		50
2,4-Dimethylphenol	76		81		30-130	6		50

Lab Control Sample Analysis **Batch Quality Control**

Project Name: NEW ROCHELLE

Project Number: 16-171696.45

Lab Number: L1638268

Report Date: 11/29/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01 Batch: WG955388-2 WG955388-3								
2-Nitrophenol	78		84		30-130	7		50
4-Nitrophenol	70		90		11-114	25		50
2,4-Dinitrophenol	52		63		4-130	19		50
4,6-Dinitro-o-cresol	75		85		10-130	13		50
Pentachlorophenol	86		98		17-109	13		50
Phenol	74		76		26-90	3		50
2-Methylphenol	78		80		30-130.	3		50
3-Methylphenol/4-Methylphenol	75		81		30-130	8		50
2,4,5-Trichlorophenol	90		97		30-130	7		50
Benzoic Acid	29		33		10-110	13		50
Benzyl Alcohol	74		78		40-140	5		50
Carbazole	76		84		54-128	10		50
Pyridine	43		44		10-93	2		50
Parathion, ethyl	96		107		40-140	11		50
Atrazine	95		104		40-140	9		50
Benzaldehyde	60		64		40-140	6		50
Caprolactam	70		76		15-130	8		50
2,3,4,6-Tetrachlorophenol	87		94		40-140	8		50

Lab Control Sample Analysis**Batch Quality Control****Project Name:** NEW ROCHELLE**Lab Number:** L1638268**Project Number:** 16-171696.45**Report Date:** 11/29/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01 Batch: WG955388-2 WG955388-3								

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
2-Fluorophenol	70		74		25-120
Phenol-d6	72		75		10-120
Nitrobenzene-d5	70		73		23-120
2-Fluorobiphenyl	74		80		30-120
2,4,6-Tribromophenol	93		101		10-136
4-Terphenyl-d14	76		85		18-120

Lab Control Sample Analysis **Batch Quality Control**

Project Name: NEW ROCHELLE

Project Number: 16-171696.45

Lab Number: L1638268

Report Date: 11/29/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS-SIM - Westborough Lab Associated sample(s): 02 Batch: WG955463-2 WG955463-3								
Acenaphthene	57		55		37-111	4		40
2-Chloronaphthalene	57		55		40-140	4		40
Fluoranthene	57		55		40-140	4		40
Hexachlorobutadiene	53		50		40-140	6		40
Naphthalene	57		55		40-140	4		40
Benzo(a)anthracene	56		54		40-140	4		40
Benzo(a)pyrene	56		55		40-140	2		40
Benzo(b)fluoranthene	58		57		40-140	2		40
Benzo(k)fluoranthene	57		55		40-140	4		40
Chrysene	56		55		40-140	2		40
Acenaphthylene	64		61		40-140	5		40
Anthracene	56		54		40-140	4		40
Benzo(ghi)perylene	55		54		40-140	2		40
Fluorene	58		56		40-140	4		40
Phenanthrene	55		53		40-140	4		40
Dibenzo(a,h)anthracene	56		54		40-140	4		40
Indeno(1,2,3-cd)pyrene	56		55		40-140	2		40
Pyrene	56		54		26-127	4		40
1-Methylnaphthalene	58		56		40-140	4		40
2-Methylnaphthalene	58		56		40-140	4		40
Pentachlorophenol	54		52		9-103	4		40

Lab Control Sample Analysis

Batch Quality Control

Project Name: NEW ROCHELLE

Project Number: 16-171696.45

Lab Number: L1638268

Report Date: 11/29/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS-SIM - Westborough Lab Associated sample(s): 02 Batch: WG955463-2 WG955463-3								
Hexachlorobenzene	54		52		40-140	4		40
Hexachloroethane	60		57		40-140	5		40

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
2-Fluorophenol	40		41		21-120
Phenol-d6	30		32		10-120
Nitrobenzene-d5	69		68		23-120
2-Fluorobiphenyl	56		55		15-120
2,4,6-Tribromophenol	60		58		10-120
4-Terphenyl-d14	55		54		41-149

INORGANICS & MISCELLANEOUS

Project Name: NEW ROCHELLE

Project Number: 16-171696.45

Lab Number: L1638268

Report Date: 11/29/16

SAMPLE RESULTS

Lab ID: L1638268-01

Client ID: B-1

Sample Location: NEW ROCHELLE, NY

Matrix: Soil

Date Collected: 11/22/16 13:40

Date Received: 11/23/16

Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	88.7		%	0.100	NA	1	-	11/24/16 05:57	121,2540G	VB



Lab Duplicate Analysis
Batch Quality Control**Project Name:** NEW ROCHELLE**Project Number:** 16-171696.45**Lab Number:** L1638268**Report Date:** 11/29/16

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG955457-1 QC Sample: L1638294-01 Client ID: DUP Sample						
Solids, Total	87.8	86.8	%	1		20

Project Name: NEW ROCHELLE**Lab Number:** L1638268**Project Number:** 16-171696.45**Report Date:** 11/29/16**Sample Receipt and Container Information**

Were project specific reporting limits specified?

YES

Reagent H2O Preserved Vials Frozen on: 24-NOV-16 09:53**Cooler Information Custody Seal****Cooler**

A Absent

Container Information

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1638268-01A	5 gram Encore Sampler	A	N/A	2.2	Y	Absent	NYTCL-8260HLW(2)
L1638268-01B	5 gram Encore Sampler	A	N/A	2.2	Y	Absent	NYTCL-8260HLW(2)
L1638268-01C	5 gram Encore Sampler	A	N/A	2.2	Y	Absent	NYTCL-8260HLW(2)
L1638268-01D	Plastic 2oz unpreserved for TS	A	N/A	2.2	Y	Absent	TS(7)
L1638268-01E	Glass 250ml/8oz unpreserved	A	N/A	2.2	Y	Absent	NYTCL-8270(14)
L1638268-01X	Vial MeOH preserved split	A	N/A	2.2	Y	Absent	NYTCL-8260HLW(14)
L1638268-01Y	Vial Water preserved split	A	N/A	2.2	Y	Absent	NYTCL-8260HLW(14)
L1638268-01Z	Vial Water preserved split	A	N/A	2.2	Y	Absent	NYTCL-8260HLW(14)
L1638268-02A	Vial HCl preserved	A	N/A	2.2	Y	Absent	NYTCL-8260(14)
L1638268-02B	Vial HCl preserved	A	N/A	2.2	Y	Absent	NYTCL-8260(14)
L1638268-02C	Vial HCl preserved	A	N/A	2.2	Y	Absent	NYTCL-8260(14)
L1638268-02D	Amber 1000ml unpreserved	A	7	2.2	Y	Absent	NYTCL-8270-SIM(7)
L1638268-02E	Amber 1000ml unpreserved	A	7	2.2	Y	Absent	NYTCL-8270-SIM(7)

*Values in parentheses indicate holding time in days



Project Name: NEW ROCHELLE
Project Number: 16-171696.45

Lab Number: L1638268
Report Date: 11/29/16

GLOSSARY

Acronyms

EDL	- Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).
EPA	- Environmental Protection Agency.
LCS	- Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LCSD	- Laboratory Control Sample Duplicate: Refer to LCS.
LFB	- Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
MDL	- Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
MS	- Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available.
MSD	- Matrix Spike Sample Duplicate: Refer to MS.
NA	- Not Applicable.
NC	- Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.
NDPA/DPA	- N-Nitrosodiphenylamine/Diphenylamine.
NI	- Not Ignitable.
NP	- Non-Plastic: Term is utilized for the analysis of Atterberg Limits in soil.
RL	- Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
RPD	- Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.
SRM	- Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.
STLP	- Semi-dynamic Tank Leaching Procedure per EPA Method 1315.
TIC	- Tentatively Identified Compound: A compound that has been identified to be present and is not part of the target compound list (TCL) for the method and/or program. All TICs are qualitatively identified and reported as estimated concentrations.

Footnotes

- 1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Total: With respect to Organic analyses, a 'Total' result is defined as the summation of results for individual isomers or Aroclors. If a 'Total' result is requested, the results of its individual components will also be reported. This is applicable to 'Total' results for methods 8260, 8081 and 8082.

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Data Qualifiers

- A** - Spectra identified as "Aldol Condensation Product".
- B** - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the

Report Format: DU Report with 'J' Qualifiers



Project Name: NEW ROCHELLE**Lab Number:** L1638268**Project Number:** 16-171696.45**Report Date:** 11/29/16**Data Qualifiers**

reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).

- C** - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.
- D** - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.
- E** - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.
- G** - The concentration may be biased high due to matrix interferences (i.e. co-elution) with non-target compound(s). The result should be considered estimated.
- H** - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.
- I** - The lower value for the two columns has been reported due to obvious interference.
- M** - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.
- NJ** - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.
- P** - The RPD between the results for the two columns exceeds the method-specified criteria.
- Q** - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)
- R** - Analytical results are from sample re-analysis.
- RE** - Analytical results are from sample re-extraction.
- S** - Analytical results are from modified screening analysis.
- J** - Estimated value. The Target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit (MDL) or Estimated Detection Limit (EDL) for SPME-related analyses. This represents an estimated concentration for Tentatively Identified Compounds (TICs).
- ND** - Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.

Report Format: DU Report with 'J' Qualifiers



Project Name: NEW ROCHELLE
Project Number: 16-171696.45

Lab Number: L1638268
Report Date: 11/29/16

REFERENCES

- 1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - IV, 2007.
- 121 Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WEF. Standard Methods Online.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.



Alpha Analytical, Inc.

ID No.:17873

Facility: **Company-wide**

Revision 7

Department: **Quality Assurance**

Published Date: 8/5/2016 11:25:56 AM

Title: **Certificate/Approval Program Summary**


Page 1 of 1

Certification Information

The following analytes are not included in our Primary NELAP Scope of Accreditation:**Westborough Facility****EPA 624:** m/p-xylene, o-xylene**EPA 8260C:** NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene; SCM: Iodomethane (methyl iodide), Methyl methacrylate, 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.**EPA 8270D:** NPW: Dimethylnaphthalene, 1,4-Diphenylhydrazine; SCM: Dimethylnaphthalene, 1,4-Diphenylhydrazine.**EPA 300:** DW: Bromide**EPA 6860:** NPW and SCM: Perchlorate**EPA 9010:** NPW and SCM: Amenable Cyanide Distillation**EPA 9012B:** NPW: Total Cyanide**EPA 9050A:** NPW: Specific Conductance**SM3500:** NPW: Ferrous Iron**SM4500:** NPW: Amenable Cyanide, Dissolved Oxygen; SCM: Total Phosphorus, TKN, NO₂, NO₃.**SM5310C:** DW: Dissolved Organic Carbon**Mansfield Facility****SM 2540D:** TSS**EPA 3005A** NPW**EPA 8082A:** NPW: PCB: 1, 5, 31, 87, 101, 110, 141, 151, 153, 180, 183, 187.**EPA TO-15:** Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.**Biological Tissue Matrix:** **EPA 3050B**

The following analytes are included in our Massachusetts DEP Scope of Accreditation**Westborough Facility:****Drinking Water****EPA 300.0:** Nitrate-N, Fluoride, Sulfate; **EPA 353.2:** Nitrate-N, Nitrite-N; **SM4500NO3-F:** Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE, EPA 180.1, SM2130B, SM4500CI-D, SM2320B, SM2540C, SM4500H-B****EPA 332:** Perchlorate; **EPA 524.2:** THMs and VOCs; **EPA 504.1:** EDB, DBCP.**Microbiology:** **SM9215B; SM9223-P/A, SM9223B-Colilert-QT, SM9222D.****Non-Potable Water****SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2320B, SM4500CL-E, SM4500F-BC, SM4500NH3-BH, EPA 350.1:** Ammonia-N, **LACHAT 10-107-06-1-B:** Ammonia-N, **SM4500NO3-F, EPA 353.2:** Nitrate-N, **EPA 351.1, SM4500P-E, SM4500P-B, E, SM4500SO4-E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, EPA 420.1, SM4500-CN-CE, SM2540D.****EPA 624:** Volatile Halocarbons & Aromatics,**EPA 608:** Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs**EPA 625:** SVOC (Acid/Base/Neutral Extractables), **EPA 600/4-81-045:** PCB-Oil.**Microbiology:** **SM9223B-Colilert-QT; Enterolert-QT, SM9222D-MF.****Mansfield Facility:****Drinking Water****EPA 200.7:** Ba, Be, Cd, Cr, Cu, Ni, Na, Ca. **EPA 200.8:** Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Ni, Se, TL. **EPA 245.1 Hg.****Non-Potable Water****EPA 200.7:** Al, Sb, As, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Sr, TL, Ti, V, Zn.**EPA 200.8:** Al, Sb, As, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, TL, Zn.**EPA 245.1 Hg.****SM2340B**

For a complete listing of analytes and methods, please contact your Alpha Project Manager.

 ALPHA ANALYTICAL Westborough, MA 01581 8 Walkup Dr. TEL: 508-898-9220 FAX: 508-898-9193	NEW YORK CHAIN OF CUSTODY Mansfield, MA 02048 320 Forbes Blvd TEL: 508-822-9300 FAX: 508-822-3288	Service Centers Mahwah, NJ 07430: 35 Whitney Rd, Suite 5 Albany, NY 12205: 14 Walker Way Tonawanda, NY 14150: 275 Cooper Ave, Suite 105		Page <u>1</u> of <u>1</u>	Date Rec'd in Lab <u>11/23/16</u>	ALPHA Job # <u>L1630860</u>		
		Project Information Project Name: <u>New Rochelle</u> Project Location: <u>New Rochelle, NY</u> Project # <u>16-171696.45</u> (Use Project name as Project #) <input checked="" type="checkbox"/>		Deliverables <input type="checkbox"/> ASP-A <input type="checkbox"/> ASP-B <input type="checkbox"/> EQulS (1 File) <input type="checkbox"/> EQulS (4 File) <input type="checkbox"/> Other		Billing Information <input type="checkbox"/> Same as Client Info PO #		
Client Information Client: <u>Partner</u> Address: <u>611 Industrial Way W Eatantown, NJ 07724</u> Phone: <u>732-380-1200</u> Fax: <u>732-380-1701</u> Email: <u>ASimonson@partneresi.com</u>		Project Manager: <u>A. Simonson</u> ALPHAQuote #: _____ Turn-Around Time Standard <input type="checkbox"/> Due Date: _____ Rush (only if pre approved) <input checked="" type="checkbox"/> # of Days: _____		Regulatory Requirement <input checked="" type="checkbox"/> NY TOGS <input type="checkbox"/> NY Part 375 <input checked="" type="checkbox"/> AWQ Standards <input type="checkbox"/> NY CP-51 <input type="checkbox"/> NY Restricted Use <input type="checkbox"/> Other <input checked="" type="checkbox"/> NY Unrestricted Use <input type="checkbox"/> NYC Sewer Discharge		Disposal Site Information Please identify below location of applicable disposal facilities. Disposal Facility: _____ <input type="checkbox"/> NJ <input type="checkbox"/> NY <input type="checkbox"/> Other:		
These samples have been previously analyzed by Alpha <input type="checkbox"/> Other project specific requirements/comments: <div style="font-size: 2em; color: blue; text-align: center;">RUSH 48 hr TAT</div>				ANALYSIS <div style="display: flex; justify-content: space-between;"> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">TCL VOCs (8260c)</div> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">PAH - (8210p)</div> </div>		Sample Filtration <input type="checkbox"/> Done <input type="checkbox"/> Lab to do Preservation <input type="checkbox"/> Lab to do (Please Specify below)		
Please specify Metals or TAL.				Sample Specific Comments		Total Bottle		
ALPHA Lab ID (Lab Use Only)	Sample ID	Collection		Sample Matrix	Sampler's Initials			
		Date	Time					
<u>38068-01</u>	<u>B-1</u>	<u>11-22</u>	<u>1340</u>	<u>SO</u>	<u>AH</u>		<u>x</u>	<u>x</u>
<u>02</u>	<u>B-1</u>	<u>11-22</u>	<u>1400</u>	<u>GW</u>	<u>AH</u>		<u>x</u>	<u>x</u>
Preservative Code: A = None B = HCl C = HNO ₃ D = H ₂ SO ₄ E = NaOH F = MeOH G = NaHSO ₄ H = Na ₂ S ₂ O ₃ K/E = Zn Ac/NaOH O = Other		Container Code: P = Plastic A = Amber Glass V = Vial G = Glass B = Bacteria Cup C = Cube O = Other E = Encore D = BOD Bottle		Westboro: Certification No: MA935 Mansfield: Certification No: MA015		Container Type <u>E G</u> Preservative <u>A A</u>		
Relinquished By: <u>[Signature]</u>		Date/Time: <u>11-22 1700</u>		Received By: <u>[Signature]</u>		Date/Time: <u>11-23-16-1347</u>		
<u>[Signature]</u>		<u>11-23-16-1753</u>		<u>[Signature]</u>		<u>11-23-16-1753</u>		
<u>[Signature]</u>		<u>11/23/16 2315</u>		<u>[Signature]</u>		<u>11/23/16 2315</u>		



ANALYTICAL REPORT

Lab Number:	L1638285
Client:	Partner Engineering and Science, Inc. 611 Industrial Way West Eatontown, NJ 07724
ATTN:	Andres Simonson
Phone:	(732) 380-1700
Project Name:	NEW ROCHELLE
Project Number:	16171696.45
Report Date:	11/29/16

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Certifications & Approvals: NY (11627), CT (PH-0141), NH (2206), NJ NELAP (MA015), RI (LAO00299), ME (MA00030), PA (68-02089), VA (460194), LA NELAP (03090), FL (E87814), TX (T104704419), WA (C954), USFWS (Permit #LE2069641), USDA (Permit #P330-11-00109), US Army Corps of Engineers.

320 Forbes Boulevard, Mansfield, MA 02048-1806
508-822-9300 (Fax) 508-822-3288 800-624-9220 - www.alphalab.com



Project Name: NEW ROCHELLE
Project Number: 16171696.45

Lab Number: L1638285
Report Date: 11/29/16

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L1638285-01	SG-1	SOIL_VAPOR	NEW ROCHELLE, NY	11/22/16 10:53	11/23/16
L1638285-02	UNUSED CAN #406	SOIL_VAPOR	NEW ROCHELLE, NY		11/23/16

Project Name: NEW ROCHELLE
Project Number: 16171696.45

Lab Number: L1638285
Report Date: 11/29/16

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet NELAP requirements for all NELAP accredited parameters unless otherwise noted in the following narrative. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. Tentatively Identified Compounds (TICs), if requested, are reported for compounds identified to be present and are not part of the method/program Target Compound List, even if only a subset of the TCL are being reported. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively. When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. All specific QC information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications. Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances the specific failure is not narrated but noted in the associated QC table. The information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications.

Please see the associated ADEx data file for a comparison of laboratory reporting limits that were achieved with the regulatory Numerical Standards requested on the Chain of Custody.

HOLD POLICY

For samples submitted on hold, Alpha's policy is to hold samples (with the exception of Air canisters) free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Client Service Representative and made arrangements for Alpha to continue to hold the samples. Air canisters will be disposed after 3 business days from the date the project is completed.

Please contact Client Services at 800-624-9220 with any questions.

Project Name: NEW ROCHELLE
Project Number: 16171696.45

Lab Number: L1638285
Report Date: 11/29/16

Case Narrative (continued)

Volatile Organics in Air

Canisters were released from the laboratory on November 21, 2016. The canister certification results are provided as an addendum.

Sample L1638285-01: The sample has elevated detection limits due to the dilution required by the elevated concentrations of target compounds in the sample.

The WG956009-3 LCS recoveries for 1,2,4-trichlorobenzene (134%), 1,2,3-trichlorobenzene (134%) and hexachlorobutadiene (138%) are above the upper 130% acceptance limit. The response for these compounds was elevated however they were not detected in any of the associated samples therefore no further action was required.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature:  Christopher J. Anderson

Title: Technical Director/Representative

Date: 11/29/16

AIR

Project Name: NEW ROCHELLE**Project Number:** 16171696.45**Lab Number:** L1638285**Report Date:** 11/29/16**SAMPLE RESULTS**

Lab ID: L1638285-01 D
Client ID: SG-1
Sample Location: NEW ROCHELLE, NY
Matrix: Soil_Vapor
Anaytical Method: 48,TO-15
Analytical Date: 11/28/16 20:55
Analyst: MR

Date Collected: 11/22/16 10:53
Date Received: 11/23/16
Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab								
Dichlorodifluoromethane	2.66	0.500	--	13.2	2.47	--		2.5
Chloromethane	0.778	0.500	--	1.61	1.03	--		2.5
Freon-114	ND	0.500	--	ND	3.49	--		2.5
Vinyl chloride	ND	0.500	--	ND	1.28	--		2.5
1,3-Butadiene	1.46	0.500	--	3.23	1.11	--		2.5
Bromomethane	ND	0.500	--	ND	1.94	--		2.5
Chloroethane	ND	0.500	--	ND	1.32	--		2.5
Ethanol	89.9	12.5	--	169	23.6	--		2.5
Vinyl bromide	ND	0.500	--	ND	2.19	--		2.5
Acetone	100	2.50	--	238	5.94	--		2.5
Trichlorofluoromethane	ND	0.500	--	ND	2.81	--		2.5
Isopropanol	3.36	1.25	--	8.26	3.07	--		2.5
1,1-Dichloroethene	ND	0.500	--	ND	1.98	--		2.5
Tertiary butyl Alcohol	4.61	1.25	--	14.0	3.79	--		2.5
Methylene chloride	ND	1.25	--	ND	4.34	--		2.5
3-Chloropropene	ND	0.500	--	ND	1.57	--		2.5
Carbon disulfide	9.08	0.500	--	28.3	1.56	--		2.5
Freon-113	ND	0.500	--	ND	3.83	--		2.5
trans-1,2-Dichloroethene	ND	0.500	--	ND	1.98	--		2.5
1,1-Dichloroethane	ND	0.500	--	ND	2.02	--		2.5
Methyl tert butyl ether	ND	0.500	--	ND	1.80	--		2.5
2-Butanone	16.0	1.25	--	47.2	3.69	--		2.5
cis-1,2-Dichloroethene	ND	0.500	--	ND	1.98	--		2.5
Ethyl Acetate	ND	1.25	--	ND	4.50	--		2.5



Project Name: NEW ROCHELLE**Lab Number:** L1638285**Project Number:** 16171696.45**Report Date:** 11/29/16**SAMPLE RESULTS**

Lab ID: L1638285-01 D
 Client ID: SG-1
 Sample Location: NEW ROCHELLE, NY

Date Collected: 11/22/16 10:53
 Date Received: 11/23/16
 Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab								
Chloroform	ND	0.500	--	ND	2.44	--		2.5
Tetrahydrofuran	1.99	1.25	--	5.87	3.69	--		2.5
1,2-Dichloroethane	ND	0.500	--	ND	2.02	--		2.5
n-Hexane	7.94	0.500	--	28.0	1.76	--		2.5
1,1,1-Trichloroethane	ND	0.500	--	ND	2.73	--		2.5
Benzene	22.4	0.500	--	71.6	1.60	--		2.5
Carbon tetrachloride	ND	0.500	--	ND	3.15	--		2.5
Cyclohexane	2.95	0.500	--	10.2	1.72	--		2.5
1,2-Dichloropropane	ND	0.500	--	ND	2.31	--		2.5
Bromodichloromethane	ND	0.500	--	ND	3.35	--		2.5
1,4-Dioxane	ND	0.500	--	ND	1.80	--		2.5
Trichloroethene	ND	0.500	--	ND	2.69	--		2.5
2,2,4-Trimethylpentane	ND	0.500	--	ND	2.34	--		2.5
Heptane	13.0	0.500	--	53.3	2.05	--		2.5
cis-1,3-Dichloropropene	ND	0.500	--	ND	2.27	--		2.5
4-Methyl-2-pentanone	2.99	1.25	--	12.3	5.12	--		2.5
trans-1,3-Dichloropropene	ND	0.500	--	ND	2.27	--		2.5
1,1,2-Trichloroethane	ND	0.500	--	ND	2.73	--		2.5
Toluene	169	0.500	--	637	1.88	--		2.5
2-Hexanone	ND	0.500	--	ND	2.05	--		2.5
Dibromochloromethane	ND	0.500	--	ND	4.26	--		2.5
1,2-Dibromoethane	ND	0.500	--	ND	3.84	--		2.5
Tetrachloroethene	1.27	0.500	--	8.61	3.39	--		2.5
Chlorobenzene	ND	0.500	--	ND	2.30	--		2.5
Ethylbenzene	69.8	0.500	--	303	2.17	--		2.5
p/m-Xylene	126	1.00	--	547	4.34	--		2.5
Bromoform	ND	0.500	--	ND	5.17	--		2.5
Styrene	0.575	0.500	--	2.45	2.13	--		2.5



Project Name: NEW ROCHELLE**Lab Number:** L1638285**Project Number:** 16171696.45**Report Date:** 11/29/16**SAMPLE RESULTS**

Lab ID: L1638285-01 D
 Client ID: SG-1
 Sample Location: NEW ROCHELLE, NY

Date Collected: 11/22/16 10:53
 Date Received: 11/23/16
 Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab								
1,1,2,2-Tetrachloroethane	ND	0.500	--	ND	3.43	--		2.5
o-Xylene	35.8	0.500	--	155	2.17	--		2.5
4-Ethyltoluene	11.5	0.500	--	56.5	2.46	--		2.5
1,3,5-Trimethylbenzene	10.3	0.500	--	50.6	2.46	--		2.5
1,2,4-Trimethylbenzene	23.6	0.500	--	116	2.46	--		2.5
Benzyl chloride	ND	0.500	--	ND	2.59	--		2.5
1,3-Dichlorobenzene	ND	0.500	--	ND	3.01	--		2.5
1,4-Dichlorobenzene	ND	0.500	--	ND	3.01	--		2.5
1,2-Dichlorobenzene	ND	0.500	--	ND	3.01	--		2.5
1,2,4-Trichlorobenzene	ND	0.500	--	ND	3.71	--		2.5
Hexachlorobutadiene	ND	0.500	--	ND	5.33	--		2.5

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	92		60-140
Bromochloromethane	91		60-140
chlorobenzene-d5	96		60-140



Project Name: NEW ROCHELLE

Lab Number: L1638285

Project Number: 16171696.45

Report Date: 11/29/16

Method Blank Analysis Batch Quality Control

Analytical Method: 48,TO-15

Analytical Date: 11/28/16 12:43

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab for sample(s): 01 Batch: WG956009-4								
Propylene	ND	0.500	--	ND	0.861	--		1
Dichlorodifluoromethane	ND	0.200	--	ND	0.989	--		1
Chloromethane	ND	0.200	--	ND	0.413	--		1
Freon-114	ND	0.200	--	ND	1.40	--		1
Vinyl chloride	ND	0.200	--	ND	0.511	--		1
1,3-Butadiene	ND	0.200	--	ND	0.442	--		1
Bromomethane	ND	0.200	--	ND	0.777	--		1
Chloroethane	ND	0.200	--	ND	0.528	--		1
Ethanol	ND	5.00	--	ND	9.42	--		1
Vinyl bromide	ND	0.200	--	ND	0.874	--		1
Acetone	ND	1.00	--	ND	2.38	--		1
Trichlorofluoromethane	ND	0.200	--	ND	1.12	--		1
Isopropanol	ND	0.500	--	ND	1.23	--		1
1,1-Dichloroethene	ND	0.200	--	ND	0.793	--		1
Tertiary butyl Alcohol	ND	0.500	--	ND	1.52	--		1
Methylene chloride	ND	0.500	--	ND	1.74	--		1
3-Chloropropene	ND	0.200	--	ND	0.626	--		1
Carbon disulfide	ND	0.200	--	ND	0.623	--		1
Freon-113	ND	0.200	--	ND	1.53	--		1
trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
1,1-Dichloroethane	ND	0.200	--	ND	0.809	--		1
Methyl tert butyl ether	ND	0.200	--	ND	0.721	--		1
Vinyl acetate	ND	1.00	--	ND	3.52	--		1
2-Butanone	ND	0.500	--	ND	1.47	--		1
cis-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1



Project Name: NEW ROCHELLE

Lab Number: L1638285

Project Number: 16171696.45

Report Date: 11/29/16

Method Blank Analysis Batch Quality Control

Analytical Method: 48,TO-15

Analytical Date: 11/28/16 12:43

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab for sample(s): 01 Batch: WG956009-4								
Ethyl Acetate	ND	0.500	--	ND	1.80	--		1
Chloroform	ND	0.200	--	ND	0.977	--		1
Tetrahydrofuran	ND	0.500	--	ND	1.47	--		1
1,2-Dichloroethane	ND	0.200	--	ND	0.809	--		1
n-Hexane	ND	0.200	--	ND	0.705	--		1
1,1,1-Trichloroethane	ND	0.200	--	ND	1.09	--		1
Benzene	ND	0.200	--	ND	0.639	--		1
Carbon tetrachloride	ND	0.200	--	ND	1.26	--		1
Cyclohexane	ND	0.200	--	ND	0.688	--		1
1,2-Dichloropropane	ND	0.200	--	ND	0.924	--		1
Bromodichloromethane	ND	0.200	--	ND	1.34	--		1
1,4-Dioxane	ND	0.200	--	ND	0.721	--		1
Trichloroethene	ND	0.200	--	ND	1.07	--		1
2,2,4-Trimethylpentane	ND	0.200	--	ND	0.934	--		1
Heptane	ND	0.200	--	ND	0.820	--		1
cis-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--		1
4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--		1
trans-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--		1
1,1,2-Trichloroethane	ND	0.200	--	ND	1.09	--		1
Toluene	ND	0.200	--	ND	0.754	--		1
2-Hexanone	ND	0.200	--	ND	0.820	--		1
Dibromochloromethane	ND	0.200	--	ND	1.70	--		1
1,2-Dibromoethane	ND	0.200	--	ND	1.54	--		1
Tetrachloroethene	ND	0.200	--	ND	1.36	--		1
Chlorobenzene	ND	0.200	--	ND	0.921	--		1



Project Name: NEW ROCHELLE

Lab Number: L1638285

Project Number: 16171696.45

Report Date: 11/29/16

Method Blank Analysis Batch Quality Control

Analytical Method: 48,TO-15

Analytical Date: 11/28/16 12:43

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab for sample(s): 01 Batch: WG956009-4								
Ethylbenzene	ND	0.200	--	ND	0.869	--		1
p/m-Xylene	ND	0.400	--	ND	1.74	--		1
Bromoform	ND	0.200	--	ND	2.07	--		1
Styrene	ND	0.200	--	ND	0.852	--		1
1,1,2,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--		1
o-Xylene	ND	0.200	--	ND	0.869	--		1
4-Ethyltoluene	ND	0.200	--	ND	0.983	--		1
1,3,5-Trimethylbenzene	ND	0.200	--	ND	0.983	--		1
1,2,4-Trimethylbenzene	ND	0.200	--	ND	0.983	--		1
Benzyl chloride	ND	0.200	--	ND	1.04	--		1
1,3-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,4-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,2-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,2,4-Trichlorobenzene	ND	0.200	--	ND	1.48	--		1
Hexachlorobutadiene	ND	0.200	--	ND	2.13	--		1

Lab Control Sample Analysis

Batch Quality Control

Project Name: NEW ROCHELLE

Project Number: 16171696.45

Lab Number: L1638285

Report Date: 11/29/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics in Air - Mansfield Lab Associated sample(s): 01 Batch: WG956009-3								
Chlorodifluoromethane	92		-		70-130	-		
Propylene	105		-		70-130	-		
Propane	93		-		70-130	-		
Dichlorodifluoromethane	97		-		70-130	-		
Chloromethane	92		-		70-130	-		
1,2-Dichloro-1,1,2,2-tetrafluoroethane	100		-		70-130	-		
Methanol	76		-		70-130	-		
Vinyl chloride	96		-		70-130	-		
1,3-Butadiene	97		-		70-130	-		
Butane	80		-		70-130	-		
Bromomethane	98		-		70-130	-		
Chloroethane	95		-		70-130	-		
Ethyl Alcohol	93		-		70-130	-		
Dichlorofluoromethane	92		-		70-130	-		
Vinyl bromide	98		-		70-130	-		
Acrolein	79		-		70-130	-		
Acetone	77		-		70-130	-		
Acetonitrile	88		-		70-130	-		
Trichlorofluoromethane	109		-		70-130	-		
iso-Propyl Alcohol	84		-		70-130	-		
Acrylonitrile	85		-		70-130	-		

Lab Control Sample Analysis Batch Quality Control

Project Name: NEW ROCHELLE

Project Number: 16171696.45

Lab Number: L1638285

Report Date: 11/29/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics in Air - Mansfield Lab Associated sample(s): 01 Batch: WG956009-3								
Pentane	83		-		70-130	-		
Ethyl ether	81		-		70-130	-		
1,1-Dichloroethene	99		-		70-130	-		
tert-Butyl Alcohol	90		-		70-130	-		
Methylene chloride	98		-		70-130	-		
3-Chloropropene	97		-		70-130	-		
Carbon disulfide	98		-		70-130	-		
1,1,2-Trichloro-1,2,2-Trifluoroethane	105		-		70-130	-		
trans-1,2-Dichloroethene	91		-		70-130	-		
1,1-Dichloroethane	100		-		70-130	-		
Methyl tert butyl ether	96		-		70-130	-		
Vinyl acetate	125		-		70-130	-		
2-Butanone	105		-		70-130	-		
cis-1,2-Dichloroethene	125		-		70-130	-		
Ethyl Acetate	103		-		70-130	-		
Chloroform	109		-		70-130	-		
Tetrahydrofuran	94		-		70-130	-		
2,2-Dichloropropane	92		-		70-130	-		
1,2-Dichloroethane	105		-		70-130	-		
n-Hexane	100		-		70-130	-		
Isopropyl Ether	96		-		70-130	-		

Lab Control Sample Analysis Batch Quality Control

Project Name: NEW ROCHELLE

Project Number: 16171696.45

Lab Number: L1638285

Report Date: 11/29/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics in Air - Mansfield Lab Associated sample(s): 01 Batch: WG956009-3								
Ethyl-Tert-Butyl-Ether	95		-		70-130	-		
1,1,1-Trichloroethane	106		-		70-130	-		
1,1-Dichloropropene	101		-		70-130	-		
Benzene	104		-		70-130	-		
Carbon tetrachloride	112		-		70-130	-		
Cyclohexane	102		-		70-130	-		
Tertiary-Amyl Methyl Ether	92		-		70-130	-		
Dibromomethane	105		-		70-130	-		
1,2-Dichloropropane	107		-		70-130	-		
Bromodichloromethane	108		-		70-130	-		
1,4-Dioxane	106		-		70-130	-		
Trichloroethene	107		-		70-130	-		
2,2,4-Trimethylpentane	103		-		70-130	-		
Methyl Methacrylate	77		-		70-130	-		
Heptane	99		-		70-130	-		
cis-1,3-Dichloropropene	112		-		70-130	-		
4-Methyl-2-pentanone	101		-		70-130	-		
trans-1,3-Dichloropropene	96		-		70-130	-		
1,1,2-Trichloroethane	111		-		70-130	-		
Toluene	107		-		70-130	-		
1,3-Dichloropropane	103		-		70-130	-		

Lab Control Sample Analysis

Batch Quality Control

Project Name: NEW ROCHELLE

Project Number: 16171696.45

Lab Number: L1638285

Report Date: 11/29/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics in Air - Mansfield Lab Associated sample(s): 01 Batch: WG956009-3								
2-Hexanone	105		-		70-130	-		
Dibromochloromethane	114		-		70-130	-		
1,2-Dibromoethane	112		-		70-130	-		
Butyl Acetate	100		-		70-130	-		
Octane	96		-		70-130	-		
Tetrachloroethene	112		-		70-130	-		
1,1,1,2-Tetrachloroethane	103		-		70-130	-		
Chlorobenzene	111		-		70-130	-		
Ethylbenzene	110		-		70-130	-		
p/m-Xylene	108		-		70-130	-		
Bromoform	114		-		70-130	-		
Styrene	111		-		70-130	-		
1,1,2,2-Tetrachloroethane	119		-		70-130	-		
o-Xylene	112		-		70-130	-		
1,2,3-Trichloropropane	105		-		70-130	-		
Nonane (C9)	100		-		70-130	-		
Isopropylbenzene	108		-		70-130	-		
Bromobenzene	104		-		70-130	-		
o-Chlorotoluene	105		-		70-130	-		
n-Propylbenzene	106		-		70-130	-		
p-Chlorotoluene	105		-		70-130	-		

Lab Control Sample Analysis

Batch Quality Control

Project Name: NEW ROCHELLE

Project Number: 16171696.45

Lab Number: L1638285

Report Date: 11/29/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics in Air - Mansfield Lab Associated sample(s): 01 Batch: WG956009-3								
4-Ethyltoluene	107		-		70-130	-		
1,3,5-Trimethylbenzene	114		-		70-130	-		
tert-Butylbenzene	107		-		70-130	-		
1,2,4-Trimethylbenzene	117		-		70-130	-		
Decane (C10)	103		-		70-130	-		
Benzyl chloride	119		-		70-130	-		
1,3-Dichlorobenzene	116		-		70-130	-		
1,4-Dichlorobenzene	117		-		70-130	-		
sec-Butylbenzene	108		-		70-130	-		
p-Isopropyltoluene	101		-		70-130	-		
1,2-Dichlorobenzene	121		-		70-130	-		
n-Butylbenzene	113		-		70-130	-		
1,2-Dibromo-3-chloropropane	114		-		70-130	-		
Undecane	113		-		70-130	-		
Dodecane (C12)	127		-		70-130	-		
1,2,4-Trichlorobenzene	134	Q	-		70-130	-		
Naphthalene	127		-		70-130	-		
1,2,3-Trichlorobenzene	134	Q	-		70-130	-		
Hexachlorobutadiene	138	Q	-		70-130	-		

Lab Duplicate Analysis Batch Quality Control

Project Name: NEW ROCHELLE
Project Number: 16171696.45

Lab Number: L1638285
Report Date: 11/29/16

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Volatile Organics in Air - Mansfield Lab Associated sample(s): 01 QC Batch ID: WG956009-5 QC Sample: L1638291-03 Client ID: DUP Sample						
Propylene	3.68	3.77	ppbV	2		25
Dichlorodifluoromethane	0.429	0.411	ppbV	4		25
Chloromethane	0.498	0.497	ppbV	0		25
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND	ND	ppbV	NC		25
Vinyl chloride	ND	ND	ppbV	NC		25
1,3-Butadiene	ND	ND	ppbV	NC		25
Bromomethane	ND	ND	ppbV	NC		25
Chloroethane	ND	ND	ppbV	NC		25
Ethyl Alcohol	ND	ND	ppbV	NC		25
Vinyl bromide	ND	ND	ppbV	NC		25
Acetone	6.22	6.11	ppbV	2		25
Trichlorofluoromethane	0.247	0.249	ppbV	1		25
iso-Propyl Alcohol	ND	ND	ppbV	NC		25
1,1-Dichloroethene	ND	ND	ppbV	NC		25
Methylene chloride	ND	ND	ppbV	NC		25
3-Chloropropene	ND	ND	ppbV	NC		25
Carbon disulfide	ND	ND	ppbV	NC		25
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	ND	ppbV	NC		25
trans-1,2-Dichloroethene	ND	ND	ppbV	NC		25

Lab Duplicate Analysis Batch Quality Control

Project Name: NEW ROCHELLE

Project Number: 16171696.45

Lab Number: L1638285

Report Date: 11/29/16

Parameter	Native Sample	Duplicate Sample	Units	RPD	RPD Limits
Volatile Organics in Air - Mansfield Lab Associated sample(s): 01 QC Batch ID: WG956009-5 QC Sample: L1638291-03 Client ID: DUP Sample					
1,1-Dichloroethane	ND	ND	ppbV	NC	25
Methyl tert butyl ether	ND	ND	ppbV	NC	25
Vinyl acetate	ND	ND	ppbV	NC	25
2-Butanone	ND	ND	ppbV	NC	25
cis-1,2-Dichloroethene	ND	ND	ppbV	NC	25
Ethyl Acetate	ND	ND	ppbV	NC	25
Chloroform	ND	ND	ppbV	NC	25
Tetrahydrofuran	ND	ND	ppbV	NC	25
1,2-Dichloroethane	ND	ND	ppbV	NC	25
n-Hexane	0.311	0.314	ppbV	1	25
1,1,1-Trichloroethane	ND	ND	ppbV	NC	25
Benzene	0.886	0.888	ppbV	0	25
Carbon tetrachloride	ND	ND	ppbV	NC	25
Cyclohexane	ND	ND	ppbV	NC	25
1,2-Dichloropropane	ND	ND	ppbV	NC	25
Bromodichloromethane	ND	ND	ppbV	NC	25
1,4-Dioxane	ND	ND	ppbV	NC	25
Trichloroethene	ND	ND	ppbV	NC	25
2,2,4-Trimethylpentane	ND	ND	ppbV	NC	25

Lab Duplicate Analysis Batch Quality Control

Project Name: NEW ROCHELLE

Project Number: 16171696.45

Lab Number: L1638285

Report Date: 11/29/16

Parameter	Native Sample	Duplicate Sample	Units	RPD	RPD Limits
Volatile Organics in Air - Mansfield Lab Associated sample(s): 01 QC Batch ID: WG956009-5 QC Sample: L1638291-03 Client ID: DUP Sample					
Heptane	ND	ND	ppbV	NC	25
cis-1,3-Dichloropropene	ND	ND	ppbV	NC	25
4-Methyl-2-pentanone	ND	ND	ppbV	NC	25
trans-1,3-Dichloropropene	ND	ND	ppbV	NC	25
1,1,2-Trichloroethane	ND	ND	ppbV	NC	25
Toluene	0.797	0.806	ppbV	1	25
2-Hexanone	ND	ND	ppbV	NC	25
Dibromochloromethane	ND	ND	ppbV	NC	25
1,2-Dibromoethane	ND	ND	ppbV	NC	25
Tetrachloroethene	5.61	5.80	ppbV	3	25
Chlorobenzene	ND	ND	ppbV	NC	25
Ethylbenzene	ND	ND	ppbV	NC	25
p/m-Xylene	ND	ND	ppbV	NC	25
Bromoform	ND	ND	ppbV	NC	25
Styrene	ND	ND	ppbV	NC	25
1,1,2,2-Tetrachloroethane	ND	ND	ppbV	NC	25
o-Xylene	ND	ND	ppbV	NC	25
4-Ethyltoluene	ND	ND	ppbV	NC	25
1,3,5-Trimethylbenzene	ND	ND	ppbV	NC	25

Lab Duplicate Analysis

Batch Quality Control

Project Name: NEW ROCHELLE

Project Number: 16171696.45

Lab Number: L1638285

Report Date: 11/29/16

Parameter	Native Sample	Duplicate Sample	Units	RPD	RPD Limits
Volatile Organics in Air - Mansfield Lab Associated sample(s): 01 QC Batch ID: WG956009-5 QC Sample: L1638291-03 Client ID: DUP Sample					
1,2,4-Trimethylbenzene	ND	ND	ppbV	NC	25
Benzyl chloride	ND	ND	ppbV	NC	25
1,3-Dichlorobenzene	ND	ND	ppbV	NC	25
1,4-Dichlorobenzene	ND	ND	ppbV	NC	25
1,2-Dichlorobenzene	ND	ND	ppbV	NC	25
1,2,4-Trichlorobenzene	ND	ND	ppbV	NC	25
Naphthalene	ND	ND	ppbV	NC	25
Hexachlorobutadiene	ND	ND	ppbV	NC	25

Project Name: NEW ROCHELLE

Project Number: 16171696.45

Serial_No:11291613:24
Lab Number: L1638285

Report Date: 11/29/16

Canister and Flow Controller Information

Samplenum	Client ID	Media ID	Media Type	Date Prepared	Bottle Order	Cleaning Batch ID	Can Leak Check	Initial Pressure (in. Hg)	Pressure on Receipt (in. Hg)	Flow Controller Leak Chk	Flow Out mL/min	Flow In mL/min	% RPD
L1638285-01	SG-1	0116	#20 AMB	11/21/16	232615		-	-	-	Pass	144	141	2
L1638285-01	SG-1	2014	2.7L Can	11/21/16	232615	L1636845-01	Pass	-29.6	-1.7	-	-	-	-
L1638285-02	UNUSED CAN #406	0146	#20 SV	11/21/16	232615		-	-	-	Pass	144	162	12
L1638285-02	UNUSED CAN #406	406	2.7L Can	11/21/16	232615	L1636845-01	Pass	-29.7	-29.7	-	-	-	-

Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT

Lab Number: L1636845
Report Date: 11/29/16

Air Canister Certification Results

Lab ID: L1636845-01
Client ID: CAN 2025 SHELF 7
Sample Location:
Matrix: Air
Analytical Method: 48,TO-15
Analytical Date: 11/14/16 15:40
Analyst: MB

Date Collected: 11/11/16 16:00
Date Received: 11/14/16
Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab								
Chlorodifluoromethane	ND	0.200	--	ND	0.707	--		1
Propylene	ND	0.500	--	ND	0.861	--		1
Propane	ND	0.500	--	ND	0.902	--		1
Dichlorodifluoromethane	ND	0.200	--	ND	0.989	--		1
Chloromethane	ND	0.200	--	ND	0.413	--		1
Freon-114	ND	0.200	--	ND	1.40	--		1
Methanol	ND	5.00	--	ND	6.55	--		1
Vinyl chloride	ND	0.200	--	ND	0.511	--		1
1,3-Butadiene	ND	0.200	--	ND	0.442	--		1
Butane	ND	0.200	--	ND	0.475	--		1
Bromomethane	ND	0.200	--	ND	0.777	--		1
Chloroethane	ND	0.200	--	ND	0.528	--		1
Ethanol	ND	5.00	--	ND	9.42	--		1
Dichlorofluoromethane	ND	0.200	--	ND	0.842	--		1
Vinyl bromide	ND	0.200	--	ND	0.874	--		1
Acrolein	ND	0.500	--	ND	1.15	--		1
Acetone	ND	1.00	--	ND	2.38	--		1
Acetonitrile	ND	0.200	--	ND	0.336	--		1
Trichlorofluoromethane	ND	0.200	--	ND	1.12	--		1
Isopropanol	ND	0.500	--	ND	1.23	--		1
Acrylonitrile	ND	0.500	--	ND	1.09	--		1
Pentane	ND	0.200	--	ND	0.590	--		1
Ethyl ether	ND	0.200	--	ND	0.606	--		1
1,1-Dichloroethene	ND	0.200	--	ND	0.793	--		1
Tertiary butyl Alcohol	ND	0.500	--	ND	1.52	--		1



Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT

Lab Number: L1636845
Report Date: 11/29/16

Air Canister Certification Results

Lab ID: L1636845-01
Client ID: CAN 2025 SHELF 7
Sample Location:

Date Collected: 11/11/16 16:00
Date Received: 11/14/16
Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab								
Methylene chloride	ND	0.500	--	ND	1.74	--		1
3-Chloropropene	ND	0.200	--	ND	0.626	--		1
Carbon disulfide	ND	0.200	--	ND	0.623	--		1
Freon-113	ND	0.200	--	ND	1.53	--		1
trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
1,1-Dichloroethane	ND	0.200	--	ND	0.809	--		1
Methyl tert butyl ether	ND	0.200	--	ND	0.721	--		1
Vinyl acetate	ND	1.00	--	ND	3.52	--		1
2-Butanone	ND	0.500	--	ND	1.47	--		1
cis-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
Ethyl Acetate	ND	0.500	--	ND	1.80	--		1
Chloroform	ND	0.200	--	ND	0.977	--		1
Tetrahydrofuran	ND	0.500	--	ND	1.47	--		1
2,2-Dichloropropane	ND	0.200	--	ND	0.924	--		1
1,2-Dichloroethane	ND	0.200	--	ND	0.809	--		1
n-Hexane	ND	0.200	--	ND	0.705	--		1
Diisopropyl ether	ND	0.200	--	ND	0.836	--		1
tert-Butyl Ethyl Ether	ND	0.200	--	ND	0.836	--		1
1,1,1-Trichloroethane	ND	0.200	--	ND	1.09	--		1
1,1-Dichloropropene	ND	0.200	--	ND	0.908	--		1
Benzene	ND	0.200	--	ND	0.639	--		1
Carbon tetrachloride	ND	0.200	--	ND	1.26	--		1
Cyclohexane	ND	0.200	--	ND	0.688	--		1
tert-Amyl Methyl Ether	ND	0.200	--	ND	0.836	--		1
Dibromomethane	ND	0.200	--	ND	1.42	--		1
1,2-Dichloropropane	ND	0.200	--	ND	0.924	--		1
Bromodichloromethane	ND	0.200	--	ND	1.34	--		1
1,4-Dioxane	ND	0.200	--	ND	0.721	--		1



Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT

Lab Number: L1636845
Report Date: 11/29/16

Air Canister Certification Results

Lab ID: L1636845-01
 Client ID: CAN 2025 SHELF 7
 Sample Location:

Date Collected: 11/11/16 16:00
 Date Received: 11/14/16
 Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab								
Trichloroethene	ND	0.200	--	ND	1.07	--		1
2,2,4-Trimethylpentane	ND	0.200	--	ND	0.934	--		1
Methyl Methacrylate	ND	0.500	--	ND	2.05	--		1
Heptane	ND	0.200	--	ND	0.820	--		1
cis-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--		1
4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--		1
trans-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--		1
1,1,2-Trichloroethane	ND	0.200	--	ND	1.09	--		1
Toluene	ND	0.200	--	ND	0.754	--		1
1,3-Dichloropropane	ND	0.200	--	ND	0.924	--		1
2-Hexanone	ND	0.200	--	ND	0.820	--		1
Dibromochloromethane	ND	0.200	--	ND	1.70	--		1
1,2-Dibromoethane	ND	0.200	--	ND	1.54	--		1
Butyl acetate	ND	0.500	--	ND	2.38	--		1
Octane	ND	0.200	--	ND	0.934	--		1
Tetrachloroethene	ND	0.200	--	ND	1.36	--		1
1,1,1,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--		1
Chlorobenzene	ND	0.200	--	ND	0.921	--		1
Ethylbenzene	ND	0.200	--	ND	0.869	--		1
p/m-Xylene	ND	0.400	--	ND	1.74	--		1
Bromoform	ND	0.200	--	ND	2.07	--		1
Styrene	ND	0.200	--	ND	0.852	--		1
1,1,2,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--		1
o-Xylene	ND	0.200	--	ND	0.869	--		1
1,2,3-Trichloropropane	ND	0.200	--	ND	1.21	--		1
Nonane	ND	0.200	--	ND	1.05	--		1
Isopropylbenzene	ND	0.200	--	ND	0.983	--		1
Bromobenzene	ND	0.200	--	ND	0.793	--		1



Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT

Lab Number: L1636845
Report Date: 11/29/16

Air Canister Certification Results

Lab ID: L1636845-01
Client ID: CAN 2025 SHELF 7
Sample Location:

Date Collected: 11/11/16 16:00
Date Received: 11/14/16
Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab								
2-Chlorotoluene	ND	0.200	--	ND	1.04	--		1
n-Propylbenzene	ND	0.200	--	ND	0.983	--		1
4-Chlorotoluene	ND	0.200	--	ND	1.04	--		1
4-Ethyltoluene	ND	0.200	--	ND	0.983	--		1
1,3,5-Trimethylbenzene	ND	0.200	--	ND	0.983	--		1
tert-Butylbenzene	ND	0.200	--	ND	1.10	--		1
1,2,4-Trimethylbenzene	ND	0.200	--	ND	0.983	--		1
Decane	ND	0.200	--	ND	1.16	--		1
Benzyl chloride	ND	0.200	--	ND	1.04	--		1
1,3-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,4-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
sec-Butylbenzene	ND	0.200	--	ND	1.10	--		1
p-Isopropyltoluene	ND	0.200	--	ND	1.10	--		1
1,2-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
n-Butylbenzene	ND	0.200	--	ND	1.10	--		1
1,2-Dibromo-3-chloropropane	ND	0.200	--	ND	1.93	--		1
Undecane	ND	0.200	--	ND	1.28	--		1
Dodecane	ND	0.200	--	ND	1.39	--		1
1,2,4-Trichlorobenzene	ND	0.200	--	ND	1.48	--		1
Naphthalene	ND	0.200	--	ND	1.05	--		1
1,2,3-Trichlorobenzene	ND	0.200	--	ND	1.48	--		1
Hexachlorobutadiene	ND	0.200	--	ND	2.13	--		1

Results	Qualifier	Units	RDL	Dilution Factor
Tentatively Identified Compounds				

No Tentatively Identified Compounds



Project Name: BATCH CANISTER CERTIFICATION**Lab Number:** L1636845**Project Number:** CANISTER QC BAT**Report Date:** 11/29/16**Air Canister Certification Results**

Lab ID: L1636845-01

Date Collected: 11/11/16 16:00

Client ID: CAN 2025 SHELF 7

Date Received: 11/14/16

Sample Location:

Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab								

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	87		60-140
Bromochloromethane	91		60-140
chlorobenzene-d5	87		60-140

Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT

Lab Number: L1636845
Report Date: 11/29/16

Air Canister Certification Results

Lab ID: L1636845-01
Client ID: CAN 2025 SHELF 7
Sample Location:
Matrix: Air
Analytical Method: 48,TO-15-SIM
Analytical Date: 11/14/16 15:40
Analyst: MB

Date Collected: 11/11/16 16:00
Date Received: 11/14/16
Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air by SIM - Mansfield Lab								
Dichlorodifluoromethane	ND	0.200	--	ND	0.989	--		1
Chloromethane	ND	0.200	--	ND	0.413	--		1
Freon-114	ND	0.050	--	ND	0.349	--		1
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
1,3-Butadiene	ND	0.020	--	ND	0.044	--		1
Bromomethane	ND	0.020	--	ND	0.078	--		1
Chloroethane	ND	0.020	--	ND	0.053	--		1
Acetone	ND	1.00	--	ND	2.38	--		1
Trichlorofluoromethane	ND	0.050	--	ND	0.281	--		1
Acrylonitrile	ND	0.500	--	ND	1.09	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
Methylene chloride	ND	0.500	--	ND	1.74	--		1
Freon-113	ND	0.050	--	ND	0.383	--		1
Halothane	ND	0.050	--	ND	0.404	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
Methyl tert butyl ether	ND	0.200	--	ND	0.721	--		1
2-Butanone	ND	0.500	--	ND	1.47	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
Chloroform	ND	0.020	--	ND	0.098	--		1
1,2-Dichloroethane	ND	0.020	--	ND	0.081	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Benzene	ND	0.100	--	ND	0.319	--		1
Carbon tetrachloride	ND	0.020	--	ND	0.126	--		1
1,2-Dichloropropane	ND	0.020	--	ND	0.092	--		1



Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT

Lab Number: L1636845
Report Date: 11/29/16

Air Canister Certification Results

Lab ID: L1636845-01
Client ID: CAN 2025 SHELF 7
Sample Location:

Date Collected: 11/11/16 16:00
Date Received: 11/14/16
Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air by SIM - Mansfield Lab								
Bromodichloromethane	ND	0.020	--	ND	0.134	--		1
1,4-Dioxane	ND	0.100	--	ND	0.360	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
cis-1,3-Dichloropropene	ND	0.020	--	ND	0.091	--		1
4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--		1
trans-1,3-Dichloropropene	ND	0.020	--	ND	0.091	--		1
1,1,2-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Toluene	ND	0.050	--	ND	0.188	--		1
Dibromochloromethane	ND	0.020	--	ND	0.170	--		1
1,2-Dibromoethane	ND	0.020	--	ND	0.154	--		1
Tetrachloroethene	ND	0.020	--	ND	0.136	--		1
1,1,1,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1
Chlorobenzene	ND	0.100	--	ND	0.461	--		1
Ethylbenzene	ND	0.020	--	ND	0.087	--		1
p/m-Xylene	ND	0.040	--	ND	0.174	--		1
Bromoform	ND	0.020	--	ND	0.207	--		1
Styrene	ND	0.020	--	ND	0.085	--		1
1,1,2,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1
o-Xylene	ND	0.020	--	ND	0.087	--		1
Isopropylbenzene	ND	0.200	--	ND	0.983	--		1
4-Ethyltoluene	ND	0.020	--	ND	0.098	--		1
1,3,5-Trimethybenzene	ND	0.020	--	ND	0.098	--		1
1,2,4-Trimethylbenzene	ND	0.020	--	ND	0.098	--		1
1,3-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
1,4-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
sec-Butylbenzene	ND	0.200	--	ND	1.10	--		1
p-Isopropyltoluene	ND	0.200	--	ND	1.10	--		1
1,2-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1



Project Name: BATCH CANISTER CERTIFICATION**Lab Number:** L1636845**Project Number:** CANISTER QC BAT**Report Date:** 11/29/16**Air Canister Certification Results**

Lab ID: L1636845-01

Date Collected: 11/11/16 16:00

Client ID: CAN 2025 SHELF 7

Date Received: 11/14/16

Sample Location:

Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air by SIM - Mansfield Lab								
n-Butylbenzene	ND	0.200	--	ND	1.10	--		1
1,2,4-Trichlorobenzene	ND	0.050	--	ND	0.371	--		1
Naphthalene	ND	0.050	--	ND	0.262	--		1
1,2,3-Trichlorobenzene	ND	0.050	--	ND	0.371	--		1
Hexachlorobutadiene	ND	0.050	--	ND	0.533	--		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	90		60-140
bromochloromethane	93		60-140
chlorobenzene-d5	89		60-140



Project Name: NEW ROCHELLE**Project Number:** 16171696.45**Lab Number:** L1638285**Report Date:** 11/29/16**Sample Receipt and Container Information**

Were project specific reporting limits specified? YES

Cooler Information Custody Seal**Cooler**

N/A Present/Intact

Container Information

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1638285-01A	Canister - 2.7 Liter	N/A	N/A		Y	Absent	TO15-LL(30)
L1638285-02A	Canister - 2.7 Liter	N/A	N/A		Y	Absent	CLEAN-FEE()

*Values in parentheses indicate holding time in days



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GLOSSARY

Acronyms

EDL	- Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).
EPA	- Environmental Protection Agency.
LCS	- Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LCSD	- Laboratory Control Sample Duplicate: Refer to LCS.
LFB	- Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
MDL	- Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
MS	- Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available.
MSD	- Matrix Spike Sample Duplicate: Refer to MS.
NA	- Not Applicable.
NC	- Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.
NDPA/DPA	- N-Nitrosodiphenylamine/Diphenylamine.
NI	- Not Ignitable.
NP	- Non-Plastic: Term is utilized for the analysis of Atterberg Limits in soil.
RL	- Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
RPD	- Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.
SRM	- Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.
STLP	- Semi-dynamic Tank Leaching Procedure per EPA Method 1315.
TIC	- Tentatively Identified Compound: A compound that has been identified to be present and is not part of the target compound list (TCL) for the method and/or program. All TICs are qualitatively identified and reported as estimated concentrations.

Footnotes

- 1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Total: With respect to Organic analyses, a 'Total' result is defined as the summation of results for individual isomers or Aroclors. If a 'Total' result is requested, the results of its individual components will also be reported. This is applicable to 'Total' results for methods 8260, 8081 and 8082.

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Data Qualifiers

- A** - Spectra identified as "Aldol Condensation Product".
- B** - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the

Report Format: Data Usability Report



Project Name: NEW ROCHELLE**Lab Number:** L1638285**Project Number:** 16171696.45**Report Date:** 11/29/16**Data Qualifiers**

reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).

- C** - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.
- D** - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.
- E** - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.
- G** - The concentration may be biased high due to matrix interferences (i.e. co-elution) with non-target compound(s). The result should be considered estimated.
- H** - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.
- I** - The lower value for the two columns has been reported due to obvious interference.
- M** - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.
- NJ** - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.
- P** - The RPD between the results for the two columns exceeds the method-specified criteria.
- Q** - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)
- R** - Analytical results are from sample re-analysis.
- RE** - Analytical results are from sample re-extraction.
- S** - Analytical results are from modified screening analysis.
- J** - Estimated value. This represents an estimated concentration for Tentatively Identified Compounds (TICs).
- ND** - Not detected at the reporting limit (RL) for the sample.

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REFERENCES

- 48 Compendium of Methods for the Determination of Toxic Organic Compounds in Ambient Air. Second Edition. EPA/625/R-96/010b, January 1999.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.



Certification Information

The following analytes are not included in our Primary NELAP Scope of Accreditation:

Westborough Facility

EPA 624: m/p-xylene, o-xylene

EPA 8260C: NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene; SCM: Iodomethane (methyl iodide), Methyl methacrylate, 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.

EPA 8270D: NPW: Dimethylnaphthalene, 1,4-Diphenylhydrazine; SCM: Dimethylnaphthalene, 1,4-Diphenylhydrazine.

EPA 300: DW: Bromide

EPA 6860: NPW and SCM: Perchlorate

EPA 9010: NPW and SCM: Amenable Cyanide Distillation

EPA 9012B: NPW: Total Cyanide

EPA 9050A: NPW: Specific Conductance

SM3500: NPW: Ferrous Iron

SM4500: NPW: Amenable Cyanide, Dissolved Oxygen; SCM: Total Phosphorus, TKN, NO₂, NO₃.

SM5310C: DW: Dissolved Organic Carbon

Mansfield Facility

SM 2540D: TSS

EPA 3005A NPW

EPA 8082A: NPW: PCB: 1, 5, 31, 87, 101, 110, 141, 151, 153, 180, 183, 187.

EPA TO-15: Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene,

3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.

Biological Tissue Matrix: **EPA 3050B**

The following analytes are included in our Massachusetts DEP Scope of Accreditation

Westborough Facility:

Drinking Water

EPA 300.0: Nitrate-N, Fluoride, Sulfate; **EPA 353.2:** Nitrate-N, Nitrite-N; **SM4500NO3-F:** Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE, EPA 180.1, SM2130B, SM4500CI-D, SM2320B, SM2540C, SM4500H-B**

EPA 332: Perchlorate; **EPA 524.2:** THMs and VOCs; **EPA 504.1:** EDB, DBCP.

Microbiology: **SM9215B; SM9223-P/A, SM9223B-Colilert-QT, SM9222D.**

Non-Potable Water

SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2320B, SM4500CL-E, SM4500F-BC, SM4500NH3-BH, EPA 350.1: Ammonia-N, **LACHAT 10-107-06-1-B:** Ammonia-N, **SM4500NO3-F, EPA 353.2:** Nitrate-N, **EPA 351.1, SM4500P-E, SM4500P-B, E, SM4500SO4-E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, EPA 420.1, SM4500-CN-CE, SM2540D.**

EPA 624: Volatile Halocarbons & Aromatics,

EPA 608: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs

EPA 625: SVOC (Acid/Base/Neutral Extractables), **EPA 600/4-81-045:** PCB-Oil.

Microbiology: **SM9223B-Colilert-QT; Enterolert-QT, SM9222D-MF.**

Mansfield Facility:

Drinking Water

EPA 200.7: Ba, Be, Cd, Cr, Cu, Ni, Na, Ca. **EPA 200.8:** Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Ni, Se, TL. **EPA 245.1 Hg.**

Non-Potable Water

EPA 200.7: Al, Sb, As, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Sr, TL, Ti, V, Zn.

EPA 200.8: Al, Sb, As, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, TL, Zn.

EPA 245.1 Hg.

SM2340B

For a complete listing of analytes and methods, please contact your Alpha Project Manager.

PARTNER