



**PERIODIC REVIEW REPORT  
for  
April 30, 2022 to April 30, 2023  
Reporting Period**

**COTTAGE GARDEN AUTO REPAIR SITE  
NEW ROCHELLE, WESTCHESTER COUNTY, NEW YORK**

**NYSDEC Site # C360180**

**Prepared for:**

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**and**

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**MAY 2023**

**Project No.: 11672**

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## LIST OF ACRONYMS

Acronym	Definition
1,1,2-TCA	1,1,2-trichloroethane
AWQS	Ambient Water Quality Standards
BCA	Brownfield Cleanup Agreement
BCP	Brownfield Cleanup Program
COC	Certificate of Completion
CVOC	Chlorinated Volatile Organic Compound
DER	Division of Environmental Remediation
DER-10	NYSDEC Technical Guidance for Site Investigation & Remediation
ECs	Engineering Controls
EE	Environmental Easement
ft-bgs	Feet below ground surface
ICs	Institutional Controls
MTBE	methyl-tertiary-butyl-ether
MW	Monitoring Well
NYSDEC	New York State Department of Environmental Conservation
NYSDOH	New York State Department of Health
PCB	Polychlorinated Biphenyls
PHC	Petroleum Hydrocarbon
PRR	Periodic Review Report
RAWP	Remedial Action Work Plan
RI	Remedial Investigation
RIR	Remedial Investigation Report
RRSCO	Restricted Residential Soil Cleanup Objectives
SCG	Standards, Criteria, and Guidance
SESI	SESI Consulting Engineers, PC
SMP	Site Management Plan
SVOCs	Semi-Volatile Organic Compounds
TAL	Target Analyte List
TOGS	Technical and Operations Guidance Series

<b>Acronym</b>	<b>Definition</b>
TCE	Trichloroethene
USCO	Unrestricted Use Soil Cleanup Objectives
USEPA	United States Environmental Protection Agency
UST	Underground Storage Tank
VOCs	Volatile Organic Compounds

## **1.0 INTRODUCTION**

### **1.1 SUMMARY**

SESI Consulting Engineers DPC (SESI) prepared this Periodic Review Report (PRR) for the period April 30, 2022 to April 30, 2023 for the Cottage Garden Auto Repair New York State Brownfield Cleanup Program (BCP), Site No. C360180 located in New Rochelle, New York (hereinafter referred to as the “Site”). SESI prepared this PRR on behalf of the five (5) volunteer entities as of the September 2019 BCA Amendment: Mark 95 LLC, MJ Garden LLC, MJ Garden II LLC, MJ Garden III LLC. and MJ Garden IV LLC. They will hereinafter collectively be referred to as the “Volunteers,” who entered into a Brownfield Cleanup Agreement (BCA) as Volunteers with the New York State Department of Environmental Conservation (NYSDEC) to remediate the Site.

The Site was formerly occupied by four (4) commercial buildings and one (1) residential building. All the buildings were demolished down to their foundations during site preparation activities before the Remedial Action Work Plan (RAWP) was approved. The residential parcel on the original lot located at 16 Cottage Place was a two and a half story apartment building with approximately 1,000 sq. ft. of formerly occupied space. It was constructed as a residential single-family home in the early 1900s, with conversion to multiple apartments over the years, according to information from available records. The last business with a former address of 10 – 12 Cottage Place was a retail tire and auto repair facility present on the Site for over 60 years. This portion of the Site was also a gasoline station with underground tanks abandoned in place with prior uses unknown. Commercial businesses, including a kitchen and bath dealer and other warehousing purposes, were also present on the Site with prior addresses of 28 Garden Street and 34 Garden Street. The former lot with an address of 26 Garden Street housed a Plastic Works manufacturing company called Strip-A-Way of New Rochelle Inc. This plastics company is believed to have been the historic source of the solvent contamination found on-Site in groundwater and soil vapor.

The Site was remediated to conditional Track 1 as of the end of 2020 when the Certificate of Completion (COC) was issued. A Track 1 soil remedy was completely achieved but residual groundwater and soil vapor contamination required Engineering Controls (ECs) including groundwater monitoring and a post-construction vapor intrusion investigation.

An Environmental Easement (EE) was granted to the NYSDEC and recorded by the Site owners with the Westchester County Clerk, which required compliance with a Site Management Plan (SMP).

This PRR summarizes the required post-COC inspection and monitoring activities that were conducted during the current reporting period. The inspection and monitoring were conducted to ensure compliance with the EE and the SMP as approved by the NYSDEC.

## **1.2 EFFECTIVENESS OF REMEDIAL PROGRAM**

In order to monitor the effectiveness of the impact on the Site of the Track 1 soil remedy and in-situ groundwater remediation, an on-Site monitoring well network has been sampled quarterly since the COC was issued. The sampling frequency has been modified to biannual per NYSDEC approval of the 2022 PRR. Monitoring wells MW-3 and MW-4 were sampled for volatile organic compounds (VOCs) as described in Section 3. As discussed in Section 3, monitoring well MW-6 has been lost due to site development and could not be sampled.

## **1.3 COMPLIANCE**

The post-COC sampling activities complied with the required sampling protocols in the SMP. SESI sampled the groundwater wells MW-3 and MW-4 in March 2023.

## **1.4 CONCLUSIONS AND RECOMMENDATIONS**

SESI has verified that the ECs and Institutional Controls (ICs) developed for the Site have been in compliance with the SMP during this PRR reporting period.

- SESI recommends continuing the biannual groundwater monitoring and sampling of wells MW-3 and MW-4.

## **2.0 SITE OVERVIEW**

### **2.1 SITE LOCATION AND DESCRIPTION**

The Site addresses are 26 Garden Street (Court House Building, which includes parking for the affordable building and a buffer courthouse floor), 10 Cottage Place (Proposed Residential Building), and 20 Garden Street (Proposed Medical Office). A United States Geological Survey (USGS) topographical quadrangle map, SMP Figure 1.1, shows the Site location. All SMP figures are provided in **Appendix A**.

The Site is 0.988 acres and is bounded by Cottage Place, which borders the northeast side of the Site; Garden Street, which borders the southwest side of the Site; and Interstate I-95 runs along the north side of the Site. The boundaries of the Site are more fully described in SMP Figure 1.2.

### **2.2 SITE HISTORY**

The Site was formerly occupied by four (4) commercial buildings and one (1) residential building. All the buildings have been demolished down to their foundations. The residential parcel on 16 Cottage Place was a two and a half story apartment building with approximately 1,000 sq. ft. of formerly occupied space. It was constructed as a residential single-family home in the early 1900s, with conversion to multiple apartments over the years, according to information from available records. The last business with an address of 10 – 12 Cottage Place was a retail tire and auto repair facility present on the Site for over 60 years. This portion of the Site was also a gasoline station with underground tanks abandoned in place and prior uses are unknown. Commercial businesses, including a kitchen and bath dealer and other warehousing purposes, were also present on the Site with prior addresses of 28 Garden Street and 34 Garden Street. 26 Garden Street housed a Plastic Works manufacturing company called Strip-A-Way of New Rochelle Inc.

#### **2.2.1 REMEDIAL INVESTIGATION (RI) CONDUCTED AT THE SITE**

The following narrative provides an investigation and remedial history timeline and a brief summary of the available project records to document key investigative and remedial milestones for the Site.

The Remedial Investigation Report (RIR) (October 2019) was prepared by SESI and details the results of prior investigations and the Remedial Investigation (RI) performed on the Site. The RI was conducted in accordance with the Remedial Investigation Work Plan for the Site, which was last revised April 2019, the Supplemental Remedial Investigation Work Plan prepared in September 2019, and the NYSDEC's Technical Guidance for Site Investigation and Remediation (DER-10).

The RI consisted of collecting 92 soil samples from 26 soil borings, six (6) groundwater samples from five (5) shallow monitoring wells (MW-1, MW-2, MW-3S, MW-4, and MW-5), one (1) deep well (MW-3D), and 15 soil vapor samples (SV-1 through SV-15) between May and September 2019. One (1) additional monitoring well (MW-6) was installed in June 2020 for groundwater monitoring downgradient of the prior monitoring well network. Soil and groundwater samples were analyzed for a combination of full target compound list (TCL) and target analyte list (TAL) analytes – which include volatile VOCs (USEPA Method 8260), metals (USEPA Methods 6010/7471), semi-volatile organic compounds (SVOCs, USEPA Method 8270), polychlorinated biphenyls (PCBs) and pesticides (USEPA Methods 8081/8082), and per and polyfluoroalkyl substances (USEPA Modified Method 537), and 1,4 dioxane (USEPA Method 8270). Duplicates were included each day sampling was conducted, and trip blanks accompanied all samples analyzed for VOCs. Soil vapor samples were analyzed for VOCs in accordance with EPA Method TO-15.

### Soil

Based on the field investigation, the overall depth of impacted soils ranged from 2 feet to 24 feet below ground surface (ft bgs). Polycyclic aromatic hydrocarbon impacts including benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, dibenz(a,h)anthracene, and ideno(1,2,3-cd)pyrene exceeding both Unrestricted Use Soil Cleanup Objectives (USCO) restricted residential soil cleanup objectives (RRSCOs) were identified in shallow soils 2 to 3.5 ft bgs on the western two-thirds of the Site.

Metals contaminated soils exceeding the USCOs and RRSCOs for mercury, barium, cadmium, copper, lead, nickel, and zinc were identified in shallow soils 2 to 3 ft bgs.

Metals contaminated soils exceeding the USCOs extend down to 24 ft bgs in certain areas.

The pesticides 4,4-DDE and 4,4-DDT were detected at a depth of 3.5 ft-bgs in one (1) area near the northeastern portion of the Site above the USCO.

Eleven (11) emerging contaminants were detected in at least one (1) of the soil samples collected at depths ranging from 2 ft-bgs to 15 ft-bgs.

### Soil Vapor

The Site soil vapor included chlorinated VOCs (CVOCs) and petroleum hydrocarbon (PHC) VOC contaminants. The greatest concentrations of CVOC in soil vapors identified was trichloroethylene (TCE) detected in SV-6 (810 ug/m<sup>3</sup>), SV-7 (260 ug/m<sup>3</sup>), SV-9 (77 ug/m<sup>3</sup>) and carbon tetrachloride in SV-5 (630 ug/m<sup>3</sup>) near the southern portion of the Site.

The concentration of PHC VOCs in soil vapors were identified as follows:

- benzene in SV-3 at 120 ug/m<sup>3</sup> and SV-5 at 150 ug/m<sup>3</sup>;
- toluene in SV-11 and SV-15 at 130 ug/m<sup>3</sup>, in SV-14 at 140 ug/m<sup>3</sup>, and in SV-5 at 190 ug/m<sup>3</sup>;
- total xylenes in SV-1 at 43 ug/m<sup>3</sup>, in SV-5 at 46 ug/m<sup>3</sup>, in SV-15 at 69 ug/m<sup>3</sup>, and in SV-7 159 ug/m<sup>3</sup>; and
- 1,3 butadiene in SV-15 at 1.8 ug/m<sup>3</sup> and SV-1 at 250 ug/m<sup>3</sup>.

### Groundwater

Groundwater sampling of well MW-3S resulted in detections of dissolved VOCs including TCE (9.8 ug/L) and benzene (1.1 ug/L) exceeding their Ambient Water Quality Standards (AWQS) of 1 ug/L for benzene, and 5 ug/L for TCE. There were no exceedances of the AWQS in MW-3D, which was screened in the bedrock. In MW-4, 1,1,2-trichloroethane (1,1,2-TCA) (1.3 ug/L), methyl-tertiary-butyl-ether (MTBE) (29ug/L), and TCE (8.8 ug/L) exceeded their AWQS of 10 ug/L for MTBE, 5 ug/L for TCE, and 1 ug/L for 1,1,2-TCA. In MW-5, methylene chloride (5.4 ug/L) exceeded the AWQS of 5 ug/L.

The SVOC benzo(a)anthracene was detected in monitoring well MW-4 (0.017 ug/L) at a concentration exceeding its AWQS of 0.002 ug/L. This detection is noted with a “J” data qualifier, indicating the result is below the reporting limit and therefore estimated.

Several metals, including aluminum, chromium, iron, magnesium, manganese, selenium, and sodium, were also detected at levels that exceeded the TOGs Class GA AWQS or TOGs maximum effluent limitations in at least one (1) of the monitoring wells sampled. There were no exceedances for pesticides or PCBs detected in any of the groundwater samples collected.

### 2.2.2 DESCRIPTION OF INTERIM REMEDIAL MEASURES

Two (2) 3,000-gallon gasoline underground storage tanks (USTs) located at the southeastern corner of the Site near the intersection of Cottage Place and Garden Street, which were previously abandoned-in-place, were removed per the NYSDEC approved RAWP. In addition, one (1) unknown 500-gallon UST discovered on the western end of the Site was removed. Three (3) bottom samples (RA-UST1-2A through RA-UST1-2C) were collected (one per 5 linear feet) from beneath the two (2) 3,000-gallon gasoline USTs, and two (2) bottom samples (RA-UST-3A and RA-UST-3B) were collected from beneath the 500-gallon unknown UST. The samples were submitted to Alpha Analytical for analysis of CP-51 listed VOCs (EPA Method 8260C) and SVOCs (EPA Method 8270D). The results of post-excavation samples were below detection limits for all analytes.

The removed UST details are provided in **Table 2.1** below and SMP Figure 2.2. A detailed description of tank closure activities is presented in the tank closure report included as Appendix H of the FER.

**Table 2.1: Summary of Petroleum Tank Closures**

Field Observations	UST 1	UST 2	UST 3
Date of Removal	2/7/2020	2/7/2020	2/21/2020
Tank Diameter	64-inches	64-inches	36 - inches
Tank Length	216-inches	216-inches	108-inches
Tank Volume (Gallons)	3,000	3,000	500
Quantity of Liquid Removed (gal)	Filled with concrete	Filled with concrete	225

### **2.2.3 DESCRIPTION OF REMEDICAL ACTIONS**

The Site was remediated in accordance with the remedy selected by the NYSDEC in the RAWP dated September 2019.

The factors considered during the selection of the remedy are those listed in 6NYCRR 375-1.8. The following are the components of the selected remedy:

1. Excavation and off-Site disposal of on-Site soils which exceed USCOs, as defined by 6 NYCRR Part 375-6.8;
2. Removal of two (2) 3,000-gallon USTs one (1) 500-gallon UST;
3. Injection of Regenesis PersulfOx® oxidant to treat residual dissolved VOCs in groundwater;
4. Execution and recording of an Environmental Easement to restrict the use of groundwater as a source of potable or process water, without necessary water quality treatment as determined by the New York State Department of Health (NYSDOH) or County Department of Health;
5. Development and implementation of a Site Management Plan for short-term management (projected to be no more than five years) of remaining contamination as required by the Environmental Easement, which included plans for: (1) Institutional and Engineering Controls, (2) groundwater and vapor monitoring, (3) operation and maintenance and (4) reporting; and
6. Periodic certification of the Institutional and Engineering controls listed above.

### **2.2.4 REMOVAL OF CONTAMINATED MATERIALS FROM THE SITE**

#### Remedial Excavation

The contaminated fill and soil were removed from the entire footprint of the Site down to a depth of approximately 14 feet across the Site. One (1) discrete “Hotspot” area (A) was further excavated to a depth of 24 ft-bgs. In total, 22,800 cubic yards of contaminated soil was removed from the Site and was all disposed of as contaminated soil at the Clean Earth of Carteret disposal facility. The final excavation elevations are shown on SMP Figure 2.3.

### Chemical Injections

In order to enhance and accelerate the groundwater remediation of the dissolved VOCs in order to achieve a Track 1 remedy, a groundwater remedy was implemented and Regenesis PersulfOx® oxidant was applied per SESI's Groundwater Remediation Work Plan, approved by NYSDEC on May 21, 2020. The in-situ treatment consisted of three (3) linear grids totaling 51 injection points, and a second smaller treatment area totaling four (4) injection points. Ultimately, 11,240 pounds of PersulfOx® was injected in the target treatment zones. The PersulfOx® was mixed at concentration of 15%, which resulted in approximately 7,700 gallons of PersulfOx® solution. Two (2) rounds of post-injection groundwater samples were implemented, which has been effective at reducing the remaining concentrations in groundwater as further described below.

### **2.2.5 ON-SITE AND OFF-SITE TREATMENT SYSTEMS**

No long-term treatment systems were required to be installed as part of the Site remedy.

### **2.2.6 DESCRIPTION OF RESIDUAL CONTAMINATION**

Described in Section 3 of this report.

### **2.2.7 MANAGEMENT OF RESIDUAL CONTAMINATION THROUGH INSTITUTIONAL AND ENGINEERING CONTROLS IN THE ENVIRONMENTAL EASEMENT**

The SMP lists the ICs required by the NYSDEC to manage the residual contamination present at this Site to protect public health and the environment in the future and keep the Site safe for reuse. The remedy for the Site did not require the construction of any other Engineering Control systems.

The Department required an EE be placed on the Site to mainly monitor the groundwater after the implementation of the groundwater remedy and residual soil vapor. A SMP (December 2020) was prepared by SESI and approved by the NYSDEC for the short-term management and monitoring of the EE requirements.

### **3.0 REMEDY PERFORMANCE, EFFECTIVENESS, PROTECTIVENESS**

The goal of the SMP is to manage the residual contamination at the Site through implementation of ICs until the Department determines that the conditional Track 1

designation can be changed to an unconditional Track 1. SESI has conducted this required monitoring/inspection of the ICs on the Site in accordance with the SMP dated December 2020.

The overall SMP monitoring requirements were designed to monitor the remaining low levels of dissolved groundwater contamination post remediation remaining to demonstrate that: (a) the groundwater standards have been achieved, or (b) asymptotic levels that are acceptable by the NYSDEC and NYSDOH have been reached; and that soil vapor intrusion is not occurring inside any of the newly constructed buildings.

### 3.1 GROUNDWATER MONITORING

In order to monitor the effectiveness of the contaminant removal and the Site's natural attenuation, an on-Site monitoring well network (MW-3 and MW-4) was sampled on March 16, 2023. Note that monitoring well MW-3 has also been labeled as MW-3S during certain well sampling events. During the RIR, the well MW-3S was designated as a shallow well installed concurrently with a deep monitoring well labeled MW-3D. MW-3 was reinstalled as a shallow well after the soil remediation. In future sampling events the well will be labeled as MW-3. Note that monitoring well MW-6 has been lost due to site development and could not be sampled. The groundwater sampling and purging logs are presented in **Appendix B. Table 3.1** presents the groundwater analytical result summary compared to the AWQS. **Table 3.2** below presents a summary of the remaining minor VOCs exceedances of the AWQS in groundwater. The laboratory data of the sampling events for this monitoring period are presented in **Appendix C**. The monitoring well locations and AWQS exceedances are depicted in **Figure 3.1**.

#### Chlorinated VOCs

TCE concentrations in MW-3, which is located in the middle of the Site, experienced a small rebound post-remediation and peaked at a concentration of 87 ug/L during the December 2021 sampling event. However, the concentration of TCE reduced to a 84 ug/L in March 2022 and further reduced to a concentration of 7.2 ug/L in March 2023, slightly exceeding its AWSQ of 5 ug/L. In addition, the concentration of TCE has stabilized and reached asymptotic levels in MW-4 at a concentration of 0.44 ug/L, below the AWQS. Chloroform, a common chlorinated water contaminant, was detected in MW-4 at a

concentration of 8.7 ug/L, slightly exceeding its AWQS of 7 ug/L. A summary of CVOC exceedances in groundwater is presented on **Table 3.2** below and **Figure 3.1**.

### Petroleum VOCs

As shown in **Table 3.2** below and **Figure 3.1**, post-remedial concentrations of MTBE have peaked at a concentration of 100 ug/L in June 2021, and have been steadily declining to a concentration of 18 ug/L in March 2023, slightly exceeding it AWQS of 10 ug/L.

**Table 3.2: Summary of VOC Groundwater Exceedances**

LOCATION	NY-AWQS	MW-3	MW-3	MW-3	MW-3S	MW-3S	MW-3						
SAMPLING DATE		4/22/2021	6/16/2021	9/16/2021	12/9/2021	3/2/2022	3/16/2023						
Units	ug/l	Results	Q	Results	Q	Results	Q						
Methyl tert butyl ether	10	<b>100</b>		<b>100</b>		<b>57</b>		<b>64</b>		<b>49</b>		<b>18</b>	
Trichloroethene	5	<b>34</b>		<b>60</b>		<b>51</b>		<b>87</b>		<b>84</b>		<b>7.2</b>	
Chloroform	7	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U

LOCATION	NY-AWQS	MW-4	MW-4	MW-4	MW-4	MW-4	MW-4						
SAMPLING DATE		4/22/2021	6/16/2021	9/16/2021	12/9/2021	3/2/2022	3/16/2023						
	ug/l	Results	Q	Results	Q	Results	Q						
Methyl tert butyl ether	10	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U
Trichloroethene	5	2.7		3.3		2.7		2.1		1.6		0.44	
Chloroform	7	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	8.7	

LOCATION	NY-AWQS	MW-6	MW-6	MW-6	MW-6	MW-6					
SAMPLING DATE		4/22/2021	6/16/2021	9/16/2021	12/9/2021	3/2/2022					
	ug/l	Results	Q	Results	Q	Results					
Methyl tert butyl ether	10	2.3	J	2.5	U	0.72	J	2.5	U	2.5	U
Trichloroethene	5	4		0.66		3.6		1.1		0.5	U
Chloroform	7	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U

Notes:

1. Results are shown in micrograms per liter (ug/L)
2. Bold = Compound exceedances of NYSDEC AWQS
3. Q = Qualifier
4. U = Compound Not Detected
5. J = concentration estimated
6. MW-3 and MW-3S are the same well.

## 4.0 IC/EC PLAN COMPLIANCE

### 4.1 IC/EC REQUIREMENTS AND COMPLIANCE

#### Institutional and Engineering Controls

The Site remedy required that an EE be placed on the Site mainly to monitor groundwater and soil vapor post COC. An SMP (December 2020) was prepared by SESI and approved by the NYSDEC for the short-term management and monitoring of the EE requirements.

### **Criteria for Completion of Remediation/Termination of Remedial Systems**

Generally, remedial processes are considered completed when monitoring indicates that the remedy has achieved the remedial action objectives identified by the decision document. The framework for determining when remedial processes are complete is provided in Section 6.4 of NYSDEC Division of Environmental Remediation (DER-10) Technical Guidance for Site Investigation and Remediation (May 3, 2010).

### **Monitoring Wells Associated with Monitored Natural Attenuation**

Groundwater monitoring activities to assess natural attenuation is required to continue as determined by the NYSDEC, with consultation with NYSDOH, until residual groundwater concentrations are found to be below ambient water quality standards, the Site standards, criteria, and guidance (SCGs), or have become asymptotic at an acceptable level over an extended period. In the event that monitoring data indicates that monitoring for natural attenuation may no longer be required, a proposal to discontinue monitoring can be submitted by the remedial party. Monitoring will continue until permission to discontinue is granted in writing by the NYSDEC.

### **Soil Vapor Intrusion Evaluation**

A soil vapor intrusion evaluation was also required to performed. Upon completion of the evaluation, no further monitoring is deemed necessary. In a February 24, 2023, SMP PRR response letter, the department concurred with SESI's recommendation to halt the soil-sub-slab vapor, indoor and outdoor air monitoring.

## **4.2 IC/EC CERTIFICATION**

The NYSDEC Institutional and Engineering Controls Certification Form has been completed and is included in **Appendix D**.

## 5.0 MONITORING PLAN COMPLIANCE

### Monitoring Completed During Current Reporting Period

Table 5.1: Monitoring Program Frequency

Monitoring Program	Frequency	Matrix	Analysis
Groundwater	Biannual	Water	VOCs

### Groundwater Monitoring

- Groundwater samples were collected from MW-3 and MW-4, on March 16, 2023. Groundwater samples were analyzed for VOCs described in Section 3.

### Comparison with Remedial Objectives

#### Groundwater

- The groundwater data confirm that generally there has been bulk reduction in groundwater contaminant levels across the Site.
- Concentrations of TCE have been reduced to 0.44 ug/L in MW-4 during the March 2023 sampling event and were below detection limits in MW-6 when it was last sampled during the March 2022 sampling event. The concentration of TCE detected in monitoring well MW-3 has reduced to 7.2 ug/L in the March 2023 sampling event.
- Concentration of MTBE in MW-3 has been declining and has reduced to a concentration of 18 ug/L in the March 2023 sampling round.

### Monitoring Deficiencies

All aspects of the monitoring plan were in accordance with NYSDEC applicable regulations.

### Conclusions and Recommendations

- Continue biannual groundwater monitoring and sampling of wells MW-3 and MW-4.

## **6.0 OPERATION AND MAINTENANCE PLAN COMPLIANCE**

The Site remedy does not rely on any mechanical systems, such as sub-slab depressurization systems or air sparge/soil vapor extraction systems, to protect public health and the environment. Therefore, the operation and maintenance of such components is not applicable.

## 7.0 CONCLUSIONS AND RECOMMENDATIONS

### **Compliance with the SMP**

All aspects of the SMP, including IC/EC and monitoring, have met the requirements. The O&M is not required at this time for the Site.

There are no new exposure pathways resulting in an unacceptable risk.

### **Performance and Effectiveness of the Remedy**

The sampling of the monitoring well network is determining the effectiveness of the Site's ability to naturally degrade the contaminants of concern in groundwater.

### **Future PRR Submittals**

The next PRR submittal will be May 2024.

### **Recommendations**

We recommend the following for the next reporting period:

- Continue biannual groundwater monitoring and sampling of wells MW-3 and MW-4 for one additional year. If the concentrations remain asymptotic or below the AWQS no additional groundwater monitoring is recommended and the EE should be removed.

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# Tables

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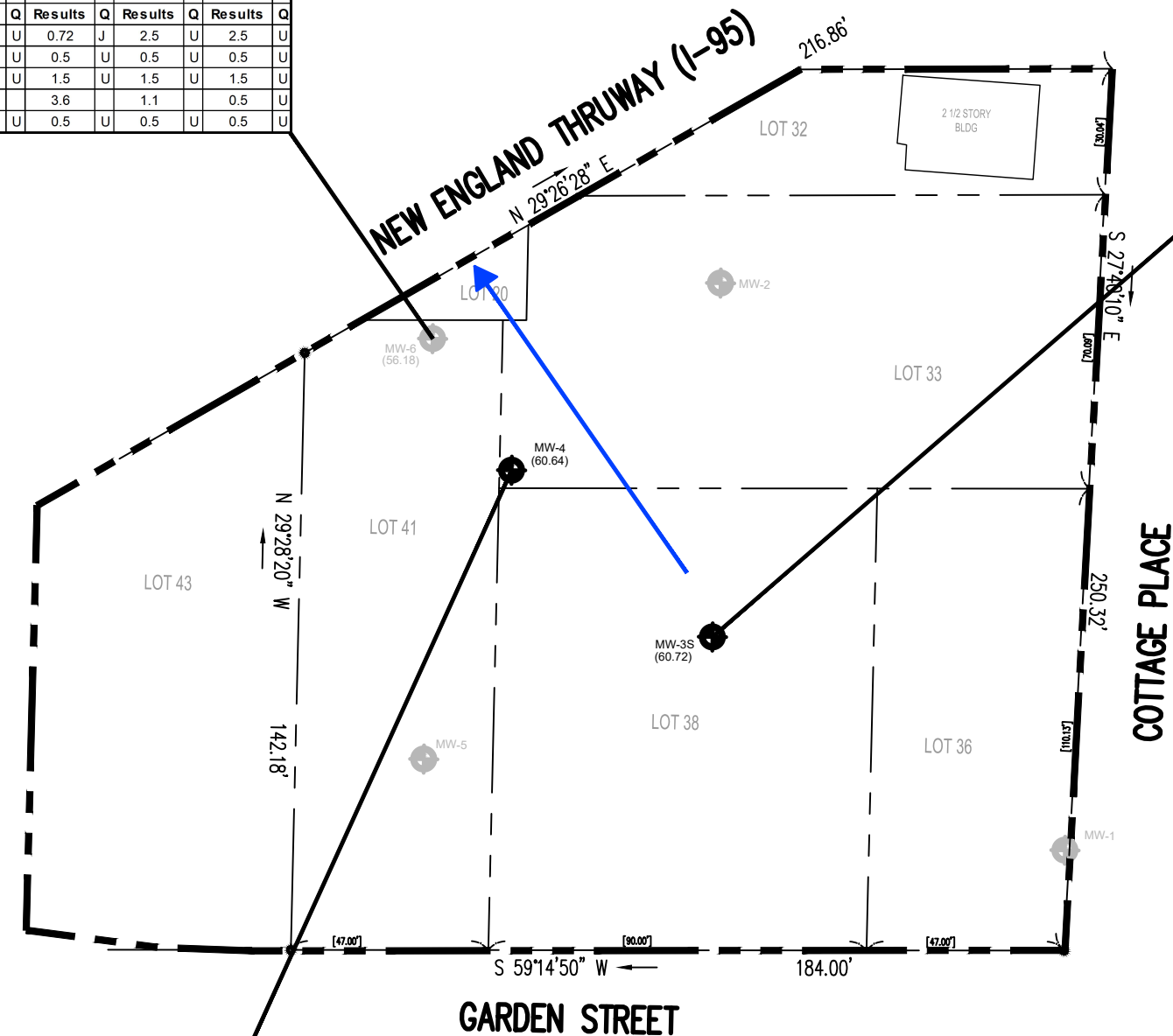
# Figures

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N:\ACAD\11672\CAD\11672.DWG - GW SAMPL LOCs & RESULTS.DWG 02/14/24 01:11:10PM, alan.ward, LAYOUT: FIG-3.1

LOCATION	MW-6		MW-6		MW-6		MW-6		MW-6	
SAMPLING DATE	4/22/2021		6/16/2021		9/16/2021		12/9/2021		3/2/2022	
	Results	Q	Results	Q	Results	Q	Results	Q	Results	Q
Methyl tert butyl ether	2.3	J	2.5	U	0.72	J	2.5	U	2.5	U
Benzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,2-Trichloroethane	1.5	U	1.5	U	1.5	U	1.5	U	1.5	U
Trichloroethene	4		0.66		3.6		1.1		0.5	U
Chloroform	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U

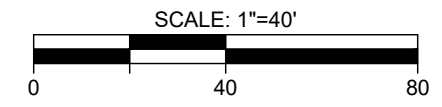
LOCATION	MW-3		MW-3		MW-3		MW-3S		MW-3S		MW-3	
SAMPLING DATE	4/22/2021		6/16/2021		9/16/2021		12/9/2021		3/2/2022		3/16/2023	
	Results	Q	Results	Q	Results	Q	Results	Q	Results	Q	Results	Q
Methyl tert butyl ether	<b>100</b>		<b>100</b>		<b>57</b>		<b>64</b>		<b>49</b>		<b>18</b>	
Benzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,2-Trichloroethane	1.5	U	1.5	U	1.5	U	1.5	U	1.5	U	1.5	U
Trichloroethene	<b>34</b>		<b>60</b>		<b>51</b>		<b>87</b>		<b>84</b>		<b>7.2</b>	
Chloroform	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U



LEGEND:

- EXISTING GROUNDWATER MONITORING WELL & GROUNDWATER ELEVATION (FT.)
- DESTROYED MONITORING WELL
- BCP SITE AND PROPERTY BOUNDARY
- DIRECTION OF GROUNDWATER FLOW

Analyte	NY-AWQS	Units
Methyl tert butyl ether	10	ug/l
Benzene	1	ug/l
1,1,2-Trichloroethane	1	ug/l
Trichloroethene	5	ug/l
<b>Chloroform</b>	<b>7</b>	ug/l



LOCATION	MW-4		MW-4		MW-4		MW-4		MW-4		MW-4	
SAMPLING DATE	4/22/2021		6/16/2021		9/16/2021		12/9/2021		3/2/2022		3/16/2023	
	Results	Q	Results	Q	Results	Q	Results	Q	Results	Q	Results	Q
Methyl tert butyl ether	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U
Benzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,2-Trichloroethane	1.5	U	1.5	U	1.5	U	1.5	U	1.5	U	1.5	U
Trichloroethene	2.7		3.3		2.7		2.1		1.6		0.44	
Chloroform	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	<b>8.7</b>	

NOTES:

- THIS PLAN IS FOR LOCATING SAMPLES ONLY.
- OTHER SITE WORK SHOWN HERE IS NOT INTENDED FOR CONSTRUCTION.
- NY-AWQS: NEW YORK TOGS 111 AMBIENT WATER QUALITY STANDARDS CRITERIA REFLECTS ALL ADDENDUM TO CRITERIA THROUGH JUNE 2004
- J - 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.
- U - NOT DETECTED AT THE REPORTED DETECTION LIMIT FOR THE SAMPLE
- ug/L - MICROGRAMS PER LITER
- **BOLD** - DENOTES COMPOUND EXCEEDS AWQS

dwg by: aas  
 chk by: JS  
 scale: AS NOTED  
 date: 03/30/2023

**SESI CONSULTING ENGINEERS**  
 GEOTECHNICAL | ENVIRONMENTAL | SITE CIVIL  
 959 route 46e, 3rd floor, parsippany, nj 07054 ph: 973.808.9050

project: COTTAGE - GARDEN AUTO REPAIR SITE  
 (BCP #360180)  
 NEW ROCHELLE, WESTCHESTER COUNTY, N.Y.  
 drawing title: GROUNDWATER SAMPLE LOCATIONS & RESULTS

job no: 11672  
 drawing no:

**FIG-3.1**

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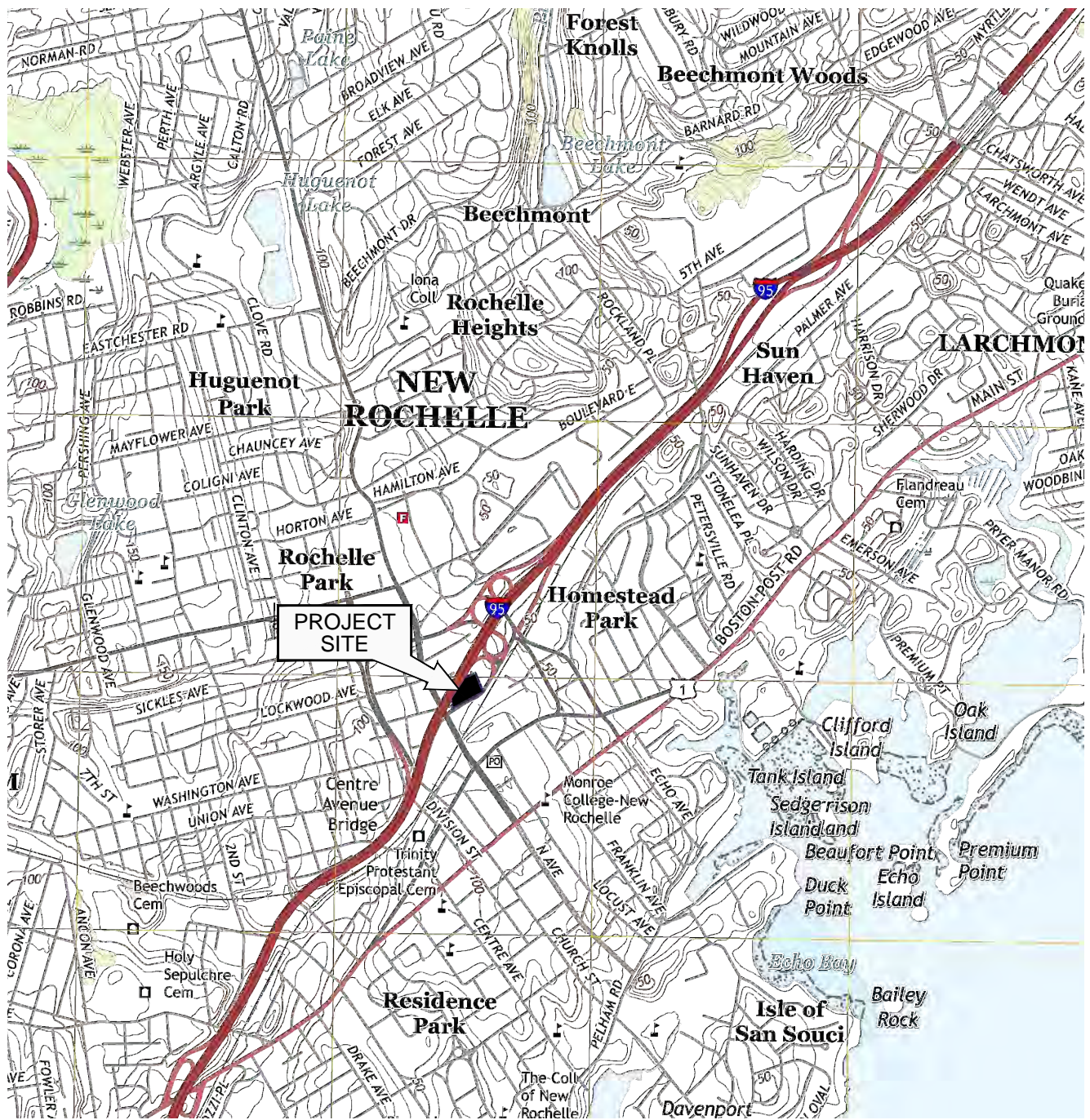
REFERENCE  
 SITE INFORMATION IS TAKEN FROM BOUNDARY SURVEY BY OTHERS.

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**Appendix A:**  
Site Management Plan (SMP) Figures

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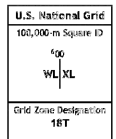
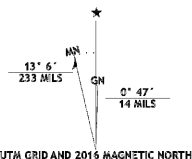
N:\ACAD\10491\10491 SITE LOCATION MAP.DWG 06/06/19 11:36:58AM, ccd, LAYOUT: FIG-1.1



**Produced by the United States Geological Survey**  
 North American Datum of 1983 (NAD83)  
 World Geodetic System of 1984 (WGS84). Projection and  
 1 000 meter grid: Universal Transverse Mercator, Zone 18T  
 10 000-foot ticks: New York Coordinate System of 1983 (east and  
 long island zones)

This map is not a legal document. Boundaries may be  
 generalized for this map scale. Private lands within government  
 reservations may not be shown. Obtain permission before  
 entering private lands.

Imagery.....NAIP, June 2013  
 Roads.....U.S. Census Bureau, 2015 - 2016  
 Names.....GNIS, 2016  
 Hydrography.....National Hydrography Dataset, 2013  
 Contours.....National Elevation Dataset, 2015  
 Boundaries.....Multiple sources; see metadata file 1972 - 2016  
 Wetlands.....FWS National Wetlands Inventory 1977 - 2014



1 Nyack	2 White Plains	3 Glensville
4 Yonkers	5 Mamaroneck	6 Central Park
7 Flushing	8 Sea Cliff	

FIG-1.1

GARDEN STREET RESIDENCES  
 NEW ROCHELLE, WESTCHESTER COUNTY, NY

**SITE LOCATION MAP**

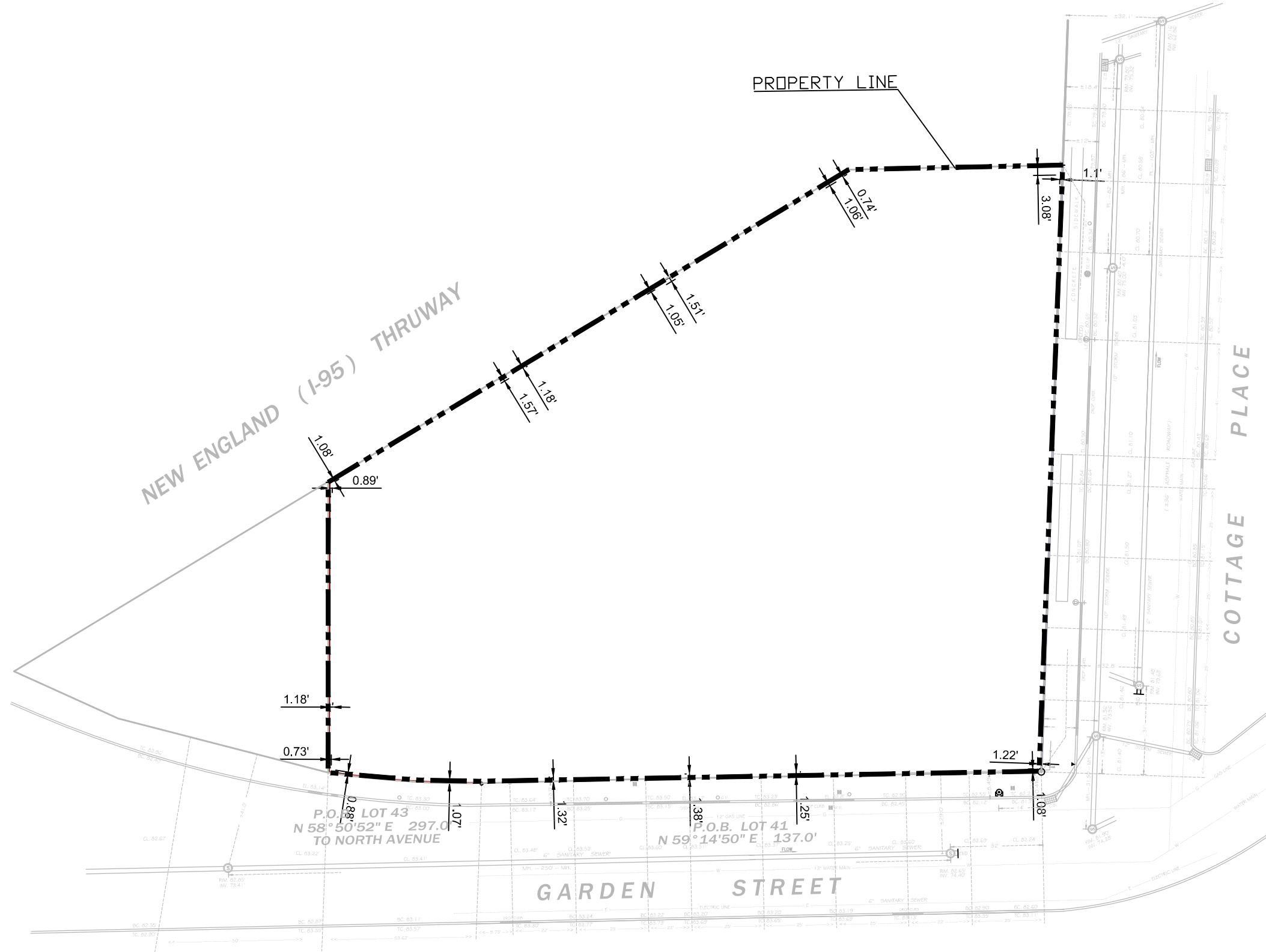
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SOILS / FOUNDATIONS  
 SITE DESIGN  
 ENVIRONMENTAL

12A MAPLE AVE. PINE BROOK, N.J. 07058 PH: 973-808-9050

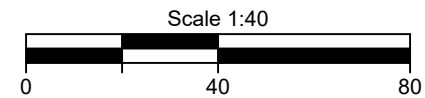
DRAWN BY: yy
CHECKED BY: SG
SCALE: N.T.S.
DATE: 06/06/19
JOB NO.: 10491

N:\ACAD\10491\SMP\10491 - FIG-1.2 - SITE LAYOUT.DWG 10/30/20 10:02:59AM, aas, LAYOUT: FIG-1.2



**LEGEND:**

----- - PROPERTY LINE



**NYS Education Law**  
 Unauthorized alterations or additions to this plan are a violation of section 7209 (2) of the New York State Education Law. Copies of this map not having the seal of the engineer shall not be valid.

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COTTAGE - GARDEN AUTO REPARI SITE  
 (BCP #360180)  
 NEW ROCHELLE, WESTCHESTER COUNTY, N.Y.

SITE MANAGEMENT PLAN  
 SITE LAYOUT

job no: 10491  
 drawing no:

**FIG-1.2**

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 SOILS / FOUNDATIONS  
 SITE DESIGN  
 ENVIRONMENTAL

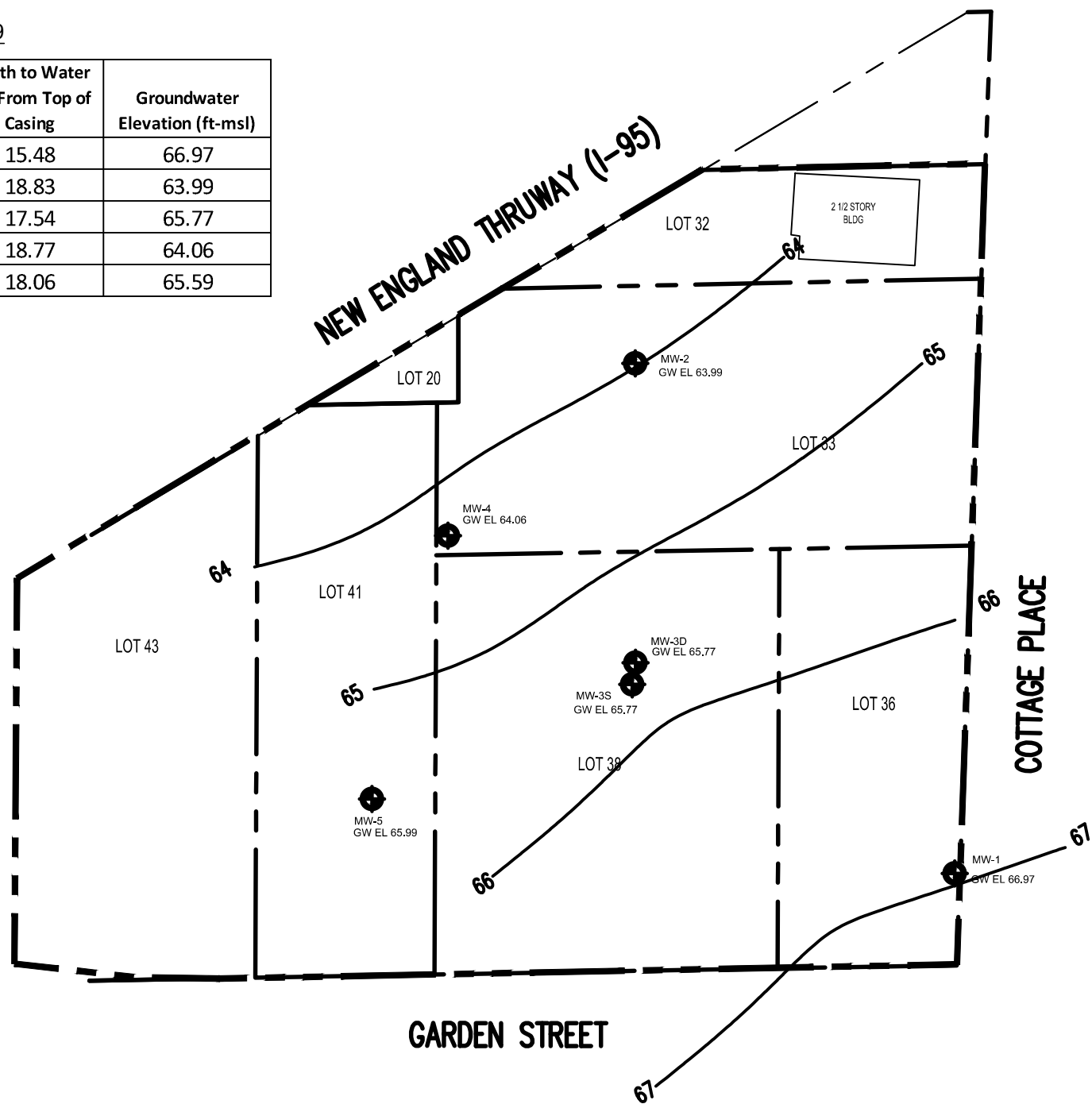
12A MAPLE AVE. PINE BROOK, N.J. 07058 PH: 973-808-9050

dwg by: aas  
 chk by: SG  
 scale: AS NOTED  
 date: 10/30/2020

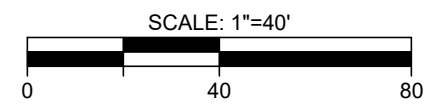


MAY 2019

Well No.	Elevation Top of Casing (ft-msl) *	Depth to Water (ft) From Top of Casing	Groundwater Elevation (ft-msl)
MW-1	82.45	15.48	66.97
MW-2	82.82	18.83	63.99
MW-3	83.31	17.54	65.77
MW-4	82.83	18.77	64.06
MW-5	83.65	18.06	65.59



- LEGEND:**
- PROPERTY BOUNDARY
  - BCP SITE BOUNDARY
  - GROUNDWATER CONTOUR
  - GROUNDWATER MONITORING WELL



REFERENCE  
SITE INFORMATION IS TAKEN FROM BOUNDARY SURVEY BY OTHERS.

dwg by: yy  
chk by: JS  
scale: 1" = 40  
date: 09/18/2020

**SESI**  
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SOILS / FOUNDATIONS  
SITE DESIGN  
ENVIRONMENTAL

12A MAPLE AVE. PINE BROOK, N.J. 07058 PH: 973-808-9050

project: COTTAGE - GARDEN AUTO REPAIR SITE  
(BCP #360180)  
NEW ROCHELLE, WESTCHESTER COUNTY, N.Y.  
drawing title: SITE MANAGEMENT PLAN  
GROUNDWATER CONTOUR MAP

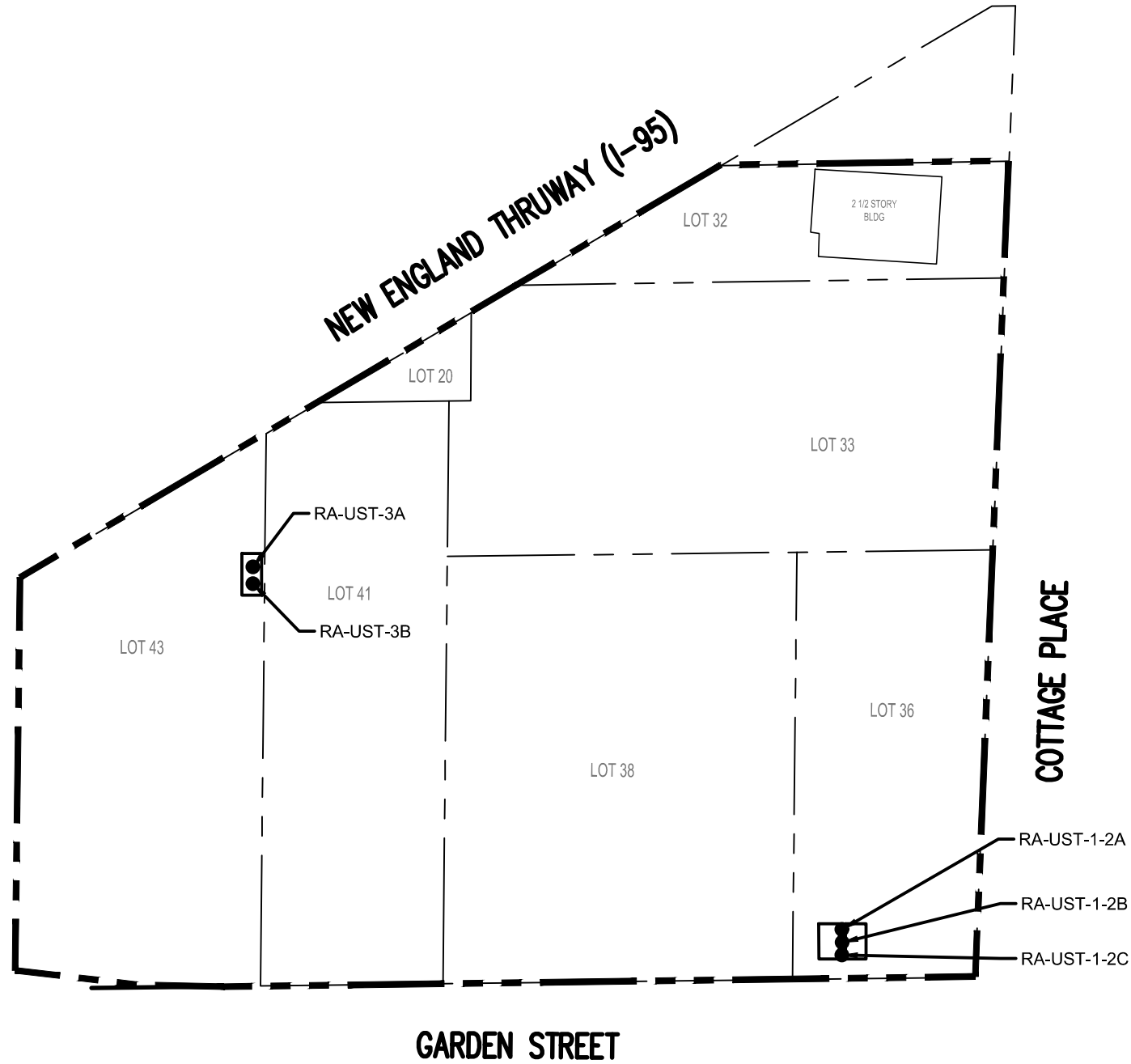
job no: 10491  
drawing no:

**FIG-2.1**

N:\ACAD\10491\SMP\10491 - FIG-2.1 - GROUNDWATER CONTOUR MAP.DWG 09/18/20 04:20:33PM, aas, LAYOUT: FIG-2.1

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N:\ACAD\10491\SMP\10491 - FIG-2.2 - UST LOCATION MAP.DWG 09/18/20 04:19:41PM, aas, LAYOUT: FIG-2.2



Field Observations	UST 1	UST 2	UST 3
Date of Removal	2/7/2020	2/7/2020	2/21/2020
Tank Diameter	64-inches	64-inches	36 - inches
Tank Length	216-inches	216-inches	108-inches
Tank Volume (Gallons)	3,000	3,000	500
Quantity of Liquid Removed (gal)	Filled with concrete	Filled with concrete	225

- LEGEND:**
- PROPERTY BOUNDARY
  - BCP SITE BOUNDARY
  - RA-UST LOCATION

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 chk by: SG  
 scale: 1" = 40  
 date: 09/18/2020

**SOILS / FOUNDATIONS  
 SITE DESIGN  
 ENVIRONMENTAL**

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project: COTTAGE - GARDEN AUTO REPAIR SITE  
 (BCP #360180)  
 NEW ROCHELLE, WESTCHESTER COUNTY, N.Y.

drawing title:  
**SITE MANAGEMENT PLAN  
 UST LOCATION MAP**

job no: 10491  
 drawing no:

**FIG-2.2**





LOCATION	MW-2	MW-2	MW-2	MW-2
LAB SAMPLE ID	460-182234-2	L2012566-02	L2028042-02	460-214981-2
SAMPLING DATE	8/19/2019	3/19/2020	7/1/2020	8/3/2020
SAMPLE TYPE	WATER		WATER	
	Results	Qual	Results	Qual
1,2-Dichloroethane	0.43	U	<0.13	U
Methyl tert butyl ether	0.47	U	<0.7	U
Acetone	5.0	U	2.6	J
Benzene	0.43	U	<0.16	U
Methylene chloride	0.32	U	<0.7	U
1,2-Dichloropropane	0.35	U	<0.14	U
1,1,2-Trichloroethane	0.43	U	<0.5	U
Trichloroethene	0.31	U	5.3	J

LOCATION	MW-6	MW-6
LAB SAMPLE ID	L2028042-06	460-214981-6
SAMPLING DATE	7/1/2020	8/3/2020
SAMPLE TYPE	WATER	
	Results	Qual
1,2-Dichloroethane	<0.13	U
Methyl tert butyl ether	3.7	U
Acetone	<1.5	U
Benzene	<0.16	U
Methylene chloride	<0.7	U
1,2-Dichloropropane	<0.14	U
1,1,2-Trichloroethane	<0.5	U
Trichloroethene	4.6	J

LOCATION	MW-4	MW-4	MW-4	MW-4
LAB SAMPLE ID	460-182225-3	L2012566-04	L2028042-04	460-214981-4
SAMPLING DATE	5/16/2019	3/19/2020	7/1/2020	8/3/2020
SAMPLE TYPE	WATER		WATER	
	Results	Qual	Results	Qual
1,2-Dichloroethane	0.43	U	<0.13	U
Methyl tert butyl ether	29	U	18	U
Acetone	5	U	<1.5	U
Benzene	0.43	U	<0.16	U
Methylene chloride	0.32	U	<0.7	U
1,2-Dichloropropane	0.35	U	<0.14	U
1,1,2-Trichloroethane	1.3	U	<0.5	U
Trichloroethene	8.8	J	7.8	J

LOCATION	MW-5	MW-5	MW-5	MW-5
LAB SAMPLE ID	460-182225-1	L2012030-01	L2028042-05	460-214981-5
SAMPLING DATE	5/16/2019	3/17/2020	7/1/2020	8/3/2020
SAMPLE TYPE	WATER		WATER	
	Results	Qual	Results	Qual
1,2-Dichloroethane	0.43	U	<0.13	U
Methyl tert butyl ether	0.3	U	<0.7	U
Acetone	25	U	4.8	J
Benzene	0.43	U	0.38	J
Methylene chloride	5.4	U	<0.7	U
1,2-Dichloropropane	0.35	U	<0.14	U
1,1,2-Trichloroethane	0.43	U	<0.5	U
Trichloroethene	0.75	J	4.2	J

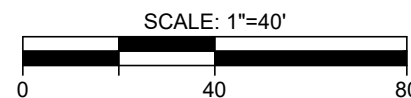
LOCATION	MW-3	MW-3	MW-3	MW-3
LAB SAMPLE ID	460-182225-1	L2012566-03	L2028042-03	460-214981-3
SAMPLING DATE	5/17/2019	3/19/2020	7/1/2020	8/3/2020
SAMPLE TYPE	WATER		WATER	
	Results	Qual	Results	Qual
1,2-Dichloroethane	0.43	U	<0.13	U
Methyl tert butyl ether	0.47	U	8	J
Acetone	5	U	2	J
Benzene	1.1	U	<0.16	U
Methylene chloride	0.32	U	<0.7	U
1,2-Dichloropropane	0.35	U	<0.14	U
1,1,2-Trichloroethane	0.43	U	<0.5	U
Trichloroethene	9.8	J	4	J

LOCATION	NY-AWQS	Units
1,2-Dichloroethane	0.6	ug/l
Methyl tert butyl ether	10	ug/l
Acetone	50	ug/l
Benzene	1	ug/l
Methylene chloride	5	ug/l
1,2-Dichloropropane	1	ug/l
1,1,2-Trichloroethane	1	ug/l
Trichloroethene	5	ug/l

LEGEND:

- PROPERTY BOUNDARY
- MW-1 - GROUNDWATER MONITORING WELL
- BCP SITE BOUNDARY
- COMPOUND EXCEEDS THE AWQS
- GROUNDWATER CONTOURS

LOCATION	MW-1	MW-1	MW-1	MW-1	MW-1	
LAB SAMPLE ID	460-182234-1	460-200541-1	L2012566-01	L2028042-01	460-214981-1	
SAMPLING DATE	5/19/2019	1/9/2020	3/19/2020	7/1/2020	8/3/2020	
SAMPLE TYPE	WATER		WATER		WATER	
	Results	Qual	Results	Qual	Results	Qual
1,2-Dichloroethane	0.43	U	0.43	U	<0.13	U
Methyl tert butyl ether	0.47	U	0.47	U	<0.7	U
Acetone	5.0	U	4.4	U	10	J
Benzene	0.43	U	0.2	U	1.4	J
Methylene chloride	0.32	U	0.32	U	<0.7	U
1,2-Dichloropropane	0.35	U	0.35	U	2.7	J
1,1,2-Trichloroethane	0.43	U	0.43	U	<0.5	U
Trichloroethene	0.31	U	0.31	U	1.5	J



NOTES:

- THIS PLAN IS FOR LOCATING SAMPLES ONLY.
- OTHER SITE WORK SHOWN HERE IS NOT INTENDED FOR CONSTRUCTION.
- NY-AWQS: NEW YORK TOGS 111 AMBIENT WATER QUALITY STANDARDS CRITERIA REFLECTS ALL ADDENDUM TO CRITERIA THROUGH JUNE 2004.
- GROUNDWATER ELEVATION DATA COLLECTED ON MAY 15, 2019

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REFERENCE

SITE INFORMATION IS TAKEN FROM BOUNDARY SURVEY BY OTHERS.

dwg by: yy  
 chk by: JS  
 scale: 1" = 40  
 date: 12/08/2020

SOILS / FOUNDATIONS  
 SITE DESIGN  
 ENVIRONMENTAL

**SESI**  
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 ENGINEERS D.P.C.

12A MAPLE AVE. PINE BROOK, N.J. 07058 PH: 973-808-9050

project: COTTAGE - GARDEN AUTO REPAIR SITE  
 (BCP #360180)  
 NEW ROCHELLE, WESTCHESTER COUNTY, N.Y.  
 drawing title: SITE MANAGEMENT PLAN  
 GROUNDWATER SAMPLE LOCATIONS & RESULTS

job no: 10491  
 drawing no:

**FIG-2.4**

N:\ACAD\10491\SMP\10491 - FIG-2.5 - SOIL GAS CONCENTRATION MAP.DWG 12/07/20 02:50:15PM, jenny, LAYOUT: FIG-2.5

Analyte	SV-8
Ethylbenzene	8.6
1,3-Butadiene	9.5
Toluene	45
n-Hexane	14
Cyclohexane	6.0 J
Tetrachloroethene	14
n-Heptane	11
m,p-Xylene	19 J
1,3-Dichlorobenzene	7.1 J
Ethanol	160
Acetone	320
Benzene	5.0 J
1,1,1-Trichloroethane	39
Methylene Chloride	6
Carbon disulfide	8.7 J
Trichlorofluoromethane	4.8 J
Freon TF	65
Methyl Ethyl Ketone	18
Trichloroethene	20
2-Chlorotoluene	6.4 J
1,2,4-Trimethylbenzene	4.6 J

Analyte	SV-7
Ethylbenzene	230
1,3-Butadiene	15
Toluene	14
Chlorobenzene	3.7 J
n-Hexane	25
Cyclohexane	5.9 J
Tetrachloroethene	20
n-Heptane	14
cis-1,2-Dichloroethene	110
m,p-Xylene	130
2,2,4-Trimethylpentane	8.3 J
1,3-Dichlorobenzene	5.3 J B
Ethanol	160
Acetone	520
Benzene	9.9
1,1,1-Trichloroethane	6.8 J
Methylene Chloride	12 J
Carbon disulfide	5.8 J
1,1-Dichloroethane	3.7 J
1,1-Dichloroethene	9
Trichlorofluoromethane	6.3 J
Dichlorodifluoromethane	24 J
Freon TF	43
Methyl Ethyl Ketone	26
Trichloroethene	260
2-Chlorotoluene	29
1,2,4-Trimethylbenzene	5.0 J

Analyte	SV-9
Ethylbenzene	27
1,3-Butadiene	110
Toluene	21
n-Hexane	88
Cyclohexane	10
Tetrachloroethene	16
n-Heptane	39
cis-1,2-Dichloroethene	13
m,p-Xylene	73
2,2,4-Trimethylpentane	7.0 J
1,3-Dichlorobenzene	5.5 J
Ethanol	140
Acetone	220
Chloroform	18
Benzene	42
Carbon disulfide	9.3 J
Methyl Ethyl Ketone	35
Trichloroethene	77
2-Chlorotoluene	19
1,2,4-Trimethylbenzene	4.3 J

Analyte	SV-4
1,3-Butadiene	66
Toluene	32
n-Hexane	23
Acetone	5300 E
Methyl Ethyl Ketone	100

Analyte	SV-3
1,3-Butadiene	98
Toluene	73
n-Hexane	97
n-Heptane	39
Acetone	4700 E
Benzene	120
Methyl Ethyl Ketone	130

Analyte	SV-15
Ethylbenzene	16
1,3-Butadiene	1.8 J
Toluene	130
n-Hexane	21
Tetrachloroethene	8.1 J
n-Heptane	10
m,p-Xylene	53
2,2,4-Trimethylpentane	7.8 J
1,3-Dichlorobenzene	6.6 J B
Ethanol	130
Acetone	720
Benzene	4.2 J
Methylene Chloride	7.6 J
Carbon disulfide	38
Methyl Ethyl Ketone	95
Trichloroethene	9.2 J
2-Chlorotoluene	16
1,2,4-Trimethylbenzene	4.3 J

Analyte	SV-1
1,3-Butadiene	250
Toluene	47
n-Hexane	310
Cyclohexane	23
n-Heptane	97
m,p-Xylene	31
2,2,4-Trimethylpentane	14
Acetone	430
Benzene	71
Methyl Ethyl Ketone	170
Xylene, o-	12
1,2,4-Trimethylbenzene	18

Analyte	SV-14
Ethylbenzene	4.2 J
1,3-Butadiene	5.7
Toluene	140
n-Hexane	38
Tetrachloroethene	4.7 J
n-Heptane	9.3
m,p-Xylene	11 J
2,2,4-Trimethylpentane	10
Ethanol	250
Acetone	1200 D
Benzene	5.2 J
Carbon disulfide	52
tert-Butyl alcohol	62 J
Methyl Ethyl Ketone	110
2-Chlorotoluene	4.0 J
1,2,4-Trimethylbenzene	4.7 J

Analyte	SV-13
Ethylbenzene	14
1,3-Butadiene	120
Toluene	63
n-Hexane	160
Cyclohexane	6.7 J
Tetrachloroethene	6.9 J
n-Heptane	34
m,p-Xylene	34
2,2,4-Trimethylpentane	10
1,3-Dichlorobenzene	5.6 J
Ethanol	160
Acetone	650
Benzene	13
Carbon disulfide	60
Methyl Ethyl Ketone	100
Trichloroethene	13
2-Chlorotoluene	9.5

Analyte	SV-12
Ethylbenzene	6.9 J
1,3-Butadiene	89
Toluene	41
n-Hexane	60
Cyclohexane	6.2 J
Tetrachloroethene	16
n-Heptane	28
m,p-Xylene	17 J
Ethanol	120
Acetone	290
Benzene	19
Carbon disulfide	54
Methyl Ethyl Ketone	39
Trichloroethene	2.7 J
2-Chlorotoluene	6.5 J
1,2,4-Trimethylbenzene	5.4 J

Analyte	SV-5
1,3-Butadiene	190
Toluene	190
n-Hexane	150
Cyclohexane	18
Tetrachloroethene	95
n-Heptane	84
m,p-Xylene	36
Carbon tetrachloride	630
Acetone	2400 E
Chloroform	19
Benzene	140
Carbon disulfide	53
Methyl Ethyl Ketone	130
Trichloroethene	13
Xylene, o-	10
1,2,4-Trimethylbenzene	15

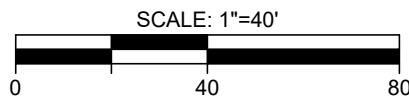
Analyte	SV-10
Ethylbenzene	4.2 J
1,3-Butadiene	89
Toluene	39
n-Hexane	55
Cyclohexane	4.7 J
Tetrachloroethene	8.8 J
n-Heptane	16
m,p-Xylene	8.9 J
2,2,4-Trimethylpentane	4.2 J
Ethanol	99
Acetone	230
Benzene	12
Carbon disulfide	11 J
Methyl Ethyl Ketone	26
2-Chlorotoluene	3.7 J

Analyte	SV-11
Ethylbenzene	8.5
1,3-Butadiene	4.5
Toluene	130
n-Hexane	230
Cyclohexane	6.4 J
Tetrachloroethene	70
n-Heptane	22
Methyl tert-butyl ether	150
m,p-Xylene	21 J
2,2,4-Trimethylpentane	13
1,3-Dichlorobenzene	9.5 J B
Ethanol	230
Acetone	2000 D
Benzene	8.3
Carbon disulfide	240
tert-Butyl alc hohol	87 J
Methyl Ethyl Ketone	210
Trichloroethene	4.4 J
2-Chlorotoluene	6.2 J

- LEGEND:**
- PROPERTY BOUNDARY
  - SV-7 - SOIL VAPOR POINT (ALL SAMPLES COLLECTED 13 FT-BGS)
  - BCP SITE BOUNDARY
  - Carbon tetrachloride 41 - EXCEEDS NYSDOH MATRIX A LOWER THRESHOLD VALUE

**NOTE:**  
THIS PLAN IS FOR LOCATING SAMPLES ONLY. OTHER SITE WORK SHOWN HERE IS NOT INTENDED FOR CONSTRUCTION.

**REFERENCE**  
SITE INFORMATION IS TAKEN FROM BOUNDARY SURVEY BY OTHERS.



NYS Education Law  
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dwg by: yy  
chk by: JS  
scale: 1" = 40  
date: 12/07/2020

SOILS / FOUNDATIONS  
SITE DESIGN  
ENVIRONMENTAL

**SESI**  
CONSULTING  
ENGINEERS

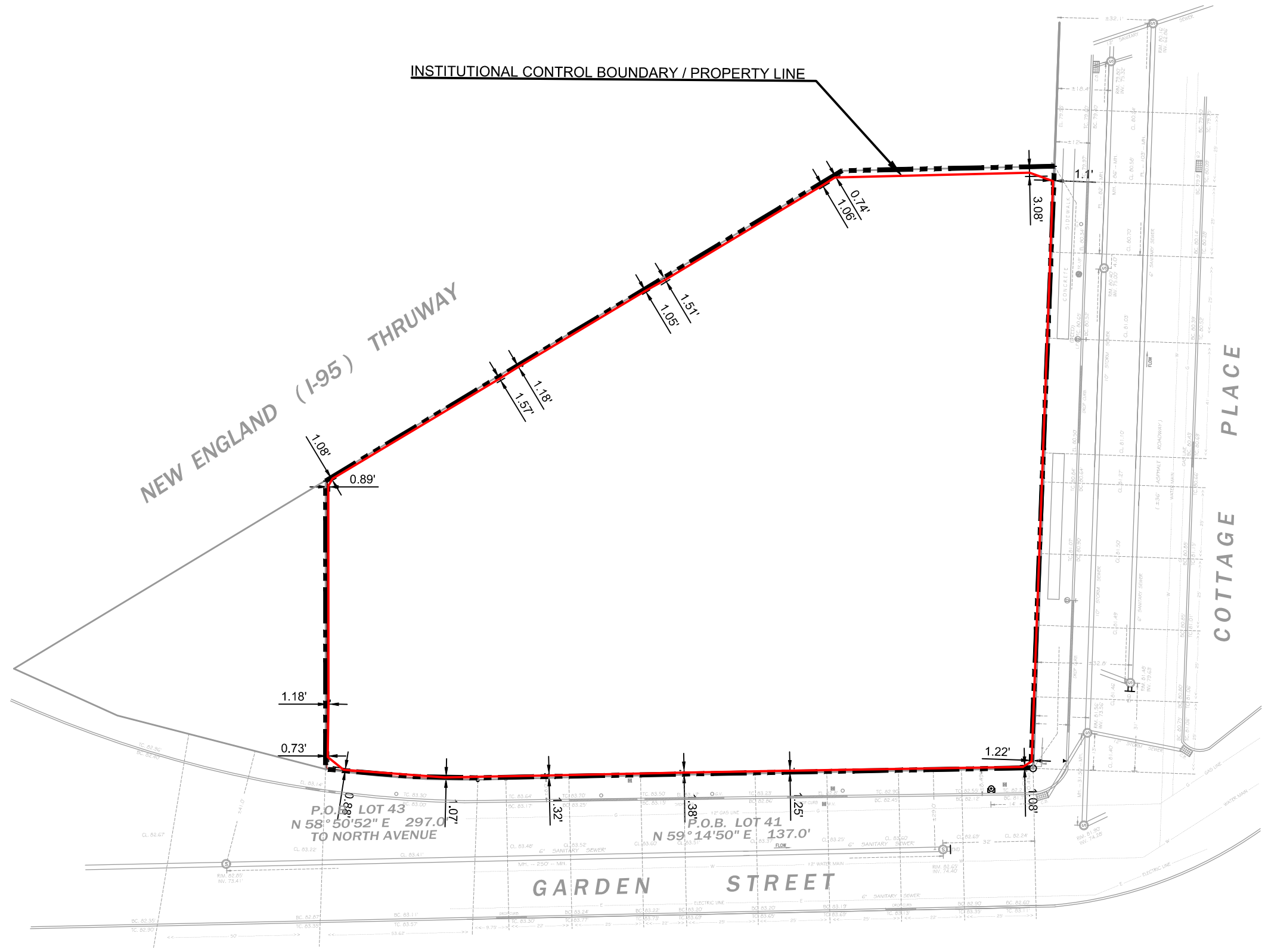
12A MAPLE AVE. PINE BROOK, N.J. 07058 PH: 973-808-9050

project: COTTAGE - GARDEN AUTO REPAIR SITE  
(BCP #360180)  
NEW ROCHELLE, WESTCHESTER COUNTY, N.Y.  
drawing title: SITE MANAGEMENT PLAN  
SOIL VAPOR SAMPLE LOCATIONS & RESULTS

job no: 10491  
drawing no:

**FIG-2.5**

N:\ACAD\10491\SMP\10491 - FIG-3.1 - IC - EC BOUNDARIES.DWG 09/17/20 02:58:57PM, aas, LAYOUT:FIG-3.1



INSTITUTIONAL CONTROL BOUNDARY / PROPERTY LINE

NEW ENGLAND (I-95) THRUWAY

COTTAGE PLACE

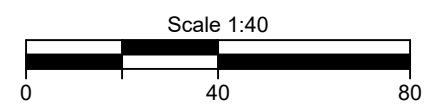
GARDEN STREET

P.O.B. LOT 43  
N 58°50'52" E 297.0'  
TO NORTH AVENUE

P.O.B. LOT 41  
N 59°14'50" E 137.0'

**LEGEND:**

- INSTITUTIONAL CONTROL BOUNDARY / PROPERTY LINE
- SOE AS-BUILT LOCAITON



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dwg by: aas  
chk by: SG  
scale: AS NOTED  
date: 09/17/2020

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SOILS / FOUNDATIONS  
SITE DESIGN  
ENVIRONMENTAL  
12A MAPLE AVE. PINE BROOK, N.J. 07058 PH: 973-808-9050

COTTAGE - GARDEN AUTO REPAIR SITE  
(BCP #360180)  
NEW ROCHELLE, WESTCHESTER COUNTY, N.Y.

SITE MANAGEMENT PLAN  
INSTITUTIONAL CONTROL BOUNDARIES






job no: 10491  
drawing no:

**FIG-3.1**

N:\ACAD\10491\SMP\10491 - FIG-5.1 - SOIL VAPOR SAMPLE LOCATIONS - PHASE 1.DWG 12/22/20 02:53:41PM, ocs, LAYOUT:FIG-5.1



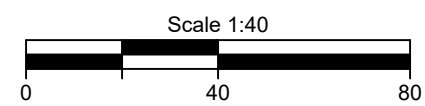
**LEGEND:**

-  - PROPERTY LINE
-  SV-18 - SOIL VAPOR PINS PER SSDS DESIGN
-  - BUILDING OUTLINE
-  IA-3 - SAMPLE LOCATIONS
-  AA-1 - AMBIENT AIR SAMPLE LOCATION



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dwg by: aas  
 chk by: SG  
 scale: AS NOTED  
 date: 12/22/2020

SOILS / FOUNDATIONS  
 SITE DESIGN  
 ENVIRONMENTAL

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COTTAGE - GARDEN AUTO REPAIR SITE  
 (BCP #360180)  
 NEW ROCHELLE, WESTCHESTER COUNTY, N.Y.

SITE MANAGEMENT PLAN  
 PROPOSED SOIL VAPOR SAMPLE LOCALITONS

job no: 10491  
 drawing no:

**FIG-5.1**

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**Appendix B:**  
Well Sampling Logs

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# **Appendix C:**

## Laboratory Analytical Data

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## ANALYTICAL REPORT

Lab Number:	L2313670
Client:	Soils Engineering Services, Inc. 959 Route 46E Parsippany, NJ 07054
ATTN:	Steven Gustems
Phone:	(973) 808-9050
Project Name:	COTTAGE PLACE
Project Number:	11672A:1
Report Date:	03/21/23

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), NH NELAP (2064), CT (PH-0574), IL (200077), ME (MA00086), MD (348), NJ (MA935), NY (11148), NC (25700/666), PA (68-03671), RI (LAO00065), TX (T104704476), VT (VT-0935), VA (460195), USDA (Permit #P330-17-00196).

---

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



**Project Name:** COTTAGE PLACE  
**Project Number:** 11672A:1

**Lab Number:** L2313670  
**Report Date:** 03/21/23

<b>Alpha Sample ID</b>	<b>Client ID</b>	<b>Matrix</b>	<b>Sample Location</b>	<b>Collection Date/Time</b>	<b>Receive Date</b>
L2313670-01	MW-3	WATER	NEW ROCHELLE, NY	03/16/23 10:06	03/16/23
L2313670-02	MW-4	WATER	NEW ROCHELLE, NY	03/16/23 10:35	03/16/23
L2313670-03	DUP MW	WATER	NEW ROCHELLE, NY	03/16/23 00:00	03/16/23
L2313670-04	TB03162023	WATER	NEW ROCHELLE, NY	03/16/23 10:30	03/16/23
L2313670-05	FB03162023	WATER	NEW ROCHELLE, NY	03/16/23 10:20	03/16/23

**Project Name:** COTTAGE PLACE  
**Project Number:** 11672A:1

**Lab Number:** L2313670  
**Report Date:** 03/21/23

### 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. 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 Outlier Summary Report, located directly after the Case Narrative. QC information is also incorporated in the Data Usability Assessment table (Format 11) of our Data Merger tool, where it can be reviewed in conjunction with the sample result, associated regulatory criteria and any associated data 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.

**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 Alpha Project Manager 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 Project Management at 800-624-9220 with any questions.

---

**Project Name:** COTTAGE PLACE  
**Project Number:** 11672A:1

**Lab Number:** L2313670  
**Report Date:** 03/21/23

### 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.

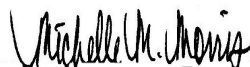
#### Volatile Organics

L2313670-01, -02, and -03: The pH was greater than two; however, the sample was analyzed within the method required holding time.

L2313670-02: The surrogate recovery is below the acceptance criteria for dibromofluoromethane (21%), possibly due to the matrix effect caused by the high pH of the sample (>10).

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:



Michelle M. Morris

Title: Technical Director/Representative

Date: 03/21/23

# ORGANICS

# VOLATILES

**Project Name:** COTTAGE PLACE**Lab Number:** L2313670**Project Number:** 11672A:1**Report Date:** 03/21/23**SAMPLE RESULTS**

Lab ID: L2313670-01  
 Client ID: MW-3  
 Sample Location: NEW ROCHELLE, NY

Date Collected: 03/16/23 10:06  
 Date Received: 03/16/23  
 Field Prep: Not Specified

Sample Depth:

Matrix: Water  
 Analytical Method: 1,8260D  
 Analytical Date: 03/17/23 20:13  
 Analyst: LAC

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	ND		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	0.42	J	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
1,1,1,2,2-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	14		ug/l	2.5	0.70	1
Bromomethane	1.0	J	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

Project Name: COTTAGE PLACE

Lab Number: L2313670

Project Number: 11672A:1

Report Date: 03/21/23

## SAMPLE RESULTS

Lab ID: L2313670-01

Date Collected: 03/16/23 10:06

Client ID: MW-3

Date Received: 03/16/23

Sample Location: NEW ROCHELLE, NY

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Trichloroethene	7.2		ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1
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	18		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	22		ug/l	5.0	1.5	1
Carbon disulfide	3.2	J	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	ND		ug/l	2.5	0.70	1

**Project Name:** COTTAGE PLACE**Lab Number:** L2313670**Project Number:** 11672A:1**Report Date:** 03/21/23**SAMPLE RESULTS**

Lab ID: L2313670-01

Date Collected: 03/16/23 10:06

Client ID: MW-3

Date Received: 03/16/23

Sample Location: NEW ROCHELLE, NY

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
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
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

**Tentatively Identified Compounds**

No Tentatively Identified Compounds	ND	ug/l	1
-------------------------------------	----	------	---

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	105		70-130
Toluene-d8	98		70-130
4-Bromofluorobenzene	95		70-130
Dibromofluoromethane	105		70-130

**Project Name:** COTTAGE PLACE**Lab Number:** L2313670**Project Number:** 11672A:1**Report Date:** 03/21/23**SAMPLE RESULTS**

Lab ID: L2313670-02  
 Client ID: MW-4  
 Sample Location: NEW ROCHELLE, NY

Date Collected: 03/16/23 10:35  
 Date Received: 03/16/23  
 Field Prep: Not Specified

Sample Depth:

Matrix: Water  
 Analytical Method: 1,8260D  
 Analytical Date: 03/17/23 20:36  
 Analyst: LAC

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	8.7		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
1,1,1,2,2-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

Project Name: COTTAGE PLACE

Lab Number: L2313670

Project Number: 11672A:1

Report Date: 03/21/23

## SAMPLE RESULTS

Lab ID: L2313670-02  
 Client ID: MW-4  
 Sample Location: NEW ROCHELLE, NY

Date Collected: 03/16/23 10:35  
 Date Received: 03/16/23  
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
Trichloroethene	0.44	J	ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1
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	32		ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	5.0	1.0	1
2-Butanone	3.6	J	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	ND		ug/l	2.5	0.70	1

Project Name: COTTAGE PLACE

Lab Number: L2313670

Project Number: 11672A:1

Report Date: 03/21/23

## SAMPLE RESULTS

Lab ID: L2313670-02  
 Client ID: MW-4  
 Sample Location: NEW ROCHELLE, NY

Date Collected: 03/16/23 10:35  
 Date Received: 03/16/23  
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatiles Organics by GC/MS - Westborough Lab</b>						
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
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

## Tentatively Identified Compounds

Total TIC Compounds	7.00	J	ug/l			1
Ethane, 1,1-Difluoro-	7.00	NJ	ug/l			1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	110		70-130
Toluene-d8	97		70-130
4-Bromofluorobenzene	96		70-130
Dibromofluoromethane	21	Q	70-130

**Project Name:** COTTAGE PLACE**Lab Number:** L2313670**Project Number:** 11672A:1**Report Date:** 03/21/23**SAMPLE RESULTS**

Lab ID: L2313670-03  
 Client ID: DUP MW  
 Sample Location: NEW ROCHELLE, NY

Date Collected: 03/16/23 00:00  
 Date Received: 03/16/23  
 Field Prep: Not Specified

Sample Depth:

Matrix: Water  
 Analytical Method: 1,8260D  
 Analytical Date: 03/17/23 21:00  
 Analyst: LAC

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	ND		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	0.45	J	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
1,1,1,2-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	14		ug/l	2.5	0.70	1
Bromomethane	0.99	J	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

**Project Name:** COTTAGE PLACE**Lab Number:** L2313670**Project Number:** 11672A:1**Report Date:** 03/21/23**SAMPLE RESULTS**

Lab ID: L2313670-03  
 Client ID: DUP MW  
 Sample Location: NEW ROCHELLE, NY

Date Collected: 03/16/23 00:00  
 Date Received: 03/16/23  
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
Trichloroethene	7.4		ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1
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	18		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	25		ug/l	5.0	1.5	1
Carbon disulfide	3.0	J	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	ND		ug/l	2.5	0.70	1

**Project Name:** COTTAGE PLACE**Lab Number:** L2313670**Project Number:** 11672A:1**Report Date:** 03/21/23**SAMPLE RESULTS**

Lab ID: L2313670-03  
 Client ID: DUP MW  
 Sample Location: NEW ROCHELLE, NY

Date Collected: 03/16/23 00:00  
 Date Received: 03/16/23  
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
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
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

**Tentatively Identified Compounds**

No Tentatively Identified Compounds	ND	ug/l	1
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Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	107		70-130
Toluene-d8	98		70-130
4-Bromofluorobenzene	94		70-130
Dibromofluoromethane	103		70-130

**Project Name:** COTTAGE PLACE**Lab Number:** L2313670**Project Number:** 11672A:1**Report Date:** 03/21/23**SAMPLE RESULTS**

Lab ID: L2313670-04  
 Client ID: TB03162023  
 Sample Location: NEW ROCHELLE, NY

Date Collected: 03/16/23 10:30  
 Date Received: 03/16/23  
 Field Prep: Not Specified

Sample Depth:

Matrix: Water  
 Analytical Method: 1,8260D  
 Analytical Date: 03/17/23 21:23  
 Analyst: LAC

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	ND		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
1,1,1,2,2-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

Project Name: COTTAGE PLACE

Lab Number: L2313670

Project Number: 11672A:1

Report Date: 03/21/23

## SAMPLE RESULTS

Lab ID: L2313670-04  
 Client ID: TB03162023  
 Sample Location: NEW ROCHELLE, NY

Date Collected: 03/16/23 10:30  
 Date Received: 03/16/23  
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
Trichloroethene	ND		ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1
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	ND		ug/l	2.5	0.70	1

**Project Name:** COTTAGE PLACE**Lab Number:** L2313670**Project Number:** 11672A:1**Report Date:** 03/21/23**SAMPLE RESULTS**

Lab ID: L2313670-04  
 Client ID: TB03162023  
 Sample Location: NEW ROCHELLE, NY

Date Collected: 03/16/23 10:30  
 Date Received: 03/16/23  
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
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
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

**Tentatively Identified Compounds**

No Tentatively Identified Compounds	ND	ug/l	1
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Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	102		70-130
Toluene-d8	98		70-130
4-Bromofluorobenzene	95		70-130
Dibromofluoromethane	104		70-130

**Project Name:** COTTAGE PLACE**Lab Number:** L2313670**Project Number:** 11672A:1**Report Date:** 03/21/23**SAMPLE RESULTS**

Lab ID: L2313670-05  
 Client ID: FB03162023  
 Sample Location: NEW ROCHELLE, NY

Date Collected: 03/16/23 10:20  
 Date Received: 03/16/23  
 Field Prep: Not Specified

Sample Depth:

Matrix: Water  
 Analytical Method: 1,8260D  
 Analytical Date: 03/17/23 21:46  
 Analyst: LAC

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	ND		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
1,1,1,2,2-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

Project Name: COTTAGE PLACE

Lab Number: L2313670

Project Number: 11672A:1

Report Date: 03/21/23

## SAMPLE RESULTS

Lab ID: L2313670-05  
 Client ID: FB03162023  
 Sample Location: NEW ROCHELLE, NY

Date Collected: 03/16/23 10:20  
 Date Received: 03/16/23  
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
Trichloroethene	ND		ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1
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	ND		ug/l	2.5	0.70	1

**Project Name:** COTTAGE PLACE**Lab Number:** L2313670**Project Number:** 11672A:1**Report Date:** 03/21/23**SAMPLE RESULTS**

Lab ID: L2313670-05  
 Client ID: FB03162023  
 Sample Location: NEW ROCHELLE, NY

Date Collected: 03/16/23 10:20  
 Date Received: 03/16/23  
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
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
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

**Tentatively Identified Compounds**

No Tentatively Identified Compounds	ND	ug/l	1
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Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	103		70-130
Toluene-d8	98		70-130
4-Bromofluorobenzene	93		70-130
Dibromofluoromethane	102		70-130

**Project Name:** COTTAGE PLACE  
**Project Number:** 11672A:1

**Lab Number:** L2313670  
**Report Date:** 03/21/23

**Method Blank Analysis**  
**Batch Quality Control**

Analytical Method: 1,8260D  
Analytical Date: 03/17/23 19:03  
Analyst: PID

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01-05 Batch: WG1756553-5					
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:** COTTAGE PLACE  
**Project Number:** 11672A:1

**Lab Number:** L2313670  
**Report Date:** 03/21/23

### Method Blank Analysis Batch Quality Control

Analytical Method: 1,8260D  
Analytical Date: 03/17/23 19:03  
Analyst: PID

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01-05 Batch: WG1756553-5					
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:** COTTAGE PLACE  
**Project Number:** 11672A:1

**Lab Number:** L2313670  
**Report Date:** 03/21/23

### Method Blank Analysis Batch Quality Control

Analytical Method: 1,8260D  
Analytical Date: 03/17/23 19:03  
Analyst: PID

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01-05 Batch: WG1756553-5					
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

#### Tentatively Identified Compounds

No Tentatively Identified Compounds ND ug/l

**Project Name:** COTTAGE PLACE  
**Project Number:** 11672A:1

**Lab Number:** L2313670  
**Report Date:** 03/21/23

**Method Blank Analysis**  
**Batch Quality Control**

Analytical Method: 1,8260D  
Analytical Date: 03/17/23 19:03  
Analyst: PID

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01-05 Batch: WG1756553-5					

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	102		70-130
Toluene-d8	98		70-130
4-Bromofluorobenzene	95		70-130
Dibromofluoromethane	103		70-130

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: COTTAGE PLACE

Lab Number: L2313670

Project Number: 11672A:1

Report Date: 03/21/23

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-05 Batch: WG1756553-3 WG1756553-4								
Methylene chloride	100		100		70-130	0		20
1,1-Dichloroethane	100		110		70-130	10		20
Chloroform	95		99		70-130	4		20
Carbon tetrachloride	91		95		63-132	4		20
1,2-Dichloropropane	100		110		70-130	10		20
Dibromochloromethane	82		87		63-130	6		20
1,1,2-Trichloroethane	92		99		70-130	7		20
Tetrachloroethene	100		110		70-130	10		20
Chlorobenzene	100		100		75-130	0		20
Trichlorofluoromethane	100		110		62-150	10		20
1,2-Dichloroethane	96		100		70-130	4		20
1,1,1-Trichloroethane	97		100		67-130	3		20
Bromodichloromethane	86		89		67-130	3		20
trans-1,3-Dichloropropene	85		90		70-130	6		20
cis-1,3-Dichloropropene	87		91		70-130	4		20
1,1-Dichloropropene	100		100		70-130	0		20
Bromoform	76		80		54-136	5		20
1,1,2,2-Tetrachloroethane	90		96		67-130	6		20
Benzene	99		100		70-130	1		20
Toluene	99		100		70-130	1		20
Ethylbenzene	100		100		70-130	0		20
Chloromethane	100		100		64-130	0		20
Bromomethane	72		72		39-139	0		20

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: COTTAGE PLACE

Lab Number: L2313670

Project Number: 11672A:1

Report Date: 03/21/23

Parameter	LCS		LCSD		%Recovery Limits	RPD	Qual	RPD Limits
	%Recovery	Qual	%Recovery	Qual				
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-05 Batch: WG1756553-3 WG1756553-4								
Vinyl chloride	110		120		55-140	9		20
Chloroethane	120		120		55-138	0		20
1,1-Dichloroethene	110		110		61-145	0		20
trans-1,2-Dichloroethene	100		100		70-130	0		20
Trichloroethene	99		100		70-130	1		20
1,2-Dichlorobenzene	100		100		70-130	0		20
1,3-Dichlorobenzene	100		100		70-130	0		20
1,4-Dichlorobenzene	100		100		70-130	0		20
Methyl tert butyl ether	87		94		63-130	8		20
p/m-Xylene	105		105		70-130	0		20
o-Xylene	100		105		70-130	5		20
cis-1,2-Dichloroethene	100		100		70-130	0		20
Dibromomethane	90		96		70-130	6		20
1,2,3-Trichloropropane	96		100		64-130	4		20
Acrylonitrile	110		110		70-130	0		20
Styrene	100		105		70-130	5		20
Dichlorodifluoromethane	89		91		36-147	2		20
Acetone	79		91		58-148	14		20
Carbon disulfide	100		100		51-130	0		20
2-Butanone	81		90		63-138	11		20
Vinyl acetate	93		99		70-130	6		20
4-Methyl-2-pentanone	88		100		59-130	13		20
2-Hexanone	81		93		57-130	14		20

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: COTTAGE PLACE

Lab Number: L2313670

Project Number: 11672A:1

Report Date: 03/21/23

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-05 Batch: WG1756553-3 WG1756553-4								
Bromochloromethane	100		100		70-130	0		20
2,2-Dichloropropane	94		96		63-133	2		20
1,2-Dibromoethane	89		93		70-130	4		20
1,3-Dichloropropane	92		100		70-130	8		20
1,1,1,2-Tetrachloroethane	88		92		64-130	4		20
Bromobenzene	100		100		70-130	0		20
n-Butylbenzene	100		100		53-136	0		20
sec-Butylbenzene	100		110		70-130	10		20
tert-Butylbenzene	100		100		70-130	0		20
o-Chlorotoluene	100		100		70-130	0		20
p-Chlorotoluene	100		100		70-130	0		20
1,2-Dibromo-3-chloropropane	77		82		41-144	6		20
Hexachlorobutadiene	100		100		63-130	0		20
Isopropylbenzene	100		100		70-130	0		20
p-Isopropyltoluene	100		100		70-130	0		20
Naphthalene	89		95		70-130	7		20
n-Propylbenzene	100		100		69-130	0		20
1,2,3-Trichlorobenzene	93		98		70-130	5		20
1,2,4-Trichlorobenzene	95		98		70-130	3		20
1,3,5-Trimethylbenzene	100		100		64-130	0		20
1,2,4-Trimethylbenzene	100		100		70-130	0		20
1,4-Dioxane	94		100		56-162	6		20
p-Diethylbenzene	99		100		70-130	1		20

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: COTTAGE PLACE

Project Number: 11672A:1

Lab Number: L2313670

Report Date: 03/21/23

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-05 Batch: WG1756553-3 WG1756553-4								
p-Ethyltoluene	100		100		70-130	0		20
1,2,4,5-Tetramethylbenzene	93		95		70-130	2		20
Ethyl ether	98		100		59-134	2		20
trans-1,4-Dichloro-2-butene	77		84		70-130	9		20

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,2-Dichloroethane-d4	101		104		70-130
Toluene-d8	102		103		70-130
4-Bromofluorobenzene	98		97		70-130
Dibromofluoromethane	99		99		70-130

**Project Name:** COTTAGE PLACE**Lab Number:** L2313670**Project Number:** 11672A:1**Report Date:** 03/21/23**Sample Receipt and Container Information**

Were project specific reporting limits specified?

YES

**Cooler Information**

<b>Cooler</b>	<b>Custody Seal</b>
A	Absent

**Container Information**

<b>Container ID</b>	<b>Container Type</b>	<b>Cooler</b>	<b>Initial pH</b>	<b>Final pH</b>	<b>Temp deg C</b>	<b>Pres</b>	<b>Seal</b>	<b>Frozen Date/Time</b>	<b>Analysis(*)</b>
L2313670-01A	Vial HCl preserved	A	NA		2.1	Y	Absent		NYTCL-8260(14)
L2313670-01B	Vial HCl preserved	A	NA		2.1	Y	Absent		NYTCL-8260(14)
L2313670-01C	Vial HCl preserved	A	NA		2.1	Y	Absent		NYTCL-8260(14)
L2313670-02A	Vial HCl preserved	A	NA		2.1	Y	Absent		NYTCL-8260(14)
L2313670-02B	Vial HCl preserved	A	NA		2.1	Y	Absent		NYTCL-8260(14)
L2313670-02C	Vial HCl preserved	A	NA		2.1	Y	Absent		NYTCL-8260(14)
L2313670-03A	Vial HCl preserved	A	NA		2.1	Y	Absent		NYTCL-8260(14)
L2313670-03B	Vial HCl preserved	A	NA		2.1	Y	Absent		NYTCL-8260(14)
L2313670-03C	Vial HCl preserved	A	NA		2.1	Y	Absent		NYTCL-8260(14)
L2313670-04A	Vial HCl preserved	A	NA		2.1	Y	Absent		NYTCL-8260(14)
L2313670-04B	Vial HCl preserved	A	NA		2.1	Y	Absent		NYTCL-8260(14)
L2313670-05A	Vial HCl preserved	A	NA		2.1	Y	Absent		NYTCL-8260(14)
L2313670-05B	Vial HCl preserved	A	NA		2.1	Y	Absent		NYTCL-8260(14)
L2313670-05C	Vial HCl preserved	A	NA		2.1	Y	Absent		NYTCL-8260(14)

**Project Name:** COTTAGE PLACE  
**Project Number:** 11672A:1

**Lab Number:** L2313670  
**Report Date:** 03/21/23

## GLOSSARY

### Acronyms

DL	- 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 limit of quantitation (LOQ). The DL includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
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).
EMPC	- Estimated Maximum Possible Concentration: The concentration that results from the signal present at the retention time of an analyte when the ions meet all of the identification criteria except the ion abundance ratio criteria. An EMPC is a worst-case estimate of the concentration.
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.
LOD	- Limit of Detection: This value represents the level to which a target analyte can reliably be detected for a specific analyte in a specific matrix by a specific method. The LOD includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
LOQ	- Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)  Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
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. For Method 332.0, the spike recovery is calculated using the native concentration, including estimated values.
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.
NR	- No Results: Term is utilized when 'No Target Compounds Requested' is reported for the analysis of Volatile or Semivolatile Organic TIC only requests.
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.
TEF	- Toxic Equivalency Factors: The values assigned to each dioxin and furan to evaluate their toxicity relative to 2,3,7,8-TCDD.
TEQ	- Toxic Equivalent: The measure of a sample's toxicity derived by multiplying each dioxin and furan by its corresponding TEF and then summing the resulting values.
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.

Report Format: DU Report with 'J' Qualifiers



**Project Name:** COTTAGE PLACE  
**Project Number:** 11672A:1

**Lab Number:** L2313670  
**Report Date:** 03/21/23

### 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

**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.

**Chlordane:** The target compound Chlordane (CAS No. 57-74-9) is reported for GC ECD analyses. Per EPA, this compound "refers to a mixture of chlordane isomers, other chlorinated hydrocarbons and numerous other components." (Reference: USEPA Toxicological Review of Chlordane, In Support of Summary Information on the Integrated Risk Information System (IRIS), December 1997.)

**Difference:** With respect to Total Oxidizable Precursor (TOP) Assay analysis, the difference is defined as the Post-Treatment value minus the Pre-Treatment value.

**Final pH:** As it pertains to Sample Receipt & Container Information section of the report, Final pH reflects pH of container determined after adjustment at the laboratory, if applicable. If no adjustment required, value reflects Initial pH.

**Frozen Date/Time:** With respect to Volatile Organics in soil, Frozen Date/Time reflects the date/time at which associated Reagent Water-preserved vials were initially frozen. Note: If frozen date/time is beyond 48 hours from sample collection, value will be reflected in 'bold'.

**Gasoline Range Organics (GRO):** Gasoline Range Organics (GRO) results include all chromatographic peaks eluting from Methyl tert butyl ether through Naphthalene, with the exception of GRO analysis in support of State of Ohio programs, which includes all chromatographic peaks eluting from Hexane through Dodecane.

**Initial pH:** As it pertains to Sample Receipt & Container Information section of the report, Initial pH reflects pH of container determined upon receipt, if applicable.

**PAH Total:** With respect to Alkylated PAH analyses, the 'PAHs, Total' result is defined as the summation of results for all or a subset of the following compounds: Naphthalene, C1-C4 Naphthalenes, 2-Methylnaphthalene, 1-Methylnaphthalene, Biphenyl, Acenaphthylene, Acenaphthene, Fluorene, C1-C3 Fluorenes, Phenanthrene, C1-C4 Phenanthrenes/Anthracenes, Anthracene, Fluoranthene, Pyrene, C1-C4 Fluoranthenes/Pyrenes, Benz(a)anthracene, Chrysene, C1-C4 Chrysenes, Benzo(b)fluoranthene, Benzo(j)+(k)fluoranthene, Benzo(e)pyrene, Benzo(a)pyrene, Perylene, Indeno(1,2,3-cd)pyrene, Dibenz(ah)+(ac)anthracene, Benzo(g,h,i)perylene. If a 'Total' result is requested, the results of its individual components will also be reported.

**PFAS Total:** With respect to PFAS analyses, the 'PFAS, Total (5)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA and PFOS. In addition, the 'PFAS, Total (6)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA, PFDA and PFOS. For MassDEP DW compliance analysis only, the 'PFAS, Total (6)' result is defined as the summation of results at or above the RL. Note: If a 'Total' result is requested, the results of its individual components will also be reported.

**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.

### Data Qualifiers

- A** - Spectra identified as "Aldol Condensates" are byproducts of the extraction/concentration procedures when acetone is introduced in the process.
- 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 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.
- F** - The ratio of quantifier ion response to qualifier ion response falls outside of the laboratory criteria. Results are considered to be an estimated maximum concentration.
- 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.
- 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

Report Format: DU Report with 'J' Qualifiers



**Project Name:** COTTAGE PLACE  
**Project Number:** 11672A:1

**Lab Number:** L2313670  
**Report Date:** 03/21/23

#### **Data Qualifiers**

Identified Compounds (TICs).

- M** - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.
- ND** - Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.
- 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.
- V** - The surrogate associated with this target analyte has a recovery outside the QC acceptance limits. (Applicable to MassDEP DW Compliance samples only.)
- Z** - The batch matrix spike and/or duplicate associated with this target analyte has a recovery/RPD outside the QC acceptance limits. (Applicable to MassDEP DW Compliance samples only.)

**Project Name:** COTTAGE PLACE  
**Project Number:** 11672A:1

**Lab Number:** L2313670  
**Report Date:** 03/21/23

## REFERENCES

- 1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - VI, 2018.

## 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

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

### Westborough Facility

**EPA 624/624.1:** m/p-xylene, o-xylene, Naphthalene

**EPA 625/625.1:** alpha-Terpineol

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

**EPA 8270D/8270E:** NPW: Dimethylnaphthalene, 1,4-Diphenylhydrazine, alpha-Terpineol; SCM: Dimethylnaphthalene, 1,4-Diphenylhydrazine.

**SM4500:** NPW: Amenable Cyanide; SCM: Total Phosphorus, TKN, NO<sub>2</sub>, NO<sub>3</sub>.

### Mansfield Facility

**SM 2540D:** TSS

**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

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

### Westborough Facility:

#### Drinking Water

**EPA 300.0:** Chloride, 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, SM4500NO2-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:** Ammonia-N and Kjeldahl-N, **EPA 350.1:**

Ammonia-N, **LCHAT 10-107-06-1-B:** Ammonia-N, **EPA 351.1, SM4500NO3-F, EPA 353.2:** Nitrate-N, **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 300:** Chloride, Sulfate, Nitrate.

**EPA 624.1:** Volatile Halocarbons & Aromatics,

**EPA 608.3:** 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 625.1:** SVOC (Acid/Base/Neutral Extractables), **EPA 600/4-81-045:** PCB-Oil.

**Microbiology:** **SM9223B-Colilert-QT; Enterolert-QT, SM9221E, EPA 1600, EPA 1603, SM9222D.**

### Mansfield Facility:

#### Drinking Water

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

**EPA 522, EPA 537.1.**

#### 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, Fe, Pb, Mn, Ni, K, Se, Ag, Na, TL, Zn.

**EPA 245.1 Hg.**

**SM2340B**

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



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## **Appendix D:**

### NYSDEC IC & EC Certification Form

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**Enclosure 2**  
**NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION**  
**Site Management Periodic Review Report Notice**  
**Institutional and Engineering Controls Certification Form**



**Site Details**

**Site No.**            **C360180**

**Box 1**

**Site Name** **Cottage-Garden Auto Repair Site**

Site Address: 20 Garden St., 26 Garden St. and 10 Cottage Place            Zip Code: 10801  
 City/Town: New Rochelle  
 County: Westchester  
 Site Acreage: 0.988

Reporting Period: April 30, 2022 to April 30, 2023

- |                                                                                                                                                                    | YES                                 | NO                                  |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------|-------------------------------------|
| 1. Is the information above correct?                                                                                                                               | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| If NO, include handwritten above or on a separate sheet.                                                                                                           |                                     |                                     |
| 2. Has some or all of the site property been sold, subdivided, merged, or undergone a tax map amendment during this Reporting Period?                              | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| 3. Has there been any change of use at the site during this Reporting Period (see 6NYCRR 375-1.11(d))?                                                             | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| 4. Have any federal, state, and/or local permits (e.g., building, discharge) been issued for or at the property during this Reporting Period?                      | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| <b>If you answered YES to questions 2 thru 4, include documentation or evidence that documentation has been previously submitted with this certification form.</b> |                                     |                                     |
| 5. Is the site currently undergoing development?                                                                                                                   | <input type="checkbox"/>            | <input type="checkbox"/>            |

**Box 2**

- |                                                                                                                                                      | YES                                 | NO                       |
|------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------|--------------------------|
| 6. Is the current site use consistent with the use(s) listed below?<br>Unrestricted, Residential, Restricted-Residential, Commercial, and Industrial | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 7. Are all ICs in place and functioning as designed?                                                                                                 | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

**IF THE ANSWER TO EITHER QUESTION 6 OR 7 IS NO, sign and date below and DO NOT COMPLETE THE REST OF THIS FORM. Otherwise continue.**

**A Corrective Measures Work Plan must be submitted along with this form to address these issues.**

**Box 2A**

YES NO

8. Has any new information revealed that assumptions made in the Qualitative Exposure Assessment regarding offsite contamination are no longer valid?  YES  NO

**If you answered YES to question 8, include documentation or evidence that documentation has been previously submitted with this certification form.**

9. Are the assumptions in the Qualitative Exposure Assessment still valid?  YES  NO  
(The Qualitative Exposure Assessment must be certified every five years)

**If you answered NO to question 9, the Periodic Review Report must include an updated Qualitative Exposure Assessment based on the new assumptions.**

SITE NO. C360180

Box 3

**Description of Institutional Controls**ParcelOwnerInstitutional Control**3-802-0101**

Joseph Simone

Site Management Plan  
Monitoring Plan  
IC/EC PlanQuarterly monitoring of groundwater.  
Soil vapor assessment.**3-802-0102**

Joseph Simone

Site Management Plan  
Monitoring Plan  
IC/EC PlanQuarterly monitoring of groundwater.  
Soil vapor assessment.**3-802-0103**

Joseph Simone

Site Management Plan  
Monitoring Plan  
IC/EC PlanQuarterly monitoring of groundwater.  
Soil vapor assessment.**3-802-0104**

Joseph Simone

Site Management Plan  
Monitoring Plan  
IC/EC PlanQuarterly monitoring of groundwater.  
Soil vapor assessment.**3-802-0105**

Joseph Simone

Monitoring Plan  
IC/EC Plan  
Site Management PlanQuarterly monitoring of groundwater.  
Soil vapor assessment.**3-802-0106 (portion of)**

Joseph Simone

Site Management Plan  
Monitoring Plan  
IC/EC PlanGroundwater Monitoring  
Soil Vapor Assessment

Box 4

**Description of Engineering Controls**

None Required

Not Applicable/No EC's

**Box 5**

**Periodic Review Report (PRR) Certification Statements**

1. I certify by checking "YES" below that:

a) the Periodic Review report and all attachments were prepared under the direction of, and reviewed by, the party making the Engineering Control certification;

b) to the best of my knowledge and belief, the work and conclusions described in this certification are in accordance with the requirements of the site remedial program, and generally accepted engineering practices; and the information presented is accurate and complete.

YES NO

2. For each Engineering control listed in Box 4, I certify by checking "YES" below that all of the following statements are true:

(a) The Engineering Control(s) employed at this site is unchanged since the date that the Control was put in-place, or was last approved by the Department;

(b) nothing has occurred that would impair the ability of such Control, to protect public health and the environment;

(c) access to the site will continue to be provided to the Department, to evaluate the remedy, including access to evaluate the continued maintenance of this Control;

(d) nothing has occurred that would constitute a violation or failure to comply with the Site Management Plan for this Control; and

(e) if a financial assurance mechanism is required by the oversight document for the site, the mechanism remains valid and sufficient for its intended purpose established in the document.

YES NO

**IF THE ANSWER TO QUESTION 2 IS NO, sign and date below and DO NOT COMPLETE THE REST OF THIS FORM. Otherwise continue.**

**A Corrective Measures Work Plan must be submitted along with this form to address these issues.**

\_\_\_\_\_  
Signature of Owner, Remedial Party or Designated Representative

\_\_\_\_\_  
Date

IC CERTIFICATIONS  
SITE NO. C360180

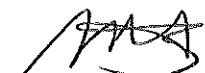
Box 6

**SITE OWNER OR DESIGNATED REPRESENTATIVE SIGNATURE**

I certify that all information and statements in Boxes 1, 2, and 3 are true. I understand that a false statement made herein is punishable as a Class "A" misdemeanor, pursuant to Section 210.45 of the Penal Law.

I Mark Stagg at 1763 Pitman Avenue Bronx, NY  
print name print business address 10466  
am certifying as Owner's Designated Representative (Owner or Remedial Party)

for the Site named in the Site Details Section of this form.

  
Signature of Owner, Remedial Party, or Designated Representative  
Rendering Certification

6/17/2003  
Date