



Sterling Environmental Engineering, P.C.

**53 PUTNAM STREET
SARATOGA COUNTY
SARATOGA SPRINGS, NEW YORK**

SITE MANAGEMENT PLAN

NYSDEC Site Number: C546057

Prepared for:

Putnam Resources, LLC
15 W Main Street, #1C
Cambridge, New York 12816

Prepared by:

Sterling Environmental Engineering, P.C.
24 Wade Road
Latham, New York 12110
(518) 456-4900

Revisions to Final Approved Site Management Plan:

Revision No.	Date Submitted	Summary of Revision	NYSDEC Approval Date

November, 2024

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CERTIFICATION STATEMENT

I, Andrew M. Millspaugh, P.E., certify that I am currently a NYS registered professional engineer and that this Site Management Plan was prepared in accordance with all applicable statutes and regulations and in substantial conformance with the DER Technical Guidance for Site Investigation and Remediation (DER-10) and Green Remediation (DER-31).

094708

NYS Professional Engineer #

11/01/2024

Date



Signature



SEAL

LIST OF ACRONYMS

<u>Acronym</u>	<u>Definition</u>
AMSL	above mean sea level
BCA	Brownfield Cleanup Agreement
BCP	Brownfield Cleanup Program
bgs	below ground surface
BMP	Best Management Practice
CAMP	Community Air Monitoring Plan
COC	Certificate of Completion
cVOC	chlorinated volatile organic compound
DCE	dichloroethane
DER-10	Division of Environmental Remediation/Technical Guidance for Site Investigation and Remediation
DER-31	Division of Environmental Remediation/Green Remediation
DUSR	Data Usability Summary Report
EC	engineering control
ECL	Environmental Conservation Law
EWP	Excavation Work Plan
IC	institutional control
HASP	Health and Safety Plan
NYCRR	New York Codes, Rules and Regulations
NYS	New York State
NYSDEC	New York State Department of Environmental Conservation
NYSDOH	New York State Department of Health
PCE	tetrachloroethene
PFAS	Per- and Polyfluoroalkyl Substances
PFOA	Perfluorooctanoic Acid
PFOS	Perfluorooctanesulfonic Acid
PID	photoionization detector
PRR	Periodic Review Report
QAPP	Quality Assurance Project Plan
RAO	Remedial Action Objective
RI	Remedial Investigation
RSO	Remedial System Optimization
SCG	Standards, Criteria, and Guidance
SCO	Soil Cleanup Objective
SMP	Site Management Plan
SVI	Soil Vapor Intrusion
SVOC	semi-volatile organic compound
TCE	trichloroethene
TOGS	Technical and Operational Guidance Series
USEPA	United States Environmental Protection Agency

VC	vinyl chloride
VOC	volatile organic compound

EXECUTIVE SUMMARY

The following provides a brief summary of the controls implemented for the 53 Putnam Street site (hereinafter the “site”), as well as the inspections, monitoring, maintenance, and reporting activities required by this Site Management Plan (SMP):

Site Identification: Site No. C546057
 53 Putnam Street
 Saratoga Springs, New York

Institutional Controls:	1. The property may be used for Restricted Residential Use.	
	2. Environmental Easement.	
	3. All Engineering Controls (EC) must be inspected at a frequency and in a manner defined in the SMP.	
Engineering Controls:	1. Cover System	
	2. Soil Vapor Mitigation System	
Inspections:		Frequency:
1. Site-Wide Inspection/Cover Inspection		Annually
2. Soil Vapor Mitigation System		Annually, upon installation
Monitoring:		
1. Groundwater Monitoring Wells : MW-13, MW-14, MW-15, MW-16, MW-17, MW-18, MW-19, and MW-20.		Annually
Maintenance:		
1. Cover Maintenance		As needed
Reporting:		
1. Groundwater Monitoring Data		Within 90 days of event
2. Periodic Review Report (PRR)		Annually

Further descriptions of the above requirements are provided in detail in the latter sections of this SMP.

1.0 INTRODUCTION

1.1 General

This Site Management Plan (SMP) is a required element of the remedial program for the 53 Putnam Street site located in Saratoga Springs, New York (hereinafter referred to as the “Site”). See Figure 1. The Site is currently in the New York State (NYS) Brownfield Cleanup Program (BCP), Site No. C546057, which is administered by the New York State Department of Environmental Conservation (NYSDEC or Department).

Putnam Resources, LLC entered into a Brownfield Cleanup Agreement (BCA) on May 16, 2017 with the NYSDEC to remediate the site. A figure showing the site location and boundaries of the site is provided in Figure 2. The boundaries of the site are more fully described in the metes and bounds site description that is part of the Environmental Easement provided in Appendix A.

After completion of the remedial work, some contamination was left at this site, which is hereafter referred to as “remaining contamination”. Institutional and Engineering Controls (ICs and ECs) have been incorporated into the site remedy to control exposure to remaining contamination to ensure protection of public health and the environment. An Environmental Easement granted to the NYSDEC, and recorded with the Saratoga County Clerk, requires compliance with this SMP and all ICs and ECs placed on the site.

This SMP was prepared to manage remaining contamination at the site until the Environmental Easement is extinguished in accordance with Environmental Conservation Law (ECL) Article 71, Title 36. This plan has been approved by the NYSDEC, and compliance with this plan is required by the grantor of the Environmental Easement and the grantor’s successors and assigns. This SMP may only be revised with the written approval of the NYSDEC.

It is important to note that:

- This SMP details the site-specific implementation procedures that are required by the Environmental Easement. Failure to properly implement the SMP is a violation of the Environmental Easement, which is grounds for revocation of the Certificate of Completion (COC); and
- Failure to comply with this SMP is also a violation of Environmental Conservation Law, 6 NYCRR Part 375, and the BCA for the site, and thereby subject to applicable penalties.

All reports associated with the site can be viewed by contacting the NYSDEC or its successor agency managing environmental issues in New York State. A list of contacts for persons involved with the site is provided in Appendix B of this SMP.

This SMP was prepared by Sterling Environmental Engineering, P.C. (STERLING) on behalf of Putnam Resources, LLC, in accordance with the requirements of the NYSDEC’s DER-10 “Technical Guidance for Site Investigation and Remediation”, dated May 2010, and the guidelines provided by the NYSDEC. This SMP addresses the means for implementing the ICs and/or ECs that are required by the Environmental Easement for the site.

1.2 Revisions and Alterations

Revisions and alterations to this SMP will be proposed in writing to the NYSDEC’s project manager. The NYSDEC can also make changes to the SMP or request revisions from the remedial party. Revisions will be necessary upon, but not limited to, the following: a change in media monitoring requirements, upgrades

to or shutdown of a remedial system, post-remedial removal of contaminated sediment or soil, or other significant change to the site conditions. All approved alterations must conform with Article 145 Section 7209 of the Education Law regarding the application of professional seals and alterations. For example, any changes to as-built drawings must be stamped by a New York State Professional Engineer. In accordance with the Environmental Easement for the site, the NYSDEC will provide a notice of any approved changes to the SMP and append these notices to the SMP that is retained in its files.

1.3 Notifications

Notifications will be submitted by the property owner to the NYSDEC, as needed, in accordance with NYSDEC's DER-10 for the following reasons:

1. 60-day advance notice of any proposed changes in site use that are required under the terms of the BCA, 6 NYCRR Part 375, and/or Environmental Conservation Law.
2. 7-day advance notice of any field activity associated with the remedial program.
3. 15-day advance notice of any proposed ground-intrusive activity pursuant to the Excavation Work Plan (EWP). If the ground-intrusive activity qualifies as a change of use as defined in 6 NYCRR Part 375, the above mentioned 60-day advance notice is also required and a detailed work plan will be submitted to NYSDEC and NYSDOH for review and written approval. This work plan will govern the work in place of the generic EWP. Any associated reports will be submitted under separate cover and subsequently referenced in the relevant Periodic Review Report (PRR).
4. Notice within 48 hours of any damage or defect to the foundation, structures, or EC that reduces or has the potential to reduce the effectiveness of an EC, and likewise, any action to be taken to mitigate the damage or defect.
5. Notice within 48 hours of any non-routine maintenance activities.
6. Verbal notice by noon of the following day of any emergency, such as a fire, flood, or earthquake that reduces or has the potential to reduce the effectiveness of ECs in place at the site, with written confirmation within 7 days that includes a summary of actions taken, or to be taken, and the potential impact to the environment and the public.
7. Follow-up status reports on actions taken to respond to any emergency event requiring ongoing responsive action submitted to the NYSDEC within 45 days describing and documenting actions taken to restore the effectiveness of the ECs.

Any change in the ownership of the site or the responsibility for implementing this SMP will include the following notifications:

8. At least 60 days prior to the change, the NYSDEC will be notified in writing of the proposed change. This will include a certification that the prospective purchaser/Remedial Party has been provided with a copy of the BCA, and all approved work plans and reports, including this SMP.
9. Within 15 days after the transfer of all or part of the site, the new owner's name, contact representative, and contact information will be confirmed in writing to the NYSDEC.

Table 1 on the following page includes contact information for the above notifications. The information in this table will be updated as necessary to provide accurate contact information. A full listing of site-related contact information is provided in Appendix B.

Table 1 – Notifications*

Name	Contact Information	Required Notification**
NYSDEC Project Manager: Jonathan Pollard	Phone: 518-623-1231 Email: jonathan.pollard@dec.ny.gov	All Notifications
NYSDEC Project Manager Supervisor Kelly Duval	Phone: 518-623-1272 Email: kelly.duval@dec.ny.gov	All Notifications
NYSDEC Site Control NYSDEC Chief of Site Control Kelly Lewandowski	Phone: 518-402-9401 Email: dersitecontrol@dec.ny.gov Phone: 518-402-9569 Email: kelly.lewandowski@dec.ny.gov	Notifications 1 and 8
NYSDOH Project Manager Sara Bogardus	Phone: 518-402-7860 Email: sara.bogardus@health.ny.gov	Notifications 4, 6, and 7

Note: *Notifications are subject to change and will be updated as necessary.

**Notification numbers in this column reference the numbered notification bullets in the notification list in this section.

2.0 SUMMARY OF PREVIOUS INVESTIGATIONS AND REMEDIAL ACTIONS

2.1 Site Location and Description

The site is located in Saratoga Springs, Saratoga County, New York and is identified as Section 165.60 Block 1 and Lot 58 on the City of Saratoga Springs Tax Map. The site is an approximately 0.31-acre area and is bounded by a parking lot to the north, a parking area and commercial building to the south, Putnam Street to the east, and commercial building to the west (see Figure 2). The boundaries of the site are more fully described in Appendix A: Environmental Easement & Survey Map, Metes, and Bounds. The owner of the site parcel at the time of issuance of this SMP is:

53 Putnam St Inc
159 Fifth Ave
Saratoga Springs, New York 12866

2.2 Physical Setting

2.2.1 Land Use

The site consists of the following: a vacant parcel surrounded by a perimeter chain-link fence. The site is zoned as a Mixed Use District and is currently vacant.

The properties adjoining the Site and in the neighborhood surrounding the Site primarily include mixed use residential and commercial properties. The properties immediately south of the Site include mixed use properties; the properties immediately north of the Site include mixed use properties; the properties immediately east of the Site include mixed use properties; and the properties to the west of the Site include mixed use properties.

2.2.2 Geology

The site is covered by a layer of fill material ranging in depth from approximately 8 to 12 feet below ground surface (bgs). The fill generally consists of coarse-medium-fine sand with varying amounts of silt and gravel. The fill also contains brick, cinders, and slag. Beneath the fill is natural soil consisting primarily of coarse-medium-fine sand with varying amounts of gravel, silt, and clay. Layers of organic peat ranging in thickness from less than 1 inch to as much as 2 feet are present in the sand. Beneath the sandy soil is silty clay and clay at depths ranging from 24.9 to 29.5 feet bgs.

Bedrock at the site consists of Middle Ordovician, black, Canajoharie Shale according to the Geologic Map of New York State, Hudson-Mohawk Sheet, 1970 (Fisher, D.W., Isachsen, Y.W., and Rickard, L.V.). The Canajoharie Black Shale includes part of Lorraine, Trenton, and Black River Groups. Canajoharie Shale is one of several black shales in a belt of autochthonous Paleozoic rocks (exclusive of the Taconic sequence) that occupies the Champlain, Hudson, and Mohawk Valleys. Black shales of adjacent localities also include Hortonville Slate, Snake Hill Formation, or Normanskill Shale, and are all correlative with each other.

Surficial geology at the site consists of lacustrine sand (ls) according to the Surficial Geologic Map of New York State, Hudson-Mohawk Sheet, 1986 (Cadwell, D.H., and others, Map and Chart Series 40). Lacustrine sand is generally comprised of stratified, well sorted quartz sand, and typically was deposited in proglacial lakes, but may have been deposited on remnant ice or near a sand source. Lacustrine sand is permeable, with a variable thickness (2-20 meters), where present.

Soil boring locations are shown on Figure 4, and boring logs are provided in Appendix C. Geologic cross sections are shown in Appendix C.

2.2.3 Hydrogeology

The depth to groundwater at the site ranges from approximately 6 to 9 feet bgs in the eastern portion of the site and approximately 11 to 14 feet bgs in the western portion of the site where the ground surface is approximately 5 feet higher. Historical groundwater flow is to the east and southeast; however, a mounded groundwater condition has been observed with groundwater flowing radially away from the center of the site.

Groundwater elevation data are provided in Table 2. Groundwater contour maps and monitoring well construction logs are provided in Appendix D.

Table 2. Groundwater Elevation Data

Well No.	Water Depth Measurement Date	Top of PVC Elev. (ft.)	Depth ⁽¹⁾ to Water (ft.)	Groundwater Elev. (ft.)
MW-3	2/24/2022	276.87	10.98	265.89
MW-5	2/24/2022	275.77	7.28	268.49
MW-6A	2/24/2022	274.64	5.82	268.82
MW-7	2/24/2022	274.52	6.13	268.39
MW-8A	2/24/2022	274.10	6.00	268.10
MW-9	2/24/2022	274.67	6.40	268.27
MW-10	2/24/2022	275.65	6.79	268.86
MW-13	2/24/2022	275.97	10.24	265.73
MW-14	2/24/2022	274.40	8.71	265.69
MW-15	2/24/2022	273.16	7.65	265.51
MW-16	2/24/2022	272.66	7.31	265.35
MW-17	2/24/2022	273.31	5.10	268.21
MW-18	2/24/2022	277.13	11.02	266.11
MW-19	2/24/2022	276.96	11.14	265.82
MW-20	2/24/2022	279.77	13.81	265.96

⁽¹⁾ Depth to water measured from Top of PVC

2.3 Investigation and Remedial History

The following narrative provides a remedial history timeline and a brief summary of the available project records to document key investigative and remedial milestones for the site. Full titles for each of the reports referenced below are provided in Section 8.0 - References.

2.3.1 Previous Investigations

The following site assessments and investigations have been performed:

- May 10, 2002 Underground Storage Tank Removal Report, prepared by Passaretti Geological & Environmental Consultants, Inc.
- December 8, 2006 Phase I Environmental Site Assessment and Limited Subsurface Investigation

Report, prepared by CASmith.

- December 23, 2013 Laboratory data package to Ms. Mary Passaretti.
- November 5, 2015 Site Investigation Report, prepared by STERLING.
- March 14, 2016 Supplemental Site Investigation Report, prepared by STERLING.
- September 21, 2016 Groundwater Monitoring Report, prepared by STERLING.
- September 2018, Preliminary Geotechnical Evaluation Report, Proposed Building, 53 Putnam Street, Saratoga Springs, NY, prepared by Dente Engineering, P.C.
- January 14, 2020 Remedial Investigation Report, prepared by STERLING.
- May 14, 2020 Alternatives Analysis Report prepared by STERLING.

A one-story masonry building, constructed in 1905, occupied most of the site until the building was removed in March 2019. The property was initially used as an ice-skating rink during the winter months and a garage during the summer. The property began conducting business as a “Steam Laundry” facility on or before 1925. An underground storage tank (UST) is shown on the 1932 Sanborn Map of the property. The 1954 Sanborn Map of the area lists the site as a Laundry/Dry Cleaners (Thompson’s Industrial Laundry).

City directory listings indicate that the site was vacant or not listed between the late 1960s and 1986. C&B Sanitation used the site as a parking garage for waste hauling vehicles beginning in 1986. The site was not in use since truck storage operations ceased on or about the early/mid 2000s.

A former 10,000-gallon No. 6 fuel oil UST was removed from the area immediately west of the building in January 2002. Approximately 173 tons of petroleum-impacted soil was removed from the vicinity of the former fuel oil tank in March 2002. NYSDEC Spill #0109572 was issued in association with the tank removal and documented soil impacts.

The January 2020 RI Report identified Contaminants of Concern (COC) including petroleum-related VOCs (benzene, ethylbenzene, toluene), chlorinated VOCs (cVOCs) (cis-1,2-dichloroethene, tetrachloroethene (PCE), trans-1,2-dichloroethene, trichloroethene (TCE), and vinyl chloride (VC)), pesticide compounds, metal compounds (mercury, arsenic, barium, copper, zinc, and lead), and Per- and Polyfluoroalkyl Substances (PFAS).

The extent of petroleum impacts in soil was identified based on photoionization detector (PID) measurements, visual evidence, and the results of laboratory analysis of soil and groundwater samples. The highest concentrations of petroleum-related compounds were present outside and west of the building footprint; however, the impacts extended beneath the far west end of the former building at lower concentrations. Free product was visually identified in soil samples collected during the 2015 site investigation and supplemental site investigation, and evidence of petroleum (i.e., sheen and odor) was observed in soil samples during the RI in soil samples from soil boring S-107. Petroleum impacts were limited vertically to the sand and silty sand unit and were not observed or measured in the underlying silty clay and clay.

An area of elevated cVOCs was identified extending north to south across the center of the site. Soil samples from RI soil borings in this area that exceed the NYSDEC Unrestricted Use Soil Cleanup Objectives (UUSCOs) for cVOCs included H-22, H-27, and H-28. Groundwater analytical data indicated an impact to groundwater by cVOCs that was most prevalent near the center of the site (near MW8/8A) and extended to the east (toward MW-7). PCE was the most prevalent cVOC detected in groundwater samples; however, concentrations of PCE-degradation compounds cis-1,2-DCE and VC suggests that the source of cVOC contamination was comparatively old undergoing natural degradation.

2.3.2 Remedial Actions

The site was remediated in substantial conformance to the NYSDEC-approved Remedial Action Work Plan (RAWP) dated December 2020, RAWP Addendum #1 dated January 2022, and RAWP Addendum #2 dated September 2022. Remedial action sources and removal areas are shown on Figure 3.

The following are the components of the completed RAWP activities:

1. Green remediation principles and techniques were 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:
 - a. Considering the environmental impacts of treatment technologies and remedy stewardship over the long term.
 - b. Reducing direct and indirect greenhouse gases and other emissions.
 - c. Additionally, to incorporate green remediation principles and techniques to the extent feasible in the future development at this site, any future on-site buildings shall be constructed, at a minimum, to meet the 2020 Energy Conservation Construction Code of New York (or most recent edition) to improve energy efficiency as an element of construction.
2. Demolition of the aboveground portion of the existing onsite building.
3. Excavation of soil/fill exceeding Restricted Residential SCOs to a depth of 2 feet from two Areas of Concern (AOCs).
4. In-Situ Geochemical Stabilization (ISGS) to treat petroleum-impacted soil and groundwater in an approximately 1,600 square foot area located in the western portion of the site and identified as Area A.
5. In-Situ Chemical Reduction (ISCR) to treat soil and groundwater impacted by chlorinated volatile organic compounds (cVOC) in an approximately 1,400 square foot area located in the eastern portion of the site and identified as Area B.
6. Construction and maintenance of a soil cover system consisting of a minimum of 24 inches of approved imported fill meeting requirements of 6 NYCRR Part 375-6.7(d) to prevent human exposure to remaining contaminated soil at the site.
7. Requiring any future on-site building to have a sub-slab depressurization system, or other acceptable measures, to mitigate the migration of vapors into the building from remaining site impacts in soil, groundwater, and soil vapor.
8. Execution and recording of an Environmental Easement to restrict land use and prevent future exposure to any contamination remaining at the site.

Contour maps of estimated cut and fill thickness for remedial activities at the site are included in Sheet 1.

2.4 Remedial Action Objectives

The Remedial Action Objectives (RAOs) for the site, as listed in the Decision Document dated April 2021, are as follows:

Groundwater

RAOs for Public Health Protection

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

RAOs for Environmental Protection

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

Soil

RAOs for Public Health Protection

- Prevent ingestion/direct contact with contaminated soil.
- Prevent inhalation exposure to contaminants volatilizing from soil.

RAOs for Environmental Protection

- Prevent migration of contaminants that would result in groundwater contamination.
- Prevent impacts to biota from ingestion/direct contact with soil causing toxicity or impacts from bioaccumulation through the terrestrial food chain.

Soil Vapor

RAOs for Public Health Protection:

- Mitigate impacts to public health resulting from existing, or the potential for, soil vapor intrusion into buildings at a site.

2.5 Remaining Contamination

This section provides a summary of remaining contamination at the site to identify environmental conditions that may be encountered in the event of future excavations or development at the site.

2.5.1 Soil

Post-excavation documentation samples were collected from the excavation sidewalls and floors, and sample results were compared to Restricted Residential SCOs contained at 6 NYCRR 375-6.8. The following parameters remain at concentrations exceeding Restricted Residential SCOs: mercury, indeno(1,2,3-CD)pyrene, benzo(a)anthracene, benzo(a)pyrene, and benzo(b)fluoranthene. In accordance with the NYSDEC-approved RAWP Addendum #2 (September, 2022), soil cover was installed above the sample exceedances to provide a minimum cover thickness of 24 inches above remaining contamination exceeding Restricted Residential SCOs. A demarcation layer was installed to delineate the transition from

the cover system to native soil and remaining contamination. Additional soil removal may occur should future construction and/or excavation provide access to remaining contamination.

Table A, Table B, and Figure 5 summarize the results of all samples of soil that exceed the SCGs after completion of the remedial action.

2.5.2 Groundwater

Remaining contamination includes the following chlorinated VOCs that exceed their applicable T.O.G.S. 1.1.1 groundwater standards and guidance values: PCE, TCE, cis-1,2 dichloroethylene, and VC. A review of the groundwater monitoring data indicates detected concentrations are decreasing as a result of the in-situ injections. A groundwater sampling program is required by this SMP to monitor the remaining contamination in groundwater. Additional measures may be contemplated if groundwater contaminant degradation does not follow expected trends.

Table C summarizes the results of all samples of groundwater that exceed the SCGs after completion of the remedial action.

2.5.3 Soil Vapor

Soil vapor sampling was not a required component of the remedial action performed in accordance with the RAWP. Any future on-site building must have a sub-slab depressurization system, or other acceptable measures, to mitigate the migration of vapors into the building from remaining site impacts in soil, groundwater, and soil vapor.

3.0 INSTITUTIONAL AND ENGINEERING CONTROL PLAN

3.1 General

Since remaining contamination exists at the site, Institutional Controls (IC) and Engineering Controls (EC) are required to protect human health and the environment. This IC/EC Plan describes the procedures for the implementation and management of all IC/ECs at the site. The IC/EC Plan is one component of the SMP and is subject to revision by the NYSDEC project manager.

This plan provides:

- A description of all IC/ECs on the site.
- The basic implementation and intended role of each IC/EC.
- A description of the key components of the ICs set forth in the Environmental Easement.
- A description of the controls to be evaluated during each required inspection and periodic review.
- A description of plans and procedures to be followed for implementation of IC/ECs, such as the implementation of the Excavation Work Plan (EWP) (as provided in Appendix E) for the proper handling of remaining contamination that may be disturbed during maintenance or redevelopment work on the site.
- Any other provisions necessary to identify or establish methods for implementing the IC/ECs required by the site remedy, as determined by the NYSDEC project manager.

3.2 Institutional Controls

A series of ICs are required by the Decision Document to: (1) implement, maintain, and monitor Engineering Control systems; (2) prevent future exposure to remaining contamination; and, (3) limit the use and development of the site to restricted residential, commercial, and/or industrial uses only. Adherence to these ICs on the site is required by the Environmental Easement and will be implemented under this SMP. ICs identified in the Environmental Easement may not be discontinued without an amendment to or extinguishment of the Environmental Easement. The IC boundaries are the site parcel boundaries shown in Appendix A. These ICs are:

- The property may be used for restricted residential, commercial, and/or industrial use as defined by Part 375-1.8.
- All ECs must be operated and maintained as specified in this SMP.
- All ECs must be inspected at a frequency and in a manner defined in the SMP.
- The use of groundwater underlying the property is prohibited without necessary water quality treatment as determined by the New York State Department of Health (NYSDOH) or the Saratoga County Department of Health to render it safe for use as drinking water or for industrial purposes, and the user must first notify and obtain written approval to do so from the NYSDEC.
- Groundwater and other environmental or public health monitoring must be performed as defined in this SMP.
- Data and information pertinent to site management must be reported at the frequency and in a manner as defined in this SMP.
- All future activities that will disturb remaining contaminated material must be conducted in accordance with this SMP.

- Monitoring to assess the performance and effectiveness of the remedy must be performed as defined in this SMP.
- Operation, maintenance, monitoring, inspection, and reporting of any mechanical or physical component of the remedy shall be performed as defined in this SMP.
- Access to the site must be provided to agents, employees, or other representatives of the State of New York with reasonable prior notice to the property owner to assure compliance with the restrictions identified by the Environmental Easement.
- The potential for vapor intrusion must be evaluated for any structures developed on the site, and actions will be taken to address exposures related to soil vapor intrusion.
- Vegetable gardens and farming on the site are prohibited.
- An evaluation shall be performed to determine the need for further investigation and remediation should large scale redevelopment occur, if any of the existing structures are demolished, or if the subsurface is otherwise made accessible.

3.3 Engineering Controls

3.3.1 Cover

Exposure to remaining contamination at the site is prevented by a cover system placed over the site. This cover system is composed of a minimum of 24 inches of NYSDEC-approved soil meeting Restricted Residential SCOs as shown on Sheet 1. The EWP provided in Appendix E outlines procedures required to be implemented in the event that the cover system is breached, penetrated or temporarily removed. Imported materials to restore the cover system must be approved by NYSDEC and meet Restricted Residential SCOs. Procedures for the inspection of this cover are provided in the Monitoring and Sampling Plan included in Section 4.0 of this SMP. Any work conducted pursuant to the EWP must also be conducted in accordance with the procedures defined in the Health and Safety Plan (HASP) and associated Community Air Monitoring Plan (CAMP) prepared for the site and provided in Appendices F and G, respectively. Any breach of the site's cover system must be overseen by a qualified Professional Engineer who is licensed and registered in New York State, or a qualified person who directly reports to a Professional Engineer who is licensed and registered in New York State. Any ground intrusive work should be conducted with proper coordination with the NYSDEC and NYSDOH and in accordance with an approved work plan.

3.3.2 Sub-Slab Depressurization (SSD) System

Any future on-site building is required to have a sub-slab depressurization system (SSDS), or other acceptable measures, to mitigate the migration of vapors into the building from remaining site impacts in soil, groundwater, and soil vapor.

Procedures for operating and maintaining the SSDS will be documented in the Operation and Maintenance (O&M) Plan. As-built drawings, signed and sealed by a Professional Engineer who is licensed and registered in New York State, will be included in the O&M Plan. Any additional SVI sampling and any additional vapor mitigation work will require detailed work plans to be submitted to the NYSDEC and NYSDOH for review and written approval. Associated reports should be submitted under separate cover in addition to being included as appendices in the relevant PRR.

3.4 Criteria for Completion of Remediation/Termination of Remedial Systems

Generally, remedial processes are considered complete when monitoring indicates that the remedy has achieved the RAOs identified by the Decision Document. The framework for determining when remedial processes are complete is provided in Section 6.4 of NYSDEC DER-10. Unless waived by the NYSDEC, confirmation samples of applicable environmental media are required before terminating any remedial actions at the site. Confirmation samples require Category B deliverables and a Data Usability Summary Report (DUSR).

As discussed below, the NYSDEC may approve termination of a groundwater monitoring program. When a remedial party receives this approval, the remedial party will decommission all site-related monitoring, injection, and recovery wells as per the NYSDEC CP-43 policy “Groundwater Monitoring Well Decommissioning Procedures”.

The remedial party will also conduct any needed site restoration activities, such as asphalt patching and decommissioning treatment system equipment. In addition, the remedial party will conduct any necessary restoration of vegetation coverage, trees and wetlands, and will comply with NYSDEC and United States Army Corps of Engineers (USACE) regulations and guidance. Also, the remedial party will ensure that no ongoing erosion is occurring on the site.

3.4.1 Cover System

The site cover system is a permanent Engineering Control (EC) that is required to be properly inspected and maintained under this SMP in perpetuity. Any damage or planned changes to the cover system will need to be properly managed and coordinated with NYSDEC and NYSDOH to ensure the integrity of this EC and to evaluate the need for additional remediation.

3.4.2 Sub-Slab Depressurization (SSD) System

Any installed SSDS will not be discontinued unless prior written approval is granted by the NYSDEC and the NYSDOH project managers. If monitoring data indicates that the system may no longer be required, a proposal to discontinue the SSDS will be submitted by the remedial party to the NYSDEC and NYSDOH project managers.

3.4.3 Monitoring Wells associated with In-Situ Reductive De-Chlorination

Groundwater monitoring activities to assess remaining contamination will continue, as determined by the NYSDEC project manager in consultation with NYSDOH project manager, until residual groundwater concentrations are found to be consistently below ambient water quality standards, the site standards, criteria, and guidance (SCG), or have become asymptotic at an acceptable level over an extended period. The monitoring wells to be sampled are listed in Section 4.4, Table 3. In the event that monitoring data indicates monitoring for natural attenuation may no longer be required, a proposal to discontinue monitoring will be submitted by the remedial party. Monitoring will continue until permission to discontinue is granted in writing by the NYSDEC project manager. If groundwater contaminant levels become asymptotic at a level that is not acceptable to the NYSDEC, additional injections, source removal, treatment, and/or control measures will be evaluated.

4.0 MONITORING AND SAMPLING PLAN

4.1 General

This Monitoring and Sampling Plan describes the measures for evaluating the overall performance and effectiveness of the remedy. This Monitoring and Sampling Plan may only be revised with the written approval of the NYSDEC project manager. Details regarding the sampling procedures, data quality usability objectives, analytical methods, etc. for all samples collected as part of site management for the site are included in the Quality Assurance Project Plan (QAPP) provided in Appendix H.

This Monitoring and Sampling Plan describes methods for:

- Sampling and analysis of all appropriate media (e.g., groundwater, soil vapor, soils).
- Assessing compliance with applicable NYSDEC standards, criteria, and guidance (SCGs), particularly groundwater standards and Part 375 SCOs for soil.
- Evaluating site information periodically to confirm that the remedy continues to be effective in protecting public health and the environment.

To adequately address these issues, this Monitoring and Sampling Plan provides information on:

- Sampling locations, protocol, and frequency.
- Information on all designed monitoring systems.
- Analytical sampling program requirements.
- Inspection and maintenance requirements for monitoring wells.
- Monitoring well decommissioning procedures.
- Annual inspection and periodic certification.

Reporting requirements are provided in Section 7.0 of this SMP.

4.2 Site-Wide Inspection

Site-wide inspections will be performed at a minimum of once per year. These periodic inspections must be conducted when the ground surface is visible (i.e., no snow cover). Site-wide inspections will be performed by a qualified environmental professional as defined in 6 NYCRR Part 375, a Professional Engineer who is licensed and registered in New York State, or a qualified person who directly reports to a Professional Engineer who is licensed and registered in New York State. Modification to the frequency or duration of the inspections will require written approval from the NYSDEC project manager. Site-wide inspections will also be performed after all severe weather conditions that may affect ECs or monitoring devices. During these inspections, an inspection form will be completed as provided in Appendix I – Site Management Forms. The form will compile sufficient information to assess the following:

- Compliance with all ICs, including site usage.
- An evaluation of the condition and continued effectiveness of ECs.
- General site conditions at the time of the inspection.
- Whether stormwater management systems, such as basins and outfalls, are working as designed.

- The site management activities being conducted including, where appropriate, confirmation sampling and a health and safety inspection.
- Confirm that site records are up to date.

Inspections of all remedial components installed at the site will be conducted. A comprehensive site-wide inspection will be conducted and documented according to the SMP schedule, regardless of the frequency of the Periodic Review Report (PRR). The inspections will determine and document the following:

- Whether ECs continue to perform as designed.
- If these controls continue to be protective of human health and the environment.
- Compliance with requirements of this SMP and the Environmental Easement.
- Achievement of remedial performance criteria.
- If site records are complete and up to date.

Reporting requirements are outlined in Section 7.0 of this plan.

Inspections will also be performed in the event of an emergency. If an emergency, such as a natural disaster or an unforeseen failure of any of the ECs occurs that reduces or has the potential to reduce the effectiveness of ECs in place at the site, verbal notice to the NYSDEC project manager must be given by noon of the following day. In addition, an inspection of the site will be conducted within 5 days of the event to verify the effectiveness of the IC/ECs implemented at the site by a qualified environmental professional, as defined in 6 NYCRR Part 375. Written confirmation must be provided to the NYSDEC project manager within 7 days of the event that includes a summary of actions taken, or to be taken, and the potential impact to the environment and the public. The remedial party will submit follow-up status reports to the NYSDEC within 45 days of the event on actions taken to respond to any emergency event requiring ongoing responsive action, describing and documenting actions taken to restore the effectiveness of the ECs.

4.3 Treatment System Monitoring and Sampling

4.3.1 Remedial System Monitoring

Monitoring of any future SSDS will be performed on a routine basis, as identified O&M Plan. The monitoring of remedial systems must be conducted by a qualified environmental professional as defined in 6 NYCRR Part 375, a Professional Engineer who is licensed and registered in New York State, or a qualified person who directly reports to a Professional Engineer who is licensed and registered in New York State. Modification to the frequency or sampling requirements will require written approval from the NYSDEC project manager. A visual inspection of the complete system will be conducted during each monitoring event. Unscheduled inspections and/or sampling may take place when a suspected failure of the SSDS has been reported or an emergency occurs that is deemed likely to affect the operation of the system.

4.4 Post-Remediation Media Monitoring and Sampling

Samples shall be collected from site groundwater monitoring wells on a routine basis. Sampling locations, required analytical parameters, and schedule are provided in Table 3 – Post-Remediation Sampling Requirements and Schedule below. Modification to the frequency or sampling requirements will require written approval from the NYSDEC project manager.

Table 3 – Post-Remediation Sampling Requirements and Schedule

Sampling Location	Analytical Parameters			Schedule
	VOCs (EPA Method 8260C)	1,4-Dioxane (EPA Method 8270D SIM)	PFAS (USEPA 1633)	
Monitoring Wells: MW-13, MW-14, MW-15, MW-16, MW-17, MW-18, MW-19, and MW-20.	X	X	X	Annually

Detailed sample collection and analytical procedures and protocols are provided in the QAPP (Appendix H).

4.4.1 Soil Sampling

Soil sampling will be performed in accordance with the EWP (Appendix E) in the event of ground disturbance in areas of remaining contamination. Modification to the soil sampling requirements will require written approval from the NYSDEC project manager.

4.4.2 Groundwater Sampling

Groundwater monitoring will be performed annually to assess the performance of the remedy. Modification to the frequency or sampling requirements will require written approval from the NYSDEC project manager.

The network of monitoring wells has been installed to monitor upgradient, onsite, and downgradient groundwater conditions at the site. The network of onsite and offsite wells has been designed based on documented groundwater conditions and analytical data.

Table 4 summarizes the identification number, location, depth, diameter, and screened intervals of the wells. As part of the groundwater monitoring, three onsite wells and five offsite well are sampled to evaluate the effectiveness of the remedial system. The remedial party will measure depth to water table for each monitoring well in the network before sampling. Investigation derived waste (i.e., purge water) from groundwater sampling will continue to be containerized onsite for proper offsite disposal.

Table 4 – Monitoring Well Construction Details

Monitoring Well ID	Well Location	Coordinates (longitude/latitude)	Top of Casing Elevation¹ (ft. AMSL)	Well Diameter (inches)	Well Depth² (ft. to top of casing)	Screen Interval (ft. bgs)
MW-13	Offsite	1548389.73/ 683324.94	275.97	1	20.0	10.0-20.0
MW-14	Offsite	1548380.171/6 83357.237	274.40	1	20.0	10.0-20.0
MW-15	Offsite	1548318.761/6 83418.419	273.16	1	20.0	10.0-20.0
MW-16	Offsite	1548269.351/6 83408.404	272.66	1	20.0	10.0-20.0
MW-17	Offsite	1548260.354/6 83320.024	273.31	1	20.0	10.0-20.0
MW-18	Onsite	1548307.539/6 83217.073	277.13	1	22.0	7.0-22.0
MW-19	Offsite	1548357.844/6 83216.74	276.96	1	22.0	7.0-22.0
MW-20	Onsite	1548317.947/6 83193.628	279.77	1	24.0	9.0-24.0

AMSL: Above Mean Sea Level

bgs: Below Ground Surface

1: Coordinates are New York State Plane, East Zone, US Survey Feet.

2: Top of casing elevations surveyed on 1/17/2022 using sub-inch accuracy Trimble GPS.

Monitoring well construction logs are included in Appendix D of this document.

If biofouling or silt accumulation occurs in the onsite and/or offsite monitoring wells, the wells will be physically agitated/surged and redeveloped. Additionally, monitoring wells will be properly decommissioned and replaced if an event renders the wells unusable.

Repairs and/or replacement of wells in the monitoring well network will be performed based on assessments of structural integrity and overall performance.

The NYSDEC project manager will be notified prior to any repair or decommissioning of any monitoring well for the purpose of replacement, and the repair or decommissioning and replacement process will be documented in the subsequent Periodic Review Report. Well decommissioning without replacement will be performed only with the prior written approval of the NYSDEC project manager. Well abandonment will be performed in accordance with NYSDEC's guidance entitled "CP-43: Groundwater Monitoring Well Decommissioning Procedures." Monitoring wells that are decommissioned because they have been rendered unusable will be replaced in kind in the nearest available location, unless otherwise approved in writing by the NYSDEC project manager.

The sampling frequency may only be modified with the written approval of the NYSDEC project manager. This SMP will be modified to reflect changes in sampling plans approved by the NYSDEC project manager.

Deliverables for the groundwater monitoring program are specified in Section 7.0 – Reporting Requirements.

4.4.3 Soil Vapor Sampling

Soil vapor sampling will be performed in accordance with any future SSDS O&M Plan to assess the performance of the remedy. Modification to the frequency or sampling requirements will require written approval from the NYSDEC project manager.

The sampling frequency may only be modified with the written approval of the NYSDEC project manager. This SMP will be modified to reflect changes in sampling plans approved by the NYSDEC project manager.

Deliverables for the soil vapor sampling program are specified in Section 7.0 – Reporting Requirements.

4.4.4 Monitoring and Sampling Protocol

All sampling activities will be recorded in a field book and associated sampling log as provided in Appendix I – Site Management Forms. Other observations (e.g., groundwater monitoring well integrity) will be noted on the sampling log. The sampling log will serve as the inspection form for the monitoring network.

5.0 OPERATION AND MAINTENANCE PLAN

5.1 General

Any future on-site building is required to have a sub-slab depressurization system (SSDS), or other acceptable measures, to mitigate the migration of vapors into the building from remaining site impacts in soil, groundwater, and soil vapor. Procedures for operating and maintaining the SSDS will be documented in the O&M Plan for NYSDEC and NYSDOH review and written approval. The SMP will be updated to include relevant information from the SSDS O&M Plan.

6.0 PERIODIC ASSESSMENTS/EVALUATIONS

6.1 Climate Change Vulnerability Assessment

Increases in both the severity and frequency of storms/weather events, an increase in sea level elevations along with accompanying flooding impacts, shifting precipitation patterns and wide temperature fluctuation, resulting from global climactic change and instability, have the potential to significantly impact the performance, effectiveness, and protectiveness of a given site and associated remedial systems. Vulnerability assessments provide information so that the site and associated remedial systems are prepared for the impacts of the increasing frequency and intensity of severe storms/weather events and associated flooding.

This section provides a summary vulnerability assessment for the site and briefly summarizes the vulnerability of the site and/or engineering controls to severe storms/weather events and associated flooding. This section also identifies vulnerability assessment updates that will be conducted for the site in Periodic Review Reports.

This assessment includes the following:

- Floodplain: The site is not located within the 100-year floodplain and therefore not susceptible to flooding.
- Site Drainage and Stormwater Management: The site is graded to prevent stormwater ponding.
- Erosion: The site is finished with durable surfaces (i.e., gravel, established vegetation) and no ECs are susceptible to erosion during extreme storm events.
- High Wind: The site and ECs are not susceptible to damage from the wind or falling objects, such as trees or utility structures during periods of high wind.
- Electricity: The site and ECs do not rely on continuous electrical supply and are not susceptible to power loss during severe weather events, including lightning strikes.
- Spill/Contaminant Release: The site and/or remedial system is not susceptible to a spill or other contaminant release due to storm-related damage caused by flooding, erosion, high winds, loss of power, etc.
- A complete site inspection will be conducted following any severe weather event to evaluate and correct any impacts to the integrity or functionality of the protective cover.

6.2 Green Remediation Evaluation

NYSDEC's DER-31 Green Remediation requires that green remediation concepts and techniques be considered during all stages of the remedial program including site management, with the goal of improving the sustainability of the cleanup and summarizing the net environmental benefit of any implemented green technology. This section provides an environmental footprint analysis of the remedy, as implemented at the time of this SMP. This section of the SMP also provides a summary of any green remediation evaluations to be completed for the site during site management, and as reported in Periodic Review Reports (PRRs).

This assessment may include the following items, which will be documented on the Summary of Green Remediation Metrics for Site Management Form included in Appendix I:

- Waste generation (e.g., waste associated with the remedial system and any waste reduction efforts).
- Emissions (e.g., fuel use for inspection and/or sampling).
- Water usage (e.g., for decontamination of sampling equipment).
- Land and/or ecosystems impacts of implementation of the remedy.

6.2.1 Environmental Footprint

This Environmental Footprint Analysis discusses the current practices and best management practices (BMPs) in place at the site and considers potential additional BMPs to be used in reducing the environmental footprint of the remedial program.

The following best management practices (BMPs) were implemented at the site to reduce the environmental footprint in accordance with the USEPA Fact Sheets for Excavation and Surface Restoration and Bioremediation:

- The use of local contractors and backfill sources to minimize distance travelled for mobilization and material delivery.
- Direct-loading pre-characterized soil into disposal trucks to minimize onsite stockpiling, which reduced the potential for dust generation and contact with stormwater.
- The use of in-situ chemical treatment instead of excavating additional soil for offsite disposal or operating a long-term pump and treat system.
- The use of direct-push technology instead of rotary drilling to install injection boreholes, which eliminates the handling and disposal of drill cuttings.

The following ongoing components of the remedy and site management have an associated environmental footprint:

- Routine groundwater sampling requires transportation and associated emissions for sampling equipment delivery, mobilization to/from the site, and sample shipment to the laboratory. This will be measured as total sample-miles and calculated as the total vehicle miles associated with a sample event times the total number of samples collected.
- Removal and disposal of investigation derived waste associated with groundwater monitoring. This will be measured as gallons per year based on disposal tickets.

The following BMPs are implemented to reduce the environmental footprint associated with ongoing

- To the extent feasible in the future development at this site, any future on-site buildings shall be constructed, at a minimum, to meet the 2020 Energy Conservation Construction Code of New York (or most recent edition) to improve energy efficiency as an element of construction.

6.2.2 Timing of Green Remediation Evaluations

For major remedial system components, green remediation evaluations and corresponding modifications will be undertaken as part of a formal Remedial System Optimization (RSO), or at any time that the NYSDEC project manager feels appropriate, e.g., during significant maintenance events or in conjunction with storm recovery activities.

Modifications resulting from green remediation evaluations will be routinely implemented and scheduled to occur during planned/routine operation and maintenance activities. Reporting of these modifications will be presented in the PRR.

6.2.3 Remedial Systems

Remedial systems will be operated properly considering the current site conditions to conserve materials and resources to the greatest extent possible. Consideration will be given to operating rates and use of reagents and consumables. Spent materials will be sent for recycling, as appropriate.

6.2.4 Building Operations

Structures including buildings and sheds will be operated and maintained to provide for the most efficient operation of the remedy, while minimizing energy, waste generation, and water consumption.

Components considered during the design of building operations should include, but are not limited to:

- Heating/cooling systems and temperature set-points.
- Building skin, insulation, and building use and occupancy.
- Ventilation.
- Lighting and plug loads.
- Grounds and property management.

6.2.5 Frequency of System Checks, Sampling and Other Periodic Activities

Transportation to and from the site, use of consumables in relation to visiting the site to conduct system checks and/or collect samples, and shipping samples to a laboratory for analyses have direct and/or inherent energy costs. The schedule and/or means of these periodic activities have been prepared so that these tasks can be accomplished in a manner that does not impact remedy protectiveness but reduces expenditure of energy or resources.

Consideration shall be given to:

- Reduced sampling frequencies.
- Reduced site visits and system checks.
- Installation of remote sensing/operations and telemetry.
- Coordination/consolidation of activities to maximize foreman/labor time.

- Use of mass transit for site visits, where available.

In accordance with the Green Remediation principles, the following are implemented for the site:

- Monitoring events and inspections are combined, when possible, to minimize site visits.

6.2.6 Metrics and Reporting

As discussed in Section 7.0 and as shown in Appendix I – Site Management Forms, information on energy usage, solid waste generation, transportation and shipping, water usage and land use and ecosystems will be recorded to facilitate and document consistent implementation of green remediation during site management and to identify corresponding benefits. A set of metrics has been developed and will continue to be evaluated over time to ensure that green remediation actions are achieving the desired results.

6.3 Remedial System Optimization

An RSO study will be conducted any time that the NYSDEC project manager or the remedial party requests in writing that an in-depth evaluation of the remedy is needed. An RSO may be appropriate if any of the following occur:

- The remedial actions have not met or are not expected to meet RAOs in the timeframe estimated in the Decision Document.
- The management and operation of the remedial system is exceeding the estimated costs.
- The remedial system is not performing as expected or as designed.
- Previously unidentified source material may be suspected.
- Plume shift has potentially occurred.
- Site conditions change due to development, change of use, change in groundwater use, etc.
- There is an anticipated transfer of the site management to another remedial party or agency.
- A new and applicable remedial technology becomes available.
- As outlined in the Decision Document, should future development/expansion of the site buildings allow safe access to residual source material located underneath the current foundation and/or within the perimeter of the IRM source removal area, excavation and off-site disposal of contaminant source areas will be considered.

An RSO will provide a critique of the conceptual model, give a summary of past performance, document current cleanup practices, summarize progress made toward the site's cleanup goals, gather additional performance or media-specific data and information, and provide recommendations for improvements to enhance the ability of the present system to reach RAOs or to provide a basis for changing the remedial strategy.

The RSO study will focus on overall site cleanup strategy, process optimization, and management with the intent of identifying impediments to cleanup and improvements to site operations to increase efficiency, cost effectiveness, and remedial timeframes. Green remediation technology and principles are to be considered when performing the RSO.

The phases of an RSO include:

- Work plan development.

- Work plan implementation (usually includes data gathering and conceptual site model verification).
- RSO Report.
- Implementation of recommended actions and final report.

Any RSO reports will be submitted under separate cover and included as appendices in relevant PRRs.

7.0 REPORTING REQUIREMENTS

7.1 Site Management Reports

All site management inspection, maintenance, and monitoring events will be recorded on the appropriate Site Management Forms provided in Appendix I. These forms are subject to NYSDEC revision. All site management inspection, maintenance, and monitoring events will be conducted by a qualified environmental professional as defined in 6 NYCRR Part 375, a Professional Engineer who is licensed and registered in New York State, or a qualified person who directly reports to a Professional Engineer who is licensed and registered in New York State.

All applicable inspection forms and other records, including media sampling data and system maintenance reports, generated for the site during the reporting period will be provided in electronic format to the NYSDEC in accordance with the requirements of Table 5 and summarized in the Periodic Review Report.

Table 5: Schedule of Interim Monitoring/Inspection Reports

Task/Report	Reporting Frequency*
Inspection Report	Following event if Inspection/Monitoring reveals deficiency with Engineering Controls.**
Groundwater Monitoring Reports	Within 90 days of sampling events.
Periodic Review Report	Annually, or as otherwise determined by the NYSDEC in writing.

*The frequency of events will be conducted as specified until otherwise approved in writing by the NYSDEC project manager.

**If the inspection is due to an emergency situation, report by noon of following business day. If not an emergency situation, report within 5 business days of the inspection.

All interim monitoring/inspections reports will include, at a minimum:

- Date of event or reporting period.
- Name, company, and position of person(s) conducting monitoring/inspection activities.
- Description of the activities performed.
- Where appropriate, color photographs or sketches showing the approximate location of any problems or incidents noted (included either on the checklist/form or on an attached sheet).
- Type of samples collected (e.g., groundwater, soil vapor).
- Copies of all field forms completed (e.g., well sampling logs, chain-of-custody documentation).
- Sampling results in comparison to appropriate standards/criteria.

- A figure illustrating sample type and sampling locations.
- Copies of all laboratory data sheets and the required laboratory data deliverables required for all points sampled (to be submitted electronically in the NYSDEC-identified format).
- Any observations, conclusions, or recommendations.
- A determination as to whether contaminant conditions have changed since the last reporting event.

Routine maintenance event reporting forms will include, at a minimum:

- Date of event.
- Name, company, and position of person(s) conducting maintenance activities.
- Description of maintenance activities performed.
- Any modifications to the system.
- Where appropriate, color photographs or sketches showing the approximate location of any problems or incidents noted (included either on the checklist/form or on an attached sheet).
- Other documentation such as copies of invoices for maintenance work, receipts for replacement equipment, etc. (attached to the checklist/form).

Non-routine maintenance event reporting forms will include, at a minimum:

- Date of event.
- Name, company, and position of person(s) conducting non-routine maintenance/repair activities.
- Description of non-routine activities performed.
- Where appropriate, color photographs or sketches showing the approximate location of any problems or incidents (included either on the form or on an attached sheet).
- Other documentation such as copies of invoices for repair work, receipts for replacement equipment, etc. (attached to the checklist/form).

Data will be reported in digital format as determined by the NYSDEC. Currently, data are to be supplied electronically and submitted to the NYSDEC EQUIS™ database in accordance with the requirements found at <http://www.dec.ny.gov/chemical/62440.html>.

7.2 Periodic Review Report

A Periodic Review Report (PRR) will be submitted to the NYSDEC project manager beginning 16 months after the Certificate of Completion is issued. After submittal of the initial PRR, the next PRR shall be submitted annually to the NYSDEC project manager or at another frequency as may be required in writing by the NYSDEC project manager. In the event that the site is subdivided into separate parcels with different ownership, a single PRR will be prepared that addresses the site described in Appendix A – Environmental Easement. The report will be prepared in accordance with NYSDEC’s DER-10 and submitted within 30 days following the end of each certification period. Media sampling results will also be incorporated into the PRR; however, the NYSDEC project manager may request that project-specific reports and/or inspection notes be submitted under separate cover in advance and in addition to reporting in the applicable PRR. The report will include:

- Identification, assessment, and certification of all ECs/ICs required by the remedy for the site.
- Results of the required annual site inspections, fire inspections, and severe condition inspections, if applicable.

- Description of any change of use, import of materials, or excavation that occurred during the certifying period.
- All applicable site management forms and other records generated for the site during the reporting period in the NYSDEC-approved electronic format, if not previously submitted.
- Identification of any wastes generated during the reporting period, along with waste characterization data, manifests, and disposal documentation.
- A summary of any discharge monitoring data and/or information generated during the reporting period, with comments and conclusions.
- All applicable site management forms and records generated for the site within the reporting period even if already submitted to NYSDEC under separate cover.
- Data summary tables and graphical representations of contaminants of concern by media (i.e., groundwater and soil vapor), which include a listing of all compounds analyzed, along with the applicable standards, with all exceedances highlighted. These tables and figures will include a presentation of past data as part of an evaluation of contaminant concentration trends, including but not limited to:
 - Trend monitoring graphs that present groundwater contaminant levels from before the start of the remedy implementation to the most current sampling data;
 - Trend monitoring graphs depicting system influent analytical data on a per event and cumulative basis;
 - O&M data summary tables;
 - A current plume map for sites with remaining groundwater contamination; and
 - A groundwater elevation contour map for each gauging event.
- Results of all analyses, copies of all laboratory data sheets, and the required laboratory data deliverables for all samples collected during the reporting period will be submitted in digital format as determined by the NYSDEC. Currently, data are supplied electronically and submitted to the NYSDEC EQuIST™ database in accordance with the requirements found at this link: <http://www.dec.ny.gov/chemical/62440.html>.
- A site evaluation, which includes the following:
 - The compliance of the remedy with the requirements of the site-specific Decision Document.
 - The operation and the effectiveness of all treatment units, etc., including identification of any needed repairs or modifications.
 - Any new conclusions or observations regarding site contaminants of concern based on inspections or data generated by the Monitoring and Sampling Plan for the media being monitored.
 - Recommendations regarding any necessary changes to the remedy and/or Monitoring and Sampling Plan.
 - A summary of the Green Remediation evaluation, including a quantitative and qualitative overview of a site's environmental impacts and recommendations to improve the remedy's environmental footprint. The PRR will include the completed Summary of Green Remediation Metrics form provided in Appendix I.

- An evaluation of trends in contaminant levels in the affected media to determine if the remedy continues to be effective in achieving remedial goals as specified by the Decision Document.
- The overall performance and effectiveness of the remedy.

7.2.1 Certification of Institutional and Engineering Controls

Following the last inspection of the reporting period, a Professional Engineer licensed to practice in New York State will prepare, and include in the PRR, the following certification per the requirements of NYSDEC DER-10:

“For each institutional or engineering control identified for the site, I certify that all of the following statements are true:

- *The inspection of the site to confirm the effectiveness of the institutional and engineering controls required by the remedial program was performed under my direction;*
- *The institutional control and/or engineering control employed at this site is unchanged from the date the control was put in place, or last approved by the Department (NYSDEC);*
- *Nothing has occurred that would impair the ability of the control to protect the public health and environment;*
- *Nothing has occurred that would constitute a violation or failure to comply with any site management plan for this control;*
- *Access to the site will continue to be provided to the Department (NYSDEC) to evaluate the remedy, including access to evaluate the continued maintenance of this control;*
- *If a financial assurance mechanism is required under the oversight document for the site, the mechanism remains valid and sufficient for the intended purpose under the document;*
- *Use of the site is compliant with the environmental easement;*
- *The engineering control systems are performing as designed and are effective;*
- *To the best of my knowledge and belief, the work and conclusions described in this certification are in accordance with the requirements of the site remedial program and generally accepted engineering practices;*
- *The information presented in this report is accurate and complete.*
- *No new information has come to my attention, including groundwater monitoring data from wells located at the site boundary, if any, to indicate that the assumptions made in the qualitative exposure assessment of off-site contamination are no longer valid; and*
- *The assumptions made in the qualitative exposure assessment remain valid.*

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, [name], of [business address], am certifying as [Owner/Remedial Party or Owner’s Designated Site Representative].”

“I certify that the New York State Education Department has granted a Certificate of Authorization to provide Professional Engineering services to the firm that prepared this Periodic Review Report.”

The signed certification will be included in the Periodic Review Report.

The Periodic Review Report will be submitted, in electronic format, to the NYSDEC project manager and the NYSDOH project manager. The PRR may also need to be submitted in hard-copy format, if requested by the NYSDEC project manager.

7.3 Corrective Measures Work Plan

If any component of the remedy is found to have failed, or if the periodic certification cannot be provided due to the failure of an IC or EC, or failure to conduct site management activities, a Corrective Measures Work Plan will be submitted to the NYSDEC project manager for written approval. This plan will explain the failure and provide the details and schedule for performing work necessary to correct the failure. Unless an emergency condition exists, no work will be performed pursuant to the Corrective Measures Work Plan until it has been approved in writing by the NYSDEC project manager.

7.4 Remedial System Optimization (RSO) Report

If an RSO is to be performed (see Section 6.3), upon completion of an RSO, an RSO report must be submitted to NYSDEC project manager for written approval. A general outline for the RSO report is provided in Appendix J. The RSO report will document the research/investigation and data gathering that was conducted, evaluate the results and facts obtained, present a revised conceptual site model and present recommendations. RSO recommendations are to be implemented upon written approval from the NYSDEC. Additional work plans, design documents, HASPs, etc., may still be required to implement the recommendations, based upon the actions that need to be taken. A final engineering report and update to the SMP may also be required.

The RSO report will be submitted, in electronic format, to NYSDEC project manager and NYSDOH project manager.

8.0 REFERENCES

2022, September, Remedial Action Work Plan Addendum #2, STERLING

2022, January, Remedial Action Work Plan Addendum #1, STERLING

2021, April, Decision Document, 53 Putnam Street, NYSDEC

2020, December, Remedial Action Work Plan, STERLING

2020, May 14, Alternatives Analysis Report, STERLING

2020, January 14, Remedial Investigation Report, STERLING

2018, September, Preliminary Geotechnical Evaluation Report, Proposed Building, 53 Putnam Street, Saratoga Springs, NY, Dente Engineering, P.C.

2016, September 21, Groundwater Monitoring Report, STERLING

2016, March 14, Supplemental Site Investigation Report, STERLING

2015, November 5, Site Investigation Report, STERLING

2013, December 23, Laboratory data package to Ms. Mary Passaretti

2010, May, NYSDEC DER-10 – “Technical Guidance for Site Investigation and Remediation”.

2006, December 8, Phase I Environmental Site Assessment and Limited Subsurface Investigation Report, CASmith

2006, December 14, 6 NYCRR Part 375, Environmental Remediation Programs

2004, June, NYSDEC, “Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations Division of Water Technical and Operational Guidance Series (TOGS) 1.1.1.”

2002, May 10, Underground Storage Tank Removal Report, Passaretti Geological & Environmental Consultants, Inc.

SITE MANAGEMENT PLAN

TABLES

TABLE A
Summary of Effectiveness Soil Sample Analytical Results
53 Putnam Street, Saratoga, New York

ANALYTE	NY- PoG	NY- RESRR	Area B								Area A		
			EB-1 (13-15') 11/8/2021	EB-1A (13-15') 11/29/2021	EB-2 (13-15') 11/8/2021	EB-2A (13-15') 11/29/2021	EB-3 (13-15') 11/8/2021	EB-3A (13-15') 11/29/2021	EB-4 (13-15') 11/8/2021	EB-4A (13-15') 11/29/2021	EB-5 (18-20') 11/8/2021	EB-6 (18-20') 11/8/2021	EB-7 (23-25') 11/8/2021
Volatile Organic Compounds, mg/kg													
1,1-Dichloroethene	0.33	100	0.00027 U	0.00022 U	0.1	0.0003 U	0.00034 U	0.00026 U	0.062 U	0.17 J	0.017 U	0.015 U	0.092 U
1,2,3-Trichlorobenzene	---	---	0.00037 U	0.0003 U	0.033 U	0.0004 U	0.00046 U	0.00035 U	0.084 U	0.13 U	0.023 U	0.068 J	0.12 U
1,2-Dichlorobenzene	1.1	100	0.00016 U	0.00014 U	0.015 U	0.00018 U	0.0002 U	0.00016 U	0.27 J	0.19 J	0.034 J	0.044 J	0.055 U
1,4-Dichlorobenzene	1.8	13	0.00019 U	0.00016 U	0.018 U	0.00021 U	0.00024 U	0.00018 U	0.045 U	0.071 U	0.014 J	0.011 J	0.066 U
2-Butanone	---	---	0.0025 U	0.0021 U	0.29 J	0.018	0.015	0.0024 U	0.58 U	0.93 UJ	0.16 U	0.14 U	0.85 U
Acetone	0.05	100	0.0055 U	0.063	0.5 U*	0.072	0.072	0.034	1.3 U*	2 U*	0.35 U*	0.3 U*	1.8 U*
Benzene	0.06	4.8	0.00058	0.00016 U	0.027 J	0.0002 U	0.0016	0.00018 U	0.044 U	0.69 U*	0.77	1.1	0.93
Chloroform	0.37	49	0.00016 U	0.00013 U	0.014 U	0.00017 U	0.0002 U	0.00015 U	0.037 U	0.08 U	0.01 U	0.0088 U	0.054 U
cis-1,2-Dichloroethene	0.25	100	0.015	0.0086	44	0.05	0.047	0.0016	11	26	0.77	0.72	0.32 J
Cyclohexane	---	---	0.00062 U	0.00051 U	0.056 U	0.00067 U	0.00078 U	0.00059 U	0.14 U	0.23 U	2.4	2.9	2.8 J
Ethylbenzene	1	41	0.00016 U	0.00013 U	0.018 J	0.00017 U	0.0016	0.00015 U	0.037 U	0.059 U	6.2	7	6.5
Isopropylbenzene	---	---	0.00012 U	0.0001 U	0.011 U	0.00014 U	0.00034 J	0.00012 U	0.028 U	0.045 U	4.3	3.3	3.6
Methyl Acetate	---	---	0.0011 U	0.00089 U	0.18 J	0.0012 U	0.0014 U	0.001 U	0.25 U	0.4 U	0.069 U	0.06 U	3.8
Methyl cyclohexane	---	---	0.00069 U	0.00057 U	0.062 U	0.00075 U	0.00086 U	0.00065 U	0.16 U	0.25 U	8	8.8	6.7
o-Xylene	---	---	0.00038 J	0.00027 U	0.03 U	0.00036 U	0.0026	0.00032 U	0.076 U	0.12 U	5.7	15	13
p/m-Xylene	---	---	0.00064 U	0.00053 U	0.058 U	0.00069 U	0.002 J	0.00061 U	0.15 U	0.23 U	9.8	25	19
Styrene	---	---	0.00022 U	0.00018 U	0.072 J	0.00024 U	0.00028 U	0.00021 U	0.18 J	0.082 U	0.059 J	0.067	0.31 J
Tetrachloroethene	1.3	19	0.037	0.00057	10	0.00098	0.11	0.00021 U	110	180 J	14	12	2.7
Toluene	0.7	100	0.00062 U	0.00051 U	0.056 U	0.00067 U	0.00094 J	0.00059 U	0.14 U	0.23 U	0.41	1.4	1.8
trans-1,2-Dichloroethene	0.19	100	0.00016 U	0.00013 U	0.39	0.00053 J	0.00091 J	0.00015 U	0.1 J	0.11 J	0.0099 U	0.0086 U	0.053 U
Trichloroethene	0.47	21	0.0082	0.00054	3.1	0.00095	0.012	0.00015 U	41	28	1.4	1.1	0.34
Vinyl chloride	0.02	0.9	0.00038 U	0.00065 J	1.1	0.023	0.0019	0.00063 J	0.27	1.1	0.024 U*	0.021 U*	0.13 U*
Total VOCs	---	---	0.06116	0.07336	44	0.16546	0.26789	0.03623	110	180	53.857	78.51	61.8
Semi-Volatile Organic Compounds, mg/kg													
Acenaphthene	98	100	NS	NS	NS	NS	NS	NS	NS	NS	4 J	0.59 J	2.6 J
Acetophenone	---	---	NS	NS	NS	NS	NS	NS	NS	NS	12 J	0.23 U	1.3 U
Anthracene	1,000	100	NS	NS	NS	NS	NS	NS	NS	NS	2.8 J	0.4 J	2.1 U
Benzaldehyde	---	---	NS	NS	NS	NS	NS	NS	NS	NS	33	0.5 U	2.8 U
Benzo(a)anthracene	1	1	NS	NS	NS	NS	NS	NS	NS	NS	1.6 J	0.24 J	1.3 J
Biphenyl	---	---	NS	NS	NS	NS	NS	NS	NS	NS	4.5 J	1.2 J	3.3 J
Chrysene	1	3.9	NS	NS	NS	NS	NS	NS	NS	NS	1.4 J	0.88 J	3.3 J
Dibenzofuran	---	---	NS	NS	NS	NS	NS	NS	NS	NS	3.4 J	0.6 J	2 J
Fluoranthene	1,000	100	NS	NS	NS	NS	NS	NS	NS	NS	1.6 U	0.24 J	1.2 U
Fluorene	386	100	NS	NS	NS	NS	NS	NS	NS	NS	9.1 J	1.6 J	5.2 J
Naphthalene	12	100	NS	NS	NS	NS	NS	NS	NS	NS	19	5.3	18
Phenanthrene	1,000	100	NS	NS	NS	NS	NS	NS	NS	NS	26	4.7	16
Pyrene	1,000	100	NS	NS	NS	NS	NS	NS	NS	NS	3.8 J	0.68 J	3.3 J
Total SVOCs	---	---	---	---	---	---	---	---	---	---	224	34.43	124

Notes:

NY-PoG: New York NYCRR Part 375 Protection of Groundwater Criteria, New York Criteria per 6 NYCRR Part 375 Environmental Remediation Programs, effective December 14, 2006.

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

Blue highlighted exceeds PoG.

Yellow highlighted exceeds PoG and RESRRs.

--- No standard provided.

U - Not Detected (ND). The analyte was analyzed for but was not detected above the reported method detection limit.

J - The analyte was detected above the method detection limit but below the reporting limit and the concentration is estimated.

NS - Parameter was not sampled for.

* = The sample specific detection limit does not support the regulatory requirement.

Qualifiers in Red were modified based on Data Validation Review (performed by Alpha Geoscience).

TABLE B
Summary of Documentation Soil Sample Analytical Results
53 Putnam Street, Saratoga Springs, New York

ANALYTE	NY- PoG	NY- UNRES	NY- RESRR	NY- RESC	West Excavation										
					W-SW-1	W-SW-2	W-SW-3	W-SW-4	W-SW-5	W-SW-6	W-SW-7	W-FL-1	DUP-122821	W-FL-2	W-FL-3
					12/28/2021	12/28/2021	12/28/2021	12/28/2021	12/28/2021	12/28/2021	12/28/2021	12/28/2021	12/28/2021	12/28/2021	12/28/2021
					1' - 2' bgs	1' - 2' bgs	1' - 2' bgs	1' - 2' bgs	1' - 2' bgs	1' - 2' bgs	1' - 2' bgs	2' bgs	2' bgs	2' bgs	2' bgs
Semi-Volatile Organic Compounds, mg/kg															
2-Methylphenol	0.33	0.33	100	500	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Methylphenol/4-Methylphenol	0.33	0.33	100	500	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	98	20	100	500	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	107	100	100	500	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	1000	100	100	500	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	1	1	1	5.6	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	22	1	1	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	1.7	1	1	5.6	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(ghi)perylene	1000	100	100	500	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	1.7	0.8	3.9	56	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	1	1	3.9	56	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzo(a,h)anthracene	1000	0.33	0.33	0.56	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzofuran	210	7	59	350	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	1000	100	100	500	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluorene	386	30	100	500	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobenzene	3.2	0.33	1.2	6	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	8.2	0.5	0.5	5.6	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	12	12	100	500	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorophenol	0.8	0.8	6.7	6.7	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	1000	100	100	500	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenol	0.33	0.33	100	500	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	1000	100	100	500	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total SVOCs	---	---	---	---	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Metals, mg/kg															
Mercury, Total	0.73	0.18	0.81	2.8	0.538	0.087	2.13	2.71	0.695	1.4	0.811	0.045 U	0.046 U	1.74	0.07
General Chemistry															
Solids, Total %	---	---	---	---	86.7	91.4	86.3	85.4	91.8	88.1	87.8	91	90.1	86.2	91.6

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

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.

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

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

Yellow highlighted exceed PoG.

Orange highlighted exceeds RESRRs.

Blue highlighted exceed PoG and RESRRs.

--- No standard provided.

NA = Non-Analyzed.

U = Not Detected. The analyte was analyzed for, but was not detected above the reported sample quantitation limit.

J = Result is less than the reporting limit (RL) but greater than or equal to the method detection limit (MDL), for instance, the result may be uncertain.

UJ = Not detected, quantitation limit may be inaccurate or imprecise.

J- = Analyte is present, Reported value may be biased high and associated with a higher level of uncertainty than is normally expected with the analytical method.

J+ = Analyte is present, Reported value may be biased high and associated with a higher level of uncertainty than is normally expected with the analytical method.

D - Contraction of the analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.

Qualifiers in **Red** were modified based on Data Validation Review (performed by Alpha Geoscience).

TABLE B
Summary of Documentation Soil Sample Analytical Results
53 Putnam Street, Saratoga Springs, New York

ANALYTE	NY- PoG	NY- UNRES	NY- RESRR	NY- RESC	East Excavation							North Excavation				
					E-SW-1	E-SW-2	E-SW-3	E-SW-4	E-SW-5	E-FL-1	E-FL-2	N-SW-1	N-SW-2	N-SW-3	N-SW-4	N-FL-1
					12/29/2021	12/29/2021	12/29/2021	12/29/2021	12/29/2021	12/29/2021	12/29/2021	12/29/2021	12/29/2021	12/29/2021	12/29/2021	12/29/2021
					1' - 2' bgs	1' - 2' bgs	1' - 2' bgs	1' - 2' bgs	1' - 2' bgs	2' bgs	2' bgs	2' - 3' bgs	2' - 3' bgs	2' - 3' bgs	2' - 3' bgs	3' bgs
Semi-Volatile Organic Compounds, mg/kg																
2-Methylphenol	0.33	0.33	100	500	NA	NA	NA	NA	NA	NA	NA	0.028 U	0.03 U	0.029 U	0.03 U	0.03 U
3-Methylphenol/4-Methylphenol	0.33	0.33	100	500	NA	NA	NA	NA	NA	NA	NA	0.028 U	0.03 U	0.029 U	0.03 U	0.03 U
Acenaphthene	98	20	100	500	NA	NA	NA	NA	NA	NA	NA	0.019 U	0.22	0.056 J	0.02 U	0.02 U
Acenaphthylene	107	100	100	500	NA	NA	NA	NA	NA	NA	NA	0.028 U	0.077 J	0.053 J	0.03 U	0.029 U
Anthracene	1000	100	100	500	NA	NA	NA	NA	NA	NA	NA	0.05 J	0.64	0.15	0.037 U	0.047 J
Benzo(a)anthracene	1	1	1	5.6	NA	NA	NA	NA	NA	NA	NA	0.09 J	1.4	0.67	0.054 J	0.22
Benzo(a)pyrene	22	1	1	1	NA	NA	NA	NA	NA	NA	NA	0.14	1.2	0.64	0.052 J	0.18
Benzo(b)fluoranthene	1.7	1	1	5.6	NA	NA	NA	NA	NA	NA	NA	0.15	1.5	0.86	0.064 J	0.22
Benzo(ghi)perylene	1000	100	100	500	NA	NA	NA	NA	NA	NA	NA	0.83	0.78	0.44	0.076 J	0.08 J
Benzo(k)fluoranthene	1.7	0.8	3.9	56	NA	NA	NA	NA	NA	NA	NA	0.067 J	0.55	0.29	0.031 U	0.082 J
Chrysene	1	1	3.9	56	NA	NA	NA	NA	NA	NA	NA	0.087 J	1.4	0.71	0.048 J	0.2
Dibenzo(a,h)anthracene	1000	0.33	0.33	0.56	NA	NA	NA	NA	NA	NA	NA	0.085 J	0.21	0.12	0.022 U	0.022 J
Dibenzofuran	210	7	59	350	NA	NA	NA	NA	NA	NA	NA	0.017 U	0.1 J	0.041 J	0.018 U	0.018 U
Fluoranthene	1000	100	100	500	NA	NA	NA	NA	NA	NA	NA	0.14	2.9	1.3	0.089 J	0.38
Fluorene	386	30	100	500	NA	NA	NA	NA	NA	NA	NA	0.018 U	0.23	0.063 J	0.019 U	0.018 U
Hexachlorobenzene	3.2	0.33	1.2	6	NA	NA	NA	NA	NA	NA	NA	0.02 U	0.021 U	0.021 U	0.022 U	0.021 U
Indeno(1,2,3-cd)pyrene	8.2	0.5	0.5	5.6	NA	NA	NA	NA	NA	NA	NA	0.59	0.88	0.49	0.036 J	0.099 J
Naphthalene	12	12	100	500	NA	NA	NA	NA	NA	NA	NA	0.022 U	0.07 J	0.046 J	0.023 U	0.023 U
Pentachlorophenol	0.8	0.8	6.7	6.7	NA	NA	NA	NA	NA	NA	NA	0.04 U	0.042 U	0.041 U	0.042 U	0.042 U
Phenanthrene	1000	100	100	500	NA	NA	NA	NA	NA	NA	NA	0.086 J	2.3	0.84	0.055 J	0.23
Phenol	0.33	0.33	100	500	NA	NA	NA	NA	NA	NA	NA	0.027 U	0.029 U	0.028 U	0.19 U	0.19 U
Pyrene	1000	100	100	500	NA	NA	NA	NA	NA	NA	NA	0.13	2.6	1.2	0.079 J	0.35
Total SVOCs	---	---	---	---	NA	NA	NA	NA	NA	NA	NA	2.445	17.057	7.969	0.553	2.11
Total Metals, mg/kg																
Mercury, Total	0.73	0.18	0.81	2.8	1.35	2.76	3.8	0.475	0.447	1.21	2.11	0.261	1.79	1.23	1.49	0.716
General Chemistry																
Solids, Total %	---	---	---	---	88.7	88.1	86.8	88.5	90.4	88.3	88.6	90.2	84.5	87.4	86	85.1

NY-PoG: New York NYCRR Part 375 Groundwater Criteria, New York Restricted use Criteria per 6 NYCRR Part 375 Environmental Remediation Programs, effective December 14, 2006.
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.
NY-RESRR: New York NYCRR Part 375 Restricted-Residential Criteria, New York Restricted use Criteria per 6 NYCRR Part 375 Environmental Remediation Programs, effective December 14, 2006.
NY-RESC: New York NYCRR Part 375 Commercial Criteria, New York Restricted use Criteria per 6 NYCRR Part 375 Environmental Remediation Programs, effective December 14, 2006.

Yellow highlighted exceed PoG.
Orange highlighted exceeds RESRRs.
Blue highlighted exceed PoG and RESRRs.

--- No standard provided.
NA = Non-Analyzed.
U = Not Detected. The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
J = Result is less than the reporting limit (RL) but greater than or equal to the method detection limit (MDL), for instance, the result may be uncertain.
UJ = Not detected, quantitation limit may be inaccurate or imprecise.
J- = Analyte is present, Reported value may be biased high and associated with a higher level of uncertainty than is normally expected with the analytical method.
J+ = Analyte is present, Reported value may be biased high and associated with a higher level of uncertainty than is normally expected with the analytical method.
D - Contraction of the analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.
Qualifiers in Red were modified based on Data Validation Review (performed by Alpha Geoscience).

TABLE C
Summary of Groundwater Analytical Results
53 Putnam Street, Saratoga, New York

ANALYTE	NY-TOGS-AWQS	MW-6A			MW-7			MW-8A			DUP121421 ^A
		12/4/2018	12/14/2021	1/17/2022	11/16/2018	12/14/2021	1/17/2022	11/16/2018	12/14/2021	1/17/2022	12/14/2021
Volatile Organics by GC/MS, µg/L											
1,1,1-Trichloroethane	5	2.5 U	0.7 U	0.7 U	2.5 U	0.7 U	0.7 U	2.5 U	0.7 U	0.7 U	0.7 U
1,1,2,2-Tetrachloroethane	5	NA	0.17 U	0.17 U	NA	0.17 U	0.17 U	NA	0.17 U	0.17 U	0.17 U
1,1,2-Trichloroethane	1	NA	0.5 U	0.5 U	NA	0.5 U	0.5 U	NA	0.5 U	0.5 U	0.5 U
1,1-Dichloroethane	5	2.5 U	0.7 U	0.7 U	2.5 U	0.7 U	0.7 U	2.5 U	0.7 U	0.7 U	0.7 U
1,1-Dichloroethene	5	0.5 U	0.17 U	0.17 U	0.5 U	0.17 U	0.17 U	4.1	0.17 U	0.17 U	0.17 U
1,2,3-Trichlorobenzene	5	NA	0.7 U	0.7 U	NA	0.7 U	0.7 UJ	NA	0.7 U	0.7 U	0.7 U
1,2,4-Trichlorobenzene	5	2.5 U	0.7 U	0.7 U	2.5 U	0.7 U	0.7 UJ	2.5 U	0.7 U	0.7 U	0.7 U
1,2-Dibromo-3-chloropropane	0.04	NA	0.7 U*	0.7 U*	NA	0.7 U*	0.7 U*	NA	0.7 U*	0.7 U*	0.7 U*
1,2-Dibromoethane	0.0006	NA	0.65 U*	0.65 U*	NA	0.65 U*	0.65 U*	NA	0.65 U*	0.65 U*	0.65 U*
1,2-Dichlorobenzene	3	2.5 U	0.7 U	0.7 U	2.5 U	0.7 U	0.7 U	2.5 U	0.7 U	0.7 U	0.7 U
1,2-Dichloroethane	0.6	0.5 U	0.13 U	0.13 U	0.5 U	0.13 U	0.13 U	0.5 U	0.13 U	0.13 U	0.13 U
1,2-Dichloropropane	1	NA	0.14 U	0.14 U	NA	0.14 U	0.14 U	NA	0.14 U	0.14 U	0.14 U
1,3-Dichlorobenzene	3	2.5 U	0.7 U	0.7 U	2.5 U	0.7 U	0.7 U	2.5 U	0.7 U	0.7 U	0.7 U
1,4-Dichlorobenzene	3	2.5 U	0.7 U	0.7 U	2.5 U	0.7 U	0.7 U	2.5 U	0.7 U	0.7 U	0.7 U
1,4-Dioxane	---	250 R	61 U	61 U	250 R	61 U	61 U	250 R	61 U	61 U	61 U
2-Butanone	50	5 U	1.9 U	1.9 U	5 U	1.9 U	1.9 UJ	5 U	1.9 U	4.2 J	1.9 U
2-Hexanone	50	NA	1 U	1 U	NA	1 U	1 UJ	NA	1 U	1 U	1 U
4-Methyl-2-pentanone	---	NA	1 U	1 U	NA	1 U	1 U	NA	1 U	1 U	1 U
Acetone	50	6.8	1.5 U	1.6 J	21 J	7.2	13 J+	5 U	9.4	51	10
Benzene	1	0.5 U	0.16 U	0.16 U	0.5 U	0.16 U	0.16 U	0.56	0.16 U	0.16 U	0.16 U
Bromochloromethane	5	NA	0.7 U	0.7 U	NA	0.7 U	0.7 U	NA	0.7 U	0.7 U	0.7 U
Bromodichloromethane	50	NA	0.19 U	0.19 U	NA	0.19 U	0.19 U	NA	0.19 U	0.19 U	0.19 U
Bromoform	50	NA	0.65 U	0.65 U	NA	0.65 U	0.65 U	NA	0.65 U	0.65 U	0.65 U
Bromomethane	5	NA	0.7 U	0.7 U	NA	0.7 U	0.7 U	NA	0.7 U	0.7 U	0.7 U
Carbon disulfide	60	NA	1 U	1 U	NA	1 U	1 U	NA	1 U	7.8	1 U
Carbon tetrachloride	5	0.5 U	0.13 U	0.13 U	0.5 U	0.13 U	0.13 U	0.5 U	0.13 U	0.13 U	0.13 U
Chlorobenzene	5	2.5 U	0.7 U	0.7 U	2.5 U	0.7 U	0.7 U	2.5 U	0.7 U	0.7 U	0.7 U
Chloroethane	5	NA	0.7 U	0.7 U	NA	0.7 U	0.7 U	NA	0.7 U	0.7 U	0.7 U
Chloroform	7	2.5 U	0.7 U	0.7 U	2.5 U	0.7 U	0.7 U	2.5 U	0.7 U	0.7 U	0.7 U
Chloromethane	---	NA	0.7 U	0.7 U	NA	0.7 U	0.7 U	NA	0.7 U	0.7 U	0.7 U
cis-1,2-Dichloroethene	5	4	2.6	2.5	19	18	15	1000	29	20	33
cis-1,3-Dichloropropene	0.4	NA	0.14 U	0.14 U	NA	0.14 U	0.14 UJ	NA	0.14 U	0.14 U	0.14 U
Cyclohexane	---	NA	0.27 U	0.27 U	NA	0.27 U	0.27 U	NA	0.27 U	0.27 U	0.27 U
Dibromochloromethane	50	NA	0.15 U	0.15 U	NA	0.15 U	0.15 U	NA	0.15 U	0.15 U	0.15 U
Dichlorodifluoromethane	5	NA	1 U	1 U	NA	1 U	1 U	NA	1 U	1 U	1 U
Ethylbenzene	5	2.5 U	0.7 U	0.7 U	2.5 U	0.7 U	0.7 U	2.5 U	0.7 U	0.7 U	0.7 U
Freon-113	5	NA	0.7 U	0.7 U	NA	0.7 U	0.7 U	NA	0.7 U	0.7 U	0.7 U
Isopropylbenzene	5	NA	0.7 U	0.7 U	NA	0.7 U	0.7 U	NA	0.7 U	0.7 U	0.7 U
Methyl Acetate	---	NA	0.23 U	0.23 U	NA	0.23 U	0.23 UJ	NA	0.23 U	0.23 U	0.23 U
Methyl cyclohexane	---	NA	0.4 U	0.4 U	NA	0.4 U	0.4 UJ	NA	0.4 U	0.4 U	0.4 U
Methyl tert butyl ether	10	2.5 U	0.7 U	0.7 U	2.5 U	0.7 U	0.7 U	2.5 U	0.7 U	0.7 U	0.7 U
Methylene chloride	5	2.5 U	0.7 U	0.7 U	2.5 U	0.7 U	0.7 U	2.5 U	0.7 U	0.7 U	0.7 U
o-Xylene	5	2.5 U	0.7 U	0.7 U	2.5 U	0.7 U	0.7 U	2.5 U	0.7 U	0.7 U	0.7 U
p/m-Xylene	5	2.5 U	0.7 U	0.7 U	2.5 U	0.7 U	0.7 U	2.5 U	0.7 U	0.7 U	0.7 U
Styrene	5	NA	0.7 U	0.7 U	NA	0.7 U	0.7 U	NA	0.7 U	0.7 U	0.7 U
Tetrachloroethene	5	12	3	1.4	88	95	22 J-	0.35 J	11	2.9	12
Toluene	5	2.5 U	0.7 U	0.7 U	2.5 U	0.7 U	0.7 U	2.5 U	0.7 U	0.7 U	0.7 U
trans-1,2-Dichloroethene	5	2.5 U	0.7 U	0.7 U	2.5 U	0.7 U	0.7 U	3.1	0.7 U	0.7 U	0.7 U
trans-1,3-Dichloropropene	0.4	NA	0.16 U	0.16 U	NA	0.16 U	0.16 UJ	NA	0.16 U	0.16 U	0.16 U
Trichloroethene	5	1.9	0.67	0.34 J	9.9	10	5.7	0.23 J	3.3	1.2	3.5
Trichlorofluoromethane	5	NA	0.7 U	0.7 U	NA	0.7 U	0.7 U	NA	0.7 U	0.7 U	0.7 U
Vinyl chloride	2	0.19 J	0.07 U	0.07 U	1.2	0.27 J	0.3 J	680	7.5	17	8.9
Total VOCs	---	24.89	6.27	5.84	139.1	130.47	56	1687.78	60.2	92.1	67.4

TABLE C
Summary of Groundwater Analytical Results
53 Putnam Street, Saratoga, New York

ANALYTE	NY-TOGS-AWQS	MW-6A			MW-7			MW-8A			DUP121421 ^A
		12/4/2018	12/14/2021	1/17/2022	11/16/2018	12/14/2021	1/17/2022	11/16/2018	12/14/2021	1/17/2022	12/14/2021
Semi-Volatile Organics by GC/MS, µg/L											
1,2,4,5-Tetrachlorobenzene	5	NA	0.44 U	0.44 U	NA	0.44 U	0.44 U	10 U	0.44 U	0.44 U	0.44 U
2,3,4,6-Tetrachlorophenol	---	NA	0.84 U	0.84 U	NA	0.84 U	0.84 U	5 U	0.84 U	0.84 U	0.84 U
2,4,5-Trichlorophenol	---	NA	0.77 U	0.77 U	NA	0.77 U	0.77 U	5 U	0.77 U	0.77 U	0.77 U
2,4,6-Trichlorophenol	---	NA	0.61 U	0.61 U	NA	0.61 U	0.61 U	5 U	0.61 U	0.61 U	0.61 U
2,4-Dichlorophenol	1	NA	0.41 U	0.41 U	NA	0.41 U	0.41 U	5 U	0.41 U	0.41 U	0.41 U
2,4-Dimethylphenol	50	NA	1.8 R	1.8 R	NA	1.8 U	1.8 R	5 UJ	1.8 U	1.8 R	1.8 U
2,4-Dinitrophenol	10	NA	6.6 U	6.6 U	NA	6.6 U	6.6 U	20 U	6.6 U	6.6 U	6.6 U
2,4-Dinitrotoluene	5	NA	1.2 U	1.2 U	NA	1.2 U	1.2 U	5 U	1.2 U	1.2 U	1.2 U
2,6-Dinitrotoluene	5	NA	0.93 U	0.93 U	NA	0.93 U	0.93 U	5 U	0.93 U	0.93 U	0.93 U
2-Chlorophenol	---	NA	0.48 U	0.48 U	NA	0.48 U	0.48 U	2 U	0.48 U	0.48 U	0.48 U
2-Methylphenol	---	NA	0.49 U	0.49 U	NA	0.49 U	0.49 U	NA	0.49 U	0.49 U	0.49 U
2-Nitroaniline	5	NA	0.5 U	0.5 U	NA	0.5 U	0.5 UJ	5 U	0.5 U	0.5 U	0.5 U
2-Nitrophenol	---	NA	0.85 U	0.85 U	NA	0.85 U	0.85 U	10 U	0.85 U	0.85 U	0.85 U
3,3'-Dichlorobenzidine	5	NA	1.6 R	1.6 R	NA	1.6 U	1.6 R	5 UJ	1.6 U	1.6 R	1.6 U
3-Methylphenol/4-Methylphenol	---	NA	0.48 U	0.48 U	NA	0.48 U	0.48 U	5 U	260 J	350 J	360 J
3-Nitroaniline	5	NA	0.81 U	0.81 U	NA	0.81 U	0.81 U	5 U	0.81 U	0.81 U	0.81 U
4,6-Dinitro-o-cresol	---	NA	1.8 U	1.8 U	NA	1.8 U	1.8 U	10 U	1.8 U	1.8 U	1.8 U
4-Bromophenyl phenyl ether	---	NA	0.38 U	0.38 U	NA	0.38 U	0.38 U	2 U	0.38 U	0.38 U	0.38 U
4-Chloroaniline	5	NA	1.1 R	1.1 UJ	NA	1.1 UJ	1.1 R	5 UJ	1.1 UJ	1.1 UJ	1.1 UJ
4-Chlorophenyl phenyl ether	---	NA	0.49 U	0.49 U	NA	0.49 U	0.49 U	2 U	0.49 U	0.49 U	0.49 U
4-Nitroaniline	5	NA	0.8 UJ	0.8 U	NA	0.8 U	0.8 UJ	5 U	0.8 U	0.8 U	0.8 U
4-Nitrophenol	---	NA	0.67 U	0.67 U	NA	0.67 U	0.67 U	10 U	0.67 U	0.67 U	0.67 U
Acetophenone	---	NA	0.53 U	0.53 U	NA	0.53 U	0.53 U	5 U	0.53 U	0.53 U	0.53 U
Atrazine	7.5	NA	0.76 U	0.76 U	NA	0.76 U	0.76 U	10 U	0.76 U	0.76 U	0.76 U
Benzaldehyde	---	NA	0.53 U	0.53 U	NA	0.53 U	0.53 U	5 U	0.53 U	0.53 U	0.53 U
Biphenyl	---	NA	0.46 U	0.46 U	NA	0.46 U	0.46 U	2 U	0.46 U	0.46 U	0.46 U
Bis(2-chloroethoxy)methane	5	NA	0.5 U	0.5 U	NA	0.5 U	0.5 U	5 U	0.5 U	0.5 U	0.5 U
Bis(2-chloroethyl)ether	1	NA	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U
Bis(2-chloroisopropyl)ether	5	NA	0.53 U	0.53 U	NA	0.53 U	0.53 U	2 U	0.53 U	0.53 U	0.53 U
Bis(2-ethylhexyl)phthalate	5	NA	1.5 U	1.5 U	NA	2.4 J	1.5 U	3 U	1.5 U	1.5 U	1.5 U
Butyl benzyl phthalate	50	NA	1.2 U	1.2 U	NA	1.2 U	1.2 U	5 U	1.2 U	1.2 U	1.2 U
Caprolactam	---	NA	3.3 U	3.3 U	NA	3.3 U	3.3 U	10 U	3.3 U	3.3 U	3.3 U
Carbazole	---	NA	0.49 U	0.49 UJ	NA	0.49 U	0.49 UJ	2 U	0.49 U	0.49 UJ	0.49 U
Di-n-butylphthalate	50	NA	0.39 U	0.39 U	NA	0.39 U	0.39 U	5 U	0.39 U	0.39 U	0.39 U
Di-n-octylphthalate	50	NA	1.3 U	1.3 U	NA	1.3 U	1.3 U	5 U	1.3 U	1.3 U	1.3 U
Dibenzofuran	---	NA	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U
Diethyl phthalate	50	NA	0.38 U	0.38 U	NA	0.38 U	0.38 U	5 U	0.38 U	0.38 U	0.38 U
Dimethyl phthalate	50	NA	1.8 U	1.8 U	NA	1.8 U	1.8 U	5 U	1.8 U	1.8 U	1.8 U
Hexachlorocyclopentadiene	5	NA	0.69 UJ	0.69 U	NA	0.69 U	0.69 UJ	20 U	0.69 U	0.69 U	0.69 U
Isophorone	50	NA	1.2 U	1.2 U	NA	1.2 U	1.2 U	5 U	1.2 U	1.2 U	1.2 U
n-Nitrosodi-n-propylamine	---	NA	0.64 U	0.64 U	NA	0.64 U	0.64 U	5 U	0.64 U	0.64 U	0.64 U
NDPA/DPA	50	NA	0.42 U	0.42 U	NA	0.42 U	0.42 U	2 U	0.42 U	0.42 U	0.42 U
Nitrobenzene	0.4	NA	0.77 U*	0.77 U*	NA	0.77 U*	0.77 U*	2 U	0.77 U*	0.77 U*	0.77 U*
p-Chloro-m-cresol	---	NA	0.35 U	0.35 U	NA	0.35 U	0.35 U	2 U	0.35 U	0.35 U	0.35 U
Phenol	1	NA	0.57 U	0.57 U	NA	0.57 U	0.57 U	5 U	4.3 J	4.2 J	5.1
Total SVOCs	---	---	ND	ND	---	2.4	ND	ND	264.3	354.2	325.1

TABLE C
Summary of Groundwater Analytical Results
53 Putnam Street, Saratoga, New York

ANALYTE	NY-TOGS-AWQS	MW-6A			MW-7			MW-8A			DUP121421 ^A
		12/4/2018	12/14/2021	1/17/2022	11/16/2018	12/14/2021	1/17/2022	11/16/2018	12/14/2021	1/17/2022	12/14/2021
Semi-Volatile Organics by GC/MS-SIM, µg/L											
2-Chloronaphthalene	10	NA	0.02 U	0.02 U	NA	0.02 U	0.02 U	0.2 U	0.02 U	0.02 U	0.02 U
2-Methylnaphthalene	---	NA	0.02 U	0.02 U	NA	0.02 U	0.06 J	0.1 U	0.02 U	0.02 U	0.02 U
Acenaphthene	20	NA	0.01 U	0.01 U	NA	0.01 U	0.03 J	0.1 U	0.01 U	0.01 U	0.01 U
Acenaphthylene	---	NA	0.01 U	0.01 U	NA	0.01 U	0.01 U	0.1 U	0.01 U	0.01 U	0.01 U
Anthracene	50	NA	0.01 U	0.01 U	NA	0.01 U	0.01 U	0.1 U	0.01 U	0.01 U	0.01 U
Benzo(a)anthracene	0.002	NA	0.1 U*	0.03 J	NA	0.03 U*	0.03 J	0.1 U	0.06 U*	0.04 J	0.03 U*
Benzo(a)pyrene	ND	NA	0.08 J	0.02 J	NA	0.02 U	0.02 J	0.1 U	0.05 J	0.04 J	0.02 U
Benzo(b)fluoranthene	0.002	NA	0.12	0.03 J	NA	0.01 U*	0.04 J	0.1 U	0.08 J	0.05 J	0.01 U*
Benzo(ghi)perylene	---	NA	0.06 J	0.02 J	NA	0.01 U	0.02 J	0.1 U	0.05 J	0.04 J	0.01 U
Benzo(k)fluoranthene	0.002	NA	0.04 J	0.01 J	NA	0.01 U*	0.01 J	0.1 U	0.02 J	0.01 J	0.01 U*
Chrysene	0.002	NA	0.11	0.02 J	NA	0.07 J	0.03 J	0.1 U	0.1	0.03 J	0.01 U*
Dibenzo(a,h)anthracene	---	NA	0.01 U	0.01 U	NA	0.01 U	0.01 U	0.1 U	0.01 U	0.01 U	0.01 U
Fluoranthene	50	NA	0.18	0.05 J	NA	0.02 J	0.05 J	0.03 J	0.08 J	0.06 J	0.02 U
Fluorene	50	NA	0.01 U	0.01 U	NA	0.01 U	0.01 U	0.1 U	0.01 U	0.01 U	0.01 U
Hexachlorobenzene	0.04	NA	0.01 U	0.01 U	NA	0.01 U	0.01 U	0.8 U	0.01 U	0.01 U	0.01 U
Hexachlorobutadiene	0.5	NA	0.05 U	0.05 U	NA	0.05 U	0.05 U	0.5 U	0.05 U	0.05 U	0.05 U
Hexachloroethane	5	NA	0.06 U	0.06 U	NA	0.06 U	0.06 U	0.8 U	0.06 U	0.06 U	0.06 U
Indeno(1,2,3-cd)pyrene	0.002	NA	0.07 J	0.02 J	NA	0.01 U*	0.02 J	0.1 U	0.05 J	0.03 J	0.01 U*
Naphthalene	10	NA	0.05 U	0.05 U	NA	0.05 U	0.05 U	0.1 U	0.05 U	0.05 U	0.05 U
Pentachlorophenol	1	NA	0.01 U	0.01 U	NA	0.01 U	0.01 U	0.8 U	0.01 U	0.01 U	0.01 U
Phenanthrene	50	NA	0.11	0.03 J	NA	0.03 J	0.04 J	0.1 U	0.06 J	0.04 J	0.02 U
Pyrene	50	NA	0.17	0.05 J	NA	0.03 J	0.05 J	0.1	0.08 J	0.06 J	0.02 U
Total SVOCs	---	---	1.04	0.28	---	0.18	0.4	0.13	0.63	0.4	0.03
Perfluorinated Alkyl Acids by Isotope Dilution, ng/L ^C											
1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	---	NA	1.16 U	1.22 U	NA	1.22 U	1.16 U	1.86 U	1.15 U	1.08 U	1.13 U
1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	---	NA	1.28 U	1.34 U	NA	1.34 U	1.27 U	1.86 U	1.26 U	1.18 U	1.24 U
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	---	NA	0.77 U	0.811 U	NA	0.807 U	0.768 U	1.86 U	0.763 U	0.715 U	0.751 U
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	---	NA	0.621 U	0.654 U	NA	0.651 U	0.619 U	1.86 U	0.615 U	0.576 U	0.605 U
Perfluorobutanesulfonic Acid (PFBS)	---	NA	9.56	21.8	NA	22.6	22.6	28.4	18.8	18.3	19.6
Perfluorobutanoic Acid (PFBA)	---	NA	4.12	6.39	NA	7.76	8.32	9.52	10.1	9.18	10.1
Perfluorodecanesulfonic Acid (PFDS)	---	NA	0.939 U	0.989 U	NA	0.984 U	0.936 U	1.86 U	0.93 U	0.872 U	0.915 U
Perfluorodecanoic Acid (PFDA)	---	NA	0.291 U	0.307 U	NA	0.305 U	0.29 U	1.86 U	0.288 U	0.27 U	0.284 U
Perfluorododecanoic Acid (PFDoA)	---	NA	0.356 U	0.375 U	NA	0.374 U	0.355 U	1.86 U	0.353 U	0.331 U	0.347 U
Perfluoroheptanesulfonic Acid (PFHpS)	---	NA	0.659 U	0.694 U	NA	1.48 J	1.29 J	0.892 J	230 F	0.612 U	203 F
Perfluoroheptanoic Acid (PFHpA)	---	NA	4.99	7.71	NA	18.6	19.4	12.8	13.1	11.1	13.2
Perfluorohexanesulfonic Acid (PFHxS)	---	NA	2.66	3.97	NA	17.5	17.3	13.5	10	8.4	9.9
Perfluorohexanoic Acid (PFHxA)	---	NA	4.86	8.6	NA	18.8	22.4	15.8	21.5	18.3	21.1
Perfluorononanoic Acid (PFNA)	---	NA	0.299 U	0.424 J	NA	3.43 F	5.43	2.47	0.676 J	1.17 J	1.22 J
Perfluorooctanesulfonamide (FOSA)	---	NA	0.556 U	0.585 U	NA	0.582 U	0.554 U	1.86 U	0.55 U	0.516 U	0.541 U
Perfluorooctanesulfonic Acid (PFOS)	2.7 ^C	NA	5.02	7.41	NA	25.6	31.8	27.4	17.5	18.7	17.7
Perfluorooctanoic Acid (PFOA)	6.7 ^C	NA	9.39	11.2	NA	40	45.9	25.4	26.8	20.2	25.1
Perfluoropentanoic Acid (PFPeA)	---	NA	5.45	12.9	NA	21.2	28.6	17.8	30.3	31	29.7
Perfluorotetradecanoic Acid (PFTA)	---	NA	0.238 U	0.888 U	NA	0.249 U	0.806 U	1.86 U	0.243 J	0.897 U	0.232 U
Perfluorotridecanoic Acid (PFTTrDA)	---	NA	0.314 U	0.33 U	NA	0.328 U	0.312 U	1.86 U	0.31 U	0.291 U	0.305 U
Perfluoroundecanoic Acid (PFUnA)	---	NA	0.249 U	0.262 U	NA	0.261 U	0.248 U	1.86 U	0.247 U	0.231 U	0.243 U
PFOA/PFOS, Total	---	---	14.41	18.61	---	65.6	77.7	52.8	44.3	38.9	42.8
Dissolved Metals, mg/L											
Iron, Dissolved	0.3	NA	0.102	0.0661	NA	0.119	0.0454 J	NA	19.8	2.51	19.2
Total Metals, mg/L											
Iron, Total	0.3	NA	11.6	4.33	NA	7.41	29	NA	35.5	29.5	38.3
Anions by Ion Chromatography, mg/L											
Sulfate	250	NA	31.5 J-	25.7 J-	NA	87.2 J-	104 J-	NA	59.8 J-	33.2 J-	61.2 J-

TABLE C
Summary of Groundwater Analytical Results
53 Putnam Street, Saratoga, New York

ANALYTE	NY-TOGS-AWQS	MW-18		MW-19		DUP011722 ^B	MW-20	
		12/14/2021	1/17/2022	12/14/2021	1/17/2022	1/17/2022	12/14/2021	1/17/2022
Volatile Organics by GC/MS, µg/L								
1,1,1-Trichloroethane	5	0.7 U	0.7 U	0.7 U	0.7 U	0.7 U	0.7 U	0.7 U
1,1,2,2-Tetrachloroethane	5	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U
1,1,2-Trichloroethane	1	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1-Dichloroethane	5	0.7 U	0.7 U	0.7 U	0.7 U	0.7 U	0.7 U	0.7 U
1,1-Dichloroethene	5	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U
1,2,3-Trichlorobenzene	5	0.7 U	0.7 U	0.7 U	0.7 U	0.7 U	0.7 U	0.7 U
1,2,4-Trichlorobenzene	5	0.7 U	0.7 U	0.7 U	0.7 U	0.7 U	0.7 U	0.7 U
1,2-Dibromo-3-chloropropane	0.04	0.7 U*	0.7 U*	0.7 U*	0.7 U*	0.7 U*	0.7 U*	0.7 U*
1,2-Dibromoethane	0.0006	0.65 U*	0.65 U*	0.65 U*	0.65 U*	0.65 U*	0.65 U*	0.65 U*
1,2-Dichlorobenzene	3	0.7 U	0.7 U	0.7 U	0.7 U	0.7 U	0.7 U	0.7 U
1,2-Dichloroethane	0.6	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U
1,2-Dichloropropane	1	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U
1,3-Dichlorobenzene	3	0.7 U	0.7 U	0.7 U	0.7 U	0.7 U	0.7 U	0.7 U
1,4-Dichlorobenzene	3	0.7 U	0.7 U	0.7 U	0.7 U	0.7 U	0.7 U	0.7 U
1,4-Dioxane	---	61 U	61 U	61 U	61 U	61 U	61 U	61 U
2-Butanone	50	1.9 U	1.9 U	1.9 U	1.9 U	1.9 U	1.9 U	1.9 U
2-Hexanone	50	1 U	1 U	1 U	1 U	1 U	1 U	1 U
4-Methyl-2-pentanone	---	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Acetone	50	1.5 J	3.3 J	5.8	3.3 J	2.6 J	75	26
Benzene	1	0.16 U	0.16 U	1	0.27 J	0.26 J	0.16 U	0.16 U
Bromochloromethane	5	0.7 U	0.7 U	0.7 U	0.7 U	0.7 U	0.7 U	0.7 U
Bromodichloromethane	50	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U
Bromoform	50	0.65 U	0.65 U	0.65 U	0.65 U	0.65 U	0.65 U	0.65 U
Bromomethane	5	0.7 U	0.7 U	0.7 U	0.7 U	0.7 U	0.7 U	0.7 U
Carbon disulfide	60	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Carbon tetrachloride	5	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U
Chlorobenzene	5	0.7 U	0.7 U	0.7 U	0.7 U	0.7 U	0.7 U	0.7 U
Chloroethane	5	0.7 U	0.7 U	0.7 U	0.7 U	0.7 U	0.7 U	0.7 U
Chloroform	7	0.7 U	0.7 U	0.7 U	0.7 U	0.7 U	0.7 U	0.7 U
Chloromethane	---	0.7 U	0.7 U	0.7 U	0.7 U	0.7 U	0.7 U	0.7 U
cis-1,2-Dichloroethene	5	4.3	4.8	0.7 U	0.7 U	0.7 U	0.7 U	0.7 U
cis-1,3-Dichloropropene	0.4	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U
Cyclohexane	---	0.27 U	0.27 U	1.9 J	1.3 J	1.4 J	0.27 U	0.27 U
Dibromochloromethane	50	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U
Dichlorodifluoromethane	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Ethylbenzene	5	0.7 U	0.7 U	0.7 U	0.7 U	0.7 U	0.7 U	0.7 U
Freon-113	5	0.7 U	0.7 U	0.7 U	0.7 U	0.7 U	0.7 U	0.7 U
Isopropylbenzene	5	0.7 U	0.7 U	2.1 J	1.8 J	1.7 J	0.7 U	0.7 U
Methyl Acetate	---	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U
Methyl cyclohexane	---	0.4 U	0.4 U	3.1 J	2.5 J	2.5 J	0.4 U	0.4 U
Methyl tert butyl ether	10	0.7 U	0.7 U	0.7 U	0.7 U	0.7 U	0.7 U	0.7 U
Methylene chloride	5	0.7 U	0.7 U	0.7 U	0.7 U	0.7 U	0.7 U	0.7 U
o-Xylene	5	0.7 U	0.7 U	0.7 U	0.7 U	0.7 U	0.7 U	0.7 U
p/m-Xylene	5	0.7 U	0.7 U	2.2 J	1.6 J	1.6 J	0.7 U	0.7 U
Styrene	5	0.7 U	0.7 U	0.7 U	0.7 U	0.7 U	0.7 U	0.7 U
Tetrachloroethene	5	52	18	5	3.5	3.3	4.4	4.2
Toluene	5	0.7 U	0.7 U	0.7 U	0.7 U	0.7 U	0.7 U	0.7 U
trans-1,2-Dichloroethene	5	0.7 U	0.7 U	0.7 U	0.7 U	0.7 U	0.7 U	0.7 U
trans-1,3-Dichloropropene	0.4	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U
Trichloroethene	5	3.7	2.1	0.34 J	0.18 U	0.18 U	0.18 U	0.18 U
Trichlorofluoromethane	5	0.7 U	0.7 U	0.7 U	0.7 U	0.7 U	0.7 U	0.7 U
Vinyl chloride	2	0.07 U	0.07 U	0.07 U	0.07 U	0.07 U	0.07 U	0.07 U
Total VOCs	---	61.5	28.2	21.44	12.67	13.36	79.4	30.2

TABLE C
Summary of Groundwater Analytical Results
53 Putnam Street, Saratoga, New York

ANALYTE	NY-TOGS-AWQS	MW-18		MW-19		DUP011722 ^B	MW-20	
		12/14/2021	1/17/2022	12/14/2021	1/17/2022		1/17/2022	12/14/2021
Semi-Volatile Organics by GC/MS, µg/L								
1,2,4,5-Tetrachlorobenzene	5	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U
2,3,4,6-Tetrachlorophenol	---	0.84 U	0.84 U	0.84 U	0.84 U	0.84 U	0.84 U	0.84 U
2,4,5-Trichlorophenol	---	0.77 U	0.77 U	0.77 U	0.77 U	0.77 U	0.77 U	0.77 U
2,4,6-Trichlorophenol	---	0.61 U	0.61 U	0.61 U	0.61 U	0.61 U	0.61 U	0.61 U
2,4-Dichlorophenol	1	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U
2,4-Dimethylphenol	50	1.8 U	1.8 U	1.8 U	1.8 R	1.8 U	1.8 U	1.8 R
2,4-Dinitrophenol	10	6.6 U	6.6 U	6.6 U	6.6 U	6.6 U	6.6 U	6.6 U
2,4-Dinitrotoluene	5	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U
2,6-Dinitrotoluene	5	0.93 U	0.93 U	0.93 U	0.93 U	0.93 U	0.93 U	0.93 U
2-Chlorophenol	---	0.48 U	0.48 U	0.48 U	0.48 U	0.48 U	0.48 U	0.48 U
2-Methylphenol	---	0.49 U	0.49 U	0.49 U	0.49 U	0.49 U	0.49 U	0.49 U
2-Nitroaniline	5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
2-Nitrophenol	---	0.85 U	0.85 U	0.85 U	0.85 U	0.85 U	0.85 U	0.85 U
3,3'-Dichlorobenzidine	5	1.6 U	1.6 R	1.6 U	1.6 R	1.6 U	1.6 U	1.6 R
3-Methylphenol/4-Methylphenol	---	0.48 U	0.48 U	0.48 U	0.48 U	0.48 U	0.48 U	0.48 U
3-Nitroaniline	5	0.81 U	0.81 U	0.81 U	0.81 U	0.81 U	0.81 U	0.81 U
4,6-Dinitro-o-cresol	---	1.8 U	1.8 U	1.8 U	1.8 U	1.8 U	1.8 U	1.8 U
4-Bromophenyl phenyl ether	---	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U
4-Chloroaniline	5	1.1 UJ	1.1 UJ	1.1 UJ	1.1 UJ	1.1 U	1.1 UJ	1.1 UJ
4-Chlorophenyl phenyl ether	---	0.49 U	0.49 U	0.49 U	0.49 U	0.49 U	0.49 U	0.49 U
4-Nitroaniline	5	0.8 U	0.8 U	0.8 U	0.8 U	0.8 U	0.8 U	0.8 U
4-Nitrophenol	---	0.67 U	0.67 U	0.67 U	0.67 U	0.67 U	0.67 U	0.67 U
Acetophenone	---	0.53 U	0.53 U	0.53 U	0.53 U	0.53 U	0.53 U	0.53 U
Atrazine	7.5	0.76 U	0.76 U	0.76 U	0.76 U	0.76 U	0.76 U	0.76 U
Benzaldehyde	---	0.53 U	0.53 U	0.53 U	0.53 U	0.53 U	0.53 U	0.53 U
Biphenyl	---	0.46 U	0.46 U	0.46 U	0.46 U	0.46 U	0.46 U	0.46 U
Bis(2-chloroethoxy)methane	5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Bis(2-chloroethyl)ether	1	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Bis(2-chloroisopropyl)ether	5	0.53 U	0.53 U	0.53 U	0.53 U	0.53 U	0.53 U	0.53 U
Bis(2-ethylhexyl)phthalate	5	2.2 J	1.9 J	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U
Butyl benzyl phthalate	50	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U
Caprolactam	---	3.3 U	3.3 U	3.3 U	3.3 U	3.3 U	3.3 U	3.3 U
Carbazole	---	0.49 U	0.49 UJ	0.49 U	0.49 UJ	0.49 U	0.49 U	0.49 UJ
Di-n-butylphthalate	50	0.39 U	0.39 U	0.39 U	0.39 U	0.39 U	0.46 J	0.39 U
Di-n-octylphthalate	50	1.3 U	1.3 U	1.3 U	1.3 U	1.3 U	1.3 U	1.3 U
Dibenzofuran	---	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Diethyl phthalate	50	0.38 U	0.38 U	0.6 J	0.38 U	0.38 U	0.38 U	0.38 U
Dimethyl phthalate	50	1.8 U	1.8 U	1.8 U	1.8 U	1.8 U	1.8 U	1.8 U
Hexachlorocyclopentadiene	5	0.69 U	0.69 UJ	0.69 U	0.69 U	0.69 U	0.69 U	0.69 U
Isophorone	50	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U
n-Nitrosodi-n-propylamine	---	0.64 U	0.64 U	0.64 U	0.64 U	0.64 U	0.64 U	0.64 U
NDPA/DPA	50	0.42 U	0.42 U	0.42 U	0.42 U	0.42 U	0.42 U	0.42 U
Nitrobenzene	0.4	0.77 U*	0.77 U*	0.77 U*	0.77 U*	0.77 U*	0.77 U*	0.77 U*
p-Chloro-m-cresol	---	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U
Phenol	1	0.57 U	0.57 U	1.4 J	0.57 U	0.57 U	0.57 U	0.57 U
Total SVOCs	---	2.2	1.9	2	ND	ND	0.46	ND

TABLE C
Summary of Groundwater Analytical Results
53 Putnam Street, Saratoga, New York

ANALYTE	NY-TOGS-AWQS	MW-18		MW-19		DUP011722 ^B	MW-20	
		12/14/2021	1/17/2022	12/14/2021	1/17/2022	1/17/2022	12/14/2021	1/17/2022
Semi-Volatile Organics by GC/MS-SIM, µg/L								
2-Chloronaphthalene	10	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U
2-Methylnaphthalene	---	0.02 U	0.02 J	10	17	18	0.02 U	0.02 U
Acenaphthene	20	0.01 U	0.01 U	0.59	0.88 J	1.2 J	0.01 U	0.01 U
Acenaphthylene	---	0.01 U	0.06 J	0.13	0.22	0.23	0.01 U	0.01 U
Anthracene	50	0.03 J	0.05 J	0.11	0.26 J	0.16 J	0.01 U	0.01 U
Benzo(a)anthracene	0.002	0.15	0.2	0.03 U*	0.09 J	0.04 J	0.02 U*	0.02 J
Benzo(a)pyrene	ND	0.15	0.31	0.02 U	0.07 J	0.02 U	0.02 U	0.02 U
Benzo(b)fluoranthene	0.002	0.23	0.48	0.02 J	0.06 J	0.02 J	0.01 U*	0.02 J
Benzo(ghi)perylene	---	0.12	0.55	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U
Benzo(k)fluoranthene	0.002	0.07 J	0.14	0.01 U*	0.01 J	0.01 U*	0.01 U*	0.01 U*
Chrysene	0.002	0.22	0.22	0.11	0.29 J	0.13 J	0.01 U*	0.01 U*
Dibenzo(a,h)anthracene	---	0.03 J	0.11	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U
Fluoranthene	50	0.31	0.4	0.03 J	0.08 J	0.05 J	0.02 J	0.02 U
Fluorene	50	0.01 U	0.03 J	0.9	1.3	1.5	0.01 U	0.01 U
Hexachlorobenzene	0.04	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U
Hexachlorobutadiene	0.5	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Hexachloroethane	5	0.06 U	0.06 U	0.06 U	0.06 U	0.06 U	0.06 U	0.06 U
Indeno(1,2,3-cd)pyrene	0.002	0.14	0.55	0.01 U*	0.01 U*	0.01 U*	0.01 U*	0.01 U*
Naphthalene	10	0.05 U	0.05 U	0.5	0.54	0.63	0.05 U	0.05 U
Pentachlorophenol	1	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U
Phenanthrene	50	0.15	0.21	1.2	2.3	1.9	0.02 U	0.02 U
Pyrene	50	0.29	0.37	0.09 J	0.27 J	0.15 J	0.02 U	0.02 U
Total SVOCs	---	1.89	3.7	13.71	23.37	24.01	0.02	0.04
Perfluorinated Alkyl Acids by Isotope Dilution, ng/L ^C								
1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	---	1.16 U	1.11 U	1.2 U	1.14 U	1.14 U	1.2 U	1.21 U
1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	---	1.28 U	1.22 U	1.32 U	30.9 J	1.25 U	1.32 U	1.33 U
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	---	0.77 U	0.999 J	0.797 U	0.757 UJ	0.755 UJ	0.8 U	0.803 UJ
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	---	0.621 U	1.63 J	0.642 U	0.61 U	0.608 U	0.644 U	0.647 U
Perfluorobutanesulfonic Acid (PFBS)	---	598	221 J	10	11.6 J	11.5	12.4 J	8.7
Perfluorobutanoic Acid (PFBA)	---	45.1	24.7	15.2	16.2	16.4	10.8	2.74
Perfluorodecanesulfonic Acid (PFDS)	---	0.939 UJ	0.9 U	0.971 UJ	0.922 U	0.92 U	0.975 UJ	0.979 U
Perfluorodecanoic Acid (PFDA)	---	24.3	46.9	1.99	1.84 J	1.69 J	1.42 J	0.819 J
Perfluorododecanoic Acid (PFDoA)	---	0.901 J	1.42 J	0.852 J	0.463 JF	0.541 JF	1.03 J	0.519 JF
Perfluoroheptanesulfonic Acid (PFHpS)	---	6.29	5.36	0.682 U	0.647 U	0.646 U	0.684 U	0.687 U
Perfluoroheptanoic Acid (PFHpA)	---	136	68	2.01	2.83	2.77	4.43	2.5
Perfluorohexanesulfonic Acid (PFHxS)	---	91.6	52.2	2.58	2.5	2.86	3.31	1.69 J
Perfluorohexanoic Acid (PFHxA)	---	93.9	57.2	12.1	17.2	17	17.6	7.27
Perfluorononanoic Acid (PFNA)	---	21.7	22	0.928 J	0.598 J	0.526 J	0.314 J	0.312 U
Perfluorooctanesulfonamide (FOSA)	---	0.556 U	1.34 JF	0.575 U	0.546 U	0.544 U	0.577 U	0.579 U
Perfluorooctanesulfonic Acid (PFOS)	2.7 ^C	335	396	9.78	16.4	17.3	10.1	7.38
Perfluorooctanoic Acid (PFOA)	6.7 ^C	197	104	6.24	3.9	4.15	4.27 F	2.43
Perfluoropentanoic Acid (PFPeA)	---	118	80.7	22.2	30.1	29.1	28.6	9.34
Perfluorotetradecanoic Acid (PFTA)	---	0.333 J	1.63 U	0.246 U	1.4 U	1.43 U	0.577 J	1.22 U
Perfluorotridecanoic Acid (PFTrDA)	---	0.314 U	0.47 J	0.324 U	0.308 U	0.307 U	0.325 U	0.327 U
Perfluoroundecanoic Acid (PFUnA)	---	0.249 U	0.738 J	0.258 U	0.245 U	0.244 U	0.37 J	0.423 JF
PFOA/PFOS, Total	---	532	500	16.02	20.3	21.45	14.37	9.81
Dissolved Metals, mg/L								
Iron, Dissolved	0.3	0.222	1.27	0.0963	0.0722 J	0.0191 UJ	0.0419 J	0.251
Total Metals, mg/L								
Iron, Total	0.3	41.2	40.1	57.1	83.2	78.8	80.3	52.6
Anions by Ion Chromatography, mg/L								
Sulfate	250	21.8 J-	36.9 J-	21.5 J-	46.6 J-	48.2 J-	40.4 J-	76.9 J-

TABLE C
Summary of Groundwater Analytical Results
53 Putnam Street, Saratoga, New York

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

Bold/Highlighted = Value indicates reported concentration exceeds applicable water quality standard.

--- No standard provided.

U = Not Detected (ND). The analyte was analyzed for, but was not detected above the reported sample quantitation limit.

J = Result is less than the reporting limit but greater than or equal to the method detection limit and the concentration is an approximate value.

UJ = Not detected, quantitation limit may be inaccurate or imprecise.

J- = Analyte is present, Reported value may be biased low and associated with a lower level of uncertainty than is normally expected with the analytical method.

F - The ratio of quantifier ion response to qualifier ion response falls outside of the laboratory criteria. Results are considered to be an estimated maximum concentration.

R = Unreliable result; data is rejected or unusable. Analyte may or may not be present in the sample. Supporting data or information necessary to confirm the result.

NA = Not Analyzed.

* = The sample specific detection limit does not support the regulatory requirement.

^A = DUP121421 was collected from MW-8A.

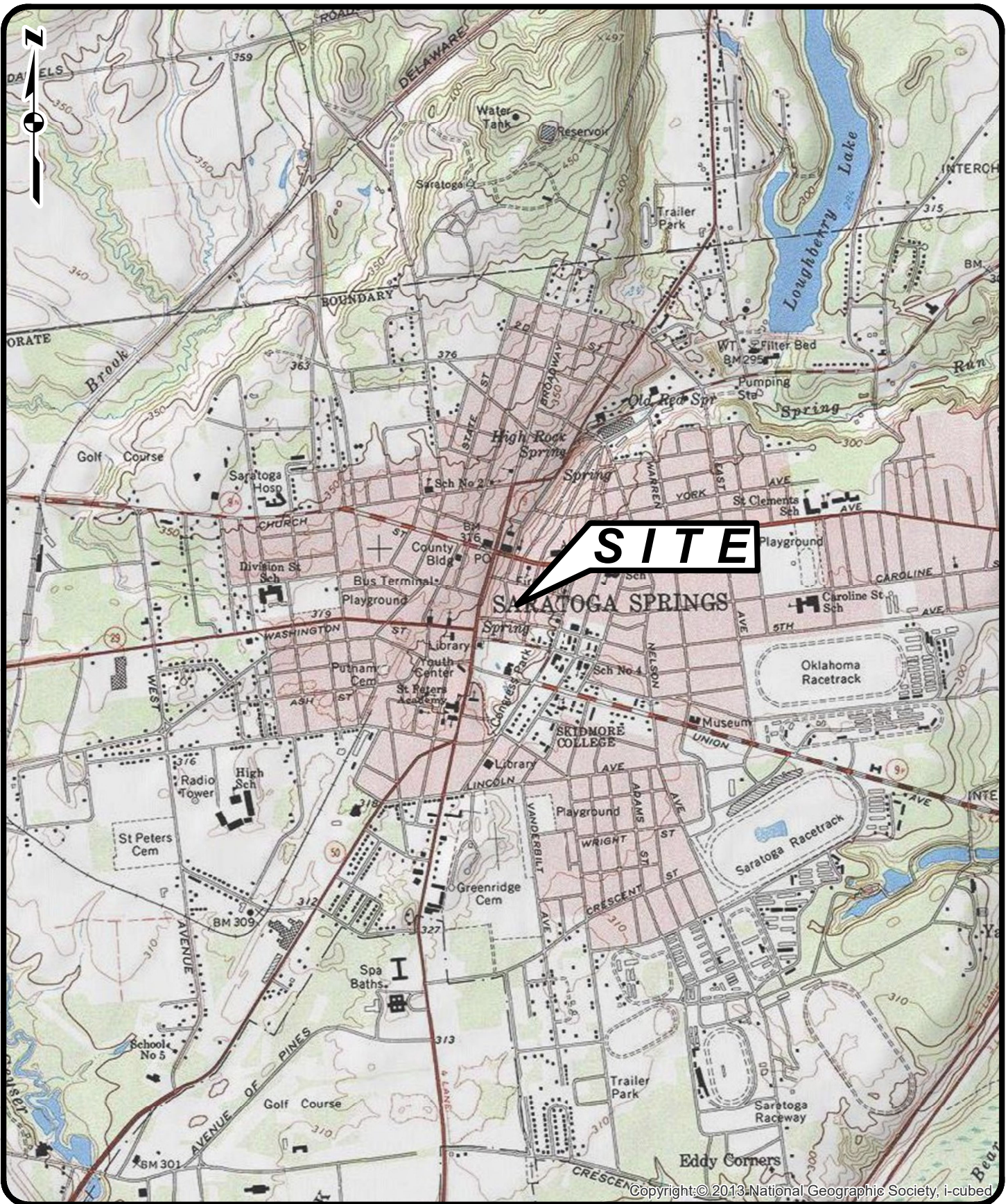
^B = DUP011722 was collected from MW-19.

^C = NYSDEC - PFAS = The guidance value was updated after sampling took place pursuant to the "Water Quality Guidance Values to Regulate PFOA, PFOS, and 1,4-Dioxane" (March, 2023)

Qualifiers in **Red** were modified based on Data Validation Review (performed by Alpha Geoscience) of GW results.

SITE MANAGEMENT PLAN

FIGURES

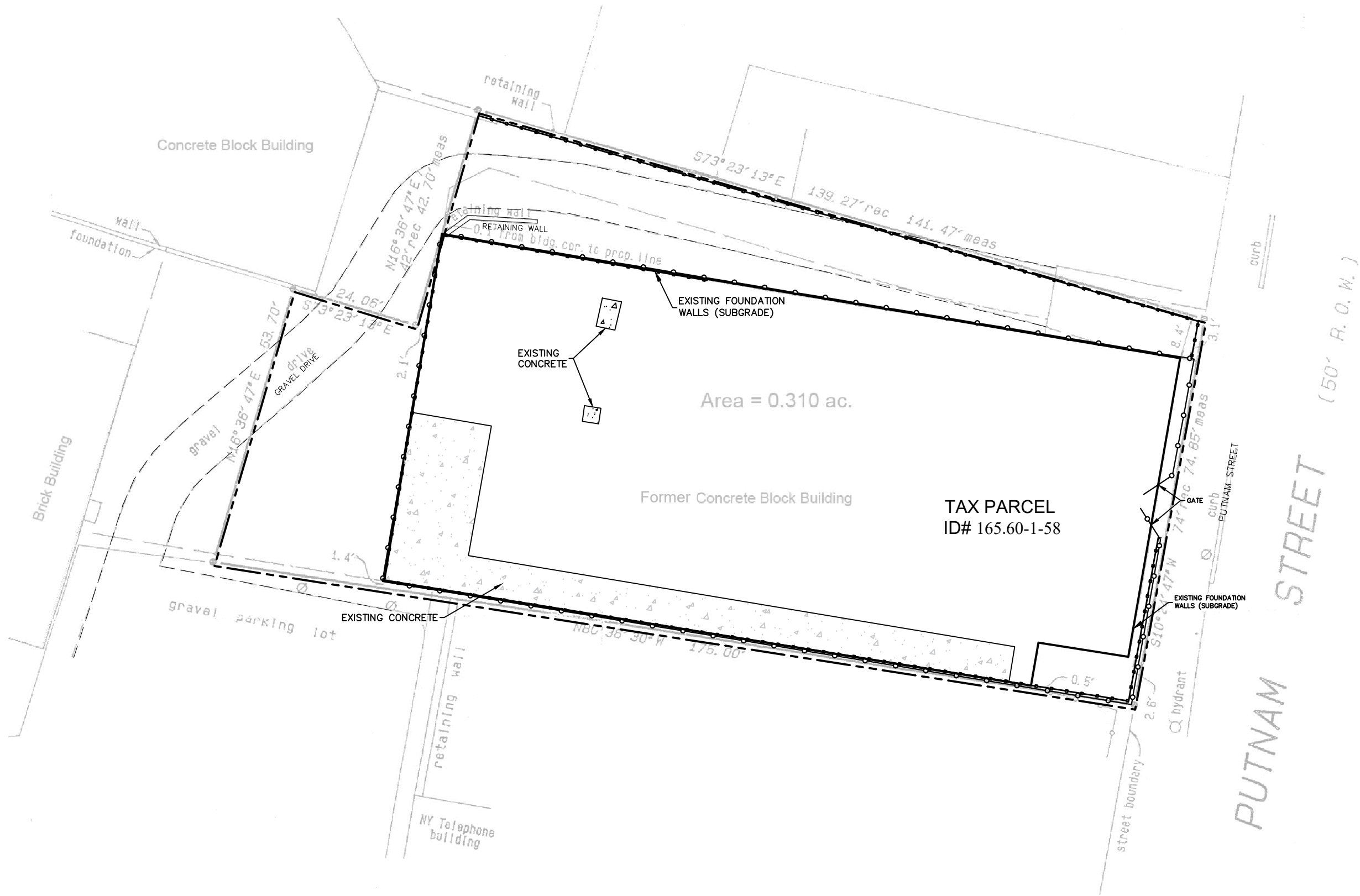


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STERLING
Sterling Environmental Engineering, P.C.
24 Wade Road • Latham, New York 12110

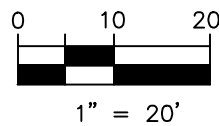
SITE LOCATION MAP
PUTNAM RESOURCES, LLC
53 PUTNAM STREET
CITY OF SARATOGA SPRINGS SARATOGA CO., NY

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LEGEND:

----- APPROXIMATE PROPERTY LINE AND BCP SITE BOUNDARY



STERLING

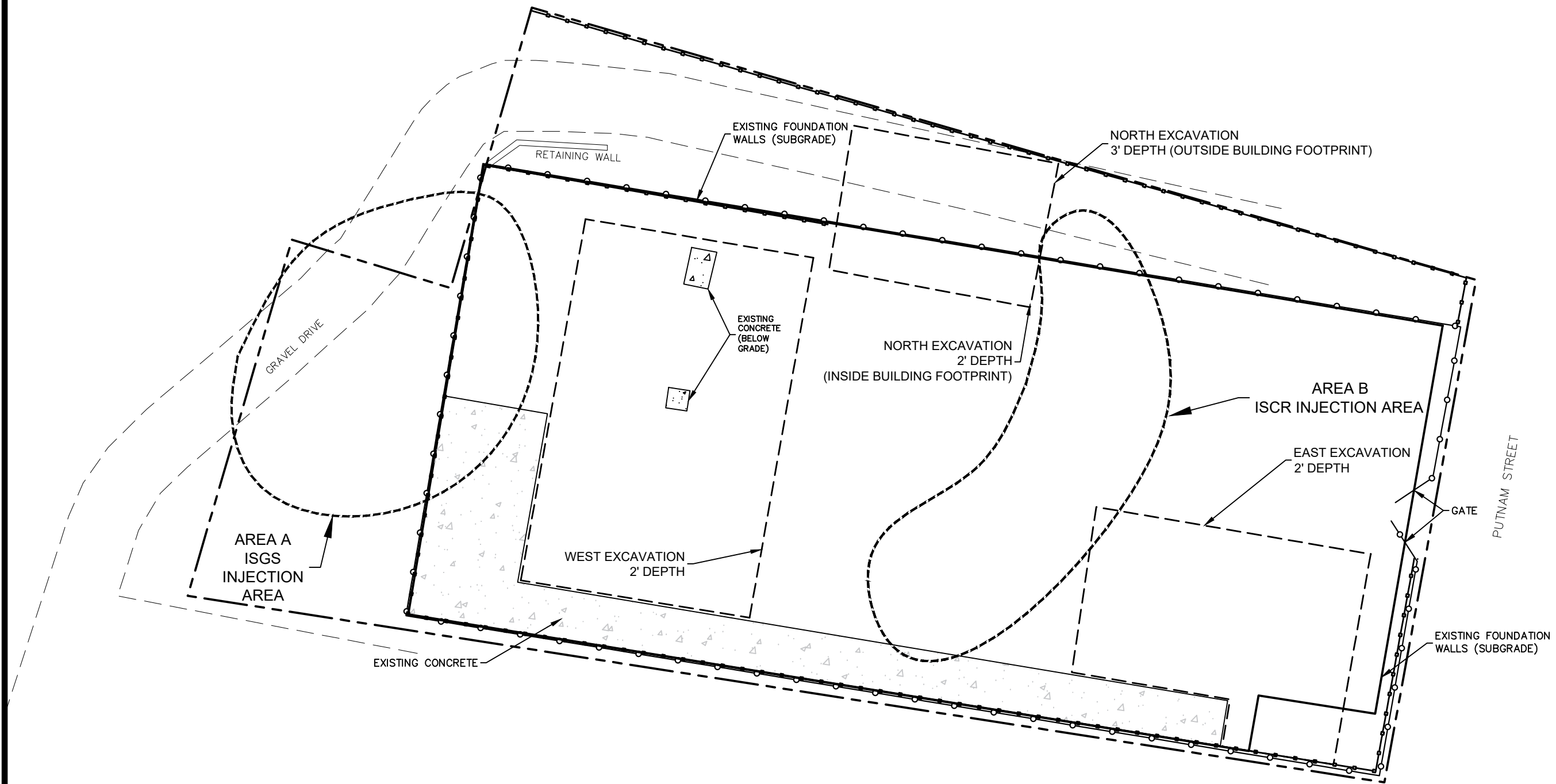
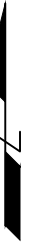
Sterling Environmental Engineering, P.C.
24 Wade Road • Latham, New York 12110

SITE VICINITY MAP
53 PUTNAM STREET
PUTNAM RESOURCES, LLC



CITY OF SARATOGA SPRINGS SARATOGA CO., NEW YORK

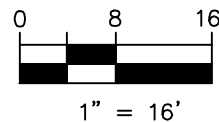
PROJ. No.: 2015-30 | DATE: 04/12/2024 | SCALE: 1" = 16' | DWG. NO. 2015-30078 | FIGURE 2

S:\Sterling\Projects\2015 Projects\Putnam Resources - 2015-30\Drawings-Maps-Figures\ACAD\2015-30077_EXCAVATION MAP.dwg PAUL.SCHOLAR 4/12/2024 2:51 PM



LEGEND:

-  EXCAVATION EXTENT
-  APPROXIMATE PROPERTY LINE AND BCP SITE BOUNDARY



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24 Wade Road • Latham, New York 12110

REMEDIAL ACTION SOURCES
AND REMOVAL AREAS
53 PUTNAM STREET
PUTNAM RESOURCES, LLC

CITY OF SARATOGA SPRINGS SARATOGA CO., NEW YORK

PROJ. No.: 2015-30 | DATE: 04/12/2024 | SCALE: 1" = 16' | DWG. NO. 2015-30077 | FIGURE 3

S:\Sterling\Projects\2015 Projects\Putnam Resources - 2015-30\Drawings-Maps-Figures\ACAD\2015-30073_SH-2_RDD INJ AS BUILT.dwg PAUL.SCHOLAR 4/12/2024 8:44 AM

LEGEND:



MW-14

EXISTING MONITORING WELL



MW-20

POST-INJECTION EFFECTIVENESS
MONITORING SOIL BORING/ MONITORING WELL



ISGS INJECTION POINT



ISCR INJECTION POINT



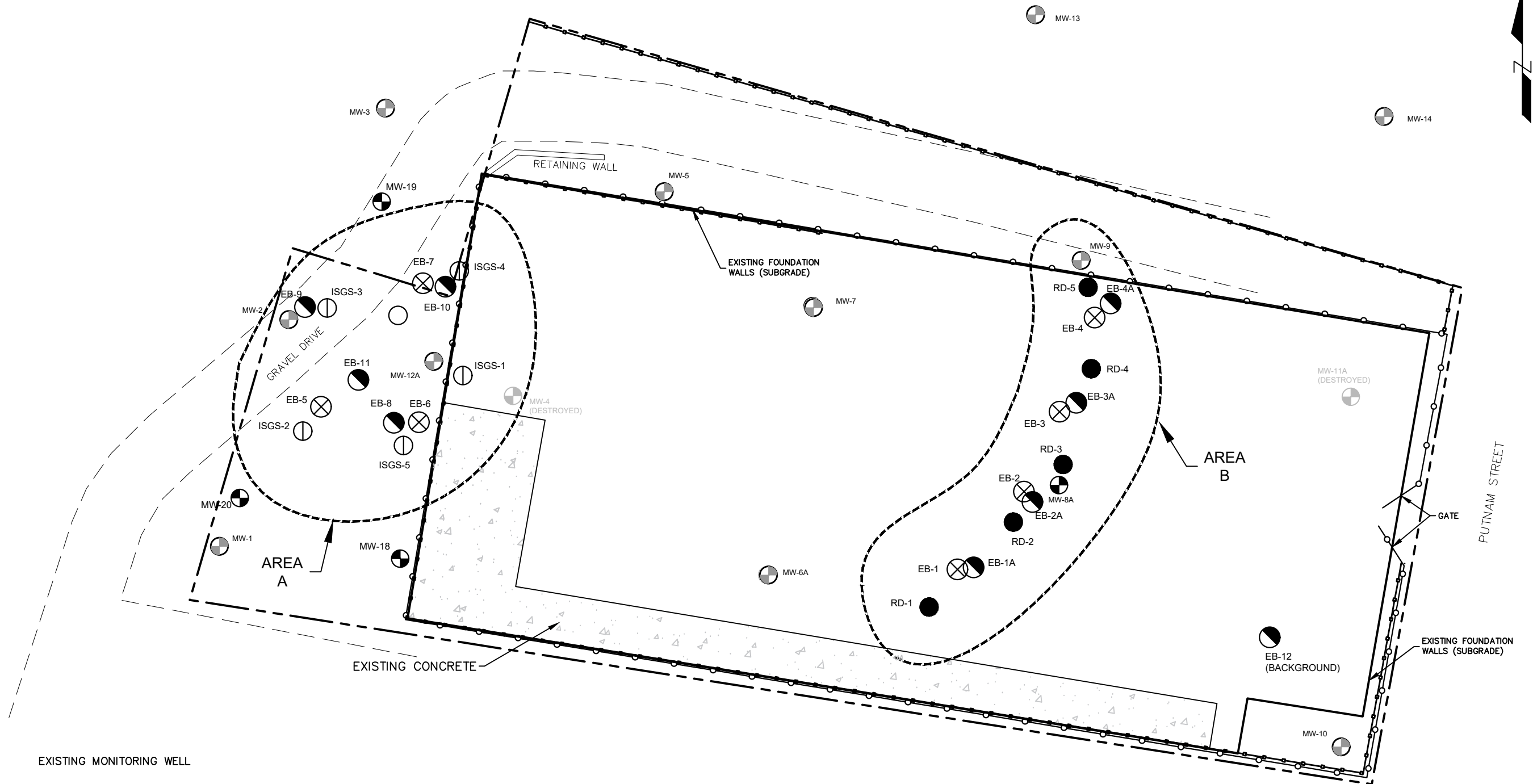
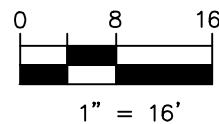
POST-INJECTION EFFECTIVENESS SOIL BORING



PRE-INJECTION EFFECTIVENESS SOIL BORING



APPROXIMATE PROPERTY LINE AND BCP SITE BOUNDARY



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MONITORING WELL AND SOIL BORING MAP
53 PUTNAM STREET
PUTNAM RESOURCES, LLC

CITY OF SARATOGA SPRINGS SARATOGA CO., NEW YORK

PROJ. No.: 2015-30

DATE: 04/12/2024

SCALE:

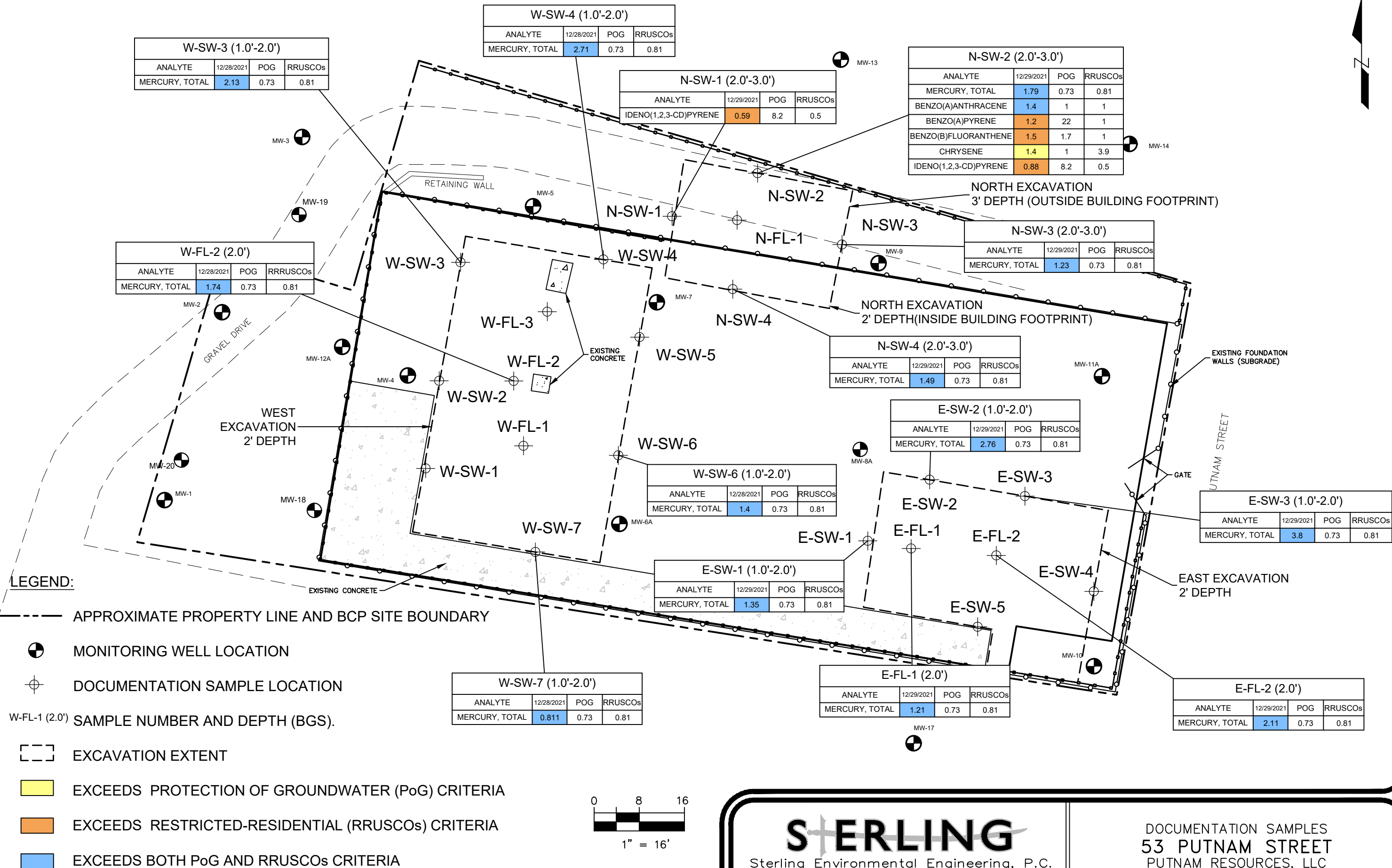
1" = 16'

DWG. NO. 2015-30073

FIGURE

4

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Sterling Environmental Engineering, P.C.
24 Wade Road • Latham, New York 12110

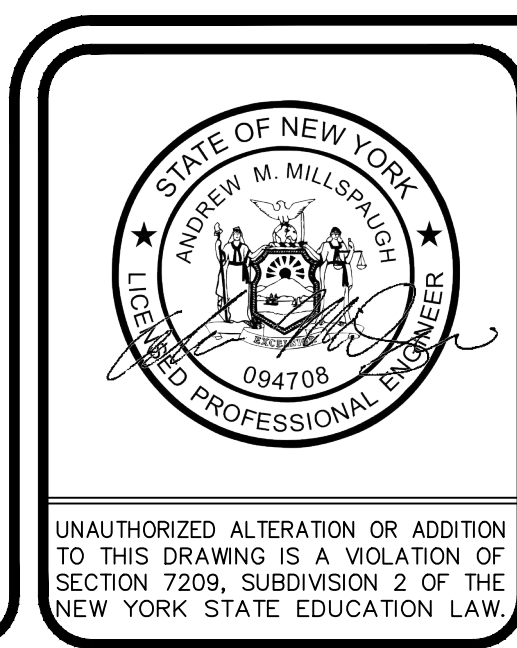
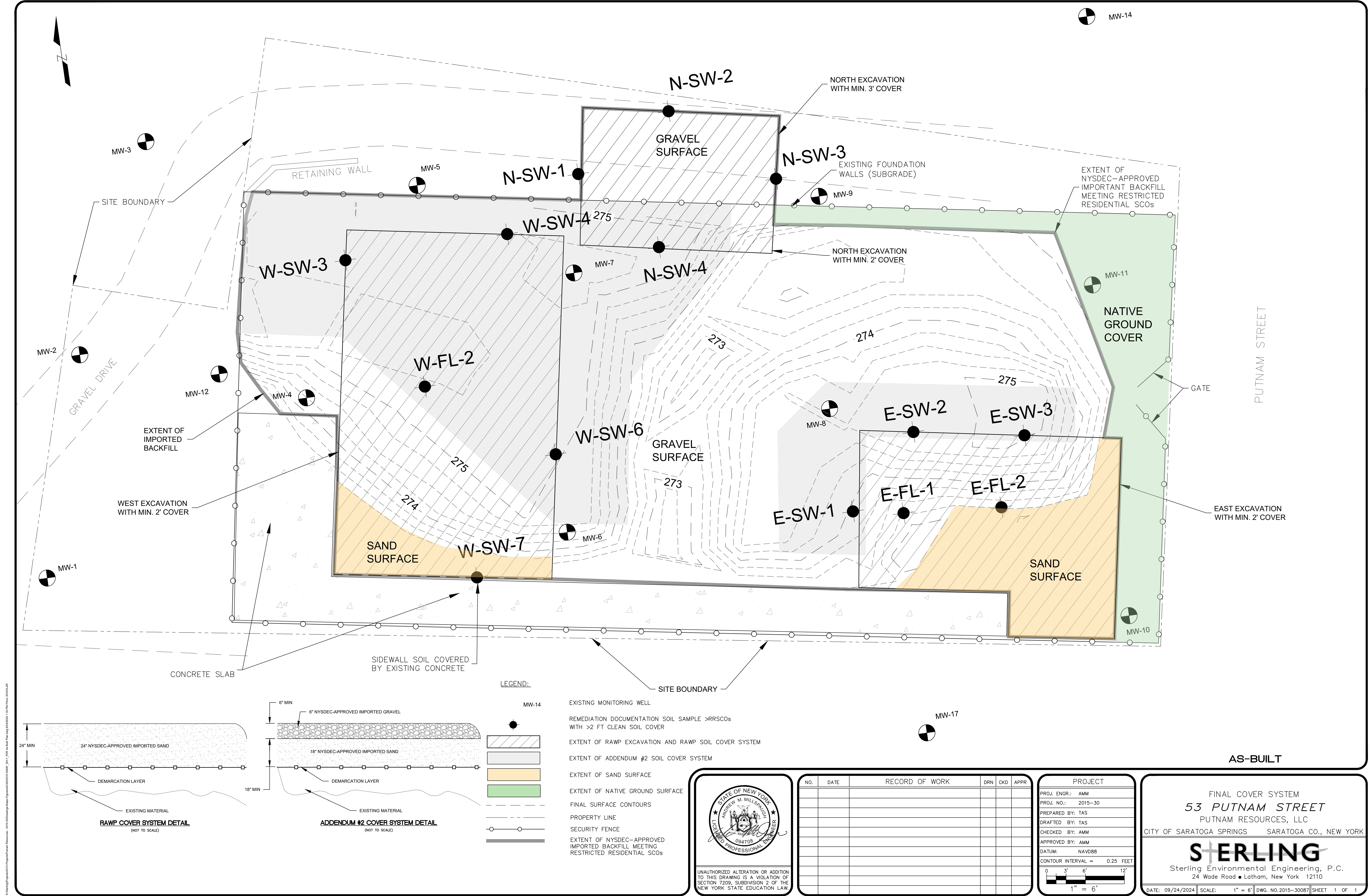
DOCUMENTATION SAMPLES
53 PUTNAM STREET
PUTNAM RESOURCES, LLC

CITY OF SARATOGA SPRINGS SARATOGA CO., NEW YORK

PROJ. No.: 2015-30 | DATE: 04/12/2024 | SCALE: 1" = 16' | DWG. NO. 2015-30079 | FIGURE 5

SITE MANAGEMENT PLAN
SHEETS

S:\Sterling\Projects\Putnam Resources\2015-2024\Drawings\AS-BUILT\DWG-NO.2015-30087-131.PLT PAUL SHOUKRA



NO.	DATE	RECORD OF WORK	DRN	CKD	APPR

PROJECT	
PROJ. ENGR.:	AMM
PROJ. NO.:	2015-30
PREPARED BY:	TAS
DRAFTED BY:	TAS
CHECKED BY:	AMM
APPROVED BY:	AMM
DATUM:	NAVD88
CONTOUR INTERVAL =	0.25 FEET
0 3' 6' 12'	
1" = 6'	

FINAL COVER SYSTEM
53 PUTNAM STREET
PUTNAM RESOURCES, LLC
CITY OF SARATOGA SPRINGS SARATOGA CO., NEW YORK

STERLING
Sterling Environmental Engineering, P.C.
24 Wade Road • Latham, New York 12110

DATE: 09/24/2024 SCALE: 1" = 6' DWG. NO.2015-30087 SHEET 1 OF 1

SITE MANAGEMENT PLAN

APPENDIX A

**ENVIRONMENTAL EASEMENT
&
SURVEY MAP, METES, AND BOUNDS**



SARATOGA COUNTY – STATE OF NEW YORK
SARATOGA COUNTY CLERK
CRAIG A. HAYNER
40 MCMASTER STREET, BALLSTON SPA, NY 12020

COUNTY CLERK'S RECORDING PAGE

THIS PAGE IS PART OF THE DOCUMENT – DO NOT DETACH



INSTRUMENT #: 2024027842

Receipt#: 2024212554515

Clerk: GW

Rec Date: 11/01/2024 11:09:14 AM

Doc Grp: D

Descrip: REGULAR EASEMENT

Num Pgs: 11

Party1: 53 PUTNAM STREET INC

Party2: NEW YORK STATE PEOPLE OF

Town: SARATOGA SPRINGS

Recording:

Pages	0.00
Cultural Ed	0.00
Records Management - Coun	0.00
Records Management - Stat	0.00
Names	0.00

Sub Total: 0.00

Transfer Tax
Transfer Tax 0.00

Sub Total: 0.00

Total: 0.00

**** NOTICE: THIS IS NOT A BILL ****

***** Transfer Tax *****
Transfer Tax #: 1912
Transfer Tax

Total: 0.00

Record and Return To:

ELECTRONICALLY RECORDED BY SIMPLIFILE

This page constitutes the Clerk's endorsement, required by section 316-a (5) & 319 of the Real Property Law of the State of New York with a stamped signature underneath.

A handwritten signature in black ink, reading "Craig A. Hayner".

Saratoga County Clerk

2024027842

11/01/2024 11:09:14 AM
11 Pages RECORDED
REGULAR EASEMENT
Saratoga County Clerk

**ENVIRONMENTAL EASEMENT GRANTED PURSUANT TO ARTICLE 71, TITLE 36
OF THE NEW YORK STATE ENVIRONMENTAL CONSERVATION LAW**

THIS INDENTURE made this 25th day of October, 2024, between 53 Putnam Street, Inc., having an office at 159 Fifth Avenue, Saratoga Springs, County of Saratoga, State of New York and tenant, Putnam Resources, LLC (having a 20 year ground lease with option to purchase at the premises), having an office at 48 Union Avenue, Suite 1A, Saratoga Springs, County of Saratoga, State of New York (collectively the "Grantor"), and The People of the State of New York (the "Grantee."), acting through their Commissioner of the Department of Environmental Conservation (the "Commissioner", or "NYSDEC" or "Department" as the context requires) with its headquarters located at 625 Broadway, Albany, New York 12233, and

WHEREAS, the Legislature of the State of New York has declared that it is in the public interest to encourage the remediation of abandoned and likely contaminated properties ("sites") that threaten the health and vitality of the communities they burden while at the same time ensuring the protection of public health and the environment; and

WHEREAS, the Legislature of the State of New York has declared that it is in the public interest to establish within the Department a statutory environmental remediation program that includes the use of Environmental Easements as an enforceable means of ensuring the performance of operation, maintenance, and/or monitoring requirements and the restriction of future uses of the land, when an environmental remediation project leaves residual contamination at levels that have been determined to be safe for a specific use, but not all uses, or which includes engineered structures that must be maintained or protected against damage to perform properly and be effective, or which requires groundwater use or soil management restrictions; and

WHEREAS, the Legislature of the State of New York has declared that Environmental Easement shall mean an interest in real property, created under and subject to the provisions of Article 71, Title 36 of the New York State Environmental Conservation Law ("ECL") which contains a use restriction and/or a prohibition on the use of land in a manner inconsistent with engineering controls which are intended to ensure the long term effectiveness of a site remedial program or eliminate potential exposure pathways to hazardous waste or petroleum; and

WHEREAS, Grantor, is the owner of real property located at the address of 53 Putnam Street in the City of Saratoga Springs, County of Saratoga and State of New York, known and designated on the tax map of the County Clerk of Saratoga as tax map parcel numbers: Section 165.60 Block I Lot 58, being the same as that property conveyed to Grantor by deed dated September 18, 2003 and recorded in the Saratoga County Clerk's Office in Book 1659 and Page 289. The property subject to this Environmental Easement (the "Controlled Property") comprises approximately 3.0 +/- acres; and is hereinafter more fully described in the Land Title Survey dated July 8, 2022 prepared by William M. Thompson (License No. 49623) of Thompson, Fleming Land Surveyors, P.C., which will be attached to the Site Management Plan. The Controlled Property description is set forth in and attached hereto as Schedule A; and

WHEREAS, the Department accepts this Environmental Easement in order to ensure the protection of public health and the environment and to achieve the requirements for remediation

established for the Controlled Property until such time as this Environmental Easement is extinguished pursuant to ECL Article 71, Title 36; and

NOW THEREFORE, in consideration of the mutual covenants contained herein and the terms and conditions of Brownfield Cleanup Agreement Index Number: C546057-04-17, Grantor conveys to Grantee a permanent Environmental Easement pursuant to ECL Article 71, Title 36 in, on, over, under, and upon the Controlled Property as more fully described herein ("Environmental Easement").

1. Purposes. Grantor and Grantee acknowledge that the Purposes of this Environmental Easement are: to convey to Grantee real property rights and interests that will run with the land in perpetuity in order to provide an effective and enforceable means of encouraging the reuse and redevelopment of this Controlled Property at a level that has been determined to be safe for a specific use while ensuring the performance of operation, maintenance, and/or monitoring requirements; and to ensure the restriction of future uses of the land that are inconsistent with the above-stated purpose.

2. Institutional and Engineering Controls. The controls and requirements listed in the Department approved Site Management Plan ("SMP") including any and all Department approved amendments to the SMP are incorporated into and made part of this Environmental Easement. These controls and requirements apply to the use of the Controlled Property, run with the land, are binding on the Grantor and the Grantor's successors and assigns, and are enforceable in law or equity against any owner of the Controlled Property, any lessees and any person using the Controlled Property.

A. (1) The Controlled Property may be used for:

**Restricted Residential as described in 6 NYCRR Part 375-1.8(g)(2)(ii),
Commercial as described in 6 NYCRR Part 375-1.8(g)(2)(iii) and Industrial
as described in 6 NYCRR Part 375-1.8(g)(2)(iv)**

(2) All Engineering Controls must be operated and maintained as specified in the Site Management Plan (SMP);

(3) All Engineering Controls must be inspected at a frequency and in a manner defined in the SMP;

(4) The use of groundwater underlying the property is prohibited without necessary water quality treatment as determined by the NYSDOH or the Saratoga County Department of Health to render it safe for use as drinking water or for industrial purposes, and the user must first notify and obtain written approval to do so from the Department;

(5) Groundwater and other environmental or public health monitoring must be performed as defined in the SMP;

(6) Data and information pertinent to Site Management of the Controlled Property must be reported at the frequency and in a manner defined in the SMP;

(7) All future activities on the property that will disturb remaining contaminated material must be conducted in accordance with the SMP;

(8) Monitoring to assess the performance and effectiveness of the remedy must be performed as defined in the SMP;

(9) Operation, maintenance, monitoring, inspection, and reporting of any mechanical or physical components of the remedy shall be performed as defined in the SMP;

(10) Access to the site must be provided to agents, employees or other representatives of the State of New York with reasonable prior notice to the property owner to assure compliance with the restrictions identified by this Environmental Easement.

B. The Controlled Property shall not be used for Residential purposes as defined in 6NYCRR 375-1.8(g)(2)(i), and the above-stated engineering controls may not be discontinued without an amendment or extinguishment of this Environmental Easement.

C. The SMP describes obligations that the Grantor assumes on behalf of Grantor, its successors and assigns. The Grantor's assumption of the obligations contained in the SMP which may include sampling, monitoring, and/or operating a treatment system, and providing certified reports to the NYSDEC, is and remains a fundamental element of the Department's determination that the Controlled Property is safe for a specific use, but not all uses. The SMP may be modified in accordance with the Department's statutory and regulatory authority. The Grantor and all successors and assigns, assume the burden of complying with the SMP and obtaining an up-to-date version of the SMP from:

Site Control Section
Division of Environmental Remediation
NYSDEC
625 Broadway
Albany, New York 12233
Phone: (518) 402-9553

D. Grantor must provide all persons who acquire any interest in the Controlled Property a true and complete copy of the SMP that the Department approves for the Controlled Property and all Department-approved amendments to that SMP.

E. Grantor covenants and agrees that until such time as the Environmental Easement is extinguished in accordance with the requirements of ECL Article 71, Title 36 of the ECL, the property deed and all subsequent instruments of conveyance relating to the Controlled Property shall state in at least fifteen-point bold-faced type:

This property is subject to an Environmental Easement held by the New York State Department of Environmental Conservation pursuant to Title 36 of Article 71 of the Environmental Conservation

Law.

F. Grantor covenants and agrees that this Environmental Easement shall be incorporated in full or by reference in any leases, licenses, or other instruments granting a right to use the Controlled Property.

G. Grantor covenants and agrees that it shall, at such time as NYSDEC may require, submit to NYSDEC a written statement by an expert the NYSDEC may find acceptable certifying under penalty of perjury, in such form and manner as the Department may require, that:

(1) the inspection of the site to confirm the effectiveness of the institutional and engineering controls required by the remedial program was performed under the direction of the individual set forth at 6 NYCRR Part 375-1.8(h)(3).

(2) the institutional controls and/or engineering controls employed at such site:

- (i) are in-place;
- (ii) are unchanged from the previous certification, or that any identified changes to the controls employed were approved by the NYSDEC and that all controls are in the Department-approved format; and

(iii) that nothing has occurred that would impair the ability of such control to protect the public health and environment;

(3) the owner will continue to allow access to such real property to evaluate the continued maintenance of such controls;

(4) nothing has occurred that would constitute a violation or failure to comply with any site management plan for such controls;

(5) the report and all attachments were prepared under the direction of, and reviewed by, the party making the certification;

(6) to the best of his/her knowledge and belief, the work and conclusions described in this certification are in accordance with the requirements of the site remedial program, and generally accepted engineering practices; and

(7) the information presented is accurate and complete.

3. Right to Enter and Inspect. Grantee, its agents, employees, or other representatives of the State may enter and inspect the Controlled Property in a reasonable manner and at reasonable times to assure compliance with the above-stated restrictions.

4. Reserved Grantor's Rights. Grantor reserves for itself, its assigns, representatives, and successors in interest with respect to the Property, all rights as fee owner of the Property, including:

A. Use of the Controlled Property for all purposes not inconsistent with, or limited by the terms of this Environmental Easement;

B. The right to give, sell, assign, or otherwise transfer part or all of the underlying fee interest to the Controlled Property, subject and subordinate to this Environmental Easement;

5. Enforcement

A. This Environmental Easement is enforceable in law or equity in perpetuity by Grantor, Grantee, or any affected local government, as defined in ECL Section 71-3603, against

the owner of the Property, any lessees, and any person using the land. Enforcement shall not be defeated because of any subsequent adverse possession, laches, estoppel, or waiver. It is not a defense in any action to enforce this Environmental Easement that: it is not appurtenant to an interest in real property; it is not of a character that has been recognized traditionally at common law; it imposes a negative burden; it imposes affirmative obligations upon the owner of any interest in the burdened property; the benefit does not touch or concern real property; there is no privity of estate or of contract; or it imposes an unreasonable restraint on alienation.

B. If any person violates this Environmental Easement, the Grantee may revoke the Certificate of Completion with respect to the Controlled Property.

C. Grantee shall notify Grantor of a breach or suspected breach of any of the terms of this Environmental Easement. Such notice shall set forth how Grantor can cure such breach or suspected breach and give Grantor a reasonable amount of time from the date of receipt of notice in which to cure. At the expiration of such period of time to cure, or any extensions granted by Grantee, the Grantee shall notify Grantor of any failure to adequately cure the breach or suspected breach, and Grantee may take any other appropriate action reasonably necessary to remedy any breach of this Environmental Easement, including the commencement of any proceedings in accordance with applicable law.

D. The failure of Grantee to enforce any of the terms contained herein shall not be deemed a waiver of any such term nor bar any enforcement rights.

6. Notice. Whenever notice to the Grantee (other than the annual certification) or approval from the Grantee is required, the Party providing such notice or seeking such approval shall identify the Controlled Property by referencing the following information:

County, NYSDEC Site Number, NYSDEC Brownfield Cleanup Agreement, State Assistance Contract or Order Number, and the County tax map number or the Liber and Page or computerized system identification number.

Parties shall address correspondence to: Site Number: C546057
Office of General Counsel
NYSDEC
625 Broadway
Albany New York 12233-5500

With a copy to: Site Control Section
Division of Environmental Remediation
NYSDEC
625 Broadway
Albany, NY 12233

All notices and correspondence shall be delivered by hand, by registered mail or by Certified mail and return receipt requested. The Parties may provide for other means of receiving and communicating notices and responses to requests for approval.

7. Recordation. Grantor shall record this instrument, within thirty (30) days of execution of this instrument by the Commissioner or her/his authorized representative in the office of the

recording officer for the county or counties where the Property is situated in the manner prescribed by Article 9 of the Real Property Law.

8. Amendment. Any amendment to this Environmental Easement may only be executed by the Commissioner of the New York State Department of Environmental Conservation or the Commissioner's Designee, and filed with the office of the recording officer for the county or counties where the Property is situated in the manner prescribed by Article 9 of the Real Property Law.

9. Extinguishment. This Environmental Easement may be extinguished only by a release by the Commissioner of the New York State Department of Environmental Conservation, or the Commissioner's Designee, and filed with the office of the recording officer for the county or counties where the Property is situated in the manner prescribed by Article 9 of the Real Property Law.

10. Joint Obligation. If there are two or more parties identified as Grantor herein, the obligations imposed by this instrument upon them shall be joint and several.

11. Consistency with the SMP. To the extent there is any conflict or inconsistency between the terms of this Environmental Easement and the SMP, regarding matters specifically addressed by the SMP, the terms of the SMP will control.

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IN WITNESS WHEREOF, Grantor has caused this instrument to be signed in its name.

53 Putnam Street, Inc.:

By: Carmela Balsamo

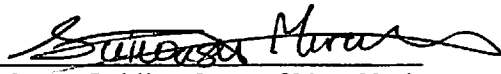
Print Name: Carmela Balsamo

Title: President Date: 10/3/24

Grantor's Acknowledgment

STATE OF NEW YORK)
) ss:
COUNTY OF Saratoga

On the 3rd day of October, in the year 2024, before me, the undersigned, personally appeared Carmela Balsamo, personally known to me or proved to me on the basis of satisfactory evidence to be the individual(s) whose name is (are) subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their capacity(ies), and that by his/her/their signature(s) on the instrument, the individual(s), or the person upon behalf of which the individual(s) acted, executed the instrument.


Notary Public - State of New York

AVINNASH MURALITHARAN
Notary Public, State of New York
Saratoga County #01MU0019061
Commission Expires Dec. 26, 2027

IN WITNESS WHEREOF, Grantor has caused this instrument to be signed in its name.

Putnam Resources, LLC:

By: Jason Letts

Print Name: Jason Letts

Title: Managing Member Date: 10/4/24

Grantor's Acknowledgment

STATE OF NEW YORK)
) ss:
COUNTY OF SARATOGA)

On the 4TH day of OCTOBER, in the year 20 24, before me, the undersigned, personally appeared JASON LETTS, personally known to me or proved to me on the basis of satisfactory evidence to be the individual(s) whose name is (are) subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their capacity(ies), and that by his/her/their signature(s) on the instrument, the individual(s), or the person upon behalf of which the individual(s) acted, executed the instrument.

Matthew S. Cross
Notary Public - State of New York

Matthew S. Cross
Notary Public - State of New York
No. 01CR6355219
Qualified in Saratoga Co.
My Commission Exp. 02/27/2025

THIS ENVIRONMENTAL EASEMENT IS HEREBY ACCEPTED BY THE PEOPLE OF THE STATE OF NEW YORK, Acting by and Through the Department of Environmental Conservation as Designee of the Commissioner,

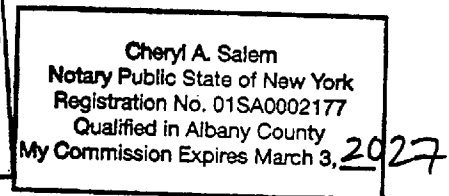
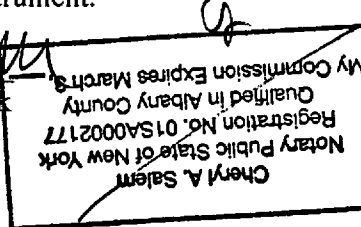
By: Andrew Guglielmi
Andrew O. Guglielmi, Director
Division of Environmental Remediation

Grantee's Acknowledgment

STATE OF NEW YORK)
) ss:
COUNTY OF ALBANY)

On the 25 day of October, in the year 2024 before me, the undersigned, personally appeared Andrew O. Guglielmi, personally known to me or proved to me on the basis of satisfactory evidence to be the individual(s) whose name is (are) subscribed to the within instrument and acknowledged to me that he/she/ executed the same in his/her/ capacity as Designee of the Commissioner of the State of New York Department of Environmental Conservation, and that by his/her/ signature on the instrument, the individual, or the person upon behalf of which the individual acted, executed the instrument.

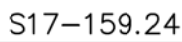
Cheryl A. Salem
Notary Public - State of New York



SCHEDULE "A" PROPERTY DESCRIPTION

All that tract or parcel of land situate in the City of Saratoga Springs, Saratoga County, NY, bounded and described as follows:

Beginning at a drill hole in concrete, being the northeast corner of the parcel herein described, located on the westerly line of Putnam Street, 54.31 feet south of the intersection of the west line of Putnam Street and the southerly line of Gardner Lane. Thence along the west line of Putnam Street, S10°24'47"W, 74.85 feet to a PK nail. Thence along the northerly line of lands now or formerly of The New York Telephone Company as recorded in the Saratoga County Clerk's Office in Book 636 of Deeds, page 424 and Book 715 of Deeds, page 185, N80°36'30"W, 175.00 feet to a 5/8" iron rod. Thence along the east line of lands of James Hogan as recorded in Book 1314 of Deeds, page 635, N16°36'47"E, 53.70 feet to a 5/8" iron rod. Thence along the lands of 63 Putnam St., LLC as recorded in Book 1754 of Deeds, page 540, S73°23'13"E, 24.06 feet to a 5/8" iron rod and N16°36'45"E, 42.71 feet to a 5/8" iron rod. Thence continuing along the lands of 63 Putnam St. LLC and lands of 63 Putnam St. LLC as recorded in Instrument # 2016014199, S73°23'13"E, 141.47 feet to the point of beginning. Containing 0.310 acre or 13,500 square feet of land.



SITE MANAGEMENT PLAN

APPENDIX B

SITE CONTACT LIST

APPENDIX B – LIST OF SITE CONTACTS

**53 Putnam Street
Saratoga Springs, New York
Brownfield Cleanup Program #C546057**

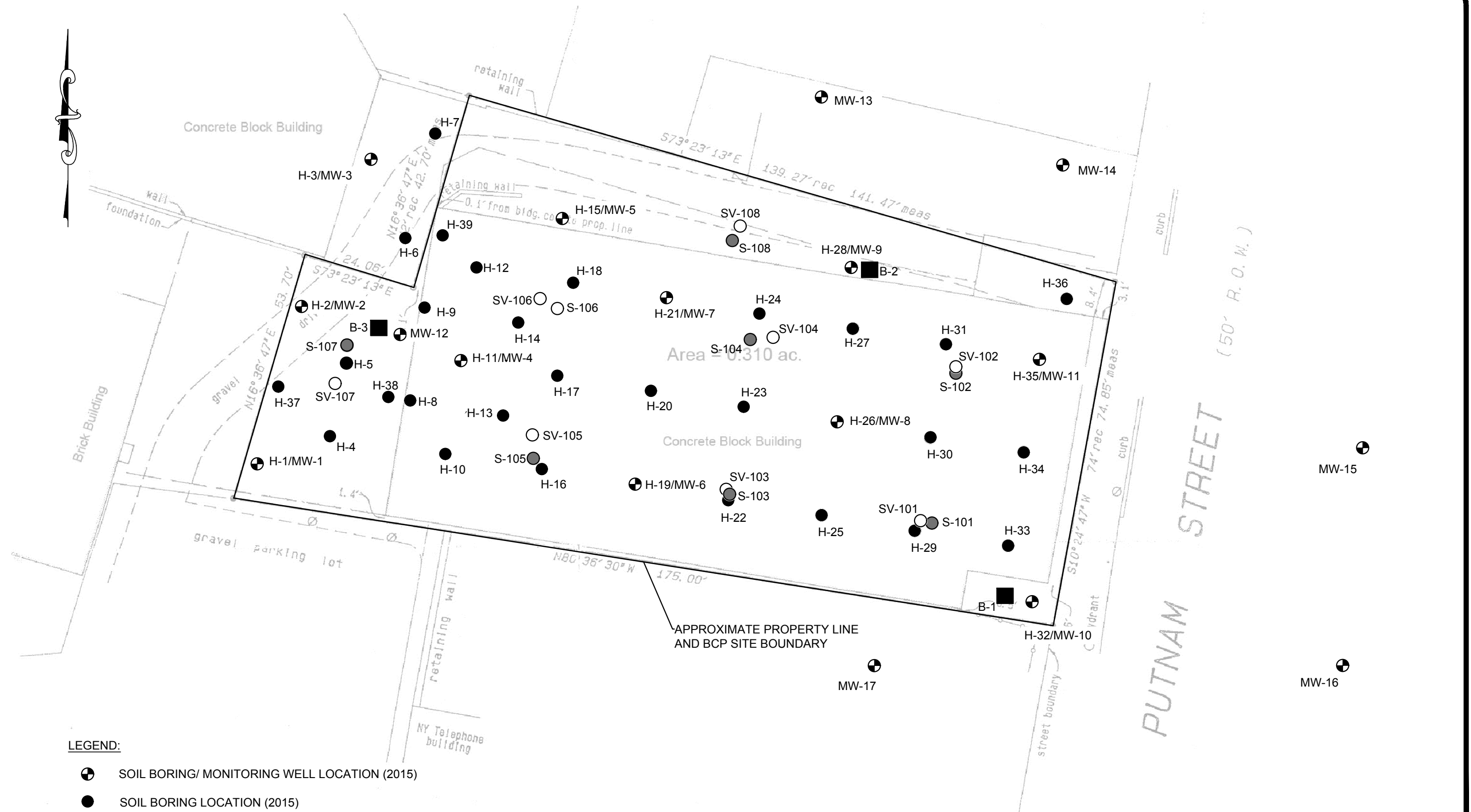
Contact	Name	Organization	Phone/Email
Site Owner	Frank Zarro	Putnam Resources, LLC	frank@firstfairfield.com
Site Owner	Jason Letts	Putnam Resources, LLC	infinitejuly@gmail.com
Site Owner	Laura Manning	Putnam Resources, LLC	lmanning@firstfairfield.com
Qualified Environmental Professional	Andrew Millspaugh, P.E.	Sterling Environmental Engineering, P.C.	(518) 456-4900 Andrew.Millspaugh@sterlingenvironmental.com
NYSDEC Project Manager	Jonathan Pollard	NYSDEC Region 5	518-623-1231 Jonathan.Pollard@dec.ny.gov
NYSDEC Project Manager Supervisor	Kelly Duval	NYSDEC Region 5	518-623-1272 Kelly.Duval@dec.ny.gov
NYSDEC Site Control	NYSDEC Chief of Site Control; Kelly Lewandowski	Division of Environmental Remediation	518-402-9401 dersitecontrol@dec.ny.gov 518-402-9569 Kelly.Lewandowski@dec.ny.gov
NYSDOH Project Manager	Sara Bogardus	NYSDOH	518-402-7860 Sara.Bogardus@health.ny.gov
Remedial Party Attorney			

SITE MANAGEMENT PLAN

APPENDIX C

SOIL BORING LOGS AND GEOLOGIC CROSS SECTION

S:\Sterling\Projects\2015 Projects\Putnam Resources - 2015-30\ACAD\2015-30010_F-3 - Well and Boring Location Map.dwg CAD 3/12/2019 3:02 PM



LEGEND:

- SOIL BORING/ MONITORING WELL LOCATION (2015)
- SOIL BORING LOCATION (2015)
- SOIL BORING LOCATION (2018)
- SOIL VAPOR PROBE LOCATION (2018)
- GEOTECHNICAL SOIL BORING (2004)



STERLING

Sterling Environmental Engineering, P.C.

24 Wade Road • Latham, New York 12110

SOIL BORING AND
WELL LOCATION MAP
PUTNAM RESOURCES, LLC
53 PUTNAM STREET

CITY OF SARATOGA SPRINGS

SARATOGA CO., N.Y.

PROJ. No.: 2015-30

DATE: 03/12/2019

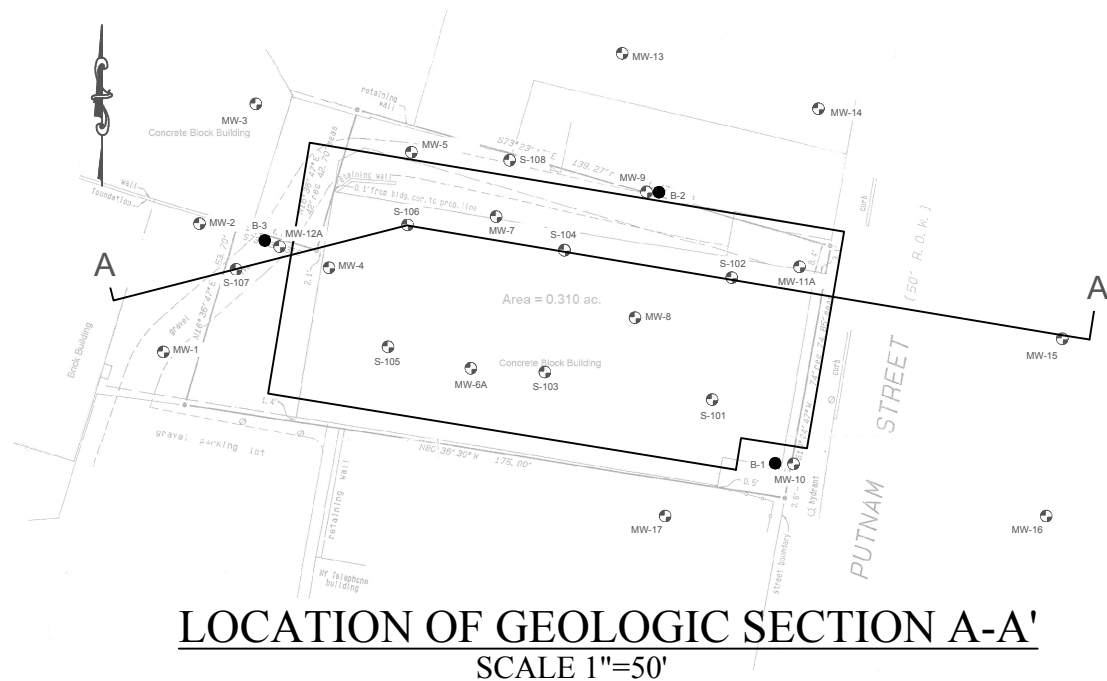
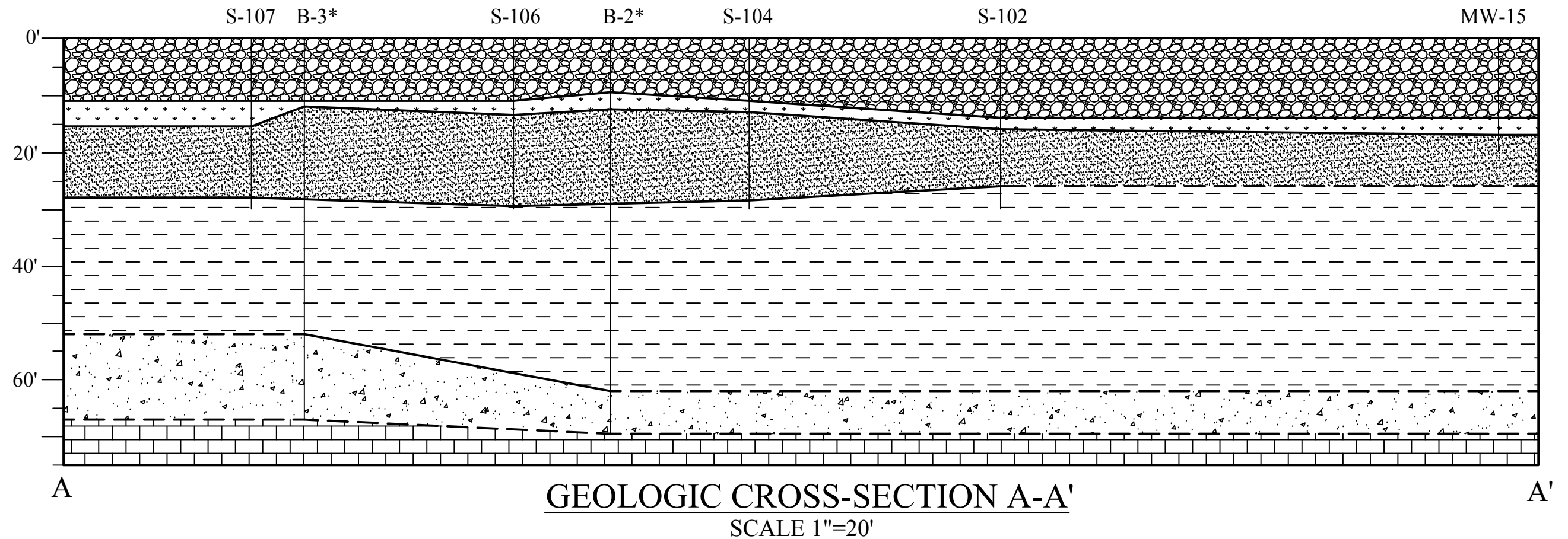
SCALE: 1" = 20'

DWG. NO. 2015-30010





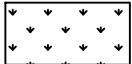

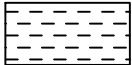
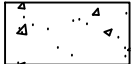
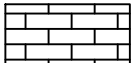
FIGURE 3

3

S:\Sterling\Projects\2015 Projects\Putnam Resources - 2015-30\ACAD\2015-30040_2018R1_CrossSection.dwg CAD 2/13/2019 2:49 PM



LEGEND:

-  SOIL BORING/MONITORING WELL LOCATION
 - MW-15 SOIL BORING/MONITORING WELL ID
 -  LOCATION OF GEOLOGIC SECTION
 -  TOP OF GEOLOGIC FORMATION (DASHED WHERE INFERRED)
 -  FILL MATERIAL
 -  ORGANIC PEAT
 -  SILTY SAND
 -  SILTY CLAY
 -  GLACIAL TILL
 -  DOLOMITIC LIMESTONE
- *NOTE: SOIL BORINGS B-2 & B-3 ARE PROJECTED ONTO ABOVE CROSS-SECTION

STERLING

Sterling Environmental Engineering, P.C.

24 Wade Road • Latham, New York 12110

GEOLOGIC CROSS-SECTION
PUTNAM RESOURCES, LLC
53 PUTNAM STREET

CITY OF SARATOGA SPRINGS SARATOGA CO., N.Y.

PROJ. No.: 2015-30 | DATE: 02/13/2019 | SCALE: AS NOTED | DWG. NO. 2015-30040 | FIGURE 4



Sterling Environmental Engineering, P.C.

Page 1 of 1**Boring ID:** H-1Project Name/No. First Fairfield / 2015-30 Location: 53 Putnam St. Saratoga Springs, NYDrilling Contractor/Personnel: ADT/Marty Bachner & Tyler SarroDrilling Equip./Method: 7822DT GeoprobeInspector: Joseph SpauldingSampling Method: Direct Push Sampling MethodSize/Type of Bit: 2.0" Macro-CoreElevation/Ground Surface: N/AStart/Finish Date: 8/13/15-8/13/15Depth to Groundwater (date): 9.6Well Type: Monitoring Well

Depth (ft.)	Sample No.	Recovery (ft.)	PID (Bkgd/Reading)	Geologic Description	Comments:
0.0					
1.0	S-1			Dark Brown MF Sand; Some Silt; Little Gravel; Roots/Organics; Dry; Loose	Collected Soil Samples at 13.0- 14.0 and 18.0-19.0 for lab analysis No Odors or Staining
2.0					
3.0					
4.0					
5.0		0.5	0.0/2.5		
6.0	S-2				
7.0					
8.0					
9.0					
10.0		0.2	0.0/9.0		
11.0	S-3				
12.0					
13.0					
14.0		2.0	0.0/4.5		
15.0			0.0/2.7	14.0	
16.0	S-4			Brown MF Sand; Little Silt; Trace F Gravel; Wet; Loose	No Odors or Staining
17.0			0.0/1.5		
18.0		3.5	0.0/2.3		
19.0			0.0/1.2		
20.0					
				Bottom of Boring	

Proportions: Trace = 0 - 10% Little = 10 - 20% Some = 20 - 35% And = 35 - 50%

Boring ID: H-2

Project Name/No. First Fairfield / 2015-30 Location: 53 Putnam St. Saratoga Springs, NY

Drilling Contractor/Personnel: ADT/Marty Bachner & Tyler Sarro

Drilling Equip./Method: 7822DT Geoprobe

Inspector: Joseph Spaulding

Sampling Method: Direct Push Sampling Method

Size/Type of Bit: 2.0" Macro-Core

Elevation/Ground Surface: N/A

Start/Finish Date: 8/13/15-8/13/15

Depth to Groundwater (date): 10.0

Well Type: Monitoring Well

Depth (ft.)	Sample No.	Recovery (ft.)	PID (Bkgd/Reading)	Geologic Description	Comments:
0.0					
1.0	S-1			Dark Brown MF Snad; Some Silt; Little Gravel; Organics; Dry; Loose	Collected Soil Samples for Lab Analysis at 24.0, 25.0 and 29.0-30.0 No Staining or Odors
2.0					
3.0					
4.0					
5.0		1.0	0.0/1.9		
6.0	S-2			8.5	
7.0					
8.0					
9.0					
10.0		1.5	0.0/214.4		
11.0	S-3			Dark Brown to Dark Gray CMF Sand; Little Silt; Little to Trace Clay; Little to Trace Gravel; Wet; Loose	Petroleum Staining and Odors
12.0					
13.0			0.0/183.9		
14.0		2.3	0.0/264.1		
15.0					
16.0	S-4				
17.0					
18.0					
19.0					
20.0		1.5	0.0/160.1		

Proportions: Trace = 0 - 10% Little = 10 - 20% Some = 20 - 35% And = 35 - 50%

Boring ID: H-2

Project Name/No. First Fairfield / 2015-30

Location: 53 Putnam St. Saratoga Springs, NY

Depth (ft.)	Sample No.	Recovery (ft.)	PID (Bkgd/Reading)	Geologic Description	Comments:
20.0					
21.0	S-5			Dark Brown to Dark Gray CMF Sand; Little Silt; Little to Trace Clay; Little to Trace Gravel; Wet; Loose	Petroleum Odors and Staining
22.0					
23.0					
24.0		2.5	0.0/239.2		
25.0			0.0/196.5		
26.0	S-6				
27.0			0.0/241.9		
28.0		4.0	0.0/164.8		
29.0			0.0/7.0		
30.0			0.0/6.4	Gray Clay; Brown Mottling; Wet; Soft	No Odors or Staining
31.0				End of boring 30.0	
32.0					
33.0					
34.0					
35.0					
36.0					
37.0					
38.0					
39.0					
40.0					
41.0					
42.0					
43.0					
44.0					
45.0					

Proportions: Trace = 0 - 10% Little = 10 - 20% Some = 20 - 35% And = 35 - 50%

Boring ID: H-3

Project Name/No. First Fairfield / 2015-30 Location: 53 Putnam St. Saratoga Springs, NY

Drilling Contractor/Personnel: ADT/Marty Bachner & Tyler Sarro

Drilling Equip./Method: 7822DT Geoprobe

Inspector: Joseph Spaulding

Sampling Method: Direct Push Sampling Method

Size/Type of Bit: 2.0" Macro-Core

Elevation/Ground Surface: N/A

Start/Finish Date: 8/14/15-8/14/15

Depth to Groundwater (date): 12.5

Well Type: Monitoring Well

Depth (ft.)	Sample No.	Recovery (ft.)	PID (Bkgd/Reading)	Geologic Description	Comments:
0.0					
1.0	S-1			Dark Brown CMF Sand; Some Silt and Gravel; Brick/Cinder Pieces; Dry; Loose	Slight Petroleum Odor 3.0-4.0, No Staining
2.0					
3.0					
4.0		2.0	0.0/27.4		
5.0	S-2			Dark Brown to Brown MF Sand; Little Silt and Gravel; Dry; Loose	No Odors or Staining
6.0					
7.0					
8.0					
9.0		2.0	0.0/1.4		
10.0	S-3			Dark Brown to Dark Gray MF Sand; Little Silt and Clay; Trace Gravel; Wet; Loose	No Odors or Staining
11.0					
12.0					
13.0		3.0	0.0/1.5		
14.0			0.0/1.2		
15.0	S-4			Dark Brown to Dark Gray MF Sand; Little Silt and Clay; Trace Gravel; Wet; Loose	No Odors or Staining
16.0			0.0/2.7		
17.0			0.0/2.2		
18.0		4.5	0.0/3.0		
19.0					
20.0				Bottom of Boring	

Proportions: Trace = 0 - 10% Little = 10 - 20% Some = 20 - 35% And = 35 - 50%

Boring ID: H-4

Project Name/No. First Fairfield / 2015-30 Location: 53 Putnam St. Saratoga Springs, NY

Drilling Contractor/Personnel: ADT/Marty Bachner & Tyler Sarro

Drilling Equip./Method: 7822DT Geoprobe Inspector: Joseph Spaulding

Sampling Method: Direct Push Sampling Method Size/Type of Bit: 2.0" Macro-Core

Elevation/Ground Surface: N/A Start/Finish Date: 8/13/15-8/13/15

Depth to Groundwater (date): ~9.0-9.5 Well Type: None

Depth (ft.)	Sample No.	Recovery (ft.)	PID (Bkgd/Reading)	Geologic Description	Comments:
0.0					
1.0	S-1			Dark Brown to Dark Gray CMF Sand; Little Silt; Some Gravel; Brick/Cinder Pieces; Dry; Loose	Collected Soil Sample for lab analysis at 13.2-13.6 and 18.0-20.0 No Staining or Odors
2.0					
3.0					
4.0	S-2	1.0	0.0/5.1		
5.0					
6.0					
7.0	S-3	2.2	0.0/7.7	Dark Gray to Black CMF Sand; Some Silt; Trace Clay; Moist; Loose	Petroleum Odor 9.5-10.0, No Staining
8.0					
9.0					
10.0	S-4		0.0/55.2	Black Organic Peat, Some CMF Dark Gray Sand; Wet	Petroleum Odor and Staining 13.0-16.5 No Odors or Staining 16.5-20.0
11.0					
12.0					
13.0	S-4	2.0	0.0/101.4	Brown to Dark Gray MF Sand; Little Silt and Clay; Trace Gravel; Wet; Loose	
14.0			0.0/6.7		
15.0					
16.0	S-4	5.0	0.0/3.5		
17.0			0.0/14.5		
18.0			0.0/4.1		
19.0					
20.0					
				Bottom of Boring	

Proportions: Trace = 0 - 10% Little = 10 - 20% Some = 20 - 35% And = 35 - 50%

Boring ID: H-5

Project Name/No. 53 Putnam Street / 2015-30 Location: 53 Putnam St. Saratoga Springs, NY

Drilling Contractor/Personnel: ADT/Marty Bachner & Tyler Sarro

Drilling Equip./Method: 7822DT Geoprobe Inspector: Joseph Spaulding

Sampling Method: Direct Push Sampling Method Size/Type of Bit: 2.0" Macro-Core

Elevation/Ground Surface: N/A Start/Finish Date: 8/13/15-8/13/15

Depth to Groundwater (date): 10.0 Well Type: None

Depth (ft.)	Sample No.	Recovery (ft.)	PID (Bkgd/Reading)	Geologic Description	Comments:
0.0					
1.0	S-1			Brown CMF Sand; Trace Silt and Clay; Trace Gravel; Dry; Loose	Collected two Samples for lab analysis at 23.0-24.9 and one sample at 25.0-26.5
2.0					
3.0					
4.0		1.8	0.0/1.3		
5.0	S-2				
6.0					
7.0					
8.0					No Staining or Odors
9.0		1.5	0.0/4.8		
10.0					
11.0	S-3				
12.0					
13.0					
14.0				13.7	
15.0		1.3	0.0/4.0	Brown to Dark Brown to Black MF Sand; Little Silt; Little to Trace Clay; Wet; Loose	Petroleum Odors and Staining 14.9-15.0
16.0	S-4				
17.0					Petroleum Odors and Black Staining 18.0-20.0
18.0					
19.0		2.0	0.0/83.0		
20.0					

Proportions: Trace = 0 - 10% Little = 10 - 20% Some = 20 - 35% And = 35 - 50%

Boring ID: H-5

Project Name/No. First Fairfield / 2015-30

Location: 53 Putnam St. Saratoga Springs, NY

Depth (ft.)	Sample No.	Recovery (ft.)	PID (Bkgd/Reading)	Geologic Description	Comments:
20.0					
21.0	S-5	5.0	0.0/31.8	Brown to Dark Brown to Black MF Sand; Little Silt; Little to Trace Clay; Wet; Loose	Petroleum Odor, Petroleum Sheen and Staining 20.0-24.9.
22.0			0.0/74.6		
23.0			0.0/135.5		
24.0				24.9	
25.0	S-6	5.0	0.0/3.3	Brown Clayey Silt; Wet; Soft; Fines Downward to Gray Clay With Brown Mottling	No Odors or Staining 24.9-30.0
26.0			0.0/4.5		
27.0			0.0/3.5		
28.0					
29.0					
30.0				End of Boring @ 30.0	
31.0					
32.0					
33.0					
34.0					
35.0					
36.0					
37.0					
38.0					
39.0					
40.0					
41.0					
42.0					
43.0					
44.0					
45.0					

Proportions: Trace = 0 - 10% Little = 10 - 20% Some = 20 - 35% And = 35 - 50%

Boring ID: H-6

Project Name/No. First Fairfield / 2015-30 Location: 53 Putnam St. Saratoga Springs, NY

Drilling Contractor/Personnel: ADT/Marty Bachner & Tyler Sarro

Drilling Equip./Method: 7822DT Geoprobe

Inspector: Joseph Spaulding

Sampling Method: Direct Push Sampling Method

Size/Type of Bit: 2.0" Macro-Core

Elevation/Ground Surface: N/A

Start/Finish Date: 8/13/15-8/13/15

Depth to Groundwater (date): ~9.5

Well Type: None

Depth (ft.)	Sample No.	Recovery (ft.)	PID (Bkgd/Reading)	Geologic Description	Comments:
0.0					
1.0	S-1			Dark Brown to Brown CMF Sand; Little Silt; Little Gravel; Brick Pieces; Black Slag/Cinder; Dry; Loose	Collected Samples for Lab Analysis at 11.5- 12.5 and 18.0-19.0 No Staining or Odors
2.0					
3.0					
4.0		2.1	0.0/1.3		
5.0	S-2				
6.0					
7.0					
8.0		3.0	0.0/1.4		
9.0					
10.0			0.0/11.4		
11.0	S-3			Dark Brown to Dark Gray CMF Sand; Little Silt; Trace Gravel; Moist; Loose	Petroleum Odor and Slight Black Staining 9.5-12.5
12.0			0.0/125.8		
13.0					
14.0		3.5	0.0/6.8		
15.0	S-4			Dark Gray to Brown MF Sand; Little Silt; Trace Clay; Trace Gravel; Wet; Loose	No Odors or Staining 12.5-15.0
16.0					
17.0					
18.0					
19.0		2.0	0.0/4.8		
20.0			0.0/4.4		
				Bottom of Boring	

Proportions: Trace = 0 - 10% Little = 10 - 20% Some = 20 - 35% And = 35 - 50%

Boring ID: H-8

Project Name/No. First Fairfield / 2015-30 Location: 53 Putnam St. Saratoga Springs, NY

Drilling Contractor/Personnel: ADT/Marty Bachner & Tyler Sarro

Drilling Equip./Method: 7822DT Geoprobe Inspector: Joseph Spaulding

Sampling Method: Direct Push Sampling Method Size/Type of Bit: 2.0" Macro-Core

Elevation/Ground Surface: N/A Start/Finish Date: 8/11/15-8/11/15

Depth to Groundwater (date): 9.0 Well Type: None

Depth (ft.)	Sample No.	Recovery (ft.)	PID (Bkgd/Reading)	Geologic Description	Comments:
0.0					
1.0	S-1			Brown to Dark Brown CMF Sand; Little MF Gravel; Little Silt; Dry; Loose	Collected Samples for Lab Analysis at 8.5- 10.0 and 18.0-20.0 No Odor or Staining 2.8-4.9 Petroleum Odor and Black Staining 4.9-5.0
2.0					
3.0					
4.0		2.2	0.0/3.6		
5.0	S-2			8.5	Petroleum Odor and Staining 8.5-10.0
6.0					
7.0					
8.0					
9.0		1.5	0.0/124.3	Black to Dark Brown CMF Sand; Some Silt; Trace Gravel; Wet; Loose	Slight Petroleum Odor and No Staining 11.5- 15.0
10.0	S-3				
11.0					
12.0			0.0/8.6		
13.0		3.5			
14.0			0.0/5.3		
15.0	S-4				
16.0			0.0/14.3		Very Slight Petroleum Odor 15.0-20.0
17.0					
18.0		5.0	0.0/4.1		
19.0			0.0/2.2		
20.0					

Proportions: Trace = 0 - 10% Little = 10 - 20% Some = 20 - 35% And = 35 - 50%



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Page 2 of 2

Boring ID: H-8

Project Name/No. First Fairfield 2015-30

Location: 53 Putnam St. Saratoga Springs, NY

Depth (ft.)	Sample No.	Recovery (ft.)	PID (Bkgd/Reading)	Geologic Description	Comments:
20.0					
21.0					
22.0					
23.0	S-5	No Recovery		No Recovery	Sample slipped out
24.0					
25.0					
26.0				End Boring at 25.0'	
27.0					
28.0					
29.0					
30.0					
31.0					
32.0					
33.0					
34.0					
35.0					
36.0					
37.0					
38.0					
39.0					
40.0					
41.0					
42.0					
43.0					
44.0					
45.0					

Proportions: Trace = 0 - 10% Little = 10 - 20% Some = 20 - 35% And = 35 - 50%

Boring ID: H-9

Project Name/No. First Fairfield 2015-30 Location: 53 Putnam St. Saratoga Springs, NY

Drilling Contractor/Personnel: ADT/Marty Bachner & Tyler Sarro

Drilling Equip./Method: 7822DT Geoprobe Inspector: Joseph Spaulding

Sampling Method: Direct Push Sampling Method Size/Type of Bit: 2.0" Macro-Core

Elevation/Ground Surface: N/A Start/Finish Date: 8/10/15-8/10/15

Depth to Groundwater (date): 9.0 Well Type: None

Depth (ft.)	Sample No.	Recovery (ft.)	PID (Bkgd/Reading)	Geologic Description	Comments:
0.0					
1.0	S-1			Brown to Gray CMF Sand; Little Silt; Some Gravel; Brick/cinder Pieces; Loose; Dry	Collected Samples for Lab Analysis at 9.0-10.0 and 17.7-19.0 No Staining or Odors
2.0					
3.0					
4.0		1.8	0.0/2.8		
5.0	S-2				
6.0					
7.0					
8.0					
9.0		1.5	0.0/119.5		
10.0				Black Organic Peat Layer 9.5	Black Staining and Petroleum Odor 9.0-10.0
11.0	S-3			Brown to Gray CMF Sand; Little Silt; Some Gravel; Dry to moist. 11.5	
12.0				Black Organic Peat Layer 12.5	
13.0		3.5	0.0/4.1		Petroleum odor 11.5-15.0
14.0					
15.0				Dark Gray to Dark Brown CMF Sand; Little Silt; Little to Trace Gravel; Soft; Wet 17.7	
16.0	S-4				
17.0					
18.0					
19.0		2.3	0.0/130.8	Black Organic Peat Layer 19.0	Petroleum Odor 17.7-20.0, No Staining
20.0			0.4/64.4	Brown to Gray MF Sand with Little Silt; Soft; Wet	
				Bottom of Boring	

Proportions: Trace = 0 - 10% Little = 10 - 20% Some = 20 - 35% And = 35 - 50%

Boring ID: H-10

Project Name/No. First Fairfield 2015-30 Location: 53 Putnam St. Saratoga Springs, NY

Drilling Contractor/Personnel: ADT/Marty Bachner & Tyler Sarro

Drilling Equip./Method: 7822DT Geoprobe Inspector: Joseph Spaulding

Sampling Method: Direct Push Sampling Method Size/Type of Bit: 2.0" Macro-Core

Elevation/Ground Surface: N/A Start/Finish Date: 8/10/15-8/10/15

Depth to Groundwater (date): 9.8 Well Type: None

Depth (ft.)	Sample No.	Recovery (ft.)	PID (Bkgd/Reading)	Geologic Description	Comments:	
0.0						
1.0	S-1			Concrete Slab 0.5	Collect Samples for Lab Analysis at 4.5-5.0 and 18.0-20.0	
2.0						
3.0						
4.0						
5.0		0.5	0.0/24.5	Dark Brown to Dark Gray CMF Sand; Little Silt; Some Gravel; Brick/Cinder Pieces; Dry; Loose	No Odors or Staining	
6.0	S-2					
7.0						
8.0						
9.0		1.8	0.0/4.1	Dark Brown CMF Sand; Little Silt; Little Gravel; Wet; Loose	No Odors or Staining	
10.0						
11.0	S-3					
12.0						
13.0						
14.0		3.5	0.0/4.0	Dark Brown to Black Organic Peat with Some MF Gray to Brown Sand 13.0	No Odors or Staining	
15.0	S-4			0.0/3.2		Dark Gray to Brown CMF Sand; Little Silt; Little to Trace F Gravel; Trace Clay; Wet; Loose 16.2
16.0						
17.0						
18.0		4.8	0.0/5.6	Dark Brown to Black Organic Peat with Some Gray Clay 18.0		
19.0						
20.0						
				Bottom of Boring		

Proportions: Trace = 0 - 10% Little = 10 - 20% Some = 20 - 35% And = 35 - 50%

Boring ID: H-11

Project Name/No. First Fairfield 2015-30 Location: 53 Putnam St. Saratoga Springs, NY

Drilling Contractor/Personnel: ADT/Marty Bachner & Tyler Sarro

Drilling Equip./Method:	7822DT Geoprobe
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Inspector: Joseph Spaulding

Sampling Method: Direct Push Sampling Method

Size/Type of Bit: 2.0" Macro-Core

Elevation/Ground Surface: N/A

Start/Finish Date: 8/12/15-8/12/15

Depth to Groundwater (date): 10.0

Well Type: Monitoring Well

Depth (ft.)	Sample No.	Recovery (ft.)	PID (Bkgd/Reading)	Geologic Description	Comments:
0.0					
1.0	S-1	0.25'	Not Measured	Dark Brown to Gray CMF Sand; Some MF Gravel; Little Silt;	Collected Samples for Lab Analysis at 8.0- 10.0 and 17.0-18.5
2.0					
3.0					
4.0					
5.0					
6.0	S-2			8.0	No Odors or Staining
7.0					
8.0					
9.0		2.0	0.0/122.8	Dark Gray to Black MF Sand; Some Silt; Trace Clay and Gravel; Wet; Loose	Petroleum Odor and Black Staining
10.0	S-3			13.0	Slight Petroleum Odor 12.2-13.0
11.0					
12.0					
13.0		2.8	0.0/64.2	13.0	No Odor or Staining 14.0-15.0
14.0			0.0/20.2	14.0	
15.0	0.0/1.8				
16.0	S-4	3.0		Dark Gray MF Sand; Little Silt and Clay; Trace Gravel; Wet; Loose	Petroleum Odors and Staining 17.0-18.5
17.0					
18.0			0.0/163.6		
19.0			0.0/38.8		
20.0				Bottom of Boring	

Proportions: Trace = 0 - 10% Little = 10 - 20% Some = 20 - 35% And = 35 - 50%

Boring ID: H-12

Project Name/No. First Fairfield 2015-30 Location: 53 Putnam St. Saratoga Springs, NY

Drilling Contractor/Personnel: ADT/Marty Bachner & Tyler Sarro

Drilling Equip./Method: 7822DT Geoprobe Inspector: Joseph Spaulding

Sampling Method: Direct Push Sampling Method

Size/Type of Bit: 2.0" Macro-Core

Elevation/Ground Surface: N/A

Start/Finish Date: 8/10/15-8/10/15

Depth to Groundwater (date): 9.0

Well Type: None

Depth (ft.)	Sample No.	Recovery (ft.)	PID (Bkgd/Reading)	Geologic Description	Comments:
0.0					
1.0	S-1			Brown to Dark Brown CMF Sand with Some Gravel; Little Silt; Brick/Cinder Pieces Throughout; Some Organic Material	Collected Samples for Lab Analysis at 8.0-10.0 and 17.5-20.0
2.0					
3.0					
4.0		2.5	0.0/2.3		
5.0	S-2				No Odors or Staining
6.0					
7.0					
8.0					
9.0	S-3	1.8	0.0/1.8		No Odors or Staining
10.0					
11.0			0.0/1.6		
12.0					
13.0	S-4	5.0		Dark Gray to Brown CMF Sand with Little Silt; Trace Gravel; Soft; Wet	Slight Sewage Odor 18.0-20.0
14.0			0.0/1.5	Black Organic Peat Layer	
15.0					
16.0	S-4		0.0/1.0	Dark Gray CMF Sand; Little Silt; Little Gravel; Soft; Wet	Slight Sewage Odor 18.0-20.0
17.0					
18.0					
19.0			0.0/2.0		
20.0					
				Bottom of Boring	

Proportions: Trace = 0 - 10% Little = 10 - 20% Some = 20 - 35% And = 35 - 50%

Boring ID: H-13

Project Name/No. First Fairfield 2015-30 Location: 53 Putnam St. Saratoga Springs, NY

Drilling Contractor/Personnel: ADT/Marty Bachner & Tyler Sarro

Drilling Equip./Method: 7822DT Geoprobe Inspector: Joseph Spaulding

Sampling Method: Direct Push Sampling Method Size/Type of Bit: 2.0" Macro-Core

Elevation/Ground Surface: N/A Start/Finish Date: 8/12/15-8/12/15

Depth to Groundwater (date): 8.5 Well Type: None

Depth (ft.)	Sample No.	Recovery (ft.)	PID (Bkgd/Reading)	Geologic Description	Comments:
0.0					
1.0	S-1			Dark Brown to Gray CMF Sand; Some Silt and Gravel; Brick/Cinder Pieces; Dry; Loose	No Odors or Staining
2.0					
3.0					
4.0		1.5	0.0/2.7		
5.0	S-2				No Odors or Staining
6.0					
7.0					
8.0				8.5	
9.0		1.5	0.0/2.4	Dark Brown to Dark Gray MF Sand; Little Silt; Trace Gravel; Trace Clay; Wet; Loose	No Odors or Staining
10.0	S-3				
11.0					
12.0				12.2	
13.0		2.8	0.0/2.2	Black Organic Peat Layer; Little Clayey Silt; Wet; Soft	No Odors or Staining
14.0				14.0	
15.0			0.0/2.9		
16.0	S-4		0.0/1.5	Brown to Gray MF Sand; Little Silt; Tace Clay; Wet; Loose	No Odors or Staining
17.0					
18.0		5.0	0.0/1.6		
19.0				19.0	
20.0			0.0/2.4	Brown to Gray Silty Clay; Slight Brown Mottling; Soft; Wet	
				Bottom of Boring	

Proportions: Trace = 0 - 10% Little = 10 - 20% Some = 20 - 35% And = 35 - 50%

Boring ID: H-14

Project Name/No. First Fairfield 2015-30 Location: 53 Putnam St. Saratoga Springs, NY

Drilling Contractor/Personnel: ADT/Marty Bachner & Tyler Sarro

Drilling Equip./Method: 7822DT Geoprobe Inspector: Joseph Spaulding

Sampling Method: Direct Push Sampling Method Size/Type of Bit: 2.0" Macro-Core

Elevation/Ground Surface: N/A Start/Finish Date: 8/12/15-8/12/15

Depth to Groundwater (date): 8.0 Well Type: None

Depth (ft.)	Sample No.	Recovery (ft.)	PID (Bkgd/Reading)	Geologic Description	Comments:			
0.0								
1.0	S-1			Dark Brown to Dark Gray CMF Sand; Little Silt; Brick/Cinder Pieces; Dry; Loose	Collected Samples for Lab Analysis at 8.0-9.0 and 19.0-20.0			
2.0								
3.0								
4.0		1.5	0.0/3.5		No Odors or Staining			
5.0								
6.0	S-2			9.2				
7.0								
8.0								
9.0		2.0	0.00/4.4		No Odors or Staining			
10.0			0.0/2.9	Black Organic Peat Layer; Little Clayey MF Sand; Wet				
11.0	S-3			Brown to Gray MF Sand; Little Silt; Trace Clay; Trace Gravel; Wet; Loose				
12.0								
13.0					13.0			
14.0		2.0	0.0/6.3	Dark Gray/Brown MF Sand; Little Silt; Trace Clay; Trace Gravel; Wet; Loose	14.0			
15.0			0.0/1.9	Black Organic Peat Layer	15.0			
16.0	S-4	4.5	0.0/3.4	Dark Gray/Brown MF Sand; Little Silt and Clay; Trace Gravel; Wet; Loose	No Odors or Staining			
17.0								18.0
18.0								
19.0			0.0/2.2	Black Organic Peat Layer with Little Dark Gray Clayey Silt	19.0			
20.0			0.0/2.8	Dark Gray/Brown MF Sand; Little Silt; Trace Clay; Trace Gravel; Wet; Loose				
				Bottom of Boring				

Boring ID: H-15

Project Name/No. First Fairfield 2015-30 Location: 53 Putnam St. Saratoga Springs, NY

Drilling Contractor/Personnel: ADT/Marty Bachner & Tyler Sarro

Drilling Equip./Method: 7822DT Geoprobe

Inspector: Joseph Spaulding

Sampling Method: Direct Push Sampling Method

Size/Type of Bit: 2.0" Macro-Core

Elevation/Ground Surface: N/A

Start/Finish Date: 8/14/15-8/14/15

Depth to Groundwater (date): 11.0

Well Type: Monitoring Well

Depth (ft.)	Sample No.	Recovery (ft.)	PID (Bkgd/Reading)	Geologic Description	Comments:
0.0					
1.0	S-1			CMF Dark Brown to Black Sand; Some Silt; Some Gravel; Little Organics(roots/wood pieces); Brick/Cinder Pieces; Dry; Loose	Collected Samples for Lab Analysis at 8.5-9.5 and 17.0-18.5 No Odors or Staining
2.0					
3.0					
4.0	S-2	1.2	0.0/2.7		
5.0					
6.0					
7.0	S-3			Dark Brown to Dark Gray CMF Sand; Little Silt; Little Clay Trace Gravel; Moist to Wet; Loose	No Odors or Staining
8.0					
9.0					
10.0	S-4	1.5	0.0/2.9	9.5	
11.0			0.0/3.7		
12.0					
13.0	S-3			Dark Brown to Dark Gray CMF Sand; Little Silt; Little Clay Trace Gravel; Moist to Wet; Loose	No Odors or Staining
14.0		2.9	0.0/2.3	14.0	
15.0			0.0/2.0	14.8	
16.0	S-4			Black Organic Peat Layer	No Odors or Staining
17.0			1.0/2.7		
18.0		4.5	0.0/3.8	Dark Gray MF Sand; Little Silt and Clay; Trace Gravel; Wet; Loose	
19.0	S-4		0.0/4.0		
20.0					
				Bottom of Boring	

Proportions: Trace = 0 - 10% Little = 10 - 20% Some = 20 - 35% And = 35 - 50%

Boring ID: **H-16**

Project Name/No. First Fairfield 2015-30 Location: 53 Putnam St. Saratoga Springs, NY

Drilling Contractor/Personnel: ADT/Marty Bachner & Tyler Sarro

Drilling Equip./Method: 7822DT Geoprobe

Inspector: Joseph Spaulding

Sampling Method: Direct Push Sampling Method

Size/Type of Bit: 2.0" Macro-Core

Elevation/Ground Surface: N/A

Start/Finish Date: 8/12/15-8/12/15

Depth to Groundwater (date): 8.5

Well Type: None

Depth (ft.)	Sample No.	Recovery (ft.)	PID (Bkgd/Reading)	Geologic Description	Comments:
0.0					
1.0	S-1				Collected Samples for Lab Analysis at 8.5-10.0 and 19.0-20.0
2.0					
3.0					
4.0	S-2	1.2	0.0/1.4	Dark Brown to Dark Gray/Black CMF Sand; Some Gravel and Silt; Brick/Cinder Pieces; Dry; Loose	No Odors or Staining
5.0					
6.0					
7.0	S-3				No Odors or Staining
8.0					
9.0					
10.0	S-4	1.5	0.0/1.5	Dark Brown to Brown CMF Sand; Little Silt; Little Gravel; Wet; Loose	No Odors or Staining
11.0					
12.0					
13.0	S-3	4.5	0.0/1.5	Dark Brown to Dark Gray MF Sand; Little Silt; Little Clay; Trace Gravel; Wet; Loose	No Odors or Staining
14.0			0.0/1.7		
15.0			0.0/1.2	Black Organic Peat Layer	
16.0	S-4	5.0	0.0/1.8	Dark Brown to Dark Gray MF Sand; Little Silt; Little Clay; Trace Gravel; Wet; Loose	No Odors or Staining
17.0			0.0/1.7		
18.0					
19.0					
20.0					
				Bottom of Boring	

Proportions: Trace = 0 - 10% Little = 10 - 20% Some = 20 - 35% And = 35 - 50%

Boring ID: H-17

Project Name/No. First Fairfield 2015-30 Location: 53 Putnam St. Saratoga Springs, NY

Drilling Contractor/Personnel: ADT/Marty Bachner & Tyler Sarro

Drilling Equip./Method: 7822DT Geoprobe Inspector: Joseph Spaulding

Sampling Method: Direct Push Sampling Method Size/Type of Bit: 2.0" Macro-Core

Elevation/Ground Surface: N/A Start/Finish Date: 8/11/15-8/11/15

Depth to Groundwater (date): 9.4 Well Type: None

Depth (ft.)	Sample No.	Recovery (ft.)	PID (Bkgd/Reading)	Geologic Description	Comments:
0.0					
1.0	S-1			Dark Brown to Black/Gray CMF Sand; Some CMF Gravel; Little Silt; Brick/Cinder Pieces; Dry;	Collected Samples for Lab Analysis at 3.5-5.0 and 18.0-20.0 No Odors or Staining
2.0					
3.0					
4.0		1.5	0.0/3.5		
5.0	S-2				
6.0					
7.0					
8.0					
9.0		2.0	0.0/2.8	9.4	
10.0	S-3			Dark Gray CMF Sand; Little Silt; Trace Gravel; Trace Clay; Wet; Loose	No Odors or Staining
11.0					
12.0					
13.0					
14.0				14.5	
15.0		0.5	0.0/3.4	Black Organic Peat Layer with Little Gray MF Sand 15.0	
16.0	S-4			Dark Gray MF Sand; Some Silt; Little Clay; Trace MF Gravel; Wet; Soft	No Odors or Staining
17.0			0.0/2.7		
18.0		4.5			
19.0			0.0/2.0		
20.0					
				Bottom of Boring	

Proportions: Trace = 0 - 10% Little = 10 - 20% Some = 20 - 35% And = 35 - 50%

Boring ID: H-18

Project Name/No. First Fairfield 2015-30 Location: 53 Putnam St. Saratoga Springs, NY

Drilling Contractor/Personnel: ADT/Marty Bachner & Tyler Sarro

Drilling Equip./Method: 7822DT Geoprobe

Inspector: Joseph Spaulding

Sampling Method: Direct Push Sampling Method

Size/Type of Bit: 2.0" Macro-Core

Elevation/Ground Surface: N/A

Start/Finish Date: 8/10/15-8/10/15

Depth to Groundwater (date): 9.0

Well Type: None

Depth (ft.)	Sample No.	Recovery (ft.)	PID (Bkgd/Reading)	Geologic Description	Comments:
0.0					
1.0	S-1				Collected Samples for Lab Analysis at 3.0-5.0 and 17.5-20.0
2.0					
3.0					
4.0		2.0	0.0/6.2		
5.0	S-2			Dark Brown to Black CMF Sand with Some CMF Gravel; Brick/Cinder Pieces; Loose; Dry	No Odors or Staining
6.0					
7.0					
8.0					
9.0		2.0	0.0/3.9		
10.0				10.0	
11.0	S-3			Dark Brown CMF Sand; Little Silt; Little Gravel; Wet; Loose	No Odors or Staining
12.0					
13.0					
14.0					
15.0		0.2	0.0/8.7		
16.0	S-4				
17.0			0.0/2.3		
18.0		4.5			
19.0			0.0/3.0		
20.0				19.0	
				Black Organic Peat Layer	
				Bottom of Boring	

Proportions: Trace = 0 - 10% Little = 10 - 20% Some = 20 - 35% And = 35 - 50%

Boring ID: H-19

Project Name/No. First Fairfield 2015-30 Location: 53 Putnam St. Saratoga Springs, NY

Drilling Contractor/Personnel: ADT/Marty Bachner & Tyler Sarro

Drilling Equip./Method: 7822DT Geoprobe Inspector: Joseph Spaulding

Sampling Method: Direct Push Sampling Method Size/Type of Bit: 2.0" Macro-Core

Elevation/Ground Surface: N/A Start/Finish Date: 8/12/15-8/12/15

Depth to Groundwater (date): 8.5 Well Type: Monitoring Well

Depth (ft.)	Sample No.	Recovery (ft.)	PID (Bkgd/Reading)	Geologic Description	Comments:
0.0					
1.0	S-1			Brown to Dark Brown CMF Sand; Little Silt; Little Gravel; Cinder/Slag/Brick Pieces; Dry; Loose	Collected Samples for Lab Analysis at 3.3-5.0 and 18.0-19.0 No Odors or Staining
2.0					
3.0					
4.0		1.7	0.0/1.8		
5.0	S-2				No Odors or Staining
6.0					
7.0					
8.0				8.0	
9.0		2.0	0.0/1.5	Gray to Dark Gray MF Sand; Little Silt; Little F Gravel; Trace Clay; Wet; Loose	No Odors or Staining
10.0			0.0/2.0	10.0	
11.0	S-3	No Recovery	No Recovery	Black Organic Peat Layer 11.0	
12.0					
13.0					
14.0				Dark Gray MF Sand; Little Silt; Little Clay; Trace Gravel; Wet; Loose	No Odors or Staining
15.0	S-4	5.0	0.0/1.1	16.0	
16.0					
17.0			0.0/2.3	Black Organic Peat Layer 18.0	
18.0					
19.0			0.0/2.1	Dark Gray MF Sand; Little Silt; Little Clay; Wet; Loose 19.0	
20.0			0.0/2.3	Gray Silty Clay with Brown Mottling	
				Bottom of Boring	

Proportions: Trace = 0 - 10% Little = 10 - 20% Some = 20 - 35% And = 35 - 50%

Boring ID: H-20

Project Name/No. First Fairfield 2015-30 Location: 53 Putnam St. Saratoga Springs, NY

Drilling Contractor/Personnel: ADT/Marty Bachner & Tyler Sarro

Drilling Equip./Method: 7822DT Geoprobe Inspector: Joseph Spaulding

Sampling Method: Direct Push Sampling Method Size/Type of Bit: 2.0" Macro-Core

Elevation/Ground Surface: N/A Start/Finish Date: 8/11/15-8/11/15

Depth to Groundwater (date): 8.0 Well Type: None

Depth (ft.)	Sample No.	Recovery (ft.)	PID (Bkgd/Reading)	Geologic Description	Comments:
0.0					
1.0	S-1			Light to Dark Brown to Gray/Black CMF Sand; Some Gravel; Little Silt; Brick/Cinder Pieces; Dry; Loose	Collected Samples for Lab Analysis at 7.5-8.0 and 17.5-20.0 No Odors or Staining
2.0					
3.0		3.0	0.0/7.0		
4.0			0.0/8.7		
5.0	S-2				
6.0					
7.0					
8.0		2.5	0.0/7.0		
9.0			0.0/3.6		
10.0	S-3	-1.0" Recovery		Dark Gray CMF Sand; Little Silt; Trace Gravel; Wet; Loose	No Odors or Staining
11.0					
12.0					
13.0					
14.0	S-4	4.7		Black Organic Peat Layer; Little Gray Clay	No Odors or Staining
15.0					
16.0			0.0/4.1		
17.0			0.0/3.6		
18.0					
19.0			0.0/2.6	Dark Gray CMF Sand; Little Silt; Trace Gravel; Wet; Loose	
20.0					
				Bottom of Boring	

Proportions: Trace = 0 - 10% Little = 10 - 20% Some = 20 - 35% And = 35 - 50%

Boring ID: H-21

Project Name/No. First Fairfield 2015-30 Location: 53 Putnam St. Saratoga Springs, NY

Drilling Contractor/Personnel: ADT/Marty Bachner & Tyler Sarro

Drilling Equip./Method: 7822DT Geoprobe Inspector: Joseph Spaulding

Sampling Method: Direct Push Sampling Method Size/Type of Bit: 2.0" Macro-Core

Elevation/Ground Surface: N/A Start/Finish Date: 8/10/15-8/10/15

Depth to Groundwater (date): 9.0 Well Type: Monitoring Well

Depth (ft.)	Sample No.	Recovery (ft.)	PID (Bkgd/Reading)	Geologic Description	Comments:
0.0					
1.0	S-1			Brown MF Sand; Little Silt; Little Gravel; Some Organic Peat and Roots; Brick/ Cinder Pieces; Dry; Loose	Collected Samples for Lab Analysis at 8.5-10.0 and 18.0-20.0 No Odors or Staining
2.0					
3.0					
4.0		2.0	0.0/3.1		
5.0	S-2				
6.0					
7.0					
8.0				8.5	
9.0		1.5	0.0/2.7		
10.0	S-3			Brown to Dark Gray CMF Sand; Little to Trace Silt and Gravel; Wet; Loose	No Odors or Staining
11.0					
12.0					
13.0		4.3	0.0/1.4	13.5	
14.0			0.0/1.1	Black Organic Peat Layer	
15.0				15.0	
16.0	S-4			Dark Brown/Gray CMF Sand; Little F Gravel; Little Silt; Wet; Loose	No Odors or Staining
17.0					
18.0					
19.0		2.0	0.0/2.3		
20.0					
				Bottom of Boring	

Proportions: Trace = 0 - 10% Little = 10 - 20% Some = 20 - 35% And = 35 - 50%

Boring ID: H-22

Project Name/No. First Fairfield 2015-30 Location: 53 Putnam St. Saratoga Springs, NY

Drilling Contractor/Personnel: ADT/Marty Bachner & Tyler Sarro

Drilling Equip./Method: 7822DT Geoprobe Inspector: Joseph Spaulding

Sampling Method: Direct Push Sampling Method

Size/Type of Bit: 2.0" Macro-Core

Elevation/Ground Surface: N/A

Start/Finish Date: 8/12/15-8/12/15

Depth to Groundwater (date): 6.5

Well Type: None

Depth (ft.)	Sample No.	Recovery (ft.)	PID (Bkgd/Reading)	Geologic Description	Comments:
0.0					
1.0	S-1			Brown to Dark Brown CMF Sand; Little Silt; Some Gravel; Rock Chips and Fragments; Brick/Cinder Pieces; Loose; Dry	Collected Samples for Lab Analysis at 3.0-5.0 and 19.0-20.0 No Odors or Staining
2.0					
3.0					
4.0		1.5	0.0/2.9		
5.0					
6.0	S-2			6.0	No Odors or Staining
7.0		4.0	0.0/2.2	Dark Brown CMF Sand; Little Silt; Little Gravel; Wet; Loose	
8.0				8.0	
9.0			0.0/30.2		
10.0					
11.0	S-3			Dark Gray MF Sand; Trace Gravel; Little Silt; Little Clay; Wet;	No Odors or Staining
12.0		4.0	0.0/7.5		
13.0			0.0/64.9		
14.0				14.0	
15.0			0.0/7.9	Black Organic Peat Layer	
16.0					
17.0	S-4	3.5	0.0/1.9	Dark Gray to Brown MF Sand; Little Silt; Trace clay and Gravel; Wet; Loose	No Odors or Staining
18.0					
19.0			0.0/2.2		
20.0					
				Bottom of Boring	

Proportions: Trace = 0 - 10% Little = 10 - 20% Some = 20 - 35% And = 35 - 50%

Boring ID: H-23

Project Name/No. First Fairfield 2015-30 Location: 53 Putnam St. Saratoga Springs, NY

Drilling Contractor/Personnel: ADT/Marty Bachner & Tyler Sarro

Drilling Equip./Method: 7822DT Geoprobe Inspector: Joseph Spaulding

Sampling Method: Direct Push Sampling Method Size/Type of Bit: 2.0" Macro-Core

Elevation/Ground Surface: N/A Start/Finish Date: 8/11/15-8/11/15

Depth to Groundwater (date): 9.4 Well Type: None

Depth (ft.)	Sample No.	Recovery (ft.)	PID (Bkgd/Reading)	Geologic Description	Comments:	
0.0						
1.0	S-1			Dark Brown to Gray/Black CMF Sand; Some MF Gravel; Little Silt; Brick/Cinder Pieces; Dry; Loose	Collected Samples for Lab Analysis at 3.0-5.0 and 19.0-20.0 No Odors or Staining	
2.0						
3.0						
4.0		2.0	0.0/5.8			
5.0	S-2					
6.0						
7.0						
8.0						
9.0		0.8	0.0/5.9	9.4	No Odors or Staining	
10.0	S-3			Gray MF Sand; Little Silt; Trace Gravel; Trace Clay; Wet; Loose		
11.0		4.5	0.0/2.8			
12.0						
13.0			0.0/3.0		14.2	
14.0		0.0/2.6	Black Organic Peat Layer	15.0	No Odors or Staining	
15.0	S-4	5.0	0.0/1.8	Gray MF Sand; Little Silt; Trace Gravel; Trace Clay; Wet; Loose		
16.0						
17.0						
18.0			0.0/1.9	Black Organic Peat Layer	19.0	
19.0			0.00/2.1	Gray MF Sand; Little Silt; Trace Gravel; Trace Clay; Wet; Loose		
20.0				Bottom of Boring		

Proportions: Trace = 0 - 10% Little = 10 - 20% Some = 20 - 35% And = 35 - 50%

Boring ID: H-24

Project Name/No. First Fairfield 2015-30 Location: 53 Putnam St. Saratoga Springs, NY

Drilling Contractor/Personnel: ADT/Marty Bachner & Tyler Sarro

Drilling Equip./Method: 7822DT Geoprobe

Inspector: Joseph Spaulding

Sampling Method: Direct Push Sampling Method

Size/Type of Bit: 2.0" Macro-Core

Elevation/Ground Surface: N/A

Start/Finish Date: 8/10/15-8/10/15

Depth to Groundwater (date): 8.5

Well Type: None

Depth (ft.)	Sample No.	Recovery (ft.)	PID (Bkgd/Reading)	Geologic Description	Comments:		
0.0							
1.0	S-1			Dark Brown to Black/Gray CMF Sand; Little Silt; Some Gravel; Brick/Cinder Pieces; Little Organic and Black Peat; Dry; Loose	Collected Samples for Lab Analysis at 7.5-8.5 and 15.0-17.5 Slight Black Staining, No Odors		
2.0							
3.0		3.0	0.0/1.5				
4.0							
5.0	S-2			8.5			
6.0							
7.0							
8.0		2.5	0.0/0.6				
9.0	S-3		0.0/1.8				
10.0							
11.0	S-3			14.8	No Odors or Staining		
12.0							
13.0		2.2	0.0/0.9				
14.0							
15.0	S-4	5.0	Black Organic Peat Layer		15.0	No Odors or Staining	
16.0			0.0/0.4	Dark Brown to Gray MF Sand; Some Silt; Trace Gravel; Trace Clay; Loose; Wet			
17.0							
18.0			0.0/3.7	Gray Silty Clay with Black Organic Peat; Loose; Wet			
19.0	19.0						
20.0				Bottom of Boring			

Proportions: Trace = 0 - 10% Little = 10 - 20% Some = 20 - 35% And = 35 - 50%

Boring ID: H-25

Project Name/No. First Fairfield 2015-30 Location: 53 Putnam St. Saratoga Springs, NY

Drilling Contractor/Personnel: ADT/Marty Bachner & Tyler Sarro

Drilling Equip./Method: 7822DT Geoprobe Inspector: Joseph Spaulding

Sampling Method: Direct Push Sampling Method Size/Type of Bit: 2.0" Macro-Core

Elevation/Ground Surface: N/A Start/Finish Date: 8/12/15-8/12/15

Depth to Groundwater (date): 9.5 Well Type: None

Depth (ft.)	Sample No.	Recovery (ft.)	PID (Bkgd/Reading)	Geologic Description	Comments:
0.0					
1.0	S-1			Dark Brown to Dark Gray CMF Sand; Little Silt; Little Gravel; Some Brick/Cinder Pieces; Loose;	Collected Samples for Lab Analysis at 8.8-9.5 and 17.0-20.0 No Odors or Staining
2.0					
3.0					
4.0					
5.0		1.0	0.0/3.3		
6.0	S-2				
7.0					
8.0					
9.0					
10.0		1.2	0.0/2.5 0.0/4.7	9.5	
11.0	S-3			Dark Gray MF Sand; Little Silt; Little Gravel; Trace Clay; Loose; Wet	
12.0			0.0/3.7		
13.0		4.8			
14.0			0.0/3.0		
15.0				15.5	
16.0	S-4			Dark Brown MF Sand; Little Silt; Little Clay; trace Gravel; Wet; Loose	No Odors or Staining
17.0			0.0/2.7		
18.0		4.5			
19.0			0.0/2.7		
20.0					
Bottom of Boring					

Proportions: Trace = 0 - 10% Little = 10 - 20% Some = 20 - 35% And = 35 - 50%

Boring ID: H-26

Project Name/No. First Fairfield 2015-30 Location: 53 Putnam St. Saratoga Springs, NY

Drilling Contractor/Personnel: ADT/Marty Bachner & Tyler Sarro

Drilling Equip./Method: 7822DT Geoprobe

Inspector: Joseph Spaulding

Sampling Method: Direct Push Sampling Method

Size/Type of Bit: 2.0" Macro-Core

Elevation/Ground Surface: N/A

Start/Finish Date: 8/11/15-8/11/15

Depth to Groundwater (date): 9.0

Well Type: Monitoring Well

Depth (ft.)	Sample No.	Recovery (ft.)	PID (Bkgd/Reading)	Geologic Description	Comments:
0.0					
1.0	S-1			Dark to Light Brown to Dark Gray CMF Sand; Some Gravel; Little Silt; Cinder Pieces; Dry; Loose	Collected Samples for Lab Analysis at 3.0-5.0 and 15.0-17.0 Black Streaks at 4.5-5.0, No Odors
2.0					
3.0					
4.0		2.0	0.0/8.0		
5.0	S-2			9.8	No Odors or Staining
6.0					
7.0					
8.0					
9.0		1.5	0.0/10.2		
10.0	S-3			Dark Gray MF Sand; Little Silt; Little Fine Gravel; Trace Clay; Wet; Loose	No Odors or Staining
11.0					
12.0					
13.0		No Recovery	No Recovery		
14.0	S-4			End Boring at 17.0'	Refusal at 17.0
15.0					
16.0		2.0	0.0/1.8		
17.0					
18.0					
19.0					
20.0					

Proportions: Trace = 0 - 10% Little = 10 - 20% Some = 20 - 35% And = 35 - 50%

Boring ID: H-27

Project Name/No. First Fairfield 2015-30 Location: 53 Putnam St. Saratoga Springs, NY

Drilling Contractor/Personnel: ADT/Marty Bachner & Tyler Sarro

Drilling Equip./Method: 7822DT Geoprobe Inspector: Joseph Spaulding

Sampling Method: Direct Push Sampling Method Size/Type of Bit: 2.0" Macro-Core

Elevation/Ground Surface: N/A Start/Finish Date: 8/10/15-8/10/15

Depth to Groundwater (date): 9.0 Well Type: None

Depth (ft.)	Sample No.	Recovery (ft.)	PID (Bkgd/Reading)	Geologic Description	Comments:
0.0					
1.0	S-1			Brown to Gray/Black CMF Sand; Some Gravel; Little Silt; Brick/Cinders; Organic Material(roots,wood); Dry; Loose	Collected Samples for Lab Analysis at 8.8-10.0 and 14.0-15.0 Slight Black Staining, No Odors
2.0					
3.0					
4.0		2.5	0.0/1.3		
5.0	S-2			9.2	No Odors or Staining
6.0					
7.0					
8.0					
9.0		2.3	0.0/3.1		
10.0			0.0/3.4		
11.0	S-3			Gray MF Sand; Little to Trace Gravel; Little to Trace Silt; Wet; Loose	No Odors or Staining
12.0					
13.0					
14.0					
15.0		4.0	0.0/2.2	14.0	
			0.0/395.0	Black Organic Peat Layer 15.0	
16.0	S-4			Gray MF Sand; Little to Trace Gravel; Little to Trace Silt; Wet; Loose	No Odors or Staining
17.0					
18.0		5.0	0.0/4.6	18.0	
19.0			0.0/103.0	Black Organic Peat Layer 19.0	
20.0			0.0/12.5	Gray MF Sand; Little to Trace Gravel; Little to Trace Silt; Wet; Loose	
				Bottom of Boring	

Proportions: Trace = 0 - 10% Little = 10 - 20% Some = 20 - 35% And = 35 - 50%

Boring ID: **H-28**

Project Name/No. First Fairfield 2015-30 Location: 53 Putnam St. Saratoga Springs, NY

Drilling Contractor/Personnel: ADT/Marty Bachner & Tyler Sarro

Drilling Equip./Method: 7822DT Geoprobe

Inspector: Joseph Spaulding

Sampling Method: Direct Push Sampling Method

Size/Type of Bit: 2.0" Macro-Core

Elevation/Ground Surface: N/A

Start/Finish Date: 8/14/15-8/14/15

Depth to Groundwater (date): ~8.5

Well Type: Monitoring Well

Depth (ft.)	Sample No.	Recovery (ft.)	PID (Bkgd/Reading)	Geologic Description	Comments:
0.0					
1.0	S-1			Dark Brown to Dark Gray CMF Sand; Little Silt and Clay; Some Gravel; Brick/Cinder Pieces; Dry; Loose	Collected Samples for Lab Analysis at 17.0-18.5 and 19.5-20.0 No Odors or Staining
2.0					
3.0					
4.0	S-2	1.0	0.0/1.00	8.9	No Odors or Staining
5.0					
6.0					
7.0	S-3	1.1	0.0/2.4	Dark Brown CMF Sand; Little Silt; Trace Gravel; Wet; Loose	No Odors or Staining
8.0					
9.0					
10.0	S-4	4.6	0.0/3.7	Dark Brown to Dark Gray MF Sand; Some Silt; Little Clay; Trace Gravel; Wet; Loose	No Odors or Staining
11.0					
12.0					
13.0	S-3	4.6	0.0/41.8	14.0	No Odors or Staining
14.0					
15.0					
16.0	S-4	4.6	0.0/16.2	Black Organic Peat Layer	No Odors or Staining
17.0					
18.0					
19.0	S-4	4.6	0.0/10.0	Dark Brown to Dark Gray MF Sand; Some Silt; Little Clay; Trace Gravel; Wet; Loose	No Odors or Staining
20.0					
	S-4	4.6	0.0/64.9	18.5	No Odors or Staining
	S-4	4.6	0.0/16.6	Black Organic Peat Layer	No Odors or Staining
	S-4	4.6	0.0/3.7	Dark Brown to Dark Gray MF Sand; Some Silt; Little Clay; Trace Gravel; Wet; Loose	No Odors or Staining
	Bottom of Boring				

Proportions: Trace = 0 - 10% Little = 10 - 20% Some = 20 - 35% And = 35 - 50%

Boring ID: H-29

Project Name/No. First Fairfield 2015-30 Location: 53 Putnam St. Saratoga Springs, NY

Drilling Contractor/Personnel: ADT/Marty Bachner & Tyler Sarro

Drilling Equip./Method: 7822DT Geoprobe

Inspector: Joseph Spaulding

Sampling Method: Direct Push Sampling Method

Size/Type of Bit: 2.0" Macro-Core

Elevation/Ground Surface: N/A

Start/Finish Date: 8/12/15-8/12/15

Depth to Groundwater (date): 9.2

Well Type: None

Depth (ft.)	Sample No.	Recovery (ft.)	PID (Bkgd/Reading)	Geologic Description	Comments:
0.0					
1.0	S-1			Brown to Dark Brown CMF Sand; Little Silt; Some Gravel; Brick/Cinder Slag Pieces; Loose; Dry	Collected Samples for Lab Analysis at 9.2-10.0 and 18.0-20.0 No Odors or Staining
2.0					
3.0					
4.0		1.1	0.0/1.9		
5.0	S-2				
6.0					
7.0					
8.0					
9.0	S-3			Dark Gray MF Sand; Little Silt; Little Clay; Trace Gravel; Wet; Loose	No Odors or Staining
10.0		0.8	0.0/2.5		
11.0					
12.0					
13.0	S-4			Dark Gray/Brown CMF Sand; Little Silt; Little MF Gravel; Little Clay; Wet; Loose	No Odors or Staining
14.0		3.5	0.0/3.2		
15.0			0.0/1.4		
16.0					
17.0	S-4			Black Organic Peat Layer	
18.0					
19.0		2.0	0.0/2.6		
20.0					
				Bottom of Boring	

Proportions: Trace = 0 - 10% Little = 10 - 20% Some = 20 - 35% And = 35 - 50%

Boring ID: H-30

Project Name/No. First Fairfield 2015-30 Location: 53 Putnam St. Saratoga Springs, NY

Drilling Contractor/Personnel: ADT/Marty Bachner & Tyler Sarro

Drilling Equip./Method: 7822DT Geoprobe Inspector: Joseph Spaulding

Sampling Method: Direct Push Sampling Method Size/Type of Bit: 2.0" Macro-Core

Elevation/Ground Surface: N/A Start/Finish Date: 8/11/15-8/11/15

Depth to Groundwater (date): 8.5 Well Type: None

Depth (ft.)	Sample No.	Recovery (ft.)	PID (Bkgd/Reading)	Geologic Description	Comments:
0.0					
1.0	S-1			Dark Brown to Dark Gray/Black CMF Sand; Some Gravel; Little Silt; Brick/Cinder Pieces; Dry; Loose	Collected Samples for Lab Analysis at 8.0-9.4 and 18.5-20.0
2.0					
3.0					
4.0	S-2	1.5	0.0/6.6	8.0	No Odors, Slight Black Staining
5.0					
6.0					
7.0	S-3			9.4	No Odors or Staining
8.0					
9.0		2.0	0.0/4.7		
10.0	S-4		0.0/3.6	14.5	No Odors or Staining
11.0					
12.0					
13.0	S-3			15.0	No Odors or Staining
14.0		2.0	0.0/1.5		
15.0			0.0/2.0		
16.0	S-4			18.5	No Odors or Staining
17.0					
18.0		5.0	0.0/1.4		
19.0	S-4		0.0/1.4	Black Organic Peat Layer	
20.0					
				Bottom of Boring	

Proportions: Trace = 0 - 10% Little = 10 - 20% Some = 20 - 35% And = 35 - 50%

Boring ID: H-31

Project Name/No. First Fairfield 2015-30 Location: 53 Putnam St. Saratoga Springs, NY

Drilling Contractor/Personnel: ADT/Marty Bachner & Tyler Sarro

Drilling Equip./Method: 7822DT Geoprobe Inspector: Joseph Spaulding

Sampling Method: Direct Push Sampling Method Size/Type of Bit: 2.0" Macro-Core

Elevation/Ground Surface: N/A Start/Finish Date: 8/10/15-8/10/15

Depth to Groundwater (date): 9.0 Well Type: None

Depth (ft.)	Sample No.	Recovery (ft.)	PID (Bkgd/Reading)	Geologic Description	Comments:
0.0					
1.0	S-1			Brown to Dark Brown/Black CMF Sand; Some Silt; Some Gravel; Brick/Cinder Pieces; Loose; Dry	Collected Samples for Lab Analysis at 7.0-9.0 and 18.0-20.0 No Odors or Staining
2.0					
3.0					
4.0		2.5	0.0/1.3		
5.0	S-2				
6.0					
7.0					
8.0					
9.0		3.0	0.0/4.3	9.0	
10.0			0.0/2.9	Dark Gray MF Sand; Trace Gravel; Little Silt; Moist; Loose	No Odors or Staining
11.0	S-3				
12.0					
13.0					
14.0		2.0	0.0/3.0	14.8	
15.0			0.0/2.4	Black Organic Peat Layer 15.0	
16.0	S-4			Dark Gray to Brown CMF Sand; Little Gravel; Little Silt; Wet; Loose	No Odors or Staining
17.0					
18.0					
19.0		2.0	0.0/2.9		
20.0				Bottom of Boring	

Proportions: Trace = 0 - 10% Little = 10 - 20% Some = 20 - 35% And = 35 - 50%

Boring ID: H-32

Project Name/No. First Fairfield 2015-30 Location: 53 Putnam St. Saratoga Springs, NY

Drilling Contractor/Personnel: ADT/Marty Bachner & Tyler Sarro

Drilling Equip./Method: 7822DT Geoprobe Inspector: Joseph Spaulding

Sampling Method: Direct Push Sampling Method Size/Type of Bit: 2.0" Macro-Core

Elevation/Ground Surface: N/A Start/Finish Date: 8/10/15-8/10/15

Depth to Groundwater (date): 7.5 Well Type: Monitoring Well

Depth (ft.)	Sample No.	Recovery (ft.)	PID (Bkgd/Reading)	Geologic Description	Comments:
0.0					
1.0	S-1			Dark Brown to Black MF Sand; Trace to Little Gravel; Little Silt; Brick/Cinder Pieces; Organics(roots); Dry to Wet at 7.5; Loose	Collected Samples for Lab Analysis at 8.5- 10.0 and 15.0-17.5 No Odors or Staining
2.0					
3.0					
4.0		2.3	0.0/0.0		
5.0	S-2			8.5	Black Stains and Petroleum Odors 8.5- 10.0 No Odors or Staining 11.0-20.0
6.0					
7.0					
8.0		3.0	0.1/7.3		
9.0			0.1/6.4		
10.0	S-3			18.0	
11.0					
12.0		4.0	0.1/7.3		
13.0					
14.0	S-4			19.0	
15.0					
16.0		5.0	0.1/2.0		
17.0					
18.0					
19.0			0.0/1.5	Black Organic Peat Layer	
20.0				Gray to Dark Brown MF Sand; Little Silt; Trace Clay; Trace Gravel; Wet; Loose	
				Bottom of Boring	

Proportions: Trace = 0 - 10% Little = 10 - 20% Some = 20 - 35% And = 35 - 50%

Boring ID: H-33

Project Name/No. First Fairfield 2015-30 Location: 53 Putnam St. Saratoga Springs, NY

Drilling Contractor/Personnel: ADT/Marty Bachner & Tyler Sarro

Drilling Equip./Method: 7822DT Geoprobe Inspector: Joseph Spaulding

Sampling Method: Direct Push Sampling Method Size/Type of Bit: 2.0" Macro-Core

Elevation/Ground Surface: N/A Start/Finish Date: 8/13/15-8/13/15

Depth to Groundwater (date): 9.5 Well Type: None

Depth (ft.)	Sample No.	Recovery (ft.)	PID (Bkgd/Reading)	Geologic Description	Comments:
0.0					
1.0	S-1			Dark Brown CMF Sand; Little Silt; Some MF Gravel; Dry; Loose	Collected Samples for Lab Analysis at 8.8-9.4 and 15.5-17.0 No Staining or Odors
2.0					
3.0					
4.0					
5.0		0.7	0.0/5.4		
6.0	S-2			9.6	
7.0					
8.0					
9.0					
10.0		1.2	0.0/3.9		
			0.0/3.2	Black Organic Peat Layer; Little MF Gray Sand	
11.0	S-3			10.0	No Odors or Staining
12.0					
13.0					
14.0					
15.0		2.0	0.0/3.5	Dark Gray Brown CMF Sand; Little Silt; Little Gravel; Trace Clay; Wet; Loose	
16.0	S-4				
17.0			0.0/2.1		
18.0			0.0/2.4		
19.0				18.7	
				Black Organic Peat Layer	
				19.1	
				Dark Gray MF Sand; Little Silt; Little Clay; Trace Gravel; Wet; Loose	No Odors or Staining
20.0			0.0/2.0		
				Bottom of Boring	

Proportions: Trace = 0 - 10% Little = 10 - 20% Some = 20 - 35% And = 35 - 50%

Boring ID: H-34

Project Name/No. First Fairfield 2015-30 Location: 53 Putnam St. Saratoga Springs, NY

Drilling Contractor/Personnel: ADT/Marty Bachner & Tyler Sarro

Drilling Equip./Method: 7822DT Geoprobe Inspector: Joseph Spaulding

Sampling Method: Direct Push Sampling Method Size/Type of Bit: 2.0" Macro-Core

Elevation/Ground Surface: N/A Start/Finish Date: 8/11/15-8/11/15

Depth to Groundwater (date): 9.5 Well Type: None

Depth (ft.)	Sample No.	Recovery (ft.)	PID (Bkgd/Reading)	Geologic Description	Comments:
0.0					
1.0	S-1			Dark Brown to Gray CMF Sand; Little Silt; Brick/Cinder Pieces; Dry; Loose	Collected Samples for Lab Analysis at 8.0-9.5 and 19.5-20.0
2.0					
3.0					
4.0	S-2				No Odors or Staining
5.0		0.8	0.0/1.6		
6.0					
7.0	S-3			Gray MF Sand; Little Silt; Little Clay; Soft; Wet; Organic Peat Lense 9.4-9.5	
8.0					
9.0		2.0	0.0/3.5		
10.0	S-4		0.0/4.8	Black Organic Peat Layer	No Odors or Staining
11.0					
12.0					
13.0	S-3		0.0/3.0	Gray MF Sand; Little Silt; Little	
14.0		2.3	0.0/1.1		
15.0					
16.0	S-4			Black Organic Peat Layer	
17.0					
18.0					
19.0	S-4		0.0/3.5	Gray MF Sand; Little Silt; Little	
20.0		3.0	0.0/1.4		
			0.0/2.7	Gray MF Sand; Little Silt; Little Clay; Soft; Wet	
				Bottom of Boring	

Proportions: Trace = 0 - 10% Little = 10 - 20% Some = 20 - 35% And = 35 - 50%

Boring ID: H-35

Project Name/No. First Fairfield 2015-30 Location: 53 Putnam St. Saratoga Springs, NY

Drilling Contractor/Personnel: ADT/Marty Bachner & Tyler Sarro

Drilling Equip./Method: 7822DT Geoprobe Inspector: Joseph Spaulding

Sampling Method: Direct Push Sampling Method Size/Type of Bit: 2.0" Macro-Core

Elevation/Ground Surface: N/A Start/Finish Date: 8/11/15-8/11/15

Depth to Groundwater (date): 10.0 Well Type: Monitoring Well

Depth (ft.)	Sample No.	Recovery (ft.)	PID (Bkgd/Reading)	Geologic Description	Comments:
0.0					
1.0	S-1			Brown to Dark Brown CMF Sand; Some MF Gravel; Little Silt; Brick/Cinder Pieces; Dry; Loose	Collected Samples for Lab Analysis at 4.0-5.0 and 18.7-20.0 No Odors or Staining
2.0					
3.0					
4.0					
5.0		1.0	0.0/1.3		
6.0	S-2				
7.0					
8.0					
9.0					
10.0		0.5	0.0/2.3		
11.0	S-3			Dark Brown to Gray/Black CMF Sand; Little CM Gravel; Little to Trace Silt and Clay; Trace Gravel; Moist to Wet; Loose	No Odors or Staining
12.0					
13.0			0.0/1.8		
14.0		4.0			
15.0			0.0/0.3	Black Organic Peat Layer	
16.0	S-4			Dark Brown to Dark Gray CMF Sand; Little MF Gravel; Little Silt; Little Clay; Loose; Wet	No Odors or Staining
17.0					
18.0					
19.0					
20.0		1.2	0.0/1.5		
				Bottom of Boring	

Proportions: Trace = 0 - 10% Little = 10 - 20% Some = 20 - 35% And = 35 - 50%

Boring ID: H-36

Project Name/No. First Fairfield 2015-30 Location: 53 Putnam St. Saratoga Springs, NY

Drilling Contractor/Personnel: ADT/Marty Bachner & Tyler Sarro

Drilling Equip./Method: 7822DT Geoprobe

Inspector: Joseph Spaulding

Sampling Method: Direct Push Sampling Method

Size/Type of Bit: 2.0" Macro-Core

Elevation/Ground Surface: N/A

Start/Finish Date: 8/14/15-8/14/15

Depth to Groundwater (date): ~8.0

Well Type: None

Depth (ft.)	Sample No.	Recovery (ft.)	PID (Bkgd/Reading)	Geologic Description	Comments:
0.0					
1.0	S-1			Dark Brown to Dark gray/Black CMF Sand; Little Silt and Clay; Some MF Gravel; Brick/cinder pieces	Collected Samples for Lab Analysis at 5.5-7.0 and 18.0-20.0
2.0					
3.0					
4.0		1.2	0.0/5.6		No Odors or Staining
5.0					
6.0	S-2		0.0/8.8		
7.0				7.0	No Odors or Staining
8.0		4.5	0.0/7.1	Dark Brown to Dark Gray MF Sand; Little Silt and MF Gravel; Trace Clay; Wet; Loose	
9.0			0.0/4.4	9.5	
10.0				Black Organic Peat Layer 10.0	No Odors or Staining
11.0	S-3				
12.0		4.0	0.0/7.4	Dark Brown to Dark Gray MF Sand; Little Silt and Clay; Trace Gravel; Wet; Loose	
13.0			0.0/2.0	14.0	No Odors or Staining
14.0			0.0/2.1	Black Organic Peat Layer 15.0	
15.0	S-4		0.0/3.9		
16.0		5.0	0.0/2.9	Dark Gray MF Sand; Little Silt and Clay; Trace Gravel; Wet; Loose	No Odors or Staining
17.0			0.0/6.0		
18.0					
19.0					Bottom of Boring
20.0					

Proportions: Trace = 0 - 10% Little = 10 - 20% Some = 20 - 35% And = 35 - 50%

Boring ID: H-37

Project Name/No. First Fairfield 2015-30 Location: 53 Putnam St. Saratoga Springs, NY

Drilling Contractor/Personnel: ADT/Marty Bachner & Tyler Sarro

Drilling Equip./Method: 7822DT Geoprobe

Inspector: Joseph Spaulding

Sampling Method: Direct Push Sampling Method

Size/Type of Bit: 2.0" Macro-Core

Elevation/Ground Surface: N/A

Start/Finish Date: 8/14/15-8/14/15

Depth to Groundwater (date): ~12.0-13.0

Well Type: None

Depth (ft.)	Sample No.	Recovery (ft.)	PID (Bkgd/Reading)	Geologic Description	Comments:
0.0					
1.0	S-1			Dark Brown MF Sand; Little Silt; Little Gravel; Cinder Pieces; Dry; Loose	No Soil Samples Collected for Laboratory Analysis
2.0					
3.0					
4.0	S-2	1.2	0.0/2.8		No Odors or Staining
5.0					
6.0					
7.0	S-3				No Odors or Staining
8.0					
9.0					
10.0	S-4	1.0	0.0/7.2	Brown to Dark Brown MF Sand; Little Silt; Trace Clay and Gravel; Dry; Loose	No Odors or Staining
11.0					
12.0					
13.0	S-3				Petroleum Odor and Staining 13.5-15.0
14.0					
15.0					
16.0	S-4	1.5	0.0/170.6		Petroleum Odor and Black Petroleum Staining 18.5-20.0
17.0					
18.0					
19.0	S-4				
20.0		1.5	0.0/264.5		

Proportions: Trace = 0 - 10% Little = 10 - 20% Some = 20 - 35% And = 35 - 50%

Depth (ft.)	Sample No.	Recovery (ft.)	PID (Bkgd/Reading)	Geologic Description	Comments:
20.0					
21.0	S-5			Dark Brown to Brown MF Sand; Little Silt; Trace Clay and Gravel; Wet; Loose	Petroleum Odor and Staining 23.0-24.9
22.0					
23.0					
24.0		2.0	0.0/168.8		
24.9				Gray Clay with Slight Brown Mottling; Wet; Soft	No Odors or Staining 24.9-25.0 in Clay
25.0				End boring at 25.0	
26.0					
27.0					
28.0					
29.0					
30.0					
31.0					
32.0					
33.0					
34.0					
35.0					
36.0					
37.0					
38.0					
39.0					
40.0					
41.0					
42.0					
43.0					
44.0					
45.0					

Boring ID: H-38

Project Name/No. Firt Fairfield 2015-30 Location: 53 Putnam St. Saratoga Springs, NY

Drilling Contractor/Personnel: ADT/Marty Bachner & Tyler Sarro

Drilling Equip./Method: 7822DT Geoprobe

Inspector: Joseph Spaulding

Sampling Method: Direct Push Sampling Method

Size/Type of Bit: 2.0" Macro-Core

Elevation/Ground Surface: N/A

Start/Finish Date: 8/14/15-8/14/15

Depth to Groundwater (date): ~12.2

Well Type: None

Depth (ft.)	Sample No.	Recovery (ft.)	PID (Bkgd/Reading)	Geologic Description	Comments:
0.0					
1.0	S-1			Brown MF Sand; Little Silt; Trace Clay and Gravel; Dry; Loose	No Soil Samples Collected for Laboratory Analysis No Odors or Staining
2.0					
3.0					
4.0		1.2	0.0/0.9		
5.0	S-2				
6.0					
7.0					
8.0					
9.0		1.5	0.0/4.6		
10.0					
11.0	S-3				
12.0				12.2	
13.0		2.8	0.0/136.7	Dark Gray to Dark Brown MF Sand; Little Silt and Clay; Trace Gravel; Wet; Loose	Petroleum Odors and Staining 13.0-20.0
14.0			0.0/176.4		
15.0	S-4				
16.0		4.0			
17.0			0.0/83.2		
18.0					
19.0			0.0/169.2		
20.0					

Proportions: Trace = 0 - 10% Little = 10 - 20% Some = 20 - 35% And = 35 - 50%

Boring ID: H-38

Project Name/No. First Fairfield 2015-30

Location: 53 Putnam St. Saratoga Springs, NY

Depth (ft.)	Sample No.	Recovery (ft.)	PID (Bkgd/Reading)	Geologic Description	Comments:
20.0					
21.0	S-5	5.0	0.0/33.2	Dark Gray to Dark Brown MF Sand; Little Silt and Clay; trace Gravel; Wet; Loose	Petroleum Odor and Staining 20.0-24.8
22.0					
23.0					
24.0			0.0/120.9		
24.8					
25.0	S-6	3.0		Brown Silty F Sand; Wet; Soft	No Odors or Staining 24.8-30.0
26.0					
27.0			0.0/4.3		
28.0					
28.0					
29.0			0.0/3.6	Gray Clay; Brown Mottling; Wet; Soft	
30.0				End of Boring @30.0	
31.0					
32.0					
33.0					
34.0					
35.0					
36.0					
37.0					
38.0					
39.0					
40.0					
41.0					
42.0					
43.0					
44.0					
45.0					

Proportions: Trace = 0 - 10% Little = 10 - 20% Some = 20 - 35% And = 35 - 50%

Boring ID: H-39

Project Name/No. First Fairfield 2015-30 Location: 53 Putnam St. Saratoga Springs, NY

Drilling Contractor/Personnel: ADT/Marty Bachner & Tyler Sarro

Drilling Equip./Method: 7822DT Geoprobe

Inspector: Joseph Spaulding

Sampling Method: Direct Push Sampling Method

Size/Type of Bit: 2.0" Macro-Core

Elevation/Ground Surface: N/A

Start/Finish Date: 8/14/15-8/14/15

Depth to Groundwater (date): ~9.0

Well Type: None

Depth (ft.)	Sample No.	Recovery (ft.)	PID (Bkgd/Reading)	Geologic Description	Comments:
0.0					
1.0	S-1			Dark Brown to Dark Gray/Black CMF Sand; Some Gravel; Little Silt; Brick/Cinder/Slag Pieces; Dry; Loose	No Soil Samples Collected for Laboratory Analysis No Odors or Staining
2.0					
3.0					
4.0		1.5	0.0/1.0		
5.0	S-2			Dark Gray MF Sand; Little Silt and Clay; Trace Gravel; Wet; Loose Black Organic Peat Layer	Petroleum Odors and Staining 8.8-10.0
6.0					
7.0					
8.0					
9.0		1.2	0.0/57.7	8.8 9.5 10.0	
10.0	S-3			Dark Gray CMF Sand; Little Silt and Clay; Little Gravel; Wet;	Very Slight Petroleum Odors 13.5-15.0, No Petroleum Staining
11.0					
12.0					
13.0					
14.0		1.5	0.0/1.1		
15.0				End Boring at 15.0'	
16.0					
17.0					
18.0					
19.0					
20.0					

Proportions: Trace = 0 - 10% Little = 10 - 20% Some = 20 - 35% And = 35 - 50%

Boring ID: **MW-12**

Project Name/No. First Fairfield 2015-30 Location: 53 Putnam St. Saratoga Springs, NY

Drilling Contractor/Personnel: ADT/Marty Bachner & Tyler Sarro

Drilling Equip./Method: 7822DT Geoprobe

Inspector: Joseph Spaulding

Sampling Method: Direct Push Sampling Method

Size/Type of Bit: 2.0" Macro-Core

Elevation/Ground Surface: N/A

Start/Finish Date: 12/18/15-12/18/15

Depth to Groundwater (date): ~12.0 (Product at 11.0')

Well Type: Monitoring Well

Depth (ft.)	Sample No.	Recovery (ft.)	PID (Bkgd/Reading)	Geologic Description	Comments:
0.0					
1.0	S-1			Brown to Dark Brown MF Sand; Trace Gravel; Brick/Cinder Pieces; Loose; Dry	Collected Sample for Lab Analysis at 14.0 - 15.0' bgs No Odors or Staining
2.0					
3.0					
4.0		1.8	0.0/0.1		
5.0	S-2			9.0	
6.0					
7.0					
8.0		3.0	0.0/0.2		
9.0					
10.0			0.0/2.7	Dark Brown to Black MF Sand; Trace MF Gravel; Little Silt; Soft; Wet	Black Staining and Petroleum Odors at 12.0 - 20.0'
11.0	S-3				
12.0			0.0/0.7		
13.0		3.5	0.0/31.2		
14.0			0.0/76.2		
15.0					
16.0	S-4				
17.0					
18.0					
19.0		3.2	0.0/64.2		
20.0					
				Bottom of Boring	

Proportions: Trace = 0 - 10% Little = 10 - 20% Some = 20 - 35% And = 35 - 50%

Boring ID: **MW-13**

Project Name/No. First Fairfield 2015-30 Location: 53 Putnam St. Saratoga Springs, NY

Drilling Contractor/Personnel: ADT/Marty Bachner & Tyler Sarro

Drilling Equip./Method: 7822DT Geoprobe

Inspector: Joseph Spaulding

Sampling Method: Direct Push Sampling Method

Size/Type of Bit: 2.0" Macro-Core

Elevation/Ground Surface: N/A

Start/Finish Date: 12/18/15-12/18/15

Depth to Groundwater (date): 10.76 (12/22/15)

Well Type: Monitoring Well

Depth (ft.)	Sample No.	Recovery (ft.)	PID (Bkgd/Reading)	Geologic Description	Comments:
0.0					
1.0	S-1			Dark Brown to Brown CMF Sand; Little MF Gravel; Brick/Cinder Fragments; Loose; Dry	Collected Sample for Lab Analysis at 8.5 - 10.0' bgs No Odors or Staining
2.0					
3.0					
4.0		2.0	0.0/0.5		
5.0	S-2			8.5	
6.0					
7.0					
8.0					
9.0	S-3	1.5	0.0/0.3	Brown CMF Sand; Trace MF Gravel; Little Silt; Loose; Soft and Wet at ~13.5'	No Odors or Staining
10.0					
11.0					
12.0					
13.0	S-4				
14.0		2.0	0.0/0.3		
15.0					
16.0					
17.0	S-4				
18.0			0.0/0.6		
19.0		3.0			
20.0			0.0/0.7		
				Bottom of Boring	

Proportions: Trace = 0 - 10% Little = 10 - 20% Some = 20 - 35% And = 35 - 50%



Sterling Environmental Engineering, P.C.

Page 1 of 1**Boring ID:** **MW-14**Project Name/No. First Fairfield 2015-30 Location: 53 Putnam St. Saratoga Springs, NYDrilling Contractor/Personnel: ADT/Marty Bachner & Tyler SarroDrilling Equip./Method: 7822DT GeoprobeInspector: Joseph SpauldingSampling Method: Direct Push Sampling MethodSize/Type of Bit: 2.0" Macro-CoreElevation/Ground Surface: N/AStart/Finish Date: 12/18/15-12/18/15Depth to Groundwater (date): 9.22 (12/22/15)Well Type: Monitoring Well

Depth (ft.)	Sample No.	Recovery (ft.)	PID (Bkgd/Reading)	Geologic Description	Comments:
0.0					
1.0	S-1			Dark Brown to Brown CMF Sand; Little Silt; Little MF Gravel; Brick/Cinder Fragments; Loose; Dry	Collected Sample for Lab Analysis at 8.0 - 10.0' bgs No Odors or Staining
2.0					
3.0					
4.0		1.5	0.0/1.5		
5.0	S-2			8.0	
6.0					
7.0					
8.0					
9.0	S-3	2.0	0.0/0.3	Brown to Dark Brown MF Sand; Little Silt; Soft; Wet	No Odors or Staining
10.0					
11.0					
12.0					
13.0	S-4				
14.0		2.0	0.0/0.3		
15.0					
16.0					
17.0	S-4		0.0/0.4		
18.0		4.5			
19.0			0.0/0.3		
20.0					
				Bottom of Boring	

Proportions: Trace = 0 - 10% Little = 10 - 20% Some = 20 - 35% And = 35 - 50%

Boring ID: MW-15

Project Name/No. <u>First Fairfield 2015-30</u>	Location: <u>53 Putnam St. Saratoga Springs, NY</u>
Drilling Contractor/Personnel: <u>ADT/Marty Bachner & Tyler Sarro</u>	
Drilling Equip./Method: <u>7822DT Geoprobe</u>	Inspector: <u>Joseph Spaulding</u>
Sampling Method: <u>Direct Push Sampling Method</u>	Size/Type of Bit: <u>2.0" Macro-Core</u>
Elevation/Ground Surface: <u>N/A</u>	Start/Finish Date: <u>12/21/15-12/21/15</u>
Depth to Groundwater (date): <u>8.20 (12/22/15)</u>	Well Type: <u>Monitoring Well</u>

Depth (ft.)	Sample No.	Recovery (ft.)	PID (Bkgd/Reading)	Geologic Description	Comments:
0.0					
1.0	S-1			Brown to Dark Brown MF Sand; Trace CM Gravel; Soft; Moist	Collected Sample for Lab Analysis at 8.4 - 10.0' bgs No Odors or Staining
2.0					
3.0					
4.0		1.7	0.0/0.6		
5.0	S-2				
6.0					
7.0					
8.0		1.6	0.0/0.7		
9.0	S-3				
10.0					
11.0					
12.0					
13.0					
13.1				13.1	No Odors or Staining
14.0		2.1	0.0/0.4	Dark Gray CMF Sand; Little Silt; Trace F Gravel; Soft; Wet	
14.0			0.0/0.4	14.0	
15.0	S-4			Dark Brown to Black Organic Peat Layer; Medium Stiff; Moist	No Odors or Staining
16.0					
17.0		4.5	0.0/0.3	17.0	
18.0			0.0/0.3	Dark Gray CMF Sand; Little Silt; Soft; Wet	
18.0				18.0	
19.0			0.0/0.4	Gray to Light Gray Clay; Slight Brown Mottling; Medium Soft, Wet	
20.0					
				Bottom of Boring	

Proportions: Trace = 0 - 10% Little = 10 - 20% Some = 20 - 35% And = 35 - 50%

Boring ID: MW-16

Project Name/No. <u>First Fairfield 2015-30</u>	Location: <u>53 Putnam St. Saratoga Springs, NY</u>
Drilling Contractor/Personnel: <u>ADT/Marty Bachner & Tyler Sarro</u>	
Drilling Equip./Method: <u>7822DT Geoprobe</u>	Inspector: <u>Joseph Spaulding</u>
Sampling Method: <u>Direct Push Sampling Method</u>	Size/Type of Bit: <u>2.0" Macro-Core</u>
Elevation/Ground Surface: <u>N/A</u>	Start/Finish Date: <u>12/21/15-12/21/15</u>
Depth to Groundwater (date): <u>8.03 (12/22/15)</u>	Well Type: <u>Monitoring Well</u>

Depth (ft.)	Sample No.	Recovery (ft.)	PID (Bkgd/Reading)	Geologic Description	Comments:	
0.0						
1.0	S-1			Brown to Dark Brown CMF Sand; Little Silt; Little MF Gravel; Brick/Cinder Pieces; Loose; Dry	Collected Sample for Lab Analysis at 10.5 - 12.0' bgs No Odors or Staining	
2.0						
3.0						
4.0		2.2	0.0/0.2			
5.0			0.0/0.3			
6.0	S-2			9.0	No Odors or Staining	
7.0						
8.0						
9.0		2.3	0.0/0.2			
10.0			0.0/1.4			
11.0	S-3			Dark Gray to black CMF Sand; trace Silt; Soft; Wet	No Odors or Staining	
12.0			0.0/0.4			
13.0		4.3	0.0/2.6	13.6		
14.0			0.0/2.2	Dark Brown to Black Organic Peat	15.0	
15.0					Slight Organic Peat Odors	
16.0	S-4	5.0	0.0/1.9	Dark Gray to Black CMF Sand; Trace Silt; Soft; Wet		17.5
17.0						
18.0				0.0/0.8	Dark Brown to Black Organic Peat Layer	19.0
19.0			0.0/0.8	Brown MF Sand and Silt; Soft; Wet	No Odors or Staining	
20.0				Bottom of Boring		

Proportions: Trace = 0 - 10% Little = 10 - 20% Some = 20 - 35% And = 35 - 50%

Boring ID: **MW-17**

Project Name/No. First Fairfield 2015-30

Location: 53 Putnam St. Saratoga Springs, NY

Drilling Contractor/Personnel: ADT/Marty Bachner & Tyler Sarro

Drilling Equip./Method: 7822DT Geoprobe

Inspector: Joseph Spaulding

Sampling Method: Direct Push Sampling Method

Size/Type of Bit: 2.0" Macro-Core

Elevation/Ground Surface: N/A

Start/Finish Date: 12/18/15-12/21/15

Depth to Groundwater (date): 8.40 (12/22/15)

Well Type: Monitoring Well

Depth (ft.)	Sample No.	Recovery (ft.)	PID (Bkgd/Reading)	Geologic Description	Comments:
0.0					
1.0	S-1			Dark Brown to Brown to Gray CMF Sand; Little Silt; Brick/Cinder Pieces; Loose; Dry	Collected Sample for Lab Analysis at 8.5 - 10.0' bgs No Odors or Staining
2.0					
3.0					
4.0		2.5	0.0/0.3		
5.0	S-2			8.5	
6.0					
7.0					
8.0					
9.0	S-3	1.5	0.0/0.4	Dark Brown to Dark Gray CMF Sand; Little Silt; Trace F Gravel; Medium Dense to Soft; Wet	No Odors or Staining
10.0					
11.0					
12.0					
13.0	S-4		0.0/0.3	Black Organic Peat Layer; Medium Stiff; Moist	No Odors or Staining
14.0			0.0/0.4		
15.0					
16.0					
17.0	S-4			Dark Brown to Dark Gray MF Sand; Little Silt; Trace Clay; Soft; Wet	
18.0					
19.0		2.1	0.0/0.2		
20.0					
				Bottom of Boring	

Proportions: Trace = 0 - 10% Little = 10 - 20% Some = 20 - 35% And = 35 - 50%

Boring ID: EB-1

Location: Saratoga Springs, NY

Inspector: PWS

Size/Type of Bit: 2 1/4"

Start/Finish Date: 11-8-2021

Well Type: Eff. Monitoring Boring

Project Name/No. 53 Putnam Street
Drilling Contractor/Personnel: IET
Drilling Equipment: AMS Power Probe 9580-VTR
Sampling Method: Macro Core
Elevation/Ground Surface: 271.3' dmsl
Depth to Groundwater (date): 7.4' bgs (11-8-2021)

Depth (ft.)	Sample No.	Recovery (ft.)	PID (Bkgd/Reading)	Geologic Description	Comments:
0.0					
1.0	1	5.0	0.0 / 0.0	Brn to Gr m(+)CS, some m(+)C	No odor, No Staining No Elevated PID. Hand Augered to 5.0'
2.0				G, little \$, concrete and red brick	
3.0				fragments; loose; dry to moist.	
4.0				[SP-GP]	
4.0				(Fill) 4.0	
5.0	1	2.4	0.0 / 0.0	Br. m(+)CS, little f(+)mG,	No Odor; No Staining; No Elevated PID Water ~ 7.4' bgs.
6.0				little \$; loose; moist to wet	
7.0				[SP-GP]	
8.0					
9.0	3	5.0	0.0 / 0.0		No Odor; No Staining; No Elevated PID
10.0					
11.0					
12.0					
13.0				(Glaciofluvial) 13.8'	Sample taken 13-15' bgs
14.0				Dk Brn Peat, moist 14.5'	
15.0				Gr, m(+)CS, little \$, loose, wet 15.0'	
16.0				End of Boring	
17.0					
18.0					
19.0					
20.0					

Boring ID: EB-2

Location: Saratoga Springs, NY

Inspector: PWS

Size/Type of Bit: 2 1/4"

Start/Finish Date: 11-8-2021

Well Type: Boring

Project Name/No. 53 Putnam Street
Drilling Contractor/Personnel: IET
Drilling Equipment: AMS Power Probe 9580-VTR
Sampling Method: Macro Core
Elevation/Ground Surface: 272.2' AMSL
Depth to Groundwater (date): 6.4' bgs (11-8-2021)

Depth (ft.)	Sample No.	Recovery (ft.)	PID (Bkgd/Reading)	Geologic Description	Comments:
0.0					
1.0	1	1.0	0.0 / 0.0	Br to Gr m(+) <u>CS</u> , some m(+) <u>C</u>	No Odors; No Staining No Elevated PID
2.0				G, little \$, concrete fragments	
3.0				loose, moist	
4.0				(SP-GP)	
5.0				(FILL)	
6.0	2	1.4	0.0 / 0.0		App. Formation Change
7.0					Water ~ 6.4' bgs.
8.0				Br, m(+) <u>CS</u> , little A(+) <u>MG</u> ,	No Odors
9.0				little \$; loose, wet.	No Staining
10.0				(SP-GP)	No Elevated PID
11.0	3	1.8	0.0 / 7.6		No Odors, No Staining; Elevated PID
12.0					
13.0					
14.0				(Glaciofluvial)	
15.0				Dr Br Peat; moist	
16.0				End of Boring	Sample Taken 13-15' bgs.
17.0					
18.0					
19.0					
20.0					

Project Name/No. 53 Putnam Street
 Drilling Contractor/Personnel: IET
 Drilling Equipment: AMS Power Probe 9580-VTR
 Sampling Method: macro core
 Elevation/Ground Surface: 872.4' amsl
 Depth to Groundwater (date): 7.6' bgs (11-8-2021)

Boring ID: EB-3

Location: Saratoga Springs, NY

Inspector: PWS

Size/Type of Bit: 2 1/4"

Start/Finish Date: 11-8-2021

Well Type: Eff. Monitoring Boring

Depth (ft.)	Sample No.	Recovery (ft.)	PID (Bkgd/Reading)	Geologic Description	Comments:
0.0					
1.0					
2.0	1	1.2	0.0 / 0.0	Br to Gr m (+) C S, some m (+) G, little \$, concrete fragments; loose; moist (SP-GP)	No Odors; No Staining; No Elevated PID
3.0					
4.0					
5.0				[FILL] 5.0'	App. Formation Change
6.0					
7.0	2	2.6'	0.0 / 0.0	Br to Gr m (+) C S, little fl (+) G, little \$; loose; wet (SP-GP)	✓ App. Ground Water at 7.6' bgs
8.0					No Odors; No Staining; No Elevated PID
9.0					
10.0					
11.0					No Odors; No Staining; No Elevated PID
12.0	3	1.8'	0.0 / 0.8		
13.0					
14.0				(GLACIOFLUVIAL) 14.2'	
15.0				Drum Peat; moist 15.0'	
16.0				END OF BORING	Sample Taken 13-15' bgs.
17.0					
18.0					
19.0					
20.0					

Boring ID: EB-4

Project Name/No. 53 Putnam Street
 Drilling Contractor/Personnel: IET
 Drilling Equipment: AMS Power Probe 9580-VTR
 Sampling Method: Macro Core
 Elevation/Ground Surface: 273.0' amsl.
 Depth to Groundwater (date): 7.4' bgs (11-8-2021)

Location: Saratoga Springs, NY
 Inspector: PWS
 Size/Type of Bit: 2 1/4"
 Start/Finish Date: 11-8-2021
 Well Type: Boring

Depth (ft.)	Sample No.	Recovery (ft.)	PID (Bkgd/Reading)	Geologic Description	Comments:
0.0					
1.0					
2.0	1	0.6	0.0 / 0.0	Br to Gr m(+)CS, some m(+)CG, little \$, concrete fragments (SP-GP)	No Odors, No Staining, No Elevated PID
3.0					
4.0					
5.0					
6.0					
7.0	2	2.4	0.0 / 77.2	FILL	Sweet Odor, No Staining, Elevated PID
8.0					
9.0				Br to Gr m(+)CS, little f(+)mG, little \$; loose; wet (SP-GP)	~ Water at 7.4' bgs.
10.0					
11.0					
12.0	3	3.5	0.0 / 556.2		sweet Odor; No Staining; Elevated PID
13.0					
14.0				GLACIOFLUVIALINE	
15.0				Drk Brn Peat, moist	
16.0				END OF BORING	Sample Taken 13-15' bgs.
17.0					
18.0					
19.0					
20.0					

Boring ID: EB-5

Location: Saratoga Springs, NY

Project Name/No. 53 Putnam Street

Drilling Contractor/Personnel: IE T

Inspector: PWS

Drilling Equipment: AMS Power Probe 9580-VTR

Size/Type of Bit: 2 1/4"

Sampling Method: Macro Core

Start/Finish Date: 11-8-2021

Elevation/Ground Surface: 278.3' amsl

Well Type: EP Monitoring Boring

Depth to Groundwater (date): 13.5' bgs (11-8-2021)

Depth (ft.)	Sample No.	Recovery (ft.)	PID (Bkgd/Reading)	Geologic Description	Comments:
0.0					
1.0					
2.0	1	1.2	0.0 / 0.0	Br to Gr m(+)LS, some m(+)LG, little \$, red brick and concrete fragments; loose; dry. (SP-GP)	No odor; No staining; No Elevated PID
3.0					
4.0					
5.0					
6.0					
7.0	2	1.1	0.7 / 2.3	FILL 7.0' Br m(+)LS, little f(m)G, little \$, loose; wet (SP-GP)	
8.0					
9.0					
10.0					
11.0					
12.0	3	2.0	7.8 / 80.0		Petro odor; Black staining; Elevated PID (9.9'-22.2') Free Product (13.5'-13.8' bgs) Water 13.5'
13.0					
14.0					
15.0					
16.0					
17.0	4	2.6	14.0 / 67.2		
18.0					
19.0					
20.0				GLACIOFLUVIAL 20.0'	Sample taken 18-20' bgs.

Proportions: Trace = 0 - 10% Little = 10 - 20% Some = 20 - 35% And = 35 - 50%

Boring ID: EB-5

Project Name/No. 53 Putnam Street
 Drilling Contractor/Personnel: IET
 Drilling Equipment: AMS Power Probe 9580-VTR
 Sampling Method: Macro Core
 Elevation/Ground Surface: 278.3' amsl
 Depth to Groundwater (date): 13.5' bgs. (11-8-2021)

Location: Saratoga Springs, NY
 Inspector: PWS
 Size/Type of Bit: 2 1/4"
 Start/Finish Date: 11-8-2021
 Well Type: Eff Monitoring Boring

Depth (ft.)	Sample No.	Recovery (ft.)	PID (Bkgd/Reading)	Geologic Description	Comments:
20.0					
21.0	5	4.7	12.1 / 31.8	Brn m(+)CS, little \$, med firm, wet [SP-ML]	Petro Odor, Black Staining, Elevated PID
22.0					
23.0				Brn \$ and C, med stiff, wet [ML-CL]	
24.0					
25.0				GLACIOFLUVIAL END OF BORING	
26.0					
27.0					
28.0					
29.0					
30.0					
31.0					
32.0					
33.0					
34.0					
35.0					
36.0					
37.0					
38.0					
39.0					
40.0					

Project Name/No. 53 Putnam Street
 Drilling Contractor/Personnel: IET
 Drilling Equipment: Ams Power Probe 9580 VTR
 Sampling Method: Macro Core
 Elevation/Ground Surface: 277.3' amsl
 Depth to Groundwater (date): 14.5' bgs (11-8-2021)

Boring ID: EB-6
 Location: Saratoga Springs, NY
 Inspector: TWS
 Size/Type of Bit: 2 1/4"
 Start/Finish Date: 11-8-2021
 Well Type: Eff Soil Boring

Depth (ft.)	Sample No.	Recovery (ft.)	PID (Bkgd/Reading)	Geologic Description	Comments:
0.0					
1.0	1	1.2	0.0 / 0.0	Brn to Gr m(+)cS, some m(+)cG, little \$, concrete and brick pieces, loose; moist [SP-GP]	No Odor; No Staining; No Elevated PID
2.0					
3.0					
4.0					
5.0	2	2.3	0.0 / 0.0	Br m(+)cS, little f(m)G, little \$; med dense, [SP-GP]	No Odor; No Staining; No Elevated PID
6.0					
7.0					
8.0					
9.0	3	2.8	4.5 / 26.9	Br m(+)cS, little f(m)G, little \$; med dense, [SP-GP]	Petro Odor; Black staining; Elevated PID (14.9' - 25.0') Water @ 14.5
10.0					
11.0					
12.0					
13.0	4	2.7	8.5 / 64.8	Br m(+)cS, little f(m)G, little \$; med dense, [SP-GP]	Sample taken 18-20' bgs
14.0					
15.0					
16.0					
17.0					
18.0					
19.0					
20.0					

Project Name/No. 53 Putnam Street
 Drilling Contractor/Personnel: IET
 Drilling Equipment: AMS Power Probe 9580-VTR
 Sampling Method: Macro Core
 Elevation/Ground Surface: 277.3' amsl
 Depth to Groundwater (date): 14.5' Ags (11-8-2021)

Boring ID: EB-6
 Location: Saratoga Springs, NY
 Inspector: PWS
 Size/Type of Bit: 2 1/4"
 Start/Finish Date: 11-8-2021
 Well Type: Eff. Monitoring Boring

Depth (ft.)	Sample No.	Recovery (ft.)	PID (Bkgd/Reading)	Geologic Description	Comments:
20.0					
21.0	5	2.2	13.6 / 60.6	Brn to Gray m(+)LS, little \$, med dense, wet [SP-ML]	Petro Odor; Black staining, Elevated AD
22.0					
23.0					
24.0					
25.0				GLACIOFLUVIAL 25.0'	
26.0				End of Boring	
27.0					
28.0					
29.0					
30.0					
31.0					
32.0					
33.0					
34.0					
35.0					
36.0					
37.0					
38.0					
39.0					
40.0					

Project Name/No. 53 Putnam Street
 Drilling Contractor/Personnel: IET
 Drilling Equipment: AMS Power Probe 9580-VTR
 Sampling Method: Macro Core
 Elevation/Ground Surface: 277.3' amsl
 Depth to Groundwater (date): 13.0' bgs (11-8-2021)

Boring ID: ER-7
 Location: Saratoga Springs, NY
 Inspector: PWS
 Size/Type of Bit: 2 1/4"
 Start/Finish Date: 11-8-2021
 Well Type: Eff Monitoring Boring

Depth (ft.)	Sample No.	Recovery (ft.)	PID (Bkgd/Reading)	Geologic Description	Comments:
0.0					
1.0	1	1.8	0.0 / 0.6	Brn to Gray m(+)CS, little mf(+)G, little \$, brick and concrete fragments; loose; moist. [SP-GP]	No Odors; No Staining; No Elevated PID
2.0					
3.0					
4.0					
5.0	2	0.9	0.0 / 0.0	FILL 7.5'	No Odors; No Staining; No Elevated PID
6.0					
7.0					
8.0					
9.0	3	3.4	31.5 / 54.8	Brn m(+)CS, little mf(+)G, little \$, loose; wet [SP-GP]	Water at ~13.0' Pet no odor Black Staining Elevated PID (13.2-25' bgs)
10.0					
11.0					
12.0					
13.0	4	4.8	10.3 / 48.2	GLACIOFLUVIAL	
14.0					
15.0					
16.0					
17.0					
18.0					
19.0					
20.0					

Boring ID: EB-7

Project Name/No. 53 Putnam Street
 Drilling Contractor/Personnel: JET
 Drilling Equipment: AMS Power Probe 9580-VTR
 Sampling Method: Macro Core
 Elevation/Ground Surface: 277.3' AMSL
 Depth to Groundwater (date): 13.0' bgs (11-8-2021)

Location: Saratoga Springs, NY
 Inspector: PWS
 Size/Type of Bit: 2 1/4"
 Start/Finish Date: 11-8-2021
 Well Type: Env. Soil Boring

Depth (ft.)	Sample No.	Recovery (ft.)	PID (Bkgd/Reading)	Geologic Description	Comments:
20.0					
21.0					
22.0	5	5.0	23.2 60.6	Brn to Gray med c S, little \$, med dense, wet. [SP-ML]	Petro odor; Black staining; Elevated PID Sample taken 23-25' bgs
23.0					
24.0					
25.0					
26.0				GLACIOFLUVIAL END OF Boring	
27.0					
28.0					
29.0					
30.0					
31.0					
32.0					
33.0					
34.0					
35.0					
36.0					
37.0					
38.0					
39.0					
40.0					

Boring ID: EB-1A

Location: Saratoga Springs, NY

Inspector: PWS

Size/Type of Bit: 2 1/4"

Start/Finish Date: 11-29-2021

Well Type: Eff. Monitoring Boring

Project Name/No. 53 Putnam Street
Drilling Contractor/Personnel: IPT
Drilling Equipment: 7822 DT Geoprobe
Sampling Method: Macro Core
Elevation/Ground Surface: 271.7' amsl
Depth to Groundwater (date): 7.0' bgs (11-29-2021)

Depth (ft.)	Sample No.	Recovery (ft.)	PID (Bkgd/Reading)	Geologic Description	Comments:
0.0					
1.0					
2.0	1	2.8	0.0 / 0.0	Br m(+) <u>C</u> S, some m(+) <u>C</u> G, little \$, red brick and concrete fragments, loose moist (SP-6P)	
3.0					
4.0					
5.0					
6.0					
7.0	2	4.8	0.0 / 0.0	Br m(+) <u>C</u> S little f G, little \$; loose, <u>FILL</u>	No Odors; No Staining; No Elevated PID
8.0					Water at ~7.0' bgs
9.0					
10.0					
11.0					
12.0	3	5.0	0.0		
13.0					
14.0					
15.0				GLACIOFLUVIAL Blk organic Peat, moist	Sample taken 13-15' bgs.
16.0				END OF BORING	
17.0					
18.0					
19.0					
20.0					

Proportions: Trace = 0 - 10% Little = 10 - 20% Some = 20 - 35% And = 35 - 50%

Boring ID: EB-2A

Location: Saratoga Springs, NY

Inspector: PWS

Size/Type of Bit: 2 1/4"

Start/Finish Date: 11-29-2021

Well Type: Est. Monitoring Boring

Project Name/No. 53 Putnam Street
 Drilling Contractor/Personnel: IPT
 Drilling Equipment: 7822 DT Geoprobe
 Sampling Method: Macro Core
 Elevation/Ground Surface: 272.0' amsl
 Depth to Groundwater (date): 6.8' bgs (11-29-2021)

Depth (ft.)	Sample No.	Recovery (ft.)	PID (Bkgd/Reading)	Geologic Description	Comments:
0.0					
1.0					
2.0					
3.0	1	2.1	0.0 / 0.0	Br-Gr m(+) c S, Some m(+) c G, little \$, concrete fragments; loose; moist (SP-GP)	
4.0					
5.0					5.0'
6.0					
7.0					
8.0	2	2.7	0.0 / 0.0	Br m(+) c S, little f(+) m G, little \$; loose, wet (SP-GP)	Water at ~6.8' bgs
9.0					No odor; No staining; No Elevated PID
10.0					
11.0					
12.0					
13.0	3	5.0	0.0 / 0.0	GLACIOFLUVIAL	
14.0				Blk organic Peat, moist.	Sample taken 13-15' bgs.
15.0					
16.0				END OF BORING	
17.0					
18.0					
19.0					
20.0					

Project Name/No. 53 Putnam Street
 Drilling Contractor/Personnel: IPT
 Drilling Equipment: Geoprobe 7822DT
 Sampling Method: Macro Core
 Elevation/Ground Surface: 272.5' amsl
 Depth to Groundwater (date): 7.5' bgs (11-29-2021)

Boring ID: EB-3A
 Location: Saratoga Springs, NY
 Inspector: PWS
 Size/Type of Bit: 2 1/4
 Start/Finish Date: 11-29-2021
 Well Type: Eff. Monitoring Boring

Depth (ft.)	Sample No.	Recovery (ft.)	PID (Bkgd/Reading)	Geologic Description	Comments:
0.0					
1.0	1	2.4	0.0	Br-Gr m(+)c S, some m(+)c G; little \$, brick and concrete fragments; loose; moist	
2.0					
3.0					
4.0					
5.0	2	4.8	0.0 / 0.0	Br-Gr m(+)c S, little firm G, little \$, loose; wet (SP-GP)	No Odors; No Staining; No Elevated PID
6.0					
7.0					
8.0					
9.0	3	5.0	0.0 / 0.0	Br-Gr m(+)c S, little firm G, little \$, loose; wet (SP-GP)	8.2' Water ~ 7.5' bgs.
10.0					
11.0					
12.0					
13.0				GLAUCALUSTINE 13.2	Sample Taken 13-15' bgs
14.0				Blk organic Peat; moist 13.9	
15.0				Gr m(+)c S, little \$, loose; wet (SP) GLAUCALUSTINE 15.0	
16.0				END OF BORING	
17.0					
18.0					
19.0					
20.0					

Boring ID: EB-4A

Location: Saratoga Springs, NY

Inspector: PWS

Size/Type of Bit: 2 1/4

Start/Finish Date: 11-29-2021

Well Type: Eff. Monitoring Boring

Project Name/No. 53 Putnam Street
 Drilling Contractor/Personnel: FPT
 Drilling Equipment: 7820 DT Geoprobe
 Sampling Method: MCCA Core
 Elevation/Ground Surface: 273.0' amsl
 Depth to Groundwater (date): 7.5' bgs (11-29-2021)

Depth (ft.)	Sample No.	Recovery (ft.)	PID (Bkgd/Reading)	Geologic Description	Comments:
0.0					
1.0	1	2.2	0.0 / 0.0	Br Gr m(+) cS, some m(+) cG, little \$, concrete fragments	No Odors; No Staining; No Elevated PID
2.0				Moist (SP-GP)	
3.0					
4.0					
5.0					
6.0	2	3.4	0.0 / 308.2		Sweet Odor; No Staining; Elevated PID
7.0				Water ~ 7.5' ↓	
8.0				FILL	
9.0					
10.0				Gr m(+) cS, little f G, little f(+) mG, little \$; loose, wet. (SP-GP)	
11.0	3	5.0	0.0 / 1476.0		Sample taken 13-15' bgs.
12.0					
13.0				GLACIOFLUVIAL	
14.0				Blk Organic Peat, moist	
15.0				End of Boring	
16.0					
17.0					
18.0					
19.0					
20.0					

Proportions: Trace = 0 - 10% Little = 10 - 20% Some = 20 - 35% And = 35 - 50%

Project Name/No. 53 Putnam Street
 Drilling Contractor/Personnel: IPT
 Drilling Equipment: 7822 DT Geoprobe
 Sampling Method: Macro core
 Elevation/Ground Surface: 277.0' amsl
 Depth to Groundwater (date): 10.77' bgs (12-14-2021)

Boring ID: MW-18
 Location: Saratoga Springs, NY
 Inspector: PWS
 Size/Type of Bit: 2 1/4"
 Start/Finish Date: 11-29-2021
 Well Type: Monitoring Well /
EA Monitoring Boring

Depth (ft.)	Sample No.	Recovery (ft.)	PID (Bkgd/Reading)	Geologic Description	Comments:
0.0					
1.0				Br-Gr m(+)C S, some m(+)fG	
2.0				little \$, red brick and	
3.0	1	2.5	0.0 / 0.0	concrete fragments; loose moist. (SP-GP)	
4.0				Fill	
5.0				Brn m(+)C S, some f(+)m G,	
6.0				little \$; loose; moist to wet.	
7.0				(SP-GP)	
8.0	2	3.7	0.0 / 0.0		
9.0					
10.0					
11.0				GLACIOFLUVIAL 11.3	
12.0	3	4.8	0.0 / 0.0	Blk organic Peat 11.6'	
13.0				Br m(+)C S, little f(+)m G,	
14.0				little \$; loose; wet.	
15.0				(SP-GP)	
16.0					
17.0					
18.0	4	5.0	0.0 / 0.0		
19.0					
20.0				GLACIOFLUVIAL 19.7	
				Brn Sand C, med dense; moist (MH-CU) 20.0'	

No Odors;
 No Staining;
 No Elevated PID

Water at ~9.0'

Sample taken
 18-20' bgs.

Project Name/No. 53 Putnam Street
 Drilling Contractor/Personnel: IPT
 Drilling Equipment: 7822 DT Geoprobe
 Sampling Method: Macro Core
 Elevation/Ground Surface: 277.0' amsl
 Depth to Groundwater (date): 10.77' bgs (12-14-2021)

Boring ID: MW-18

Location: Saratoga Springs, NY
 Inspector: PW
 Size/Type of Bit: 2 1/4"
 Start/Finish Date: 11-29-2021
 Well Type: Monitoring Well /
Eff. Monitoring Boring

Depth (ft.)	Sample No.	Recovery (ft.)	PID (Bkgd/Reading)	Geologic Description	Comments:
20.0					
21.0	5	2.0	0.0/0.0	Br to Gray m(t)cs, little \$	No Odor; No Staining, No Elevated PID
22.0				med dense; wet. (SD-MW) glacioluvial 22.0'	
23.0				End of Boring	
24.0					
25.0					
26.0					
27.0					
28.0					
29.0					
30.0					
31.0					
32.0					
33.0					
34.0					
35.0					
36.0					
37.0					
38.0					
39.0					
40.0					

Project Name/No. 53 Putnam Street
 Drilling Contractor/Personnel: IPT
 Drilling Equipment: 7822DT Geoprobe
 Sampling Method: Macro Core
 Elevation/Ground Surface: 276.2' amsl
 Depth to Groundwater (date): 10.87' bgs (12-14-2021)

Boring ID: MW-19
 Location: Saratoga Springs, NY
 Inspector: PWS
 Size/Type of Bit: 8" 1/4"
 Start/Finish Date: 11-29-2021
 Well Type: Monitoring Well / Eff. Monitoring Boring

Depth (ft.)	Sample No.	Recovery (ft.)	PID (Bkgd/Reading)	Geologic Description	Comments:
0.0					
1.0					
2.0					
3.0	1	3.0	0.0 / 0.0	Br-Gr m(+)CS, some f(+)G, little \$, red brick and concrete fragments; loose, moist (SP-GP)	No Odors; No Staining; No Elevated PID
4.0					
5.0					
6.0					
7.0					
8.0	2	3.1	3.4 / 18.5	FILL	
9.0					
10.0					
11.0					
12.0					
13.0	3	5.0	1.8 / 16.8	Br m(+)CS, some f(+)mG, little \$; loose, wet. (SP-GP)	Water 9.0' - 7.3'-11.1', petro odor; staining; elevated PID
14.0					
15.0					
16.0					
17.0					
18.0	4	5.0	0.0 / 0.0		No Odors; No Staining; No Elevated PID
19.0					
20.0				GLACIOFLUVIAL	Sample taken 18-20' bgs

Project Name/No. 53 Putnam Street
 Drilling Contractor/Personnel: IPT
 Drilling Equipment: 7822DT Geoprobe
 Sampling Method: Macro Core
 Elevation/Ground Surface: 276.2' AMSL
 Depth to Groundwater (date): 10.87' bgs (12-14-2021)

Boring ID: MW-19

Location: Saratoga Springs, NY

Inspector: PWS

Size/Type of Bit: 2 1/4"

Start/Finish Date: 11-29-2021

Well Type: Monitoring Well /

Eff. Monitoring Boring

Depth (ft.)	Sample No.	Recovery (ft.)	PID (Bkgd/Reading)	Geologic Description	Comments:
20.0					
21.0	NA	NA	NA	Direct Push 20-22' bgs No sample taken	NA
22.0					
23.0				END OF BORING	
24.0					
25.0					
26.0					
27.0					
28.0					
29.0					
30.0					
31.0					
32.0					
33.0					
34.0					
35.0					
36.0					
37.0					
38.0					
39.0					
40.0					

Project Name/No. 53 Putnam Street
 Drilling Contractor/Personnel: EPT
 Drilling Equipment: 7822 DT Geoprobe
 Sampling Method: MacroCore
 Elevation/Ground Surface: 279.8' AMSL
 Depth to Groundwater (date): 13.48' bgs (12-14-2021)

Boring ID: MW-20

Location: Saratoga Springs, NY

Inspector: PWS

Size/Type of Bit: 2 1/4"

Start/Finish Date: 11-29-2021

Well Type: Monitoring Well /
Eff. Monitoring Boring

Depth (ft.)	Sample No.	Recovery (ft.)	PID (Bkgd/Reading)	Geologic Description	Comments:
0.0					
1.0					
2.0					
3.0	1	1.6	0.0 / 0.0	Br-Gr m(+)CS, some m(+)CG, little \$, concrete and brick fragments; loose; moist (SP-GP)	
4.0					
5.0				FILL 5.0'	
6.0					
7.0	2	2.8	0.0 / 0.0	Brn m(+)CS, some f(+)mG, little \$; loose; moist to wet. (SP-GP)	No Odors; No staining; No Elevated PID. 0-20' bgs
8.0					
9.0					
10.0					
11.0					
12.0	3	5.0	0.0 / 0.0		
13.0					
14.0					Water at ~13.5'
15.0					
16.0					
17.0	4	5.0	0.0 / 0.0		
18.0					
19.0					
20.0				GLACIOFLUVIAL 20.0'	Sample taken 18-20' bgs

Project Name/No. 53 Putnam Street
 Drilling Contractor/Personnel: IEP
 Drilling Equipment: 7822DT Geoprobe
 Sampling Method: Macro Core
 Elevation/Ground Surface: 279.8' AMSL
 Depth to Groundwater (date): 13.48' bgs (12-14-2021)

Boring ID: MW-20

Location: Saratoga Springs, NY

Inspector: PWS

Size/Type of Bit: 2 1/4"

Start/Finish Date: 11-29-2021

Well Type: Monitoring Well /

Eff Monitoring Boring

Depth (ft.)	Sample No.	Recovery (ft.)	PID (Bkgd/Reading)	Geologic Description	Comments:
20.0					
21.0					
22.0	NA	NA	NA	Direct Push 20-24' bgs No sample taken	NA
23.0					
24.0					24.0'
25.0				END OF Boring	
26.0					
27.0					
28.0					
29.0					
30.0					
31.0					
32.0					
33.0					
34.0					
35.0					
36.0					
37.0					
38.0					
39.0					
40.0					

SITE MANAGEMENT PLAN



APPENDIX D

**MONITORING WELL CONSTRUCTION LOGS AND
GROUNDWATER CONTOUR MAP**

S:\Sterling\Projects\2015 Projects\Putnam Resources - 2015-30\ACAD\2015-30037_F-5 - GW Cont Map_Nov 2018.dwg CAD 3/12/2019 10:36 AM

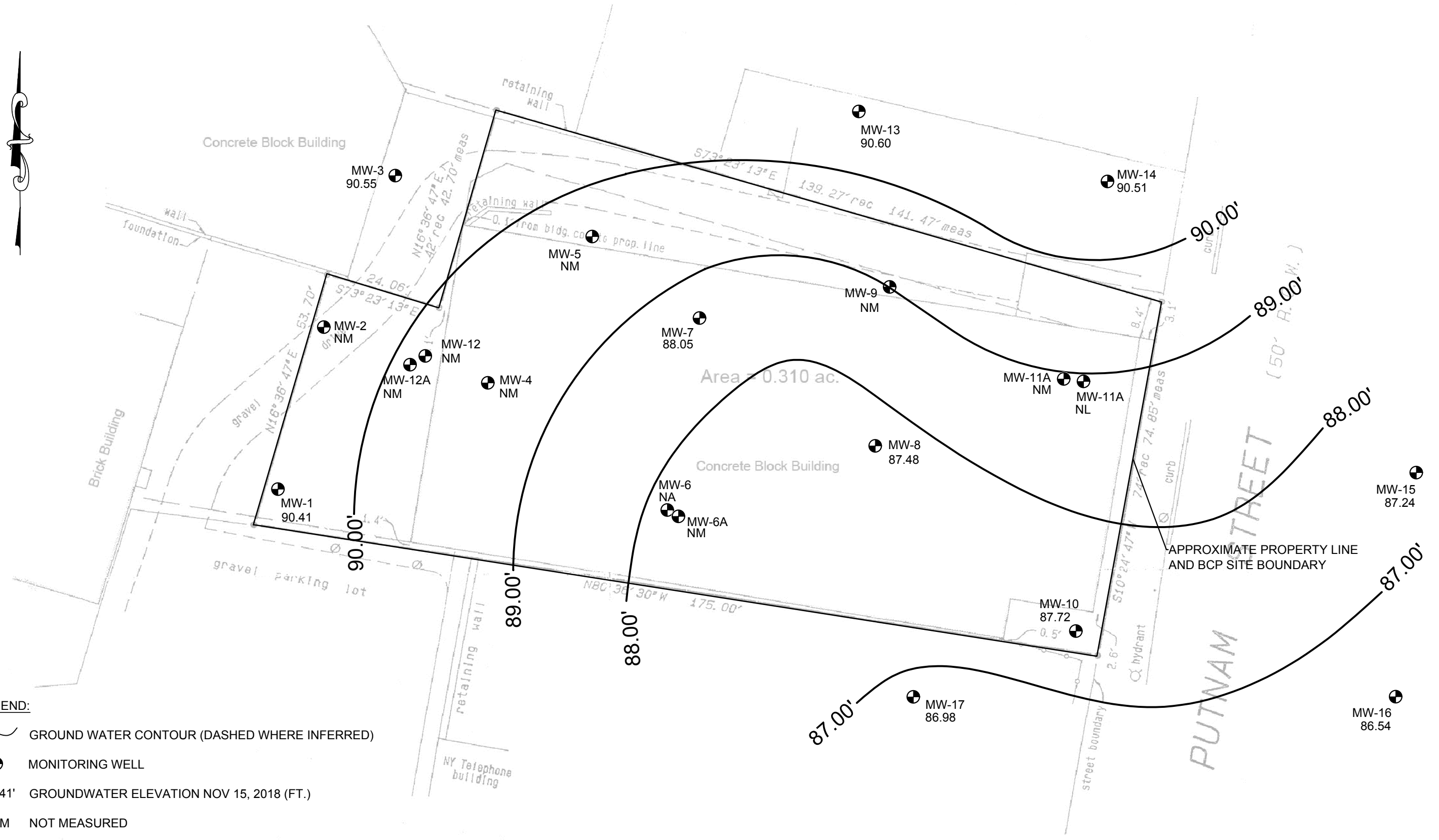
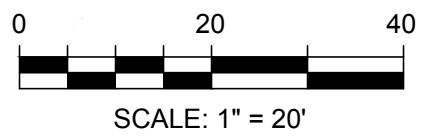


LEGEND:

-  GROUND WATER CONTOUR (DASHED WHERE INFERRED)
-  MONITORING WELL
- 90.41' GROUNDWATER ELEVATION NOV 15, 2018 (FT.)
- NM NOT MEASURED
- NL NOT LOCATED
- NA NOT ACCESSIBLE

NOTE:

GROUNDWATER ELEVATIONS ARE RELATIVE TO AN ARBITRARY SITE DATUM



STERLING
Sterling Environmental Engineering, P.C.
24 Wade Road • Latham, New York 12110

GROUNDWATER CONTOUR MAP
NOVEMBER 15, 2018
PUTNAM RESOURCES, LLC
53 PUTNAM STREET
CITY OF SARATOGA SPRINGS SARATOGA CO., N.Y.



Sterling Environmental Engineering, P.C.

MONITORING WELL CONSTRUCTION LOG

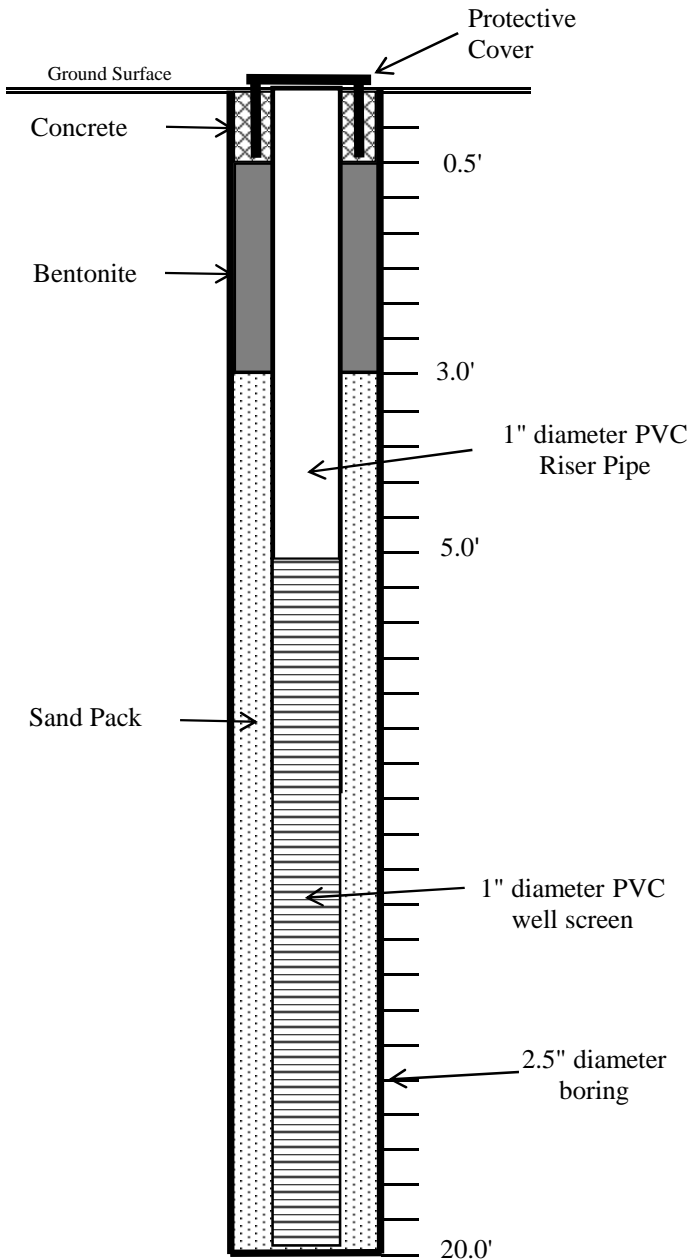


Illustration Not to Scale

Well No.:	MW - 1 (Soil Boring H-1)
Installation Date:	8/13/2015
Inspector:	Joseph Spaulding
Project Name:	First Fairfield
Project Number:	2015-30
Drilling Contractor:	Aquifer Drilling & Testing

GENERAL NOTES:

Type of Well	Monitoring Well
Static Water Level	13.18
Measuring Point	Top of PVC
Date	9/9/2015
Total Well Depth	20.0'

RISER PIPE:

Material	PVC	Length	5.0'
Joint Type	Flush-joint threaded	Diameter	1"

SCREEN:

Material	PVC	Length	15.0'
Slot Size	No. 10	Diameter	1"
Stratigraphic Unit	Natural Sand and Fill		

PACKING:

Sand Filter Pro # 1	Gravel	N/A
Amount ~ 1/2 bag	Interval	3.0' - 20.0'

SEAL:

Type	Bentonite	Interval	0.5' - 3.0'
------	-----------	----------	-------------

PROTECTIVE COVER:

Yes	<input checked="" type="checkbox"/>	No	<input type="checkbox"/>
Diameter 6.0"			

Notes:

MW-1 Installed in Soil Boring H-1.



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MONITORING WELL CONSTRUCTION LOG

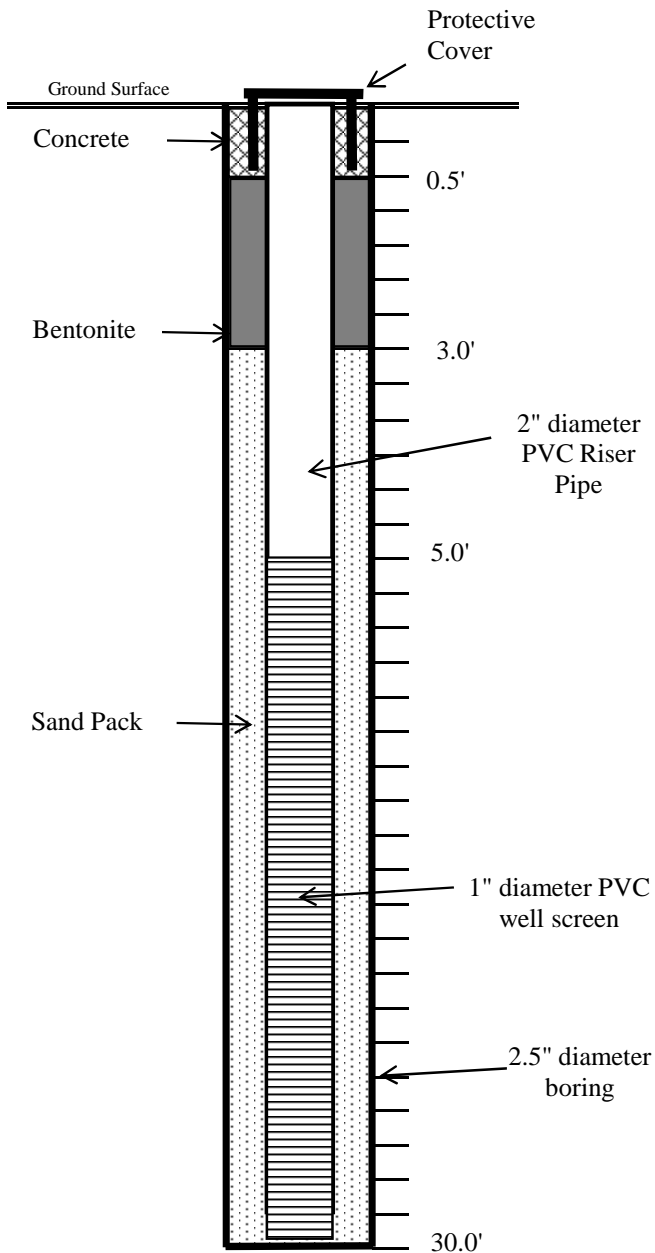


Illustration Not to Scale

Well No.:	MW - 2 (Soil Boring H-2)
Installation Date:	8/13/2015
Inspector:	Joseph Spaulding
Project Name:	First Fairfield
Project Number:	2015-30
Drilling Contractor:	Aquifer Drilling & Testing

GENERAL NOTES:

Type of Well	Monitoring Well
Static Water Level	11.98 (top of free product)
Measuring Point	Top of PVC
Date	9/9/2015
Total Well Depth	30.0'

RISER PIPE:

Material	PVC	Length	5.0'
Joint Type	Flush-joint threaded	Diameter	1"

SCREEN:

Material	PVC	Length	25.0'
Slot Size	No. 10	Diameter	1"
Stratigraphic Unit	Natural Sand and Fill		

PACKING:

Sand Filter Pro # 1	Gravel	N/A
Amount ~1/2 bag	Interval	3.0' - 30.0'

SEAL:

Type	Bentonite	Interval	0.5' - 3.0'
------	-----------	----------	-------------

PROTECTIVE COVER:

Yes	<input checked="" type="checkbox"/>	No	<input type="checkbox"/>
Diameter 6.0"			

Notes:

MW-2 Installed in Soil Boring H-2.



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MONITORING WELL CONSTRUCTION LOG

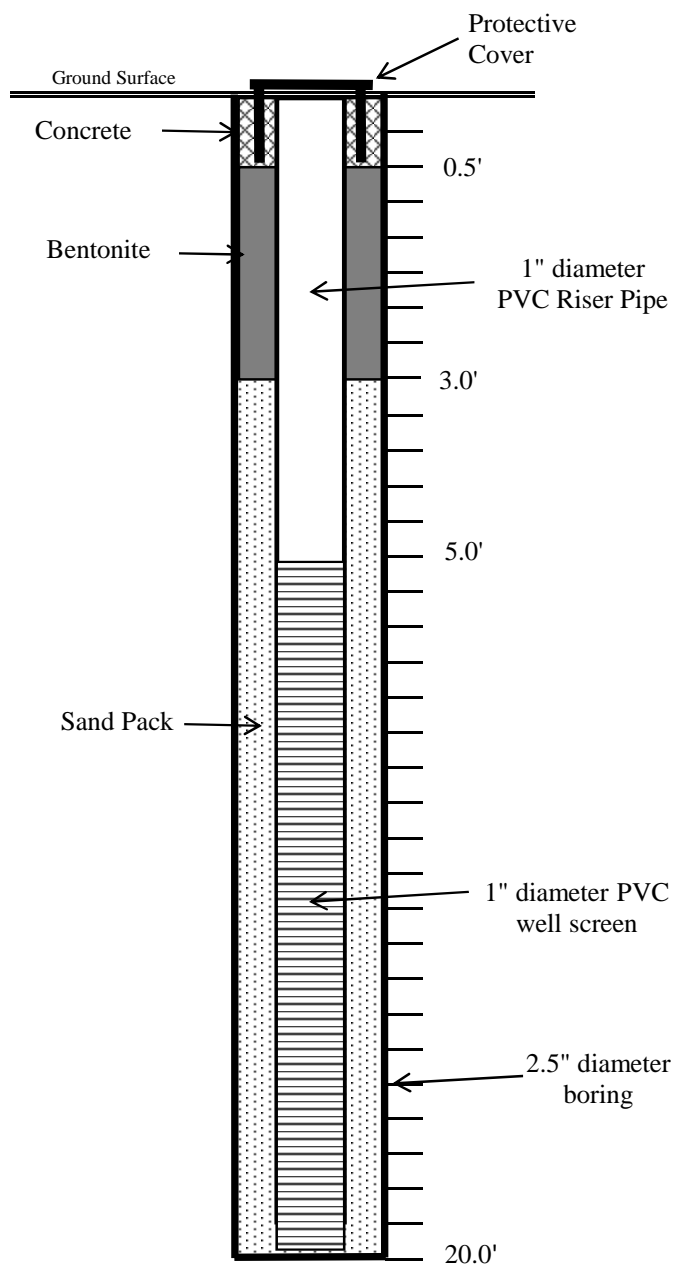


Illustration Not to Scale

Well No.:	MW - 5 (Soil Boring H-18)
Installation Date:	8/14/2015
Inspector:	Joseph Spaulding
Project Name:	First Fairfield
Project Number:	2015-30
Drilling Contractor:	Aquifer Drilling & Testing

GENERAL NOTES:

Type of Well	Monitoring Well
Static Water Level	8.43
Measuring Point	Top of PVC
Date	9/9/2015
Total Well Depth	20.0'

RISER PIPE:

Material	PVC	Length	5.0'
Joint Type	Flush-joint threaded	Diameter	1"

SCREEN:

Material	PVC	Length	15.0'
Slot Size	No. 10	Diameter	1"
Stratigraphic Unit	Natural Sand and Fill		

PACKING:

Sand	Filter Pro # 1	Gravel	N/A
Amount	~1/2 bag	Interval	3.0' - 20.0'

SEAL:

Type	Bentonite	Interval	0.5' - 3.0'
------	-----------	----------	-------------

PROTECTIVE COVER:

Yes	<input checked="" type="checkbox"/>	No	<input type="checkbox"/>
Diameter		6.0"	

Notes:

MW-5 Installed in Soil Boring H-18.



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MONITORING WELL CONSTRUCTION LOG

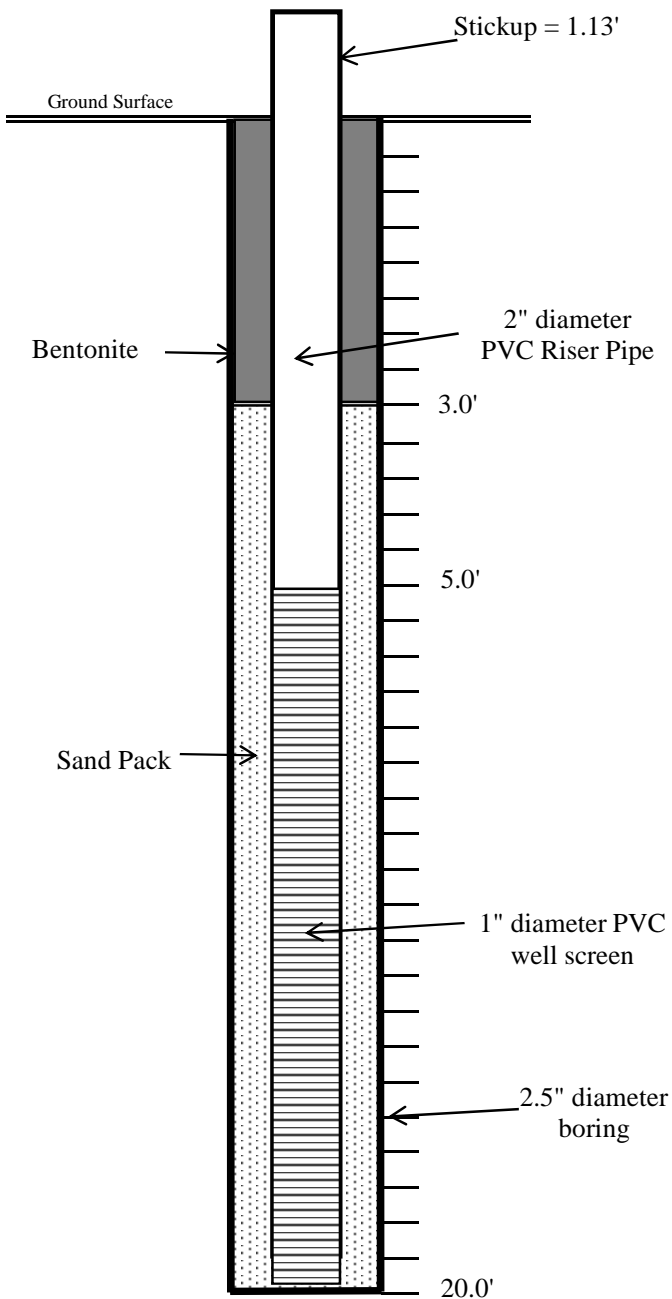


Illustration Not to Scale

Well No.: MW - 7 (Soil Boring H-21)
Installation Date: 8/10/2015
Inspector: Joseph Spaulding
Project Name: First Fairfield
Project Number: 2015-30
Drilling Contractor: Aquifer Drilling & Testing

GENERAL NOTES:

Type of Well: Monitoring Well
Static Water Level: 7.03
Measuring Point: Top of PVC
Date: 9/9/2015
Total Well Depth: 20.0'

RISER PIPE:

Material: PVC Length: 6.0'
Joint Type: Flush-joint threaded Diameter: 1"

SCREEN:

Material: PVC Length: 15.0'
Slot Size: No. 10 Diameter: 1"
Stratigraphic Unit: Natural Sand and Fill

PACKING:

Sand Filter Pro # 1 Gravel: N/A
Amount: ~1/2 bag Interval: 3.0' - 20.0'

SEAL:

Type: Bentonite Interval: 0.0' - 3.0'

PROTECTIVE COVER:

Yes ☐ No ☒
Diameter: N/A

Notes:

MW-7 Installed in Soil Boring H-21.
J-Plug Installed.



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MONITORING WELL CONSTRUCTION LOG

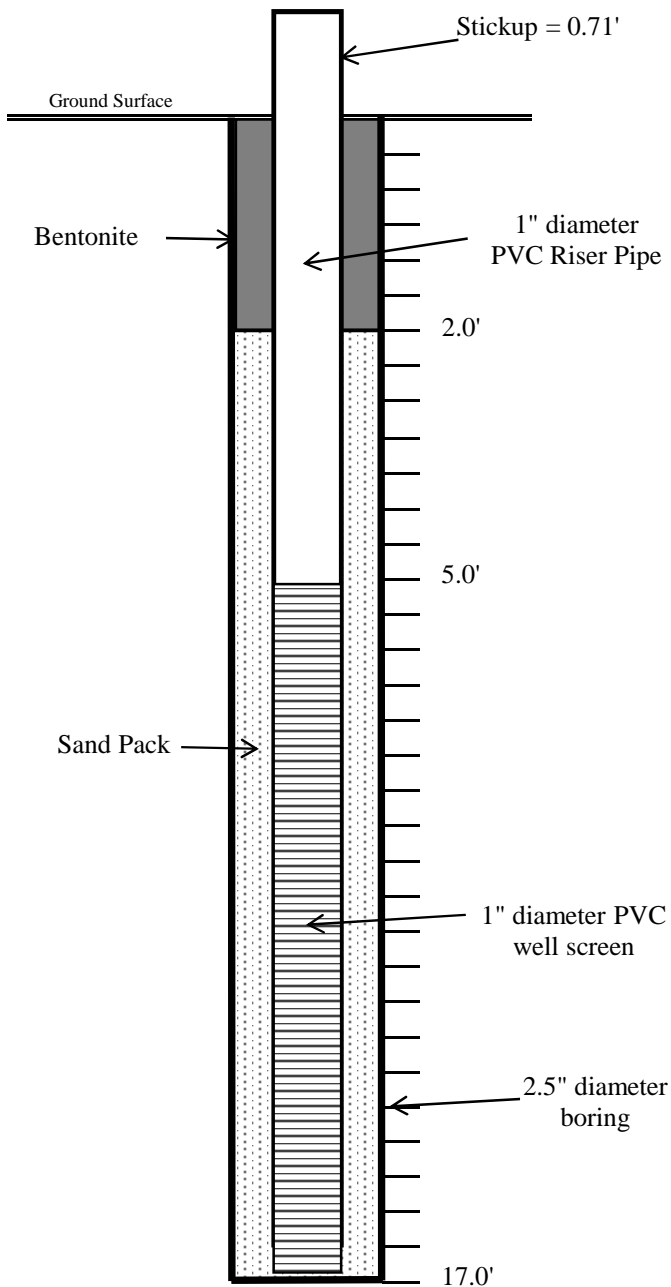


Illustration Not to Scale

Well No.: MW - 8 (Soil Boring H-26)
Installation Date: 8/11/2015
Inspector: Joseph Spaulding
Project Name: First Fairfield
Project Number: 2015-30
Drilling Contractor: Aquifer Drilling & Testing

GENERAL NOTES:

Type of Well: Monitoring Well
Static Water Level: 6.37
Measuring Point: Top of PVC
Date: 9/9/2015
Total Well Depth: 17.0'

RISER PIPE:

Material: PVC Length: 6.0'
Joint Type: Flush-joint threaded Diameter: 1"

SCREEN:

Material: PVC Length: 12.0'
Slot Size: No. 10 Diameter: 1"
Stratigraphic Unit: Natural Sand and Fill

PACKING:

Sand Filter Pro # 1 Gravel: N/A
Amount: ~1/2 bag Interval: 2.0' - 17.0'

SEAL:

Type: Bentonite Interval: 0.0' - 2.0'

PROTECTIVE COVER:

Yes ☐ No ☒
Diameter: N/A

Notes:

MW-8 Installed in Soil Boring H-26.
J-Plug Installed.



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MONITORING WELL CONSTRUCTION LOG

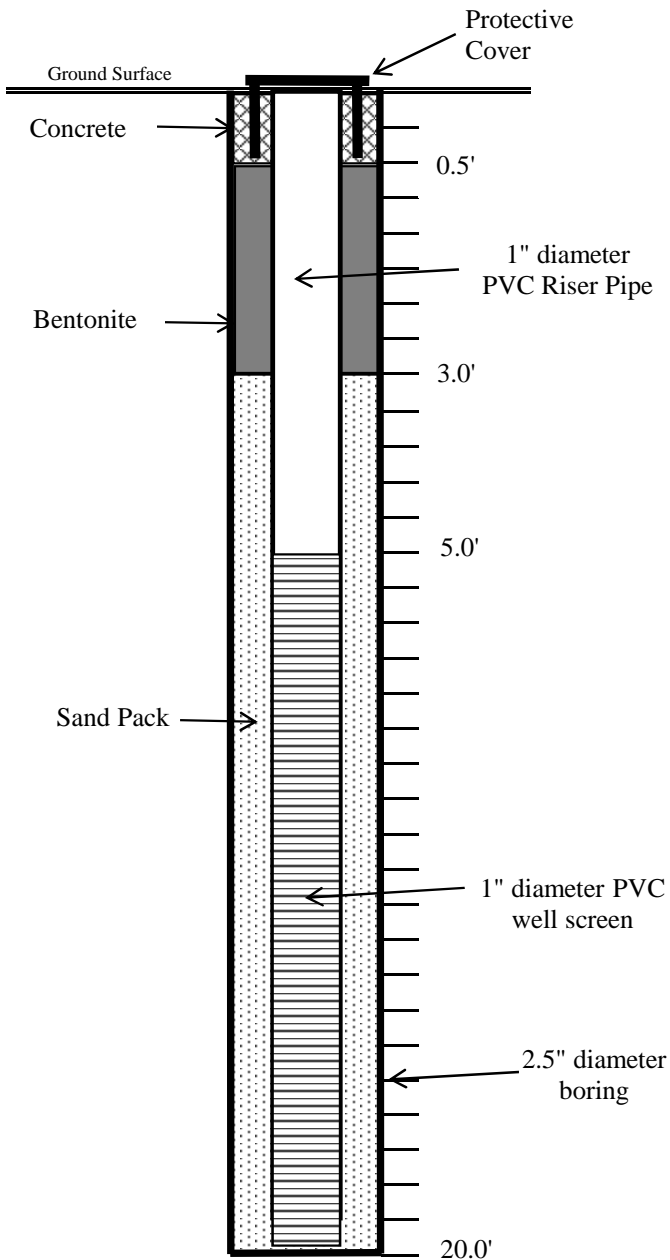


Illustration Not to Scale

Well No.: MW - 9 (Soil Boring H-28)
Installation Date: 8/14/2015
Inspector: Joseph Spaulding
Project Name: First Fairfield
Project Number: 2015-30
Drilling Contractor: Aquifer Drilling & Testing

GENERAL NOTES:

Type of Well: Monitoring Well
Static Water Level: 7.44
Measuring Point: Top of PVC
Date: 9/9/2015
Total Well Depth: 20.0'

RISER PIPE:

Material: PVC Length: 5.0'
Joint Type: Flush-joint threaded Diameter: 1"

SCREEN:

Material: PVC Length: 15.0'
Slot Size: No. 10 Diameter: 1"
Stratigraphic Unit: Natural Sand and Fill

PACKING:

Sand Filter Pro # 1 Gravel: N/A
Amount: ~1/2 bag Interval: 3.0' - 20.0'

SEAL:

Type: Bentonite Interval: 0.5' - 3.0'

PROTECTIVE COVER:

Yes ☒ No ☐
Diameter: 6.0"

Notes:

MW-9 Installed in Soil Boring H-28.



Sterling Environmental Engineering, P.C.

MONITORING WELL CONSTRUCTION LOG

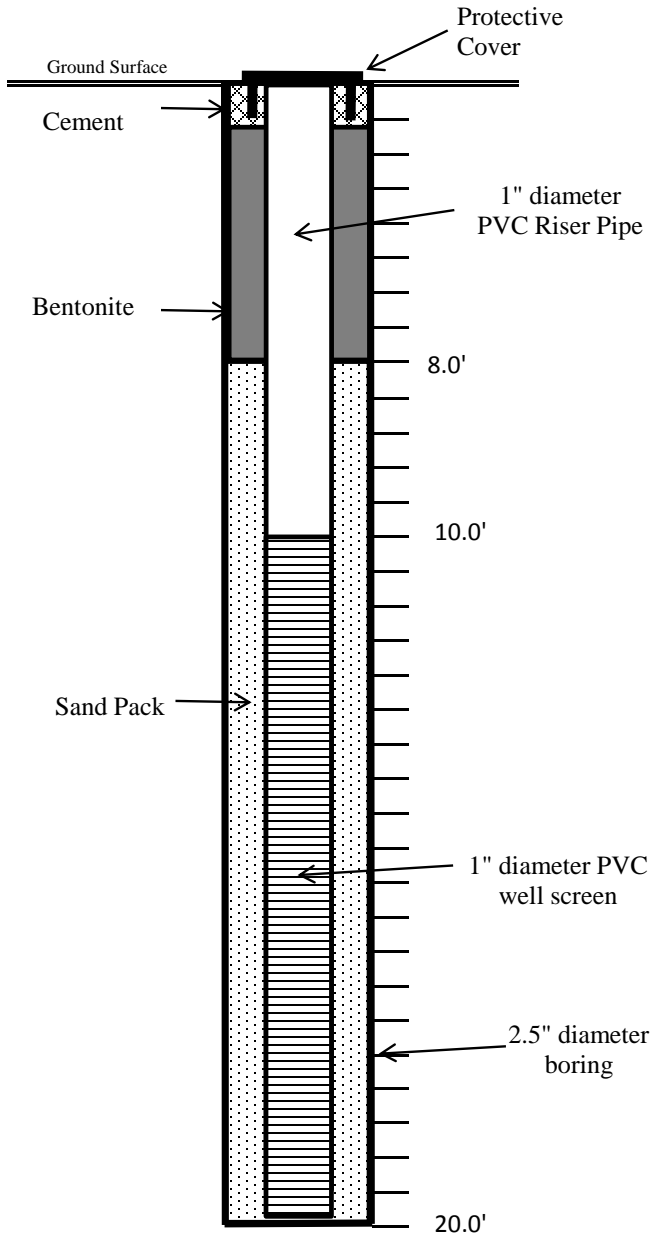


Illustration Not to Scale

Well No.: MW - 12
Installation Date: 12/18/2015
Inspector: Joseph Spaulding
Project Name: First Fairfield
Project Number: 2015-30
Drilling Contractor: Aquifer Drilling & Testing

GENERAL NOTES:

Type of Well: Monitoring Well
Static Water Level: ~12.0 (Product at ~11.0')
Measuring Point: Top of PVC
Date: 12/22/2015
Total Well Depth: 20.0'

RISER PIPE:

Material: PVC Length: 10.0'
Joint Type: Flush-joint threaded Diameter: 1"

SCREEN:

Material: PVC Length: 10.0'
Slot Size: No. 10 Diameter: 1"
Stratigraphic Unit: Natural Sand and Fill

PACKING:

Sand Filter Pro # 1 Gravel: N/A
Amount: ~ 1/2 bag Interval: 8.0 - 20.0'

SEAL:

Type: Bentonite Interval: 0.5 - 8.0'

CEMENT:

Type: Quickrete Interval: 0.0 - 0.5'

PROTECTIVE COVER:

Yes ☒ No ☐
Diameter: N/A

Notes:

Curb Box Installed.



Sterling Environmental Engineering, P.C.

MONITORING WELL CONSTRUCTION LOG

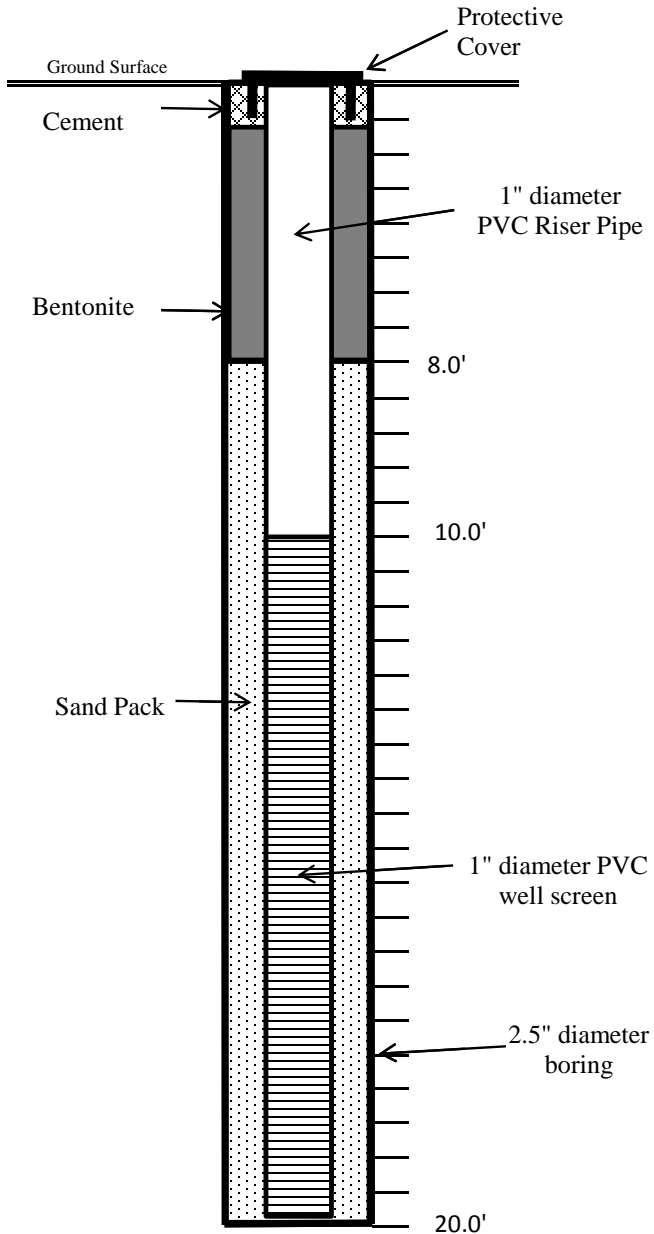


Illustration Not to Scale

Well No.:	MW - 13
Installation Date:	12/18/2015
Inspector:	Joseph Spaulding
Project Name:	First Fairfield
Project Number:	2015-30
Drilling Contractor:	Aquifer Drilling & Testing

GENERAL NOTES:

Type of Well	Monitoring Well
Static Water Level	10.51
Measuring Point	Top of PVC
Date	12/22/2015
Total Well Depth	20.0'

RISER PIPE:

Material	PVC	Length	10.0'
Joint Type	Flush-joint threaded	Diameter	1"

SCREEN:

Material	PVC	Length	10.0'
Slot Size	No. 10	Diameter	1"
Stratigraphic Unit	Natural Sand and Fill		

PACKING:

Sand Filter Pro # 1	Gravel	N/A
Amount ~ 1/2 bag	Interval	8.0 - 20.0'

SEAL:

Type Bentonite	Interval	0.5 - 8.0'
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CEMENT:

Type Quickrete	Interval	0.0 - 0.5'
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PROTECTIVE COVER:

Yes	<input checked="" type="checkbox"/>	No	<input type="checkbox"/>
Diameter	N/A		

Notes:

Curb Box Installed.



Well No.:	MW - 14
Installation Date:	12/18/2015
Inspector:	Joseph Spaulding
Project Name:	First Fairfield
Project Number:	2015-30
Drilling Contractor:	Aquifer Drilling & Testing

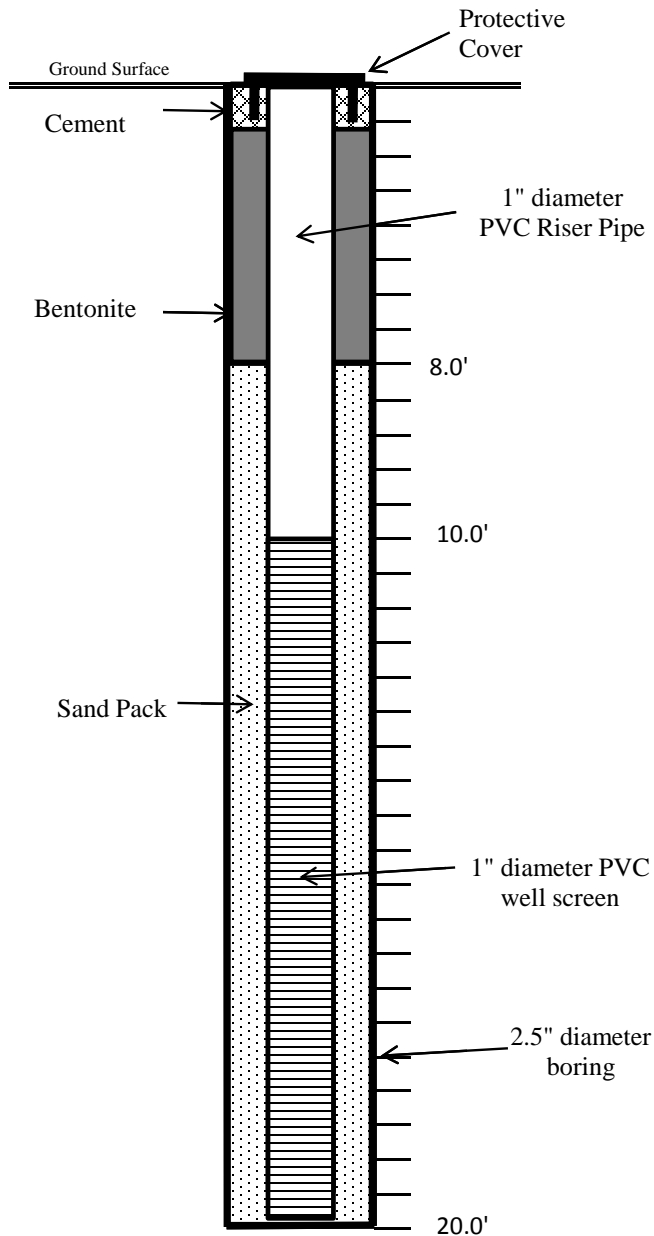


Illustration Not to Scale

Type of Well	Monitoring Well
Static Water Level	9.0
Measuring Point	Top of PVC
Date	12/22/2015
Total Well Depth	20.0'

Material	PVC	Length	10.0'
Joint Type	Flush-joint threaded	Diameter	1"

Material	PVC	Length	10.0'
Slot Size	No. 10	Diameter	1"
Stratigraphic Unit	Natural Sand and Fill		

Sand	Filter Pro # 1	Gravel	N/A
Amount ~ 1/2 bag		Interval	8.0 - 20.0'

Type	Bentonite	Interval	0.5 - 8.0'
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Type	Quickrete	Interval	0.0 - 0.5'
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Yes ☒ No ☐
Diameter N/A

Curb Box Installed.



Well No.:	MW - 15
Installation Date:	12/21/2015
Inspector:	Joseph Spaulding
Project Name:	First Fairfield
Project Number:	2015-30
Drilling Contractor:	Aquifer Drilling & Testing

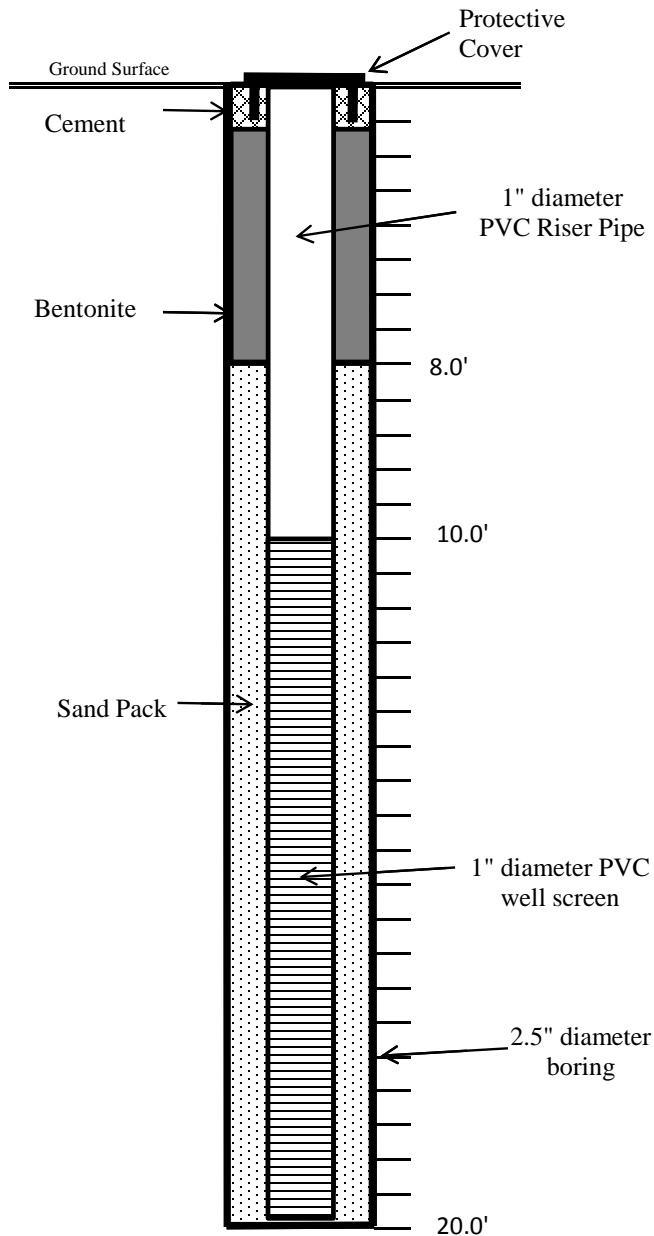


Illustration Not to Scale

Type of Well	Monitoring Well
Static Water Level	8.20
Measuring Point	Top of PVC
Date	12/22/2015
Total Well Depth	20.0'

Material	PVC	Length	10.0'
Joint Type	Flush-joint threaded	Diameter	1"

Material	PVC	Length	10.0'
Slot Size	No. 10	Diameter	1"
Stratigraphic Unit	Natural Sand and Fill		

Sand	Filter Pro # 1	Gravel	N/A
Amount ~ 1/2 bag		Interval	8.0 - 20.0'

Type	Bentonite	Interval	0.5 - 8.0'
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Type	Quickrete	Interval	0.0 - 0.5'
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Yes ☒ No ☐
Diameter N/A

Curb Box Installed.



Well No.:	MW - 16
Installation Date:	12/21/2015
Inspector:	Joseph Spaulding
Project Name:	First Fairfield
Project Number:	2015-30
Drilling Contractor:	Aquifer Drilling & Testing

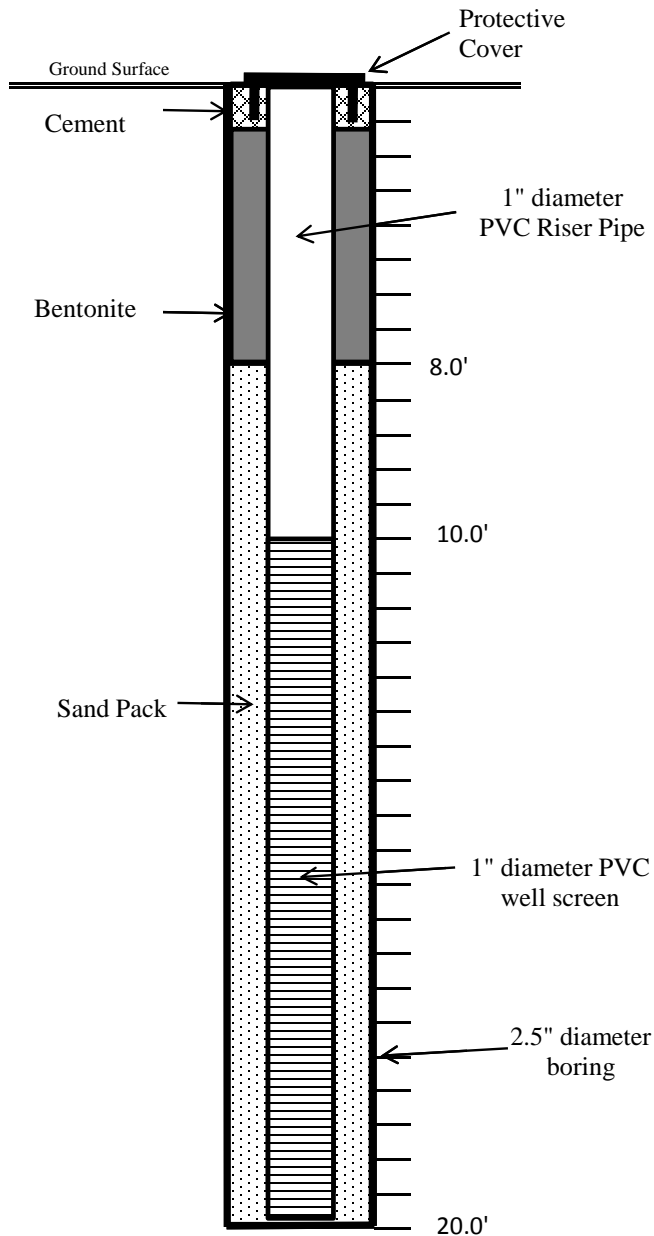


Illustration Not to Scale

Type of Well	Monitoring Well
Static Water Level	7.42
Measuring Point	Top of PVC
Date	12/22/2015
Total Well Depth	20.0'

Material	PVC	Length	10.0'
Joint Type	Flush-joint threaded	Diameter	1"

Material	PVC	Length	10.0'
Slot Size	No. 10	Diameter	1"
Stratigraphic Unit	Natural Sand and Fill		

Sand	Filter Pro # 1	Gravel	N/A
Amount ~ 1/2 bag		Interval	8.0 - 20.0'

Type	Bentonite	Interval	0.5 - 8.0'
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Type	Quickrete	Interval	0.0 - 0.5'
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Yes ☒ No ☐
Diameter N/A

Curb Box Installed.



Sterling Environmental Engineering, P.C.

MONITORING WELL CONSTRUCTION LOG

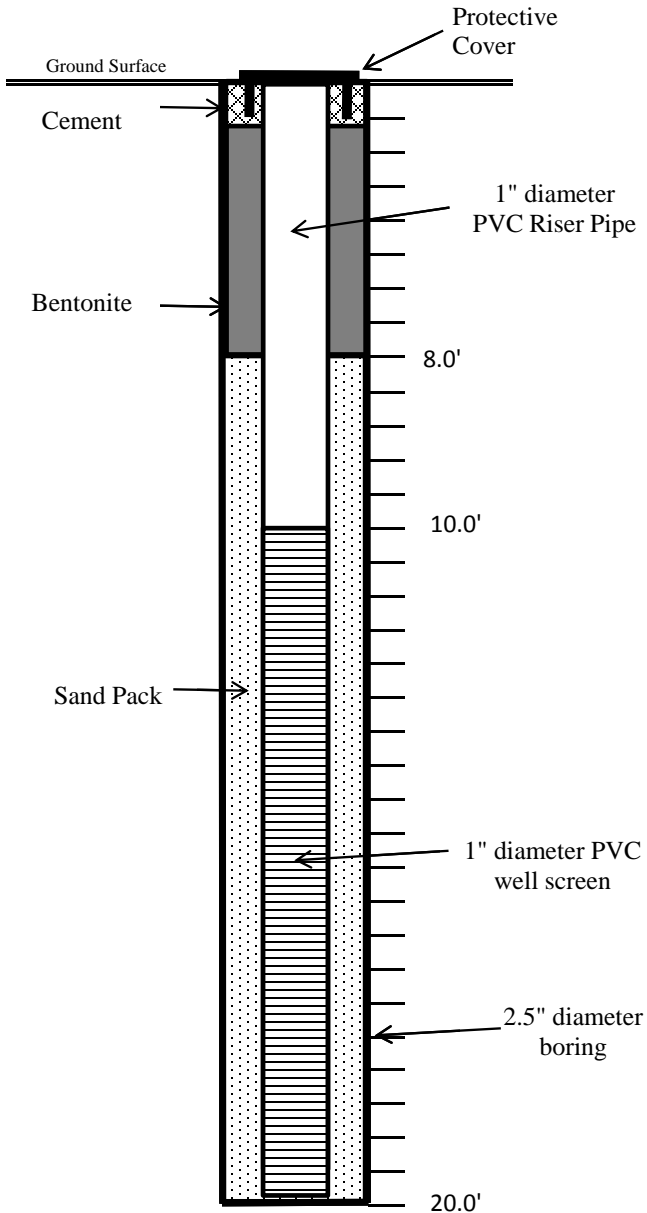


Illustration Not to Scale

Well No.:	MW - 17
Installation Date:	12/21/2015
Inspector:	Joseph Spaulding
Project Name:	First Fairfield
Project Number:	2015-30
Drilling Contractor:	Aquifer Drilling & Testing

GENERAL NOTES:

Type of Well	Monitoring Well
Static Water Level	7.07
Measuring Point	Top of PVC
Date	12/22/2015
Total Well Depth	20.0'

RISER PIPE:

Material	PVC	Length	10.0'
Joint Type	Flush-joint threaded	Diameter	1"

SCREEN:

Material	PVC	Length	10.0'
Slot Size	No. 10	Diameter	1"
Stratigraphic Unit	Natural Sand and Fill		

PACKING:

Sand	Filter Pro # 1	Gravel	N/A
Amount	~ 1/2 bag	Interval	8.0 - 20.0'

SEAL:

Type	Bentonite	Interval	0.5 - 8.0'
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CEMENT:

Type	Quickrete	Interval	0.0 - 0.5'
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PROTECTIVE COVER:

Yes	<input checked="" type="checkbox"/>	No	<input type="checkbox"/>
Diameter	N/A		

Notes:

Curb Box Installed.

Sterling Environmental Engineering, P.C.
MONITORING WELL CONSTRUCTION LOG

Well No.: MW-6A
Installation Date: 12/3/2018
Inspector: Stefan Truex
Project Name: 53 Putnam Street
Project Number: 2015-30
Drilling Contractor: SJB Services, Inc.

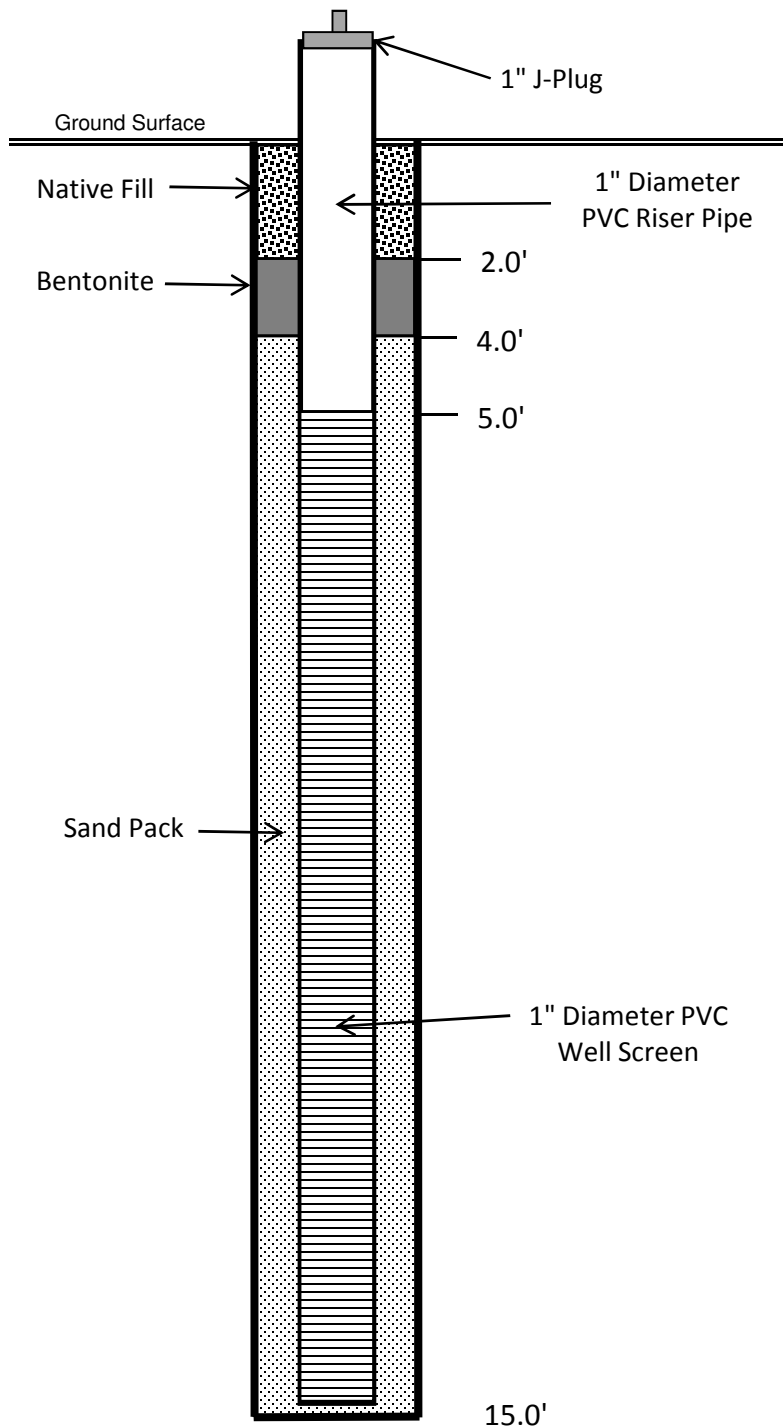


Illustration Not to Scale

GENERAL NOTES:

Type of Well	Groundwater Monitoring Well
Date	12/3/2018
Total Well Depth	15.0'

RISER PIPE:

Material	Schedule-40 PVC	Length	6.0'
Joint Type	Threaded	Diameter	1"

SCREEN:

Material	Schedule-40 PVC	Length	15.0'
Slot Size	0.010" Slot	Diameter	1"

SEAL:

Type	Bentonite	Interval	2.0' - 4.0'
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PACKING:

Sand	#0	Interval	4.0' - 15.0'
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PROTECTIVE COVER:

Yes	<input type="checkbox"/>	No	<input checked="" type="checkbox"/>
Diameter		N/A	

Notes:

- MW-6A Located at 53 Putnam Street,
 Saratoga Springs, New York 12866.

Sterling Environmental Engineering, P.C.
MONITORING WELL CONSTRUCTION LOG

Well No.: MW-11A
Installation Date: 11/30/2018
Inspector: Stefan Truex
Project Name: 53 Putnam Street
Project Number: 2015-30
Drilling Contractor: SJB Services, Inc.

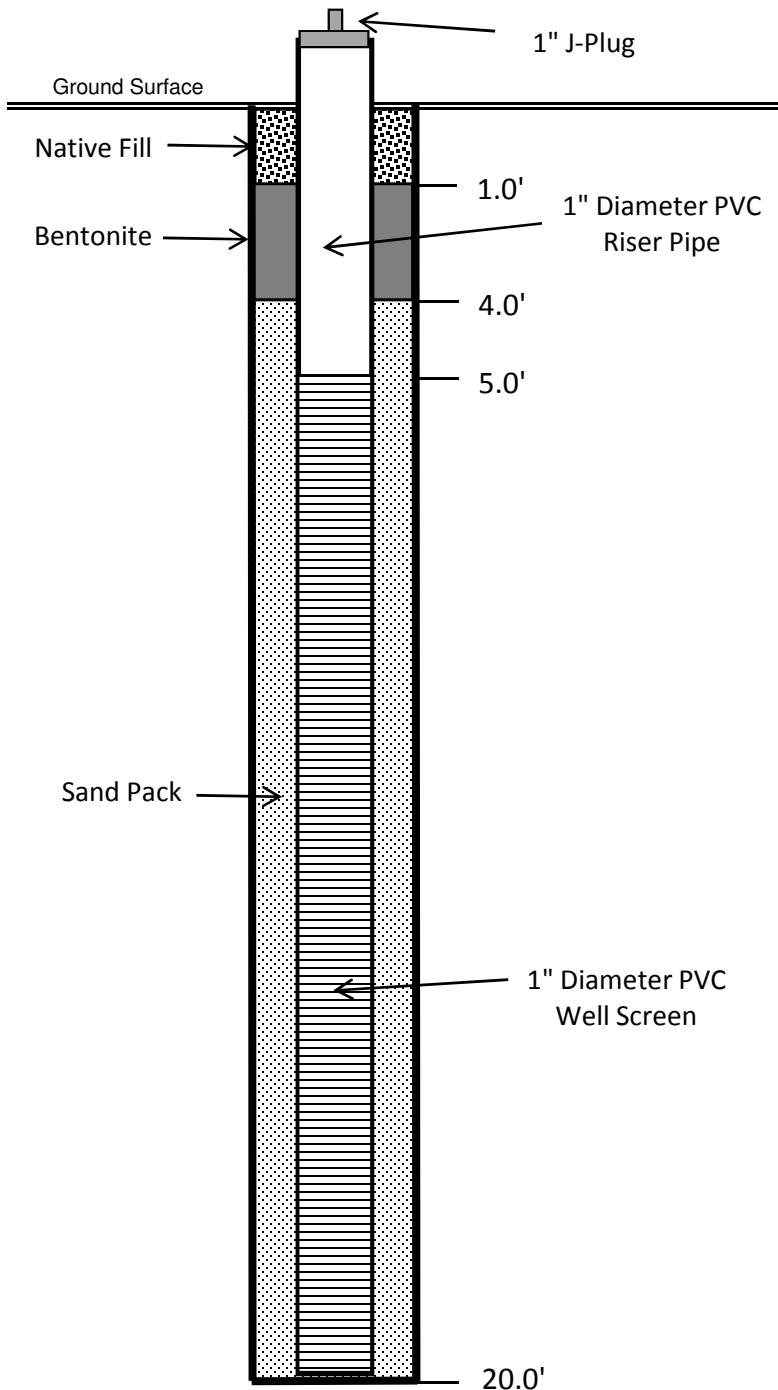


Illustration Not to Scale

GENERAL NOTES:

Type of Well	Groundwater Monitoring Well
Date	11/30/2018
Total Well Depth	20.0'

RISER PIPE:

Material	Schedule-40 PVC	Length	6.0'
Joint Type	Threaded	Diameter	1"

SCREEN:

Material	Schedule-40 PVC	Length	15.0'
Slot Size	0.010" Slot	Diameter	1"

SEAL:

Type	Bentonite	Interval	1.0' - 4.0'
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PACKING:

Sand	#0	Interval	4.0' - 20.0'
------	----	----------	--------------

PROTECTIVE COVER:

Yes	<input type="checkbox"/>	No	<input checked="" type="checkbox"/>
Diameter		N/A	

Notes:

- MW-11A Located at 53 Putnam Street,
 Saratoga Springs, New York 12866.

Sterling Environmental Engineering, P.C.
MONITORING WELL CONSTRUCTION LOG

Well No.: MW-12A
Installation Date: 12/5/2018
Inspector: Stefan Truex
Project Name: 53 Putnam Street
Project Number: 2015-30
Drilling Contractor: SJB Services, Inc.

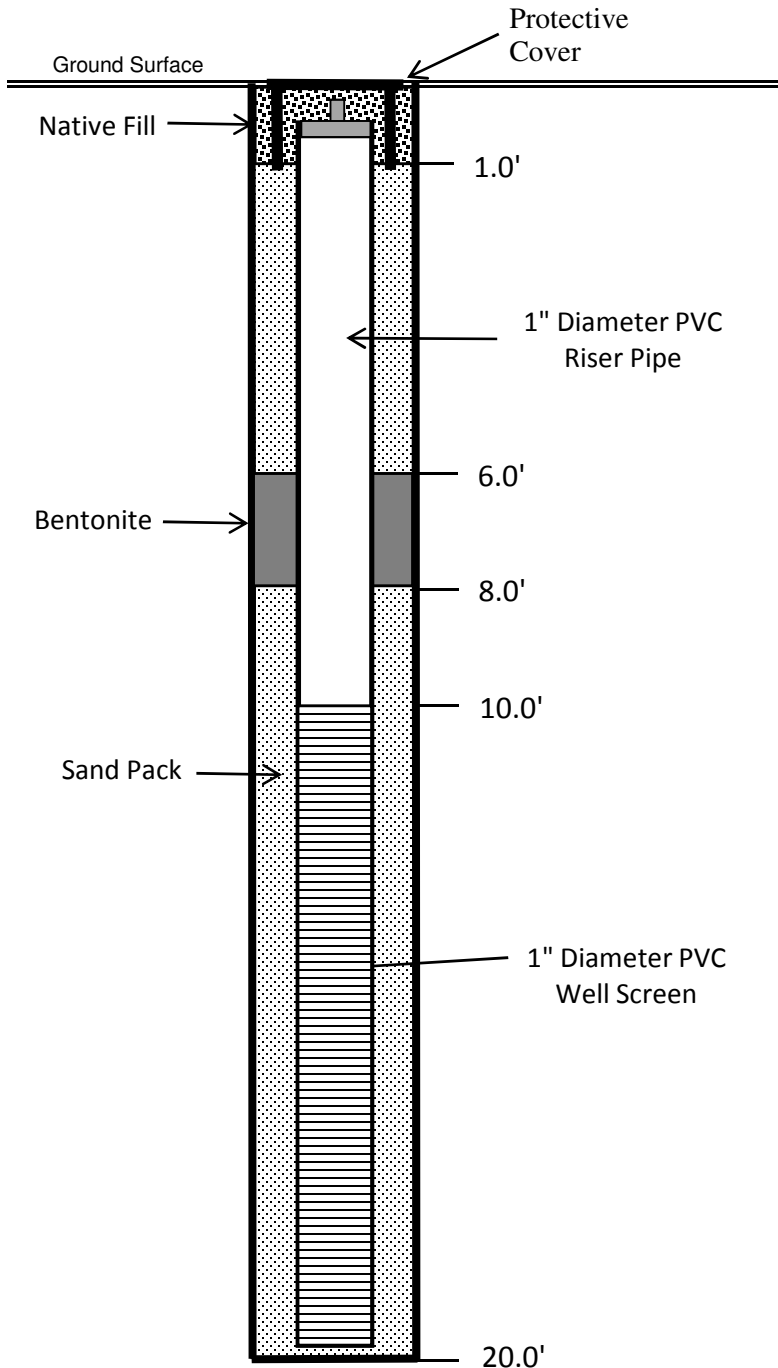


Illustration Not to Scale

GENERAL NOTES:

Type of Well	Groundwater Monitoring Well
Date	12/5/2018
Total Well Depth	20.0'

RISER PIPE:

Material	Schedule-40 PVC	Length	10.0'
Joint Type	Threaded	Diameter	1"

SCREEN:

Material	Schedule-40 PVC	Length	10.0'
Slot Size	0.010" Slot	Diameter	1"

SEAL:

Type	Bentonite	Interval	6.0' - 8.0'
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PACKING:

Sand	#0	Interval	8.0' - 20.0'
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PROTECTIVE COVER:

Yes	<input checked="" type="checkbox"/>	No	<input type="checkbox"/>
Diameter	5"		

Notes:

- MW-12A Located at 53 Putnam Street,
Saratoga Springs, New York 12866.



Sterling Environmental Engineering, P.C.
MONITORING WELL CONSTRUCTION LOG

Well No.: MW-18
Installation Date: 11/29/2021
Inspector: PWS
Project Name: 53 Putnam Street
Project Number: 2015-30
Drilling Contractor: Island Pump and Tank

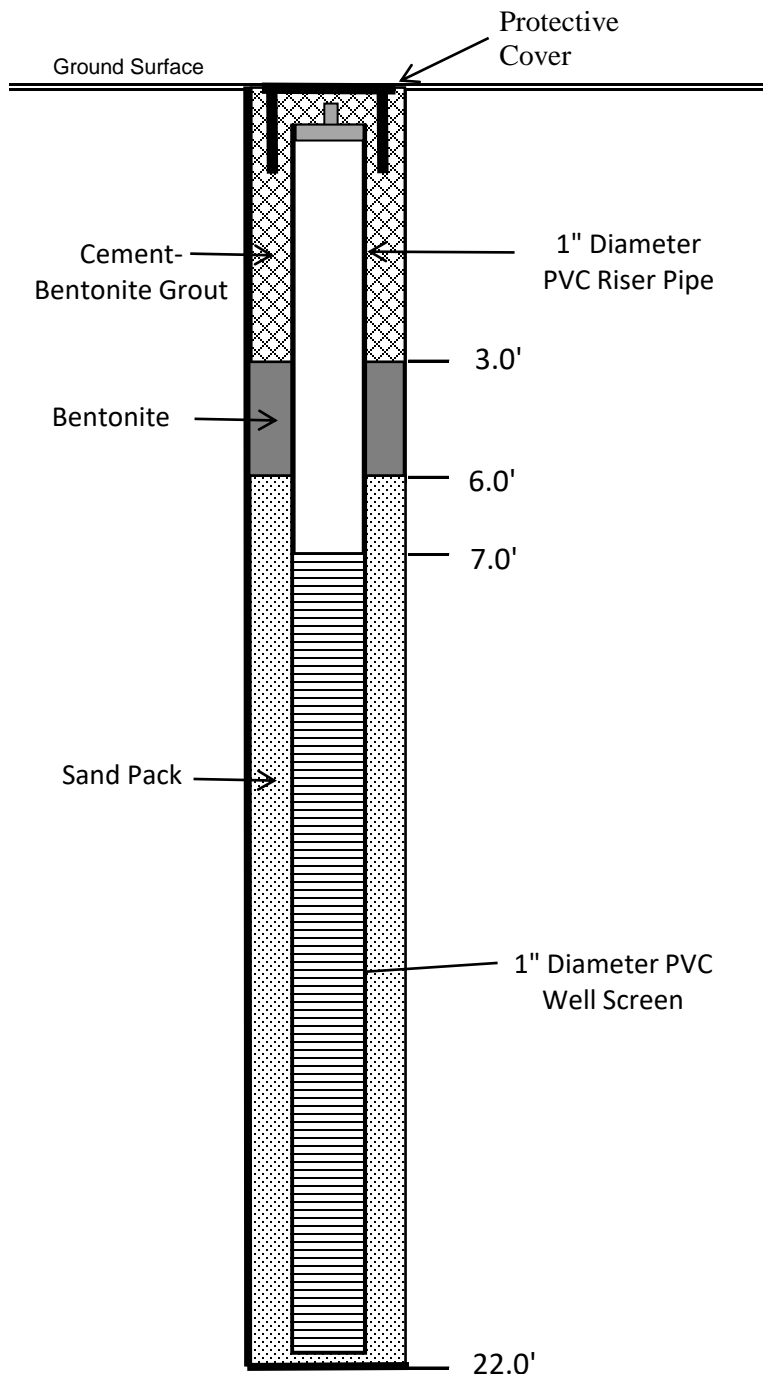


Illustration Not to Scale

GENERAL NOTES:

Type of Well Groundwater Monitoring Well
Date 11/29/2021
Total Well Depth 22.0'

RISER PIPE:

Material Schedule-40 PVC Length 7.0'
Joint Type Threaded Diameter 1"

SCREEN:

Material Schedule-40 PVC Length 15.0'
Slot Size 0.010" Slot Diameter 1"

SEAL:

Type Bentonite Interval 3.0' - 6.0'

PACKING:

Sand #2 Interval 6.0' - 22.0'

PROTECTIVE COVER:

Yes ☒ No ☐
Diameter 5"

Notes:

- MW-18 Located at 53 Putnam Street,
Saratoga Springs, New York 12866.



Sterling Environmental Engineering, P.C.
MONITORING WELL CONSTRUCTION LOG

Well No.: MW-19
Installation Date: 11/29/2021
Inspector: PWS
Project Name: 53 Putnam Street
Project Number: 2015-30
Drilling Contractor: Island Pump and Tank

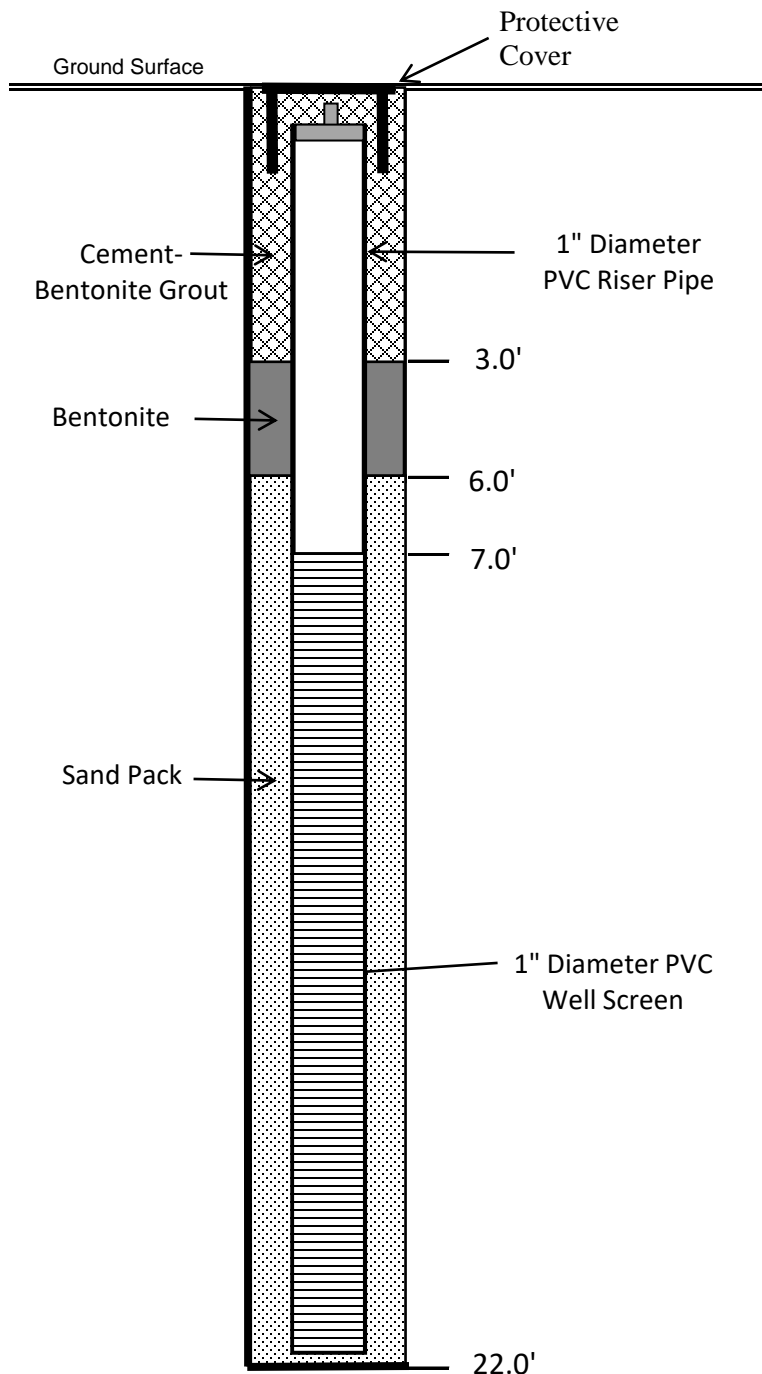


Illustration Not to Scale

GENERAL NOTES:

Type of Well Groundwater Monitoring Well
Date 11/29/2021
Total Well Depth 22.0'

RISER PIPE:

Material Schedule-40 PVC Length 7.0'
Joint Type Threaded Diameter 1"

SCREEN:

Material Schedule-40 PVC Length 15.0'
Slot Size 0.010" Slot Diameter 1"

SEAL:

Type Bentonite Interval 3.0' - 6.0'

PACKING:

Sand #2 Interval 6.0' - 22.0'

PROTECTIVE COVER:

Yes ☒ No ☐
Diameter 5"

Notes:

- MW-19 Located at 53 Putnam Street,
Saratoga Springs, New York 12866.



Sterling Environmental Engineering, P.C.
MONITORING WELL CONSTRUCTION LOG

Well No.: MW-20
Installation Date: 11/29/2021
Inspector: PWS
Project Name: 53 Putnam Street
Project Number: 2015-30
Drilling Contractor: Island Pump and Tank

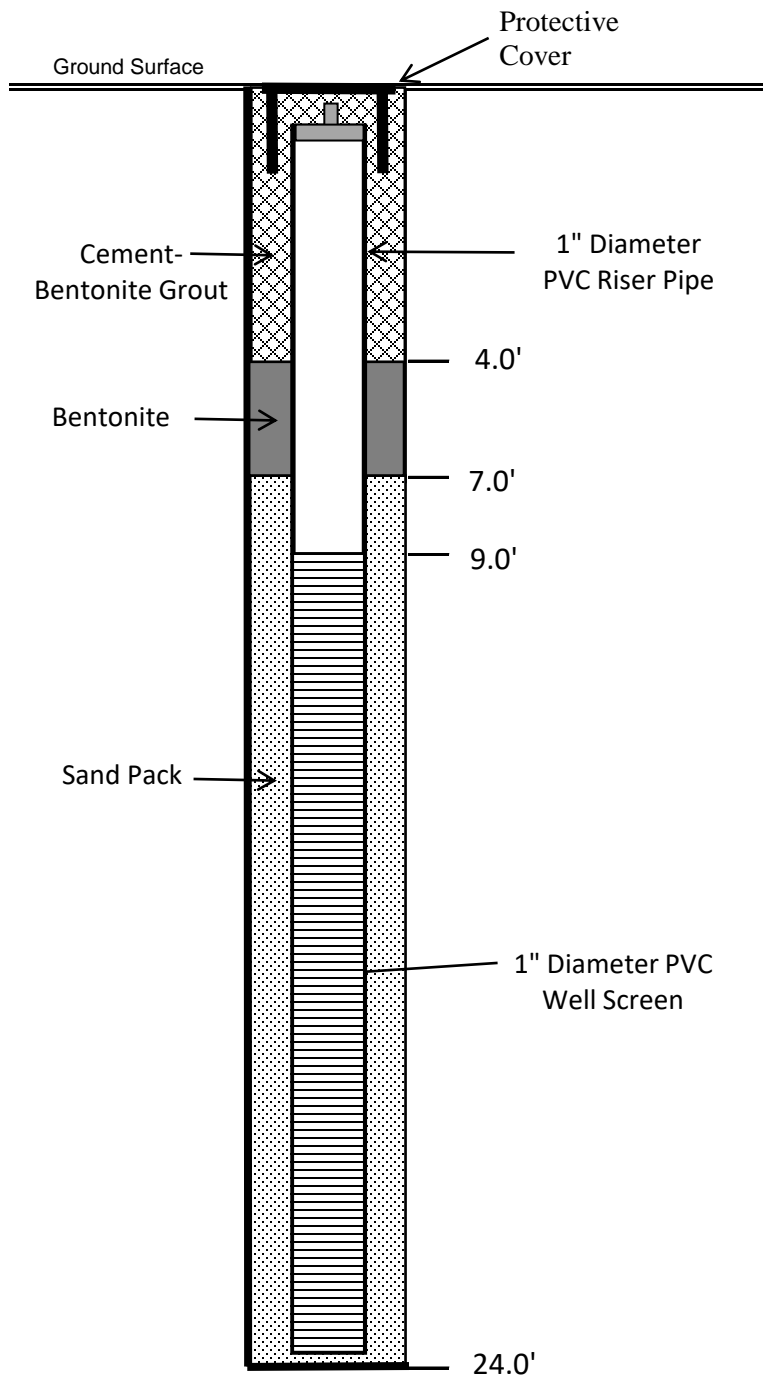


Illustration Not to Scale

GENERAL NOTES:

Type of Well	Groundwater Monitoring Well
Date	11/29/2021
Total Well Depth	24.0'

RISER PIPE:

Material	Schedule-40 PVC	Length	9.0'
Joint Type	Threaded	Diameter	1"

SCREEN:

Material	Schedule-40 PVC	Length	15.0'
Slot Size	0.010" Slot	Diameter	1"

SEAL:

Type	Bentonite	Interval	4.0' - 7.0'
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PACKING:

Sand	#2	Interval	7.0' - 24.0'
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PROTECTIVE COVER:

Yes	<input checked="" type="checkbox"/>	No	<input type="checkbox"/>
Diameter	5"		

Notes:

- MW-20 Located at 53 Putnam Street,
Saratoga Springs, New York 12866.

SITE MANAGEMENT PLAN

APPENDIX E

EXCAVATION WORK PLAN



**53 PUTNAM STREET
SARATOGA COUNTY
SARATOGA SPRINGS, NEW YORK**

EXCAVATION WORK PLAN

NYSDEC SITE NUMBER: C546057

Prepared for:

Putnam Resources, LLC
15 W Main Street, #1C
Cambridge, New York 12816

Prepared by:

Sterling Environmental Engineering, P.C.
24 Wade Road
Latham, New York 12110

September, 2024

“Serving our clients and the environment since 1993”

**53 PUTNAM STREET
SARATOGA COUNTY
SARATOGA SPRINGS, NEW YORK**

EXCAVATION WORK PLAN

NYSDEC SITE NO: C546057

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APPENDICES

Appendix A Request to Import / Reuse Fill or Soil

S:\Sterling\Projects\2015 Projects\Putnam Resources - 2015-30\Reports and Work Plans\SMP\Appendices\Appendix G - Excavation Work Plan\2024-09-23_Putnam_EWP.docx

EXECUTIVE SUMMARY

This Excavation Work Plan (EWP) is a required element of the remedial program for the 53 Putnam Street site (hereinafter, the “site”) located at 53 Putnam Street, City of Saratoga Springs, Saratoga County, New York in anticipation of future soil intrusive activities that present a reasonable possibility to expose remaining impacted media. The site is identified as Tax Map parcel #165.60-1-58 (0.31 acres) and is currently in the Brownfield Cleanup Program (BCP), Site No. C546057, administered by the New York State Department of Environmental Conservation (NYSDEC).

1.0 NOTIFICATION

At least 15 days prior to the start of any activity that is anticipated to encounter remaining contamination or breach or alter the site’s cover system, the site owner or their representative will notify the NYSDEC contacts listed in the table below. Table 1 includes contact information for the required notification. The information on this table will be updated as necessary to provide accurate contact information. A full listing of site-related contact information is provided in the SMP. If the ground-intrusive activity qualifies as a change of use as defined in 6 NYCRR Part 375, the 60-day advance notice described in the SMP is also required and a detailed work plan will be submitted to NYSDEC and NYSDOH for review and written approval.

Table 1 – Notifications*

Name	Contact Information
NYSDEC Project Manager: Jonathan Pollard	Phone: 518-623-1231 Email: jonathan.pollard@dec.ny.gov
NYSDEC Project Manager Supervisor: Benjamin Rung	Phone: 518-402-9813 Email: benjamin.rung@dec.ny.gov
NYSDEC Site Control: NYSDEC Chief of Site Control	Phone: 518-402-9401 Email: dersitecontrol@dec.ny.gov
NYSDOH Project Manager: Sara Bogardus	Phone: 518-402-7860 Email: sara.bogardus@health.ny.gov

* Note: Notifications are subject to change and will be updated as necessary.

This notification must include:

- A detailed description of the work to be performed including the location and areal extent of excavation, plans/drawings for site re-grading, intrusive elements or utilities to be installed below the soil cover, estimated volumes of contaminated soil to be excavated, any modifications of truck routes, and any work that may impact an engineering control.
- A summary of environmental conditions anticipated to be encountered in the work areas including the nature and concentration of contaminants of concern, potential presence of grossly impacted media, and plans for any pre-construction sampling.
- A schedule for the work, detailing the start and completion of all intrusive work, and submittals (e.g., reports) to the NYSDEC documenting the completed intrusive work. The NYSDEC

project manager may request that project-specific reports and/or inspection notes be submitted under separate cover in advance and in addition to reporting in the applicable Periodic Review Report (PRR).

- A summary of applicable components of this EWP.
- A statement that the work will be performed in compliance with this EWP, 29 CFR 1910.120, 29 CFR 1926 Subpart P, and 6 NYCRR Part 375.
- A copy of the contractor's Health and Safety Plan (HASP), in electronic format, if it differs from the HASP provided in Appendix F of the SMP.
- Identification of disposal facilities for potential waste streams.
- Identification of sources of any anticipated backfill, along with the required request to import form and all supporting documentation including, but not limited to, chemical testing results. Completed Request to Import/Reuse Fill or Soil forms should include all relevant results from material gradation and chemical analysis tests.

2.0 SOIL SCREENING METHODS

Visual, olfactory and instrument-based (e.g., photoionization detector) soil screening will be performed during all excavation and invasive work performed after issuance of the SMP including excavations into known or potentially contaminated material (remaining contamination) or a breach of the cover system. A qualified environmental professional as defined in 6 NYCRR Part 375, a Professional Engineer (PE) who is licensed and registered in New York State, or a qualified person who directly reports to a PE who is licensed and registered in New York State will perform the screening. Soil screening will be performed during excavation and invasive work performed after issuance of the Certificate of Completion (COC).

Soils will be segregated based on previous environmental data and screening results into material that requires off-site disposal and material that requires testing to determine if the material can be reused on-site as soil beneath a cover or if the material can be used as cover soil. Further discussion of off-site disposal of materials and onsite reuse is provided in Sections 6 and 7 of this EWP.

3.0 SOIL STAGING METHODS

Soils will be stockpiled on poly sheeting, or comparable, while staged onsite.

Soil stockpiles will be continuously encircled with a berm and/or silt fence. Hay bales will be used as needed near catch basins, surface waters, and other discharge points.

Stockpiles will be kept covered at all times with appropriately anchored tarps. Stockpiles will be routinely inspected, and damaged tarp covers will be promptly replaced.

Stockpiles will be inspected at a minimum once each week and after every storm event. Results of inspections will be recorded in a logbook and maintained at the site and available for inspection by the NYSDEC. Soil stockpile inspection records will be included in the next PRR or project-specific report if requested by the NYSDEC project manager.

4.0 MATERIALS EXCAVATION AND LOAD OUT

A qualified environmental professional as defined in 6 NYCRR Part 375, a PE who is licensed and registered in New York State, or a qualified person who directly reports to a PE who is licensed and registered in New York State will oversee all invasive work and the excavation and load-out of all excavated material.

The owner of the property and remedial party (if applicable) and its contractors are solely responsible for safe execution of all invasive and other work performed under this EWP.

The presence of utilities and easements on the site will be investigated by the qualified environmental professional. It will be determined whether a risk or impediment to the planned work under this EWP is posed by utilities or easements on the site. A site utility stakeout will be completed for all utilities prior to any ground intrusive activities at the site.

Loaded vehicles leaving the site will be appropriately lined, tarped, securely covered, manifested, and placarded in accordance with appropriate Federal, State, local, and New York State Department of Transportation (NYSDOT) requirements (and all other applicable transportation requirements). Trucks transporting contaminated soil must have either tight-fitting opaque covers that are secured on the sides and/or back, or opaque covers that are locked on all sides.

A truck wash will be operated on-site, as appropriate. The qualified environmental professional will be responsible for ensuring that all outbound trucks will be washed at the truck wash before leaving the site until the activities performed under this section are complete. Truck wash waters will be collected and disposed of off-site in an appropriate manner.

Locations where vehicles enter or exit the site shall be inspected daily for evidence of off-site soil tracking.

The qualified environmental professional will be responsible for ensuring that all egress points for truck and equipment transport from the site are clean of dirt and other materials derived from the site during intrusive excavation activities. Cleaning of the adjacent streets will be performed as needed to maintain a clean condition with respect to site-derived materials. Material accumulated from the street cleaning and egress cleaning activities will be disposed off-site at a permitted landfill facility in accordance with all applicable local, State, and Federal regulations.

5.0 MATERIALS TRANSPORT OFFSITE

All transport of materials will be performed by licensed haulers in accordance with appropriate local, State, and Federal regulations, including 6 NYCRR Part 364. Haulers will be appropriately licensed and trucks properly placarded.

Material transported by trucks exiting the site will be secured with either tight-fitting opaque covers that are secured on the sides and/or back, or opaque covers that are locked on all sides. Loose-fitting canvas-type truck covers will be prohibited. If loads contain wet material capable of producing free liquid, truck liners will be used.

Truck transport routes are as follows:

1. Exit the site travelling south on Putnam Street.
2. Turn right heading west on Spring Street.
3. Turn left heading south on South Broadway to access Interstate 87.

All trucks loaded with site materials will exit the vicinity of the site using only these approved truck routes. This is the most appropriate route and takes into account: (a) limiting transport through residential areas and past sensitive sites; (b) use of city mapped truck routes; (c) prohibiting off-site queuing of trucks entering the facility; (d) limiting total distance to major highways; (e) promoting safety in access to highways; and (f) overall safety in transport.

Trucks will be prohibited from stopping and idling in the neighborhood outside the project site.

Egress points for truck and equipment transport from the site will be kept clean of dirt and other materials during site remediation and development.

Queuing of trucks will be performed on-site in order to minimize off-site disturbance. Off-site queuing will be prohibited.

6.0 MATERIALS DISPOSAL OFF-SITE

All material excavated and removed from the site will be treated as contaminated and regulated material and will be transported and disposed off-site in a permitted facility in accordance with all local, State, and Federal regulations. If disposal of material from this site is proposed for unregulated off-site disposal (i.e. clean soil removed for development purposes), a formal request with an associated plan will be made to the NYSDEC project manager. Unregulated offsite management of materials from this site will not occur without formal NYSDEC project manager written approval.

Off-site disposal locations for excavated soils will be identified in the pre-excavation notification. This will include estimated quantities and a breakdown by class of disposal facility if appropriate, (e.g., hazardous waste disposal facility, solid waste landfill, petroleum treatment facility, C&D debris recovery facility). Actual disposal quantities and associated documentation will be reported to the NYSDEC in the Periodic Review Report. This documentation will include, but will not be limited to: waste profiles, test results, facility acceptance letters, manifests, bills of lading and facility receipts.

Non-hazardous historic fill and contaminated soils taken offsite will be handled consistent with 6 NYCRR Parts 360, 361, 362, 363, 364 and 365. Material that does not meet Unrestricted SCOs is prohibited from being taken to a New York State C&D debris recovery facility (6 NYCRR Subpart 360-15 registered or permitted facility).

7.0 MATERIALS REUSE ONSITE

The qualified environmental professional, as defined in 6 NYCRR Part 375 will ensure that procedures defined for materials reuse in this EWP are followed, and that unacceptable material (i.e., contaminated) does not remain on-site. Contaminated on-site material, including historic fill and contaminated soil, that is acceptable for reuse on-site will be placed below the demarcation layer or impervious surface, and will not be reused within a cover soil layer, within landscaping berms, or as backfill for subsurface utility lines

without prior written approval from the DEC project manager.

Proposed materials for reuse on-site must be sampled for full suite analytical parameters including per- and polyfluoroalkyl substances (PFAS) and 1,4-dioxane. The sampling frequency will be in accordance with DER-10 Table 5.4(e)10 unless prior written approval is obtained from the NYSDEC project manager for modification of the sampling frequency. The analytical results of soil/fill material testing must meet the site use criteria presented in NYSDEC DER-10 Appendix 5 – Allowable Constituent Levels for Imported Fill or Soil for all constituents listed, and the NYSDEC Sampling, Analysis, and Assessment of Per- and Polyfluoroalkyl Substances (Current Editions) guidance values. Approvals for modifications to the analytical parameters must be obtained from the NYSDEC project manager prior to the sampling event.

Soil/fill material for reuse onsite will be segregated and staged as described in Sections 2 and 3 of this EWP. The anticipated size and location of stockpiles will be provided in the 15-day notification to the NYSDEC project manager. Stockpile locations will be based on the location of site excavation activities and proximity to nearby site features. Material reuse onsite will comply with requirements of NYSDEC DER-10 Section 5.4(e)4. Any modifications to the requirements of DER-10 Section 5.4(e)4 must be approved in writing by the NYSDEC project manager.

Any non-soil material proposed for on-site reuse will be analyzed for the presence of asbestos and any deleterious material in addition to the full TCL/TAL and Emerging Contaminant suite of analytical parameters. No material will be reused on-site without review and written approval by NYSDEC. All reuse requests are subject to all relevant standards and regulations and may require the involvement of NYSDEC Division of Materials Management (DMM) staff regarding a Beneficial Use Determination (BUD).

8.0 FLUIDS MANAGEMENT

All liquids to be removed from the site, including but not limited to, excavation dewatering, decontamination waters, and groundwater monitoring well purge and development waters, will be handled, transported and disposed off-site at a permitted facility in accordance with applicable local, State, and Federal regulations. Dewatering, purge, and development fluids will not be recharged back to the land surface or subsurface of the site, and will be managed off-site, unless prior approval is obtained from NYSDEC.

Discharge of water generated during large-scale construction activities to surface waters (i.e. a local pond, stream or river) will be performed under an NYSDEC State Pollutant Discharge Elimination System (SPDES) permit.

No discharge of liquids generated during site activities will be permitted without submission of a written proposal to NYSDEC for review and written approval.

9.0 COVER SYSTEM RESTORATION

After the completion of soil removal and any other invasive activities, the cover system will be restored in a manner that complies with the Decision Document. The existing cover system is soil with a minimum thickness of 24 inches. A demarcation layer, consisting of orange snow fencing material, white geotextile or equivalent material, etc. will be placed to provide a visual reference to the top of the remaining contamination zone, the zone that requires adherence to special conditions for disturbance of remaining contaminated soils defined in the SMP. If the type of cover system changes from that which exists prior to the excavation (i.e., a soil cover is replaced by asphalt), this will constitute a modification of the cover

element of the remedy and the upper surface of the remaining contamination. A figure showing the modified surface will be included in the subsequent Periodic Review Report and in an updated SMP. The alteration, restoration and modification of engineering controls must conform with Article 145 Section 7209 of the Education Law regarding the application professional seals and alterations.

10.0 BACKFILL FROM OFFSITE SOURCES

All materials proposed for import onto the site will be approved by the qualified environmental professional, as defined in 6 NYCRR Part 375, and will be in compliance with provisions in the SMP prior to receipt at the site. A Request to Import/Reuse Fill or Soil form, which can be found at <http://www.dec.ny.gov/regulations/67386.html>, will be prepared and submitted to the NYSDEC project manager allowing a minimum of 5 business days for review. A copy of the form is presented in Appendix A. All requests to import soil/fill material from off-site need to include all relevant supporting information such as sieve gradation analytics. The completed request form should be submitted with the initial notification of any ground intrusive activities.

Material from industrial sites, spill sites, other environmental remediation sites, or potentially contaminated sites will not be imported to the site.

All imported soils will meet the backfill and cover soil quality standards established in 6 NYCRR 375-6.7(d) and DER-10 Appendix 5 for Restricted Residential Use. Based on an evaluation of the land use, protection of groundwater and protection of ecological resources criteria, the resulting soil quality standards are the lower of protection of groundwater or restricted-commercial soil cleanup objectives listed in 6 NYCRR Part 375-6.8(b). Soils that meet 'general' fill requirements under 6 NYCRR Part 360.13, but do not meet backfill or cover soil objectives for this site, will not be imported onto the site without prior written approval by NYSDEC project manager. Soil material will be sampled for the full suite of analytical parameters, including PFAS and 1,4-dioxane. Solid waste will not be imported onto the site.

Trucks entering the site with imported soils will be securely covered with tight fitting covers. Imported soils will be stockpiled separately from excavated materials and covered to prevent dust releases.

11.0 STORMWATER POLLUTION PREVENTION

For excavations exceeding one (1) acre, a Stormwater Pollution Prevention Plan (SWPPP) will be prepared pursuant to the NYSDEC SPDES General Permit for Stormwater Discharges from Construction Activity.

Barriers and hay bale checks will be installed and inspected once a week and after every storm event. Results of inspections will be recorded in a logbook and maintained at the site and available for inspection by the NYSDEC. All necessary repairs shall be made immediately.

Accumulated sediments will be removed as required to keep the barrier and hay bale check functional.

All undercutting or erosion of the silt fence toe anchor shall be repaired immediately with appropriate backfill materials.

Manufacturer's recommendations will be followed for replacing silt fencing damaged due to weathering.

Erosion and sediment control measures identified in the SMP shall be observed to ensure that they are operating correctly. Where discharge locations or points are accessible, they shall be inspected to ascertain whether erosion control measures are effective in preventing significant impacts to receiving waters.

Silt fencing or hay bales will be installed around the entire perimeter of the construction area.

12.0 EXCAVATION CONTINGENCY PLAN

If underground tanks or other previously unidentified contaminant sources are found during post-remedial subsurface excavations or development related construction, excavation activities will be suspended until sufficient equipment is mobilized to address the condition. The NYSDEC project manager will be promptly notified of the discovery.

Sampling will be performed on produce, sediment, and surrounding soils, etc. as necessary to determine the nature of the material and proper disposal method. Chemical analysis will be performed for a full list of analytes [TAL metals, TCL volatiles and semi-volatiles (including 1,4-dioxane), TCL pesticides and PCBs, and PFAS], unless the site history and previous sampling results provide sufficient justification to limit the list of analytes. In this case, a reduced list of analytes will be proposed to the NYSDEC project manager for written approval prior to sampling. Any tanks will be closed as per NYSDEC regulations and guidance.

Identification of unknown or unexpected contaminated media identified by screening during invasive site work will be promptly communicated by phone within two hours to NYSDEC's Project Manager. Reportable quantities of petroleum product will also be reported to the NYSDEC spills hotline. These findings will be also included in the Periodic Review Report.

13.0 COMMUNITY AIR MONITORING PLAN

This EWP is to be coordinated with the site Community Air Monitoring Plan (CAMP) provided in Appendix G of the SMP. Locations of air sampling stations will be adjusted on a daily or more frequent basis based on actual wind directions to provide an upwind and at least two downwind monitoring stations. All monitoring readings will be recorded and made available for NYSDEC and NYSDOH personnel to review. Exceedances of action levels listed in the CAMP will be reported to NYSDEC and NYSDOH Project Managers.

13.1 Special Requirements for Work Within 20 Feet of Potentially Exposed Individuals or Structures

When work areas are within 20 feet of potentially exposed populations or occupied structures, the continuous monitoring locations for VOCs and particulates must reflect the nearest potentially exposed individuals and the location of ventilation system intakes for nearby structures. The use of engineering controls such as vapor/dust barriers, temporary negative-pressure enclosures, or special ventilation devices should be considered to prevent exposures related to the work activities and to control dust and odors. Consideration should be given to implementing the planned activities when potentially exposed populations are at a minimum, such as during weekends or evening hours in non-residential settings.

- If total VOC concentrations opposite the walls of occupied structures or next to intake vents exceed 1 part-per-million, monitoring should occur within the occupied structure(s). Depending upon the nature of contamination, chemical-specific colorimetric tubes of sufficient sensitivity may be necessary for comparing the exposure point concentrations with appropriate pre-determined

response levels (response actions should also be pre-determined). Background readings in the occupied spaces must be taken prior to commencement of the planned work. Any unusual background readings should be discussed with NYSDOH prior to commencement of the work.

- If total particulate concentrations opposite the walls of occupied structures or next to intake vents exceed 150 micrograms per cubic meter, work activities should be suspended until controls are implemented and are successful in reducing the total particulate concentration to 150 micrograms per cubic meter or less at the monitoring point.
- Depending upon the nature of contamination and remedial activities, other parameters (e.g., explosivity, oxygen, hydrogen sulfide, carbon monoxide) may also need to be monitored. Response levels and actions should be pre-determined, as necessary, for each site.

13.2 Special Requirements for Indoor Work with Co-Located Residences or Facilities

Unless a self-contained, negative-pressure enclosure with proper emission controls will encompass the work area, all individuals not directly involved with the planned work must be absent from the room in which the work will occur. Monitoring requirements shall be as stated above under “Special Requirements for Work Within 20 Feet of Potentially Exposed Individuals or Structures” except that in this instance “nearby/occupied structures” would be adjacent occupied rooms. Additionally, the location of all exhaust vents in the room and their discharge points, as well as potential vapor pathways (openings, conduits, etc.) relative to adjoining rooms, should be understood and the monitoring locations established accordingly. In these situations, it is strongly recommended that exhaust fans or other engineering controls be used to create negative air pressure within the work area during remedial activities. Additionally, it is strongly recommended that the planned work be implemented during hours (e.g. weekends or evenings) when building occupancy is at a minimum.

14.0 ODOR CONTROL PLAN

This Odor Control Plan is capable of controlling emissions of nuisance odors off-site. If nuisance odors are identified at the site boundary, or if odor complaints are received specific to work at the site, work will be halted and the source of odors will be identified and corrected. Work will not resume until all nuisance odors have been abated. NYSDC and NYSDOH will be notified of all odor events and of any other complaints about the project. Implementation of all odor controls, including the halt of work, is the responsibility of the remedial party’s Remediation Engineer, and any measures that are implemented will be discussed in the Periodic Review Report.

All necessary means will be employed to prevent on- and off-site nuisances. At a minimum, these measures will include: (a) limiting the area of open excavations and size of soil stockpiles; (b) shrouding open excavations with tarps and other covers; and (c) using foams to cover exposed odorous soils. If odors develop and cannot be otherwise controlled, additional means to eliminate odor nuisances will include: (d) direct load-out of soils to trucks for off-site disposal; (e) use of chemical odorants in spray or misting systems; and, (f) use of staff to monitor odors in surrounding neighborhoods.

If nuisance odors develop during intrusive work that cannot be corrected, or where the control of nuisance odors cannot otherwise be achieved due to onsite conditions or close proximity to sensitive receptors, odor control will be achieved by sheltering the excavation and handling areas in a temporary containment structure equipped with appropriate air venting/filtering systems.

15.0 DUST CONTROL PLAN

Particulate monitoring must be conducted according to the Community Air Monitoring Plan (CAMP) described in Section 13 of this EWP and Appendix G of the SMP. If particulate levels at the site exceed the thresholds listed in the CAMP or if airborne dust is observed on the site or leaving the site, the dust suppression techniques listed below will be employed. The remedial party will also take measures listed below to prevent dust production on the site.

A dust suppression plan that addresses dust management during invasive on-site work will include, at a minimum, the items listed below:

- Dust suppression will be achieved through the use of a dedicated on-site water truck for road wetting. The truck will be equipped with a water cannon capable of spraying water directly onto off-road areas including excavations and stockpiles.
- Clearing and grubbing of larger sites will occur in stages to limit the area of exposed, unvegetated soils vulnerable to dust production.
- Gravel will be used on roadways to provide a clean and dust-free road surface.
- On-site roads will be limited in total area to minimize the area required for water truck sprinkling.

16.0 OTHER NUISANCES

A plan for rodent control will be developed and utilized by the contractor prior to and during site clearing and site grubbing, and during all remedial work.

A plan will be developed and utilized by the contractor for all remedial work to ensure compliance with local noise control ordinances.

**EXCAVATION WORK PLAN
APPENDIX A**

REQUEST TO IMPORT / REUSE FILL OR SOIL



**NEW YORK STATE
DEPARTMENT OF ENVIRONMENTAL CONSERVATION**



Request to Import/Reuse Fill or Soil

This form is based on the information required by DER-10, Section 5.4(e) and 6NYCRR Part 360.13. Use of this form is not a substitute for reading the applicable regulations and Technical Guidance document.

SECTION 1 – SITE BACKGROUND

The allowable site use is:

Have Ecological Resources been identified?

Is this soil originating from the site?

How many cubic yards of soil will be imported/reused?

If greater than 1000 cubic yards will be imported, enter volume to be imported:

SECTION 2 – MATERIAL OTHER THAN SOIL

Is the material to be imported gravel, rock or stone?

Does it contain less than 10%, by weight, material that passes a size 100 sieve?

Is this virgin material from a permitted mine or quarry?

Is this material recycled concrete or brick from a DEC registered processing facility?

SECTION 3 - SAMPLING

Provide a brief description of the number and type of samples collected in the space below:

Example Text: 5 discrete samples were collected and analyzed for VOCs. 2 composite samples were collected and analyzed for SVOCs, Inorganics & PCBs/Pesticides.

If the material meets requirements of DER-10 section 5.4(e)5 (other material), no chemical testing needed.

SECTION 3 CONT'D - SAMPLING

Provide a brief written summary of the sampling results or attach evaluation tables (compare to DER-10, Appendix 5):

Example Text: Arsenic was detected up to 17 ppm in 1 (of 5) samples; the allowable level is 16 ppm.

If Ecological Resources have been identified use the "If Ecological Resources are Present" column in Appendix 5.

SECTION 4 – SOURCE OF FILL

Name of person providing fill and relationship to the source:

Location where fill was obtained:

Identification of any state or local approvals as a fill source:

If no approvals are available, provide a brief history of the use of the property that is the fill source:

Provide a list of supporting documentation included with this request:

The information provided on this form is accurate and complete.

Signature

Date

Print Name

Firm

SITE MANAGEMENT PLAN

APPENDIX F

HEALTH AND SAFETY PLAN



**53 PUTNAM STREET
SARATOGA COUNTY
SARATOGA SPRINGS, NEW YORK**

**HEALTH AND SAFETY PLAN
(HASP)**

NYSDEC Site Number: C546057

Prepared for:

Putnam Resources, LLC
15 W Main Street, #1C
Cambridge, New York 12816

Prepared by:

Sterling Environmental Engineering, P.C.
24 Wade Road
Latham, New York 12110

June, 2024

“Serving our clients and the environment since 1993”

**53 PUTNAM STREET
SARATOGA COUNTY
SARATOGA SPRINGS, NEW YORK**

**HEALTH AND SAFETY PLAN
(HASP)**

NYSDEC Site Number: C546057

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Tables

Table A-1:	Published Airborne Exposure Limits or Odor Thresholds in Parts Per Million (PPM) in Air for Substances that Exceed Applicable Standards in Soil and Groundwater
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SITE SPECIFIC SUPPLEMENT

Project Information

Project Name: 53 Putnam St.
Site Address: 53 Putnam Street, Saratoga Springs, NY 12866

Hazard Assessment

Suspected Contaminants:	<p>Contaminants known or suspected to be present for media to be contacted:</p> <ul style="list-style-type: none">• petroleum-related volatile organic compounds (VOCs) (Benzene, Ethylbenzene, Toluene),• chlorinated VOCs (cis-1,2-Dichloroethene, Tetrachloroethene, trans-1,2-dichloroethene, Trichloroethene, and Vinyl Chloride),• pesticide compounds 4,4-DDT and 4,4-DDE,• metal compounds (mercury, arsenic, barium, copper, zinc, and lead), and• PFAS. <p>https://www.cdc.gov/niosh/npg/default.html</p>
Contaminant Exposure Routes:	<p><u>Skin:</u> Prevent skin contact. Wear chemical resistant gloves when handling contaminated media. If skin becomes exposed, wash skin with soap immediately.</p> <p><u>Eyes:</u> Prevent eye contact. Wear safety glasses at all times. If contaminants enter eyes, irrigate eyes immediately.</p> <p><u>Ingestion:</u> Do not ingest contaminated media. Do not eat, drink, or smoke in exclusion zones. Wash hands thoroughly before eating. Seek medical attention if ingestion occurs.</p> <p><u>Inhalation:</u> Do not inhale visible dust. Stand upwind of work zones. Seek medical attention for difficulty breathing.</p>
Potential Hazards:	<p><u>Strenuous activity:</u> Warm up and stretch muscles prior to task. Plan the task to use the correct tool, have appropriate supplies, and coordinate tasks efficiently. Use proper lifting techniques (lift with your legs, not your back). Use a buddy or cart to lift or move items over 50 pounds.</p> <p><u>Handling contaminated media:</u> Wear appropriate PPE and avoid contacting contaminated media with bare skin. Follow SOPs and site-specific work plans for collecting environmental samples.</p> <p><u>Work near or around heavy equipment:</u> Be aware of work areas and equipment travel paths. Maintain clear line of site with operator and never enter travel path or swing radius without establishing visual contact. Wear high visibility clothing. Never work under an overhead load.</p> <p><u>Work near roadway/traffic:</u> Be aware of surroundings and proximity to traffic. Wear high-visibility reflective vest. Use vehicle hazard flashers and place traffic cones to designate work area.</p> <p><u>Slips, trips, and falls:</u> Minimize distractions and stay alert when traversing uneven or unfamiliar terrain. Wear appropriate footwear for the conditions and avoid</p>

	<p>carrying bulky or awkward items. Use three points of contact when climbing or descending. Practice good housekeeping.</p> <p><u>Cold weather work:</u> Know the effects of wind chill and be familiar with symptoms of frostbite and hypothermia. Wear multiple layers of loose fitting clothing (wool or synthetic material. NO COTTON). Wear an outer layer of wind/water proof material. Wear insulated hand and footwear. Schedule work for warmer time of day. Take breaks to warm up inside or in a vehicle.</p> <p><u>Warm weather work:</u> Know the effects of the heat index and be familiar with symptoms of dehydration, heat stress, and heat stroke. Wear loose clothing and hat to block sun. Drink cool fluids regularly. Schedule work for cooler time of day. Take breaks to cool down in shaded area with air conditioning.</p> <p><u>Work near and around excavations:</u> Be aware of utility markings. Stay at least 3 feet away from edge of excavation and do not enter any excavation deeper than 4 feet.</p>
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Personal Protective Equipment / Monitoring Equipment / Safety Equipment

Item	Not Applicable	Required	Have Available
Personal Protective Equipment			
High-Visibility Shirt		X	
Reflective Vest			X
Hard Hat		X	
Safety Shoes		X	
Muck Boots (or equal)	X		
Hearing Protection			X
Safety Glasses		X	
Respirator	X		
Personal Floatation Device	X		
Coveralls (e.g., Tyvek)	X		
Rain Gear			X
Cold Weather Gear	X		
Monitoring Equipment			
Photoionization Detector			X
Dust Monitor			X
4-Gas Meter	X		
Safety Equipment			
First Aid Kit		X	
Cell Phone		X	
Fire Extinguisher (in vehicle)	X		
Flashlight	X		
Road Cones	X		

Emergency Services / Contacts

Saratoga Springs Fire Department	911 or (518) 587-3599
Saratoga Springs Police Department	911 or (518) 584-1800
Ambulance	911
Saratoga Hospital	(518) 587-3222
Poison Control Center	(800) 222-1222
NYSDEC Spills Emergency Response Program	(800) 457-7362

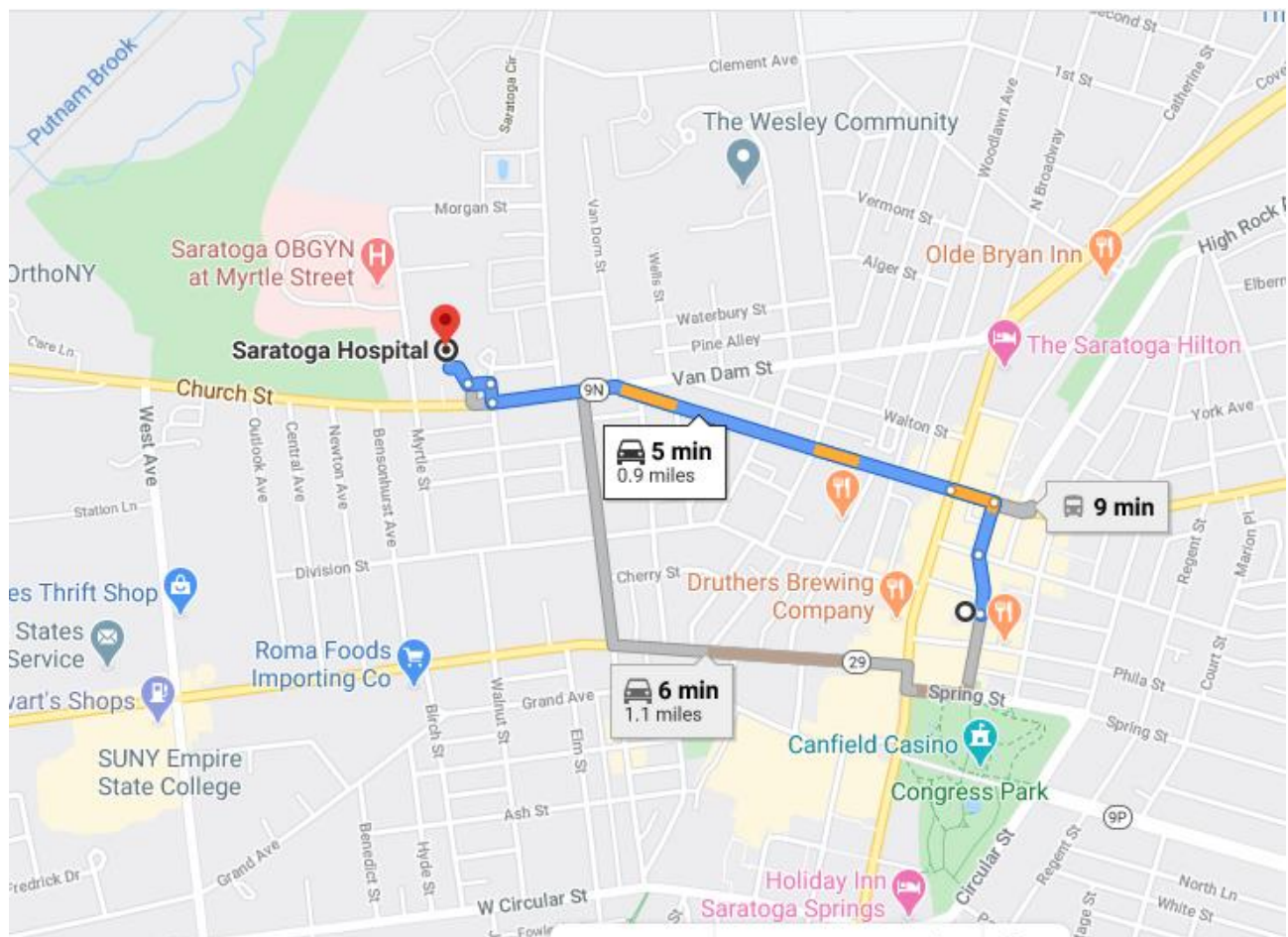
Emergency Room

Saratoga Hospital
211 Church Street
Saratoga Springs, NY 12866

Directions

Turn by Turn Directions:
Head **NORTH** on Putnam St. toward Gardner Lane (390 ft.)
Continue onto Maple Ave. (360 ft.)
Turn left onto Lake Ave. (295 ft.)
Continue Straight onto Church St. (go 0.6 mi.)
Turn right onto N. Van Rensselaer St. (130 ft.)
Turn Left
Turn Right

Emergency Room Map:



PERSONNEL ACCEPTANCE FORM

DATE _____

[illegible]

1.0 GENERAL INFORMATION

The Health and Safety Plan (HASP) identifies specific measures to ensure that hazardous substances or conditions do not adversely impact the health and safety of personnel and the general community (public) for site operations. The HASP is intended to identify potential hazards and appropriate precautions as defined by OSHA 29 CFR 1910.120 (Hazardous Waste Operations and Emergency Response).

All personnel working on this project must read this HASP, acknowledge understanding of this plan, and abide by its requirements.

In general, personnel are responsible for complying with all regulations and policies applicable to the work they are performing. The Project Manager is authorized to stop work if any personnel/subcontractor fails to adhere to the required health and safety procedures.

In addition to this HASP, each contractor must provide their own HASP that addresses minimum training requirements and potential hazards for activities specific to their scope of work.

2.0 DESIGNATION OF RESPONSIBILITIES

Implementing this HASP is the responsibility of all personnel. The Project Manager is responsible for overall project administration, including health and safety. The Field Team Leader is responsible for ensuring the HASP is implemented in the field and is the primary point of contact to the Project Manager. The Project Manager and Field Team Leader will be designated prior to any site activities.

The Project Manager is responsible for:

- Ensuring the availability, use, and proper maintenance of specified personal protective equipment (PPE), decontamination, and other health or safety equipment.
- Maintaining a high level of safety awareness among personnel/subcontractors and communicating pertinent matters to them promptly.
- Ensuring all field activities are performed in a manner consistent with this HASP.
- Monitoring for dangerous conditions during field activities.
- Ensuring proper decontamination of personnel and equipment.
- Coordinating with emergency response personnel and medical support facilities.
- Initiating immediate corrective actions in the event of an emergency or unsafe condition.
- Notifying the New York State Department of Environmental Conservation (NYSDEC) and project owner of any emergency, unsafe condition, problem encountered, or exception to the requirements of this HASP.
- Recommending improved health and safety measures.

The Project Manager generally provides office support to the field team but may be present during field activities. The presence of the Project Manager shall in no way relieve any person or company of its obligations to comply with the requirements of the HASP and all applicable Federal, State and local laws and regulations.

The Field Team Leader is responsible for:

- Communicating with the Project Manager during field activities.
- Ensuring the HASP is implemented during field activities.
- Leading daily “tailgate” safety talks prior to beginning work.
- Monitoring for dangerous conditions during field activities.
- Ensuring proper decontamination of personnel and equipment.

All personnel involved in the project must be familiar with and conform to the safety protocols prescribed in this HASP, and communicate any relevant experience or observations to the Project Manager to ensure that these valuable inputs improve overall safety. Individual project members are the key elements in ensuring health and safety compliance. Every project member is considered responsible for implementing and following this HASP.

Requirements and guidelines in this HASP are subject to modification by the Project Manager in response to additional information obtained during field work regarding the potential for exposure to hazards. Updates will be communicated to field personnel as they are made.

2.1 Daily Tailgate Meeting

Each workday before beginning site activities, the Field Team Leader will lead a “tailgate” safety meeting with all personnel. On larger projects, daily safety meetings may be led by a dedicated safety officer for a general contractor. In these instances, STERLING personnel should attend and participate in the safety meeting. Safety meetings should review the day’s work to be performed, anticipated hazards, and the weather forecast. An opportunity should be given to allow all workers to ask questions. If personnel arrive to the site after the safety meeting has ended, they should seek out the Field Team Leader to receive a summary of the meeting before beginning site work.

2.2 Stop Work Authority

All personnel have authority to stop work if or when they observe an unsafe act in progress or about to occur, or if a task is unclear and needs additional planning. Personnel will initiate a stop work order by notifying the Field Team Leader. If the Field Team Leader is in control of the task, work will be stopped immediately, the task will be reviewed, changes will be made to remedy the unsafe condition, and then work will resume if unsafe condition is corrected.

If the Field Team Leader is not in control of the task (e.g., unsafe act by a contractor), the Field Team Leader will immediately direct STERLING personnel to stop work and move to a safe location. If it is safe to do so, the Field Team Leader will notify those involved in the unsafe task to stop work to review the task. If it is unsafe, the Field Team Leader will notify a project representative in accordance with the chain of command (e.g., site superintendent). The Field Team Leader will then notify the STERLING Project Manager. Following notification, the Field Team Leader, Project Manager, and other project personnel will review the task, implement necessary corrections, and then resume work.

3.0 SITE-SPECIFIC HEALTH AND SAFETY CONCERNS

3.1 Suspected Contaminant Hazards

Elevated concentrations of contaminants are present above the soil cleanup objectives (SCOs). Documented reports of a leaking underground storage tank (UST) and historical use of the property as a dry cleaners has resulted in the residual soil and groundwater contamination. The following is a list of the contaminants of concern identified during the Remedial Investigation (RI).

- petroleum-related volatile organic compounds (VOCs) (Benzene, Ethylbenzene, Toluene),
- chlorinated VOCs (cis-1,2-Dichloroethene, Tetrachloroethene, trans-1,2-dichloroethene, Trichloroethene, and Vinyl Chloride),
- pesticide compounds 4,4-DDT and 4,4-DDE,
- metal compounds (mercury, arsenic, barium, copper, zinc, and lead), and
- PFAS.

Although unlikely, unknown or unexpected materials of a hazardous nature may be encountered during ground intrusive activities. No work will be conducted if field observations or field measurements indicate that there is potential uncontrolled exposure to undefined hazards, or that exposures may exceed protection afforded by the requirements in this HASP.

3.2 Airborne Exposure Limits

Work zone air monitoring will be performed during intrusive activities if suspected contaminants include VOCs or metals. VOCs will be monitored with a photoionization detector calibrated with isobutylene to report total VOCs over a range of 0 to 100 ppm and a precision of 0.1 ppm. Metals will be monitored using particulate dust as a surrogate. Air monitoring will be performed in the work zone at a respirable height. Action levels for implementing engineering controls, administrative controls, or upgrading to Level C PPE are indicated in the table below.

Parameter	Permissible Exposure Limit (PEL)
Benzene	1 ppm
Toluene	200 ppm
Ethylbenzene	100 ppm
Xylenes	100 ppm
Naphthalene	10 ppm
Total VOCs	1.0 ppm
Particulate Dust (PM-10)	150 µg/m ³

3.3 Personal Protective Equipment (PPE)

The following table provides a summary of action levels for airborne hazards that may be encountered by workers during ground intrusive and construction activities, corresponding required actions, and the PPE level required for workers.

AIR MONITORING METHODS, ACTION LEVELS, AND PROTECTIVE LEVELS FOR PERSONNEL

Hazard	Monitoring Unit	Action Level	Protective Levels/Action	Monitoring Schedule
Dust	Particulate Monitor Mini-ram or Equivalent	<5 mg/m ³ above background in the breathing zone.	Level D-Continue Work	Continuous for ground intrusive activities.
		<5 mg/m ³ above background in the breathing zone.	Level D-Continue Work	
		>10 mg/m ³ above background in the breathing zone.	STOP WORK EVACUATE AREA ⁽¹⁾ Implement dust suppression measures	

⁽¹⁾ For all circumstances where work is stopped, the NYSDEC must be notified.

Work at the site will require Level D protection including the following PPE: hard hat, steel-toed boots, high visibility shirts, and safety glasses. Handling contaminated media will require use of nitrile gloves. Depending on suspected contaminants, air monitoring may be performed to determine when to evacuate a work area or when to upgrade to Level C PPE.

No work is anticipated requiring Levels B or A PPE and very limited or no work in Level C. If air monitoring results require PPE upgrades from Level D, then only medically qualified, trained personnel experienced in the use and limitations of air purifying or supplied air respirators will be used. Air purifying respirators with High-Efficiency Particulate Air (HEPA) filters, capable of removing particles of 0.3 micron or larger from air at 99.97% or greater efficiency, should be used when exposure to dust is a potential risk.

Unless the Project Manager directs otherwise, respirators used for organic vapors or particulates should have cartridges changed after eight (8) hours of use, or at the end of each shift, or when any indication of breakthrough or excessive resistance to breathing is detected. OSHA regulations require a Respiratory Protection Program for companies that require employees to enter areas where respirators are required and such Respiratory Protection Programs must address the requirements for replacement of cartridges.

3.4 Suspected Safety Hazards

Strenuous Activity

Field activities often involve strenuous activity such as traversing uneven terrain to reach sampling locations and lifting supplies and equipment. It is important to warm up and stretch muscles prior to beginning field tasks. Simple stretching should be performed to loosen muscles in the legs and back. Field tasks should be planned in advance to ensure correct tools and supplies are available. Tasks should be coordinated efficiently to minimize strenuous activity to the greatest extent possible.

Work Near or Around Heavy Equipment

Typical hazards encountered include those inherent with proximity to heavy equipment operation such as being struck by, run over, or caught between. Heavy equipment accidents can cause serious injury and death. Site workers should be aware of all heavy equipment work areas, their travel path, and swing radius. If personnel on the ground need to approach or cross the path of a heavy machine, a clear line of

visual contact should be established and maintained with the equipment operator until clear of the area. If you cannot see the equipment operator, they cannot see you.

Overhead Electric Lines

Heavy equipment must not operate closer than thirty (30) feet to any overhead lines, measured directly between any part of the equipment and the lines themselves except where electrical distribution and transmission lines have been de-energized and visibly grounded at the point of work, or where insulating barriers have been erected to prevent physical contact with the lines. If drilling or excavating is required within thirty (30) feet of any overhead lines, a written work plan must be provided by the contractor or other equipment operator that includes special measures designed to mitigate the risks and is in accordance with 29 CFR 1926.550(a)(15).

Slips, Trips, and Falls

There may be slip or trip hazards associated with uneven, slippery, or elevated work surfaces. Personnel should minimize distractions and stay alert when traversing unfamiliar terrain. Appropriate footwear should be worn for the conditions, such as traction devices for icy surfaces. Avoid carrying bulky or awkward items that alter your balance or obstruct your vision. Use three points of contact when using stairs or ladders.

Excavations

All excavations will be maintained to prevent access by unauthorized persons and will be filled or fenced off by the end of the workday. Absolutely no one will be permitted in the excavations, except the operator of equipment where the operator is always located above ground level. If equipment breaks down within the excavation, the equipment will have to be towed out of the excavation for repair. All subsurface samples will be obtained by operation of the excavating equipment and will be collected from the excavator bucket.

3.5 Excavator and Drill Rig Operations

Excavation will be performed with a track-mounted excavator or backhoe. To conduct soil borings, a hollow-stem auger or direct push drilling rig will be used. Working with or near this equipment poses potential hazards, including being struck by or pinched/caught by equipment, potentially resulting in serious physical bodily harm or inhaling dust.

In particular, the following precautions will be used to reduce the potential for injuries and accidents:

- The inspection of excavator and drill rig brakes, hydraulic lines, light signals, fire extinguishers, fluid levels, steering, tires, horn, and other safety devices will be conducted prior to the initial mobilization and checked routinely throughout the project.
- Excavator and drill rig cabs will be kept free of all non-essential items and all loose items will be secured.
- Excavators and drill rigs will be provided with necessary safety equipment, including seat belts.
- Drill rig cables and auger flight connections will be checked for evidence of wear. Frayed or broken cables or defective connections will be replaced immediately.
- Parking brakes will be set before shutting off any heavy equipment or vehicle.

- All employees will be briefed on the potential hazards prior to the start of each excavation or drilling project.

3.6 Adverse Weather

Outdoor work can be affected by adverse weather, including electrical storms, extreme heat or cold, or extreme weather events (e.g., tornado, hurricane, blizzard). Prior to initiating field work, the field team will review the weather forecast for the duration of planned field work. The daily weather forecast will be reviewed during the daily tailgate meeting. If the forecast includes potentially adverse weather, an action plan will be reviewed, and the weather will be monitored throughout the day.

If lightning is encountered, all field activity must terminate, and personnel should seek shelter indoors or in a vehicle. Work can resume 30 minutes after the last lightning strike. Extreme heat and cold, ice and heavy rain can produce unsafe conditions. Such conditions, when present, will be evaluated on a case-by-case basis to determine if work shall terminate.

3.7 Fire and Explosion

Use of gasoline or diesel powered equipment increases the risk of fire and explosion hazards. Contractors will be required to store diesel fuel and gasoline in metal cans with self-closing lids and flash arrestors.

3.8 Requirement to Conduct Utility Mark Out

Prior to the start of any subsurface work, underground utilities and piping that may pose a potential hazard will be identified and located. “DigSafely.NewYork” or equivalent service will be called to locate and mark underground utilities. It is the responsibility of the entity performing the intrusive work to place a utility locate request. Generally, the utility locate is the responsibility of a general contractor or subcontractor. Note that state utility marking services generally only mark public utilities; private utilities must be located with a private locating service. Prior to field mobilization, site plans and other documents should be reviewed for documentation of subsurface utilities.

In the field, the field team should confirm with the responsible contractor that a utility locate request has been made and that utilities have been marked. Look around the work area for visual evidence that the locate request has been filled (e.g., utility flags and paint). If there is any question that utilities have not been marked, stop work and review with the contractor and Project Manager.

During intrusive work, ensure that markings are maintained and proper offsets are observed. Intrusive work should never occur within the Tolerance Zone without notifying the utility owner for specific requirements. The Tolerance Zone is generally defined as one half of the utility diameter plus 24 inches on both sides of the marked centerline.

In the event a utility is struck, work will stop and the Emergency Action Plan (Section 6.0) will be implemented.

3.9 Confined Space Entry

Confined space entry is not anticipated for excavating and sampling activities. If a project requires confined space entry, a specific HASP will be implemented.

“Confined Space” is defined as a space that:

1. *“is large enough and so configured that an employee can bodily enter and perform assigned work;*
2. *has limited or restricted means for entry or exit (for example, tanks, vessels, silos, storage bins, hoppers, vaults, and pits are spaces that may have limited means of entry); and*
3. *is not designed for continuous employee occupancy.”*

3.10 Site Work Zones

One of the basic elements of an effective HASP is the delineation of work zones for each ground intrusive location. The purpose of establishing work zones is to:

- Reduce the accidental spread of hazardous substances by workers or equipment from the contaminated areas to the clean areas;
- Confine work activities to the appropriate areas, thereby minimizing the likelihood of accidental exposures;
- Facilitate the location and evacuation of personnel in case of an emergency; and
- Prevent unauthorized personnel from entering controlled areas.

Although a work site may be divided into as many zones as necessary to ensure minimal employee exposure to hazardous substances, this HASP uses the three (3) most frequently identified zones: the Exclusion Zone, Decontamination Zone, and Support Zone. Movement of personnel and equipment between these zones should be minimized and restricted to specific access control points to minimize the spreading of contamination.

- Exclusion Zone

During investigative work, the Exclusion Zone is the immediate excavation, test pit, borehole, or other area where contamination is either known or expected to occur and where the greatest potential for exposure exists. The following protective measures will be taken in the Exclusion Zone.

Unprotected onlookers will be restricted from the excavation location so that they are at least twenty-five (25) feet upwind or fifty (50) feet downwind of excavation or drilling activities.

Workers conducting activities and sampling in the Exclusion Zone will wear the applicable PPE. The actions to be taken and PPE to be worn in the Exclusion Zone if VOCs are above background levels are described in Section 3.3.

- Decontamination Zone

The Decontamination Zone is located at entry/exit points to the Exclusion Zone and is where workers leaving the Exclusion Zone can properly decontaminate themselves and equipment. Depending on the scope of work and site layout, the Decontamination Zone may be a fixed location or a general process. For site investigations, a Decontamination Zone will be established at the upwind perimeter of the Exclusion Zone and will move as the exclusion zone moves with

the investigative work. For larger scopes of work, the Decontamination Zone will be a semi-permanent location. The Decontamination Zone will include necessary personnel, equipment, and supplies. The size and configuration of the Decontamination Zone will be selected by the Project Manager. Personnel and equipment in the Exclusion Zone must pass through this zone before leaving or entering the Support Zone.

- Support Zone

The Support Zone includes all areas located beyond the Exclusion and Decontamination Zones. Break areas, operational direction and support facilities will be located in this area. Eating and drinking will be allowed only in the Support Zone.

3.11 Natural Hazards

Work that takes place in the natural environment may be affected by plants and animals that are known to be hazardous to humans. Spiders, bees, wasps, hornets, ticks, poison oak and poison ivy are only some of the hazards that may be encountered. Individuals who may potentially be exposed to these hazards should be made aware of their existence and instructed in their identification. Emergencies resulting from contact with a natural hazard should be handled through the normal medical emergency channels. Individuals who are sensitive or allergic to these types of natural hazards should indicate their susceptibility to the Project Manager.

3.12 Heat and Cold Stress Hazards

If work is to be conducted during the winter, cold stress is a concern to the health and safety of personnel. Because disposable clothing such as Tyvek does not “breathe”, perspiration does not evaporate and the suits can become wet. Wet clothes combined with cold temperatures can lead to hypothermia. If the air temperature is less than 40 degrees Fahrenheit (°F) and a worker’s clothes become wet due to perspiration, the worker must change to dry clothes.

3.13 Signs and Symptoms of Cold Stress

- **Incipient frostbite:** is a mild form of cold stress characterized by sudden blanching or whitening of the skin.
- **Chilblain:** is an inflammation of the hands and feet caused by exposure to cold moisture. It is characterized by a recurrent localized itching, swelling, and painful inflammation of the fingers, toes, or ears. Such a sequence produces severe spasms, accompanied by pain.
- **Second-degree frostbite** is manifested by skin which has a white, waxy appearance and is firm to the touch. Individuals with this condition are generally not aware of its seriousness, because the underlying nerves are frozen and unable to transmit signals to warm the body. Immediate first aid and medical treatment are required.
- **Third-degree frostbite** will appear as blue, blotchy skin. This tissue is cold, pale and solid. Immediate medical attention is required.

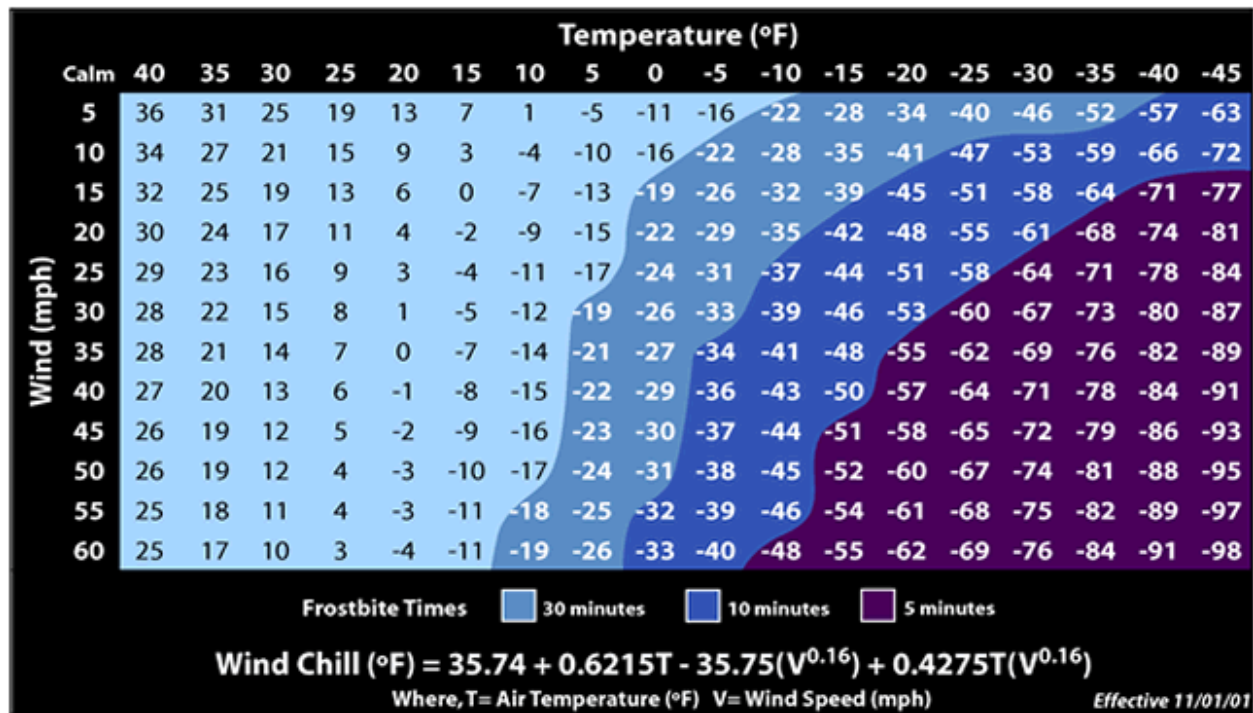
- **Hypothermia** develops when body temperature falls below a critical level. In extreme cases, cardiac failure and death may occur. Immediate medical attention is warranted when the following symptoms are observed:
 - Involuntary shivering;
 - Irrational behavior;
 - Slurred speech;
 - Sluggishness; and
 - Loss of consciousness.

3.14 Preventing Cold Related Illness/Injury

- Train personnel to identify the signs and symptoms of cold stress. Require field personnel to wear proper clothing for cold, wet and windy conditions, including layers that can be adjusted to changing weather conditions. It is important to keep hands and feet dry.
- Field personnel working in extremely cold conditions must take frequent short breaks in warm, dry shelters to allow their body temperature to increase. If possible, field work should be scheduled during the warmest part of the day. The buddy system should be used so that personnel can assist each other in recognizing signs of cold stress.
- Drink warm, sweet beverages and avoid drinks with caffeine and alcohol. Eat warm, high-calorie foods.
- Personnel with medical conditions such as diabetes, hypertension or cardiovascular disease or who take certain medications, may be at increased risk for cold stress.



Wind Chill Chart



3.15 Treatment of Cold Related Injuries

If cold stress symptoms are evident, the affected person must move into a warm, dry sheltered area and all wet clothing should be removed and replaced with dry clothing. If frostbite is suspected, the affected person should be treated by trained medical personnel.

3.16 Signs and Symptoms of Heat Stress

Wearing PPE also puts a worker at a considerable risk for developing heat stress. This can result in health effects ranging from heat fatigue to serious illness or death. Consequently, regular monitoring, remaining hydrated and other precautions are vital.

- **Heat Rash** may result from continuous exposure to heat and humid air.
- **Heat Cramps** are caused by heavy sweating with inadequate electrolyte replacement. Signs and symptoms include:
 - Muscle spasms; and
 - Pain in the hands, feet and abdomen.
- **Heat Exhaustion** occurs from increased stress on various body organs, including inadequate blood circulation due to cardiovascular insufficiency or dehydration. Signs and symptoms include:

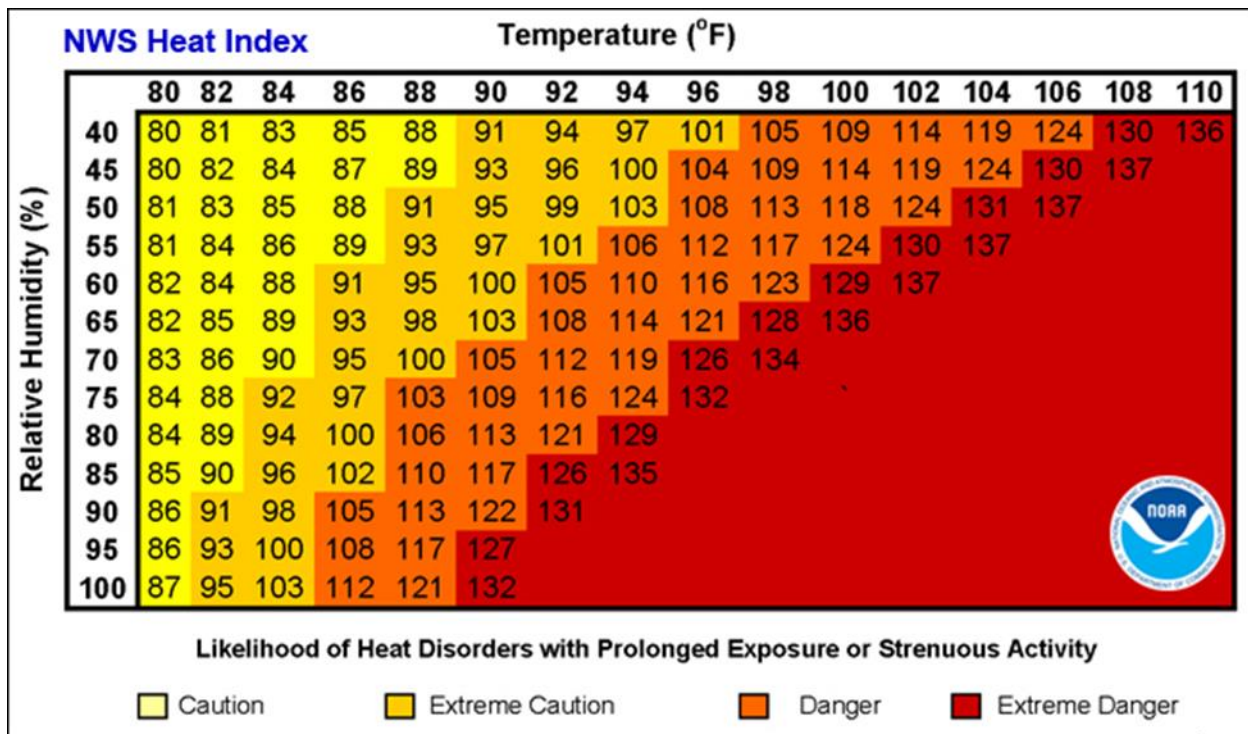
- Pale, cool, and moist skin;
 - Heavy sweating; and
 - Dizziness, fainting, and nausea.
- **Heat Stroke** is the most serious form of heat stress. Temperature regulation fails, and the body temperature rises to critical levels. Immediate action must be taken to cool the body before serious injury or death occurs. Competent medical help must be obtained. Signs and symptoms are:
 - Red, hot, and unusually dry skin;
 - Lack of or reduced perspiration;
 - Dizziness and confusion;
 - Strong, rapid pulse; and
 - Loss of consciousness.

3.17 Preventing Heat Related Illness/Injury

Proper training and preventive measures will help avert serious illness and loss of work productivity. Preventing heat stress is particularly important because once someone suffers from heat stroke or heat exhaustion that person may be predisposed to additional heat injuries. To avoid heat stress, the following steps should be taken:

- Have workers drink sixteen (16) oz. (0.5 liter) of fluid (preferably water or diluted drinks) before beginning work. Urge workers to drink a cup or two every fifteen (15) to twenty (20) minutes, or at each monitoring break. A total of 1 to 1.6 gallons (four (4) to six (6) liters) of fluid per day are recommended, but more may be necessary to maintain body weight.
- If possible, adjust work schedules to avoid the hottest parts of the day.
- Encourage workers to maintain an optimal level of physical fitness.
- Shelter (air-conditioned, if possible) or shaded areas should be provided to protect personnel during rest periods.
- Train workers to recognize, identify, and treat heat stress.

For workers wearing standard work clothes, recommendations for monitoring and work/rest schedules are those approved by American Conference of Governmental Industrial Hygienists (ACGIH) and National Institute of Occupational Safety and Health (NIOSH). Workers wearing semi-permeable PPE or impermeable PPE should be monitored when the temperature in the work area is above 70°F.



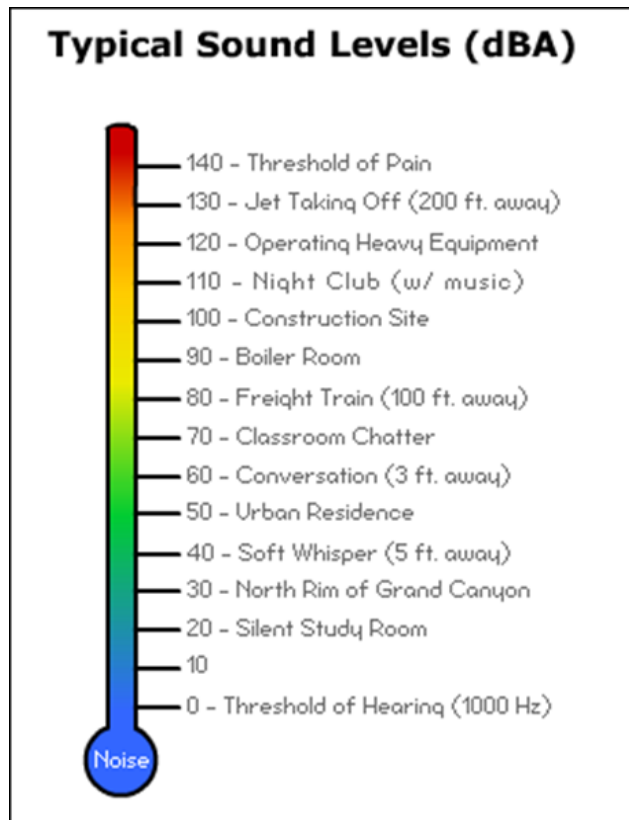
3.18 Noise Hazards

Work that involves the use of heavy equipment can expose workers to noise during field activities that can result in noise-induced hearing loss. Field personnel will have access to appropriate hearing protection such as ear muffs or disposable foam earplugs. The NIOSH recommended exposure limit for sound level exposure is 85 decibels (8-hour time weighted average). A general rule of thumb is to wear hearing protection whenever you need to raise your voice due to surrounding noise to be heard by someone standing next to you. The adjacent chart shows general noise levels.

3.19 Slip, Trip and Fall Hazards

Ground intrusive locations can contain a number of slip, trip and fall hazards for workers, such as:

- Holes, pits, or ditches
- Excavation faces
- Slippery surfaces
- Steep grades
- Uneven grades
- Snow and ice
- Sharp objects



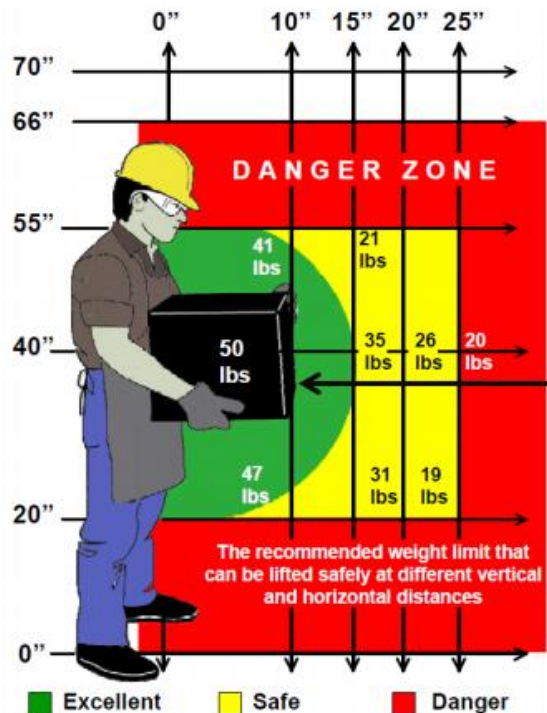
All workers must be instructed to keep back three (3) feet from the top edge of excavation faces.

Workers will be instructed to look for potential safety hazards and immediately inform the Project Manager regarding any new hazards. If the hazard cannot be immediately removed, actions must be taken to warn workers about the hazard.

3.20 Lifting Heavy Objects

Personnel often carry equipment and supplies to and around the work site. Proper planning, lifting technique, and use of assisting equipment are essential for injury prevention. Prior to initiating field activities, know the items to be used, their size and weight, and how far they need to be moved. The use of a vehicle, cart, or sled is preferred over carrying by hand.

If items must be lifted, workers should warm up muscles and stretch before lifting objects. Make sure the travel path is clear of obstructions and tripping hazards. Use proper lifting technique by keeping a wide stance, keeping your back straight, grasping the item firmly, keeping the item close to your body, and pushing with your legs to lift up. Never lift more than 50 pounds without assistance. The figure below shows recommended safe weight limits for lifting. Note that the recommended weight decreases as the load is moved away from the body. Regardless of any weight recommendation, know when to ask for help since each person has a different ability.



3.21 Modifications to this Plan

Requirements and guidelines in this HASP are subject to modification by the Project Manager in response to additional information obtained during field work regarding the potential for exposure to hazards.

4.0 DECONTAMINATION METHODS

4.1 Contamination Prevention Methods

The Project Manager will make all workers aware of the potential for contamination. The following procedures will be established to minimize contact with contaminants:

- Workers will not walk through areas obvious of contamination;
- Workers will not directly touch potentially hazardous substances;
- Workers will wear gloves when touching soil or waste;
- Workers will wear disposable outer garments where appropriate; and
- Excavated soils will be placed on plastic sheeting and covered with plastic sheeting at the end of the workday.

4.2 Decontamination Methods

All workers, clothing, and equipment leaving designated contaminated areas must be decontaminated.

5.0 MEDICAL SURVEILLANCE PROGRAM

5.1 General

Workers who participate in field activities that meet the following criteria will be included in the Medical Surveillance Program:

- All who may be exposed to hazardous substances or health hazards at or above permissible exposure limits, without regard to the use of respirators, for thirty (30) days or more per year, as required by 1926.65(f)(2)(i-iv).
- All who wear a respirator for thirty (30) days or more every year as required by 1926.62(f)(2)(i-iv).
- All who are injured because of overexposure from an incident involving hazardous substances or health hazards.

5.2 Frequency of Medical Exams

Medical examinations and consultations will be provided on the following schedule to the workers who meet the above listed general qualifications:

- Prior to assignment to a work site, if any of the criteria noted above are anticipated.

- At least once every twelve (12) months, unless the physician believes a longer interval (not greater than two (2) years) is appropriate.
- As soon as possible upon notification that a worker has developed signs or symptoms indicating possible overexposure to hazardous materials.

6.0 EMERGENCY ACTION PLAN

Workers will use the following standard emergency procedures. The Project Manager will be notified of any emergency and be responsible for ensuring that the appropriate procedures are followed and that the Project Manager is notified. A first aid kit, an eye wash unit that can provide a minimum flow rate of 0.4 GPM for fifteen (15) minutes, and a fire extinguisher rated 20A-B-C (or higher) will be readily available to workers. All workers will be trained in use of emergency supplies. Questions regarding procedures and practices described in the HASP should be directed to the Project Manager.

6.1 Notification

Any symptoms of adverse health, regardless of the suspected cause, are to be immediately reported to the Project Manager.

Upon the occurrence of an emergency, including an unplanned chemical release, fire or explosion, workers will be alerted and the area evacuated immediately. The Project Manager will notify the ambulance service, fire department and/or police department, as required. Emergency contact telephone numbers are provided below. Re-entry to the work area will be limited to those required to assist injured workers or for firefighting or spill control. Anyone entering the work area following an emergency incident must wear appropriate protective equipment.

6.2 Emergency Services

<u>Emergency Services</u>	<u>Telephone Number</u>
Saratoga Springs Fire Department	911 or (518) 587-3599
Saratoga Springs Police Department	911 or (518) 584-1800
Ambulance	911
Saratoga Hospital	(518) 587-3222
Poison Control Center	(800) 222-1222
NYSDEC Spills Emergency Response Program	(800) 457-7362

A map showing the preferred route to the hospital with written directions is presented in the Site Specific Supplement at the beginning of this HASP.

The following alarm systems will be utilized to alert workers to evacuate the restricted area:

- Direct Verbal Communication
- Radio Communication or Equivalent
- Portable or Fixed Telephone

The following standard hand signals will also be used as necessary:

Hand Signal	Message
Hand gripping throat	Can't breathe/out of air
Grip co-worker's wrist	Leave area immediately, no debate!
Hands on top of head	Need assistance
Thumbs up	Yes/O.K.
Thumbs down	No/Problem

Upon activation of an alarm, workers will proceed to a designated assembly area. The designated assembly area will be determined on a daily basis by the Project Manager and updated as necessary depending upon work conditions, weather, air monitoring, etc. The location of the designated assembly area will be clearly marked and communicated to employees daily or upon relocation of the area. Workers gathered in the designated assembly area will remain there until their presence has been noted. A tally of workers on the daily restricted area access roster will be made as necessary to ensure all workers have been properly evacuated and accounted for.

Workers may return to the designated work area following authorization by the Project Manager.

6.3 Personal Injury

If anyone within a work area is injured and cannot leave the restricted area without assistance, emergency medical services will be notified (see Section 6.2) and appropriate first aid will be administered by certified Emergency Medical Technicians (EMTs).

6.4 Fire/Explosion

Upon the occurrence of a fire beyond the incipient stage or an explosion anywhere on the worksite property, the fire department will be alerted and all personnel moved to a safe distance from the involved area.

6.5 Equipment Failure

If any equipment fails to operate properly, the Project Manager will determine the effect of this failure on continuing operations. If the failure affects the safety of workers (e.g., failure of monitoring equipment) or prevents completion of the planned tasks, all workers will leave the work area until appropriate corrective actions have been taken.

6.6 Record Keeping

Personnel must notify the Project Manager of the following incidents by the end of the work day the incident occurs, and provide a written account within 24 hours:

- **Near Miss**: This is an unplanned event that did not result in injury, or damage, but had the potential to do so. Near misses are opportunities to learn and improve tasks and safety measures.
- **Accident**: This is an unplanned event that causes personal injury or property damage.

The Field Team Leader must notify the Project Manager as soon as possible by phone and provide a written account via email describing the incident, who was involved, and how the incident could have been prevented. The Project Manager will maintain records of reports concerning occupational injuries and illnesses in accordance with 29 CFR 1904.

HEALTH AND SAFETY PLAN

TABLE

Table A-1 Published Airborne Exposure Limits or Odor Thresholds in Parts Per Million (PPM) in Air for Substances that Exceed Applicable Standards in Soil and Groundwater						
Substance	OSHA PEL/STEL/C	NIOSH REL/STEL	ACGIH TLV/STEL	IDLH	Cancer Causing	Range of Odor Thresholds
Groundwater - VOCs:						
Benzene	10/5/25	0.1/1	0.5/2.5	500	Y	1.5
n-Butylbenzene	NA	NA	NA	NA	NA	NA
sec- Butylbenzene	NA	NA	NA	NA	NA	NA
Cis-1,2-Dichloroethene (cis-1,2-DCE)	200/-/-	200/-	200/-	1000	N	19.1
1,1 Dichloroethane	100/-/-	100/-	100/-	3000	N	120
1,2 Dichloroethane	50/-/100	1/2	10/-	50	Y	6-10
Trans 1,2 Dichloroethene	200					
Ethylbenzene	100/-/-	100/125	100/125	800	N	2.3
Isopropylbenzene	50/-/-	50/-	50/-	900	N	
Naphthalene	10/-/-	10/15	10/15	250	N	0.084
N-Propylbenzene	NA	NA	NA	NA	NA	NA
Tetrachloroethene	100/-/200	NA	25/100	150	Y	1
Trichloroethene	100/-/200	25/-	50/100	1000	Y	28
Vinyl Chloride	1/-/5	NA	1/-		Y	3,000

NA = Not Available

Definitions of PEL, REL, STEL, TLV, C and IDLH are provided below:

- PEL** The Occupational Safety and Health Administration's (OSHA) Permissible Exposure Limit for airborne contaminants as a time-weighted average for an eight (8) hour work shift, as listed in 29 CFR 1910.1000.
- REL** The National Institute for Occupational Safety and Health's (NIOSH) Recommended Exposure Level for a work shift.
- STEL** A Short Term Exposure Limit as a 15-minute time-weighted average (No more than four (4) exposures per shift).
- TLV** The American Conference of Governmental Industrial Hygienists' (ACGIH) Threshold Limit Value for airborne concentrations to which it is believed that nearly all workers may be repeatedly exposed day after day without adverse effects.
- C** Ceiling Concentration – The concentration that should not be exceeded during any part of the working exposure.
- IDLH** The Immediately Dangerous to Life and Health maximum concentration from which one could escape within 30 minutes without experiencing any escape–impairing or irreversible health effects. (Note: Level C air-purifying respirators do not adequately protect an individual exposed to these concentrations.) These IDLH values were established by NIOSH and have not been peer reviewed. Caution is recommended with their application

SITE MANAGEMENT PLAN

APPENDIX G

COMMUNITY AIR MONITORING PLAN

COMMUNITY AIR MONITORING PLAN (CAMP)

53 PUTNAM STREET SARATOGA SPRINGS, NEW YORK BCP #C546057

1.0 INTRODUCTION

This Community Air Monitoring Plan (CAMP) has been prepared for the 53 Putnam Street site located at 53 Putnam Street, Saratoga Springs, New York. This CAMP applies to remedial activities associated with the Brownfield Cleanup Program (BCP) Site #C546057. This CAMP provides methods and procedures for real-time air monitoring during soil disturbance with implementation of the selected remedial approach. This CAMP is to be used in coordination with the site-specific Health and Safety Plan (HASP). Actions and requirements to protect the health and safety of onsite workers from airborne contaminants are addressed in the HASP.

This CAMP provides for real-time air monitoring of particulates at the downwind perimeter of each designated work area when remediation-related ground-intrusive activities are implemented at the Site, such as excavation or drilling. The CAMP was developed from the New York State Department of Health (NYSDOH) Generic CAMP provided in the DER-10 Technical Guidance for Site Investigation and Remediation. This CAMP provides a measure of protection for the downwind community of potential receptors (including residences, businesses, and personnel not directly involved with work activities) from potential airborne contaminant releases as a direct result ground intrusive activities. Contractors should employ Best Management Practices (BMP) and common-sense measures to minimize dust and odors around work areas.

Analytical results of previous subsurface investigations indicated concentrations of organic compounds (VOC) above New York State Department of Environmental Conservation (NYSDEC) unrestricted use soil cleanup objectives (SCO) in samples collected during the Remedial Investigation and subsequent supplemental sampling events. As such, particulate and VOC monitoring are warranted and will be conducted.

2.0 PARTICULATE MONITORING

Particulates will be monitored during remediation-related ground intrusive activities at the upwind and downwind perimeter of the work zone. Particulate monitoring must use real-time monitoring equipment capable of measuring particulate matter less than 10 micrometers in size (PM-10) and capable of integrating over a period of 15 minutes (or less) for comparison to the airborne particulate action level.

As outlined in NYSDEC DER-10 Appendix 1B: Fugitive Dust & Particulate Monitoring, the monitoring equipment must meet, at a minimum, the following performance standards:

- (a) Objects to be measured: Dust, mists, or aerosols.
- (b) Measurement Ranges: 0.001 to 400 mg/m³ (1 to 400,000 µg/m³).
- (c) Precision (2-sigma) at constant temperature: +/- 10 µg/m³ for one second averaging; and +/- 1.5 g/m³ for sixty second averaging.
- (d) Accuracy: +/- 5% of reading +/- precision (Referred to gravimetric calibration with SAE fine test dust (mmd = 2 to 3 mm, sg= 2.5, as aerosolized).
- (e) Resolution: 0.1% of reading or 1 g/m³, whichever is larger.

- (f) Particle Size Range of Maximum Response: 0.1-10.
- (g) Total Number of Data Points in Memory: 10,000.
- (h) Logged Data: Each data point with average concentration, time/date and data point number.
- (i) Run Summary: overall average, maximum concentrations, time/date of maximum, total number of logged points, start time/date, total elapsed time (run duration), STEL concentration and time/date occurrence, averaging (logging) period, calibration factor, and tag number.
- (j) Alarm Averaging Time (user selectable): real-time (1-60 seconds) or STEL (15 minutes), alarms required.
- (k) Operating Time: 48 hours (fully charged NiCd battery); continuously with charger.
- (l) Operating Temperature: -10 to 50°C (14 to 122°F).
- (m) Particulate levels will be monitored upwind and immediately downwind at the working site and integrated over a period not to exceed 15 minutes

The equipment will be equipped with audible and visual alarms to indicate exceedance of the action level of 150 $\mu\text{g}/\text{m}^3$ (15 minutes average). In addition, fugitive dust migration will be visually assessed during all work activities. Calibration will be in accordance with the instrument manufacturer's recommendations.

The upwind monitoring station will be situated upwind of the perimeter of the work zone. Similarly, the downwind sampling station will be directly downwind of the work zone perimeter of the most prominent dust producing activity.

If the downwind PM-10 particulate level is 100 ug/m^3 greater than background (upwind perimeter) for the 15-minute period or if airborne dust is observed leaving the work area, then dust suppression techniques must be employed. Work may continue with dust suppression techniques provided that downwind PM-10 particulate levels do not exceed 150 ug/m^3 above the upwind level and provided that no visible dust is migrating from the work area.

If, after implementation of dust suppression techniques, downwind PM-10 particulate levels are greater than 150 ug/m^3 above the upwind level, work must be stopped, and a re-evaluation of activities initiated. Work can resume provided that dust suppression measures and other controls are successful in reducing the downwind PM-10 particulate concentration to within 150 ug/m^3 of the upwind level and in preventing visible dust migration.

Should the action level of 150 ug/m^3 continue to be exceeded, work must stop, and DER must be notified. The notification shall include a description of the control measures implemented to prevent further exceedances. All readings must be recorded and be available for review by the NYSDOH, NYSDEC and local Health Department, if requested.

The sampling locations will be periodically adjusted to account for observed changes in wind direction.

3.0 VOC MONITORING

As outlined in NYSDEC DER-10, VOCs will be monitored at the downwind perimeter of the immediate work area (i.e., the exclusion zone) on a continuous basis, or as otherwise specified, with a photoionization detector (PID). Upwind concentrations will be measured at the start of each workday and periodically thereafter to establish background conditions, particularly if wind direction changes. The PID will be calibrated at least daily according to the manufacturer instructions for the contaminant(s) of concern or for an appropriate surrogate. The equipment will be capable of calculating 15-minute running average concentrations, which will be compared to the levels specified below.

- If the ambient air concentration of total organic vapors at the downwind perimeter of the work area or exclusion zone exceeds 5 parts per million (ppm) above background for the 15-minute average, work activities must be temporarily halted and monitoring continued. If the total organic vapor level readily decreases (per instantaneous readings) below 5 ppm over background, work activities can resume with continued monitoring.
- If total organic vapor levels at the downwind perimeter of the work area or exclusion zone persist at levels in excess of 5 ppm over background but less than 25 ppm, work activities must be halted, the source of vapors identified, corrective actions taken to abate emissions, and monitoring continued. After these steps, work activities can resume provided that the total organic vapor level 200 feet downwind of the exclusion zone or half the distance to the nearest potential receptor or residential/commercial structure, whichever is less - but in no case less than 20 feet, is below 5 ppm over background for the 15-minute average.
- If the organic vapor level is sustained above 25 ppm at the perimeter of the work area, activities must be shutdown.
- All 15-minute readings must be recorded and be available for State (NYSDEC and NYSDOH) personnel to review. Instantaneous readings, if any, used for decision purposes should also be recorded

4.0 CAMP SPECIAL REQUIREMENTS

4.1 Special Requirements for Work Within 20 Feet of Potentially Exposed Individuals or Structures

When work areas are within 20 feet of potentially exposed populations or occupied structures, the continuous monitoring locations for VOCs and particulates must reflect the nearest potentially exposed individuals and the location of ventilation system intakes for nearby structures. The use of engineering controls such as vapor/dust barriers, temporary negative-pressure enclosures, or special ventilation devices should be considered to prevent exposures related to the work activities and to control dust and odors. Consideration should be given to implementing the planned activities when potentially exposed populations are at a minimum, such as during weekends or evening hours in non-residential settings.

- If total VOC concentrations opposite the walls of occupied structures or next to intake vents exceed 1 ppm, monitoring should occur within the occupied structure(s). Background readings in the occupied spaces must be taken prior to commencement of the planned work. Any unusual background readings should be discussed with NYSDOH prior to commencement of the work.
- If total particulate concentrations opposite the walls of occupied structures or next to intake vents exceed $150 \mu\text{g}/\text{m}^3$, work activities should be suspended until controls are implemented and are successful in reducing the total particulate concentration to $150 \mu\text{g}/\text{m}^3$ or less at the monitoring point.
- Depending upon the nature of contamination and remedial activities, other parameters (e.g., explosivity, oxygen, hydrogen sulfide, carbon monoxide) may also need to be monitored. Response levels and actions should be pre-determined, as necessary, for each site.

4.2 Special Requirements for Indoor Work with Co-Located Residences or Facilities

Unless a self-contained, negative-pressure enclosure with proper emission controls will encompass the work area, all individuals not directly involved with the planned work must be absent from the room in which the work will occur. Monitoring requirements shall be as stated above under “Special Requirements

for Work Within 20 Feet of Potentially Exposed Individuals or Structures” except that in this instance “nearby/occupied structures” would be adjacent occupied rooms. Additionally, the location of all exhaust vents in the room and their discharge points, as well as potential vapor pathways (openings, conduits, etc.) relative to adjoining rooms, should be understood and the monitoring locations established accordingly. In these situations, it is strongly recommended that exhaust fans or other engineering controls be used to create negative air pressure within the work area during remedial activities. Additionally, it is strongly recommended that the planned work be implemented during hours (e.g., weekends or evenings) when building occupancy is at a minimum.

5.0 FORMS FOR MONITORING AND RESPONSE

Air monitoring will be documented using the attached Air Monitoring Form. This form is to be completed daily and must be made available for NYSDEC, NYSDOH, and the local Health Department review upon request.

In addition, the CAMP data will be provided to NYSDEC and NYSDOH at least weekly.

Response actions to observed exceedances will be documented using attached Exceedances and Actions Taken Form. This form must also be made available for NYSDEC, NYSDOH, and the local Health Department review upon request.

In addition, NYSDEC and NYSDOH will be notified of all CAMP exceedances within 24 hours of occurrence.

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COMMUNITY AIR MONITORING PLAN

APPENDIX 1

AIR MONITORING FORM

Air Monitoring Form

APPENDIX 2

EXCEEDANCES AND ACTIONS TAKEN

**53 PUTNAM STREET
CITY OF SARATOGA SPRINGS, NEW YORK
BCP #C546057**

Exceedances and Actions Taken

Name _____	Date _____
-------------------	-------------------

Time _____	Weather Conditions _____
-------------------	---------------------------------

Location of Exceedance _____	Wind Direction _____
-------------------------------------	-----------------------------

**Type of
Exceedance:**

Action Taken:

SITE MANAGEMENT PLAN

APPENDIX H

QUALITY ASSURANCE PROJECT PLAN



**53 PUTNAM STREET
SARATOGA COUNTY
SARATOGA SPRINGS, NEW YORK**

**QUALITY ASSURANCE PROJECT PLAN
(QAPP)**

NYSDEC SITE NO: C546057

Prepared for:

Putnam Resources, LLC
15 W Main Street, #1C
Cambridge, New York 12816

Prepared by:

Sterling Environmental Engineering, P.C.
24 Wade Road
Latham, New York 12110

June, 2024

"Serving our clients and the environment since 1993"

**53 PUTNAM STREET
SARATOGA COUNTY
SARATOGA SPRINGS, NEW YORK**

**QUALITY ASSURANCE PROJECT PLAN
(QAPP)**

NYSDEC SITE NO: C546057

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1.0 INTRODUCTION

This Quality Assurance Project Plan (QAPP) is for the 53 Putnam Street Site located in Saratoga Springs, Saratoga County, New York (hereinafter referred to as the “site”) and describes detailed groundwater sample collection and analytical procedures. This QAPP is designed to ensure that the processes and procedures necessary to ensure high quality, valid data are followed as described below. Key project personnel are listed below in Table 1.

1.1 Key Project Personnel

Key project personnel are listed in Table 1.

Table 1 - Key Project Personnel

Project Personnel	Title	Organization	E-mail / Telephone
Jonathan Pollard	Project Manager	NYSDEC	jonathan.pollard@dec.ny.gov 518-623-1231
Melissa Deyo	Project Manager	Alpha Analytical Laboratory	melissa.deyo@pacelabs.com 716-427-5229
Andrew Millspaugh, P.E.	Project Manager	Sterling Environmental Engineering, P.C.	andrew.millspaugh@sterlingenvironmental.com (518) 456-4900
Amanda Castignetti	Quality Assurance Officer	Sterling Environmental Engineering, P.C.	Amanda.Castignetti@sterlingenvironmental.com (518) 456-4900
Paul Scholar	Field Team Leader	Sterling Environmental Engineering, P.C.	Paul.Scholar@sterlingenvironmental.com (518) 456-4900

2.0 MONITORING AND SAMPLING

2.1 Groundwater Sampling

Groundwater sampling will be performed at the site for laboratory analysis of volatile organic compounds (VOC) by United States Environmental Protection Agency (USEPA) Method 8260C, and per- and polyfluoroalkyl substances (PFAS) by USEPA Part 537.1. Groundwater sampling will be performed via low-flow methodology or multiple volume purge (i.e. bailers) methods as described in the USEPA Groundwater Sampling Operating Procedure No: SESDPROC-301-R4. Groundwater Sample Reporting limits will be below the water quality standards established by the New York State Division of Water – Technical Operation and Guidance Series (TOGS 1.1.1) and the most current version of the NYSDEC Guidance Document “Sample, Analysis, and Assessment of Per- and Polyfluoroalkyl Substances (PFAS)”.

Sampling locations, required analytical parameters, and reporting requirements are provided below in Table 2.

Table 2 – Groundwater Sampling Requirements

Sampling Location	Well Depth	Analytical Parameters	Reporting	Laboratory
MW-13	20.00'	VOCs via USEPA 8260C SVOCs via USEPA 8270D PFAS via USEPA1633	Category B	Pace Analytical Laboratories
MW-14	20.00'	VOCs via USEPA 8260C SVOCs via USEPA 8270D PFAS via USEPA1633	Category B	Pace Analytical Laboratories
MW-15	20.00'	VOCs via USEPA 8260C SVOCs via USEPA 8270D PFAS via USEPA1633	Category B	Pace Analytical Laboratories
MW-16	20.00'	VOCs via USEPA 8260C SVOCs via USEPA 8270D PFAS via USEPA1633	Category B	Pace Analytical Laboratories
MW-17	20.00'	VOCs via USEPA 8260C SVOCs via USEPA 8270D PFAS via USEPA1633	Category B	Pace Analytical Laboratories
MW-18	22.00'	VOCs via USEPA 8260C SVOCs via USEPA 8270D PFAS via USEPA1633	Category B	Pace Analytical Laboratories
MW-19	22.00'	VOCs via USEPA 8260C SVOCs via USEPA 8270D PFAS via USEPA1633	Category B	Pace Analytical Laboratories
MW-20	24.00'	VOCs via USEPA 8260C SVOCs via USEPA 8270D PFAS via USEPA1633	Category B	Pace Analytical Laboratories

2.2 Field Measurements

Field parameters (pH, specific conductivity, dissolved oxygen, oxidation reduction potential (ORP), and temperature) will be measured and recorded prior to sample collection to ensure collected samples are representative of site groundwater. Monitoring wells will continue to be purged until the groundwater stabilization criteria in Table 3 are met. Field parameters will be recorded prior to sample collection.

Table 3 – Groundwater Stabilization Criteria

Parameter	Stabilization Criteria
pH	± 0.1 Standard Unit
Specific Conductivity (SC)	± 3%
Dissolved Oxygen (DO)	± 10%
Oxidation Reduction Potential (ORP)	± 10 mV
Temperature (°F)	± 3%
Turbidity (NTU)	± 10%

Groundwater samples will be collected and analyzed in accordance with NYSDEC July 2005 Analytical Services Protocol (ASP) or latest ASP revision.

2.3 Laboratory Sample Custody Procedures

An NYSDOH Environmental Laboratory Accreditation Program (ELAP) certified laboratory will be used that meets the requirements for sample custody procedures and cleaning and handling sample containers and analytical equipment. A Chain of Custody (COC) form shall include the sampler(s) name, sample collection time, sample date, analysis type, container type, number of containers, type of preservatives, and reporting requirements. The COC shall accompany the samples from field collection to analysis at the laboratory. Each recipient shall sign and date the COC form when the samples are received. A COC form is provided by the analytical laboratory.

2.4 Data Quality Requirements and Assessments

Data quality requirements and assessments are provided in the NYSDEC ASP, which includes the detection limit for each analyte and sample matrix. Analyte detection limits will be at least as low as the comparative regulatory standard. Note that the quantification limits, estimated accuracy, accuracy protocol, estimated precision, and precision protocol are determined by the laboratory and will be in conformance with the requirements of the NYSDEC ASP (latest revision).

2.5 Sample Identification

Each sample container will have an affixed durable label that specifies the following sample information:

- Sample location.
- Sample type.
- Sample identification number.
- Date and time of sample collection.
- Laboratory analyte.
- Preservative type (if applicable).

2.6 Sample Preservation, Handling, and Shipment

All analytical samples will be placed in appropriate laboratory-provided sample containers as specified in the NYSDEC ASP. Holding time criteria identified for individual ASP methods will be followed.

Prior to transport to the laboratory, sample containers will be checked for proper identification and compared to the field logbook for accuracy. The samples will be wrapped with a cushioning material and will be placed in a cooler with ice immediately after sample collection and maintained at 4 degrees Celsius (4°C) throughout the duration of the sampling event and subsequent transport to and storage at the analytical laboratory until analysis.

Chain of Custody Forms will be placed in a sealed plastic bag and taped to the underside of the cooler lid. The cooler will be sealed with packaging tape and custody seals will be placed in such a manner that any opening of the cooler prior to arrival at the laboratory can be detected.

All samples will be transported to ensure laboratory receipt within 48 hours of sample collection in accordance with NYSDEC requirements. The laboratory will be notified prior to the shipment of the samples, or to arrange a courier pickup. Sample containers and preservation are listed in Table 3.

Table 3 – Sample Preservation Guidelines

Matrix	Analyte	Container Type	Container Size	Preservative
Groundwater	VOC	Glass VOA Vial	40 ml	Hydrochloric Acid (HCL)
Groundwater	SVOC	Amber Glass Jar	250 ml	None
Groundwater	PFAS	Plastic Container	250 ml	None

3.0 DECONTAMINATION PROCEDURES

All field sampling equipment should be sterile and dedicated to a particular sampling location. In situations where this is not possible, decontamination procedures will be used to reduce cross-contamination between sample locations. A decontamination station will be established at an area located away from the suspected source of contamination and close enough to the sampling area to keep equipment handling to a minimum.

All non-disposable equipment will be decontaminated prior to initial use, prior to moving to a new sampling location, and prior to leaving the site. Sampling should begin in the area of the site with the lowest known contamination and proceed to the areas of highest suspected contamination.

3.1 Decontamination Procedures for Sampling Equipment

Teflon, PVC, polyethylene, polystyrene, and stainless-steel reusable sampling equipment decontamination procedures will be as follows:

- Wash thoroughly with non-residual, non-ionic detergent (such as Alconox) and clean potable distilled water, using a brush to remove particulate matter or surface film.
- Rinse thoroughly with distilled water and air dry.
- Containerize decontamination water in appropriate container for offsite management.

4.0 FIELD WORK DOCUMENTATION

Proper management and documentation of field work is essential to ensure all necessary work is conducted in accordance with the QAPP. Daily field reports, correspondence, and photo documentation should be collected, and submitted to the appropriate key project personnel (Table 1).

4.1 Daily Field Report

Pertinent information regarding the site and sampling procedures must be documented. Notations should be made in a legible fashion, noting the time and date of all entries. Information recorded on task-specific field forms need not be duplicated in a logbook. Information recorded in this field report should include,

but not be limited to, the following:

- Project name and address.
- Name, address and telephone number of field contact.
- Site address.
- Purpose of sampling.
- Location of sampling point(s).
- Number(s) and volume(s) of sample(s) taken.
- Description of sampling point and sampling methodology.
- Date and time of collection, arrival and departure.
- Sample distribution and method of storage and transportation.
- References, such as sketches of the sampling site or photographs of sample collection.
- Field observations, including results of field analyses (e.g., pH, temperature, specific conductance), water levels, colors, odors, and sheens.
- Signature of personnel responsible for completing log entries.

4.2 Chain of Custody Forms

The Chain of Custody Form is initiated at the laboratory with bottle preparation and is shipped with the bottles. The Chain of Custody remains with the sample(s) at all times and lists the name of the person assuming responsibility for the samples. This person is tasked with ensuring secure and appropriate handling of the bottles and samples. The completed form should indicate that there were no lapses in sample accountability.

A sample is considered in an individual's custody if any of the following conditions are met:

- It is in the individual's physical possession,
- It is in the individual's view after being in his or her physical possession,
- It is secured by the individual so that no one can tamper with it, or
- The individual puts it in a designated and identified secure area.

At a minimum, the following information shall be provided on the Chain of Custody:

- Project name and address
- Project number
- Sample identification number
- Date
- Time
- Sample location
- Sample media
- Analysis requested
- Number and volume of containers
- Sampler(s) name(s) and signature(s)

- Spaces for relinquished by/received by signature and date/time.

The Chain of Custody Form is filled out and signed by the person performing the sampling. The original of the form travels with the sample(s) and is signed and dated each time the sample is relinquished to another party, until the samples reach the laboratory or analysis is complete. The field sampler keeps one copy and a copy is retained for the project file. Each cooler will have a Chain of Custody that corresponds with the samples for that cooler.

5.0 FIELD CHANGES AND CORRECTIVE ACTION NOTIFICATION

Whenever there is a required or recommended change or correction to sampling procedures, the NYSDEC Project Manager must be notified for approval (Table 1 – Key Project Personnel).

6.0 CALIBRATION PROCEDURES AND PREVENTATIVE MAINTENANCE

The following information regarding equipment will be maintained for the project:

1. Equipment calibration and operating procedures will include provisions for documentation of frequency, conditions, standards, and records reflecting the calibration procedures, methods of usage, and repair history of the monitoring unit. Calibration of field equipment will be performed in accordance with manufacturer recommendations.
2. Critical spare parts, necessary tools, and manuals will be available to facilitate equipment maintenance and repair.

7.0 INVESTIGATIVE DERIVED WASTE DISPOSAL

Groundwater generated from sampling activities must be contained and managed in a drum located onsite. Soiled personal protective equipment (PPE) and disposable sampling equipment will be considered solid waste and contained for offsite disposal. If hazardous waste contamination of PPE or disposable equipment is suspected due to elevated measurements of screening instruments, visual observations, odors or other means, PPE and equipment will be drummed and secured onsite and an approved disposal method will be employed.

8.0 LABORATORY DATA DELIVERABLES, QUALITY ASSURANCE, AND QUALITY CONTROL

Laboratory analytical data require Category A data deliverables as defined in the NYSDEC ASP, July 2005 (or latest available version). Laboratory for endpoint sampling requires Category B data deliverables. A Data Usability Summary Report (DUSR) will be generated by an independent third party for the Category B data deliverables. Quality Assurance/Quality Control (QA/QC) samples for groundwater samples will be analyzed according to the frequency in Table 4.

Table 4 – Quality Assurance / Quality Control (QA/QC) Samples

QA/QC Sample Type (ID)	Frequency	Analyte (Method)
Duplicate (DUP)	1 per 20 samples	VOCs (8260C) SVOCs (8270D) PFAS (1633)
Matrix Spike (MS)	1 per 20 samples	VOCs (8260C) SVOCs (8270D) PFAS (1633)
Matrix Spike Duplicate (MSD)	1 per 20 samples	VOCs (8260C) SVOCs (8270D) PFAS (1633)
Trip Blank (TB)	1 per 20 samples (or 1 per cooler with VOCs)	VOCs (8260C)
Equipment Blank (EB)	1 per 20 samples	PFAS (1633)
Field Reagent Blank (FB)	1 per 20 samples	PFAS (1633)

8.1 Laboratory Trip Blanks

The laboratory supplies trip blank samples with sample containers when VOCs are analyzed. The purpose of trip blank is to detect additional sources of VOCs that might influence contaminant values reported in actual samples both quantitatively and qualitatively. The following are potential sources of contamination:

- Laboratory reagent water
- Sample containers
- Cross contamination in shipment
- Contact with analytical instrumentation during preparation of the sample containers and analysis of the samples at the laboratory
- Laboratory reagents used in analytical procedures

A trip blank consists of a set of 40 mL sample vials filled by the laboratory with demonstrated analyte-free water. Trip blanks should be handled, transported, and analyzed in the same manner as the samples acquired that day, except the trip blank samples are not opened in the field. Trip blanks must accompany samples at a rate of one set per shipment. The temperature of the trip blanks must be maintained at 4°C while onsite and during shipment. Trip blanks must be returned to the laboratory with the same set of bottles they accompanied in the field.

8.2 Duplicates and Matrix Spike/Matrix Spike Duplicates

The selected location for collecting Duplicate and matrix spike/matrix spike duplicates may be randomly chosen. Duplicate sample results are compared to the original sample to ensure proper sampling procedures.

Matrix spike samples are quality control procedures, consistent with NYSDEC ASP specifications, used by the laboratory for internal QA/QC. The matrix spike (MS) and matrix spike duplicates (MSD) are aliquots of a designated water sample which is spiked with known quantities of specified compounds. The matrix spike/matrix spike duplicates are used to evaluate the matrix effect of the sample upon the analytical methodology and to determine the precision of the applicable analytical method.

8.3 Equipment Blanks

Equipment Blanks (EB) are collected to assess the effectiveness of the decontamination process. PFAS-free water is decanted from the groundwater sampling equipment into sterile glassware and transported to the analytical laboratory for analysis. The piece of sampling equipment may be randomly chosen at the time of EB collection.

8.4 Field Reagent Blanks

Field reagent blanks are collected to assess potential outside sources of contamination. The lab will provide a field reagent blank containing PFAS free water and one empty bottle. In the field, the water is poured into the empty laboratory provided bottle and submitted for analysis.

SITE MANAGEMENT PLAN

APPENDIX I

SITE MANAGEMENT FORMS

53 PUTNAM STREET - BCP SITE No. C546057
SARATOGA SPRINGS, NEW YORK (SARATOGA COUNTY)
SITE-WIDE INSPECTION FORM

Date: _____ Inspected By: _____ Weather Conditions: _____

Site Property Item	Condition		Remarks
	Acceptable	Not Acceptable	
1. Compliance with SMP/Environmental Easements			
a. Observed/Documented Changes in Use			
2. Conditions of Protective Cover			
a. Soil cover			
3. Site Conditions at Time of Inspection			
a. General Grounds			
b. Monitoring Wells			
c. Perimeter Fence			
d. Other			
4. Site Records Up-To-Date			
5. Additional Comments/Notes:			



Sterling Environmental Engineering, P.C.

Well Sampling Data Sheet

Project: 53 Putnam Street
Site: BCP Site No: C546057
Date: _____
Sampling Personnel: _____
Sampling Device: _____
Static Water Level: _____
Measuring Point: _____
Total Volume Purged: _____

Well No.: _____
Sample Time: _____
Well Depth: _____
Well Diameter: _____
Screen Length: _____
Casing Type: _____
Tubing Type: _____
Other Info: _____

Time	Pump Rate (L/min.)	Depth to Water (ft.)	Drawdown (< 1m)	pH (± 0.1)	Temp. (°C) (± 3%)	SC (mS/cm) (± 3%)	ORP (mV) (± 10)	DO (mg/L) (± 10%)	Turbidity (nTu)(± 10%)

Notes: _____

Types of Samples Collected:

Information: 2 in. = 617 ml/ft., 4 in. = 2,470 ml/ft., $Vol_{cyl} = \pi r^2 h$, 1 ft³ = 7.48 gal./28.31L

Summary of Green Remediation Metrics for Site Management

Site Name: 53 Putnam Street Site Code: BCP No. C546057
Address: _____ City: _____
State: _____ Zip Code: _____ County: _____

Initial Report Period (Start Date of period covered by the Initial Report submittal)

Start Date: _____

Current Reporting Period

Reporting Period From: _____ To: _____

Contact Information

Preparer's Name: _____ Phone No.: _____
Preparer's Affiliation: _____

I. Energy Usage: Quantify the amount of energy used directly on-site and the portion of that derived from renewable energy sources.

	Current Reporting Period	Total to Date
Fuel Type 1 (e.g. natural gas (cf))		
Fuel Type 2 (e.g. fuel oil, propane (gals))		
Electricity (kWh)		
Of that Electric usage, provide quantity:		
Derived from renewable sources (e.g. solar, wind)		
Other energy sources (e.g. geothermal, solar thermal (Btu))		

Provide a description of all energy usage reduction programs for the site in the space provided on Page 3.

II. Solid Waste Generation: Quantify the management of solid waste generated on-site.

	Current Reporting Period (tons)	Total to Date (tons)
Total waste generated on-site		
OM&M generated waste		
Of that total amount, provide quantity:		
Transported off-site to landfills		
Transported off-site to other disposal facilities		
Transported off-site for recycling/reuse		
Reused on-site		

Provide a description of any implemented waste reduction programs for the site in the space provided on Page 3.

III. Transportation/Shipping: Quantify the distances travelled for delivery of supplies and lab-supplied bottles, shipping of laboratory samples, and the removal of waste.

	Current Reporting Period (miles)	Total to Date (miles)
Standby Engineer/Contractor		
Laboratory Courier/Delivery Service (bottle and sample delivery)		
Waste Removal/Hauling		

Provide a description of all mileage reduction programs for the site in the space provided on Page 3. Include specifically any local vendor/services utilized that are within 50 miles of the site.

IV. Water Usage: Quantify the volume of water used on-site from various sources.

	Current Reporting Period (gallons)	Total to Date (gallons)
Total quantity of water used on-site (not including treated water)		
Of that total amount, provide quantity:		
Public potable water supply usage		
Surface water usage		
On-site groundwater usage		
Collected or diverted storm water usage		

Provide a description of any implemented water consumption reduction programs for the site in the space provided on Page 3.

V. Land Use and Ecosystems: Quantify the amount of land and/or ecosystems disturbed and the area of land and/or ecosystems restored to a pre-development condition (i.e. Green Infrastructure).

	Current Reporting Period (acres)	Total to Date (acres)
Land disturbed		
Land restored		

Provide a description of any implemented land restoration/green infrastructure programs for the site in the space provided on Page 3.

Description of green remediation programs reported above (Attach additional sheets if needed)
Energy Usage:
Waste Generation:
Transportation/Shipping:
Water usage:
Land Use and Ecosystems:
Recommendations/Other:

CONTRACTOR CERTIFICATION
I, _____ (Name) do hereby certify that I am _____ (Title) of _____ (Contractor Name), which is responsible for the work documented on this form. According to my knowledge and belief, all of the information provided in this form is accurate and the site management program complies with the DER-10, DER-31, and CP-49 policies.
<div style="display: flex; justify-content: space-between;"> <div>_____</div> <div>_____</div> </div> <div style="display: flex; justify-content: space-between;"> <div>Date</div> <div>Contractor</div> </div>

SITE MANAGEMENT PLAN

APPENDIX J

REMEDIAL SYSTEM OPTIMIZATION OUTLINE

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