

Cottage-Garden Auto Repair Site
WESTCHESTER COUNTY, NEW YORK
Final Engineering Report

NYSDEC Site Number: C360180

Prepared for:

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SEPTEMBER 2020
REVISED DECEMBER 2020

CERTIFICATIONS

I, Fuad Dahan, am currently a registered professional engineer licensed by the State of New York, I had primary direct responsibility for implementation of the remedial program activities, and I certify that the Remedial Action Work Plan was implemented and that all construction activities were completed in substantial conformance with the Department-approved Remedial Action Work Plan.

I certify that the data submitted to the Department with this Final Engineering Report demonstrates that the remediation requirements set forth in the Remedial Action Work Plan and in all applicable statutes and regulations have been or will be achieved in accordance with the time frames, if any, established for the remedy.

I certify that all use restrictions, Institutional Controls, Engineering Controls, and/or any operation and maintenance requirements applicable to the Site are contained in an environmental easement created and recorded pursuant ECL 71-3605 and that all affected local governments, as defined in ECL 71-3603, have been notified that such easement has been recorded.

I certify that a Site Management Plan has been submitted for the continual and proper operation, maintenance, and monitoring of all Engineering Controls employed at the Site, including the proper maintenance of all remaining monitoring wells, and that such plan has been approved by the Department.

I certify that all documents generated in support of this report have been submitted in accordance with the DER's electronic submission protocols and have been accepted by the Department.

I certify that all data generated in support of this report have been submitted in accordance with the Department's electronic data deliverable and have been accepted by the Department.

I certify that all information and statements in this certification form 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, Fuad Dahan, of SESI Consulting Engineers, DPC, am certifying as Owner's Designated Site Representative for the site.

090531

12/30/2020

NYS Professional Engineer #

Date



Signature

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LIST OF ACRONYMS

Acronym	Definition
AST	Aboveground Storage Tank
AWQS	Ambient Water Quality Standard
BCA	Brownfield Cleanup Agreement
BCP	Brownfield Cleanup Program
CAMP	Community Air Monitoring Plan
C&D	Construction & Demolition Materials
Cis-1,2 DCE	Cis,1,2 Dichloroethene
COC	Contaminant Of Concern
CVOC	Chlorinated Volatile Compounds
cy	Cubic Yard
DER	Division Of Environmental Remediation
DER-10	NYSDEC Technical Guidance For Site Investigation & Remediation
DUSR	Data Usability Summary Report
ECs	Emerging Contaminants
ECL	Environmental Conservation Law
ESA	Environmental Site Assessment
FER	Final Engineering Report
F/cc	Fibers Per Cubic Centimeter
ft-bgs	Feet Below Ground Surface
FWRIA	Fish And Wildlife Resources Impact Analysis
GW	Groundwater Piezometer
HHEA	Human Health Exposure Assessment
ICs	Institutional Controls
IRM	Interim Remedial Measures
MNA	Monitored Natural Attenuation
MW	Monitoring Well
NYSDEC	New York State Department Of Environmental Conservation
NYSDOL	New York State Department Of Labor
PAH	Polynuclear Aromatic Hydrocarbons
PCB	Polychlorinated Biphenyls
PFAS	Per- And Polyfluoroalkyl Substances
PHC	Petroleum Hydrocarbon
PID	Photoionization Detector

PPM	Parts Per Million
QAPP	Quality Assurance Project Plan
QA/QC	Quality Assurance/Quality Control
RA	Remedial Action
RAWP	Remedial Action Work Plan
RCRA	Resource Conservation And Recovery Act
RDD	Remedial Design Document
RI	Remedial Investigation
RIR	Remedial Investigation Report
RIWP/IRM	Remedial Investigation Work Plan/Interim Remedial Measures
RRSCO	Restricted Residential Soil Cleanup Objective
SCG	Standards, Criteria, And Guidance
SCO	Soil Cleanup Objectives
SESI	SESI Consulting Engineers DPC
SMP	Site Management Plan
SOE	Support Of Excavation
SRWP	Spills Remedial Work Plan
SVOCs	Semi-Volatile Organic Compounds
TAGM	Technical And Administrative Guidance Memorandum
TAL	Target Analyte List
TCE	Trichloroethene
TCL	Target Compound List
TOGS	Technical And Operations Guidance Series
USCO	Unrestricted Use Soil Cleanup Objectives
USEPA	United States Environmental Protection Agency
UST	Underground Storage Tank
VI	Vapor Intrusion
VOCs	Volatile Organic Compounds

Final Engineering Report

1.0 BACKGROUND AND SITE DESCRIPTION

The Mark 95 LLC and The Mark 95 II LLC entered into a Brownfield Cleanup Agreement (BCA) with the New York State Department of Environmental Conservation (NYSDEC) in January 2019, to investigate and remediate a 0.98-acre property called the Cottage-Garden Auto Repair BCP Site #C360180 located at the new addresses of 26 Garden Street (Court House Building, which includes parking for the affordable building and a buffer courthouse floor) 10 Cottage Place (Residential Building) and 20 Garden Street (Medical Office) in the City of New Rochelle, New York (hereinafter “Site”). Volunteer The Mark 95 II LLC merged into The Mark 95 LLC and The Mark 95 LLC became a Managing Member in the new ownership entity MJ Garden LLC along with Managing Member SDC Garden Street Member LLC. These changes, and the addition of Volunteers MJ Garden LLC, MJ Garden II LLC, MJ Garden III LLC and MJ Garden IV LLC, were all documented in an initial executed BCA Amendment on September 9, 2019. The five volunteer entities as of this September 2019 BCA Amendment were Mark 95 LLC, MJ Garden LLC, MJ Garden II LLC, MJ Garden III LLC and MJ Garden IV LLC and will hereinafter collectively be referred to as the “Volunteer”. Then on December 15, 2020 another BCA Amendment was submitted to advise the Department that consolidated lot 3-802-0032 was subdivided into six condominium units (0101, 0102, 0103, 0104, 0105 and 0106). The Site was remediated to achieve a Track 1 unrestricted use remedy and will be used for a mixed-use project including the Westchester County courthouse, medical office space, and a residential building including affordable housing residential units.

In 2019, five prior tax lots that made up the BCP Site (3-802-0020, 3-802-0032, 3-802-0033, 3-802-0041 and 3-802-0043) owned by the Volunteer had been consolidated into a new lot 32. In 2020, the remaining two lots included in the BCP application (3-802-0036 and 3-802-0038) were also consolidated into the new lot 32, along with an additional triangular Lot (3-802-0048 (0.14 Acres)) that is a part of the development project, but was not added into the BCP. With all the lots consolidated, along with the additional trilingual lot, the BCP Site description temporarily became: "Portion of SBL 3-802-0032 (Formerly known as; 16 Cottage Place SBL 3-802-0032, 10 Cottage Place SBL 3-802-0033, 25 Garden Street SBL 2-802-0043, 26 Garden Street SBLs 3-802-0041 and 3-802-0020, and 30 Garden Street SBLs 3-802-0038 and 2-802-00036)".

However, the City of New Rochelle recently approved a new condominium lot subdivision, which divides the consolidated Lot 32 into six new condominium lots, two of which have been sold to Volunteer MJ Garden III LLC as follows:

- MJ Garden III LLC has acquired: (1) Court House parking lot condominium (Tax Lot #0101) and (2) Court House condominium (Tax Lot #0103)
- MJ Garden LLC is retaining (3) Phase II Residential parking (Tax Lot #0102); (4) Court House buffer floors (Tax Lot #0104); (5) Phase II residential affordable building condominium (Tax Lot #0105) and (6) Phase III potential medical use and parking lot condominium (Tax Lot #0106).

An environmental easement was recorded for the Site as part of the remedy reported in the FER. The easement county identifier is 603233342.

Residential and commercial development is present along Cottage Place, which borders the northeast side of the Site; commercial development is present along Garden Street, which borders the southwest side of the Site. Interstate I-95 runs along the north side of the Site. (see **Figure 1.1**). The boundaries of the site are fully described in **Figure 1.2 Survey Map, Metes and Bounds**.

The Site was formerly occupied by four commercial buildings and one 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. The residence was constructed as a residential single-family home in the early 1900's, with conversion to multiple apartments over the years, based on 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 were also present on the Site with prior addresses of 28 Garden Street and 34 Garden Street including a kitchen and bath dealer and other warehousing purposes. 26 Garden Street housed a Plastic Works manufacturing company called Strip-A-Way of New Rochelle Inc. 26 Garden Street is the new official address of the Site that has been assigned by the City of New Rochelle.

2.0 SUMMARY OF SITE REMEDY

2.1 REMEDIAL ACTION OBJECTIVES

Based on the results of the Remedial Investigation, the following Remedial Action Objectives (RAOs) were identified for this Site.

2.1.1 Groundwater RAOs

RAOs for Public Health Protection

- Prevent ingestion of groundwater containing contaminant levels exceeding drinking water standards.
- Prevent contact with, or inhalation of, volatiles emanating from contaminated groundwater.

RAOs for Environmental Protection

- Restore ground water aquifer, to the extent practicable, to pre-disposal/pre-release conditions.
- Remove the source of ground or surface water contamination.

2.1.2 Soil RAOs

RAOs for Public Health Protection

- Prevent ingestion/direct contact with contaminated soil.

RAOs for Environmental Protection

- Prevent migration of contaminants that would result in groundwater or surface water contamination.

2.1.3 Soil Vapor RAOs

RAOs for Public Health Protection

- Mitigate impacts to public health resulting from potential present and future soil vapor intrusion into buildings at the Site.

2.2 DESCRIPTION OF SELECTED REMEDY

The Site was remediated in accordance with the Track 1 remedy selected by in the RAWP dated, September 27, 2019, the Groundwater Remediation Work Plan (GWRWP), dated April 2020, and the Decision Document dated November 2019, which deemed the Site a significant threat due to potential off-Site impacts. The factors considered during the selection of the remedy are those listed in 6 NYCRR 375-1.8.

2.2.1 Description of Remedy Per the Decision Document

The Site was remediated to conditional Track 1 unrestricted use and the soils to unrestricted cleanup objectives (USCOs). The following are the components of the remedy selected in the Decision Document:

1. Remedial Design

The Decision Document states: A remedial design program will be implemented to provide the details necessary for the construction, operation, optimization, maintenance, and monitoring of the remedial program. Green remediation principles and techniques will be implemented to the extent feasible in the design, implementation, and site management of the remedy as per DER-31. The major green remediation components are as follows:

- Considering the environmental impacts of treatment technologies and remedy stewardship over the long term;
- Reducing direct and indirect greenhouse gases and other emissions;
- Increasing energy efficiency and minimizing use of non-renewable energy;
- Conserving and efficiently managing resources and materials;
- Reducing waste, increasing recycling and increasing reuse of materials which would otherwise be considered a waste;
- Maximizing habitat value and creating habitat when possible;
- Fostering green and healthy communities and working landscapes which balance ecological, economic and social goals;
- Integrating the remedy with the end use where possible and encouraging green and sustainable re-development; and
- Additionally, to incorporate green remediation principles and techniques to the extent feasible in the future development at this site, any future on-site buildings will include, at a minimum, a 20-mil vapor barrier/waterproofing membrane on the foundation to improve energy efficiency as an element of construction.

2. Excavation

The Decision Document states: Excavation and off-site disposal of all on-site soils above bedrock which exceed unrestricted SCOs, as defined by 6 NYCRR Part 375-6.8 and the removal of any underground storage tanks (USTs), fuel dispensers, underground piping or other structures associated with a source of contamination. Approximately 22,130 cubic yards of contaminated soil and remaining building slabs will be removed from the site. Clean fill meeting the requirements of 6 NYCRR Part 375-6.7(d) will be brought in to replace the excavated soil.

3. Natural Attenuation of Groundwater

The Decision Document states: Groundwater contamination will be addressed with natural attenuation (MNA). Groundwater will be monitored for site related contamination. It is anticipated that contamination will be below standards within 5 years. Reports of the attenuation will be provided annually, and active remediation will be proposed if it appears that natural processes alone will not address the contamination. The contingency remedial action will depend on the information collected, but it is currently anticipated that liquid activated carbon injections and/or enhanced bioremediation, in-situ chemical reduction (zero valent iron), or in-situ oxidation would be the expected contingency remedial action.

4. Vapor Intrusion Evaluation

The Decision Document states: As part of the remedy, a soil vapor intrusion evaluation will be completed. The evaluation will include a provision for implementing actions recommended to address exposures related to soil vapor intrusion.

The intent of the remedy is to achieve a Track 1 unrestricted use, therefore, no environmental easement or site management plan is anticipated. If the soil vapor intrusion (SVI) evaluation is not completed prior to completion of the Final Engineering Report, then a Site Management Plan (SMP) and Environmental Easement (EE) will be required to address the SVI evaluation and implement actions as needed; if a mitigation or monitoring action is needed, a Track 1 cleanup can only be achieved if the mitigation system or other required action is no longer needed within 5 years of the date of the Certificate of Completion.

If no EE or SMP is needed to achieve soil or soil vapor remedial action objectives, then the following local use restriction will be relied upon to prevent ingestion of groundwater: Chapter 873, article VII of the Laws of Westchester County, which prohibits potable use of groundwater without prior approval.

In the event that Track 1 unrestricted use is not achieved, including achievement of groundwater and soil vapor remedial objectives, the following contingent remedial elements will be required, and the remedy will achieve a Track 2 restricted residential cleanup.

5. Institutional Control

The Decision Document states: Imposition of an institutional control in the form of an environmental easement for the controlled property which will:

- require the remedial party or site owner to complete and submit to the Department a periodic certification of institutional and engineering controls in accordance with Part 375-1.8 (h)(3);
- allow the use and development of the controlled property for restricted-residential, commercial, or industrial use as defined by Part 375-1.8(g), although land use is subject to local zoning laws;
- restrict the use of groundwater as a source of potable or process water, without necessary water quality treatment as determined by the NYSDOH or County DOH; and
- require compliance with the Department approved Site Management Plan.

6. Site Management Plan

The Decision Document states: A Site Management Plan is required, which includes the following:

1. an Institutional and Engineering Control Plan that identifies all use restrictions and engineering controls for the site and details the steps and media-specific requirements necessary to ensure the following institutional and/or engineering controls remain in place and effective: Institutional Controls: The Environmental Easement discussed in paragraph 5 above.

Engineering Controls: Any engineering controls that may be required following the five-year conditional Track 1 evaluation period (e.g., sub-slab depressurization system, active groundwater treatment).

This plan includes, but may not be limited to:

- an Excavation Plan which details the provisions for management of future excavations in areas of remaining contamination (if any);
 - descriptions of the provisions of the environmental easement including any land use and/or groundwater restrictions;
 - a provision for evaluation of the potential for soil vapor intrusion in future buildings developed on the site, including provision for implementing actions recommended to address exposures related to soil vapor intrusion;
 - provisions for the management and inspection of the identified engineering controls, if any are required following the 5-year conditional Track 1 evaluation period;
 - maintaining site access controls and Department notification; and
 - the steps necessary for the periodic reviews and certification of the institutional and/or engineering controls.
2. A Monitoring Plan to assess the performance and effectiveness of the remedy. The plan includes, but may not be limited to:
- monitoring of groundwater to assess the performance and effectiveness of the remedy
 - monitoring for vapor intrusion for any future buildings developed on the site, as may be required by the Institutional and Engineering Control Plan discussed above and
 - a schedule of monitoring and frequency of submittals to the Department.

2.2.2 Description of Additional Remedies

Site preparation demolition work and support of excavation work was required before the excavation work could commence. In addition, in order to enhance and accelerate the remediation of the dissolved VOCs in groundwater, SESI did implement the

contingency groundwater remedy and applied Regenesis PersulfOx® oxidant per SESI's Groundwater Remediation Work Plan (GWRWP), approved by NYSDEC on May 21, 2020 (**Appendix A**). The in-situ treatment consisted of 3 linear grids totaling 51 injection points, and a second smaller treatment area totaling of 4 injection points. 11,240 pounds of PersulfOx® was injected in the target treatment zones. The PersulfOx® was mixed at concentration of 15% which will result in approximately 7,700 gallons of PersulfOx® solution.

3.0 INTERIM REMEDIAL MEASURES, OPERABLE UNITS AND REMEDIAL CONTRACTS

The remedy for this Site was performed as a single project, and no interim remedial measures, operable units or separate construction contracts were performed.

4.0 DESCRIPTION OF REMEDIAL ACTIONS PERFORMED

Remedial activities completed at the Site were conducted in accordance with the NYSDEC-approved Remedial Action Work Plan (RAWP) for the Cottage – Garden Auto Repair site (December 3, 2019). All deviations from the RAWP are noted in Section 4.9.

4.1 GOVERNING DOCUMENTS

4.1.1 Site Specific Health & Safety Plan (HASP)

The HASP was included as Appendix D of the RAWP. All remedial work performed under this Remedial Action was in full compliance with governmental requirements, including Site and worker safety requirements mandated by Federal OSHA.

The Health and Safety Plan (HASP) was complied with for all remedial and invasive work performed at the Site.

4.1.2 Quality Assurance Project Plan (QAPP)

The QAPP was included as Appendix E of the Remedial Action Work Plan (RAWP) approved by the NYSDEC. The QAPP describes the specific policies, objectives, organization, functional activities and quality assurance/ quality control activities designed to achieve the project data quality objectives.

4.1.3 Soil/Materials Management Plan (S/MMP)

The S/MMP includes detailed plans for managing all soils/materials that were disturbed at the Site, including excavation, handling, storage, transport and disposal. The S/MMP was included as Section 5.4 of the RAWP. All soil and materials management were performed in accordance with the RAWP and DER-10. All invasive work, and the excavation and load-out of all excavated materials and liquid wastes, were overseen during remedial work by the following personnel:

- Fuad Dahan, PE (SESI)
- Steven Gustems, PG (SESI)
- Jeffrey Lamborn, EIT (SESI)

4.1.4 Storm-Water Pollution Prevention Plan (SWPPP)

The erosion and sediment controls for all remedial construction were performed in conformance with requirements presented in the New York State Guidelines for Urban Erosion and Sediment Control and the site-specific Storm Water Pollution Prevention Plan prepared by SESI. SESI performed periodic inspections to ensure compliance with the State guidelines. The SWPPP inspection reports are included as **Appendix B** of this report.

4.1.5 Community Air Monitoring Plan (CAMP)

The CAMP was implemented during all on-Site intrusive and demolition activities in order to provide a measure of protection for the downwind community (i.e., off-Site receptors including residences and businesses) from potential airborne contaminant releases as a direct result of remedial activities. Two (2) air monitoring stations were set-up: one (1) station upwind of the Site, and one (1) station downwind of the Site. Air monitoring data for dust control and volatile organic compounds was recorded by SESI. Dust suppression efforts were performed if the downwind particulate levels of 100 micrograms per cubic meter ($\mu\text{g}/\text{m}^3$) greater than background (upwind) for a 15-minute period or if airborne dust is observed leaving the work area.

The following CAMP documentation is provided in this FER:

- Dust and VOC monitoring data (**Appendix C**).

The implementation of the CAMP included the monitoring of particulates (dust control) and VOCs with a PID.

4.1.6 Contractors Site Operations Plans (SOPs)

The Remediation Engineer reviewed all plans and submittals for this remedial project (i.e. those listed above plus contractor and subcontractor submittals) and confirmed that they were in compliance with the RAWP. All remedial documents were submitted to NYSDEC and NYSDOH in a timely manner and prior to the start of work.

4.1.7 Community Participation Plan

The approved Community Participation Plan (CPP) for this project is included as **Appendix D** of this report.

Document repositories have been established at the following locations and contain all applicable project documents:

New Rochelle Public Library
1 Library Plaza
New Rochelle, Ny 10801
Phone: (914) 632-7878
Hours: Monday – Thursday 9:00 Am – 8:00 Pm
Friday – Saturday 9:00 Am – 5:00 Pm
Sunday 1:00 Pm – 5:00 Pm

The CPP provides members of the affected and interested public with information about how NYSDEC will inform and involve them during the investigation and remediation of the Site. To date, community participation procedures have been implemented in accordance with the attached CPP. Following submittal of this FER, an Engineering Fact Sheet shall be submitted to the public outlining the results of the remedial action, which will fulfill the requirements of the CPP.

A certification of mailing was sent to the NYSDEC project manager following the distribution of all Fact Sheets and notices that includes: (1) certification that the Fact Sheets were mailed, (2) the date they were mailed; (3) a copy of the Fact Sheet, (4) a list of recipients (contact list); and (5) a statement that the repository was inspected on (specific date) and that it contained all of the applicable project documents.

4.2 REMEDIAL PROGRAM ELEMENTS

4.2.1 Green Remediation Considerations

During the course of the Remedial Action field activities, SESI considered NYSDEC DER-31 “Green Remediation” implementation objectives. The NYSDEC DER’s approach to remediating sites in the context of the larger environment is a concept known as “Green Remediation”. Green Remediation is defined in NYSDEC DER-31 as “the practice of considering all environmental effects of remedy implementation and incorporating options to minimize the environmental footprint of cleanup actions.” The approach is intended to improve the overall sustainability of the remediation by promoting the use of more sustainable practices and technologies. Green Remediation practices and technologies are less disruptive to the environment, generate less waste, increase reuse and recycling, and

emit fewer pollutants, including greenhouse gases, to the atmosphere. Green Remediation concepts and techniques considered during the remedial action include:

- Eliminated idling vehicles and equipment when possible; reducing emission of CO₂, N₂O, CH₄, and other greenhouse gases contributing to climate change.
- Operation of particulate detectors to monitor and minimize dust export of contaminants.
- Operation of VOC detectors to monitor and minimize VOC exposures.
- Use of silt fencing and screening to prevent water export of contaminants.
- Excavation of soils and underground storage tanks in coordination with the property redevelopment efforts; Integration of the remedy with the end use.
- Implementing remediation of soil and tank removal concurrently; reducing potentially multiple pre-design investigation sampling events; and,
- Conducting sampling events planned simultaneously to maximize level of efforts while traveling to/from the Site (economy of scale implementing multiple sampling events).
- Incorporation of a 20 mil vapor barrier/waterproofing membrane on the foundation to improve energy efficiency as an element of construction.

4.2.2 Contractors and Consultants

Table 4.1 below provides the list of contractors and consultants, who performed the remedial activities on the BCP Site.

Table 4.1 List of Contractors & Consultants

Contractors/Consultants	Role	Project Contact
AARCO Environmental Services Corp.	Soil Probes, Wells, Injections	Chuck Blumberg
Alpha Analytical labs	Analytical laboratory	Michelle Callahan
BE Bronx Builders	Excavation Contractor	Ryan Stagg
Clean Earth	Waste Disposal	Kalia Illyes
ECDNY	SOE Contractor	Brian Keane
Innovative Recycling technologies	Waste Disposal	John Ewen
Knauf Shaw	Environmental counsel	Linda Shaw
Laboratory Data Consultants	DUSR	Christina Rink
Luzon	Tank Contractor	Robert Halprin
SESI Consulting Engineers, DPC	Environmental Consultant and Engineer of Record	Fuad Dahan(Engineer of Record)

4.2.3 Site Preparation

The mobilization tasks were completed as part of the site preparation work. They included, but were not limited to the following:

- Construction of fencing and barriers.
- Construction of erosion control measures.
- Demolition of existing structures and associated asbestos and lead paint removal work.
- Construction of decontamination and materials staging areas.
- Importation of clean fill and aggregate.
- Provisions for temporary water supply.
- Identification of underground utilities.
- Installation of sheet pile wall to support the excavation of contaminated soil.
- Establishment of equipment and material staging areas.
- Establishment of equipment decontamination and truck wash stations.

A pre-construction meeting was held with NYSDEC and contractors on December 13, 2019.

All City and local permits were obtained prior to start of work and are included as **Appendix E** of this report.

All SEQRA requirements and all substantive compliance requirements for attainment of applicable natural resource or other permits were achieved during this Remedial Action.

4.2.4 General Site Controls

The following general Site controls were established at the BCP Site to ensure the safety of on-site workers, remedial personnel, nearby residents, and potential trespassers; and to minimize off-site and on-site impacts of remedial activities:

- The Site was a closed site accessible only to site contractors, owners, and authorized entrants. The BCP Site was protected with an 8-foot chain-link fence and plywood sheeting with a gate.

- The entrances to the BCP Site were locked when construction personnel were not present.
- Visual, olfactory and PID soil screening and assessment was performed by a qualified environmental professional during all remedial excavations. Soil screening was performed regardless of when the invasive work was done. It was performed during the remedy, such as support of excavation installation, and excavations work, prior to issuance of the Certificate of Completion.
- Soil segregation was performed based on observed field evidence of contamination and waste classification analysis. All stockpiled soil was placed on and covered with polyethylene sheeting. In addition, silt fencing was installed around the soil piles as erosion and sediment control measures.

4.2.5 Nuisance controls

The following monitoring and controls were performed on the BCP Site during the fill import and placement:

- Truck wash and egress housekeeping: Rip-rap truck-tire wash stations were installed at the entrances to the construction areas at: A) the eastern end of the Site on Cottage Place, and at B) the western end of the Site at the adjacent former Sabrett establishment on off-Site lot 48.
- Dust control: The Site was sprayed with water, when needed, to minimize dust generation particularly during fill off load from the trucks. See also FER sections 4.1.6 and 4.2.3.
- Prior to loading, trucks were staged off-site to avoid traffic issues. The inbound and outbound truck routes were designed to (a) limit transport through residential areas and past sensitive sites; (b) follow city mapped truck routes; (c) prohibit off-site queuing of trucks entering the facility; (d) limit total distance to major highways; (e) promote safety in access to highways; (f) create overall safety in transport; and (g) follow community input, which was sought and obtained during the CPP process.

4.2.6 CAMP results

Two dust and PID monitors were installed at locations to capture the up-wind and down-wind locations of the construction activities at the Site which were changed in accordance with the wind direction. No VOC action levels were exceeded. Particulate exceedances were observed due to welding of the support of excavation sheet piles and soil excavation activities. Water was applied to the ground surface for dust suppression when needed. A summary of the CAMP particulate exceedances are presented below on **Table 4.2.**

Table 4.2: CAMP Results Summary

Date	Construction Activity	Visual Observation	Exceedence of Action	Action Taken for Dust Control	Action Taken for VOC Exceedance
11/13/2019 to 11/15/2019 Cottage Station	Soldier Pile Drilling Welding	Exceedances were noted during welding activities. No dust was observed	Yes	NA	NA
11/19/2019 to 11/21/2019 Cottage Station	Soldier Pile Drilling Welding	Exceedances were noted during welding activities. No dust was observed	Yes	NA	NA
11/25/2019 to 11/26/2019 Cottage Station	Soldier Pile Drilling Welding	Exceedances were noted during welding activities. No dust was observed	Yes	NA	NA
11/27/2019 Cottage Station	Soldier Pile Drilling	Yes, dust was observed	Yes	Water spraying	NA
1/3/2020, Cottage Station	Soldier Pile Drilling	No dust was observed	Yes	N/A	NA
1/4/2020 to 1/8/2020 Cottage Station	Soldier Pile Drilling	Exceedances were noted during drilling activities. No dust was observed	Yes	Troubleshoot unit with rental company	Troubleshoot unit with rental company
1/9/2020, Cottage Station	Soldier Pile Drilling	Exceedances were noted during drilling activities. No dust was observed	Yes	Unit malfunctioning, was replaced	Unit malfunctioning, was replaced
1/13/2020 to 1/16/2020 Cottage Station	Soldier Pile Drilling	Exceedances were noted during drilling activities. Dust was observed	Yes	Water spraying	Recalibrate Unit
1/13/2020, Sabrett Station	Soldier Pile Drilling	No dust was observed	Yes	Water spraying	N/A
1/22/2020, Cottage and Sabrett Stations	Soldier Pile Drilling	Yes, dust was observed	Yes	Water spraying	N/A
1/24/2020, Sabrett Station	Sheet Driving	No dust was observed	Yes	Troubleshoot unit with rental	N/A
2/4/2020 to 2/7/2020, Cottage Station	Welding	Exceedances were noted during welding activities. No dust was observed	Yes	N/A	N/A
2/4/2020 and 2/7/2020, Sabrett Station	Soil Stockpiling	Yes, dust was observed	Yes	Water spraying	N/A
2/10/2020 to 2/14/2020 Cottage Station	Welding and Soil Stockpiling	Dust was observed during stockpiling activities only. Exceedances were noted during welding and stockpiling activities	Yes	Water spraying	N/A
2/11/2020 to 2/13/2020, Sabrett Station	Welding	Exceedances were noted during welding activities. No dust was observed	Yes	N/A	N/A
2/17/2020 to 2/22/2020, Cottage Station and Sabrett Stations	Welding	Exceedances were noted during welding activities. No dust was observed	Yes	N/A	N/A
2/25/2020 to 2/29/2020, Cottage and Sabrett Stations	Welding	Exceedances were noted during welding activities. No dust was observed	Yes	N/A	N/A

Copies of all field data sheets relating to the CAMP are provided in electronic format in **Appendix C** of this report.

4.2.7 Reporting

Weekly reports were prepared and provided to the DEC Project Manager during the course of the soil remediation. In addition, daily reports were prepared for groundwater remedial work conducted during May and June 2020. These reports presented the following information:

- Activities relative to the Site during the previous reporting period and those anticipated for the next reporting period, including a quantitative presentation of work performed (i.e. tons of material exported and imported, etc.);
- Description of approved activity modifications, including changes of work scope and/or schedule;
- Sampling results received following internal data review and validation, as applicable; and,
- An update of the remedial schedule including the percentage of project completion, unresolved delays encountered or anticipated that may affect the future schedule, and efforts made to mitigate such delays

All weekly reports are included in electronic format in **Appendix F** of this report.

The digital photo log and key map as required by the RAWP is included in electronic format in **Appendix G** of this report.

4.3 CONTAMINATED MATERIALS REMOVAL

Removal of all contaminated media generated during the remedial actions was implemented in accordance with the RAWP and Decision Document. This FER includes a description and identification of the media type (soil, water, and USTs), location, volume of contamination removed, date removed and the disposal facility.

A list of the SCOs for the contaminants of concern for this project is provided in Appendix G of the RAWP. A figure of the location of original sources and areas where excavations were performed is shown in Figure 5.1 of the RAWP.

4.3.1 Petroleum Tanks

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 from the Site as per the NYSDEC approved RAWP. In addition, one (1) unknown 500-gallon UST discovered on the western end of the Site was removed.

Prior to tank removal activities, the USTs were registered with the Westchester County Department of Health (WCDOH). In addition, tank removal permit applications were filed with the WCDOH and the New Rochelle Fire Department (NRFD). End-point soil samples were collected in the location of the USTs at the final development excavation depth of approximately 20 feet below grade. Three (3) bottom sample were collected (one per 5 linear feet) from beneath the two (2) 3,000-gallon gasoline USTs (RA-UST1-2A through RA-UST1-2C), and two (2) bottom samples from beneath the 500-gallon unknown UST (RA-UST-3A and RA-UST-3B). 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 tank closure report was submitted to the Westchester County Health Department and New Rochelle Fire Department under separate cover.

The removed UST details are provided in **Table 4.3** below and **Figure 4.1**. A detailed description of tank closure activities is presented in the tank closure report included as **Appendix H**.

Table 4.3 Petroleum Tank Summary

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

4.3.2 Contaminated Soil

The contaminated media removed from the Site included all excavated material (fill and soil) which contained metals, PAHs, and pesticides above the Track 1 unrestricted soil cleanup objectives (USCOs). To remediate the contaminated soil, the installation of support of excavation (SOE) sheeting and shoring along the side walls was performed for structural stability of the excavation pit and to prevent impact to off-site structures. The SOE was installed to depths ranging from 25 to 30 ft-bgs to allow for the excavation depth per the RAWP.

For soil disposal and excavation organization purposes the Site was subdivided in 18 grids. As part of the RIR, waste characterization samples were collected at a frequency of 1 composite per 750 cubic yards (CY) of soils based on site grid of 50-foot wide by 50-foot long and 7 foot deep. In addition, to the waste characterization samples, grab samples were collected during the RIR at 5 ft-bgs depth intervals. The waste characterization sample results and site grids were provided in **Appendix F** of the RIR. The results of the waste characterization were sent to Clean Earth of Carteret for pre-approval prior to shipping.

The contaminated fill and soil were removed from the entire footprint of the Site down to a depth of 14 feet across the Site as shown in survey **Figure 4.2**. One (1) discrete “Hotspot” area (A) was further excavated to a depth of 24 ft-bgs. Post-excavation confirmatory samples were collected from the bottom on a 900 square foot grid basis and from the sidewalls every 30 linear feet, when applicable. The excavation continued in each grid/cell that resulted in exceedances of the USCO. No confirmatory samples were collected from the side walls along the property border because of the presence of sheet piles along all of the side walls and given that the Site was fully excavated property border to property border.

In total, 22,800 cubic yards of contaminated soil was removed from the site as presented in Table 4.4 and described in section 4.3.4. The soil remediation including excavation and off-site disposal was completed on March 18, 2020.

Maps of the sample locations and elevations and of the pre-existing grade condition are included in **Figures 4.2 and 4.3**.

4.3.3 Contaminated Liquids

A total of 225 gallons of contaminated water was pumped from UST-3 prior to removal by Luzon. The water was transported by Luzon by vacuum truck. The liquid disposal manifest is in the tank closure report included as **Appendix H**.

4.3.4 Disposal Details

Prior to the soil disposal activities, waste characterization samples were collected for disposal purposes as presented in **Appendix F** of the RIR. The soil samples were collected and analyzed as requested by the disposal facility. During the period from February 5, 2020 to March 18, 2020 a total of 22,800 cubic yards of contaminated soil was excavated and removed from the Site for off-site disposal at Clean Earth of Carteret. The soil remediation was completed on March 18, 2020. The transporter was Clean Earth of Carteret, Carteret, New Jersey.

Three (3) former USTs were cleaned and removed from the Site by Luzon. Two-hundred-twenty-five (225) gallons of liquids pumped from UST-3 was removed by Luzon. In addition, nine (9) drums of investigation derived waste generated prior to the remediation were transported from the Site by IRT. **Table 4.4** shows the total quantities of each category of material removed from the site and the disposal locations.

Table 4.4 Summary of Contaminated Material Removed from the Site

Date	Area	Description	Facility	Quantity
22/21/2019	Drill Cuttings	55-gallon Drums	Republic Environmental Systems	9 drums
2/5/2020 to 3/18/2020	Site-wide	Excavated Soil	Clean Earth Carteret, NJ	22,800 cubic yards
2/7/2020	Southeastern corner of site.	3,000-gallon UST (UST 1 and UST-2)	Luzon Environmental	2 Tanks
2/21/2020	Western portion of site	500-gallon UST (UST-3)	Luzon Environmental	1 Tank
2/21/2020	UST-3 contents	tank purge water	Luzon Environmental	225 gallons

A figure showing waste classification samples and a summary of the samples collected to characterize the waste, and associated analytical results are provided in **Appendix F** of the RIR. Letters from Applicants to disposal facility owners and acceptance letters from disposal facility owners are attached in **Appendix I** of this report. Drum disposal manifests, soil disposal manifests, Part 364 permits of the trucks, and bills of lading are included in electronic format in **Appendix J** of this report. The tank destruction and liquid disposal manifests are included in the tank closure report provided in **Appendix H**.

4.3.5 Chemical Injections

In order to enhance and accelerate the remediation of the dissolved VOCs in groundwater, Regenesis PersulfOx® oxidant was applied per SESI's GWRWP which was approved by NYSDEC on May 21, 2020. The PersulfOx® was injected into the top 10 feet of the saturated groundwater zone. The soil target treatment zone consisted of two distinct areas: one area near the central portion of the Site defined by monitoring wells MW-2 through MW-5 (Area A), with a surface area of approximately 6,400 square ft and a second smaller area near the southeastern corner of the Site defined by monitoring well MW-1 with a surface area of approximately 300 square feet (Area B) (**Figure 4.4**).

Based on the persulfate stoichiometric demand of the contaminants of concern and typical silty and soil oxidant demand, 11,240 pounds of PersulfOx® was injected in the target treatment zones. The PersulfOx® was mixed at concentration of 15%, as recommended by the vendor, which will result in 7,700 gallons of PersulfOx® solution.

The in-situ treatment consisted of a linear grid of 51 injection points as shown in **Figure 4.4** in Area A. The points were distributed within three injection lines, with each line consisting of 17 injection points. The injection points are 7 feet on center from each other within an injection line. The injection lines are approximately 25 feet apart and run almost perpendicular to the groundwater flow direction. Area B has 4 injection points located as shown in **Figure 4.4** along the property on Cottage Place around MW-1. The distance between the injection points in Area B is 7-ft on center. The injection details are presented on **Table 4.5** below.

Table 4.5 Summary of PersulfOx Injections

Injection Date	Injection Points	PersulfOx (lbs)	Total Injection Solution (gals)	Injection rate (gpm)	Injection Pressure (PSI)
6/9/2020	IP-1, IP-2, IP-3	630	420	16.5	50
6/9/2020	IP-4, IP-5, IP-6	630	420	18	50
6/10/2020	IP-18, IP-19, IP-20	630	420	34	38
6/10/2020	IP-21, IP-22, IP-23	630	420	17.7	40
6/10/2020	IP-24, IP-25, IP-26	630	420	24.5	45
6/11/2020	IP-27, IP-28, IP-29	630	420	8.6	48
6/11/2020	IP-38, IP-39, IP-40	630	420	13.3	32
6/11/2020	IP-41, IP-42, IP-43	630	420	28.8	32
6/12/2020	IP-7, IP-8, IP-9	630	420	10.6	48
6/12/2020	IP-10, IP-11, IP-12	630	420	8	42
6/12/2020	IP-35, IP-36, IP-37	630	420	14.8	42
6/15/2020	IP-13, IP-14, IP-15	630	420	18.3	40
6/15/2020	IP-32, IP-33, IP-34	630	420	15.3	40
6/15/2020	IP-30, IP-31, IP-48	630	420	16.3	36
6/16/2020	IP-44, IP-45	420	280	27.8	32
6/16/2020	IP-46, IP-47	420	280	16.7	32
6/16/2020	IP-52, IP-53	265	280	23.5	35
6/16/2020	IP-54, IP-55	265	280	23.5	35
6/19/2020	IP-49, IP-50, IP-51	630	420	13.75	35
6/19/2020	IP-16, IP-17	420	280	14.6	32
Totals		11240	7700		

4.4 REMEDIAL PERFORMANCE/DOCUMENTATION SAMPLING

4.4.1 Soil Remedial End-point Sampling

End point soil samples were collected in accordance with Section 5.4 of DER-10. Sidewall samples were collected for every 30 linear feet of sidewalls in the deeper hotspot excavations area A. Base samples were collected at a frequency of 1 per 900 square feet of base area. In total, 61 bottom end-point and six (6) sidewall samples were collected. The SOE sheet piles were installed along the BCP border. The SOE was installed to a depths ranging from 25 to 30 ft-bgs for structural stability of the excavation pit and to prevent impact from off-site structures. In certain areas, the SOE was installed inside the BCP border and the soils between the sheet piles and the border were augured and removed for disposal as part of the SOE installation. Therefore, no side wall samples were collected from the outer extent of the Site because of the SOE sheet piles. Where the results of the end point samples showed exceedances of the USCOs, additional excavation was performed for resampling. In addition, five (5) remedial end-point samples were collected from the locations beneath the removed USTs at the depth of the final construction elevation. Remedial Action end-point sample locations are shown on **Figure 4.2**.

As demonstrated by the RIR, VOCs and PCBs were not COCs at the Site in on-Site soils. In addition, pesticides were only detected in one soil sample collected from boring SB-16. As a result, per a NYSDEC approval in an email dated February 13, 2020 (**Appendix F**), end-point samples were not analyzed for VOCs or PCBs. Only sample RA-24 was analyzed for pesticides, which was collected from the location of SB-16. The samples were submitted to Alpha Analytical (Alpha), a NYSDOH ELAP-certified laboratory, and the results were reported in accordance with NYSDEC requirements for Category B data deliverables.

Collection of QA/QC samples to evaluate potential cross-contamination from sampling equipment and during shipment of samples and repeatability of laboratory analytical practices were in accordance with the QAPP included as Appendix E of the RAWP. Field blanks, trip blanks and duplicate samples associated with daily sampling activities were collected as a part of the QA/QC practices.

Exceedances of the USCOs were detected in samples RA-15 (nickel), RA-21 (lead), RA-23 (nickel and zinc), and RA-32 (zinc), and RA-40 (mercury). Further excavation and resampling from cells RA-15 (RA-15i), RA-21 (RA-21i), RA-23 (RA-23Ri), RA-32 (RA-32i) and RA-40 (RA-40i) resulted in no exceedances of the USCOs. No SVOCs or pesticides were detected above there USCOs in end-point samples collected site-wide. RA-6 sample was collected on March 10, 2020 and there were no exceedances of the USCOs. A second RA-6 sample was inadvertently collected on March 12, 2020, which resulted in an exceedance of nickel. However, this exceedance was the result of an excavation cave in, and not the end-point soil quality, which had been previously confirmed. A final confirmation sample at location RA-6 (RA-6ii) was collected on June 17, 2020 at the Site's final construction elevation at depth of 24 ft-bgs in that location, which resulted in no exceedance of the remaining nickel USCO.

A table and figure summarizing all end-point sampling is included on **Table 5.1**. The laboratory data is provided in **Appendix K** of this report. Data Usability Summary Reports (DUSRs) were prepared for all data generated in this remedial performance evaluation program. These DUSRs are included in **Appendix L** of this report.

Based on the end-point sample results reported on Table 5.1 and final elevations as reported in **Figure 4.2**, the soil remedy has achieved Track 1 unrestricted clean-up because all soils exceeding the USCO have been excavated for off-site disposal.

In addition to the remedial excavation, the Site was excavated an addition 8-10 feet to elevation 60 ft-bgs for construction grading.

4.4.2 Groundwater Sampling and Results

A total of four (4) rounds of groundwater samples were collected:

- One (1) round was collected in May 2019 during the RIR (RIR-round) to determine the levels and contaminant concentration the Site groundwater. In addition, a groundwater sample was collected from well MW-1, the only RI well remaining after support of excavation work and construction work in January 2020.
- One (1) round of groundwater samples was collected pre-injection (pre-injection round) in March 2020 after the completion of soil remediation,
- Two rounds of groundwater sampling rounds were conducted post injection in July and August 2020.

The wells that were installed during the RIR were properly decommissioned prior to the SOE construction activities. These wells (MW-1 through MW-5) were reinstalled in March 2020 for post remediation groundwater monitoring. In addition, a sixth well, MW-6, was installed to the west and downgradient of MW-4 in June 2020 as required per the May 21, 2020 GWRWP comment letter from the NYSDEC. Groundwater Sample Locations and Result plan is presented as in **Figure 4.5**. The post RIR well construction logs are presented in **Appendix M**. The post RIR groundwater laboratory data is summarized on **Table 5.2**. The post RIR groundwater lab data presented in **Appendix N**. The Groundwater purge logs for the post RIR sampling is are included in **Appendix O**.

CVOCs

The RIR sampling round resulted in the detection of chlorinated VOCs (CVOCs) including TCE in monitoring wells MW-3 and MW-4; 1,1,2-trichloroethane (1,1,2-TCA) in monitoring well MW-4; 1,2 dichloropropane in monitoring well MW-1; and methylene chloride in monitoring well MW-5 at concentrations exceeding the NYSDEC TOGS 1.1.1 Ambient Water Quality Standards (AWQS).

The pre-injection sampling round in March 2020 in several CVOC exceeding the AWQS as shown in table 4.6 below. TCE detections were present from 2.7 to 42 ppb in MW-5.

The CVOC concentrations are indicative of low non-source area dissolved VOC contamination which is attenuating over time. In order to enhance and accelerate the remediation of the dissolved VOCs, SESI has injected the Regenesis PersulfOx® oxidant as described in Section 4.3.5. PersulfOx® is an in situ chemical Oxidation (ISCO) reagent that destroys organic contamination in the groundwater through chemical oxidation reactions. PersulfOx® is designed with a built-in catalyst which activates the sodium persulfate component and generates free radicals that can destroy the residual contamination at this Site.

The two post injection sampling rounds indicate that TCE has been destroyed or brought to concentrations below the AWQS throughout the Site except at MW-3 and MW-6 where TCE concentrations are fluctuating at slightly above or below the AWQS. Bulk reduction of TCE was achieved in MW-5.

The chlorinated ethanes (1,1,2-TCA and 1,3-DCA) have been destroyed to below the AWQS.

Nevertheless, additional groundwater monitoring will be implemented as part of the Site Management Plan requirements to confirm if there are no rebound effects from the injections.

Table 4.6 – Summary of CVOC exceedances in Groundwater

LOCATION	MW-1	MW-1	MW-1	MW-1	MW-1	MW-1	MW-1	
LAB SAMPLE ID	460-182234-1	460-200541-1	L2012566-01	L2028042-01		8/3/2020		
SAMPLING DATE	5/19/2019	1/9/2020	3/19/2020	7/1/2020		460-214981-1		
SAMPLE TYPE	Water	Water	WATER	WATER		WATER		
	Results	Qual	Results	Qual	Results	Qual	Results	Qual
1,2-Dichloroethane	0.43	U	0.43	U	<0.13	U	0.32	J
Methylene chloride	0.32	U	0.32	U	<0.7	U	0.78	J
1,2-Dichloropropane	0.35	U	0.35	U	2.7		0.4	J
1,1,2-Trichloroethane	0.43	U	0.43	U	<0.5	U	<0.5	U
Trichloroethene	0.31	U	0.31	U	1.5		0.53	
								2.7
LOCATION	MW-2	MW-2	MW-2	MW-2	MW-2	MW-2	MW-2	
LAB SAMPLE ID	460-182234-2		L2012566-02	L2028042-02		8/3/2020		
SAMPLING DATE	5/19/2019		3/19/2020	7/1/2020		460-214981-2		
SAMPLE TYPE	Water		WATER		WATER		WATER	
	Results	Qual	Results	Qual	Results	Qual	Results	Qual
1,2-Dichloroethane	0.43	U	<0.13	U	<0.13	U	0.43	U
Methylene chloride	0.32	U	<0.7	U	<0.7	U	0.32	U
1,2-Dichloropropane	0.35	U	<0.14	U	<0.14	U	0.35	U
1,1,2-Trichloroethane	0.43	U	<0.5	U	<0.5	U	0.43	U
Trichloroethene	0.31	U	5.3		0.25	J	0.31	U
LOCATION	MW-3	MW-3	MW-3	MW-3	MW-3	MW-3	MW-3	
LAB SAMPLE ID	460-182295-1		L2012566-03	L2028042-03		8/3/2020		
SAMPLING DATE	5/17/2019		3/19/2020	7/1/2020		460-214981-3		
SAMPLE TYPE	WATER		WATER		WATER		WATER	
	Results	Qual	Results	Qual	Results	Qual	Results	Qual
1,2-Dichloroethane	0.43	U	<0.13	U	<0.13	U	0.43	U
Methylene chloride	0.32	U	<0.7	U	<0.7	U	0.32	U
1,2-Dichloropropane	0.35	U	<0.14	U	<0.14	U	0.35	U
1,1,2-Trichloroethane	0.43	U	<0.5	U	<0.5	U	0.43	U
Trichloroethene	9.8		4		2.7		6.7	
LOCATION	MW-4	MW-4	MW-4	MW-4	MW-4	MW-4	MW-4	
LAB SAMPLE ID	460-182225-3		L2012566-04	L2028042-04		8/3/2020		
SAMPLING DATE	5/16/2019		3/19/2020	7/1/2020		460-214981-4		
SAMPLE TYPE	WATER		WATER		WATER		WATER	
	Results	Qual	Results	Qual	Results	Qual	Results	Qual
1,2-Dichloroethane	0.43	U	<0.13	U	<0.13	U	0.43	U
Methylene chloride	0.32	U	<0.7	U	<0.7	U	0.32	U
1,2-Dichloropropane	0.35	U	<0.14	U	<0.14	U	0.35	U
1,1,2-Trichloroethane	1.3	U	<0.5	U	<0.5	U	0.43	U
Trichloroethene	8.8		7.8		0.76		1.1	
LOCATION	MW-5	MW-5	MW-5	MW-5	MW-5	MW-5	MW-5	
SAMPLING DATE	5/16/2019		3/17/2020	7/1/2020		8/3/2020		
LAB SAMPLE ID	460-182225-1		L2012030-01	L2028042-05		460-214981-5		
SAMPLE TYPE	WATER		WATER		WATER		WATER	
	Results	Qual	Results	Qual	Results	Qual	Results	Qual
1,2-Dichloroethane	0.43	U	<0.13	U	0.65		0.45	J
Methylene chloride	5.4		<0.7	U	<0.7	U	0.52	J
1,2-Dichloropropane	0.35	U	<0.14	U	0.29	J	0.35	U
1,1,2-Trichloroethane	0.43	U	<0.5	U	<0.5	U	0.43	U
Trichloroethene	0.75	J	42		<0.18	U	0.57	J

LOCATION	MW-6		MW-6	
SAMPLING DATE	7/1/2020		8/3/2020	
LAB SAMPLE ID	L2028042-06		460-214981-6	
SAMPLE TYPE	WATER		WATER	
	Results	Qual	Results	Qual
1,2-Dichloroethane	<0.13	U	0.43	U
Methylene chloride	<0.7	U	0.37	J
1,2-Dichloropropane	<0.14	U	0.35	U
1,1,2-Trichloroethane	<0.5	U	0.43	U
Trichloroethene	4.6		6.5	

NY-AWQS: New York TOGS 111 Ambient Water Quality Standards criteria reflects all addendum to criteria through June 2004.

J - Presumptive evidence of compound.

U - Not detected at the reported detection limit for the sample.

Compound Exceeds AWQS

VOCs

Pre-remedial concentrations of the petroleum hydrocarbon VOCs including benzene in monitoring wells MW-1 and MW-4 and methyl-tertiary-butyl-ether (MTBE) in MW-4 at concentrations exceeding the AWQS are shown in Table 4.7. Post remedial concentrations of benzene were reduced in MW-1 from 1.4 ug/L to ND, and in MW-3 from 1.1 ug/L to ND. The concentration of benzene resulted in 1.4 ug/L in MW-2 in the first post remedial round but was reduced to ND in the second post remedial sampling round.

Acetone is present at levels above the AWQS in two locations. This is likely due to the chemical oxidation process. We expect acetone to dissipate over time when the pH that was at 12.2 in the last sampling event at MW-1 moderates over time. Acetone is an available food source for microbes performing reductive dichlorination.

MTBE was reduced in MW-4 in the post remedial sampling rounds to ND. However, it was detected in MW-3 at 47 and 75 ppb in the two post remedial sampling rounds.

Table 4.7 – Summary of VOC exceedances in Groundwater

LOCATION	MW-1		MW-1		MW-1		MW-1		MW-1	
LAB SAMPLE ID	460-182234-1		460-200541-1		L2012566-01		L2028042-01		8/3/2020	
SAMPLING DATE	5/19/2019		1/9/2020		3/19/2020		7/1/2020		460-214981-1	
SAMPLE TYPE	Water		Water		WATER		WATER		WATER	
	Results	Qual	Results	Qual	Results	Qual	Results	Qual	Results	Qual
Methyl tert butyl ether	0.47	U	0.47	U	<0.7	U	<0.7	U	0.47	U
Acetone	5.0	U	4.4	U	10		100		170	
Benzene	0.43	U	0.2	U	1.4		0.19	J	0.2	U
LOCATION	MW-2		MW-2		MW-2		MW-2		MW-2	
LAB SAMPLE ID	460-182234-2		L2012566-02		L2028042-02		8/3/2020			
SAMPLING DATE	5/19/2019		3/19/2020		7/1/2020		460-214981-2			
SAMPLE TYPE	Water		WATER		WATER		WATER		WATER	
	Results	Qual	Results	Qual	Results	Qual	Results	Qual	Results	Qual
Methyl tert butyl ether	0.47	U	<0.7	U	<0.7	U	0.47	U	0.47	U
Acetone	5.0	U	2.6	J	41		11		11	
Benzene	0.43	U	<0.16	U	1.4		0.2	J	0.2	U

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LOCATION	MW-3		MW-3		MW-3		MW-3	
LAB SAMPLE ID	460-182295-1		L2012566-03		L2028042-03		8/3/2020	
SAMPLING DATE	5/17/2019		3/19/2020		7/1/2020		460-214981-3	
SAMPLE TYPE	WATER		WATER		WATER		WATER	
	Results	Qual	Results	Qual	Results	Qual	Results	Qual
Methyl tert butyl ether	0.47	U	8		47		<0.7	U
Acetone	5	U	2	J	2.1	J	4.4	U
Benzene	1.1		<0.16	U	<0.16	U	0.2	U
LOCATION	MW-4		MW-4		MW-4		MW-4	
LAB SAMPLE ID	460-182225-3		L2012566-04		L2028042-04		8/3/2020	
SAMPLING DATE	5/16/2019		3/19/2020		7/1/2020		460-214981-4	
SAMPLE TYPE	WATER		WATER		WATER		WATER	
	Results	Qual	Results	Qual	Results	Qual	Results	Qual
Methyl tert butyl ether	29		18		<0.7	U	0.47	U
Acetone	5	U	<1.5	U	20		4.4	U
Benzene	0.43	U	<0.16	U	0.17	J	0.2	U
LOCATION	MW-5		MW-5		MW-5		MW-5	
SAMPLING DATE	5/16/2019		3/17/2020		7/1/2020		8/3/2020	
LAB SAMPLE ID	460-182225-1		L2012030-01		L2028042-05		460-214981-5	
SAMPLE TYPE	WATER		WATER		WATER		WATER	
	Results	Qual	Results	Qual	Results	Qual	Results	Qual
Methyl tert butyl ether	0.3	U	<0.7	U	<0.7	U	0.47	U
Acetone	25		4.8	J	87		140	
Benzene	0.43	U	0.38	J	<0.16	U	0.2	U
LOCATION	MW-6		MW-6					
SAMPLING DATE	7/1/2020		8/3/2020					
LAB SAMPLE ID	L2028042-06		460-214981-6					
SAMPLE TYPE	WATER		WATER					
	Results	Qual	Results	Qual				
Methyl tert butyl ether	3.7		2.6					
Acetone	<1.5	U	4.4	U				
Benzene	<0.16	U	0.2	U				

NY-AWQS: New York TOGS 111 Ambient Water Quality Standards criteria reflects all addendum to criteria through June 2004.

J - Presumptive evidence of compound.

U - Not detected at the reported detection limit for the sample.

Compound Exceeds AWQS

Nevertheless, as noted above, additional groundwater monitoring will be implemented as part of the Site Management Plan requirements to confirm if there are no rebound effects from the injections.

SVOCs

During the RIR sampling in May 2019, one SVOC, benzo(a)anthracene, was detected in monitoring well MW-4 at a concentration of 0.017 ug/L slightly exceeding its AWQS of 0.002 ug/L. This detection is noted with a “J” qualifier indication the result is below the reporting limit and therefore estimated. The post RI groundwater samples collected in March 2020 resulted in no SVOCs above the AWQSSs.

Metals

During the RI sampling in May 2019, 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 of the monitoring wells sampled. The RI samples were unfiltered (Total metals). The March 2020 post RI groundwater sampling round was analyzed for both unfiltered (total) and filtered (dissolved) metals. The exceedances only included secondary metals of magnesium, manganese, and sodium, which are all likely to be naturally occurring. Chromium was below detection limits in the filtered samples collected.

Emerging Contaminants

Emerging contaminants including PFBA, PFPeA, PFHxA, PFHpA, PFOA, PFNA, PFBS, PFHxS, PFHpS, PFOS, and 6:2FTS were sporadically detected across the Site. PFOS was the only PFAS contaminant detected in MW-4 at a concentration of 72.3 ng/L, exceeding its USEPA health advisory of 70 ng/L and NYSDEC October 2020 Guidance values. A summary of emerging Contaminants detected in groundwater is presented on **Table 4.8** below.

Table 4.8 – Summary of Emerging Contaminant Detections

Analyte	Units	460-182234-1 MW-1 5/15/2019 1:40 PM	460-182234-2 MW-2 5/15/2019 11:05 AM	460-182295-1 MW-3S 5/17/2019 9:10 AM	460-182225-2 MW-3D 5/16/2019 1:00 PM	460-182225-3 MW-4 5/16/2019 3:20 PM	460-182225-1 MW-5 5/16/2019 8:35 AM
1,4-Dioxane	ug/L	0.016 U	0.016 U	0.27	0.016 U	0.58	0.57
Perfluorobutanoic acid (PFBA)	ng/L	3.82	28.5	14.8	4.53	9.91	32.7
Perfluoropentanoic acid (PFPeA)	ng/L	3.86	28.4	24.5	4.18	3.84	42.9
Perfluorohexanoic acid (PFHxA)	ng/L	3.88	23	18.5	7.26	4.58	37.2
Perfluorohexanoic acid (PFHpA)	ng/L	4.94	10.1	8.25	3.15	2.25	18
Perfluoroctanoic acid (PFOA)	ng/L	15.9	19.3	7.27	8.78	12.7	35.7
Perfluorononanoic acid (PFNA)	ng/L	0.48 J	1.47 J	0.75 J	0.63 J	0.78 J	3.49
Perfluorodecanoic acid (PFDA)	ng/L	0.29 U	0.29 U	0.30 U	0.54 J	0.29 U	0.30 U
Perfluorobutanesulfonic acid (PFBS)	ng/L	2.21	2.41	2.6	1.07 J	1.94	11.6
Perfluorohexamersulfonic acid (PFHxS)	ng/L	5.12 B	1.90 B	7.75 B	9.63 B	5.66 B	3.35 B
Perfluorooctanesulfonic Acid (PFHpS)	ng/L	0.38 J	0.42 J	0.19 U	0.28 J	1.33 J	0.48 J
Perfluorooctanesulfonic acid (PFOS)	ng/L	7.68	21	18.9	11.6	72.3	15.6
6:2 FTS	ng/L	5.39 J	9.71 J	2.69 J	15.2 J	1.89 U	3.15 J

Bold cells are detections above the MDL

U Indicated the analyte was not detected

J results is less than the RL but greater than the MDL and the concentration is an approximate value

B indicates the analyte was detected in the sample and the laboratory blank

Conclusions – Groundwater Results

The following conclusions can be made regarding the groundwater results:

- The remedial injection program resulted in bulk reduction of CVOCs on the Site.
- The petroleum related VOCs were all reduced to below ND or below their respective AWQS as result of the remedial injection except for MTBE.
- MTBE was detected at a concentration of 47 and 75 ug/L in monitoring well MW-3, exceeding its AWQS of 10 ug/L.
- The PersulfOX will continue to degrade the remaining dissolved CVOC and VOC to below the AWQSSs.
- EC detections in soil are not indicative of an on-site source. In addition, laboratory contamination is suspected as numerous detections are flagged as being found in the blank and have laboratory contamination within the associated laboratory blanks. Therefore, EC detections in soil are not suspected to be a source for groundwater detections.
- The groundwater injection has resulted in bulk reduction of the groundwater contamination such that asymptotic levels have already been achieved. Any residual compounds, which are still detected on Site and at levels fluctuating just above the AWQS, are not migrating off -Site.

Based on the above results and these conclusions, the groundwater remedy, which included source removal with the excavation and the ISCO injection, a conditional Track 1 groundwater remedy has been achieved. A SMP will be prepared by SESI and approved by NYSDEC for quarterly groundwater monitoring.

4.4.3 Soil Vapor Sampling and Results

The RIR sampling identified CVOCs including, carbon tetrachloride and TCE at several locations at concentration exceeding their respective lower threshold values when compared to the applicable NYSDOH 2017 Matrix A as presented on Figure 4.6. Carbon tetrachloride was detected at concentrations of 41 ug/m³ (SV-6) and 630 ug/m³ (SV-5) exceeding its most stringent NYSDOH Matrix A threshold value of 6 ug/m³. TCE was identified at concentrations of 31 ug/m³ (SV-2), 13 ug/m³ (SV-5) 810 ug/m³ (SV-6), 260 ug/m³ (SV-7), 20 ug/m³ (SV-8), 77 ug/m³ (SV-9), 13 ug/m³ (SV-13), and 9.2 ug/m³ (SV-15) exceeding its most stringent NYSDOH Matrix A threshold value of 6 ug/m³. Cis-1,2 dichloroethene (cis-1,2 DCE) was identified at concentrations of 110 ug/m³ (SV-7) and 13 ug/m³ (SV-9) exceeding its most stringent NYSDOH Matrix A threshold value of 6 ug/m³.

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Methyl ethyl ketone (MEK) was detected sitewide at concentrations ranging from 18 ug/m³ at SV-8 to 140 ug/m³ at SV-6. A summary of CVOC soil vapor exceedances is presented on **Table 4.9** below.

Table 4.9 Summary of CVOCs in Soil Vapor

Analyte	NYSDOH Matrices Vapor Threshold Concentrations	SV-1	SV-2	SV-3	SV-4	SV-5	SV-6	SV-7	SV-8	SV-9	SV-10	SV-11	SV-12	SV-13	SV-14	SV-15
Date Collected		5/8/2019	5/8/2019	5/8/2019	5/8/2019	5/8/2019	5/8/2019	9/27/2019	9/27/2019	###	9/27/2019	9/27/2019	9/27/2019	9/27/2019	9/27/2019	9/27/2019
Sample Depth		13	13	13	13	13	13	13	13	13	13	13	13	13	13	13
VOCS by TO-15 (ug/m ³)																
cis-1,2-Dichloroethene	6	8 U	18 U	24 U	21 U	10 U	16 U	110	1.5 U	13	1.5 U					
Carbon tetrachloride	6	13 U	28 U	38 U	34 U	630	41	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.6 U	1.5 U
1,1-Dichloroethene	6	8 U	18 U	24 U	21 U	10 U	16 U	9.3	1.3 U	1.3 U	1.3 U	1.3 U	1.3 U	1.3 U	1.4 U	1.3 U
Trichloroethylene	6	11 U	31	32 U	29 U	13	810	260	20	77	1.6 U	4.4 J	2.7 J	13	1.7 U	9.2 J

Bold cells are detections above the MDL
Highlighted Concentrations show n bold type face exceed limits
J : Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
U : Indicates the analyte w as analyzed for but not detected.

There are no NYDSDOH criteria for evaluating petroleum hydrocarbon (PHC) VOCs in soil vapor. Elevated concentrations of PHC VOCs were detected Sitewide as presented on Figure 4.6. The highest concentrations of benzene was detected near the central eastern portion of the Site in vapor points SV-3 (120 ug/m³) and SV-5 (140 ug/m³). The highest concentrations of toluene was detected in vapor points SV-11 and SV-15 (130 ug/m³) and SV-5 (190 ug/m³). The highest concentrations of total xylenes were detected in vapor points SV-1 (43 ug/m³), SV-5 (46 ug/m³), SV-7 (159 ug/m³), and SV-15 (69 ug/m³). Ethylbenzene was detected in SV-7 at a concentration of 230 ug/m³. Finally, 1,3 butadiene was detected sitewide at concentrations ranging from 1.8 ug/m³ in SV-15 to 250 ug/m³ in SV-1. A summary of PHC VOCs in soil vapor is presented on **Table 4.10** below. The NYSDOH does not have criteria established for PHC VOCs in soil vapor, therefore the detects are indicated in bold.

Table 4.10 Summary of VOCs in Soil Vapor

Analyte	SV-1	SV-2	SV-3	SV-4	SV-5	SV-6	SV-7	SV-8	SV-9	SV-10	SV-11	SV-12	SV-13	SV-14	SV-15
VOCS by TO-15 (ug/m ³)															
Ethylbenzene	9 U	19 U	26 U	24 U	10 U	18 U	230	8.6	27	4.2 J	8.5	6.9 J	14	4.2 J	16
1,3-Butadiene	250	110	98	66	190	100	15	9.5	110	89	4.5	89	120	5.7	1.8 J
Toluene	47	37	73	32	190	61	14	45	21	39	130	41	63	140	130
m,p-Xylene	31	48 U	66 U	59 U	36	45 U	130	19 J	73	8.9 J	21 J	17 J	34	11 J	53
Benzene	71	20	120	17 U	140	58	9.9	5.0 J	42	12	8.3	19	13	5.2 J	4.2 J
Xylene, o-	12	19 U	26 U	24 U	10	18 U	29	6.4 J	19	3.7 J	6.2 J	6.5 J	9.5	4.0 J	16

J : Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
U : Indicates the analyte was analyzed for but not detected.

Conclusions – Soil vapor Results

The following conclusions can be made regarding the soil vapor results:

The VOC concentrations in soil were removed as all the impacted soil has been removed down to the final development grade of 24 ft-bgs and the groundwater has been remediated through the PersulfOx injection program. Therefore, all potential on-site sources of VOCs has been removed and thus potential for the soil vapor intrusion has been eliminated. A soil vapor evaluation will be completed under the Site Management Plan once the building has been fully constructed during the heating season to evaluate the risk of soil vapor intrusion.

Off-site migration of VOCs in soil vapor from the site is not expected to occur because all potential soil and groundwater source areas to soil vapor have been remediated on-site. All soil exceeding unrestricted SCOs was removed from the site as part of the remedial action. Elevated levels of VOCs in soil vapor were encountered on-site at a depth of 13 ft-bgs during the remedial investigation. Soils were removed site-wide to a depth of 14 ft-bgs and in one area to a depth of 24 ft-bgs. Thus, the soil within which elevated levels of VOCs in soil vapor were encountered has been removed. Groundwater exceeding standards for VOCs beneath the site was treated by in-situ chemical oxidation. On-site groundwater currently marginally exceeds groundwater standards for TCE (6.5 & 6.7 ppb vs. standard of 5 ppb), but is expected to meet groundwater standards within the next 12 months. Off-site soil vapor detections of VOCs to the south of the site across Garden St at the Garden St Apartments (C360188) Brownfield Cleanup Program (BCP) site will be addressed under the BCP remedial program for the Garden St Apartments site.

4.4.4 Data Usability Reports (DUSR)

Data Usability Summary Reports (DUSRs) were prepared for all data generated in this remedial performance evaluation program to ensure that the field sampling and laboratory analytical practices were acceptable. The data associated with all the samples were validated by a third party, Lab Data Consultants (LDC), in accordance with requirements of DER-10. These DUSRs are included in **Appendix L**, and associated raw

data is provided electronically in **Appendix K** (post excavation data) and **Appendix N** (groundwater data). All data collected during this FER has been submitted in the NYSDEC approved Electronic Data Deliverable (EDD) format using the DECs Environmental Information Management System (EIMS) database software application EQuIS™. However, any missing EDDs will be submitted and any submitted EEDs will be reviewed and resubmitted if upon review by the NYSDEC project manager it was determined that changes are required.

NYSDEC EDD email submittals are provided in **Appendix R**.

The DUSR includes data sets from the remedial action. The DUSR was carried out as specified in DER-10 to evaluate the quality control measures that were implemented during the field and laboratory analytical programs, with the objective of determining whether the reported analytical data are representative and usable for decision making. The DUSR evaluated whether the data are technically defensible (i.e. were all analytical data requirements met and documented). The data usability analysis provides an evaluation of the Site data to determine whether they are adequate to draw conclusions regarding the nature and extent of contamination.

The items that were reviewed as part of the DUSR include the following:

- Completeness (number of samples collected and analyzed compared to plans)
- Chains of custody are complete and accurate
- Holding times
- Instrument calibration
- Relative percent difference between field duplicates
- Reasonableness of data (e.g. relationships between total and soluble analytes)
- Blank contamination

The DUSR for the soil samples analyzed by Eurofins/Test America and Alpha showed that the overall performances of the analyses are acceptable and did fulfill the requirements of the analytical methods. The samples were analyzed within the USEPA SW-846 holding times. None of the analytical data changed based on the DUSR. Some issues were identified resulting in minor data qualifiers due to laboratory quality control outliers. Some notable issues for the contaminants of concern are described below.

Lab ID# L2007067-1

- The copper and nickel results for sample RA-24DUP were estimated due to duplicate relative percent difference exceedances. The bias cannot be determined. The results can be used for project objectives as an estimated value (J) which may have a minor impact on the data usability.

Lab ID#: L2007257

- The lead results for samples RA-3, RA-11, RA-16, RA-23, RA-32, RA-32i, RA-40i, and DUP-1 may be biased high due to high MS percent recoveries. The results can be used for project objectives as estimated values (J) which may have a minor impact on the data usability.
- The barium and copper results for samples RA-3, RA-11, RA-16, RA-23, RA-32, RA-32i, RA-40i, and DUP-1 were estimated due to duplicate relative percent difference exceedances. The bias cannot be determined. The results can be used for project objectives as an estimated value (J) which may have a minor impact on the data usability.

Lab ID#: L200710

- The nickel results for sample RA-9 and RA-10 were estimated due to duplicate difference exceedances. The bias cannot be determined. The results can be used for project objectives as an estimated value (J) which may have a minor impact on the data usability.

Lab ID#: L2008174

- The nickel results for sample RA-17DUP were estimated due to duplicate relative percent difference exceedances. The bias cannot be determined. The results can be used for project objectives as an estimated value (J) which may have a minor impact on the data usability.

Lab ID#: L2010273

- The lead and zinc results for sample RA-2DUP were estimated due to duplicate relative percent difference exceedances. The bias cannot be determined. The results

can be used for project objectives as an estimated value (J) which may have a minor impact on the data usability.

Lab ID#: L2011382

- The nickel results for samples RA-23R, RA-6, RA-14, RA-15, and RA-A2 may be biased low due to low MS percent recovery. The results can be used for project objectives as estimated values (J) which may have a minor impact on the data

4.5 IMPORTED BACKFILL

A table of all sources of imported backfill with quantities for each source is shown in **Table 4.11** below.

The majority of the excavation was not backfilled because it was necessary for Site development. Since all of the material below that was imported to the Site was quarry stone, gabion/rip rap stone or pea gravel from quarries listed below in Table 4.10, no chemical analytical testing was performed. The material was used for the support of excavation H-beams, backfilling the deeper excavations, construction of the tracking pad and other miscellaneous backfilling and grading for Site development. The approved Soil Reuse/Import forms and are included in **Appendix P**.

Table 4.11. Summary of Imported Backfill

Date	Area	Description	Facility	Quantity (tons)
09/7/2019 to 1/14/2020	SOE Piles	3/8-inch pea stone	Braen Stone Lafayette, NJ	1641
9/27/2019 to 1/7/2020	Traking Pads	3 - 6-inch rip rap	Tilcon New York, Nyack, NY	147
1/4/2020 to 3/13/2020	Tracking Pads	7-inch rip rap	Central park Ave & Heights Dr. Yonkers, NY	630

4.6 CONTAMINATION REMAINING AT THE SITE

The Site remedy has achieved a Track 1 unrestricted use remedy for soil. All the soil exceedances to the USCOs have been excavated and removed from the Site, therefore there are no remaining exceedances in soil.

Contaminated groundwater has been remediated to achieve a conditional Track 1 groundwater remedy. A SMP will be prepared by SESI and approved by NYSDEC for

quarterly groundwater monitoring to demonstrate if any rebound effects from the injections are occurring.

VOC were identified in soil vapor during the RIR. The Site has been excavated down to 24 ft-bgs and groundwater has been remediated by the PersufOx injection program, thereby eliminating any source for VOCs in soil vapor at the Site. A soil vapor evaluation will be performed after the building was constructed during the heating season to evaluate the potential for a vapor intrusion pathway.

4.7 ENGINEERING CONTROLS

VOCs were detected in soil vapor during the RIR. A soil vapor evaluation will be performed after the building construction is completed during the heating season to evaluate the potential for a vapor intrusion pathway. A sub-slab depressurization system (SSDS) was installed under the building as engineering control for the vapor intrusion pathway. The SSDS consists of a 20-mil liner underlain by 12-inch “J” drains placed in 4-inches of 2/4 crushed stone. The “J” drains are horizontally manifolded to PVC piping and a vent riser that extends to the building roof. SSDS may be made active if needed based on the VI evaluation. Vapor Pins™ have been installed through the concrete slab for sub-slab vapor sampling. The SSDS system designs are presented as Figure D-1 and Figure V-1 presented in **Appendix Q**.

4.8 INSTITUTIONAL CONTROLS

The Site remedy requires that an environmental easement be placed on the property to (1) implement, maintain and monitor the Engineering Controls; (2) prevent future exposure to remaining contamination by controlling disturbances of the subsurface contamination; and, (3) limit the use of groundwater at the Site.

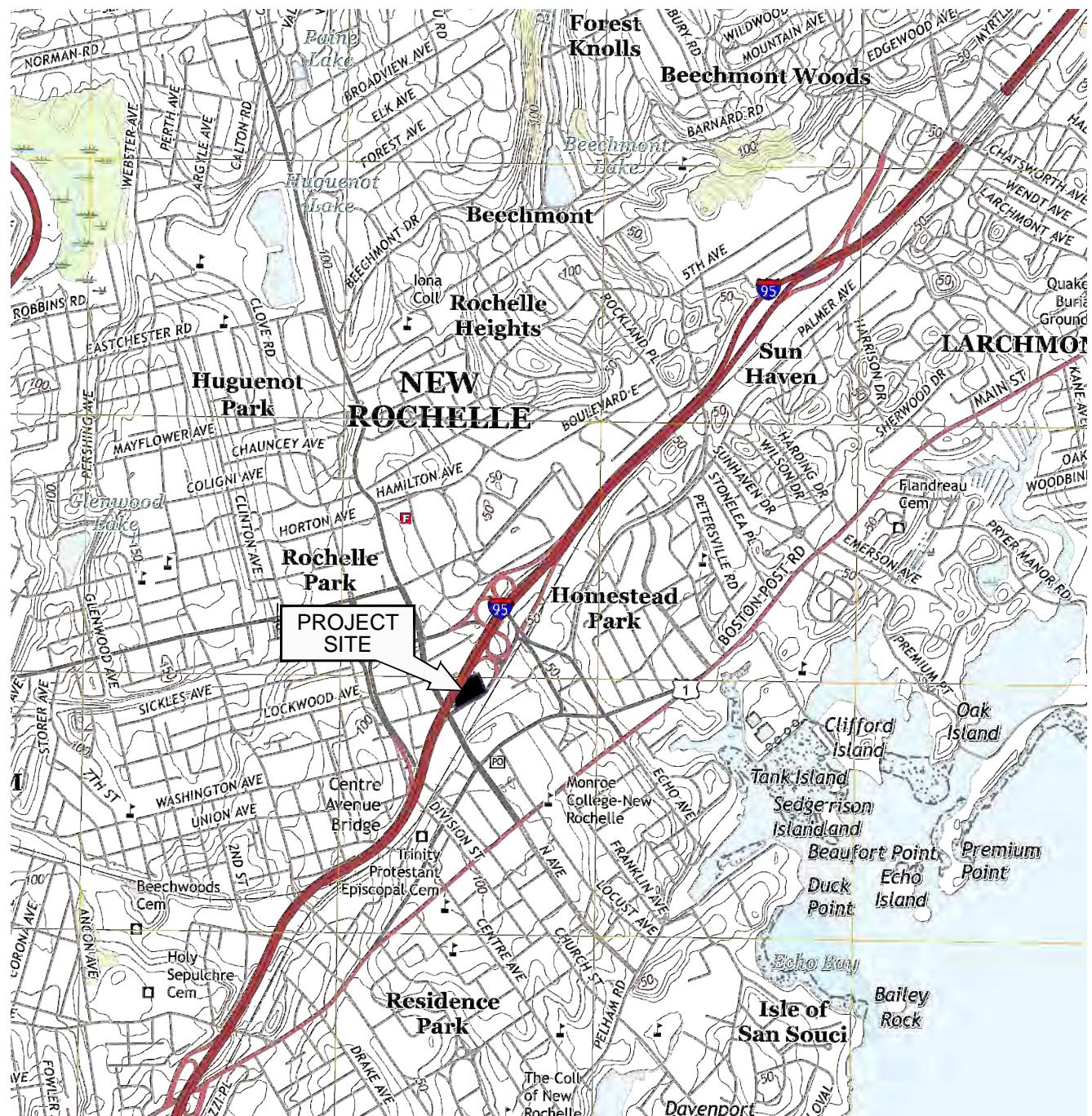
The environmental easement for the Site was recorded with the Westchester County Clerk on November 23, 2020 with country control number 603233342. The recorded easement is included as Appendix S of this report.

A SMP will be prepared by SESI and approved by the DEC for the long-term management and monitoring of the EE requirements.

4.9 DEVIATIONS FROM THE REMEDIAL ACTION WORK PLAN

All deviations from the RAWP are noted below.

FIGURES

**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

UTM GRID AND 2016 MAGNETIC NORTH
DECLINATION AT CENTER OF SHEET

U.S. National Grid	1	2	3
100,000 m Square 13	4		
400		5	
WL XL			

Grid Zone Designation
18T

NEW YORK

QUADRANGLE LOCATION

13° 6' GN 0° 47'

233 MILS 14 MILS

FIG-1.1

GARDEN STREET RESIDENCES
NEW ROCHELLE, WESTCHESTER COUNTY, NY

SITE LOCATION MAP

SESI
CONSULTING
ENGINEERS D.P.C.

SOILS / FOUNDATIONS
SITE DESIGN
ENVIRONMENTAL

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

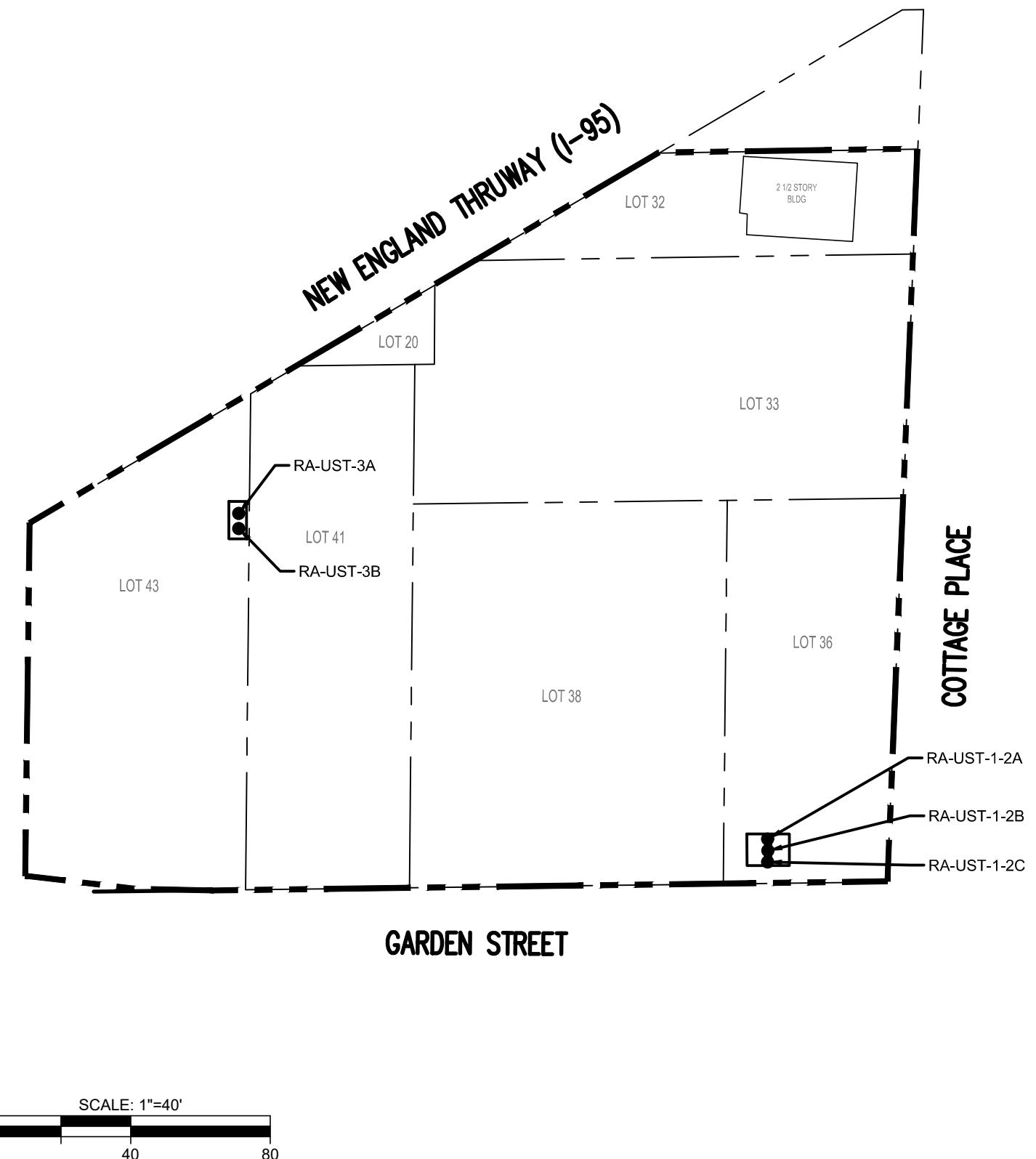
DRAWN BY: yy

CHECKED BY: SG

SCALE: N.T.S.

DATE: 06/06/19

JOB NO.: 10491



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

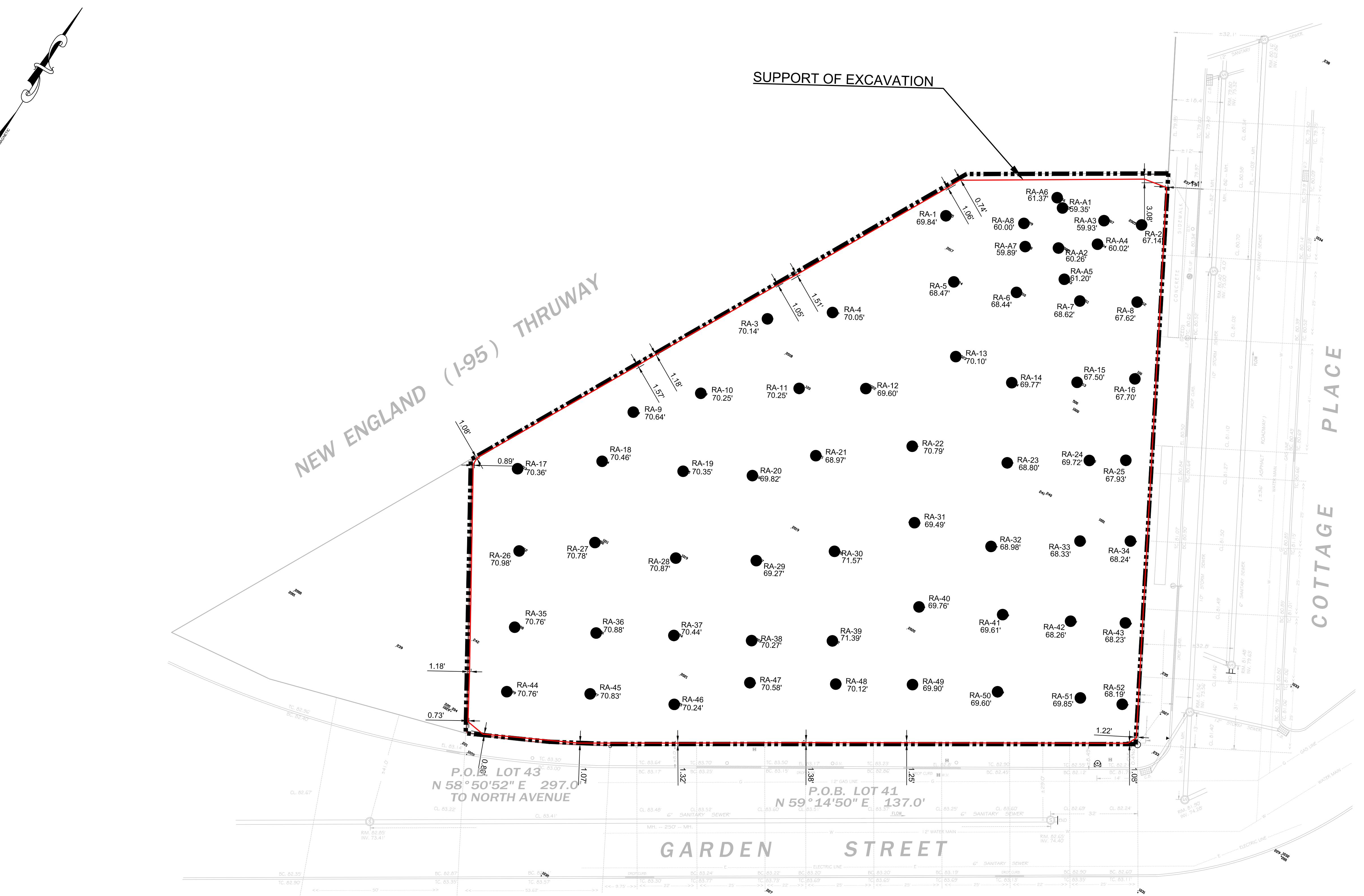
project: GARDEN STREET RESIDENCES
NEW ROCHELLE, WESTCHESTER COUNTY, NY
drawing title:
job no: 10491
drawing no:

FIG-4.1

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REFERENCE
SITE INFORMATION IS TAKEN FROM BOUNDARY SURVEY BY OTHERS.

dwg by: yy	chk by: SG
scale: 1" = 40	date: 06/02/2020
SES CONSULTING ENGINEERS D.P.C.	
12A MAPLE AVE, PINE BROOK, N.J. 07058 PH: 973-803-9050	



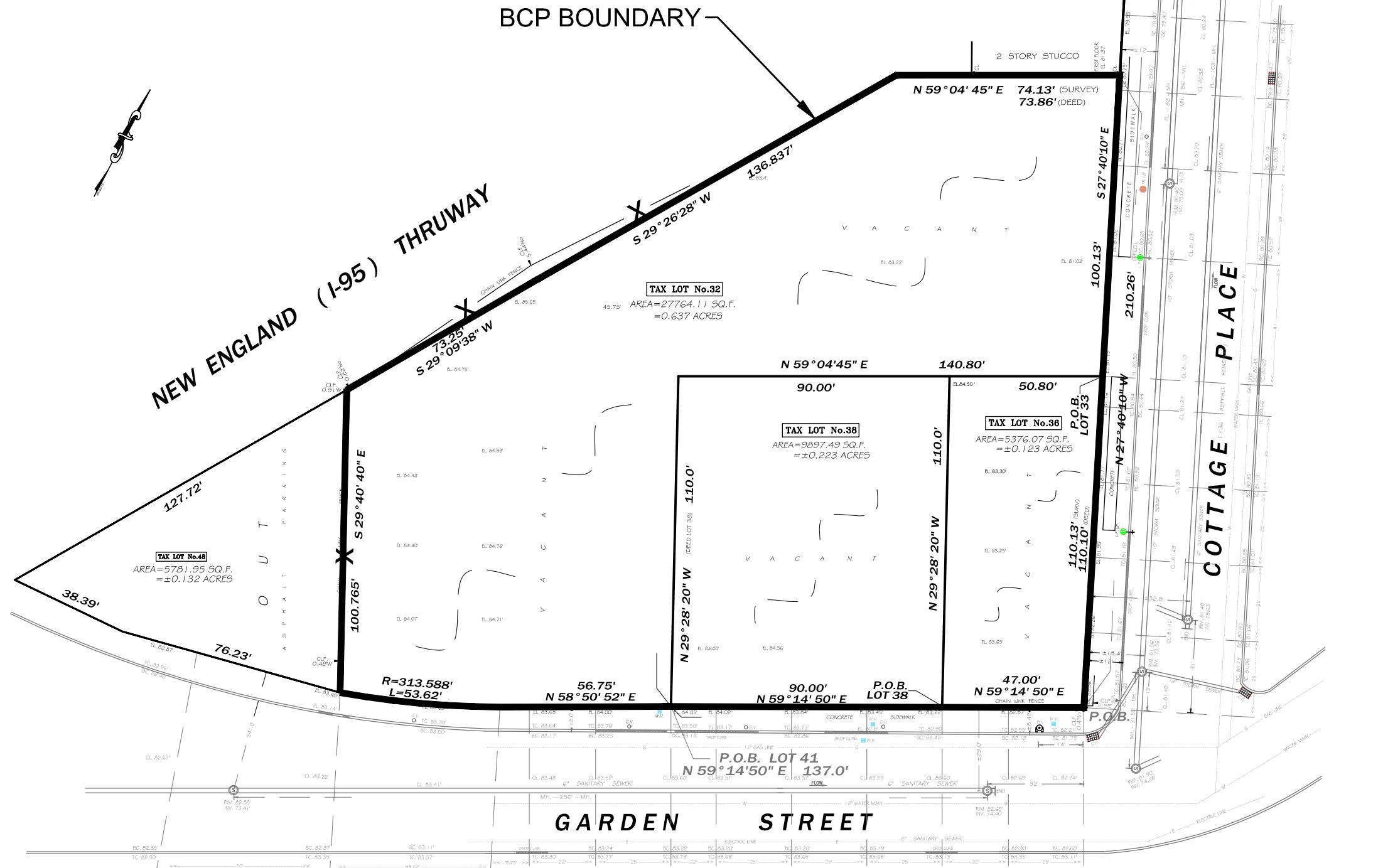
LEGEND:

- RA-16 - END POINT NUMBER & LOCATION
- 67.70' - ELEVATION OF END POINT
- PROPERTY LINE
- SOE BOUNDARY

Scale 1"=20'
0 10 20 40 60 80

FIG-4.2

job no.	10491
drawing no.	
title.	SAMPLE LOCATION PLAN
GARDEN STREET RESIDENCES NEW ROCHELLE, WESTCHESTER COUNTY, NY	
SES CONSULTING ENGINEERS D.P.C. 12A MAPLE AVE, PINE BROOK, NJ 07058 PH: 973-808-9050	<p>SES CONSULTING ENGINEERS D.P.C. 12A MAPLE AVE, PINE BROOK, NJ 07058 PH: 973-808-9050</p>
SOILS / FOUNDATIONS SITE DESIGN ENVIRONMENTAL	<p>drawn by: aas checked by: SSG scale: AS NOTED date: 06/17/2020 description</p>



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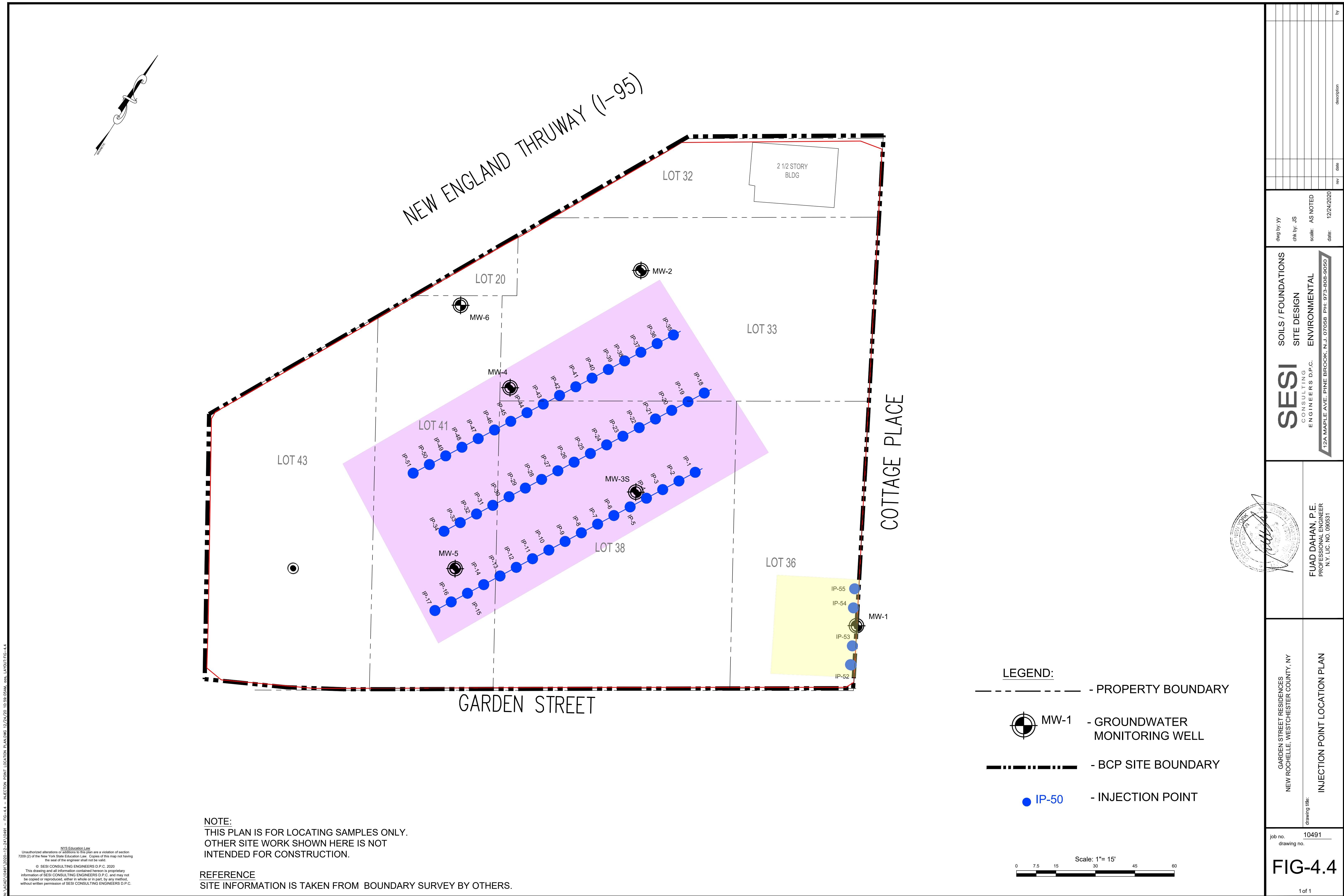
REFERENCE

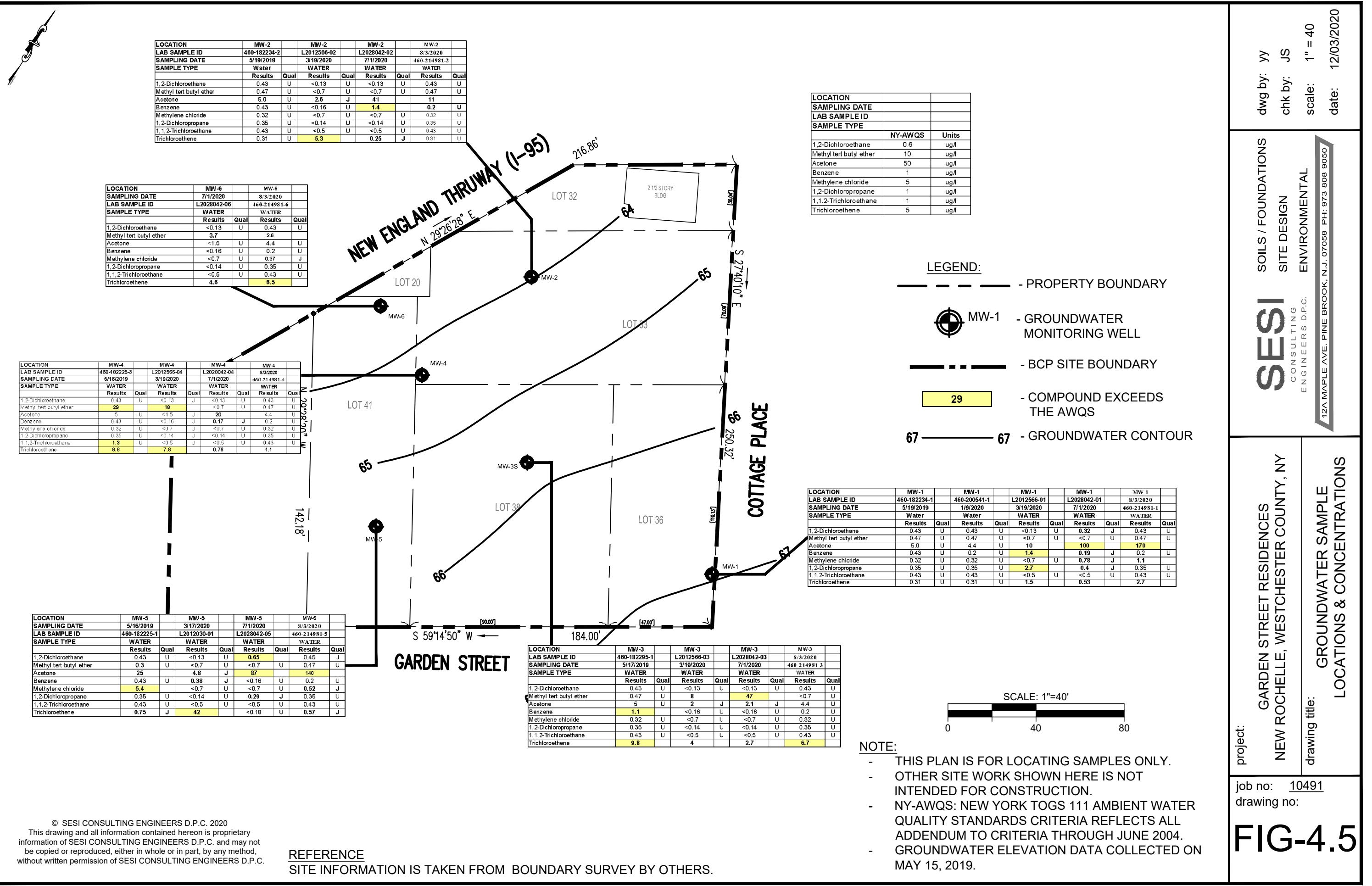
SITE INFORMATION ARE TAKEN FROM "MERGER SURVEY" PREPARED BY BIG APPLE LAND SURVEYORS,
DATED NOVEMBER, 2019.

project:	GARDEN STREET RESIDENCES NEW ROCHELLE, WESTCHESTER COUNTY, NY		
drawing title:	PRE-EXISTING ELEVATIONS SURVEY		
job no:	10491	dwg by:	yy
drawing no:		chk by:	SG
scale:	1"=40'	date:	06/17/2020

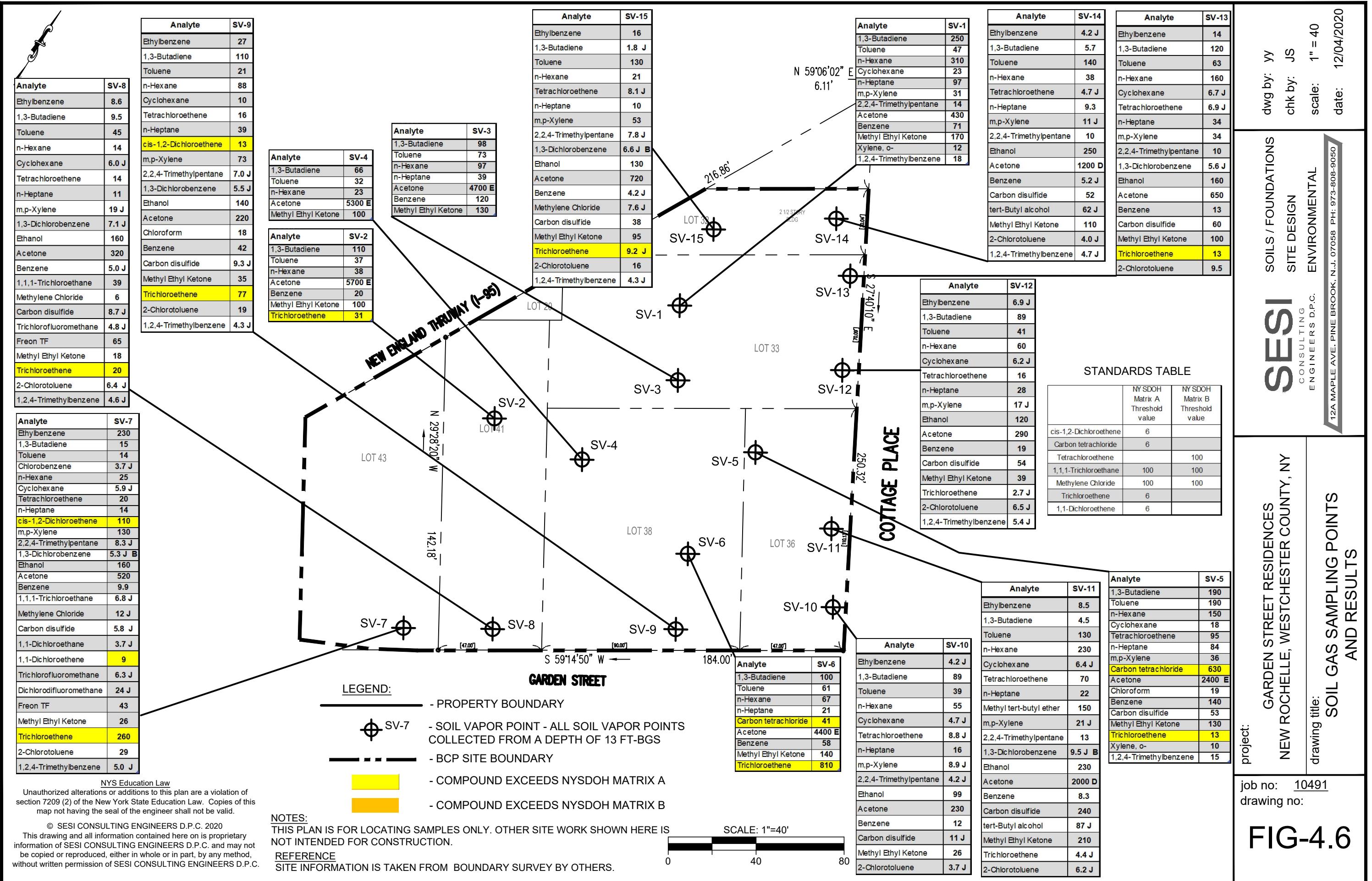
SESI
CONSULTING
ENGINEERS D.P.C.
12A MAPLE AVE, PINE BROOK, N.J. 07058 PH: 973-803-9050

FIG-4.3





ACAD\10491\FER\10491 - FIG-4.6 - SOIL GAS SAMPLING POINTS AND RESULTS.DWG 12/04/20 09:24:59AM, cas, LAYOUT:FIG-4.6



TABLES

Table 5.1
Summary of Remedial End-Point Samples Results - SVOCs
Cottage - Garden Auto Repair
New Rochelle, New York

LOCATION	RA-1		RA-2		RA-3		RA-4		RA-5		RA-6		RA-6 **		RA-7		RA-8		RA-9		RA-10		
SAMPLING DATE	2/27/2020		L2010273-01		2/18/2020		2/19/2020		2/27/2020		3/10/2020		3/12/2020		3/17/2020		3/17/2020		3/17/2020		2/20/2020		
LAB SAMPLE ID	L2008790-01		3/6/2020		L2007257-01		L2007437-01		L2008790-02		L2010776-02		L2011382-02		L2012029-01		L2012029-02		L2007710-01		L2007710-02		
SAMPLE TYPE	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL		SOIL		SOIL		SOIL		SOIL		SOIL		
SAMPLE DEPTH (ft.) Estimated	14		14		14		14		14		14		14		14		14		14		14		
	CasNum	NY-UNRES	Units	Results	Qual	Results	Qual																
Semivolatile Organics by GC/MS																							
Acenaphthene	83-32-9	20	mg/kg	0.15	U	0.16	U	0.14	U	0.14	U	0.18	U	0.14	U	0.14	U	0.14	U	0.14	U	0.15	U
1,2,4-Trichlorobenzene	120-82-1		mg/kg	0.18	U	0.2	U	0.18	U	0.17	U	0.18	U	0.11	U	0.18	U	0.18	U	0.18	U	0.18	U
Hexachlorobenzene	118-74-1	0.33	mg/kg	0.11	U	0.12	U	0.11	U	0.1	U	0.11	U	0.16	U	0.11	U	0.11	U	0.1	U	0.11	U
Bis(2-chloroethyl)ether	111-44-4		mg/kg	0.16	U	0.18	U	0.16	U	0.16	U	0.16	U	0.18	U	0.16	U	0.16	U	0.16	U	0.16	U
2-Chloronaphthalene	91-58-7		mg/kg	0.18	U	0.2	U	0.18	U	0.17	U	0.18	U										
1,2-Dichlorobenzene	95-50-1	1.1	mg/kg	0.18	U	0.2	U	0.18	U	0.17	U	0.18	U										
1,3-Dichlorobenzene	541-73-1	2.4	mg/kg	0.18	U	0.2	U	0.18	U	0.17	U	0.18	U										
1,4-Dichlorobenzene	106-46-7	1.8	mg/kg	0.18	U	0.2	U	0.18	U	0.17	U	0.18	U										
3,3'-Dichlorobenzidine	91-94-1		mg/kg	0.18	U	0.2	U	0.18	U	0.17	U	0.18	U										
2,4-Dinitrotoluene	121-14-2		mg/kg	0.18	U	0.2	U	0.18	U	0.17	U	0.18	U										
2,6-Dinitrotoluene	606-20-2		mg/kg	0.18	U	0.2	U	0.18	U	0.17	U	0.18	U										
Fluoranthene	206-44-0	100	mg/kg	0.11	U	0.12	U	0.11	U	0.1	U	0.11	U	0.18	U	0.11	U	0.11	U	0.1	U	0.11	U
4-Chlorophenyl phenyl ether	7005-72-3		mg/kg	0.18	U	0.2	U	0.18	U	0.17	U	0.18	U	0.21	U	0.18	U	0.18	U	0.18	U	0.18	U
4-Bromophenyl phenyl ether	101-55-3		mg/kg	0.18	U	0.2	U	0.18	U	0.17	U	0.18	U	0.19	U	0.18	U	0.18	U	0.18	U	0.18	U
Bis(2-chloroisopropyl)ether	108-60-1		mg/kg	0.22	U	0.24	U	0.21	U	0.21	U	0.18	U	0.22	U	0.21	U	0.22	U	0.21	U	0.22	U
Bis(2-chloroethoxy)methane	111-91-1		mg/kg	0.2	U	0.21	U	0.19	U	0.19	U	0.51	U	0.19	U	0.19	U	0.2	U	0.19	U	0.2	U
Hexachlorobutadiene	87-68-3		mg/kg	0.18	U	0.2	U	0.18	U	0.17	U	0.18	U	0.14	U	0.18	U	0.18	U	0.18	U	0.18	U
Hexachlorocyclopentadiene	77-47-4		mg/kg	0.53	U	0.56	U	0.51	U	0.5	U	0.51	U	0.16	U	0.51	U	0.51	U	0.52	U	0.5	U
Hexachloroethane	67-72-1		mg/kg	0.15	U	0.16	U	0.14	U	0.14	U	0.16	U	0.16	U	0.14	U	0.14	U	0.14	U	0.15	U
Isophorone	78-59-1		mg/kg	0.16	U	0.18	U	0.16	U	0.16	U	0.14	U	0.16	U								
Naphthalene	91-20-3	12	mg/kg	0.18	U	0.2	U	0.18	U	0.17	U	0.18	U										
Nitrobenzene	98-95-3		mg/kg	0.16	U	0.18	U	0.16	U	0.16	U	0.16	U	0.18	U	0.16	U	0.16	U	0.16	U	0.16	U
NDPA/DPA	86-30-6		mg/kg	0.15	U	0.16	U	0.14	U	0.14	U	0.14	U	0.18	U	0.14	U	0.14	U	0.14	U	0.14	U
n-Nitrosodi-n-propylamine	621-64-7		mg/kg	0.18	U	0.2	U	0.18	U	0.17	U	0.18	U										
Bis(2-ethylhexyl)phthalate	117-81-7		mg/kg	0.18	U	0.2	U	0.18	U	0.17	U	0.18	U										
Butyl benzyl phthalate	85-68-7		mg/kg	0.18	U	0.2	U	0.18	U	0.17	U	0.18	U	0.1									

Table 5.1
Summary of Remedial End-Point Samples Results - SVOCs
Cottage - Garden Auto Repair
New Rochelle, New York

LOCATION			RA-11		RA-12		RA-13		RA-14		RA-15		RA-16		RA-17		RA-18		RA-19		RA-20		RA-21		
SAMPLING DATE			2/18/2020		2/27/2020		2/27/2020		3/12/2020		3/12/2020		2/18/2020		2/24/2020		2/24/2020		2/24/2020		2/24/2020		2/27/2020		
LAB SAMPLE ID			L2007257-02		L2008790-03		L2008790-04		L2011382-03		L2011382-04		L2007257-03		L2008174-01		L2008174-02		L2008174-03		L2008790-05		L2008790-06		
SAMPLE TYPE			SOIL		SOIL		SOIL		SOIL		SOIL		SOIL		SOIL		SOIL		SOIL		SOIL		SOIL		
SAMPLE DEPTH (ft.) Estimated			14		14		14		14		14		14		14		14		14		14		14		
	CasNum	NY-UNRES	Units	Results	Qual	Results	Qual	Results	Qual	Results	Qual	Results	Qual	Results	Qual	Results	Qual	Results	Qual	Results	Qual	Results	Qual	Results	Qual
Semivolatile Organics by GC/MS																									
Acenaphthene	83-32-9	20	mg/kg	0.14	U	0.15	U	0.15	U	0.16	U	0.14	U	0.15	U	0.14	U	0.14	U	0.15	U	0.14	U	0.15	U
1,2,4-Trichlorobenzene	120-82-1		mg/kg	0.18	U	0.18	U	0.19	U	0.2	U	0.18	U	0.19	U	0.17	U	0.18	U	0.19	U	0.18	U	0.18	U
Hexachlorobenzene	118-74-1	0.33	mg/kg	0.11	U	0.11	U	0.12	U	0.12	U	0.11	U	0.12	U	0.1	U	0.11	U	0.12	U	0.1	U	0.11	U
Bis(2-chloroethyl)ether	111-44-4		mg/kg	0.16	U	0.16	U	0.17	U	0.18	U	0.16	U	0.17	U	0.16	U	0.16	U	0.17	U	0.16	U	0.17	U
2-Chloronaphthalene	91-58-7		mg/kg	0.18	U	0.18	U	0.19	U	0.2	U	0.18	U	0.19	U	0.17	U	0.18	U	0.19	U	0.18	U	0.18	U
1,2-Dichlorobenzene	95-50-1	1.1	mg/kg	0.18	U	0.18	U	0.19	U	0.2	U	0.18	U	0.19	U	0.17	U	0.18	U	0.19	U	0.18	U	0.18	U
1,3-Dichlorobenzene	541-73-1	2.4	mg/kg	0.18	U	0.18	U	0.19	U	0.2	U	0.18	U	0.19	U	0.17	U	0.18	U	0.19	U	0.18	U	0.18	U
1,4-Dichlorobenzene	106-46-7	1.8	mg/kg	0.18	U	0.18	U	0.19	U	0.2	U	0.18	U	0.19	U	0.17	U	0.18	U	0.19	U	0.18	U	0.18	U
3,3'-Dichlorobenzidine	91-94-1		mg/kg	0.18	U	0.18	U	0.19	U	0.2	U	0.18	U	0.19	U	0.17	U	0.18	U	0.19	U	0.18	U	0.18	U
2,4-Dinitrotoluene	121-14-2		mg/kg	0.18	U	0.18	U	0.19	U	0.2	U	0.18	U	0.19	U	0.17	U	0.18	U	0.19	U	0.18	U	0.18	U
2,6-Dinitrotoluene	606-20-2		mg/kg	0.18	U	0.18	U	0.19	U	0.2	U	0.18	U	0.19	U	0.17	U	0.18	U	0.19	U	0.18	U	0.18	U
Fluoranthene	206-44-0	100	mg/kg	0.023	J	0.13		0.12	U	0.12	U	0.043	J	0.084	J	0.1	U	0.11	U	0.12	U	0.1	U	0.35	
4-Chlorophenyl phenyl ether	7005-72-3		mg/kg	0.18	U	0.18	U	0.19	U	0.2	U	0.18	U	0.19	U	0.17	U	0.18	U	0.19	U	0.18	U	0.18	U
4-Bromophenyl phenyl ether	101-55-3		mg/kg	0.18	U	0.18	U	0.19	U	0.2	U	0.18	U	0.19	U	0.17	U	0.18	U	0.19	U	0.18	U	0.18	U
Bis(2-chloroisopropyl)ether	108-60-1		mg/kg	0.21	U	0.22	U	0.23	U	0.23	U	0.22	U	0.23	U	0.21	U	0.21	U	0.23	U	0.21	U	0.22	U
Bis(2-chloroethoxy)methane	111-91-1		mg/kg	0.19	U	0.2	U	0.21	U	0.21	U	0.2	U	0.19	U	0.19	U	0.19	U	0.21	U	0.19	U	0.2	U
Hexachlorobutadiene	87-68-3		mg/kg	0.18	U	0.18	U	0.19	U	0.2	U	0.18	U	0.19	U	0.17	U	0.18	U	0.19	U	0.18	U	0.18	U
Hexachlorocyclopentadiene	77-47-4		mg/kg	0.51	U	0.52	U	0.55	U	0.56	U	0.52	U	0.55	U	0.5	U	0.51	U	0.55	U	0.5	U	0.53	U
Hexachloroethane	67-72-1		mg/kg	0.14	U	0.15	U	0.15	U	0.16	U	0.14	U	0.15	U	0.14	U	0.14	U	0.15	U	0.14	U	0.15	U
Isophorone	78-59-1		mg/kg	0.16	U	0.16	U	0.17	U	0.18	U	0.16	U	0.17	U	0.16	U	0.16	U	0.17	U	0.16	U	0.17	U
Naphthalene	91-20-3	12	mg/kg	0.18	U	0.18	U	0.19	U	0.2	U	0.18	U	0.19	U	0.17	U	0.18	U	0.19	U	0.18	U	0.18	U
Nitrobenzene	98-95-3		mg/kg	0.16	U	0.16	U	0.17	U	0.18	U	0.16	U	0.17	U	0.16	U	0.16	U	0.17	U	0.16	U	0.17	U
NDPA/DPA	86-30-6		mg/kg	0.14	U	0.15	U	0.15	U	0.16	U	0.14	U	0.15	U	0.14	U	0.14	U	0.15	U	0.14	U	0.15	U
n-Nitrosodi-n-propylamine	621-64-7		mg																						

Table 5.1
Summary of Remedial End-Point Samples Results - SVOCs
Cottage - Garden Auto Repair
New Rochelle, New York

LOCATION			RA-22	RA-23		RA-24	RA-25		RA-26	RA-27		RA-28	RA-29		RA-30	RA-31		RA-32		
SAMPLING DATE			2/19/2020	2/18/2020		2/17/2020	2/13/2020		2/25/2020	2/27/2020		2/27/2020	2/27/2020		2/27/2020	2/27/2020		2/18/2020	2/14/2020	
LAB SAMPLE ID			L2007437-02	L2007257-04		L2007067-01	L2006687-01		L2008340-01	L2008790-07		L2008790-08	L2008790-09		L2008790-10	L2007257-05		L2006960-01		
SAMPLE TYPE			SOIL	SOIL		SOIL	SOIL		SOIL	SOIL		SOIL	SOIL		SOIL	SOIL		SOIL		
SAMPLE DEPTH (ft.) Estimated			14	14		14	14		14	14		14	14		14	14		14		
	CasNum	NY-UNRES	Units	Results	Qual	Results	Qual	Results	Qual	Results	Qual	Results	Qual	Results	Qual	Results	Qual	Results	Qual	
Semivolatile Organics by GC/MS																				
Acenaphthene	83-32-9	20	mg/kg	0.14	U	0.16	U	0.14	U	0.15	U	0.14	U	0.15	U	0.15	U	0.14	U	
1,2,4-Trichlorobenzene	120-82-1		mg/kg	0.17	U	0.2	U	0.18	U	0.18	U	0.18	U	0.18	U	0.18	U	0.18	U	
Hexachlorobenzene	118-74-1	0.33	mg/kg	0.1	U	0.12	U	0.11	U	0.11	U	0.11	U	0.1	U	0.11	U	0.11	U	
Bis(2-chloroethyl)ether	111-44-4		mg/kg	0.16	U	0.18	U	0.16	U	0.16	U	0.17	U	0.16	U	0.16	U	0.17	U	
2-Chloronaphthalene	91-58-7		mg/kg	0.17	U	0.2	U	0.18	U	0.18	U	0.18	U	0.18	U	0.18	U	0.19	U	
1,2-Dichlorobenzene	95-50-1	1.1	mg/kg	0.17	U	0.2	U	0.18	U	0.18	U	0.18	U	0.18	U	0.18	U	0.19	U	
1,3-Dichlorobenzene	541-73-1	2.4	mg/kg	0.17	U	0.2	U	0.18	U	0.18	U	0.18	U	0.18	U	0.18	U	0.19	U	
1,4-Dichlorobenzene	106-46-7	1.8	mg/kg	0.17	U	0.2	U	0.18	U	0.18	U	0.18	U	0.18	U	0.18	U	0.19	U	
3,3'-Dichlorobenzidine	91-94-1		mg/kg	0.17	U	0.2	U	0.18	U	0.18	U	0.18	U	0.18	U	0.18	U	0.19	U	
2,4-Dinitrotoluene	121-14-2		mg/kg	0.17	U	0.2	U	0.18	U	0.18	U	0.18	U	0.18	U	0.18	U	0.19	U	
2,6-Dinitrotoluene	606-20-2		mg/kg	0.17	U	0.2	U	0.18	U	0.18	U	0.18	U	0.18	U	0.18	U	0.19	U	
Fluoranthene	206-44-0	100	mg/kg	0.06	J	0.12	U	0.11	U	0.11	U	0.11	U	0.1	U	0.11	U	0.11	U	
4-Chlorophenyl phenyl ether	7005-72-3		mg/kg	0.17	U	0.2	U	0.18	U	0.18	U	0.18	U	0.18	U	0.18	U	0.18	U	
4-Bromophenyl phenyl ether	101-55-3		mg/kg	0.17	U	0.2	U	0.18	U	0.18	U	0.18	U	0.18	U	0.18	U	0.19	U	
Bis(2-chloroisopropyl)ether	108-60-1		mg/kg	0.21	U	0.24	U	0.22	U	0.22	U	0.22	U	0.21	U	0.22	U	0.21	U	
Bis(2-chloroethoxy)methane	111-91-1		mg/kg	0.19	U	0.22	U	0.19	U	0.2	U	0.19	U	0.2	U	0.19	U	0.21	U	
Hexachlorobutadiene	87-68-3		mg/kg	0.17	U	0.2	U	0.18	U	0.18	U	0.18	U	0.18	U	0.18	U	0.19	U	
Hexachlorocyclopentadiene	77-47-4		mg/kg	0.5	U	0.58	U	0.51	U	0.53	U	0.52	U	0.53	U	0.5	U	0.52	U	
Hexachloroethane	67-72-1		mg/kg	0.14	U	0.16	U	0.14	U	0.15	U	0.14	U	0.15	U	0.15	U	0.15	U	
Isophorone	78-59-1		mg/kg	0.16	U	0.18	U	0.16	U	0.16	U	0.17	U	0.16	U	0.16	U	0.17	U	
Naphthalene	91-20-3	12	mg/kg	0.17	U	0.2	U	0.18	U	0.18	U	0.18	U	0.18	U	0.18	U	0.19	U	
Nitrobenzene	98-95-3		mg/kg	0.16	U	0.18	U	0.16	U	0.16	U	0.17	U	0.16	U	0.16	U	0.17	U	
NDPA/DPA	86-30-6		mg/kg	0.14	U	0.16	U	0.14	U	0.15	U	0.14	U	0.15	U	0.15	U	0.14	U	
n-Nitrosodi-n-propylamine	621-64-7		mg/kg	0.17	U	0.2	U	0.18	U	0.18	U	0.18	U	0.18	U	0.18	U	0.19	U	
Bis(2-ethylhexyl)phthalate	117-81-7		mg/kg	0.17	U	0.2	U	0.18	U	0.18	U	0.18	U	0.18	U	0.18	U	0.19	U	
Butyl benzyl phthalate	85-68-7		mg/kg	0.17	U	0.2	U	0.18	U	0.18	U	0.18	U	0.18	U	0.18	U	0.19	U	
Di-n-butylphthalate	84-74-2		mg/kg	0.17	U	0.2	U	0.18	U	0.18	U	0.18	U	0.18	U	0.18	U	0.19	U	
Di-n-octylphthalate	117-84-0		mg/kg	0.17	U	0.2	U	0.18	U	0.18	U	0.18	U	0.18	U	0.18	U	0.19	U	
Diethyl phthalate	84-66-2		mg/kg	0.17	U	0.2	U	0.18	U	0.18	U	0.18	U	0.18	U	0.18	U	0.19	U	
Dimethyl phthalate	131-11-3		mg/kg	0.17	U	0.2	U	0.18	U	0.18	U	0.18	U	0.18	U	0.18	U	0.19	U	
Benzo(a)anthracene	56-55-3	1	mg/kg	0.034	J	0.12	U	0.11	U	0.11	U	0.11	U	0.1	U	0.11	U	0.11	U	
Benzo(a)pyrene	50-32-8	1	mg/kg	0.14	U	0.16	U	0.14	U	0.15	U	0.14	U	0.15	U	0.15	U	0.15	U	
Benzo(b)fluoranthene	205-99-2	1	mg/kg	0.038	J	0.12	U	0.11	U	0.11	U	0.11	U	0.1	U	0.11	U	0.11	U	
Benzo(k)fluoranthene	207-08-9	0.8	mg/kg	0.1	U															

Table 5.1
Summary of Remedial End-Point Samples Results - SVOCs
Cottage - Garden Auto Repair
New Rochelle, New York

LOCATION			RA-33		RA-34		RA-35		RA-36		RA-37		RA-38		RA-39		RA-40		RA-41		RA-42		RA-43		
SAMPLING DATE			2/13/2020		2/13/2020		2/25/2020		2/27/2020		2/27/2020		2/27/2020		2/21/2020		2/14/2020		2/13/2020		2/13/2020		2/13/2020		
LAB SAMPLE ID			L2006687-02		L2006687-03		L2008340-02		L2008790-11		L2008790-12		L2008790-13		L2007997-01		L2006960-02		L2006687-04		L2006687-05		L2006687-06		
SAMPLE TYPE			SOIL		SOIL		SOIL		SOIL		SOIL		SOIL		SOIL		SOIL		SOIL		SOIL		SOIL		
SAMPLE DEPTH (ft.) Estimated			14		14		14		14		14		14		14		14		14		14		14		
	CasNum	NY-UNRES	Units	Results	Qual	Results	Qual																		
Semivolatile Organics by GC/MS																									
Acenaphthene	83-32-9	20	mg/kg	0.15	U	0.15	U	0.16	U	0.14	U	0.15	U	0.14	U	0.14	U	0.15	U	0.14	U	0.14	U	0.14	U
1,2,4-Trichlorobenzene	120-82-1		mg/kg	0.18	U	0.19	U	0.2	U	0.18	U	0.18	U	0.18	U	0.18	U	0.19	U	0.18	U	0.18	U	0.18	U
Hexachlorobenzene	118-74-1	0.33	mg/kg	0.11	U	0.11	U	0.12	U	0.11	U	0.11	U	0.11	U	0.1	U	0.11	U	0.11	U	0.11	U	0.11	U
Bis(2-chloroethyl)ether	111-44-4		mg/kg	0.17	U	0.17	U	0.18	U	0.16	U	0.17	U	0.16	U	0.16	U								
2-Chloronaphthalene	91-58-7		mg/kg	0.18	U	0.19	U	0.2	U	0.18	U	0.19	U	0.18	U	0.18	U								
1,2-Dichlorobenzene	95-50-1	1.1	mg/kg	0.18	U	0.19	U	0.2	U	0.18	U	0.19	U	0.18	U	0.18	U								
1,3-Dichlorobenzene	541-73-1	2.4	mg/kg	0.18	U	0.19	U	0.2	U	0.18	U	0.19	U	0.18	U	0.18	U								
1,4-Dichlorobenzene	106-46-7	1.8	mg/kg	0.18	U	0.19	U	0.2	U	0.18	U	0.19	U	0.18	U	0.18	U								
3,3'-Dichlorobenzidine	91-94-1		mg/kg	0.18	U	0.19	U	0.2	U	0.18	U	0.19	U	0.18	U	0.18	U								
2,4-Dinitrotoluene	121-14-2		mg/kg	0.18	U	0.19	U	0.2	U	0.18	U	0.19	U	0.18	U	0.18	U								
2,6-Dinitrotoluene	606-20-2		mg/kg	0.18	U	0.19	U	0.2	U	0.18	U	0.19	U	0.18	U	0.18	U								
Fluoranthene	206-44-0	100	mg/kg	0.11	U	0.11	U	0.12	U	0.11	U	0.11	U	0.034	J	0.023	J	0.11	U	0.11	U	0.11	U	0.11	U
4-Chlorophenyl phenyl ether	7005-72-3		mg/kg	0.18	U	0.19	U	0.2	U	0.18	U	0.18	U	0.18	U	0.18	U	0.19	U	0.18	U	0.18	U	0.18	U
4-Bromophenyl phenyl ether	101-55-3		mg/kg	0.18	U	0.19	U	0.2	U	0.18	U	0.18	U	0.18	U	0.18	U	0.19	U	0.18	U	0.18	U	0.18	U
Bis(2-chloroisopropyl)ether	108-60-1		mg/kg	0.22	U	0.23	U	0.24	U	0.22	U	0.22	U	0.21	U	0.21	U	0.22	U	0.22	U	0.21	U	0.22	U
Bis(2-chloroethoxy)methane	111-91-1		mg/kg	0.2	U	0.2	U	0.22	U	0.19	U	0.2	U	0.19	U	0.19	U	0.2	U	0.19	U	0.2	U	0.19	U
Hexachlorobutadiene	87-68-3		mg/kg	0.18	U	0.19	U	0.2	U	0.18	U	0.19	U	0.18	U	0.18	U								
Hexachlorocyclopentadiene	77-47-4		mg/kg	0.53	U	0.54	U	0.58	U	0.51	U	0.52	U	0.51	U	0.5	U	0.51	U	0.53	U	0.5	U	0.52	U
Hexachloroethane	67-72-1		mg/kg	0.15	U	0.15	U	0.16	U	0.14	U	0.15	U	0.14	U	0.14	U	0.14	U	0.15	U	0.14	U	0.14	U
Isophorone	78-59-1		mg/kg	0.17	U	0.17	U	0.18	U	0.16	U	0.16	U	0.16	U	0.16	U	0.045	J	0.17	U	0.16	U	0.16	U
Naphthalene	91-20-3	12	mg/kg	0.18	U	0.19	U	0.2	U	0.18	U	0.19	U	0.18	U	0.18	U								
Nitrobenzene	98-95-3		mg/kg	0.17	U	0.17	U	0.18	U	0.16	U	0.17	U	0.16	U	0.16	U								
NDPA/DPA	86-30-6		mg/kg	0.15	U	0.15	U	0.16	U	0.14	U	0.15	U	0.14	U	0.14	U	0.15	U	0.14	U	0.14	U	0.14	U
n-Nitrosodi-n-propylamine	621-64-7		mg/kg	0.18	U	0.19	U</																		

Table 5.1
Summary of Remedial End-Point Samples Results - SVOCs
Cottage - Garden Auto Repair
New Rochelle, New York

LOCATION			RA-44	RA-45		RA-46	RA-47		RA-48	RA-49		RA-50	RA-51		RA-52	RA-A1		RA-A2	
SAMPLING DATE			2/24/2020	2/24/2020		2/24/2020	2/19/2020		2/13/2020	2/13/2020		2/13/2020	2/13/2020		2/13/2020	3/6/2020		3/12/2020	
LAB SAMPLE ID			L2008174-04	L2008174-05		L2008174-06	L2007437-03		L2006687-07	L2006687-08		L2006687-09	L2006687-10		L2006687-11	L2010273-02		L2011382-05	
SAMPLE TYPE			SOIL	SOIL		SOIL	SOIL		SOIL	SOIL		SOIL	SOIL		SOIL	SOIL		SOIL	
SAMPLE DEPTH (ft.) Estimated			14	14		14	14		14	14		14	14		14	14		24	
	CasNum	NY-UNRES	Units	Results	Qual	Results	Qual	Results	Qual	Results	Qual	Results	Qual	Results	Qual	Results	Qual	Results	Qual
Semivolatile Organics by GC/MS																			
Acenaphthene	83-32-9	20	mg/kg	0.15	U	0.15	U	0.14	U	0.15	U	0.14	U	0.15	U	0.15	U	0.16	U
1,2,4-Trichlorobenzene	120-82-1		mg/kg	0.18	U	0.19	U	0.18	U	0.19	U	0.18	U	0.19	U	0.19	U	0.2	U
Hexachlorobenzene	118-74-1	0.33	mg/kg	0.11	U	0.11	U	0.11	U	0.12	U	0.11	U	0.11	U	0.11	U	0.12	U
Bis(2-chloroethyl)ether	111-44-4		mg/kg	0.17	U	0.17	U	0.16	U	0.17	U	0.16	U	0.17	U	0.17	U	0.17	U
2-Chloronaphthalene	91-58-7		mg/kg	0.18	U	0.19	U	0.18	U	0.19	U	0.18	U	0.19	U	0.19	U	0.2	U
1,2-Dichlorobenzene	95-50-1	1.1	mg/kg	0.18	U	0.19	U	0.18	U	0.19	U	0.18	U	0.19	U	0.19	U	0.2	U
1,3-Dichlorobenzene	541-73-1	2.4	mg/kg	0.18	U	0.19	U	0.18	U	0.19	U	0.18	U	0.19	U	0.19	U	0.18	U
1,4-Dichlorobenzene	106-46-7	1.8	mg/kg	0.18	U	0.19	U	0.18	U	0.19	U	0.18	U	0.19	U	0.19	U	0.18	U
3,3'-Dichlorobenzidine	91-94-1		mg/kg	0.18	U	0.19	U	0.18	U	0.19	U	0.18	U	0.19	U	0.19	U	0.2	U
2,4-Dinitrotoluene	121-14-2		mg/kg	0.18	U	0.19	U	0.18	U	0.19	U	0.18	U	0.19	U	0.19	U	0.18	U
2,6-Dinitrotoluene	606-20-2		mg/kg	0.18	U	0.19	U	0.18	U	0.19	U	0.18	U	0.19	U	0.19	U	0.18	U
Fluoranthene	206-44-0	100	mg/kg	0.11	U	0.11	U	0.022	J	0.12	U	0.11	U	0.048	J	0.11	U	0.11	U
4-Chlorophenyl phenyl ether	7005-72-3		mg/kg	0.18	U	0.19	U	0.18	U	0.19	U	0.18	U	0.19	U	0.19	U	0.2	U
4-Bromophenyl phenyl ether	101-55-3		mg/kg	0.18	U	0.19	U	0.18	U	0.19	U	0.18	U	0.19	U	0.19	U	0.18	U
Bis(2-chloroisopropyl)ether	108-60-1		mg/kg	0.22	U	0.22	U	0.21	U	0.23	U	0.22	U	0.22	U	0.22	U	0.24	U
Bis(2-chloroethoxy)methane	111-91-1		mg/kg	0.2	U	0.2	U	0.19	U	0.21	U	0.2	U	0.2	U	0.21	U	0.22	U
Hexachlorobutadiene	87-68-3		mg/kg	0.18	U	0.19	U	0.18	U	0.19	U	0.18	U	0.19	U	0.19	U	0.18	U
Hexachlorocyclopentadiene	77-47-4		mg/kg	0.53	U	0.54	U	0.51	U	0.55	U	0.52	U	0.54	U	0.52	U	0.54	U
Hexachloroethane	67-72-1		mg/kg	0.15	U	0.15	U	0.14	U	0.15	U	0.14	U	0.15	U	0.15	U	0.15	U
Isophorone	78-59-1		mg/kg	0.17	U	0.17	U	0.16	U	0.17	U	0.16	U	0.17	U	0.17	U	0.18	U
Naphthalene	91-20-3	12	mg/kg	0.18	U	0.19	U	0.18	U	0.19	U	0.18	U	0.092	J	0.19	U	0.19	U
Nitrobenzene	98-95-3		mg/kg	0.17	U	0.17	U	0.16	U	0.17	U	0.16	U	0.17	U	0.17	U	0.17	U
NDPA/DPA	86-30-6		mg/kg	0.15	U	0.15	U	0.14	U	0.15	U	0.14	U	0.15	U	0.15	U	0.16	U
n-Nitrosodi-n-propylamine	621-64-7		mg/kg	0.18	U	0.19	U	0.18	U	0.19	U	0.18	U	0.19	U	0.19	U	0.2	U
Bis(2-ethylhexyl)phthalate	117-81-7		mg/kg	0.18	U	0.19	U	0.18	U	0.19	U	0.18	U	0.19	U	0.19	U	0.18	U
Butyl benzyl phthalate	85-68-7		mg/kg	0.18	U	0.19	U	0.18	U	0.19	U	0.18	U	0.19	U	0.19	U	0.18	U
Di-n-butylphthalate	84-74-2		mg/kg	0.18	U	0.19	U	0.18	U	0.19	U	0.18	U	0.19	U	0.19	U	0.18	U
Di-n-octylphthalate	117-84-0		mg/kg	0.18	U	0.19	U	0.18	U	0.19	U	0.18	U	0.19	U	0.19	U	0.18	U
Diethyl phthalate	84-66-2		mg/kg	0.18	U	0.19	U	0.18	U	0.19	U	0.18	U	0.19	U	0.19	U	0.18	U
Dimethyl phthalate	131-11-3		mg/kg	0.18	U	0.19	U	0.18	U	0.19	U	0.18	U	0.19	U	0.19	U	0.18	U
Benzo(a)anthracene	56-55-3	1	mg/kg	0.11	U	0.11	U	0.11	U	0.12	U	0.11	U	0.025	J	0.11	U	0.11	U
Benzo(a)pyrene	50-32-8	1	mg/kg	0.15	U	0.15	U	0.14	U	0.15	U	0.14	U	0.15	U	0.15	U	0.15	U
Benzo(b)fluoranthene	205-99-2	1	mg/kg	0.11	U	0.11	U	0.11	U	0.12	U	0.11	U	0.11	U	0.11	U	0.12	U
Benzo(k)fluoranthene	207-08-9	0.8	mg/kg	0.11	U	0.11	U	0.11	U	0.12									

Table 5.1
Summary of Remedial End-Point Samples Results - TAL Metals
Cottage - Garden Auto Repair
New Rochelle, New York

LOCATION				RA-1	RA-2	RA-3	RA-4	RA-5	RA-6	RA-6**	RA-6II	
SAMPLING DATE				2/27/2020	L2010273-01	2/18/2020	2/19/2020	2/27/2020	3/10/2020	3/12/2020	6/17/2020	
LAB SAMPLE ID				L2008790-01	3/6/2020	L2007257-01	L2007437-01	L2008790-02	L2010776-02	L2011382-02	L2025394-01	
SAMPLE TYPE				SOIL								
SAMPLE DEPTH (ft.) Estimated				14	14	14	14	14	14	14	14	24
	CasNum	NY-UNRES	Units	Results	Qual	Results	Qual	Results	Qual	Results	Qual	
Total Metals												
Aluminum, Total	7429-90-5		mg/kg	5650		6330		4520		4720		6550
Antimony, Total	7440-36-0		mg/kg	4.37	U	4.61	U	1.02	J	1.18	J	4.1
Arsenic, Total	7440-38-2	13	mg/kg	1.89		1.05		0.317	J	0.223	J	0.829
Barium, Total	7440-39-3	350	mg/kg	59.4		61.7		56.6		50.1		67.5
Beryllium, Total	7440-41-7	7.2	mg/kg	0.122	J	0.461	U	0.158	J	0.143	J	0.139
Cadmium, Total	7440-43-9	2.5	mg/kg	0.874	U	0.148	J	0.158	J	0.159	J	0.82
Calcium, Total	7440-70-2		mg/kg	3790		8920		4000		3510		5420
Chromium, Total	7440-47-3	30	mg/kg	13.5		20.8		14		13.2		15.5
Cobalt, Total	7440-48-4		mg/kg	6.34		6.78		6.05		5.25		6.52
Copper, Total	7440-50-8	50	mg/kg	12.7		12.9		11.6		11.8		15.6
Iron, Total	7439-89-6		mg/kg	10400		10400		10400		8880		11800
Lead, Total	7439-92-1	63	mg/kg	4.48		6.45		2.34	J	1.78	J	2.73
Magnesium, Total	7439-95-4		mg/kg	3890		3410		3870		3440		5600
Manganese, Total	7439-96-5	1600	mg/kg	165		177		134		113		164
Mercury, Total	7439-97-6	0.18	mg/kg	0.072	U	0.075	U	0.068	U	0.066	U	0.069
Nickel, Total	7440-02-0	30	mg/kg	11		12		12		10.4		13.8
Potassium, Total	7440-09-7		mg/kg	2850		3120		2630		2450		3490
Selenium, Total	7782-49-2	3.9	mg/kg	1.75	U	0.24	J	1.67	U	1.59	U	1.64
Silver, Total	7440-22-4	2	mg/kg	0.874	U	0.922	U	0.835	U	0.796	U	0.82
Sodium, Total	7440-23-5		mg/kg	134	J	162	J	147	J	141	J	194
Thallium, Total	7440-28-0		mg/kg	1.75	U	1.84	U	1.67	U	1.59	U	1.64
Vanadium, Total	7440-62-2		mg/kg	17.7		19.6		17.7		16.9		18.8
Zinc, Total	7440-66-6	109	mg/kg	22		32.5		19.2		18.4		26

* Comparison is not performed on parameters with non-numeric criteria.

** A second RA-6 sample was inadvertently collected on 3/12/2020. This sample is representative of the excavation caving and not the actual end-point soil quality

RA-6iii was collected at the final construction elevation,

J - Presumptive evidence of compound.

U - Not detected at the reported detection limit for the sample.

NY-UNRES: New York NYCRR Part 375 New York Unrestricted use Criteria Criteria per 6 NYCRR Part 375 Environmental Remediation Programs, effective December 14, 2006.

Table 5.1
Summary of Remedial End-Point Samples Results - TAL Metals
Cottage - Garden Auto Repair
New Rochelle, New York

LOCATION				RA-7	RA-8	RA-9	RA-10	RA-11	RA-12	RA-13	RA-14	
SAMPLING DATE				3/17/2020	3/17/2020	2/20/2020	2/20/2020	2/18/2020	2/27/2020	2/27/2020	L2011382-03	
LAB SAMPLE ID				L2012029-01	L2012029-02	L2007710-01	L2007710-02	L2007257-02	L2008790-03	L2008790-04	3/12/2020	
SAMPLE TYPE				SOIL								
SAMPLE DEPTH (ft.) Estimated				14	14	14	14	14	14	14	14	
	CasNum	NY-UNRES	Units	Results	Qual	Results	Qual	Results	Qual	Results	Qual	Results
Total Metals												
Aluminum, Total	7429-90-5		mg/kg	4430		5610		4540		6760		5470
Antimony, Total	7440-36-0		mg/kg	4.28	U	4.2	U	4.02	U	4.24	U	1.13
Arsenic, Total	7440-38-2	13	mg/kg	1.59		0.998		1.03		1.12		0.76
Barium, Total	7440-39-3	350	mg/kg	46.5		54.5		49		61.3		60.1
Beryllium, Total	7440-41-7	7.2	mg/kg	0.428	U	0.42	U	0.402	U	0.424	U	0.205
Cadmium, Total	7440-43-9	2.5	mg/kg	0.325	J	0.193	J	0.169	J	0.229	J	0.188
Calcium, Total	7440-70-2		mg/kg	3080		3740		2280		1210		1470
Chromium, Total	7440-47-3	30	mg/kg	14.9		15.1		11.6		15.8		15.4
Cobalt, Total	7440-48-4		mg/kg	6.01		6.82		5.02		6.7		6.95
Copper, Total	7440-50-8	50	mg/kg	10		10.7		8.75		14.5		12.7
Iron, Total	7439-89-6		mg/kg	8890		10400		8300		11400		12000
Lead, Total	7439-92-1	63	mg/kg	4.43		4.88		2.2	J	3.14	J	6.51
Magnesium, Total	7439-95-4		mg/kg	3250		3560		2430		2580		2650
Manganese, Total	7439-96-5	1600	mg/kg	125		143		110		186		191
Mercury, Total	7439-97-6	0.18	mg/kg	0.07	U	0.069	U	0.067	U	0.071	U	0.068
Nickel, Total	7440-02-0	30	mg/kg	14.4		11.7		9.38		12.1		12.5
Potassium, Total	7440-09-7		mg/kg	2090		2730		2040		3190		3010
Selenium, Total	7782-49-2	3.9	mg/kg	1.71	U	1.68	U	1.61	U	0.348	J	1.71
Silver, Total	7440-22-4	2	mg/kg	0.856	U	0.839	U	0.805	U	0.848	U	0.854
Sodium, Total	7440-23-5		mg/kg	103	J	164	J	254		176		125
Thallium, Total	7440-28-0		mg/kg	1.71	U	1.68	U	1.61	U	1.7	U	1.71
Vanadium, Total	7440-62-2		mg/kg	16.7		19		13.8		18.5		19.9
Zinc, Total	7440-66-6	109	mg/kg	29.9		22.2		15.1		23.8		27.7
												40.1
												17.4
												31.2

* Comparison is not performed on parameters with non-numeric criteria.

** A second RA-6 sample was inadvertently collected on 3/12/2020. This sample is representative of the excavation caving and not the actual end-point soil quality

RA-6iii was collected at the final construction elevation,

J - Presumptive evidence of compound.

U - Not detected at the reported detection limit for the sample.

NY-UNRES: New York NYCRR Part 375 New York Unrestricted use Criteria Criteria per 6 NYCRR Part 375 Environmental Remediation Programs, effective December 14, 2006.

Table 5.1
Summary of Remedial End-Point Samples Results - TAL Metals
Cottage - Garden Auto Repair
New Rochelle, New York

LOCATION				RA-15	RA-15I	RA-16	RA-17		RA-18	RA-19		RA-20		RA-21					
SAMPLING DATE				L2011382-04	3/17/2020	2/18/2020	2/24/2020		2/24/2020	2/24/2020		2/27/2020		2/27/2020					
LAB SAMPLE ID				3/12/2020	L2012029-03	L2007257-03	L2008174-01		L2008174-02	L2008174-03		L2008790-05		L2008790-06					
SAMPLE TYPE				SOIL	SOIL	SOIL	SOIL		SOIL	SOIL		SOIL		SOIL					
SAMPLE DEPTH (ft.) Estimated				14	15	14	14		14	14		14		14					
	CasNum	NY-UNRES	Units	Results	Qual	Results	Qual	Results	Qual	Results	Qual	Results	Qual	Results					
Total Metals																			
Aluminum, Total	7429-90-5		mg/kg	4240		5360		8210		5630		6140		9320		5340		8990	
Antimony, Total	7440-36-0		mg/kg	0.829	J	4.18	U	1.74	J	4.12	U	0.774	J	4.64	U	4.1	U	4.3	U
Arsenic, Total	7440-38-2	13	mg/kg	0.471	J	0.87		0.617	J	1.85		0.892		1.26		0.878		1.52	
Barium, Total	7440-39-3	350	mg/kg	49.8		52		100		55.1		54.8		73.3		45.6		93.7	
Beryllium, Total	7440-41-7	7.2	mg/kg	0.131	J	0.418	U	0.309	J	0.412	U	0.421	U	0.464	U	0.139	J	0.232	J
Cadmium, Total	7440-43-9	2.5	mg/kg	0.454	J	0.209	J	0.327	J	0.181	J	0.152	J	0.241	J	0.82	U	0.861	U
Calcium, Total	7440-70-2		mg/kg	3560		3990		4070		4640		1480		1030		892		3220	
Chromium, Total	7440-47-3	30	mg/kg	13.2		21.6		24.1		14.6		14.2		18.8		10.5		18.7	
Cobalt, Total	7440-48-4		mg/kg	5.8		6.9		9.95		6.18		6.54		9.16		5.14		8.04	
Copper, Total	7440-50-8	50	mg/kg	9.74		12.4		14.8		11.4		10.6		16.1		11.7		17.9	
Iron, Total	7439-89-6		mg/kg	8370		10700		16700		10100		10300		15300		9810		14200	
Lead, Total	7439-92-1	63	mg/kg	2.45	J	4.28		2.58	J	3.62	J	3	J	4.31	J	2.33	J	79.6	
Magnesium, Total	7439-95-4		mg/kg	3550		3730		5310		3840		2420		2860		2080		3960	
Manganese, Total	7439-96-5	1600	mg/kg	161		166		263		174		172		405		190		225	
Mercury, Total	7439-97-6	0.18	mg/kg	0.077	U	0.069	U	0.075	U	0.066	U	0.067	U	0.074	U	0.069	U	0.102	
Nickel, Total	7440-02-0	30	mg/kg	54.6		14		16.2		12		10.6		13.8		8.98		14.2	
Potassium, Total	7440-09-7		mg/kg	2140		2550		5870		2280		2420		3460		2220		3580	
Selenium, Total	7782-49-2	3.9	mg/kg	1.74	U	1.67	U	0.3	J	0.379	J	0.337	J	0.724	J	1.64	U	1.72	U
Silver, Total	7440-22-4	2	mg/kg	0.873	U	0.837	U	0.908	U	0.824	U	0.842	U	0.928	U	0.82	U	0.861	U
Sodium, Total	7440-23-5		mg/kg	125	J	118	J	165	J	1620		412		267		129	J	266	
Thallium, Total	7440-28-0		mg/kg	1.74	U	1.67	U	1.82	U	1.65	U	1.68	U	1.86	U	1.64	U	1.72	U
Vanadium, Total	7440-62-2		mg/kg	15.3		19.1		32		17.4		18.6		26.3		14.9		24.6	
Zinc, Total	7440-66-6	109	mg/kg	36.5		22.4		36.8		21		21.5		30.2		19.5		60.3	

* Comparison is not performed on parameters with non-numeric criteria.

** A second RA-6 sample was inadvertently collected on 3/12/2020. This sample is representative of the excavation caving and not the actual end-point soil quality

RA-6iii was collected at the final construction elevation,
J - Presumptive evidence of compound.

U - Not detected at the reported detection limit for the sample.

NY-UNRES: New York NYCRR Part 375 New York Unrestricted use Criteria Criteria per 6 NYCRR Part 375 Environmental Remediation Programs, effective December 14, 2006.

Table 5.1
Summary of Remedial End-Point Samples Results - TAL Metals
Cottage - Garden Auto Repair
New Rochelle, New York

LOCATION				RA-21R		RA-22		RA-23		RA-23R		RA-23RI		RA-24		RA-25		RA-26
SAMPLING DATE				L2010478-01		2/19/2020		2/18/2020		L2011382-01		3/17/2020		2/17/2020		2/13/2020		2/25/2020
LAB SAMPLE ID				3/9/2020		L2007437-02		L2007257-04		3/12/2020		L2012029-04		L2007067-01		L2006687-01		L2008340-01
SAMPLE TYPE				SOIL		SOIL		SOIL		SOIL		SOIL		SOIL		SOIL		SOIL
SAMPLE DEPTH (ft.) Estimated				15		14		14		15		16		14		14		14
	CasNum	NY-UNRES	Units	Results	Qual	Results												
Total Metals																		
Aluminum, Total	7429-90-5		mg/kg	5010		5660		7320		5480		4290		5620		6600		6020
Antimony, Total	7440-36-0		mg/kg	4.27	U	1.2	J	4.8	U	1.12	J	4.21	U	4.33	U	4.47	U	4.24
Arsenic, Total	7440-38-2	13	mg/kg	1.04		0.493	J	1.21		0.23	J	0.791	J	0.346	J	0.893	U	1.09
Barium, Total	7440-39-3	350	mg/kg	55.7		61.3		74.9		60.6		43.2		52.3		62.1		60.6
Beryllium, Total	7440-41-7	7.2	mg/kg	0.427	U	0.17	J	0.23	J	0.168	J	0.421	U	0.13	J	0.152	J	0.424
Cadmium, Total	7440-43-9	2.5	mg/kg	0.136	J	1.2		2.42		0.363	J	0.16	J	0.866	U	0.893	U	0.169
Calcium, Total	7440-70-2		mg/kg	4800		4750		2100		3050		3510		2080		1220		1870
Chromium, Total	7440-47-3	30	mg/kg	15.1		16.5		23.3		17		12.2		14.4		15.2		14.8
Cobalt, Total	7440-48-4		mg/kg	7.11		6.08		8.42		6.77		5.94		5.59		5.99		7.02
Copper, Total	7440-50-8	50	mg/kg	11.8		12.6		17.7		13.3		9.4		16.5		14.4		12.7
Iron, Total	7439-89-6		mg/kg	9600		10300		12300		10300		8480		10000		11500		11200
Lead, Total	7439-92-1	63	mg/kg	4.15	J	4.74		15.3		3.78	J	4.04	J	3.53	J	2.3	J	3.28
Magnesium, Total	7439-95-4		mg/kg	4660		3600		3220		3540		3360		2910		2530		2700
Manganese, Total	7439-96-5	1600	mg/kg	130	B	153		179		145		109		150		156		162
Mercury, Total	7439-97-6	0.18	mg/kg	0.068	U	0.067	U	0.078	U	0.085	U	0.069	U	0.07	U	0.072	U	0.069
Nickel, Total	7440-02-0	30	mg/kg	12.9		13.1		27.4		36.9		10.2		16.4		23		11.8
Potassium, Total	7440-09-7		mg/kg	2640		2820		3350		2700		2140		2560		3470		2950
Selenium, Total	7782-49-2	3.9	mg/kg	1.71	U	1.62	U	1.92	U	1.77	U	1.68	U	1.73	U	1.79	U	0.576
Silver, Total	7440-22-4	2	mg/kg	0.853	U	0.808	U	0.96	U	0.885	U	0.841	U	0.866	U	0.893	U	0.847
Sodium, Total	7440-23-5		mg/kg	151	J	229		130	J	136	J	110	J	162	J	174	J	286
Thallium, Total	7440-28-0		mg/kg	1.71	U	1.62	U	1.92	U	1.77	U	1.68	U	1.73	U	1.79	U	1.69
Vanadium, Total	7440-62-2		mg/kg	18.2		18.5		22.2		18		16.2		16.7		19.5		18.9
Zinc, Total	7440-66-6	109	mg/kg	21.9		68.2		193		42.4		18.8		22.6		25.7		24

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RA-6iii was collected at the final construction elevation,
J - Presumptive evidence of compound.

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Table 5.1
Summary of Remedial End-Point Samples Results - TAL Metals
Cottage - Garden Auto Repair
New Rochelle, New York

LOCATION				RA-27	RA-28	RA-29		RA-30		RA-31		RA-32		RA-32I		RA-33	
SAMPLING DATE				2/27/2020	2/27/2020	2/27/2020		2/27/2020		2/18/2020		2/14/2020		2/18/2020		2/13/2020	
LAB SAMPLE ID				L2008790-07	L2008790-08	L2008790-09		L2008790-10		L2007257-05		L2006960-01		L2007257-06		L2006687-02	
SAMPLE TYPE				SOIL	SOIL	SOIL											
SAMPLE DEPTH (ft.) Estimated				14	14	14		14		14		14		15		14	
	CasNum	NY-UNRES	Units	Results	Qual	Results	Qual	Results	Qual	Results	Qual	Results	Qual	Results	Qual	Results	Qual
Total Metals																	
Aluminum, Total	7429-90-5		mg/kg	4900		4400		4670		7390		4400		4310		5980	
Antimony, Total	7440-36-0		mg/kg	4.41	U	4.19	U	4.4	U	4.39	U	4.2	U	4.53	U	4.3	U
Arsenic, Total	7440-38-2	13	mg/kg	0.6	J	0.77	J	0.811	J	0.992		0.555	J	0.535	J	0.533	J
Barium, Total	7440-39-3	350	mg/kg	52.9		39.6		48.4		76.7		48.7		53.5		62.3	
Beryllium, Total	7440-41-7	7.2	mg/kg	0.115	J	0.109	J	0.106	J	0.158	J	0.093	J	0.1	J	0.12	J
Cadmium, Total	7440-43-9	2.5	mg/kg	0.882	U	0.838	U	0.881	U	0.878	U	0.555	J	2.49		0.662	J
Calcium, Total	7440-70-2		mg/kg	2870		818		2040		1200		2820		3300		1670	
Chromium, Total	7440-47-3	30	mg/kg	12.3		9.6		12.2		16.8		21.3		12.7		16.8	
Cobalt, Total	7440-48-4		mg/kg	5.4		4.84		5.36		7.54		6.62		5.77		7.52	
Copper, Total	7440-50-8	50	mg/kg	11.4		9.14		10.6		15		16.3		13.3		17.8	
Iron, Total	7439-89-6		mg/kg	9040		7760		8810		12600		9410		9110		10800	
Lead, Total	7439-92-1	63	mg/kg	2.17	J	2.06	J	2.51	J	2.74	J	7.64		1.84	J	10.5	
Magnesium, Total	7439-95-4		mg/kg	3100		1680		2540		3060		3160		3420		2860	
Manganese, Total	7439-96-5	1600	mg/kg	120		136		123		191		108		165		182	
Mercury, Total	7439-97-6	0.18	mg/kg	0.071	U	0.068	U	0.07	U	0.071	U	0.069	U	0.073	U	0.069	U
Nickel, Total	7440-02-0	30	mg/kg	10.6		8.38		10.5		13.3		13.6		15.7		16	
Potassium, Total	7440-09-7		mg/kg	2340		1900		2220		4290		2140		2500		2740	
Selenium, Total	7782-49-2	3.9	mg/kg	1.76	U	1.68	U	1.76	U	1.76	U	1.68	U	1.81	U	1.72	U
Silver, Total	7440-22-4	2	mg/kg	0.882	U	0.838	U	0.881	U	0.878	U	0.841	U	0.907	U	0.86	U
Sodium, Total	7440-23-5		mg/kg	277		96.2	J	172	J	149	J	108	J	103	J	144	J
Thallium, Total	7440-28-0		mg/kg	1.76	U	1.68	U	1.76	U	1.76	U	1.68	U	1.81	U	1.72	U
Vanadium, Total	7440-62-2		mg/kg	15.4		12.7		14.9		22.8		16.3		15.7		19	
Zinc, Total	7440-66-6	109	mg/kg	17.8		15.1		17.8		26.9		22.1		119		31.5	

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RA-6iii was collected at the final construction elevation,
J - Presumptive evidence of compound.

U - Not detected at the reported detection limit for the sample.

NY-UNRES: New York NYCRR Part 375 New York Unrestricted use Criteria Criteria per 6 NYCRR Part 375 Environmental Remediation Programs, effective December 14, 2006.

Table 5.1
Summary of Remedial End-Point Samples Results - TAL Metals
Cottage - Garden Auto Repair
New Rochelle, New York

LOCATION				RA-34	RA-35	RA-36		RA-37	RA-38	RA-39		RA-40		RA-40I					
SAMPLING DATE				2/13/2020	2/25/2020	2/27/2020		2/27/2020	2/27/2020	2/21/2020		2/14/2020		2/18/2020					
LAB SAMPLE ID				L2006687-03	L2008340-02	L2008790-11		L2008790-12	L2008790-13	L2007997-01		L2006960-02		L2007257-07					
SAMPLE TYPE				SOIL	SOIL	SOIL		SOIL	SOIL	SOIL		SOIL		SOIL					
SAMPLE DEPTH (ft.) Estimated				14	14	14		14	14	14		14		15					
	CasNum	NY-UNRES	Units	Results	Qual	Results	Qual	Results	Qual	Results	Qual	Results	Qual	Results					
Total Metals																			
Aluminum, Total	7429-90-5		mg/kg	5830		7000		4820		3760		5820		2080		8260		6880	
Antimony, Total	7440-36-0		mg/kg	4.3	U	4.68	U	4.15	U	4.27	U	4.21	U	1.1	J	4.25	U	4.29	U
Arsenic, Total	7440-38-2	13	mg/kg	0.508	J	1.06		0.473	J	1.28		0.564	J	0.69	J	1.33		1.26	
Barium, Total	7440-39-3	350	mg/kg	60.3		69.5		49.4		35.7		62.4		19.9		89.1		66.8	
Beryllium, Total	7440-41-7	7.2	mg/kg	0.06	J	0.468	U	0.108	J	0.094	J	0.135	J	0.076	J	0.221	J	0.18	J
Cadmium, Total	7440-43-9	2.5	mg/kg	0.86	U	0.206	J	0.829	U	0.854	U	0.842	U	0.093	J	0.85	U	0.79	J
Calcium, Total	7440-70-2		mg/kg	4700		1630		1990		1090		1610		3170		2570		1690	
Chromium, Total	7440-47-3	30	mg/kg	16.1		16		12		8.47		14.2		5.48		19.5		17.7	
Cobalt, Total	7440-48-4		mg/kg	6.98		8.12		5.12		4.12		6.19		3.94		6.66		8.06	
Copper, Total	7440-50-8	50	mg/kg	13.8		13.4		9.85		8.46		12.2		8.4		18.2		16.6	
Iron, Total	7439-89-6		mg/kg	10700		13000		8760		7090		10300		5570		12900		12000	
Lead, Total	7439-92-1	63	mg/kg	2.81	J	3.89	J	2.02	J	1.64	J	2.75	J	1.48	J	43.6		17.6	
Magnesium, Total	7439-95-4		mg/kg	3730		3110		3120		1690		2780		2380		3030		2690	
Manganese, Total	7439-96-5	1600	mg/kg	136		198		116		73.7		141		137		269		236	
Mercury, Total	7439-97-6	0.18	mg/kg	0.072	U	0.077	U	0.069	U	0.07	U	0.068	U	0.067	U	0.402		0.071	U
Nickel, Total	7440-02-0	30	mg/kg	12.7		14.2		14.7		7.56		11.4		8.64		15.9		15	
Potassium, Total	7440-09-7		mg/kg	3110		3440		2200		1900		2840		765		3130		2700	
Selenium, Total	7782-49-2	3.9	mg/kg	1.72	U	0.449	J	1.66	U	1.71	U	1.68	U	1.68	U	1.7	U	1.72	U
Silver, Total	7440-22-4	2	mg/kg	0.86	U	0.936	U	0.829	U	0.854	U	0.842	U	0.841	U	0.85	U	0.859	U
Sodium, Total	7440-23-5		mg/kg	186		418		284		126	J	160	J	41.6	J	139	J	118	J
Thallium, Total	7440-28-0		mg/kg	1.72	U	1.87	U	1.66	U	1.71	U	1.68	U	1.68	U	1.7	U	1.72	U
Vanadium, Total	7440-62-2		mg/kg	18.5		21.1		15.3		11.7		18.4		7.03		21.8		19.4	
Zinc, Total	7440-66-6	109	mg/kg	22.9		29.3		17		14.4		21.8		8.36		49.8		34.9	

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Table 5.1
Summary of Remedial End-Point Samples Results - TAL Metals
Cottage - Garden Auto Repair
New Rochelle, New York

LOCATION				RA-41		RA-42		RA-43		RA-44		RA-45		RA-46		RA-47		RA-48	
SAMPLING DATE				2/13/2020		2/13/2020		2/13/2020		2/24/2020		2/24/2020		2/24/2020		2/19/2020		2/13/2020	
LAB SAMPLE ID				L2006687-04		L2006687-05		L2006687-06		L2008174-04		L2008174-05		L2008174-06		L2007437-03		L2006687-07	
SAMPLE TYPE				SOIL		SOIL		SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
SAMPLE DEPTH (ft.) Estimated				14		14		14		14		14		14		14		14	
	CasNum	NY-UNRES	Units	Results	Qual	Results													
Total Metals																			
Aluminum, Total	7429-90-5		mg/kg	4890		4690		4680		5820		5850		6730		6800		6980	
Antimony, Total	7440-36-0		mg/kg	4.37	U	4.27	U	4.33	U	4.45	U	4.36	U	4.14	U	1.29	J	4.41	U
Arsenic, Total	7440-38-2	13	mg/kg	0.358	J	0.854	U	0.865	U	0.978		1.02		0.953		0.724	J	0.3	J
Barium, Total	7440-39-3	350	mg/kg	52.6		51		58.7		51		63.7		62.6		68.6		84	
Beryllium, Total	7440-41-7	7.2	mg/kg	0.052	J	0.068	J	0.061	J	0.445	U	0.436	U	0.414	U	0.211	J	0.071	J
Cadmium, Total	7440-43-9	2.5	mg/kg	0.874	U	0.854	U	0.865	U	0.16	J	0.166	J	0.182	J	0.229	J	0.882	U
Calcium, Total	7440-70-2		mg/kg	3820		4260		4590		1590		1640		4790		1720		2880	
Chromium, Total	7440-47-3	30	mg/kg	13.5		12.8		12.7		14.9		15.5		16.4		16.9		16	
Cobalt, Total	7440-48-4		mg/kg	5.07		5.44		5.73		6.19		6.59		7.04		7.48		7.2	
Copper, Total	7440-50-8	50	mg/kg	11.7		11.7		21		10.7		12.5		12.8		14.2		16.3	
Iron, Total	7439-89-6		mg/kg	9110		9140		9400		10100		10900		11500		12000		12900	
Lead, Total	7439-92-1	63	mg/kg	2.07	J	2.21	J	3	J	2.66	J	2.71	J	6.51		6.12		10.5	
Magnesium, Total	7439-95-4		mg/kg	3370		3730		4100		2130		2590		2790		2930		3790	
Manganese, Total	7439-96-5	1600	mg/kg	116		116		108		223		138		199		139		189	
Mercury, Total	7439-97-6	0.18	mg/kg	0.07	U	0.07	U	0.07	U	0.071	U	0.071	U	0.068	U	0.074	U	0.07	U
Nickel, Total	7440-02-0	30	mg/kg	10.6		10.6		12.4		11.2		12.4		11.5		13.6		12.5	
Potassium, Total	7440-09-7		mg/kg	2480		2390		2540		1940		2590		2860		3620		3430	
Selenium, Total	7782-49-2	3.9	mg/kg	1.75	U	1.71	U	0.32	J	0.249	J	0.445	J	0.597	J	1.83	U	1.76	U
Silver, Total	7440-22-4	2	mg/kg	0.874	U	0.854	U	0.865	U	0.89	U	0.872	U	0.829	U	0.916	U	0.882	U
Sodium, Total	7440-23-5		mg/kg	164	J	167	J	138	J	481		286		152	J	167	J	165	J
Thallium, Total	7440-28-0		mg/kg	1.75	U	1.71	U	1.73	U	1.78	U	1.74	U	1.66	U	1.83	U	1.76	U
Vanadium, Total	7440-62-2		mg/kg	16.5		15.8		15.4		17.4		20.3		21.3		22.4		22.7	
Zinc, Total	7440-66-6	109	mg/kg	17.5		17.3		22.1		18.9		21.3		28.9		28.3		29.9	

* Comparison is not performed on parameters with non-numeric criteria.

** A second RA-6 sample was inadvertently collected on 3/12/2020. This sample is representative of the excavation caving and not the actual end-point soil quality

RA-6iii was collected at the final construction elevation,
J - Presumptive evidence of compound.

U - Not detected at the reported detection limit for the sample.

NY-UNRES: New York NYCRR Part 375 New York Unrestricted use Criteria Criteria per 6 NYCRR Part 375 Environmental Remediation Programs, effective December 14, 2006.

Table 5.1
Summary of Remedial End-Point Samples Results - TAL Metals
Cottage - Garden Auto Repair
New Rochelle, New York

LOCATION				RA-49	RA-50	RA-51		RA-52	RA-A1	RA-A2		RA-A3		RA-A4					
SAMPLING DATE				2/13/2020	2/13/2020	2/13/2020		2/13/2020	3/6/2020	L2011382-05		3/6/2020		3/6/2020					
LAB SAMPLE ID				L2006687-08	L2006687-09	L2006687-10		L2006687-11	L2010273-02	3/12/2020	L2010273-03		L2010273-07						
SAMPLE TYPE				SOIL	SOIL	SOIL		SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL					
SAMPLE DEPTH (ft.) Estimated				14	14	14		14	24	24	24	21	21	21					
	CasNum	NY-UNRES	Units	Results	Qual	Results	Qual	Results	Qual	Results	Qual	Results	Qual	Results					
Total Metals																			
Aluminum, Total	7429-90-5		mg/kg	6040		5400		5730		9200		4950		10200		5870		3640	
Antimony, Total	7440-36-0		mg/kg	4.36	U	4.46	U	4.49	U	4.51	U	4.58	U	1.48	J	4.92	U	4.17	U
Arsenic, Total	7440-38-2	13	mg/kg	0.873	U	0.276	J	0.557	J	0.604	J	0.935		1.13		0.935	J	2.07	
Barium, Total	7440-39-3	350	mg/kg	66		53.8		56.5		87.4		51.1		76.6		60.7		36.3	
Beryllium, Total	7440-41-7	7.2	mg/kg	0.061	J	0.071	J	0.072	J	0.162	J	0.458	U	0.314	J	0.492	U	0.417	U
Cadmium, Total	7440-43-9	2.5	mg/kg	0.873	U	0.891	U	0.898	U	0.902	U	0.147	J	0.873	U	0.167	J	0.108	J
Calcium, Total	7440-70-2		mg/kg	3330		4280		3940		2420		5570		670		4860		972	
Chromium, Total	7440-47-3	30	mg/kg	23.2		14.4		15.1		21.2		13.9		18.8		15.5		9.41	
Cobalt, Total	7440-48-4		mg/kg	6.95		5.74		6.9		8.08		6.61		8.18		8.06		4.87	
Copper, Total	7440-50-8	50	mg/kg	14.5		14.5		13.6		18.8		10.2		13		12.1		8.08	
Iron, Total	7439-89-6		mg/kg	11100		10200		11700		15000		9440		15500		10700		7550	
Lead, Total	7439-92-1	63	mg/kg	5.49		3.96	J	2.14	J	19.1		3.36	J	3.66	J	4.68	J	2.69	J
Magnesium, Total	7439-95-4		mg/kg	3900		3590		3980		3690		4400		2930		4080		1680	
Manganese, Total	7439-96-5	1600	mg/kg	163		133		149		363		119		360		156		97.4	
Mercury, Total	7439-97-6	0.18	mg/kg	0.072	U	0.071	U	0.072	U	0.089		0.076	U	0.072	U	0.08	U	0.067	U
Nickel, Total	7440-02-0	30	mg/kg	15.1		11.2		12.4		15.9		14.4		14.4		12.4		7.83	
Potassium, Total	7440-09-7		mg/kg	3110		2740		3140		3580		2380		3430		3180		1870	
Selenium, Total	7782-49-2	3.9	mg/kg	1.74	U	1.78	U	0.269	J	1.8	U	1.83	U	1.74	U	1.97	U	1.67	U
Silver, Total	7440-22-4	2	mg/kg	0.873	U	0.891	U	0.898	U	0.902	U	0.917	U	0.873	U	0.984	U	0.834	U
Sodium, Total	7440-23-5		mg/kg	134	J	149	J	155	J	188		190		104	J	144	J	84.1	J
Thallium, Total	7440-28-0		mg/kg	1.74	U	1.78	U	1.8	U	1.8	U	1.83	U	1.74	U	1.97	U	1.67	U
Vanadium, Total	7440-62-2		mg/kg	18.8		18.4		20.2		24.3		17.7		25.1		20.5		13.2	
Zinc, Total	7440-66-6	109	mg/kg	24.8		20.2		22.2		36.1		19.9		30.3		26.9		16.4	

* Comparison is not performed on parameters with non-numeric criteria.

** A second RA-6 sample was inadvertently collected on 3/12/2020. This sample is representative of the excavation caving and not the actual end-point soil quality

RA-6iii was collected at the final construction elevation,
J - Presumptive evidence of compound.

U - Not detected at the reported detection limit for the sample.

NY-UNRES: New York NYCRR Part 375 New York Unrestricted use Criteria Criteria per 6 NYCRR Part 375 Environmental Remediation Programs, effective December 14, 2006.

Table 5.1
Summary of Remedial End-Point Samples Results - TAL Metals
Cottage - Garden Auto Repair
New Rochelle, New York

LOCATION				RA-A5		RA-A6		RA-A7		RA-A8	
SAMPLING DATE				3/10/2020		3/6/2020		3/6/2020		3/6/2020	
LAB SAMPLE ID				L2010776-01		L2010273-04		L2010273-06		L2010273-05	
SAMPLE TYPE				SOIL		SOIL		SOIL		SOIL	
SAMPLE DEPTH (ft.) Estimated				21		21		21		21	
	CasNum	NY-UNRES	Units	Results	Qual	Results	Qual	Results	Qual	Results	Qual
Total Metals											
Aluminum, Total	7429-90-5		mg/kg	5940		6270		6120		5850	
Antimony, Total	7440-36-0		mg/kg	4.16	U	4.14	U	4.1	U	4.2	U
Arsenic, Total	7440-38-2	13	mg/kg	0.832	U	1.1		1.1		1.27	
Barium, Total	7440-39-3	350	mg/kg	62.1		66.5		63.2		58.3	
Beryllium, Total	7440-41-7	7.2	mg/kg	0.15	J	0.414	U	0.41	U	0.42	U
Cadmium, Total	7440-43-9	2.5	mg/kg	0.574	J	0.149	J	0.172	J	0.168	J
Calcium, Total	7440-70-2		mg/kg	4540		5060		4540		3850	
Chromium, Total	7440-47-3	30	mg/kg	14.4		15.3		17.4		15.2	
Cobalt, Total	7440-48-4		mg/kg	6.37		7.12		7.75		7.39	
Copper, Total	7440-50-8	50	mg/kg	13		12.2		12.2		11.7	
Iron, Total	7439-89-6		mg/kg	10400		10800		11500		10400	
Lead, Total	7439-92-1	63	mg/kg	33.8		5.41		7.05		7.14	
Magnesium, Total	7439-95-4		mg/kg	3530		4490		4500		3900	
Manganese, Total	7439-96-5	1600	mg/kg	153		188		150		188	
Mercury, Total	7439-97-6	0.18	mg/kg	0.069	U	0.068	U	0.069	U	0.068	U
Nickel, Total	7440-02-0	30	mg/kg	11.4		11.5		12.5		11.6	
Potassium, Total	7440-09-7		mg/kg	2640		3200		3280		2830	
Selenium, Total	7782-49-2	3.9	mg/kg	1.66	U	1.66	U	1.64	U	1.68	U
Silver, Total	7440-22-4	2	mg/kg	0.832	U	0.828	U	0.82	U	0.84	U
Sodium, Total	7440-23-5		mg/kg	152	J	128	J	128	J	109	J
Thallium, Total	7440-28-0		mg/kg	1.66	U	1.66	U	1.64	U	1.68	U
Vanadium, Total	7440-62-2		mg/kg	17.5		20.4		22		19.8	
Zinc, Total	7440-66-6	109	mg/kg	32		24.3		27.5		27.4	

* Comparison is not performed on parameters with non-numeric criteria.

** A second RA-6 sample was inadvertently collected on 3/12/2020. This sample is representative of the excavation caving and not the actual end-point soil quality

RA-6iii was collected at the final construction elevation,
J - Presumptive evidence of compound.

U - Not detected at the reported detection limit for the sample.

NY-UNRES: New York NYCRR Part 375 New York Unrestricted use Criteria Criteria per 6 NYCRR Part 375 Environmental Remediation Programs, effective December 14, 2006.

Table 5.1
Summary of Remedial End-Point Samples Results - SVOCs
Cottage - Garden Auto Repair
New Rochelle, New York

LOCATION		RA-A3	RA-A4	RA-A5	RA-A6	RA-A7	RA-A8
SAMPLING DATE		3/6/2020	3/6/2020	3/10/2020	3/6/2020	3/6/2020	3/6/2020
LAB SAMPLE ID		L2010273-03	L2010273-07	L2010776-01	L2010273-04	L2010273-06	L2010273-05
SAMPLE TYPE		SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
SAMPLE DEPTH (ft.) Estimated		21	21	21	21	21	21
	CasNum	NY-UNRES	Units	Results	Qual	Results	Qual
Semivolatile Organics by GC/MS				Results	Qual	Results	Qual
Acenaphthene	83-32-9	20	mg/kg	0.17	U	0.14	U
1,2,4-Trichlorobenzene	120-82-1		mg/kg	0.21	U	0.17	U
Hexachlorobenzene	118-74-1	0.33	mg/kg	0.12	U	0.1	U
Bis(2-chloroethyl)ether	111-44-4		mg/kg	0.19	U	0.16	U
2-Chloronaphthalene	91-58-7		mg/kg	0.21	U	0.17	U
1,2-Dichlorobenzene	95-50-1	1.1	mg/kg	0.21	U	0.17	U
1,3-Dichlorobenzene	541-73-1	2.4	mg/kg	0.21	U	0.17	U
1,4-Dichlorobenzene	106-46-7	1.8	mg/kg	0.21	U	0.17	U
3,3'-Dichlorobenzidine	91-94-1		mg/kg	0.21	U	0.17	U
2,4-Dinitrotoluene	121-14-2		mg/kg	0.21	U	0.17	U
2,6-Dinitrotoluene	606-20-2		mg/kg	0.21	U	0.17	U
Fluoranthene	206-44-0	100	mg/kg	0.12	U	0.1	U
4-Chlorophenyl phenyl ether	7005-72-3		mg/kg	0.21	U	0.17	U
4-Bromophenyl phenyl ether	101-55-3		mg/kg	0.21	U	0.17	U
Bis(2-chloroisopropyl)ether	108-60-1		mg/kg	0.25	U	0.21	U
Bis(2-chloroethoxy)methane	111-91-1		mg/kg	0.23	U	0.19	U
Hexachlorobutadiene	87-68-3		mg/kg	0.21	U	0.17	U
Hexachlorocyclopentadiene	77-47-4		mg/kg	0.6	U	0.5	U
Hexachloroethane	67-72-1		mg/kg	0.17	U	0.14	U
Isophorone	78-59-1		mg/kg	0.19	U	0.16	U
Naphthalene	91-20-3	12	mg/kg	0.21	U	0.17	U
Nitrobenzene	98-95-3		mg/kg	0.19	U	0.16	U
NDPA/DPA	86-30-6		mg/kg	0.17	U	0.14	U
n-Nitrosodi-n-propylamine	621-64-7		mg/kg	0.21	U	0.17	U
Bis(2-ethylhexyl)phthalate	117-81-7		mg/kg	0.21	U	0.17	U
Butyl benzyl phthalate	85-68-7		mg/kg	0.21	U	0.17	U
Di-n-butylphthalate	84-74-2		mg/kg	0.21	U	0.17	U
Di-n-octylphthalate	117-84-0		mg/kg	0.21	U	0.17	U
Diethyl phthalate	84-66-2		mg/kg	0.21	U	0.17	U
Dimethyl phthalate	131-11-3		mg/kg	0.21	U	0.17	U
Benzo(a)anthracene	56-55-3	1	mg/kg	0.12	U	0.1	U
Benzo(a)pyrene	50-32-8	1	mg/kg	0.17	U	0.14	U
Benzo(b)fluoranthene	205-99-2	1	mg/kg	0.12	U	0.1	U
Benzo(k)fluoranthene	207-08-9	0.8	mg/kg	0.12	U	0.1	U
Chrysene	218-01-9	1	mg/kg	0.12	U	0.1	U
Acenaphthylene	208-96-8	100	mg/kg	0.17	U	0.14	U
Anthracene	120-12-7	100	mg/kg	0.12	U	0.1	U
Benzo(ghi)perylene	191-24-2	100	mg/kg	0.17	U	0.14	U
Fluorene	86-73-7	30	mg/kg	0.21	U	0.17	U
Phenanthrene	85-01-8	100	mg/kg	0.12	U	0.1	U
Dibenz(a,h)anthracene	53-70-3	0.33	mg/kg	0.12	U	0.1	U
Indeno(1,2,3-cd)pyrene	193-39-5	0.5	mg/kg	0.17	U	0.14	U
Pyrene	129-00-0	100	mg/kg	0.12	U	0.1	U
Biphenyl	92-52-4		mg/kg	0.48	U	0.4	U
4-Chloroaniline	106-47-8		mg/kg	0.21	U	0.17	U
2-Nitroaniline	88-74-4		mg/kg	0.21	U	0.17	U
3-Nitroaniline	99-09-2		mg/kg	0.21	U	0.17	U
4-Nitroaniline	100-01-6		mg/kg	0.21	U	0.17	U
Dibenzofuran	132-64-9	7	mg/kg	0.21	U	0.17	U
2-Methylnaphthalene	91-57-6		mg/kg	0.25	U	0.21	U
1,2,4,5-Tetrachlorobenzene	95-94-3		mg/kg	0.21	U	0.17	U
Acetophenone	98-86-2		mg/kg	0.21	U	0.17	U
Benzyl Alcohol	100-51-6		mg/kg	0.21	U	0.17	U
Carbazole	86-74-8		mg/kg	0.21	U	0.17	U

* Comparison is not performed on parameters with non-numeric criteria.

** A second RA-6 sample was inadvertently collected on 3/12/2020. This sample is representative of the excavation cave in and not the actual end-point soil

J - Presumptive evidence of compound.

U - Not detected at the reported detection limit for the sample.

NY-UNRES: New York NYCRR Part 375 New York Unrestricted use Criteria
Criteria per 6 NYCRR Part 375 Environmental Remediation Programs, effective
December 14, 2006.

Table 5.1
Summary of Remedial End-Point Samples Results - Pesticides
Cottage - Garden Auto Repair
New Rochelle, New York

LOCATION				RA-24	
SAMPLING DATE				2/17/2020	
LAB SAMPLE ID				L2007067-01	
SAMPLE TYPE				SOIL	
SAMPLE DEPTH (ft.) Estimated				14	
	CasNum	NY-UNRES	Units	Results	Qual
Organochlorine Pesticides by GC					
Delta-BHC	319-86-8	0.04	mg/kg	0.00169	U
Lindane	58-89-9	0.1	mg/kg	0.000704	U
Alpha-BHC	319-84-6	0.02	mg/kg	0.000704	U
Beta-BHC	319-85-7	0.036	mg/kg	0.00169	U
Heptachlor	76-44-8	0.042	mg/kg	0.000845	U
Aldrin	309-00-2	0.005	mg/kg	0.00169	U
Heptachlor epoxide	1024-57-3		mg/kg	0.00317	U
Endrin	72-20-8	0.014	mg/kg	0.000704	U
Endrin aldehyde	7421-93-4		mg/kg	0.00211	U
Endrin ketone	53494-70-5		mg/kg	0.00169	U
Dieldrin	60-57-1	0.005	mg/kg	0.00106	U
4,4'-DDE	72-55-9	0.0033	mg/kg	0.00169	U
4,4'-DDD	72-54-8	0.0033	mg/kg	0.00169	U
4,4'-DDT	50-29-3	0.0033	mg/kg	0.00317	U
Endosulfan I	959-98-8	2.4	mg/kg	0.00169	U
Endosulfan II	33213-65-9	2.4	mg/kg	0.00169	U
Endosulfan sulfate	1031-07-8	2.4	mg/kg	0.000704	U
Methoxychlor	72-43-5		mg/kg	0.00317	U
Toxaphene	8001-35-2		mg/kg	0.0317	U
cis-Chlordane	5103-71-9	0.094	mg/kg	0.00211	U
trans-Chlordane	5103-74-2		mg/kg	0.00211	U
Chlordane	57-74-9		mg/kg	0.0141	U

* Comparison is not performed on parameters with non-numeric criteria.

U - Not detected at the reported detection limit for the sample.

NY-UNRES: New York NYCRR Part 375 New York Unrestricted use Criteria Criteria per 6 NYCRR Part 375 Environmental Remediation Programs, effective December 14, 2006.

Table 5.2 Summary of Groundwater Sample Results - VOCs
 Cottage - Garden Auto Repair Site
 New Rochelle, NY

LOCATION			MW-1	MW-1	MW-1	MW-1	MW-1	MW-1	MW-2	MW-2	MW-2	MW-2	MW-3	MW-3	MW-3	MW-4	
SAMPLING DATE			5/19/2019	1/9/2020	3/19/2020	7/1/2020	8/3/2020	5/19/2019	3/19/2020	7/1/2020	8/3/2020	5/17/2019	3/19/2020	7/1/2020	8/3/2020	5/16/2019	
LAB SAMPLE ID			460-182234-1	460-200541-1	L2012566-01	L2028042-01	460-214981-1	460-182234-2	L2012566-02	L2028042-02	460-214981-2	460-182295-1	L2012566-03	L2028042-03	460-214981-3	460-182225-3	
SAMPLE TYPE			Water	Water	WATER	WATER	WATER	Water	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	
CasNum	NY-AWQS	Units	Results	Qual	Results	Qual	Results	Qual	Results	Qual	Results	Qual	Results	Qual	Results	Qual	
Ethylbenzene	100-41-4	5 ug/l	0.3	U	0.3	U	<0.7	U	<0.7	U	0.3	U	<0.7	U	0.3	U	
Styrene	100-42-5	5 ug/l	0.42	U	0.42	U	<0.7	U	<0.7	U	0.42	U	<0.7	U	0.42	U	
g-is-1,3-Dichloropropene	10061-01-5	0.4 ug/l	0.46	U	0.22	U	<0.14	U	<0.14	U	0.22	U	<0.14	U	<0.14	U	
trans-1,3-Dichloropropene	10061-02-6	0.4 ug/l	0.49	U	0.49	U	<0.16	U	<0.16	U	0.49	U	<0.16	U	<0.16	U	
n-Propylbenzene	103-65-1	5 ug/l	NA	NA	<0.7	U	<0.7	U	NA	NA	<0.7	U	<0.7	U	<0.7	U	
n-Butylbenzene	104-51-8	5 ug/l	NA	NA	<0.7	U	<0.7	U	NA	NA	<0.7	U	<0.7	U	<0.7	U	
p-Diethylbenzene	105-05-5	ug/l	NA	NA	<0.7	U	<0.7	U	NA	NA	<0.7	U	<0.7	U	<0.7	U	
p-Chlorotoluene	106-43-4	5 ug/l	NA	NA	<0.7	U	<0.7	U	NA	NA	<0.7	U	<0.7	U	<0.7	U	
1,4-Dichlorobenzene	106-46-7	3 ug/l	0.76	U	0.33	U	<0.7	U	<0.7	U	0.33	U	<0.7	U	<0.7	U	
1,2-Dibromoethane	106-93-4	0.0006 ug/l	0.001	U	0.5	U	<0.65	U	<0.65	U	0.5	U	<0.65	U	<0.65	U	
1,2-Dichloroethane	107-06-2	0.6 ug/l	0.43	U	0.43	U	<0.13	U	0.32	J	0.43	U	<0.13	U	0.43	U	
Acrylonitrile	107-13-1	5 ug/l	NA	NA	<1.5	U	<1.5	U	NA	NA	<1.5	U	<1.5	U	<1.5	U	
Vinyl acetate	108-05-4	ug/l	NA	NA	<1	U	<1	U	NA	NA	<1	U	<1	U	<1	U	
4-Methyl-2-pentanone	108-10-1	ug/l	2.7	U	1.3	U	<1	U	<1	U	1.3	U	<1	U	<1	U	
1,3,5-Trimethylbenzene	108-67-8	5 ug/l	NA	NA	<0.7	U	<0.7	U	NA	NA	<0.7	U	<0.7	U	<0.7	U	
Bromobenzene	108-86-1	5 ug/l	NA	NA	<0.7	U	<0.7	U	NA	NA	<0.7	U	<0.7	U	<0.7	U	
Toluene	108-88-3	5 ug/l	0.38	U	0.38	U	<0.7	U	<0.7	U	0.38	U	<0.7	U	<0.7	U	
Chlorobenzene	108-90-7	5 ug/l	0.38	U	0.38	U	<0.7	U	0.38	U	0.38	U	<0.7	U	<0.7	U	
trans-1,4-Dichloro-2-butene	110-57-6	5 ug/l	NA	NA	<0.7	U	<0.7	U	NA	NA	<0.7	U	<0.7	U	<0.7	U	
1,2,4-Trichlorobenzene	120-82-1	5 ug/l	0.37	U	0.37	U	<0.7	U	0.37	U	0.37	U	<0.7	U	<0.7	U	
1,4-Dioxane	123-91-1	ug/l	NA	NA	<61	U	<61	U	28	U	NA	<61	U	28	U	NA	
Dibromochloromethane	124-48-1	50 ug/l	0.28	U	0.28	U	<0.15	U	0.28	U	0.28	U	<0.15	U	0.28	U	
Tetrachloroethene	127-18-4	5 ug/l	0.25	U	0.25	U	<0.18	U	<0.18	U	0.25	U	2.6	0.2	J	0.25	
Xylenes, Total	1330-20-7	ug/l	NA	NA	<0.7	U	<0.7	U	NA	NA	<0.7	U	0.37	U	<0.7	U	
sec-Butylbenzene	135-98-8	5 ug/l	NA	NA	<0.7	U	<0.7	U	NA	NA	<0.7	U	<0.7	U	<0.7	U	
1,3-Dichloropropane	142-28-9	5 ug/l	NA	NA	<0.7	U	<0.7	U	NA	NA	<0.7	U	<0.7	U	<0.7	U	
cis-1,2-Dichloroethene	156-59-2	5 ug/l	0.22	U	0.22	U	<0.7	U	<0.7	U	0.22	U	<0.7	U	<0.7	U	
trans-1,2-Dichloroethene	156-60-5	5 ug/l	0.24	U	0.24	U	<0.7	U	<0.7	U	0.24	U	<0.7	U	<0.7	U	
Methyl tert butyl ether	1634-04-4	10 ug/l	0.47	U	0.47	U	<0.7	U	<0.7	U	0.47	U	<0.7	U	8	47	
p/m-Xylene	179601-23-1	5 ug/l	0.3	U	0.3	U	<0.7	U	<0.7	U	0.3	U	<0.7	U	75	29	
1,2-Dichloroethene, Total	540-59-0	ug/l	NA	NA	<0.7	U	<0.7	U	NA	NA	<0.7	U	<0.7	U	NA	NA	
1,3-Dichlorobenzene	541-73-1	3 ug/l	0.34	U	0.34	U	<0.7	U	<0.7	U	0.34	U	<0.7	U	0.34	U	
1,3-Dichloropropene, Total	542-75-6	ug/l	NA	NA	<0.14	U	<0.14	U	NA	NA	<0.14	U	<0.14	U	NA	NA	
Carbon tetrachloride	56-23-5	5 ug/l	0.21	U	0.21	U	<0.13	U	<0.13	U	0.21	U	<0.13	U	0.21	U	
1,1-Dichloropropene	563-58-6	5 ug/l	NA	NA	<0.7	U	<0.7	U	NA	NA	<0.7	U	<0.7	U	NA	NA	
2-Hexanone	591-78-6	50 ug/l	2.9	U	1.1	U	<1	U	1.1	U	2.9	U	<1	U	1.1	U	
2,2-Dichloropropane	594-20-7	5 ug/l	NA	NA	<0.7	U	<0.7	U	NA	NA	<0.7	U	<0.7	U	NA	NA	
Ethyl ether	60-29-7	ug/l	NA	NA	<0.7	U	<0.7	U	NA	NA	<0.7	U	<0.7	U	NA	NA	
p-Ethyltoluene	622-96-8	ug/l	NA	NA	<0.7	U	<0.7	U	NA	NA	<0.7	U	<0.7	U	NA	NA	
1,1,1,2-Tetrachloroethane	630-20-6	5 ug/l	NA	NA	<0.7	U	<0.7	U	NA	NA	<0.7	U	<0.7	U	NA	NA	
Acetone	67-64-1	50 ug/l	5	U	4.4	U	10	100	170	5	U	2.6	J	41	11	5	U
Chloroform	67-66-3	7 ug/l	0.33	U	6.3	6.6	1	J	0.82	J	0.33	U	1.9	J	<0.7	U	
Benzene	71-43-2	1 ug/l	0.43	U	0.2	U	1.4	0.19	J	0.2							

Table 5.2 Summary of Groundwater Sample Results - VOCs
 Cottage - Garden Auto Repair Site
 New Rochelle, NY

MW-4		MW-4		MW-4		MW-5		MW-5	
3/19/2020		7/1/2020		8/3/2020		5/16/2019		3/17/2020	
L2012566-04		L2028042-04		460-214981-4		460-182225-1		L2012030-01	
WATER		WATER		WATER		WATER		WATER	
Results	Qual	Results	Qual	Results	Qual	Results	Qual	Results	Qual
<0.7	U	<0.7	U	0.3	U	0.3	U	<0.7	U
<0.7	U	<0.7	U	0.42	U	0.42	U	<0.7	U
<0.14	U	<0.14	U	0.22	U	0.46	U	<0.14	U
<0.16	U	<0.16	U	0.49	U	0.49	U	<0.16	U
<0.7	U	<0.7	U	NA		NA		<0.7	U
<0.7	U	<0.7	U	NA		NA		<0.7	U
<0.7	U	<0.7	U	NA		NA		<0.7	U
<0.7	U	<0.7	U	NA		NA		<0.7	U
<0.7	U	<0.7	U	NA		NA		<0.7	U
<0.7	U	<0.7	U	0.33	U	0.76	U	<0.7	U
<0.65	U	<0.65	U	0.5	U	0.001	U	<0.65	U
<0.13	U	<0.13	U	0.43	U	0.43	U	<0.13	U
<1.5	U	<1.5	U	NA		NA		<1.5	U
<1	U	<1	U	NA		NA		<1	U
<1	U	<1	U	1.3	U	2.7	U	<1	U
<0.7	U	<0.7	U	NA		NA		<0.7	U
<0.7	U	<0.7	U	NA		NA		<0.7	U
<0.7	U	<0.7	U	0.38	U	0.38	U	<0.7	U
<0.7	U	<0.7	U	0.38	U	0.38	U	<0.7	U
<0.7	U	<0.7	U	NA		NA		<0.7	U
<0.7	U	<0.7	U	0.37	U	0.37	U	<0.7	U
<61	U	<61	U	28	U	NA		<61	U
<0.15	U	<0.15	U	0.28	U	0.28	U	<0.15	U
0.91		<0.18	U	0.25	U	0.51	J	0.71	
<0.7	U	<0.7	U	NA		NA		<0.7	U
<0.7	U	<0.7	U	NA		NA		<0.7	U
<0.7	U	<0.7	U	NA		0.22	U	<0.7	U
<0.7	U	<0.7	U	0.22	U	0.24	U	4.6	
<0.7	U	<0.7	U	0.24	U	0.47	U	<0.7	U
18		<0.7	U	0.47	U	0.3	U	<0.7	U
<0.7	U	<0.7	U	0.3	U	NA		<0.7	U
<0.7	U	<0.7	U	NA		0.34	U	4.6	
<0.7	U	<0.7	U	0.34	U	NA		<0.7	U
<0.14	U	<0.14	U	NA		0.21	U	<0.14	U
<0.13	U	<0.13	U	0.21	U	NA		<0.13	U
<0.7	U	<0.7	U	NA		2.9	U	<0.7	U
<1	U	<1	U	1.1	U	NA		<1	U
<0.7	U	<0.7	U	NA		NA		<0.7	U
<0.7	U	<0.7	U	NA		NA		<0.7	U
<0.7	U	<0.7	U	NA		NA		<0.7	U
<0.7	U	<0.7	U	NA		NA		<0.7	U
<1.5	U	20		4.4	U	25	J	4.8	
<0.7	U	<0.7	U	0.33	U	0.33	U	<0.7	U
<0.16	U	0.17	J	0.2	U	0.43	U	0.38	J
<0.7	U	<0.7	U	0.24	U	0.24	U	<0.7	U
0.96	J	<0.7	U	0.55	U	1	U	<0.7	U
<0.7	U	0.83	J	0.61	J	0.14	U	<0.7	U
<1	U	<1	U	NA		NA		<1	U
<0.7	U	<0.7	U	NA		0.41	U	<0.7	U
<0.7	U	<0.7	U	0.32	U	0.32	U	<0.7	U
<0.07	U	<0.07	U	0.17	U	0.17	U	<0.07	U
<0.7	U	<0.7	U	0.32	U	5.4		<0.7	U
<1	U	<1	U	0.82	U	0.16	U	<1	U
<0.65	U	<0.65	U	0.54	U	0.54	U	<0.65	U
<0.19	U	<0.19	U	0.34	U	0.34	U	<0.19	U
<0.7	U	<0.7	U	0.26	U	0.26	U	<0.7	U
<0.17	U	<0.17	U	0.26	U	0.12	U	0.18	J
<0.7	U	<0.7	U	0.32	U	0.14	U	<0.7	U
<1	U	<1	U	0.31	U	0.12	U	<1	U
<0.14	U	<0.14	U	0.35	U	0.35	U	<0.14	U
<1.9	U	3.7	J	1.9	U	1.9	U	<1.9	U
<0.5	U	<0.5	U	0.43	U	0.43	U	<0.5	U
7.8		0.76		1.1		0.75	J	42	
<0.17	U	<0.17	U	0.37	U	0.37	U	<0.17	U
<0.7	U	<0.7	U	0.36	U	0.36	U	<0.7	U
<0.7	U	<0.7	U	NA		NA		<0.7	U
<0.7	U	<0.7	U	NA		NA		<0.7	U
<0.7	U	<0.7	U	0.36	U	0.36	U	<0.7	U
<0.7	U	<0.7	U	NA		NA		<0.7	U
<0.7	U	<0.7	U	0.43	U	0.43	U	<0.7	U
<0.7	U	<0.7	U	NA		NA		<0.7	U
<0.54	U	<0.54	U	NA		NA		<0.54	U
<0.7	U	<0.7	U	0.38	U	0.004	U	<0.7	U
<0.7	U	<0.7	U	NA		NA		<0.7	U
<0.7	U	<0.7	U	NA		NA		<0.7	U
<0.7	U	<0.7	U	0.34	U	0.34	U	<0.7	U
<0.7	U	<0.7	U	NA		NA		<0.7	U

Table 5.2 Summary of Groundwater Sample Results - SVOCs
 Cottage - Garden Auto Repair Site
 New Rochelle, NY

LOCATION			MW-1		MW-1		MW-1		MW-2		MW-3		MW-3		MW-4		MW-4		MW-5		MW-5					
				5/19/2019		1/9/2020		3/19/2020		5/19/2019		3/19/2020		5/17/2019		3/19/2020		5/16/2019		3/19/2020		5/16/2019		3/17/2020		
SAMPLING DATE				460-182234-1			460-200541-1		L2012566-01		460-182234-2		L2012566-02		460-182295-1		L2012566-03		460-182225-3		L2012566-04		460-182225-1		L2012030-01	
LAB SAMPLE ID																										
SAMPLE TYPE				Water		Water	Water		Water		WATER		WATER													
	CasNum	NY-AWQS	Units	Results	Qual	Qual	Results	Qual	Results	Qual	Results	Qual	Results	Qual	Results	Qual	Results	Qual	Results	Qual	Results	Qual	Results	Qual	Results	Qual
4-Nitroaniline	100-01-6	5	ug/l	0.54	U		1.3	U	<0.8	U	0.54	U	<0.8	U												
4-Nitrophenol	100-02-7		ug/l	0.69	U		4.1	U	<0.67	U	0.69	U	<0.67	U												
Benzyl Alcohol	100-51-6		ug/l	NA			NA		<0.59	U	NA		<0.59	U												
4-Bromophenyl phenyl ether	101-55-3		ug/l	0.75	U		0.78	U	<0.38	U	0.75	U	<0.38	U												
2,4-Dimethylphenol	105-67-9	50	ug/l	0.24	U		0.64	U	<1.8	U	0.24	U	<1.8	U												
1,4-Dichlorobenzene	106-46-7	3	ug/l	NA			NA		<0.43	U	NA		<0.43	U												
4-Chloroaniline	106-47-8	5	ug/l	1.9	U		2	U	<1.1	U	1.9	U	<1.1	U												
3-Methylphenol/4-Methylphenol	108-39-4/106-44-5		ug/l	0.24	U		0.68	U	<0.48	U	0.24	U	<0.48	U												
Bis(2-chloroisopropyl)ether	108-60-1	5	ug/l	0.63	U		0.66	U	0.56	J	0.63	U	<0.53	U	0.63	U	<0.53	U	0.63	U	<0.53	U	0.63	U	<0.53	U
Phenol	108-95-2	1	ug/l	0.29	U		0.3	U	<0.57	U	0.29	U	<0.57	U												
Bis(2-chloroethyl)ether	111-44-4	1	ug/l	0.026	U		0.66	U	<0.5	U	0.026	U	<0.5	U												
Bis(2-chloroethoxy)methane	111-91-1	5	ug/l	0.24	U		0.61	U	<0.5	U	0.24	U	<0.5	U												
Bis(2-ethylhexyl)phthalate	117-81-7	5	ug/l	1.7	U		1.8	U	<1.5	U	1.7	U	<1.5	U												
Di-n-octylphthalate	117-84-0	50	ug/l	4.8	U		5	U	<1.3	U	4.8	U	<1.3	U												
1,2,4-Trichlorobenzene	120-82-1	5	ug/l	NA			NA		<0.5	U	NA		<0.5	U												
2,4-Dichlorophenol	120-83-2	1	ug/l	0.42	U		1.1	U	<0.41	U	0.42	U	<0.41	U												
2,4-Dinitrotoluene	121-14-2	5	ug/l	1	U		1	U	<1.2	U	1	U	<1.2	U												
Dimethyl phthalate	131-11-3	50	ug/l	0.77	U		0.8	U	<1.8	U	0.77	U	<1.8	U												
Dibenzofuran	132-64-9		ug/l	1.1	U		1.1	U	<0.5	U	1.1	U	<0.5	U												
2,4-Dinitrophenol	51-28-5	10	ug/l	14	U		15	U	<6.6	U	14	U	<6.6	U												
4,6-Dinitro-o-cresol	534-52-1		ug/l	0.38	U		14	U	<1.8	U	0.38	U	<1.8	U												
1,3-Dichlorobenzene	541-73-1	3	ug/l	NA			NA		<0.4	U	NA		<0.4	U												
p-Chloro-m-cresol	59-50-7		ug/l	0.58	U		0.6	U	<0.35	U	0.58	U	<0.35	U												
2,6-Dinitrotoluene	606-20-2	5	ug/l	0.39	U		0.86	U	<0.93	U	0.39	U	<0.93	U												
n-Nitrosodi-n-propylamine	621-64-7		ug/l	0.43	U		0.45	U	<0.64	U	0.43	U	<0.64	U												
Benzoic Acid	65-85-0		ug/l	NA			NA		<2.6	U	NA		<2.6	U												
4-Chlorophenyl phenyl ether	7005-72-3		ug/l	1.3	U		1.3	U	<0.49	U	1.3	U	<0													

Table 5.2 Summary of Groundwater Sample Results - Metals

Cottage - Garden Auto Repair Site

New Rochelle, NY

LOCATION				MW-1	MW-1	MW-2	MW-2	MW-3	MW-3	MW-4	MW-4	MW-5	MW-5	
SAMPLING DATE				5/15/2019	3/19/2020	5/15/2019	3/19/2020	5/15/2019	3/19/2020	5/16/2019	3/19/2020	5/16/2019	3/17/2020	
LAB SAMPLE ID				460-182234-1	L2012566-01	460-182234-2	L2012566-02	460-182295-1	L2012566-03	460-182225-1	L2012566-04	460-182225-1	L2012030-01	
SAMPLE TYPE				WATER	WATER									
SAMPLE DEPTH (ft.)				CasNum	NY-AWQS	Units	Results	Q	Results	Q	Results	Q	Results	Q
Aluminum, Dissolved	7429-90-5		ug/l	NA			4.43	J	NA		6.19	J	NA	
Iron, Dissolved	7439-89-6	300	ug/l	NA			28.9	J	NA		50	U	NA	
Lead, Dissolved	7439-92-1	25	ug/l	NA			1	U	NA		1	U	NA	
Magnesium, Dissolved	7439-95-4	35000	ug/l	NA			24500		NA		33800		NA	
Manganese, Dissolved	7439-96-5	300	ug/l	NA			492.2		NA		385.8		NA	
Mercury, Dissolved	7439-97-6	0.7	ug/l	NA			0.2	U	NA		0.2	U	NA	
Nickel, Dissolved	7440-02-0	100	ug/l	NA			0.99	J	NA		3.88		NA	
Potassium, Dissolved	7440-09-7		ug/l	NA			5990		NA		14700		NA	
Silver, Dissolved	7440-22-4	50	ug/l	NA			0.4	U	NA		0.4	U	NA	
Sodium, Dissolved	7440-23-5	20000	ug/l	NA			45600		NA		25300		NA	
Thallium, Dissolved	7440-28-0	0.5	ug/l	NA			0.5	U	NA		0.5	U	NA	
Antimony, Dissolved	7440-36-0	3	ug/l	NA			4	U	NA		4	U	NA	
Arsenic, Dissolved	7440-38-2	25	ug/l	NA			0.18	J	NA		0.26	J	NA	
Barium, Dissolved	7440-39-3	1000	ug/l	NA			38.99		NA		103.5		NA	
Beryllium, Dissolved	7440-41-7	3	ug/l	NA			0.5	U	NA		0.5	U	NA	
Cadmium, Dissolved	7440-43-9	5	ug/l	NA			0.2	U	NA		0.2	U	NA	
Chromium, Dissolved	7440-47-3	50	ug/l	NA			1	U	NA		1	U	NA	
Cobalt, Dissolved	7440-48-4		ug/l	NA			0.43	J	NA		0.66		NA	
Copper, Dissolved	7440-50-8	200	ug/l	NA			0.88	J	NA		0.84	J	NA	
Vanadium, Dissolved	7440-62-2		ug/l	NA			5	U	NA		5	U	NA	
Zinc, Dissolved	7440-66-6	2000	ug/l	NA			10	U	NA		10	U	NA	
Calcium, Dissolved	7440-70-2		ug/l	NA			58600		NA		78800		NA	
Selenium, Dissolved	7782-49-2	10	ug/l	NA			5	U	NA		5	U	NA	
Aluminum, Total	7429-90-5		ug/l	2990			1540		1170		7300		3280	
Iron, Total	7439-89-6	300	ug/l	4550			3310		1680		19000		4710	
Lead, Total	7439-92-1	25	ug/l	1.2			0.89	J	0.55	U	7.84		1.8	
Magnesium, Total	7439-95-4	35000	ug/l	62200			26600		34200		45500		173000	
Manganese, Total	7439-96-5	300	ug/l	481			578.4		245		786.1		1380	
Mercury, Total	7439-97-6	0.7	ug/l	0.12	U		0.2	U	0.12U		0.2	U	0.12	U
Nickel, Total	7440-02-0	100	ug/l	12.4			6.92		6.6		44.47		32.5	
Potassium, Total	7440-09-7		ug/l	10700			7110		8090		21200		20200	
Silver, Total	7440-22-4	50	ug/l	0.59	U		0.4	U	0.59	U	0.4	U	0.59	U
Sodium, Total	7440-23-5	20000	ug/l	94400			46900		39600		27000		203000	
Thallium, Total	7440-28-0	0.5	ug/l	0.16	U		0.5	U	0.16	U	0.24	J	0.16	U
Antimony, Total	7440-36-0	3	ug/l	0.76	J		4	U	0.73	J	4	U	0.94	J
Arsenic, Total	7440-38-2	25	ug/l	0.73	U		0.35	J	0.73	U	2.12		0.89	J
Barium, Total	7440-39-3	1000	ug/l	184			73.06		112		285.9		175	
Beryllium, Total	7440-41-7	3	ug/l	0.25	U		0.5	U	0.25	U	0.4	J	0.25	U
Cadmium, Total	7440-43-9	5	ug/l	0.81	U		0.2	U	0.81	U	0.11	J	0.81	U
Chromium, Total	7440-47-3	50	ug/l	8.6			6.51		4		69.43		10.6	
Cobalt, Total	7440-48-4		ug/l	5.8			2.12		3.8	J	10.45		17.1	
Copper, Total	7440-50-8	200	ug/l	25			5.91		2.8	J	49.64		2.8	J
Vanadium, Total	7440-62-2		ug/l	8.9			5.66		4.7		21.53		4.7	
Zinc, Total	7440-66-6	2000	ug/l	15.1	J		7.68	J	11.1	U	32.62		11.1	U
Calcium, Total	7440-70-2		ug/l	135000			60700		96200		93700		291000	
Selenium, Total	7782-49-2	10	ug/l	5.5	J		5	U	6.2		2.52	J	6.6	J
Cyanide, Total	57-12-5	200	ug/l	15			9		4	J F	18		41	

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Table 5.2 Summary of Groundwater Sample Results - PCBs
 Cottage - Garden Auto Repair Site
 New Rochelle, NY

LOCATION			MW-1		MW-1		MW-2		MW-2		MW-3		MW-3		MW-4		MW-4		MW-5			
SAMPLING DATE			5/15/2019		3/19/2020		5/15/2019		3/19/2020		5/17/2019		3/19/2020		5/16/2019		3/19/2020		5/16/2019		3/17/2020	
LAB SAMPLE ID			460-182234-1		L2012566-01		460-182234-2		L2012566-02		460-182295-1		L2012566-03		460-182225-3		L2012566-04		460-182225-1		L2012030-01	
SAMPLE TYPE			WATER		WATER		WATER		WATER		WATER		WATER		WATER		WATER		WATER			
	CasNum	NY-AWQS	Results	Q	Results	Q																
Aroclor 1016	12674-11-2	0.09	0.12	U	0.034	U																
Aroclor 1221	11104-28-2	0.09	0.12	U	0.067	U																
Aroclor 1232	11141-16-5	0.09	0.12	U	0.046	U																
Aroclor 1242	53469-21-9	0.09	0.12	U	0.039	U																
Aroclor 1248	12672-29-6	0.09	0.12	U	0.049	U	0.12	U	0.049	U	0.12	U	0.049	U	0.12	U	0.056	J	0.12	U	0.049	U
Aroclor 1254	11097-69-1	0.09	0.11	U	0.039	U																
Aroclor 1260	11096-82-5	0.09	0.11	U	0.032	U																
Aroclor 1262	37324-23-5	0.09	0.11	U	0.035	U																
Aroclor 1268	11100-14-4	0.09	0.11	U	0.034	U																
PCBs, Total	1336-36-3	0.09	0.12	U	0.032	U	0.12	U	0.032	U	0.12	U	0.032	U	0.12	U	0.056	J	0.12	U	0.032	U

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Table 5.2 Summary of Groundwater Sample Results - Pesticides
 Cottage - Garden Auto Repair Site
 New Rochelle, NY

SAMPLE ID:		MW-1		MW-1		MW-2		MW-3		MW-4		MW-5		MW-5	
LAB ID:		460-182234-1		L2012566-01	460-182234-2	L2012566-02	460-182295-1	L2012566-03	460-182225-3	L2012566-04	460-182225-1	L2012030-01			
COLLECTION DATE:		5/15/2019		3/19/2020		5/15/2019		3/19/2020		5/17/2019		3/19/2020		5/16/2019	
SAMPLE MATRIX:	Units	WATER		WATER		WATER		WATER		WATER		WATER		WATER	
Analyte	NY-AWQS	Conc	Q	Conc	Q	Conc	Q	Conc	Q	Conc	Q	Conc	Q	Conc	Q
4,4'-DDD	ug/L	0.3	U	0.006	U	0.003	U	0.006	U	0.003	U	0.006	U	0.003	U
4,4'-DDE	ug/L	0.2	U	0.002	U	0.003	U	0.002	U	0.003	U	0.002	U	0.003	U
4,4'-DDT	ug/L	0.2	U	0.004	U	0.003	U	0.004	U	0.003	U	0.004	U	0.003	U
Aldrin	ug/L			0.003	U	0.002	U	0.003	U	0.002	U	0.003	U	0.002	U
alpha-BHC	ug/L	0.01	U	0.007	U	0.003	U	0.007	U	0.003	U	0.007	U	0.003	U
beta-BHC	ug/L	0.04	U	0.004	U	0.004	U	0.004	U	0.004	U	0.004	U	0.004	U
Chlordane (n.o.s.)	ug/L			0.055	U	0.033	U	0.055	U	0.055	U	0.033	U	0.055	U
cis-Chlordane	ug/L			0.002	U	0.005	U	0.002	U	0.005	U	0.002	U	0.005	U
delta-BHC	ug/L	0.04	U	0.005	U	0.003	U	0.005	U	0.003	U	0.005	U	0.005	U
Dieldrin	ug/L	0.004	U	0.003	U	0.003	U	0.003	U	0.003	U	0.003	U	0.003	U
Endosulfan I	ug/L			0.002	U	0.002	U	0.002	U	0.002	U	0.002	U	0.002	U
Endosulfan II	ug/L			0.004	U	0.004	U	0.004	U	0.004	U	0.004	U	0.004	U
Endosulfan sulfate	ug/L			0.006	U	0.003	U	0.006	U	0.003	U	0.006	U	0.006	U
Endrin	ug/L			0.004	U	0.003	U	0.004	U	0.003	U	0.004	U	0.003	U
Endrin aldehyde	ug/L	5	U	0.008	U	0.006	U	0.008	U	0.006	U	0.008	U	0.006	U
Endrin ketone	ug/L	5	U	0.008	U	0.003	U	0.008	U	0.003	U	0.008	U	0.003	U
Heptachlor	ug/L	0.04	U	0.003	U	0.002	U	0.003	U	0.002	U	0.003	U	0.002	U
Heptachlor epoxide	ug/L	0.03	U	0.005	U	0.003	U	0.005	U	0.003	U	0.005	U	0.003	U
gamma-BHC (Lindane)	ug/L	0.05	U	0.012	U	0.003	U	0.012	U	0.003	U	0.012	U	0.012	U
Methoxychlor	ug/L	35	U	0.004	U	0.005	U	0.004	U	0.005	U	0.004	U	0.005	U
Toxaphene	ug/L	0.06a	U	0.11	U	0.045	U	0.11	U	0.045	U	0.11	U	0.045	U
trans-Chlordane	ug/L			0.003	U	0.004	U	0.003	U	0.004	U	0.003	U	0.004	U

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