Jay Hague Site
Monroe County
Rochester, New York

SITE MANAGEMENT PLAN

NYSDEC Site Number: C828216

Prepared for:

Jay Hague Properties, LLC
12 Walnut Hill Drive
Penfield, New York 14526

Prepared By:

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Revisions to Final Approved Site Management Plan:

Revision No.	Date Submitted	Summary of Revisions	NYSDEC Approval Date
1.			
2.			
3.			
4.			

November 2023

Certification Statement

I, Michael E. Hanscom, P.E., certify that I am currently a New York State (NYS)-licensed professional engineer (PE) as defined in 6 NYCRR Part 375 and that this Site Management Plan (SMP) was prepared in accordance with all applicable statutes and regulations and in substantial conformance with the New York State Department of Environmental Conservation (NYSDEC) Division of Environmental Remediation (DER) Technical Guidance for Site Investigation and Remediation (DER-10).

Signature

12/25/2023

Date

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List of Acronyms

BCA	Brownfield Cleanup Agreement
BCP	Brownfield Cleanup Program
bgs	Below Ground Surface
CAMP	Community Air Monitoring Plan
CCR	Construction Completion Report
DER	Division of Environmental Remediation
DUSR	Data Usability Summary Report
ECs	Engineering Controls
ECL	Environmental Conservation Law
ELAP	Environmental Laboratory Approval Program
ESA	Environmental Site Assessment
EWP	Excavation Work Plan
FWRIA	Fish and Wildlife Resources Impact Analysis
GWET	Groundwater Extraction and Treatment
HASP	Health and Safety Plan
HRC®	Hydrogen Release Compound®
ICs	Institutional Controls
IRM	Interim Remedial Measure
IW	Interface Well
MNA	Monitored Natural Attenuation
MW	Monitoring Well
NAPL	Non-aqueous Phase Liquid
NYCRR	New York Code Rules and Regulations
NYSDEC	New York State Department of Environmental Conservation
NYSDOH	New York State Department of Health
ORC®	Oxygen Release Compound®
PAHs	Polycyclic Aromatic Hydrocarbons
PCBs	Polychlorinated Biphenyls
PCE	Tetrachloroethene
PE	Professional Engineer
PFAS	Per/polyfluoro Alkyl Substances
PFBA	Perfluorobutanoic Acid
ppb	Parts Per Billion
POG	Protection of Groundwater
PRR	Periodic Review Report
QA/QC	Quality Assurance/Quality Control
QAPP	Quality Assurance Project Plan
QEP	Qualified Environmental Professional
RAAR	Remedial Alternatives Analysis Report
RAOs	Remedial Action Objectives
RI	Remedial Investigation
RIR	Remedial Investigation Report
RIWP	Remedial Investigation Work Plan
RP	Remedial Party
RSO	Remedial System Optimization
SAC	State Assistance Contract
SCG	Standards, Criteria, and Guidelines
SCOs	Soil Cleanup Objectives
SMP	Site Management Plan
SSDS	Sub-slab Depressurization System

List of Acronyms (Cont.)

SVI	Soil Vapor Intrusion
SVOCs	Semi-volatile Organic Compounds
TAL	Target Analyte List
TCL	Target Compound List
TCLP	Toxicity Characteristic Leachate Procedure
TCE	Trichloroethene
TFE	Total Fluids Extraction
TOGS	Technical and Operational Guidance Series
UST	Underground storage tank
VOCs	Volatile Organic Compounds
cVOCs	Chlorinated Volatile Organic Compounds

Executive Summary

The following provides a summary of the controls implemented for the Site, as well as the inspections, monitoring, maintenance and reporting activities required by this Site Management Plan (SMP).

Institutional Controls	1. The property may be used for commercial or industrial use;	
	2. Implement, maintain, and monitor Engineering Control systems; prevent future exposure to remaining contamination by controlling disturbances of the subsurface contamination; and, limit the use and development of the Site to restricted uses only.	
	3. All Engineering Controls must be inspected at a frequency and in a manner defined in the SMP.	
Engineering Controls	1. Cover system	
	2. Long-Term Groundwater Monitoring	
Inspections:		**Frequency:**
1. Cover systems		Annually
Monitoring:		
1. Groundwater monitoring wells		Semiannual
2. Soil Vapor Intrusion Evaluation for New Buildings		As needed
Maintenance:		
1. Cover System		As needed
2. Groundwater monitoring wells		As needed
Reporting:		
1. Periodic Review Report		Annually
2. Site Inspection Report		Annually
3. Remedial System Optimization Report		As needed

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 Jay Hague Site located in Rochester, New York (hereinafter referred to as the "Site") (Figure 1). The Site is currently in the New York State (NYS) Brownfield Cleanup Program (BCP) Site No. C828216 which is administered by the NYS Department of Environmental Conservation (NYSDEC).

Jay Hague Properties, LLC entered into a Brownfield Cleanup Agreement (BCA) on September 1, 2020 with the NYSDEC to remediate the Site. A figure showing the Site, location and boundaries of this 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 (Appendix D) and discussed further in Section 2.0.

After completion of the remedial work (Interim Remedial Measures IRM), some contamination was left at this Site, which is hereafter referred to as "remaining contamination". Institutional/Engineering Controls (IC/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 Monroe County Clerk, required compliance with this SMP and all ECs and ICs 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 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; and
- Failure to comply with this SMP is also a violation of ECL, 6 New York Code, Rules and Regulations (NYCRR) Part 375 and BCA Site No. C828216 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 A of this SMP.

This SMP was prepared by Lu Engineers, on behalf of Jay Hague Properties, in accordance with the requirements of the NYSDEC's Department of Environmental Remediation (DER)-10 ("Technical Guidance for Site Investigation and Remediation"), 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 plan must 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 (RP). Revisions will be necessary upon, but not limited to, the following occurrences:

- A change in media monitoring requirements;
- Upgrades or alterations of a remedial system; and/or
- Excavation and/or removal of contaminated soil, sediment, or groundwater in addition to other significant changes to 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 (PE). In accordance with the Environmental Easement for the Site, the NYSDEC Project Manager 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 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 ECL.
2. 7-day advance notice of any field activity associated with the remedial program.
3. 15-day advance notice of any proposed ground-intrusive activities 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.
4. Notice within 48-hours of any damage or defect to the foundations or structures that reduces or has the potential to reduce the effectiveness of other ECs 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, including 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 shall be submitted to the NYSDEC within 45-days and shall describe and document 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/RP 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 NYSDEDC.

Table 1 includes contact information for the above notifications. 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 Appendix A.

Table 1: Notifications:

Name	Contact Information	Required Notification**
NYSDEC Project Manager- Adam Morgan	Phone: 585-226-5356 Email: adam.morgan@dec.ny.gov	All Notifications
NYSDEC Regional Hazardous Waste Remediation Engineer- David Pratt	Phone: 585-226-5353 Email: david.pratt@dec.ny.gov	All Notifications
NYSDEC Site Control	Email: DERSiteControl@dec.ny.gov	Notifications 1 and 8
NYSDOH Project Manager- Sally Rushford	Phone: 518-402-5465 Email: sally.rushford@health. ny.gov	Notifications 4, 6, and 7

Notifications are subject to change and will be updated as necessary.
** Note: Numbers in this column reference the numbered 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 Rochester, Monroe County, New York and is identified as parcel 105.80-1-13.001 on the City of Rochester Tax Map. The Site is approximately 1.36-acres and is bounded by commercial buildings to the north, east, and southeast and a parking lot to the west. In addition, Hague Street bounds the Site to the east and Jay Street to the south (Figures 1 and 2). The boundaries of the Site are more fully described in Appendix D – Environmental Easement. The owner of the Site parcel at the time of issuance of this SMP is Jay Hague Properties, LLC.

2.2 Physical Setting

2.2.1 Land Use

The Site consists of the following: two (2) manufacturing buildings on the northwestern portion, utilized as a woodworking shop (Building 1) and a machine shop (Building 2), and a parking lot on the southwestern portion. The Site is zoned industrial and is currently occupied by Woerner Industries, LLC (formerly Woerner Industries Inc.), a furniture manufacturing company.

The properties adjoining surrounding the Site primarily include commercial and residential properties. The properties immediately southeast of the Site include a manufacturing building also owned by Jay Hague Properties, LLC; the properties south of Jay Street include two (2) residential properties; the properties immediately north of the Site include a storage building/warehouse; the properties immediately east of the Site on the opposite side of Hague Street include three (3) residential properties; and the properties to the west of the Site include a parking lot.

2.2.2 Geology

Subsurface soil conditions at the Site consist primarily of silt and fine sands with lesser amounts of clay and medium to fine gravels. Fill materials including cinders, slag, concrete fragments and crushed stone are also present in varying thicknesses to depths up to 2.5-feet below ground surface (bgs) beneath Building 1.

According to the New York State Museum's Geologic Map of New York Finger Lakes Sheet, the Site is underlain by Upper Silurian dolostones of the Lockport Group.

Bedrock has been observed at depths ranging between 11 and 15-feet bgs. Rock cores obtained during the Remedial Investigation (RI) generally indicated hard, weathered, massively-bedded dolostone with water-bearing fractures at shallow depths (between 0 and 5-feet below the bedrock/overburden interface). Rock quality designations obtained from cores were generally found to be between 70 and 85%.

The majority of potential water-bearing bedrock fractures appeared to be within the first 5-feet of the bedrock surface. Based on the characteristics of the bedrock at the Site, it is concluded that groundwater flow is predominantly through the bedrock/overburden interface and shallow bedrock fractures. Geological cross sections are shown in Figure 3a & 3b. Site specific boring logs are provided in Appendix E.

2.2.3 Hydrogeology

Groundwater elevations are highest on the southeast portion of the property and lowest along the northwestern portion (directly underneath Building 1), resulting in a general north/northwest groundwater flow direction. The hydraulic gradient across the Site from MW-01 to MW-06 is extremely shallow, with approximately 2.5-feet of vertical displacement over a horizontal distance of approximately 288.5-feet (0.87% slope +/-). Groundwater velocity was calculated to be approximately 2.62×10^{-6} ft/sec (0.22 ft/day).

2.3 Investigation and Remedial Site 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. References for each of the reports are provided in Section 8.0.

From 1999 through 2021, a series of environmental assessments and investigations were conducted relative to the Site, including:

- Phase I Environmental Site Assessment (ESA) by C&O Technologies, dated February 1998;
- Phase II ESA by C&O Technologies, dated March 1998;
- Phase I ESA by LaBella Associates, dated September 2016;
- Phase II ESA by LaBella Associates, dated November 2016;
- Phase II ESA Supplement by LaBella Associates, dated March 2017
- Groundwater Mitigation and Sampling Reports by Lu Engineers, 2018-2020

From the late 1890s to the 1950s, the Site was developed as a residential dwelling. Several lumber storage buildings were also present between the 1910s to the 1950s. Between 1950-1970 a woodworking shop (Building 1) and a machine shop (Building 2) were constructed. One (1) underground storage tank (UST) was reportedly installed at this time.

The Site has been occupied by Woerner Industries, LLC (formerly Woerner Industries Inc.), a furniture manufacturing company, since the 1970s. Records indicate the Site has historically been utilized as a machine shop, metal stamping and fabrication shop, tool manufacturing operation, and a furniture manufacturing facility. Contaminants detected in environmental media likely originated from historical operations that have occurred on-Site since the time of its development as a manufacturing facility in the 1950s.

In March 2020, Lu Engineers conducted a Remedial Investigation (RI) to delineate the nature and extent of subsurface contamination. The results of the RI are described in detail in the following reports:

- RI Report, by Lu Engineers dated January 2023
- IRM Construction Completion Report, by Lu Engineers dated January 2023
- Remedial Alternatives Analysis (RAA) Report, by Lu Engineers, dated January 2023
- Declaration of Statement - Decision Document, by NYSDEC dated June 2023

Investigation efforts included thorough surface and subsurface evaluation of soil and groundwater, as well as soil and limited groundwater remedial pilot testing. Identified COCs consist of cVOCs in Site soils and groundwater and were observed to be somewhat recalcitrant to both in-situ remedial injections and vacuum extraction.

The highest levels of subsurface contamination identified during the RI were located beneath the western portion of Building 1, near a former paint storage shed (refer to the attached Figures). Soil and groundwater in the area includes low-level concentrations of cVOCs and metals. The highest detected concentrations of cVOCs throughout the RI were observed at EW-03 and EW-04, and are likely significantly influenced by the conditions at the time of sampling. Samples at these locations were collected without well purging due to limited access to groundwater in the overburden and slow recharge rate.

Groundwater flow was determined to follow a general north/northwest vector, along an extremely shallow gradient. The RI did not identify sufficient evidence to suggest widespread off-Site migration of groundwater impacts. Off-Site sampling conducted during the RI identified low-level exceedances of cVOCs indicating fluctuating concentrations. It was concluded that the relatively low permeability of Site soils and low hydraulic conductivity of the saturated zone have restricted the nature and extent of COC migration on and off-Site.

A summary of RI findings is presented below:

Surface Soil Analytical Results

Surface soil samples were collected from two (2) bare/uncovered locations of the Site used for greenspace. Observed surface soils consisted of topsoil, comprised primarily sand and silt.

- Several semi-volatile organic compounds (SVOCs), specifically polycyclic aromatic hydrocarbons (PAHs) (including benzo(a)pyrene and benzo(a)anthracene), were identified in exceedance of both Industrial Use SCOs and Protection of Groundwater (POG) Standards for both samples.
- Several pesticides (including 4,4'-DDT, alpha-chlordane, and dieldrin) were detected at concentrations exceeding Unrestricted Use SCOs for both samples. Occurrences of surface soil pesticides are likely attributed to historical treatment of the sampled greenspace areas. It is noted that pesticides were not detected above Unrestricted Use criteria in any of the analyzed subsurface soil or groundwater samples.

- Several metals (including lead and total chromium) were detected at concentrations exceeding Unrestricted Use SCOs for both samples. Elevated concentrations of chromium, lead, and other metals in surface soils are common in urban settings and are generally attributed to human activity including extensive burning of leaded gasoline/coal, and utilization of products such as lead based paint.
- Analytical results for all other analyzed parameters, including VOCs, polychlorinated biphenyls (PCBs), herbicides, and per/polyfluoroalkyl substances (PFAS) were detected below Unrestricted Use SCOs.

Subsurface Soil Analytical Results

Subsurface soil samples were collected from a total of 12 locations across the Site. Soils primarily consisted of sand and silt with lesser portions of clay and medium to fine gravel. All subsurface soil samples were obtained from the overburden/bedrock interface at depths ranging from 9 to 15-feet bgs.

- Trichloroethene (TCE) was detected in exceedance of Unrestricted Use and POG criteria in sample MW-04 only (northwestern portion of the Site).
- Low-levels of TCE were detected at concentrations below regulatory criteria standards in all subsurface soil samples, except for upgradient sample MW-01 (central portion of the Site), which exhibited no detections.
- Chromium was identified in exceedance of Unrestricted Use SCOs for several subsurface soil samples.
- Analytical results for all other analyzed parameters (SVOCs, pesticides, herbicides, PCBs, and PFAS) were below Unrestricted Use SCOs.

Baseline Groundwater Analytical Results

17 wells were sampled during the initial round of baseline characterization sampling.

- Multiple cVOCs were identified at low-level concentrations exceeding Class GA Water Quality Standards across the northern portion of the Site. Primary contaminants of concern include TCE, tetrachloroethene (PCE), and their associated degradation products: cis-1,2-dichloroethene, trans-1,2-dichloroethene, 1,1-dichloroethane, 1,1-dichloroethene, and vinyl chloride.
- Benzene was also detected in exceedance of applicable regulatory criteria for off-Site downgradient well MW-06.
- Lead was detected in exceedance of Class GA Water Quality Standards for sample MW-05 (northcentral portion of the Site).
- Perfluorobutanoic acid (PFBA) was detected in exceedance of Class GA Water Quality Standards from upgradient sample MW-01 (central portion of the Site). Downgradient sampling did not identify concentrations of PFAs at concentrations exceeding applicable regulatory criteria.
- Analytical results for all other analyzed parameters (SVOCs, pesticides, herbicides, and PCBs) did not exceed applicable regulatory criteria.

Post-TFE Pilot Test Groundwater Analytical Results

Four (4) monitoring wells were selected after for follow-up groundwater sampling in order to evaluate the effectiveness of total fluid extraction (TFE) as a remedial method.

- Low-level concentrations of chlorinated cVOCs fluctuated relative to baseline sampling.
- TCE, cis-1,2-dichloroethene, 1,1-dichloroethene, and vinyl chloride concentrations generally decreased, but remained in exceedance of applicable groundwater standards at multiple wells following TFE Pilot Testing.
- TCE concentrations exhibited slight increases at several wells as compared to baseline sampling, potentially due to temporary increased groundwater mobility caused by the TFE Pilot Test.

Air and Soil Vapor Sampling Results

A total of two (2) rounds of soil vapor sampling were completed as part of the RI, including a soil vapor intrusion (SVI) evaluation conducted during the indoor heating season (March 2020) and exterior soil vapor sampling conducted during the summer (August 2021).

SVI Evaluation: Building 1

- One (1) sub-slab vapor intrusion sample, one (1) indoor ambient air sample, and (1) outdoor ambient air sample were collected concurrently over an eight (8)-hour period. Three (3) of the eight (8) compounds listed in the NYSDOH Soil Vapor/Indoor Air Decision Matrices A, B, and C were detected at elevated concentrations.
- TCE was identified in indoor air (not detected in sub-slab vapor) at concentrations requiring source identification and/or mitigation (Matrix A).
- Methylene chloride was detected in sub-slab vapor, indoor and outdoor air at concentrations below NYSDOH recommended action levels.
- 1,1,1-Trichloroethane was detected in sub-slab vapor and indoor air at a concentrations below NYSDOH recommended action levels.

SVI Evaluation: Building 2

- One (1) sub-slab vapor intrusion sample, one (1) indoor ambient air sample, and (1) outdoor ambient air sample were collected concurrently over an eight (8)-hour period. Three (3) of the eight (8) compounds listed in the NYSDOH Soil Vapor/Indoor Air Matrices A, B, and C were detected at elevated concentrations.
- Methylene chloride was detected in sub-slab vapor, indoor and outdoor air at concentrations requiring source identification and/or mitigation (Matrix B).
- TCE was detected in in sub-slab vapor, indoor and outdoor air at concentrations requiring source identification and/or mitigation (Matrix A).
- 1,1,1-Trichloroethane was detected in sub-slab vapor at concentrations below NYSDOH recommended action levels.

Soil Vapor Sampling

- None of the eight (8) compounds listed in the NYSDOH Soil Vapor/Indoor Air Matrices A, B, and C were detected at elevated concentrations.

Interim Remedial Measures

In August 2022, an Interim Remedial Measure (IRM) was completed in accordance with the NYSDEC-approved IRM Work Plan dated June 2022. The IRM was selected based on identified remedial action objectives (RAOs), the present and intended use of the Site, investigations conducted at the Site to date, and coordination with the NYSDEC:

- Pre-IRM utility stakeout
- Soft (pneumatic/vacuum) excavation of soil/fill exceeding the Industrial Use/ POG criteria, to a maximum depth of 1-foot bgs.
- Demarcation barrier placement (synthetic orange snow fencing material) overlain by 1-foot of clean fill (i.e., topsoil) over the entire landscape areas to prevent human exposure to remaining contaminated soil/fill remaining at the Site.
- A total of 18-cubic yards of clean topsoil was imported from Syracusa Sand and Gravel Inc. to backfill the excavations and serve as the soil cover system. Prior to placement, imported materials were characterized in accordance with requirements outlined NYSDEC DER-10 *'Technical Guidance for Site Investigation and Remediation*' Table 5.4(e)10.

Additionally, imported materials were inspected for evidence of contamination (visual, olfactory observations) and screened with a PID by qualified Lu Engineers personnel.

- After backfilling, soils were hand compacted to achieve a stable and homogeneous cover system that is free of stratifications, lenses, or voids. IRM work areas were re-seeded with a lawn seed mix after final grading to stabilize the cover system and prevent potential future erosion. Refer to the Construction Completion Report (CCR) dated October 2022 for a complete summary of completed IRM work.
- Disposal of excavated soils in accordance with applicable regulatory criteria.

As discussed in the work plan, multiple healthy red maple and alder trees are situated within the areas subject to IRM work. Based on correspondence with the NYSDEC, the scope of work was designed to protect the health and quality of the trees. 'Soft-dig' methods (i.e., compressed air and vacuum extraction) were utilized for all IRM excavations to prevent unnecessary damage to the tree roots.

2.4 Remedial Action Objectives

The Remedial Action Objectives (RAOs) for the Site as listed in the Decision Document (DD) dated June 30, 2023, 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, from contaminated groundwater.

RAOs for Environmental Protection:

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

Soil

RAOs for Public Health Protection

- Prevent ingestion/direct contact with contaminated soil.
- Prevent inhalation of or exposure from contaminants volatilizing from contaminants in soil.

RAOs for Environmental Protection

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

2.5.1 Soil

The RI identified low-levels of TCE and RCRA metals at concentrations exceeding Unrestricted Use SCOs in subsurface soils at the Site. Industrial Exceedances of PAHs in surface soil have been mitigated through the installation of a soil cover system in September 2022. No documented exceedances of Industrial Use SCOs remain on-Site.

2.5.2 Groundwater

The RI identified cVOCs, including TCE, PCE, and their associated degradation products in the groundwater at the Site. A TFE Pilot Test was conducted as part of the RI and indicated that low-level concentrations of chlorinated cVOCs fluctuated relative to the baseline sampling. TCE, cis-1,2-dichloroethene, 1,1-dichloroethene, and vinyl chloride concentrations generally decreased, but remained in exceedance of applicable groundwater standards at multiple wells. PFBAs and lead were also detected in exceedances in the groundwater.

2.5.2 Sub-Slab Soil Vapor/Indoor Air

The RI identified cVOCs, including methylene chloride, TCE and 1,1,1-trichloroethane (1,1,1-TCA) in subsurface soil vapor and/or indoor air. For both Buildings 1 & 2, methylene chloride and TCE were detected at higher concentrations in the indoor ambient air sample in comparison with (or equivalent to) the sub-slab vapor sample (note, TCE was not detected in the sub-slab vapor below Building 1). Sub-slab vapor results for methylene chloride under Buildings 1 & 2, and TCE under Building 2, were found below the sub-slab action levels outlined in the NYSDOH Soil Vapor/Indoor Air Matrices. Both compounds are common components of manufacturing products such as wood glue, various adhesives, furniture finishes, and paint/stain remover.

It is noted, that both TCE and methylene chloride were identified in the upwind outdoor air samples (methylene chloride in OA-01 &OA-02, TCE in OA-01 only), indicating a possible off-Site external influence on the observed data.

The high transfer rate of indoor/outdoor air (promoted by the fact that overhead doors are generally open throughout the workday regardless of seasonal conditions) as well as the high-volume ventilation systems for dust control, substantially influence interior air conditions in the buildings. Based on the results of SVI sampling and evaluation of building conditions/day to day operations, it was determined that the elevated concentrations in indoor air are likely a result of facility operations and/or external influence rather than an indication of vapor intrusion.

2.5.2 Soil Vapor

The perimeter soil vapor evaluation completed during the RI did not identify exceedances of NYSDOH criteria, suggesting a limited presence of Site-wide subsurface vapors.

Areas of residual soil and groundwater contamination are indicated on Figure 4. SVI findings/residual contamination are presented on Figure 5.

3.0 Institutional and Engineering Control Plan

3.1 General

Since residual soil and groundwater contamination exists at the Site, IC/ECs 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 Program Manager.

This plan provides:

- A description of all IC/ECs on the Site;
- The basic implementation and intended role of each IC/ECs;
- A description of the key components of the ICs set forth in the Environmental Easement
- A description of the features 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) (Appendix B) for the proper handling of remaining contamination that may be disturbed during maintenance or redevelopment work on the Site; and
- Any other provisions necessary to identify or establish methods for implementing the IC/ECs required by the site remedy, as determined by the NYSDEC.

Areas subject to ICs/ECs are depicted on Figure 7.

3.2 Institutional Controls Systems

A series of ICs are required by the Environmental Easement and Decision Document (DD) to:

(1) implement, maintain, and monitor EC systems;

(2) prevent future exposure to remaining contamination; and

(3) limit the use and development of the Site to restricted uses only. Adherence to these ICs on the Site is required by the Environmental Easement and DD and will be implemented under this SMP. These ICs are:

- Compliance with the Environmental Easement and DD and all elements of this SMP by the Declarant and the Declarant's successors and assigns
- All ECs on the controlled property must be inspected at a frequency and in a manner defined in the SMP.
- Groundwater and other environmental or public health monitoring must be performed as defined in this SMP.
- Data and information pertinent to Site management of the controlled property must be reported at the frequency and in a manner defined in this SMP.

ICs identified in the Environmental Easement may not be discontinued without amendment to or extinguishment of the Environmental Easement. Site restrictions that apply to the controlled property are:

- The property may only be used for commercial/industrial use.
- 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 NYSDOH or the Monroe County Department of Health (MCDOH) to render it safe for use. The user must first notify and obtain written approval to do so from the Department.
- 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, inspection, and reporting of any mechanical or physical component of the remedy shall be performed as defined in this SMP;
- The potential for vapor intrusion must be evaluated for any buildings developed in the area within the IC boundaries and any potential impacts that are identified must be monitored or mitigated;
- Vegetable gardens and farming on the Site are prohibited; and
- 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 Control Systems

3.3.1 Site Cover System

Based on correspondence with NYSDEC, concentrations of PAHs in surface soils required mitigation through implementation of a cover system. Exposure to remaining contamination in soil/fill, groundwater and soil vapor at the Site is prevented by a soil cover system across the entirety of the Site.

This cover system is comprised of asphalt pavement, concrete-covered sidewalks, concrete building slabs, and the IRM implemented soil cover system. Figure 6 presents the location of the cover system and applicable demarcation layers. Any future intrusive work that will penetrate the Site cap, encounter, or disturb the remaining contamination, including any modifications or repairs to the existing cover system will be performed in compliance with the EWP that is attached as Appendix B to this SMP.

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 a Health and Safety Plan (HASP) and Community Air Monitoring Plan (CAMP) prepared for the Site included in Appendix H. The HASP is in current compliance with the latest version of DER-10, 29 Code of Federal Regulations (CFR) 1910, and 29 CFR 1926; and all other applicable federal, state, and local regulations. Based on future changes to state and federal health and safety requirements, and specific methods employed by future contractors, the HASP and CAMP will be updated and re-submitted with the notification provided in Section G-1 of the EWP.

3.3.2 Long-Term Groundwater Monitoring

Semiannual groundwater monitoring will continue, as determined by the NYSDEC, until residual groundwater concentrations are found to be consistently below NYSDEC standards or have become asymptotic at an acceptable level over an extended period. Monitoring will continue until permission to discontinue is granted in writing by the NYSDEC.

3.3.3 Criteria for Completion of Remediation/Termination of Remedial Systems

Generally, remedial processes are considered completed when monitoring indicates that the remedy has achieved the remedial action objectives identified by the decision document. The framework for determining when remedial processes are complete is provided in Section 6.4 of NYSDEC 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.

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 regulations and guidance. Also, the remedial party will ensure that no ongoing erosion is occurring on the Site.

Site Cover System

The composite cover system is a permanent control, and the quality and integrity of this system will be inspected at defined, regular intervals in accordance with this SMP in perpetuity.

Monitoring Wells Associated with Long Term Monitoring

Groundwater monitoring activities to assess cVOC concentrations 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 or the site SCGs or have become asymptotic at an acceptable level over an extended period.

If monitoring data indicates that monitoring may no longer be required, a proposal to discontinue the remedy 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

4.1 General

The Monitoring and Sampling Plan describes the measures for evaluating the performance and effectiveness of the remedy to reduce or mitigate contamination at the Site, the soil cover system, and all affected Site media identified below. This Monitoring and Sampling Plan may only be revised with the approval of NYSDEC Program 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 G.

The Monitoring and Sampling Plan describes the methods to be used for:

- Sampling and analysis of appropriate media (e.g., groundwater);
- Assessing compliance with applicable NYSDEC SCGs, particularly ambient groundwater standards and Part 375 Soil Cleanup Objectives (SCOs) for soil; and
- 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 (e.g., well logs);
- Analytical sampling program requirements;

- Inspection and maintenance requirements for monitoring wells;
- Monitoring well decommissioning procedures; and
- 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 annually. 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 (QEP) 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. Modification to the frequency or duration of the inspections will require 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 (Appendix I). 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, a confirmation sampling and a health and safety inspection.
- Compliance with permits and schedules included in the OMP.
- 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. 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; and
- 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 NYCCR 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 Program Monitoring and Sampling

4.3.1 Remedial System Monitoring

Monitoring of the Site Cover System and groundwater monitoring wells will be performed on a routine basis, as identified in the table below. The monitoring of the remedial systems must be conducted by a QEP, 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. Modifications to the frequency or sampling requirements will require 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 Site Cover System has been reported or an emergency occurs that is deemed likely to affect the operation of the system.

Trends in contaminant levels in air, soil, and/or groundwater in the affected areas, will be evaluated and evidence of potential off-Site migration will be monitored. Monitoring programs are summarized in the table below.

The results of the semiannual sampling will be issued in separate reports each year to the various program stakeholders, including Jay Hague Properties, LLC and the NYSDEC, at a minimum.

Table 2- Monitoring and Inspection Schedule

Monitoring Program	Frequency	Matrix	Analysis
Groundwater Monitoring	Semiannual	Groundwater	EPA Method 8260 TCL VOCs
Cover System Monitoring	Annual	Soil/Site Cover System	Visual Inspection, determine applicable maintenance

A soil cover system was constructed to prevent human exposure to residual contaminated subsurface soil and groundwater. The Site-wide cover system consists of various hardscape present on-Site (buildings, parking lots, sidewalks, etc.) in addition to the IRM installed surface soil cover system.

The cover system will be monitored for the following during each inspection:

- Visible debris, litter, and waste.
- Loss of vegetative and hardscape cover.
- Integrity of drainage system including:
  - Clogging of swales and drop inlet covers
  - Sediment build-up
  - Pooling or ponding
  - Slope integrity and overall adequacy of surface runoff collection system.
- Conditions of hardscape such as asphalt and concrete pavement.
- Condition of entrance gates.
- Integrity of groundwater monitoring wells (to be inspected during sampling).

A Site Plan is included as Figure 2. A Site inspection form and an example groundwater monitoring log are included in Appendix I.

4.3.2 Long-Term Groundwater Monitoring

Groundwater monitoring will be performed on a semiannual basis to assess the remedy. The network of monitoring wells has been installed to monitor both up-gradient and down-gradient groundwater conditions at the Site. The sampling frequency or sampling requirements may be modified with the approval of NYSDEC Project Manager. The SMP will be modified to reflect changes in sampling plans approved by the NYSDEC. Sampling locations, required analytical parameters and schedule are provided in the table below:

Table 3- Sampling Requirement and Schedule

Groundwater Monitoring Locations						
Well ID	**Location**	**X Coordinate**	**Y Coordinate**	**Elevation (ft.)**	**Analysis**	**Frequency**
Upgradient Sampling Locations						
MW-02	on-Site	1397918.6698	1152717.0177	99.54	EPA 8260 TCL VOCs	Semiannual
IW-03		1397988.1805	1152805.5192	99.32		
Downgradient Sampling Locations						
MW-04	on-Site	1397952.0411	1152854.1172	99.28	EPA 8260 TCL VOCs	Semiannual
MW-05		1398048.9343	1152852.6149	99.19		
MW-06	off-Site	1398009.0578	1152875.9433	99.57		

Monitoring wells included in the long-term groundwater monitoring program are depicted in Figure 2. Detailed sample collection and analytical procedures and protocols are provided in Appendix F – Field Sampling Plan and Appendix G – Quality Assurance Project Plan.

All groundwater sampling activities will be recorded in a field book and/or a groundwater-sampling log presented in Appendix I. Groundwater monitoring wells will be purged prior to sampling using a Peristaltic GeoPump and dedicated high density polyethylene (HDPE) tubing. A YSI water quality meter (or similar) with a flow-through cell, which includes probes for measurement of pH, reduction-oxidation potential, turbidity, dissolved oxygen, temperature, and conductivity will be utilized to determine water quality prior to sampling.

Groundwater samples will be placed in appropriate sample containers, sealed, and submitted to an Environmental Laboratory Approval Program (ELAP)-certified laboratory for analysis. The samples will be labeled with sufficient detail, including Site number, matrix, sample location, and month/year of collection.

QA/QC samples will be collected at the frequency of one duplicate and one matrix spike/matrix spike duplicate (MS/MSD) per sampling event. Sample forms to be completed during groundwater sampling activities are included in Appendix I.

5.0 Operation and Maintenance Plan

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

6.0 Periodic Assessments and 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 of vulnerability assessments that will be conducted for the Site during periodic assessments, and briefly summarizes the vulnerability of the Site and ECs to severe storms/weather events and associated flooding.

According to the Federal Emergency Management Agency (FEMA) National Risk Index Map, the Site is located in an area of relatively low flood hazard risk.

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 of the SMP provides a summary of any green remediation evaluations to be completed for the Site during Site management, and as reported in the PRR.

Waste generated and energy consumed by the remedy (sampling and inspections) will be minimal. Given that the remedy does not rely on electrical or mechanical operations; energy usage, water usage, land disturbance and emissions will be limited.

6.2.1 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.

6.2.2 Remedial Systems

Remedial systems are not presently operated at the Site.

6.2.3 Frequency of Sampling and Other Periodic Activities

Transportation to and from the Site, use of consumables in relation to visiting the Site in order 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.

6.3 Remedial System Optimization (RSO)

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:

- Remedial actions have not met or are not expected to meet RAOs in the time frame estimated in the DD;
- Management and operation of the remedial system is exceeding the estimated costs;
- The cover 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; and
- A new and applicable remedial technology becomes available to remediate contaminants that are not listed in the Certificate of Completion. Contaminants listed in the Certificate of Completion are associated with a liability release for no further action.

An RSO will provide a critique of a Site's 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 time frames. Green remediation technology and principals are to be considered when performing the RSO.

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 QEP, 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.

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 in the table below and summarized in the Periodic Review Report.

Table 4: Schedule of Interim Monitoring/Inspection Reports

Task/Report	Reporting Frequency*
Site Inspection Report	Annually
Periodic Review Report	Annually, or as otherwise determined by the NYSDEC

*The frequency of events will be conducted as specified until otherwise approved by the NYSDEC Project Manager.

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);
- 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; and
- A determination as to whether contaminant conditions have changed since the last reporting event.

If necessary, 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); and
- 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 is to be supplied electronically and submitted to the NYSDEC EQuISTM database in accordance with the requirements found at this link http://www.dec.ny.gov/chemical/62440.html.

7.2 Periodic Review Report

A PRR will be submitted to the NYSDEC Project Manager annually beginning 16-months after the Certificate of Completion is issued. 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 D-Environmental Easement.

The report will be prepared in accordance with NYSDEC DER-10 and submitted within 30-days of the end of each certification period. Media sampling results will also be incorporated into the PRR. The report will include:

- Identification, assessment and certification of all ICs/ECs 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.
- A summary of any discharge monitoring data and/or information generated during the reporting period with comments and conclusions.
- Data summary tables and graphical representations of contaminants of concern by media (groundwater, soil vapor, etc.), 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 is supplied electronically and submitted to the NYSDEC EQuISTM database in accordance with the requirements found at this link: http://www.dec.ny.gov/chemical/62440.html.
- Community air monitoring data required during excavation work (as applicable). Any excavation must be completed in accordance with the Excavation Work Plan (Appendix B).
- A Site evaluation, which includes the following:
    - The compliance of the remedy with the requirements of the Site-specific Remedial Action Work Plan, Record of Decision, or Decision Document;

- The operation and the effectiveness of all controls, etc., including identification of any needed repairs or modifications;
- Any new conclusions or observations regarding Site contamination 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;
- An evaluation of trends in contaminant levels in the affected media to determine the remedy continues to be effective in achieving remedial goas as specified by the RAWP, ROD, or DD; and
- The overall performance and effectiveness of the remedy.

7.2.1 Certifications of Institutional/Engineering Controls

Following the last inspection of the reporting period, a qualified environmental professional as defined in 6 NYCRR Part 375 or Professional Engineer licensed to practice and registered in New York State will prepare, and include the PRR, the following certification, per the requirements of NYSDEC DER-10:

"For each EC/IC 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 EC/IC required by the remedial program was performed under my direction;*
- *The IC and/or EC employed at this Site is unchanged from the date the control was put in place, or last approved by the 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 SMP for this control;*
- *Access to the Site will continue to be provided to the 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 DCR;*
- *The EC 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; and*
- *The information presented in this report is accurate and complete.*

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 or Owner's Designated Site Representative] for the Site.

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 NYSDEC has determined that this Site does not represent a significant threat to public health or the environment, however contaminants in the groundwater exceed drinking water standards, and therefore the following shall also be included:

"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

every five years the following certification will be added:
The assumptions made in the qualitative exposure assessment remain valid."

The signed certification will be included in the PRR. The PRR 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 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 by the NYSDEC Project Manager.

7.4 Remedial System Optimization Report

If an RSO is to be performed (Section 6.3), upon completion of an RSO, an RSO report must be submitted to the NYSDEC Project Manager for 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 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 the NYSDEC Project Manager and the NYSDOH project manager.

8.0 References

A listing of all site-specific reports utilized for preparation of the SMP are listed below:

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

NYSDEC DER-10 – "Technical Guidance for Site Investigation and Remediation".

NYSDEC, 1998. Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations Division of Water Technical and Operational Guidance Series (TOGS) 1.1.1. June 1998 (April 2000 addendum).

Phase I Environmental Site Assessment (ESA); February 1998 by C & O Technologies

Phase II ESA; March 1998 by C & O Technologies

Phase I ESA; December 1998 by C & O Technologies

Phase I ESA (1030 Jay Street); February 2001 by Sear-Brown

Phase II ESA (1030 Jay Street); February 2001 by Sear-Brown

Remedial Activities Report (1030 Jay Street); January 2009 by Passero Associates

Phase I ESA; September 2016 by LaBella Associates

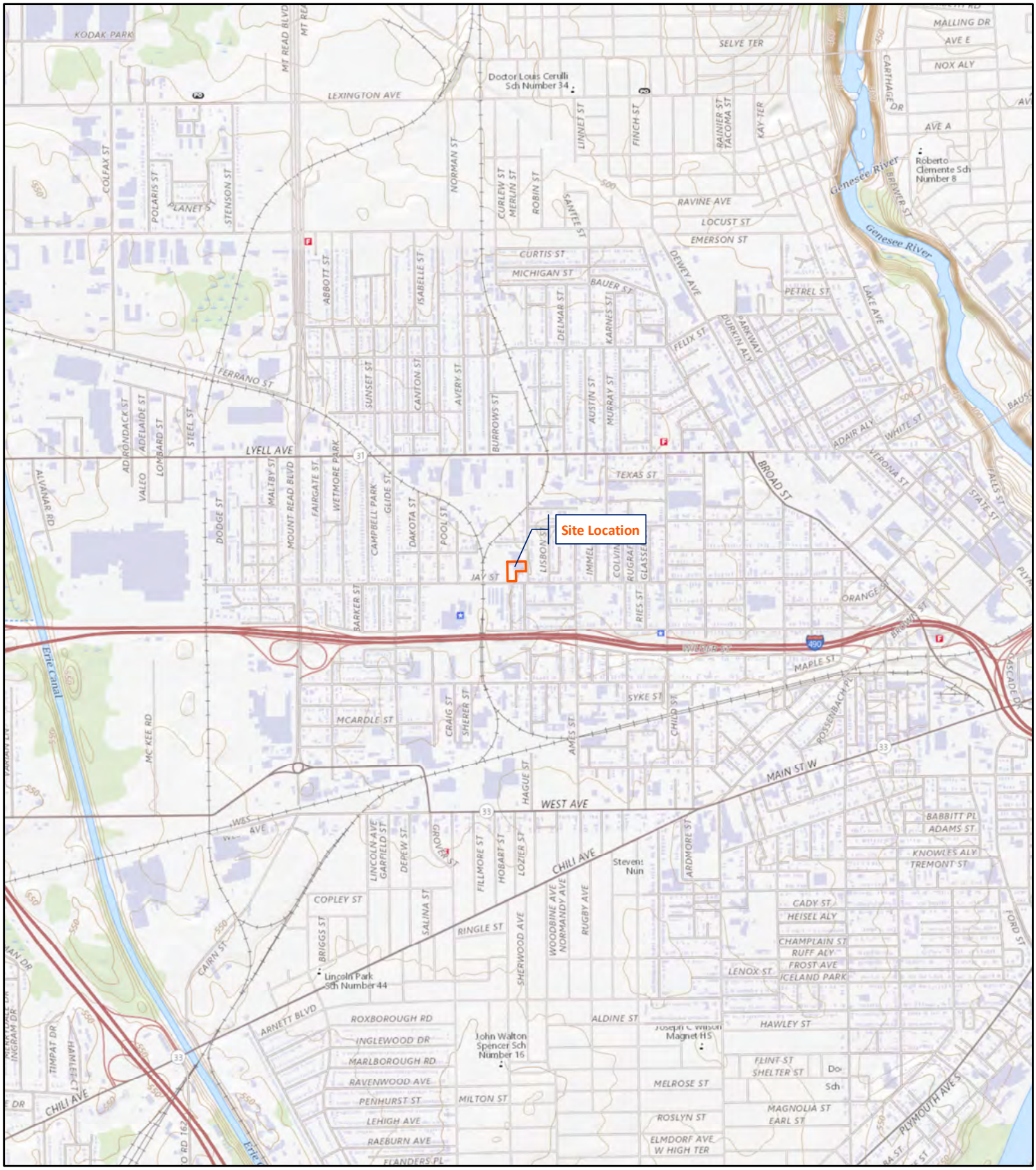
Phase II ESA; November 2016 by LaBella Associates

Phase II Supplement; March 2017 by LaBella Associates

Remedial Investigation; 2021 by Lu Engineers

Remedial Alternatives Analysis Report; 2021 by Lu Engineers

Interim Remedial Measures Construction Completion Report; 2023 Lu Engineers



Scale 1: 24,000

Contour Interval: 10-feet

1,000 0 1,000 2,000 4,000

Feet

N

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Figure 1. Site Location Map Jay-Hague Site (#C828216)
Site Management Plan
485 Hague Street, Rochester NY

DATE: September 2023
PROJECT #: 50380
DRAWN/CHECKED: BGS/GLA
DATA SOURCE: USGS Topo Basemap from ArcGIS Online

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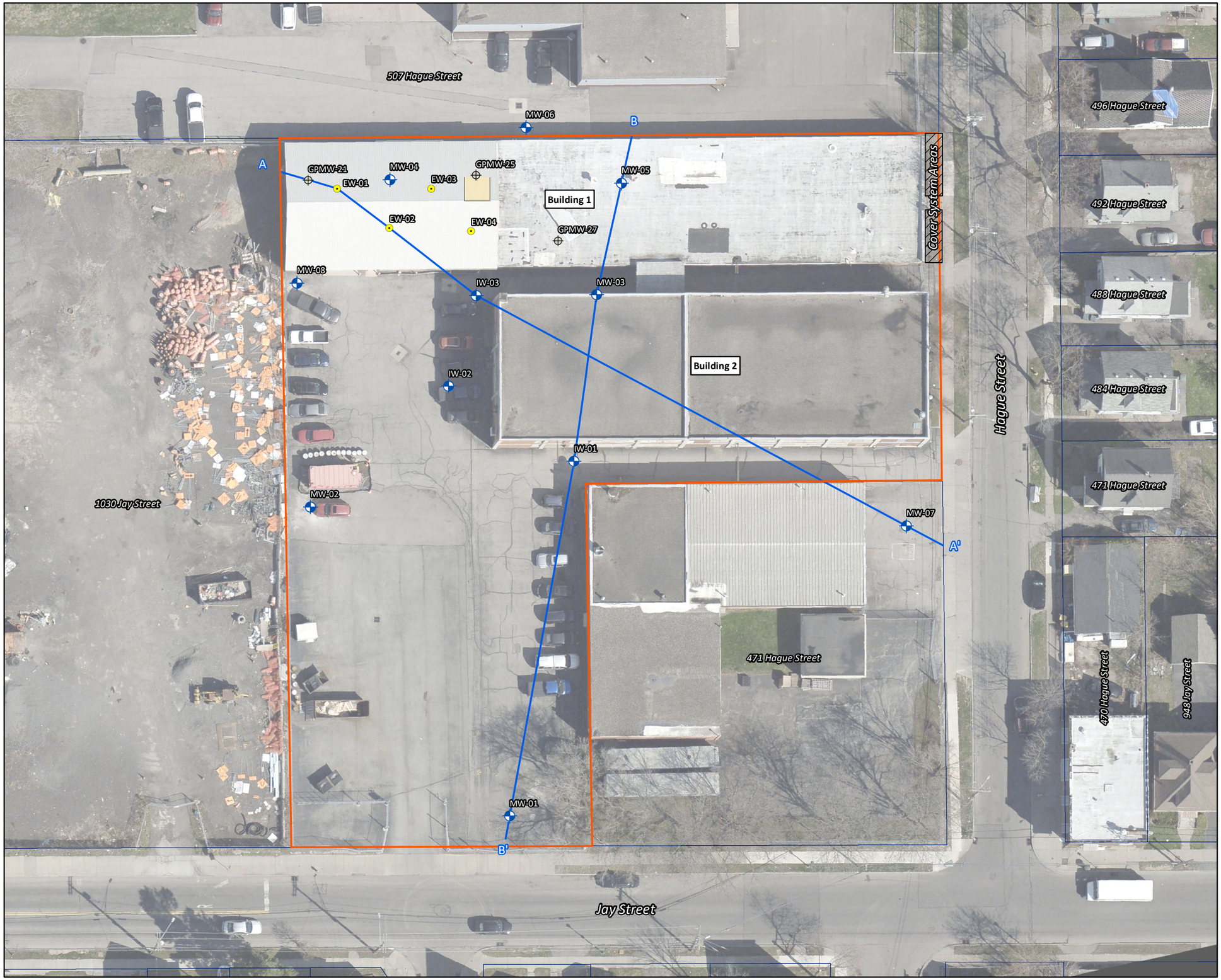


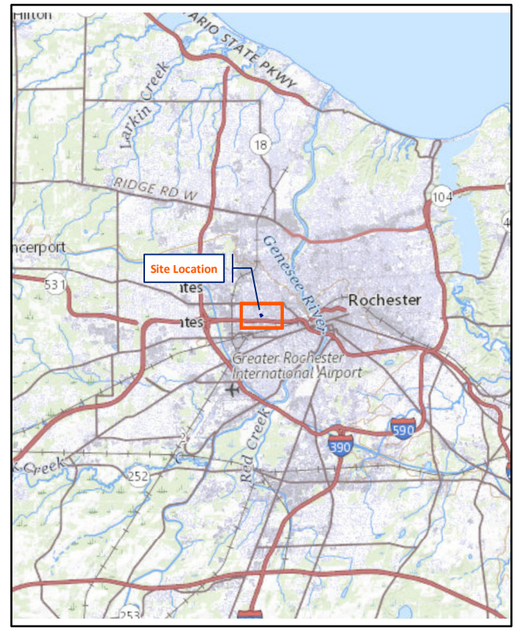


Figure 2.
Site Plan

Project:
Jay-Hague Site (#C828216)
Site Management Plan

Location:
485 Hague Street
City of Rochester, Monroe County, NY

Legend

- Site Boundary
- Parcel Boundary
- Former Paint Storage Building
- Extraction Well
- Monitoring Well
- Mini-well

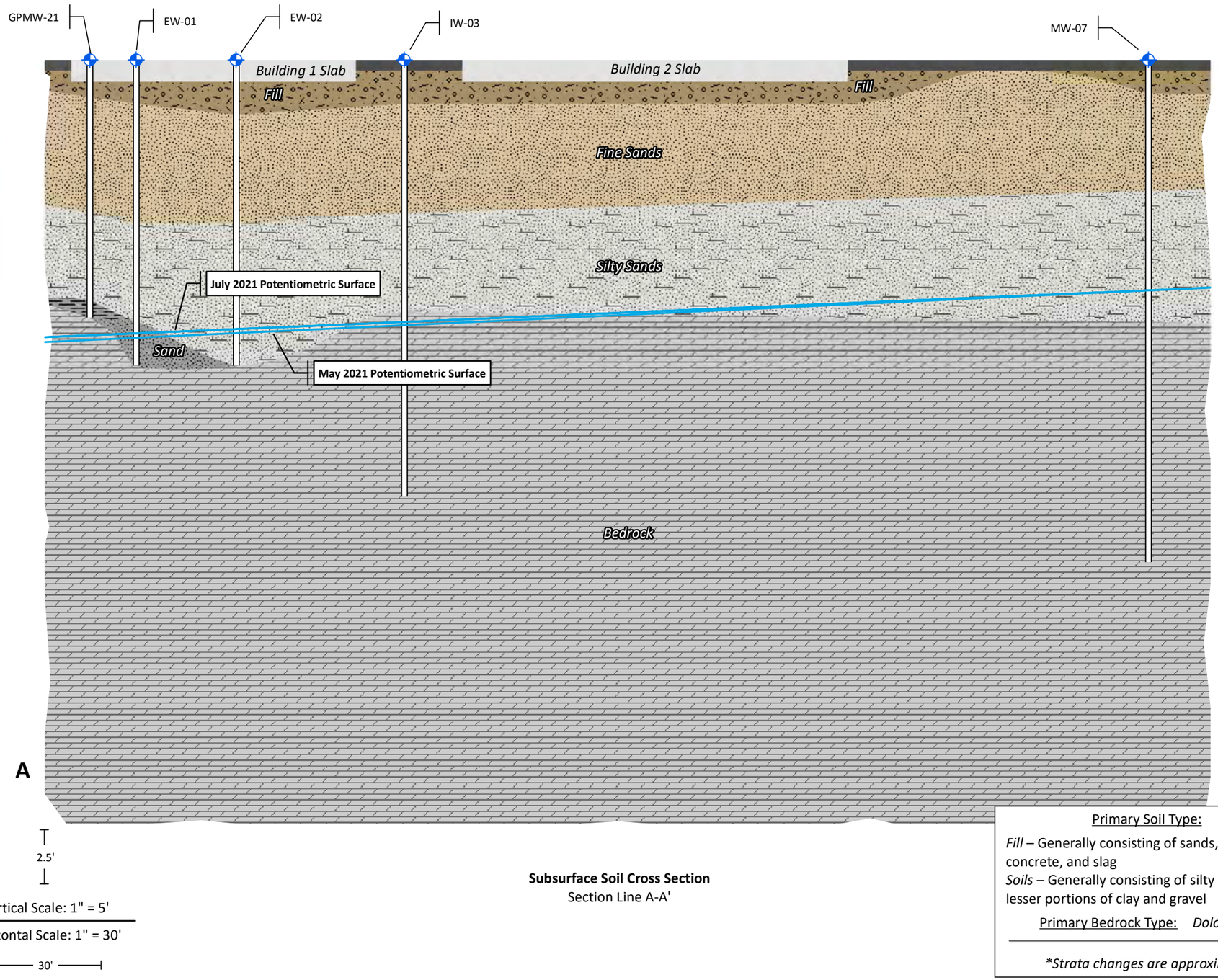
N

1 inch=40 feet

0 20 40 80 Feet

Drawn/Checked By:	BGS/GLA
Lu Project Number:	50380
Date:	November 2023

General:
1. Coordinate System: NAD 1983 State Plane NY West FIPS 3103 Feet
2. Orthoimagery (April 2021) downloaded from Pictometry
3. Scale: 1:480 (original document size 11"x17")



Subsurface Soil Cross Section
Section Line A-A'

Primary Soil Type:

Fill – Generally consisting of sands, gravel, concrete, and slag
Soils – Generally consisting of silty sands with lesser portions of clay and gravel

Primary Bedrock Type: *Dolostone*

**Strata changes are approximate*

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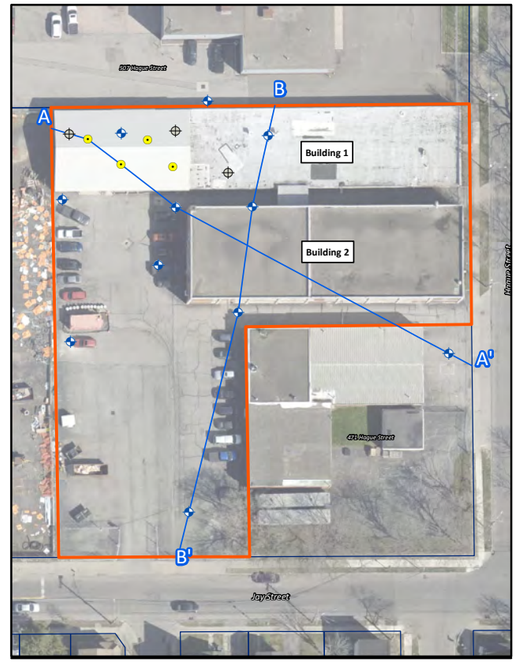


Figure 3a.
Geologic Cross Section A-A'

Project:
Jay-Hague Site (#C828216)
Site Management Plan

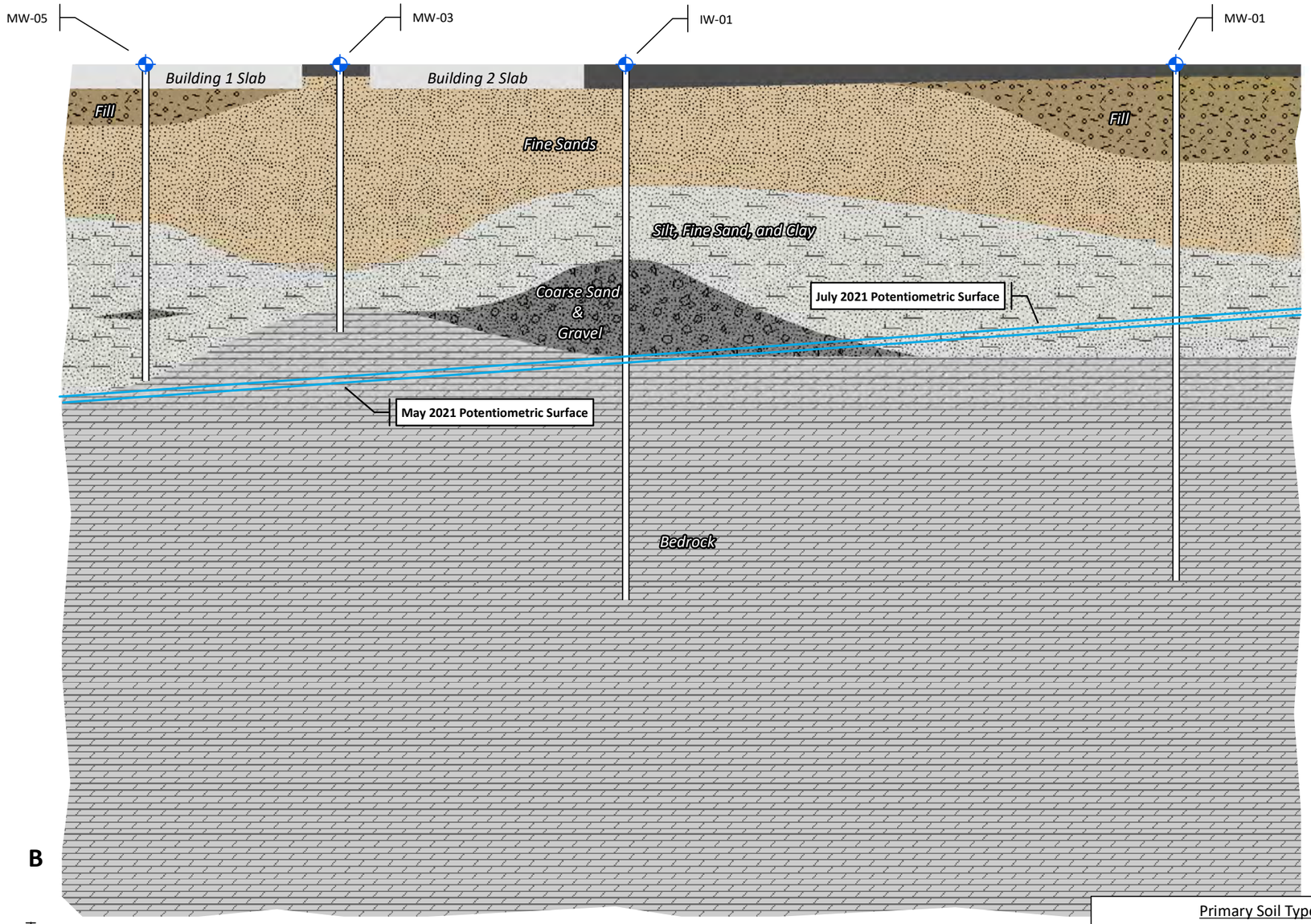
Location:
485 Hague Street
City of Rochester, Monroe County, NY

Legend

- Asphalt
- Concrete
- Fill
- Sand
- Silty Sand
- Bedrock

Drawn/Checked By:	BGS/GLA
Lu Project Number:	50380
Date:	September 2023

General:
1. Coordinate System: NAD 1983 State Plane NY West FIPS 3103 Feet
2. Orthoimagery (April 2021) downloaded from Pictometry
3. Scale: 1:480 (original document size 11"x17")



Subsurface Soil Cross Section
Section Line B-B'

Primary Soil Type:

Fill – Generally consisting of sands, gravel, concrete, and slag
Soils – Generally consisting of silty sands with lesser portions of clay and gravel

Primary Bedrock Type: *Dolostone*

**Strata changes are approximate*

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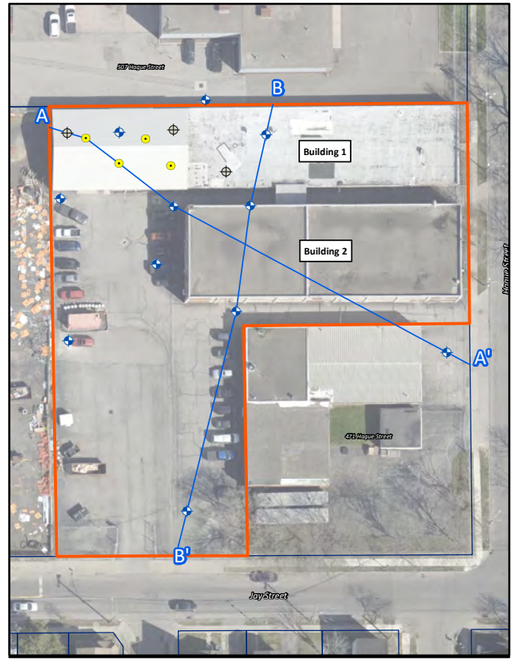


Figure 3b.
Geologic Cross Section B-B'

Project:
Jay-Hague Site (#C828216)
Site Management Plan

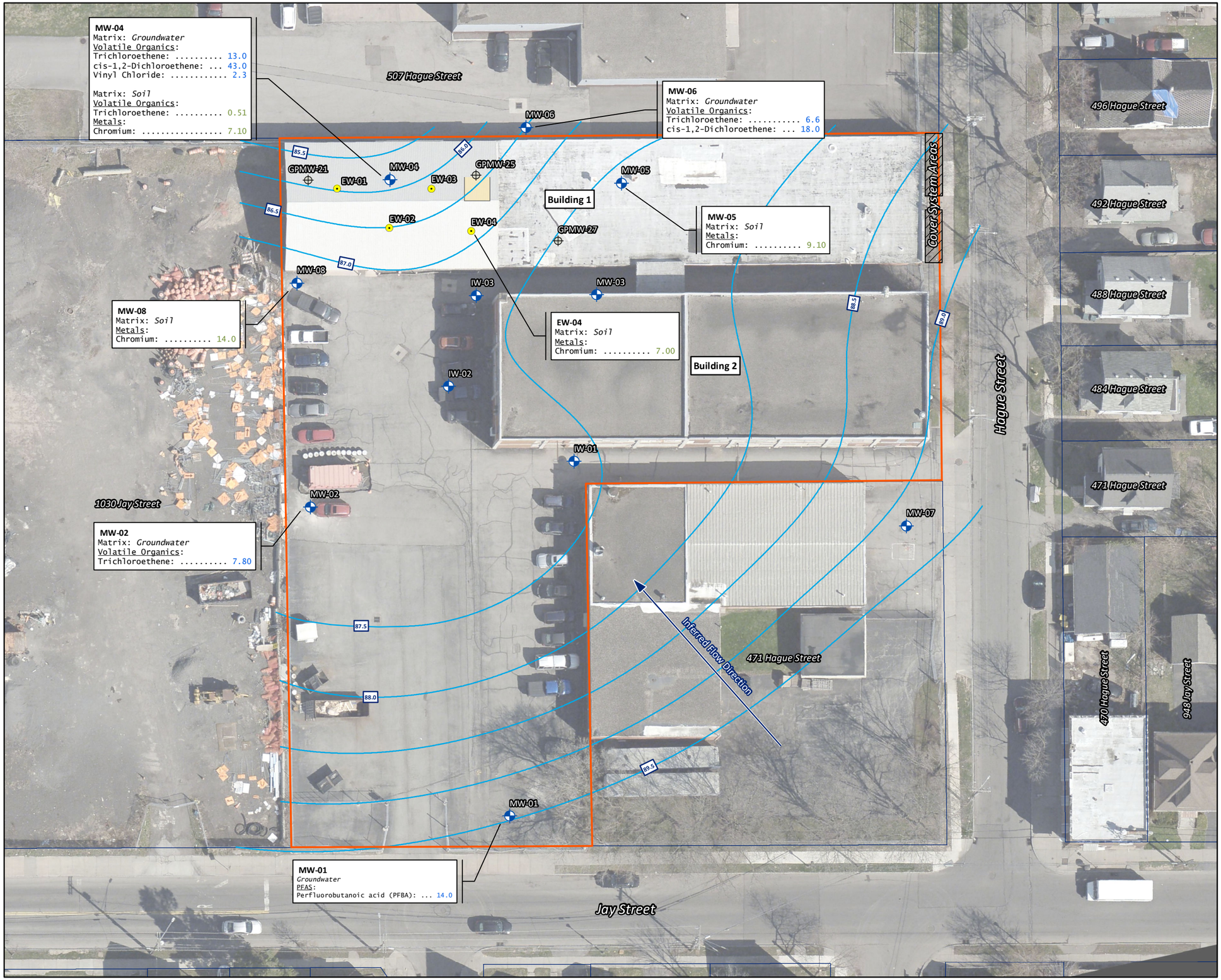
Location:
485 Hague Street
City of Rochester, Monroe County, NY

Legend

- Asphalt
- Concrete
- Fill
- Fine Sands
- Silt and Clay
- Bedrock

Drawn/Checked By:	BGS/GLA
Lu Project Number:	50380
Date:	September 2023

General:
1. Coordinate System: NAD 1983 State Plane NY West FIPS 3103 Feet
2. Orthoimagery (April 2021) downloaded from Pictometry
3. Scale: 1:480 (original document size 11"x17")



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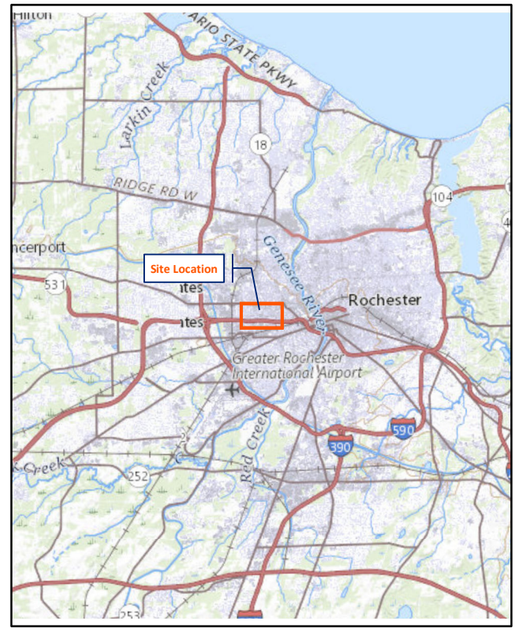


Figure 4.
Residual Contamination

Project:
Jay-Hague Site (#C828216)
Site Management Plan

Location:
485 Hague Street
City of Rochester, Monroe County, NY

Legend

- Site Boundary
- Former Paint Storage Building
- July 2021 GW Contour (ft.)
- Extraction Well
- Monitoring Well
- Mini-well

Notes:
- TEXT indicates NYSDEC Part 703 Class GA Groundwater Exceedance
- TEXT indicates exceedance of Part 375 Unrestricted Use SCOs
- TEXT indicates exceedance of Part 375 Industrial Use SCOs
- EW-01 to 04, MW-03, and MW-05 omitted from groundwater contour
- Groundwater results presented in parts per billion (ppb)
- Soil results presented in parts per million (ppm)
- PFAS results presented in parts per trillion (ppt)

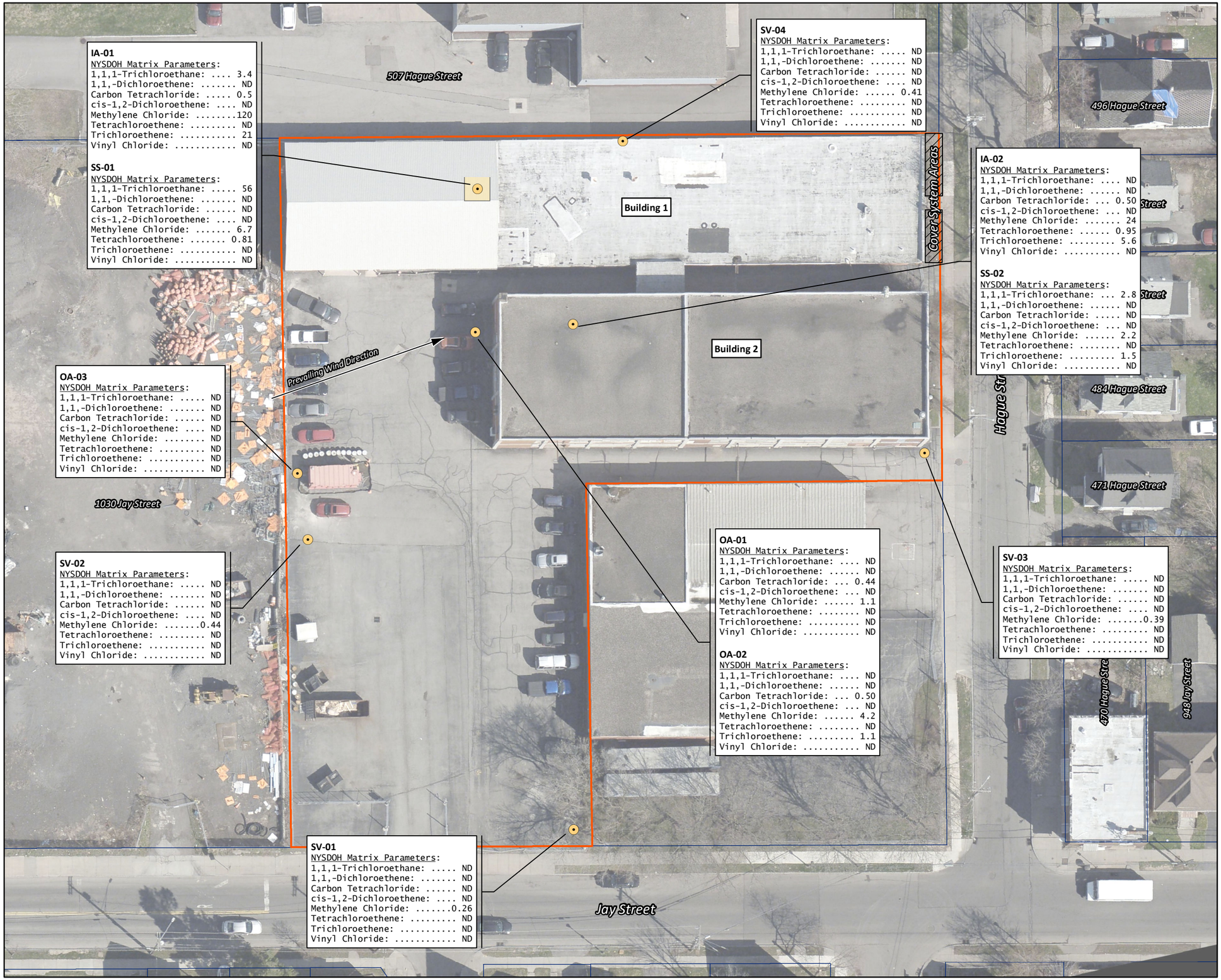
N

1 inch=40 feet

0 20 40 80 Feet

Drawn/Checked By:	BGS/GLA
Lu Project Number:	50380
Date:	November 2023

General:
1. Coordinate System: NAD 1983 State Plane NY West FIPS 3103 Feet
2. Orthoimagery (April 2021) downloaded from Pictometry
3. Scale: 1:480 (original document size 11"x17")



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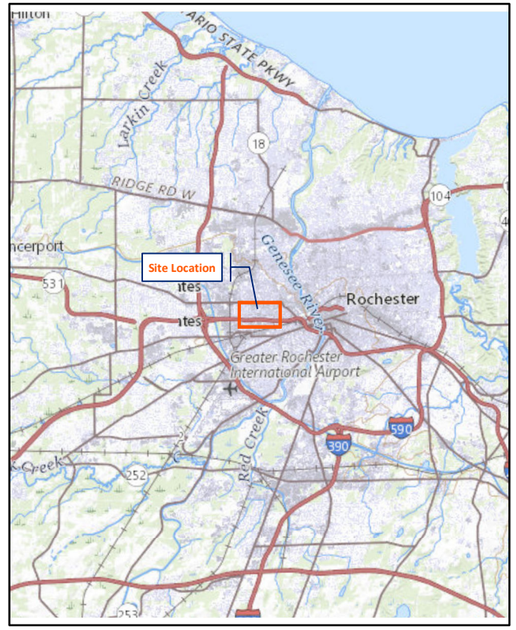

Figure 5:
SVI Residual Contamination

Project:
Jay-Hague Site (#C828216)
Site Management Plan

Location:
485 Hague Street
City of Rochester, Monroe County, NY

Legend

- Site Boundary
- Former Paint Storage Building
- SVI Sample Location

Note:
- Results presented in ug/m^3
- ND: Not Detected

N

1 inch = 40 feet

0 20 40 80 Feet

Drawn/Checked By:	BGS/GLA
Lu Project Number:	50380
Date:	November 2023

Notes:
1. Coordinate System: NAD 1983 State Plane NY West FIPS 3103 Feet
2. Orthoimagery (April 2021) downloaded from Pictometry
3. Scale: 1:480 (original document size 11"x17")

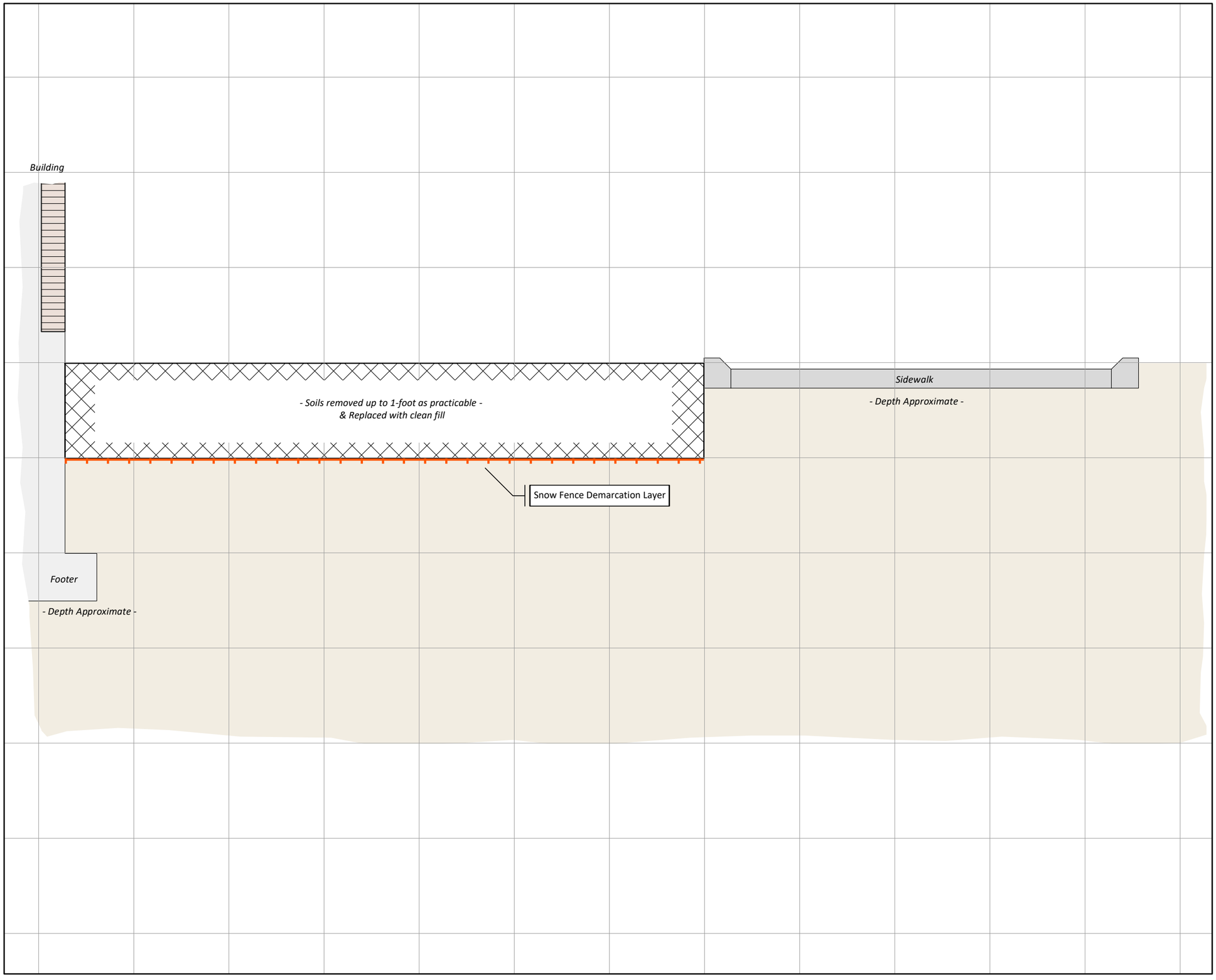

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Figure 6.
Typical Soil Cover System Detail

Project:
Jay-Hague Site (#C828216)
Site Management Plan

Location:
485 Hague Street
City of Rochester, Monroe County, NY

0.5'

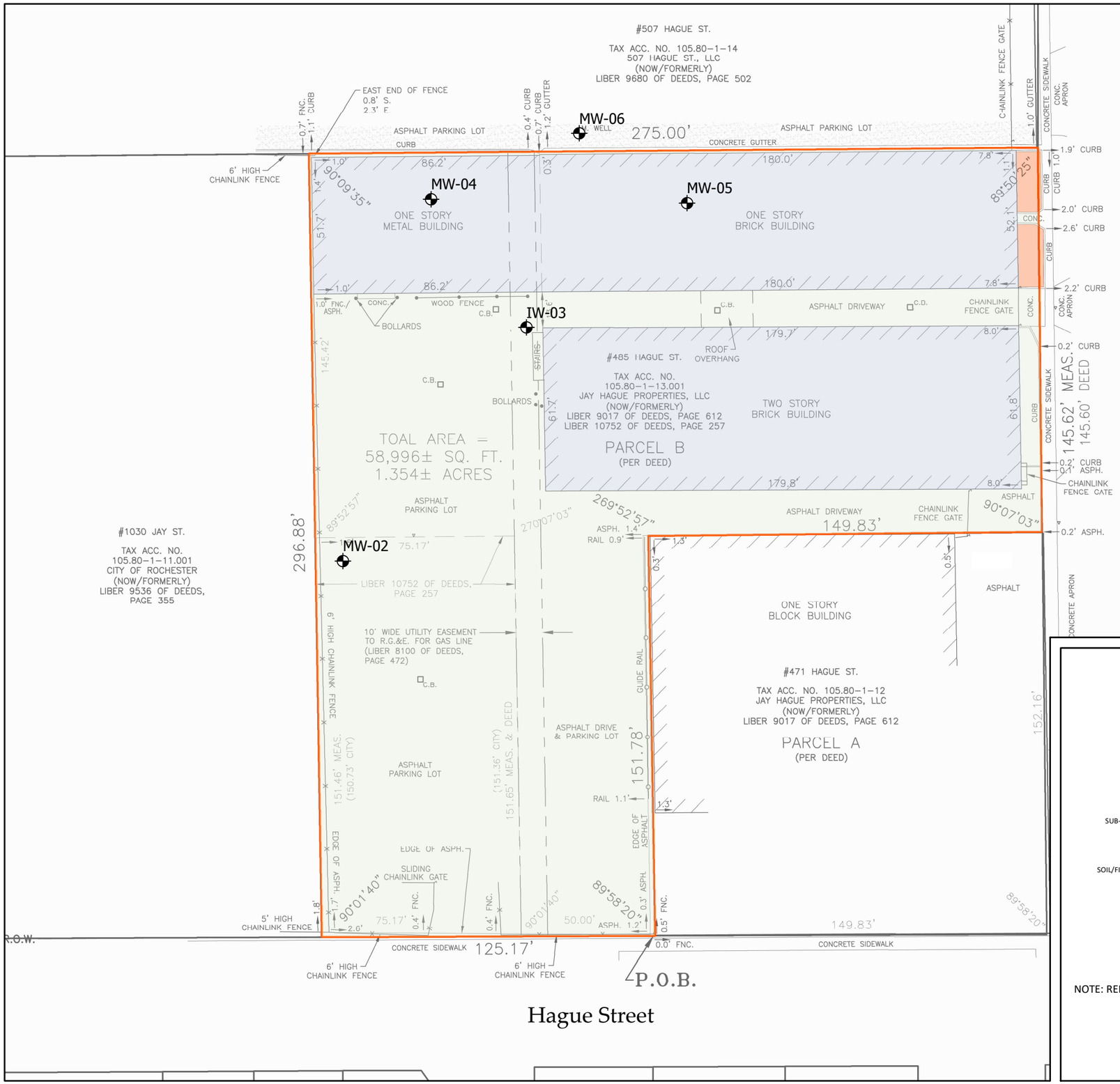
Vertical Scale: 1" = 1'

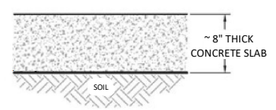
Horizontal Scale: 1" = 1'

1'

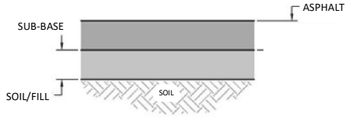
Drawn/Checked By:	BGS/GLA
Lu Project Number:	50380
Date:	September 2023

Notes:
1. Coordinate System: NAD 1983 State Plane NY West FIPS 3103 Feet
2. Orthoimagery (April 2021) downloaded from Pictometry





1 TYPICAL SLAB DETAIL
SCALE: NOT TO SCALE



2 TYPICAL PAVEMENT DETAIL
SCALE: NOT TO SCALE

NOTE: REFER TO FIGURE 6. FOR TYPICAL ENGINEERED SOIL COVER SYSTEM DETAIL

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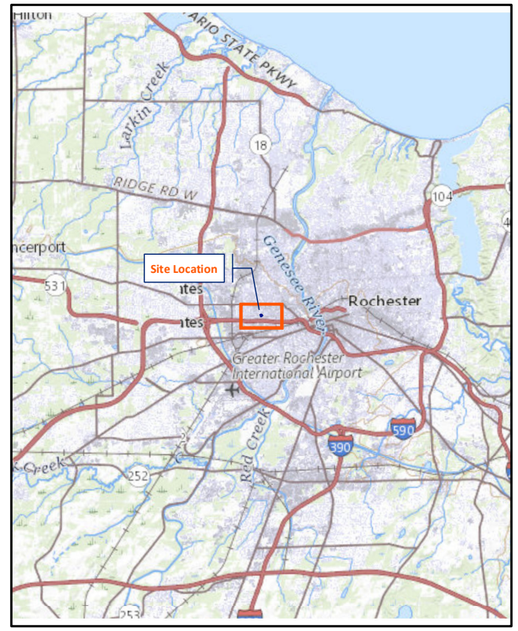


Figure 7.
Institutional/Engineering Controls

Project:
Jay-Hague Site (#C828216)
Site Management Plan

Location:
485 Hague Street
City of Rochester, Monroe County, NY

Legend

- Site Boundary
- Engineered Surface Soil Cover System
- Concrete/Asphalt Pavement
- Concrete Building Slabs

Note(s):
– Entire Site (485 Hague Street) subject to Institutional Controls per Section 3.2 of the Site Management Plan
– The engineered surface soil cover system, building slabs, and concrete/asphalt pavement comprise the Site-wide cover system
– Engineering Controls consist of Site-wide cover system monitoring and long term groundwater monitoring per Section 3.3 of the Site Management Plan

N
1 inch=40 feet
0 20 40 80 Feet

Drawn/Checked By: BGS/GLA
Lu Project Number: 50380
Date: November 2023
General: 1. Coordinate System: NAD 1983 State Plane NY West FIPS 3103 Feet 2. Orthoimagery (April 2021) downloaded from Pictometry 3. Scale: 1:480 (original document size 11"x17")

Appendix A -
Project Contacts and Locations of Reports and Information

Project Contacts

For information about the site's investigation and cleanup program, the public may contact any of the following project staff:

New York State Department of Environmental Conservation (NYSDEC):

Adam T. Morgan
Project Manager
NYSDEC Region 8
Division of Environmental Remediation
6274 E Avon Lima Rd, Avon, NY
Phone: (585)226-5356
Email: adam.morgan@dec.ny.gov

Andrea Pedrick
Public Participation Specialist
NYSDEC Office of Communication Services
6274 E Avon Lima Rd, Avon, NY
Phone: (585)519-5363

New York State Department of Health (NYSDOH):

Sally Rushford
Project Manager
NYSDOH
Center for Environmental Health
Corning Tower, Rm. 1787
Albany, NY 12237
(518)402-5465
beei@health.ny.gov

Locations of Reports and Information

The facilities identified below are being used to provide the public with convenient access to important project documents

Lyell Branch Library
956 Lyell Avenue, Rochester, NY 14606
Phone: 585-428-8218

Hours: (curbside pickup only; must call ahead)
Sunday Closed
Monday 10 AM - 4 PM
Tuesday 10 AM- 4 PM
Wednesday 10 PM -4 PM
Thursday 10 PM - 4 PM
Friday Closed
Saturday Closed

NYSDEC Region 8
6274 E Avon Lima Rd, Avon NY
Attn: Adam Morgan
Phone: (585)226-5356
Hours:
Sunday Closed
Monday 8:30 AM – 4:45 PM
Tuesday 8:30 AM – 4:45 PM
Wednesday 8:30 AM – 4:45 PM
Thursday 8:30 AM – 4:45 PM
Friday 8:30 AM – 4:45 PM
Saturday Closed

Jay Hague Site
Monroe County
Rochester, New York

Excavation Work Plan

NYSDEC Site Number: C828216

Prepared for:

Jay Hague Properties, LLC
12 Walnut Hill Drive
Penfield, New York 14526

Prepared By:

Joseph C. Lu Engineering PC
280 East Broad Street, Suite 170
Rochester, NY 14604

August 2023

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 above 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 Appendix A of the SMP.

Table 1: Notifications:

Name	Contact Information
NYSDEC Project Manager- Adam Morgan	Phone: 585-226-5356 Email: adam.morgan@dec.ny.gov
NYSDEC Regional Hazardous Waste Remediation Engineer- David Pratt	Phone: 585-226-5353 Email: david.pratt@dec.ny.gov
NYSDEC Site Control	Email: DERSiteControl@dec.ny.gov
NYSDOH Project Manager- Sally Rushford	Phone: 518-402-546 Email: sally.rushford@health. ny.gov

The notification will 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 levels of contaminants of concern, potential presence of grossly contaminated 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;
- A summary of the applicable components of this EWP;
- A statement that the work will be performed in compliance with this EWP, 29 CFR 1910.120 and 29 CFR 1926 Subpart P;
- A copy of the contractor's health and safety plan (HASP), in electronic format, if it differs from the HASP provided in Appendix H of the SMP;
- Identification of disposal facilities for potential waste streams; and
- 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

The NYSDEC project manager will review the notification and may impose additional requirements for the excavation that are not listed in this EWP. 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.

2.0 Soil Screening Methods

Visual, olfactory and instrument-based (e.g. photoionization detector) soil screening will be performed during all 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 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 when invasive work is done and will include all excavation and invasive work performed during development, such as excavations for foundations and utility work, after issuance of the 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 on-site reuse is provided in Section 6.0 of this Appendix.

3.0 Soil Staging Methods

1) 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.

2) 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.

3) 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.

4.0 Materials Excavation and Loadout

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 responsible for safe execution of all invasive and other work performed under this Plan.

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 SMP 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 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 Off-Site

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 tightfitting 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.

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 off-site management of materials from this site will not occur without formal NYSDEC project manager 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 off-site 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 On-Site

The qualified environmental professional, as defined in 6 NYCRR Part 375, will ensure that procedures defined for materials reuse in this SMP 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 the cover system or within landscaping berms. Contaminated on-site material may only be used beneath the site cover as backfill for subsurface utility lines with prior 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 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 [November 2022 or date of current version, whichever is later] 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 on-site will be segregated and staged as described in Sections 2.0 and 3.0 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 on-site 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 by the NYSDEC project manager.

Any demolition material proposed for reuse on-site will be sampled for asbestos and the results will be reported to the NYSDEC for acceptance. Concrete crushing or processing on-site will not be performed without prior NYSDEC approval. Organic matter (wood, roots, stumps, etc.) or other solid waste derived from clearing and grubbing of the site will not be reused on-site.

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 a SPDES permit.

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 decision document. The existing cover system is comprised of a minimum of 12-inches of clean soil, asphalt pavement, concrete covered sidewalks and/or concrete building, etc. The demarcation layer, consisting of (orange snow fencing material, white geotextile or equivalent material, etc.) will be replaced 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 this 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 Off-Site 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 this 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.

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 industrial use. 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 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

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 product, 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 semivolatiles (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 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

Locations of air sampling stations should be based on generally prevailing wind conditions. These locations 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. Exceedances of action levels listed in the CAMP will be reported to NYSDEC and NYSDOH Project Managers within 24-hours of their occurrence.

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 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

If nuisance odors are identified at the site boundary, or if odor complaints are received, 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. NYSDEC 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 on-site 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) provided in Section 13. 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. The following text should be included somewhere in this section:

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 using 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 be done 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.

Responsibilities

The responsibilities for implementing the Site Management Plan ("SMP") for the Jay Hague site (the "Site"), Brownfield Cleanup Program (BCP) Site No. C828216, are divided between the site owner(s) and a Remedial Party, as defined below. The owner is currently listed as Jay Hague Properties, LLC (the "owner").

Solely for the purposes of this document and based upon the facts related to a particular site and the remedial program being carried out, the term Remedial Party ("RP") refers to any of the following: certificate of completion holder, volunteer, applicant, responsible party, and, in the event the New York State Department of Environmental Conservation ("NYSDEC") is carrying out remediation or site management, the NYSDEC and/or an agent acting on its behalf. The RP is:

Phillip Collins

Jay Hague Properties, LLC

12 Walnut Drive, Penfield, NY

Nothing on this page shall supersede the provisions of an Environmental Easement, Consent Order, Consent Decree, agreement, or other legally binding document that affects rights and obligations relating to the site.

Site Owner's Responsibilities:

1) The owner shall follow the provisions of the SMP as they relate to future construction and excavation at the site.

2) In accordance with a periodic time frame determined by the NYSDEC, the owner shall periodically certify, in writing, that all Institutional Controls set forth in an Environmental Easement remain in place and continue to be complied with. The owner shall provide a written certification to the RP, upon the RP's request, in order to allow the RP to include the certification in the site's Periodic Review Report (PRR) certification to the NYSDEC.

3) In the event the Site is delisted, the owner remains bound by the Environmental Easement and shall submit, upon request by the NYSDEC, a written certification that the Environmental Easement is still in place and has been complied with.

4) The owner shall grant access to the site to the RP and the NYSDEC and its agents for the purposes of performing activities required under the SMP and assuring compliance with the SMP.

5) The owner is responsible for assuring the security of the remedial components located on its property to the best of its ability. If damage to the remedial components or vandalism is evident, the owner shall notify the site's RP and the NYSDEC in accordance with the timeframes indicated in Section 1.4-Notifications.

6) If some action or inaction by the owner adversely impacts the Site, the owner must notify the Site's RP and the NYSDEC in accordance with the time frame indicated in Section 1.4- Notifications and coordinate the performance of necessary corrective actions with the RP.

7) The owner must notify the RP and the NYSDEC of any change in ownership of the Site property (identifying the tax map numbers in any correspondence) and provide contact information for the new owner of the site propery. 6 NYCRR Part contains notification requirements applicable to any construction or activity changes and changes in ownership. Among the notification requirements is the following: Sixty days prior written notification must be made to the NYSDEC. Notification is to be submitted to the NYSDEC Division of Environmental Remediation's Site Control Section. Notification requirements for a change in use are detailed in Section 1.3 of the SMP. A change of use includes, but is not limited to, any activity that may increase direct human or environmental exposure (e.g., day care, school or park). A 60-Day Advance Notification Form and Instructions are found at http://www.dec.ny.gov/chemical/76250.html.

8) The RP remains ultimately responsible for maintaining the engineering controls.

9) In accordance with the tenant notification law, within 15 days of receipt, the owner must supply a copy of any vapor intrusion data, that is produced with respect to structures and that exceeds NYSDOH or OSHA guidelines on the site, whether produced by the NYSDEC, RP, or owner, to the tenants on the property. The owner must otherwise comply with the tenant and occupant notification provisions of Environmental Conservation Law Article 27, Title 24.

Remedial Party Responsibilities

1) The RP must follow the SMP provisions regarding any construction and/or excavation it undertakes at the site.

2) The RP shall report to the NYSDEC all activities required for remediation, operation, maintenance, monitoring, and reporting. Such reporting includes, but is not limited to, periodic review reports and certifications, electronic data deliverables, corrective action work plans and reports, and updated SMPs.

3) Before accessing the site property to undertake a specific activity, the RP shall provide the owner advance notification that shall include an explanation of the work expected to be completed. The RP shall provide to (i) the owner, upon the owner's request, (ii) the NYSDEC, and (iii) other entities, if required by the SMP, a copy of any data generated during the site visit and/or any final report produced.

4) If the NYSDEC determines that an update of the SMP is necessary, the RP shall update the SMP and obtain final approval from the NYSDEC. Within 5 business days after NYSDEC approval, the RP shall submit a copy of the approved SMP to the owner(s).

5) The RP shall notify the NYSDEC and the owner of any changes in RP ownership and/or control and of any changes in the party/entity responsible for the operation, maintenance, and monitoring of and reporting with respect to any remedial system (Engineering Controls). The RP shall provide contact information for the new party/entity. Such activity constitutes a Change of Use pursuant to 375-1.11(d) and requires 60-days prior notice to the NYSDEC. A 60-Day Advance Notification Form and Instructions are found at http://www.dec.ny.gov/chemical/76250.html .

6) The RP shall notify the NYSDEC of any damage to or modification of the systems as required under Section 1.4-Notifications of the SMP.

7) Prior to a change in use that impacts the remedial system or requirements and/or responsibilities for implementing the SMP, the RP shall submit to the NYSDEC for approval an amended SMP.

8) Any change in use, change in ownership, change in site classification (*e.g.*, delisting), reduction or expansion of remediation, and other significant changes related to the site may result in a change in responsibilities and, therefore, necessitate an update to the SMP and/or updated legal documents. The RP shall contact the NYSDEC project manager to discuss the need to update such documents.

Change in RP ownership and/or control and/or site ownership does not affect the RP's obligations with respect to the site unless a legally binding document executed by the NYSDEC releases the RP of its obligations.

Future site owners and RPs and their successors and assigns are required to carry out the activities set forth above.

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

THIS INDENTURE made this 13 day of July, 2023 between Owner, Jay Hague Properties LLC, having an office at 485 Hague Street, Rochester, New York 14606, County of Monroe, State of New York (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,

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 485 Hague Street in the City of Rochester, County of Monroe and State of New York, known and designated on the tax map of the County Clerk of Monroe as tax map parcel number: Section 105.80 Block 1 Lot 13.001, being the same as that property conveyed to Grantor by deed dated June 5, 1998 and recorded in the Monroe County Clerk's Office in Liber and Page 9017, page 612, and by deed dated June 2, 2009 and recorded in the Monroe County Clerk's Office in Liber and Page 10752, page 257. The property subject to this Environmental Easement (the "Controlled Property") comprises approximately 1.354 +/- acres, and is hereinafter more fully described in the Land Title Survey dated June 22, 2022 and revised on October 18, 2022 and November 11, 2022 prepared by John H. Sciarabba, L.S. of Land Tech Surveying & Planning P.L.L.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: C828216-05-20, 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:

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 Monroe 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 or Restricted Residential purposes as defined in 6NYCRR 375-1.8(g)(2)(i) and (ii), 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: C828216
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.

Remainder of Page Intentionally Left Blank

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

Jay Hague Properties LLC:

By: _____
Print Name: Philip Collins _

Title: Member Date: June 28, 2023

By: _____
Print Name: Stephen Anderson _

Title: Member Date: JUNE 28, 2023

Grantor's Acknowledgment

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

On the 28th day of June, in the year 2023, before me, the undersigned, personally appeared Philip Collins, 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

TAWNI L. PUHL
Notary Public, State of New York
No. 01PU6205040
Qualified in Monroe County
Commission Expires May 4, 2025

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

On the 28th day of June, in the year 2023, before me, the undersigned, personally appeared Stephen Anderson, 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

TAWNI L. PUHL
Notary Public, State of New York
No. 01PU6205040
Qualified in Monroe County
Commission Expires May 4, 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: _____
David Harrington, Assistant Division Director
Division of Environmental Remediation

Grantee's Acknowledgment

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

On the 13 day of July, in the year 2023 before me, the undersigned, personally appeared David Harrington, 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.

_____
Notary Public - State of New York

Cheryl A. Salem
Notary Public State of New York
Registration No. 01SA0002177
Qualified in Albany County
My Commission Expires March 3, 2027

SCHEDULE "A" PROPERTY DESCRIPTION

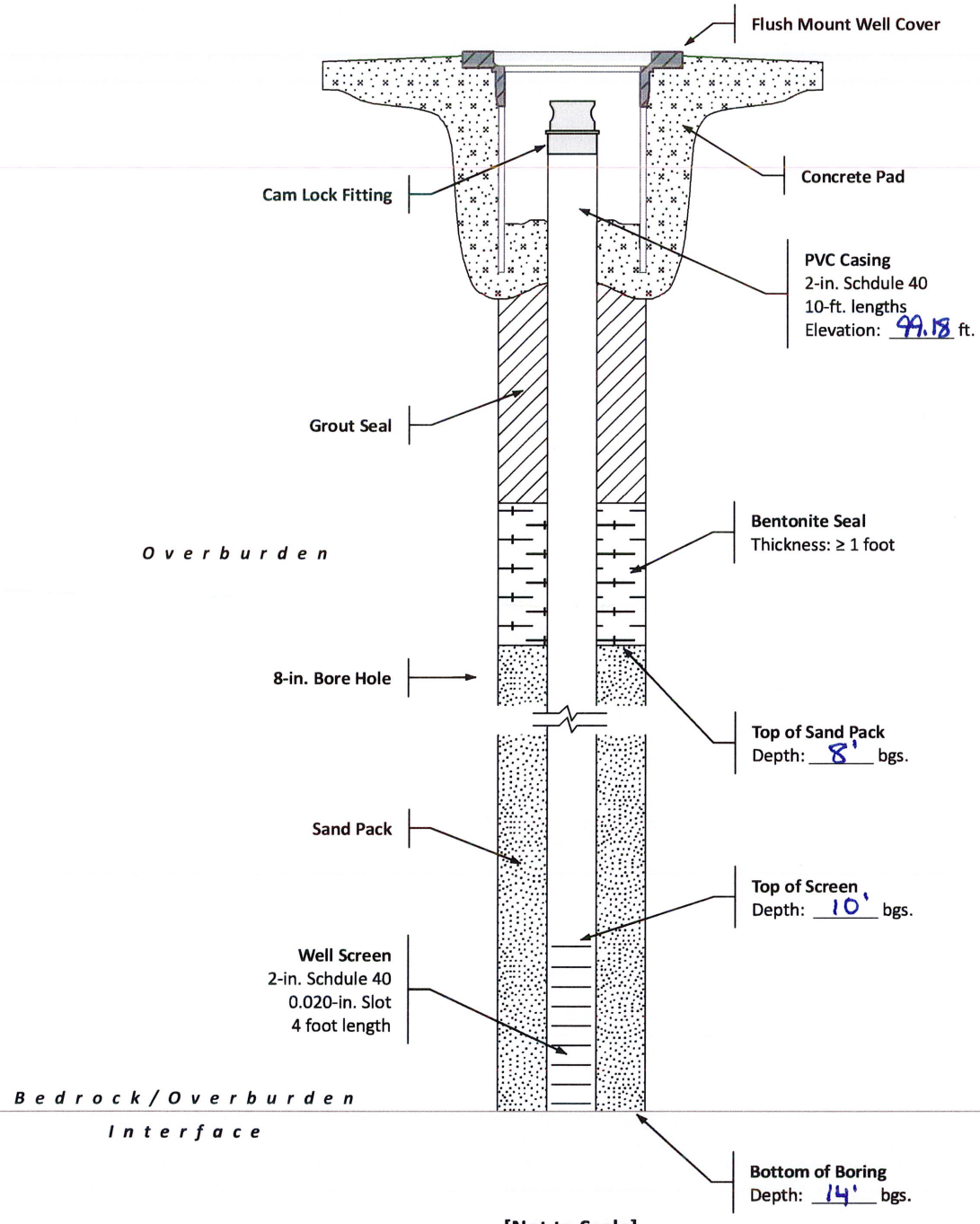
ALL THAT TRACT OR PARCEL OF LAND situated in Town Lot 66 of the 20,000 Acre Tract, City of Rochester, County of Monroe, State of New York and being part of Lots 11, 12, 13 and 14 of the Moulson Tract, as filed in the Monroe County Clerk's Office in Liber 158 of Deeds, Page 545, and described as follows:

BEGINNING at a point in the north right-of-way line of Jay Street (49.5 foot wide right-of-way), said point being 149.83 feet west of the intersection of said north right-of-way line with the west right-of-way line of Hague Street as measured along said north right-of-way line of Jay Street;

1. thence Westerly, along said north right-of-way line of Jay Street, distance of 125.17 feet to the east line of property now or formerly of the City of Rochester;
2. thence Northerly, along said east line, forming an interior angle of 90°01'40", a distance of 296.88 feet to the south line of property now or formerly of 507 Hague St., LLC;
3. thence Easterly, along said south line, forming an interior angle of 90°09'35", a distance of 275.00 feet to a point in the west right-of-way line of Hague Street;
4. thence Southerly, along said west right-of-way line, forming an interior angle of 89°50'25", a distance of 145.62 feet measured (145.60 feet deed) to the north line of property located at 471 Hague Street;
5. thence Westerly, along said north line, forming an interior angle of 90°07'03", a distance of 149.83 feet to the west line of said property located at 471 Hague Street;
6. thence Southerly, along said west line, forming an interior angle of 269°52'57", a distance of 151.78 feet to the point of beginning. Course 6 forming an interior angle of 89°58'20" with Course 1.

Containing = 58,996 ± Sq. Ft. or 1.354 ± acres.

Well ID: EW-01



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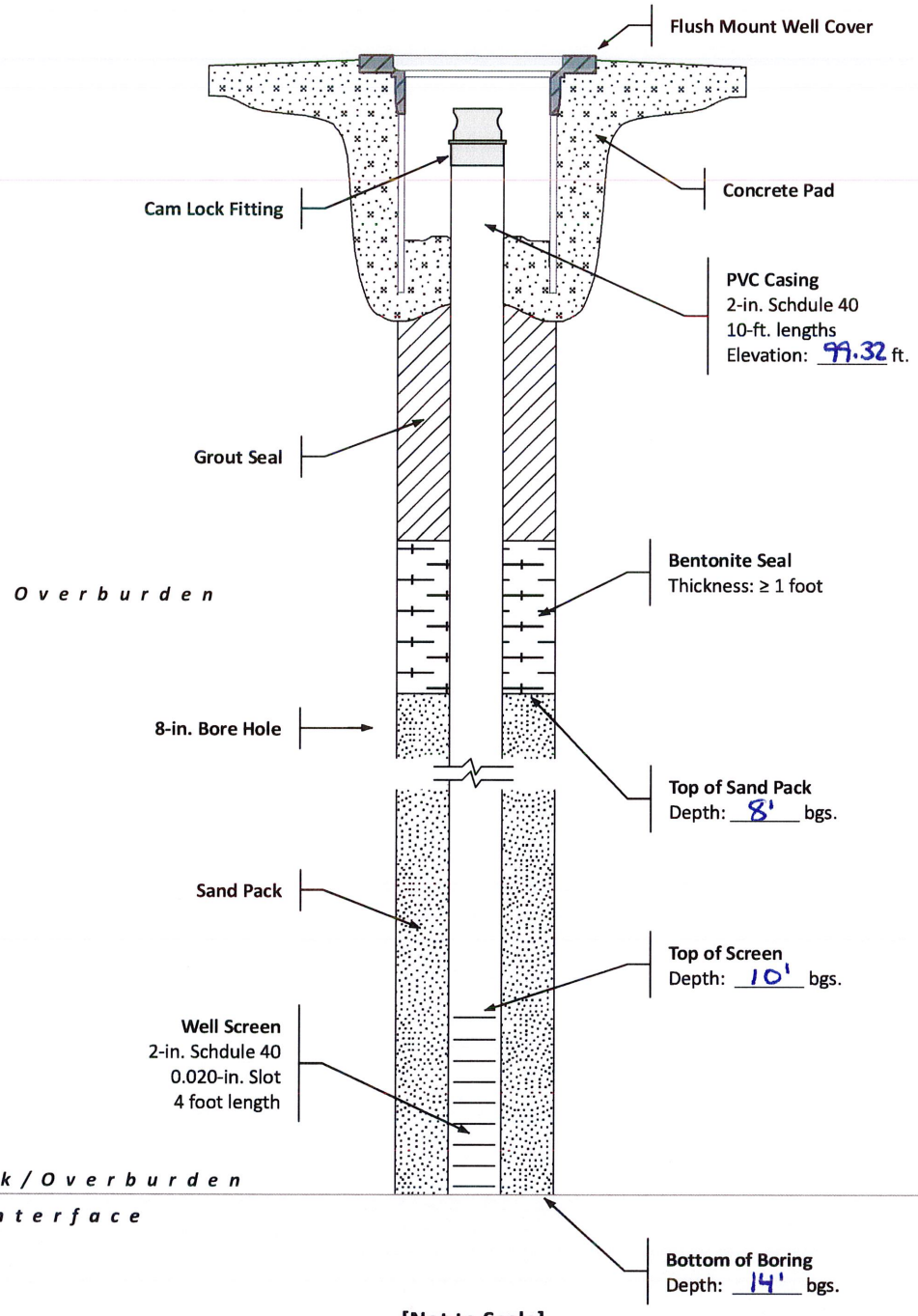
Lu Engineers
ENVIRONMENTAL • TRANSPORTATION • CIVIL

Extraction Well Detail
Jay-Hague Site (#C828216)
485 Hague Street, Rochester, NY
Remedial Investigation

DATE: January 2021
PROJECT #: 50380
DRAWN/CHECKED: BGS/GLA
DATA SOURCE:

Well ID: EW-02



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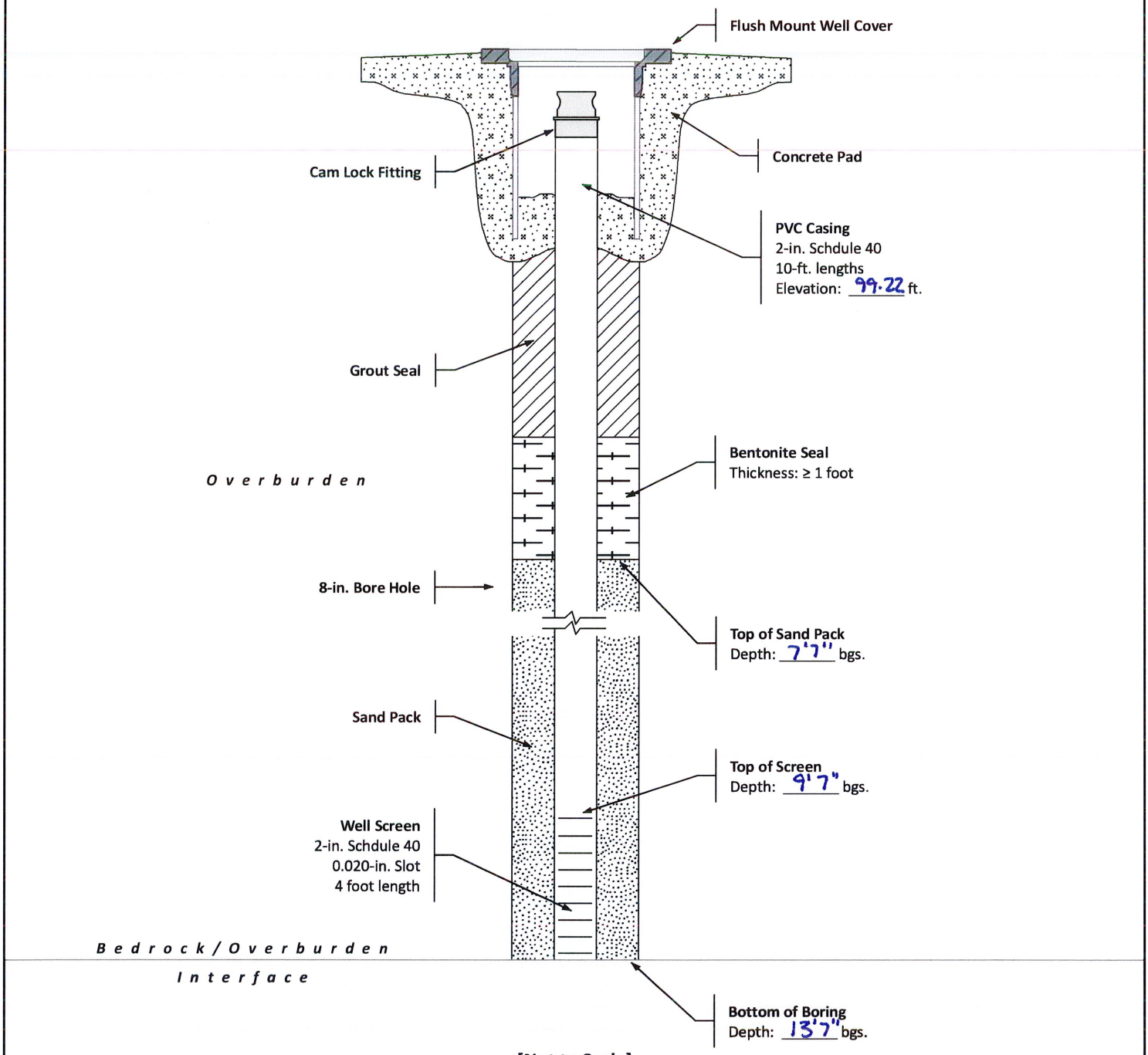
Extraction Well Detail
Jay-Hague Site (#C828216)
485 Hague Street, Rochester, NY
Remedial Investigation

DATE: January 2021
PROJECT #: 50380
DRAWN/CHECKED: BGS/GLA
DATA SOURCE:

Well ID: EW-03



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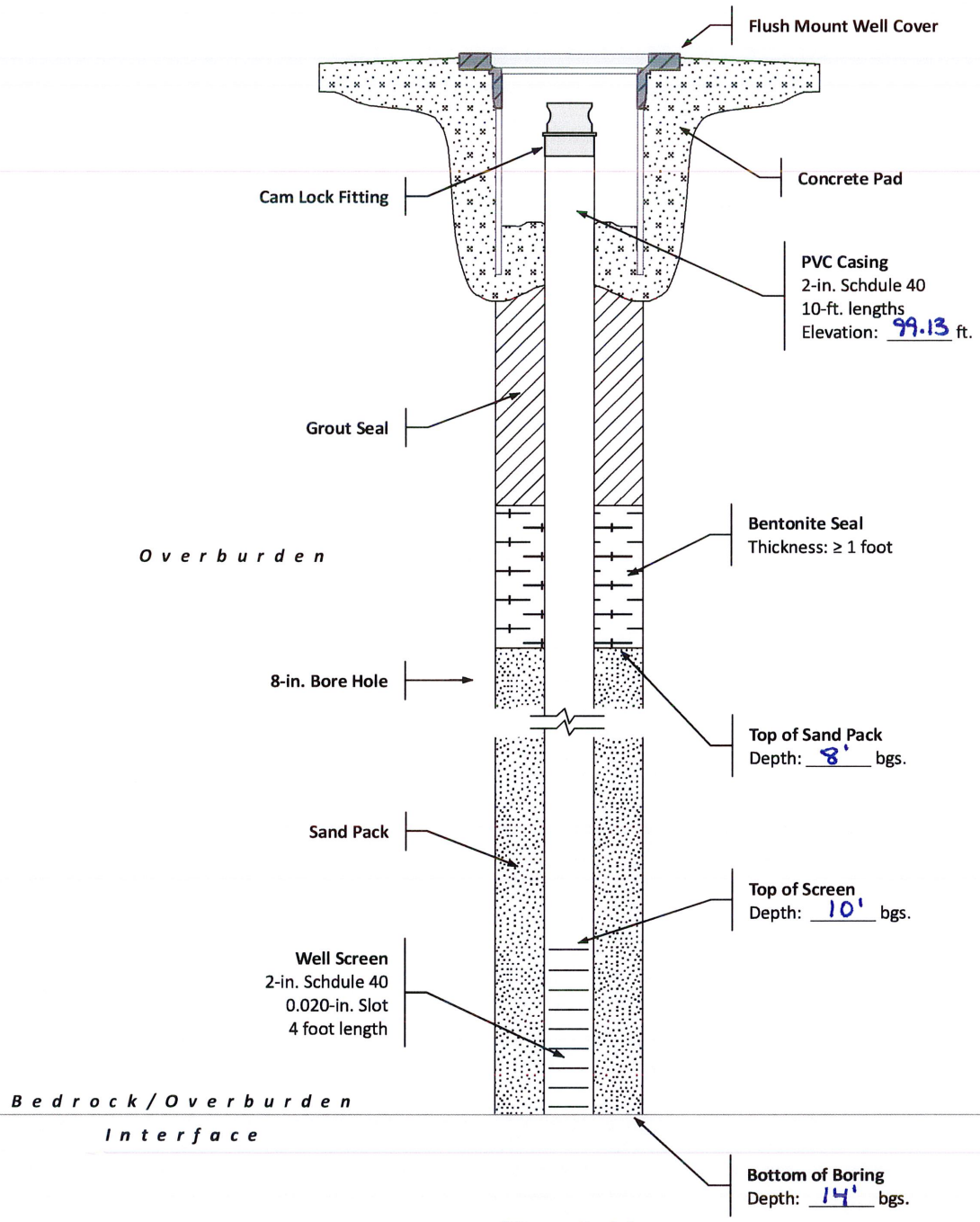
Extraction Well Detail
Jay-Hague Site (#C828216)
485 Hague Street, Rochester, NY
Remedial Investigation

DATE: January 2021
PROJECT #: 50380
DRAWN/CHECKED: BGS/GLA
DATA SOURCE:

Well ID: EW-04



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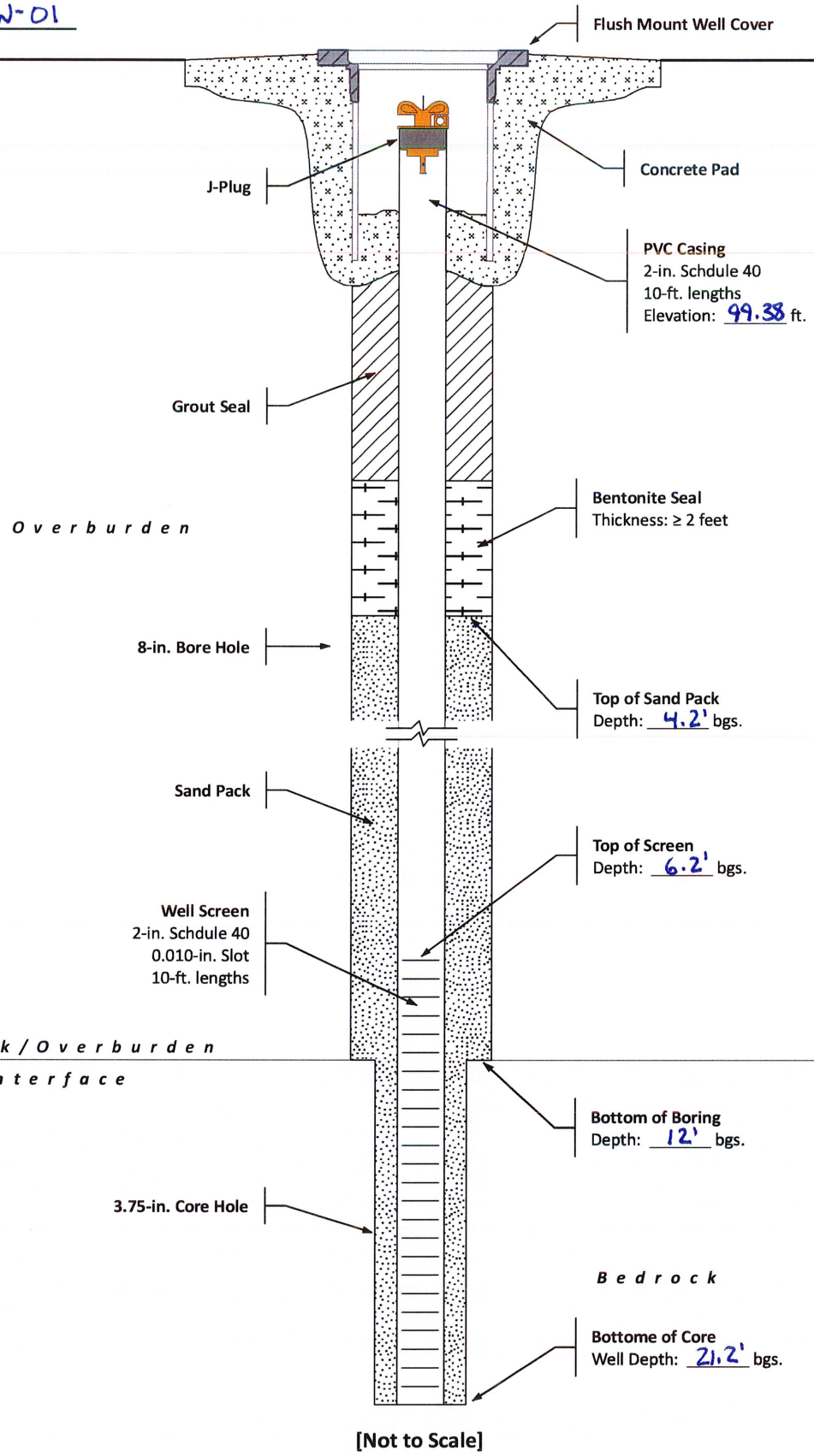
Extraction Well Detail
Jay-Hague Site (#C828216)
485 Hague Street, Rochester, NY
Remedial Investigation

DATE: January 2021
PROJECT #: 50380
DRAWN/CHECKED: BGS/GLA
DATA SOURCE:

Well ID: MW-01



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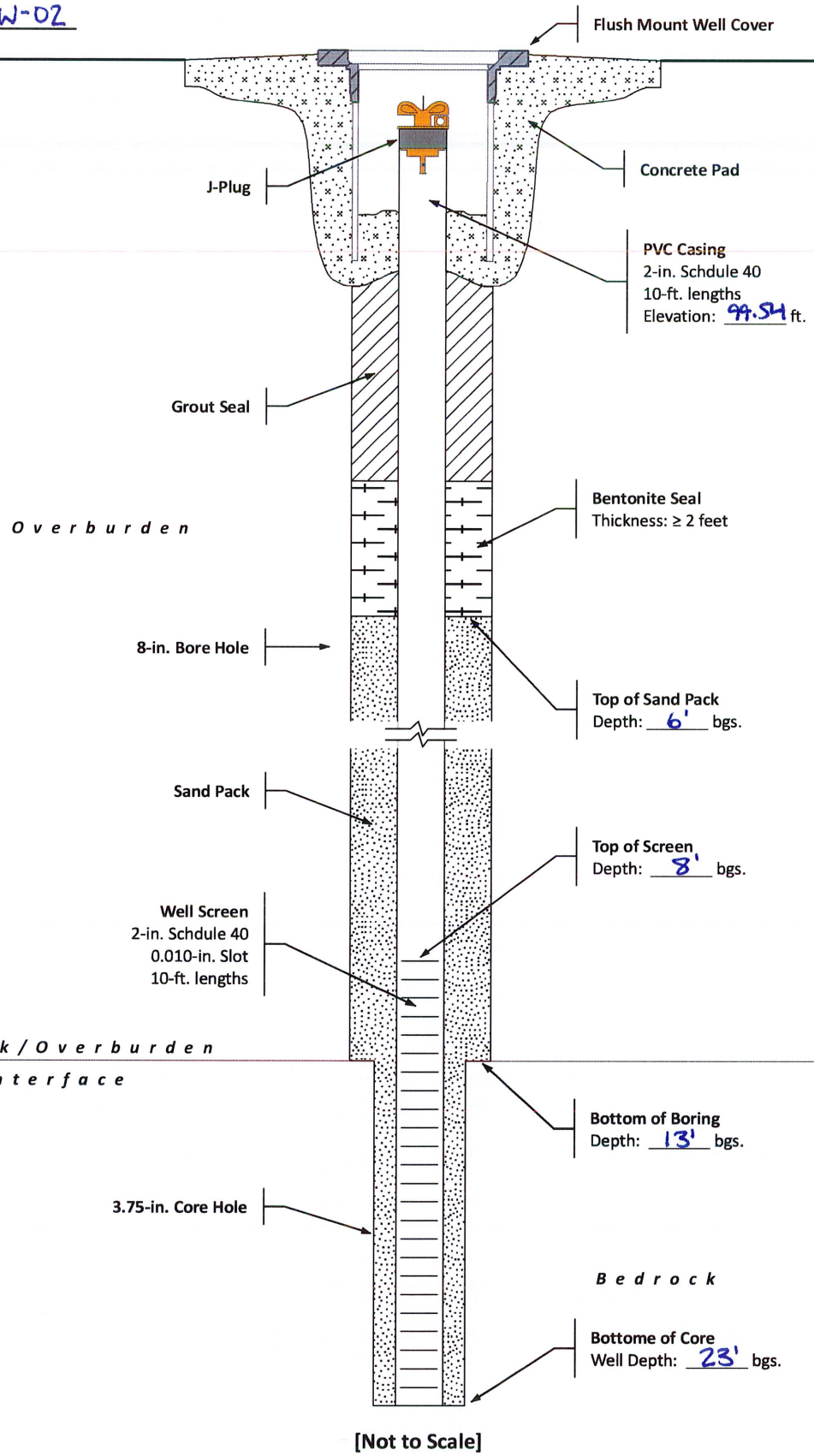
Monitoring Well Detail
Jay-Hague Site (#C828216)
485 Hague Street, Rochester, NY
Remedial Investigation

DATE: January 2021
PROJECT #: 50380
DRAWN/CHECKED: BGS/GLA
DATA SOURCE:

Well ID: MW-02



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Lu Engineers
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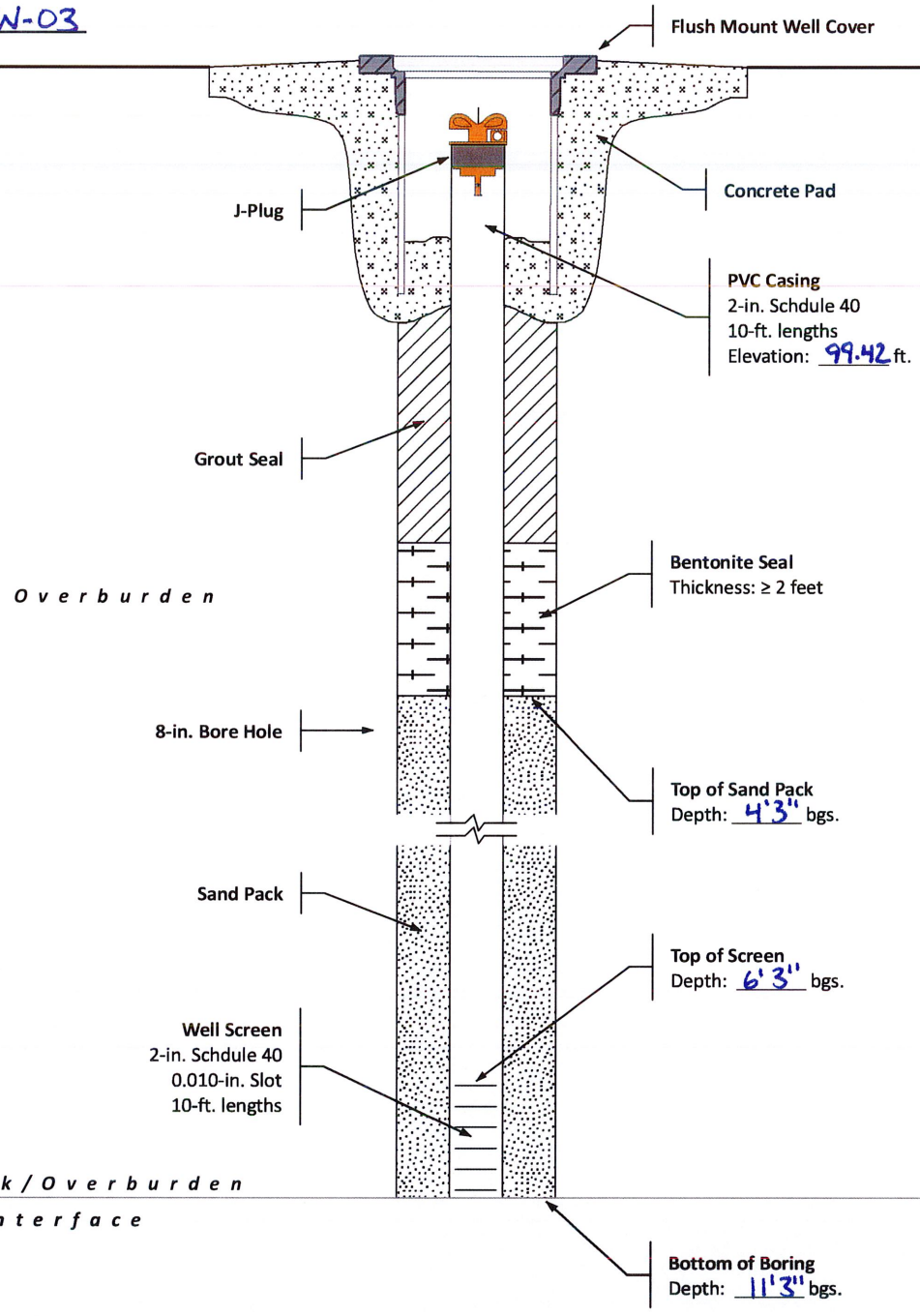
Monitoring Well Detail
Jay-Hague Site (#C828216)
485 Hague Street, Rochester, NY
Remedial Investigation

DATE:	January 2021
PROJECT #:	50380
DRAWN/CHECKED:	BGS/GLA
DATA SOURCE:	

Well ID: MW-03



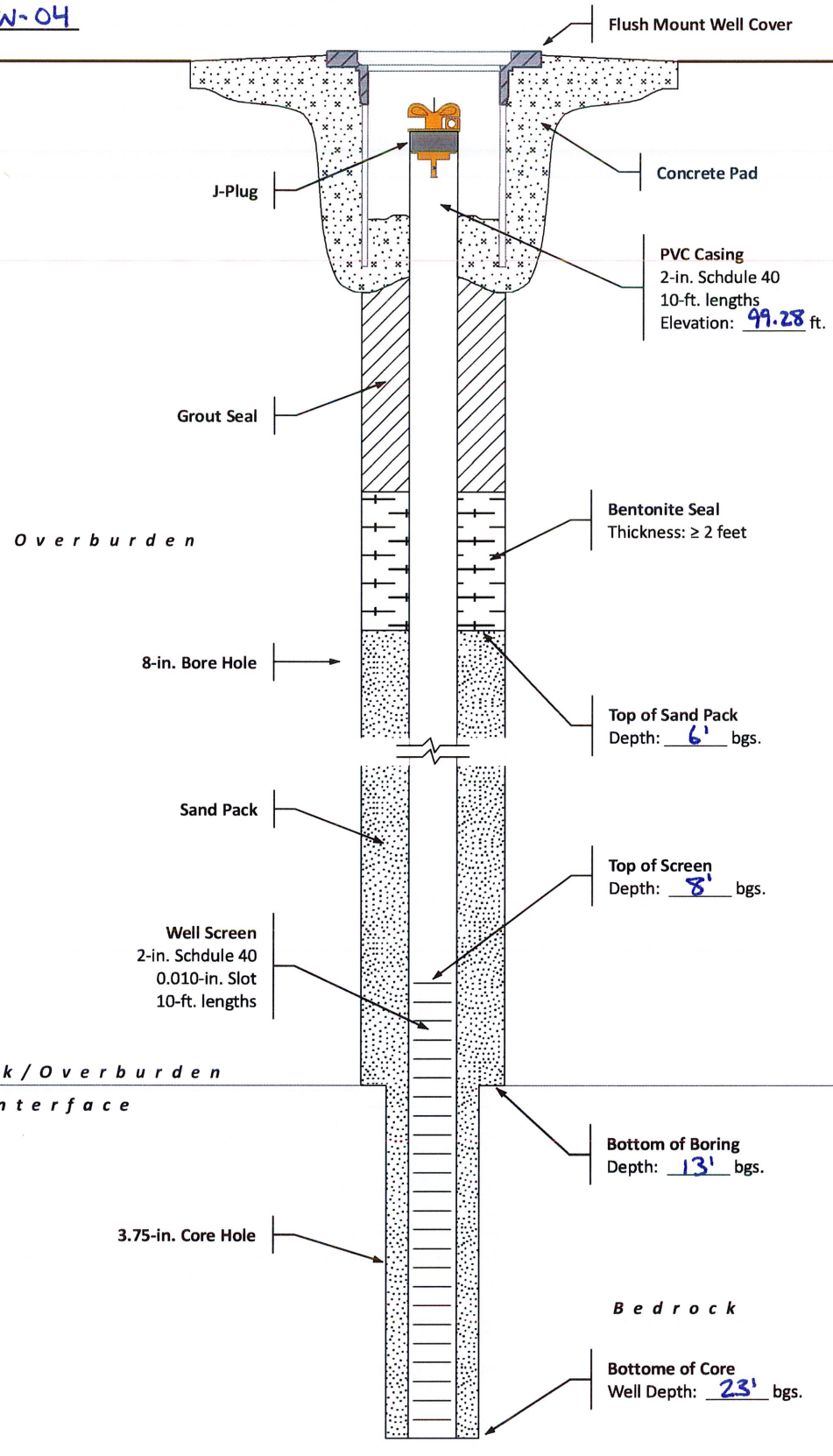
[Not to Scale]

Lu Engineers
ENVIRONMENTAL • TRANSPORTATION • CIVIL

Monitoring Well Detail
Jay-Hague Site (#C828216)
485 Hague Street, Rochester, NY
Remedial Investigation

DATE: January 2021
PROJECT #: 50380
DRAWN/CHECKED: BGS/GLA
DATA SOURCE:

Well ID: MW-04



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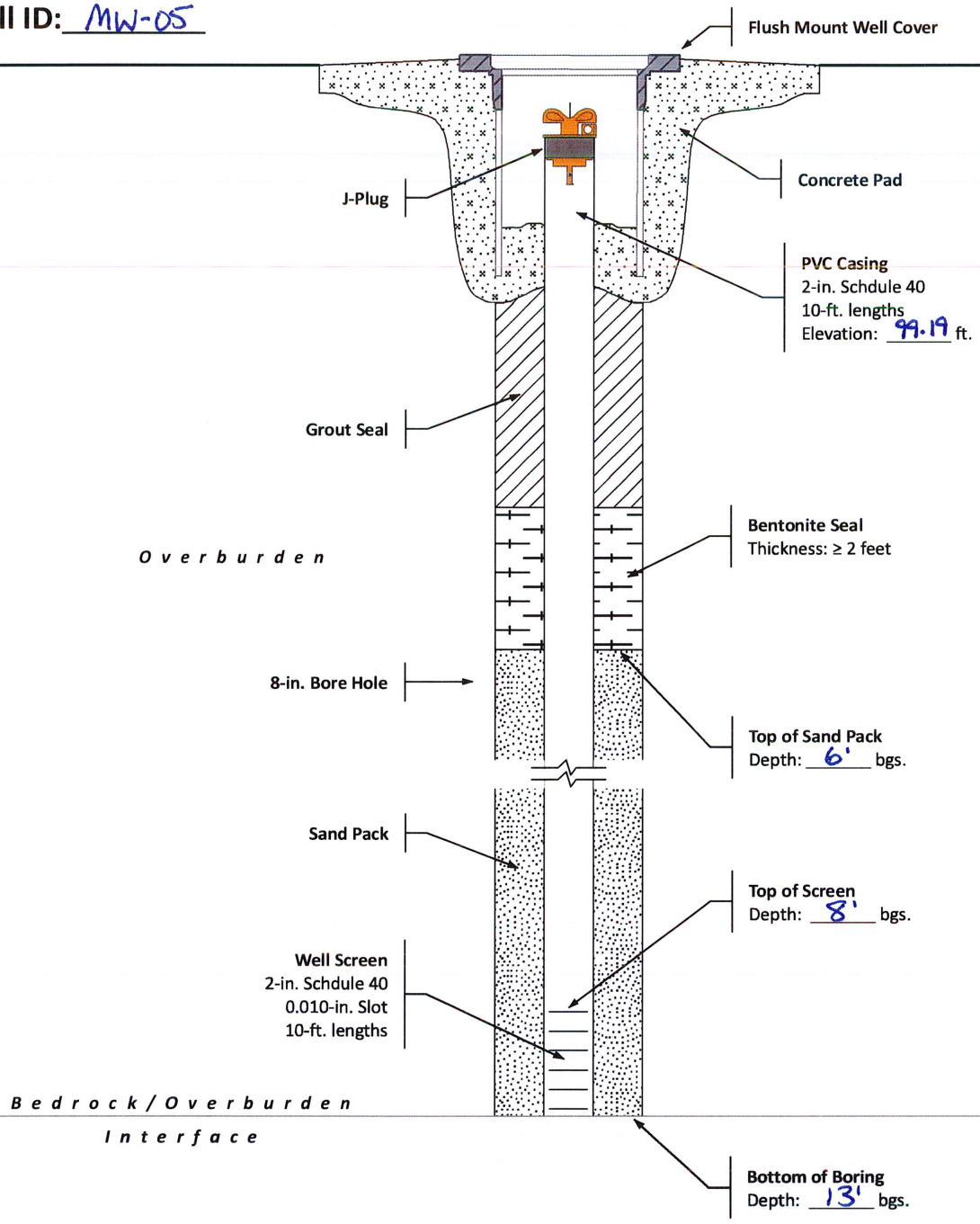
Monitoring Well Detail
Jay-Hague Site (#C828216)
485 Hague Street, Rochester, NY
Remedial Investigation

DATE: January 2021
PROJECT #: 50380
DRAWN/CHECKED: BGS/GLA
DATA SOURCE:

Well ID: MW-05



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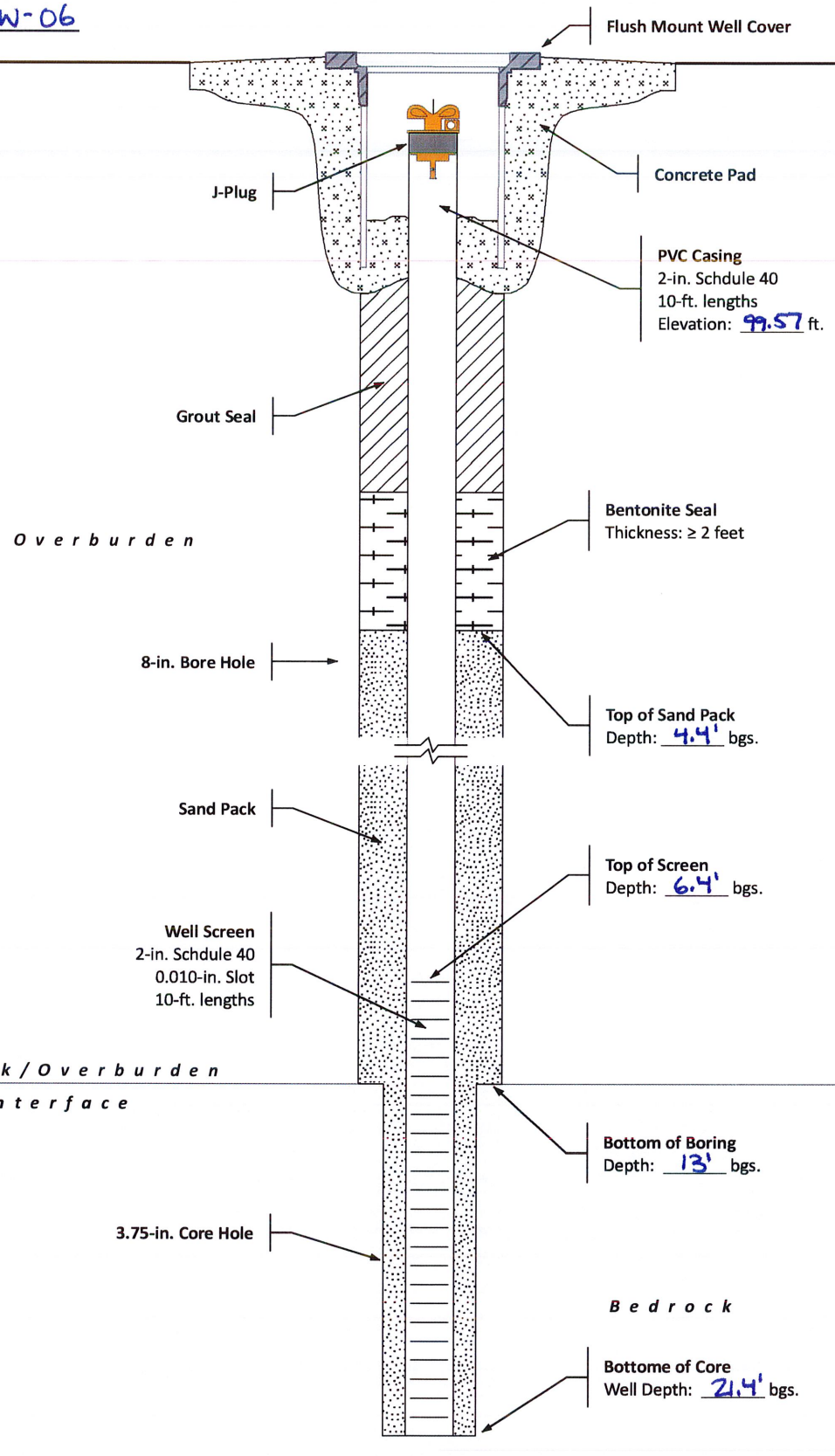
Monitoring Well Detail
Jay-Hague Site (#C828216)
485 Hague Street, Rochester, NY
Remedial Investigation

DATE: January 2021
PROJECT #: 50380
DRAWN/CHECKED: BGS/GLA
DATA SOURCE:

Well ID: MW-06



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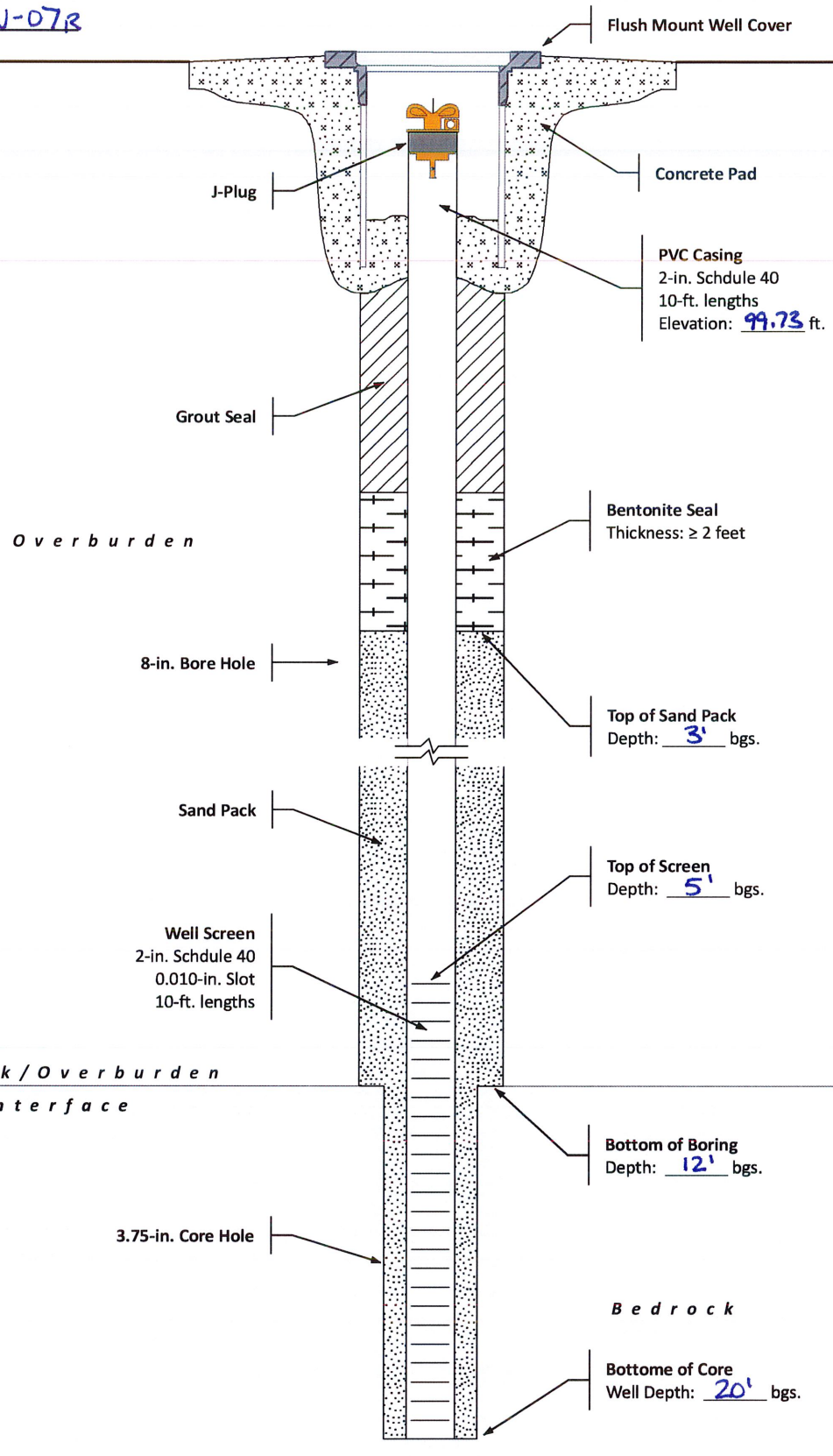
Monitoring Well Detail
Jay-Hague Site (#C828216)
485 Hague Street, Rochester, NY
Remedial Investigation

DATE: January 2021
PROJECT #: 50380
DRAWN/CHECKED: BGS/GLA
DATA SOURCE:

Well ID: MW-07B



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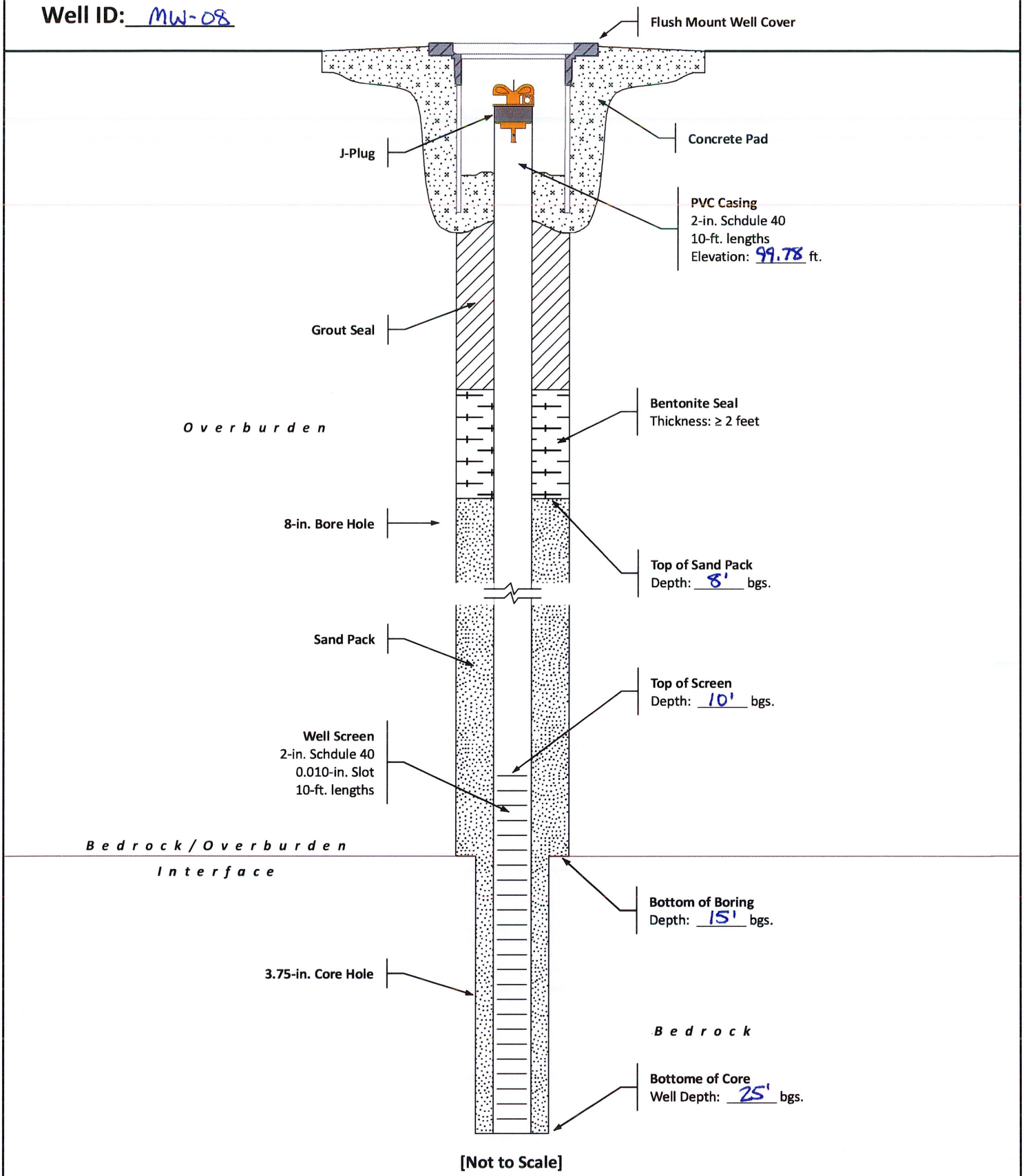
Monitoring Well Detail
Jay-Hague Site (#C828216)
485 Hague Street, Rochester, NY
Remedial Investigation

DATE: January 2021
PROJECT #: 50380
DRAWN/CHECKED: BGS/GLA
DATA SOURCE:

Well ID: MW-08



[Not to Scale]

Lu Engineers
ENVIRONMENTAL • TRANSPORTATION • CIVIL

Monitoring Well Detail
Jay-Hague Site (#C828216)
485 Hague Street, Rochester, NY
Remedial Investigation

DATE: January 2021
PROJECT #: 50380
DRAWN/CHECKED: BGS/GLA
DATA SOURCE:

LABELLA Associates, D.P.C.
300 STATE STREET, ROCHESTER, NEW YORK
ENVIRONMENTAL ENGINEERING CONSULTANTS

PROJECT
Phase II Environmental Site Assessment
471 & 485 Hague Street, Rochester, New York
Client: Genesee Regional Bank

WELL: IW-1
SHEET 1 OF 1
JOB # 2170177
CHKD. BY:

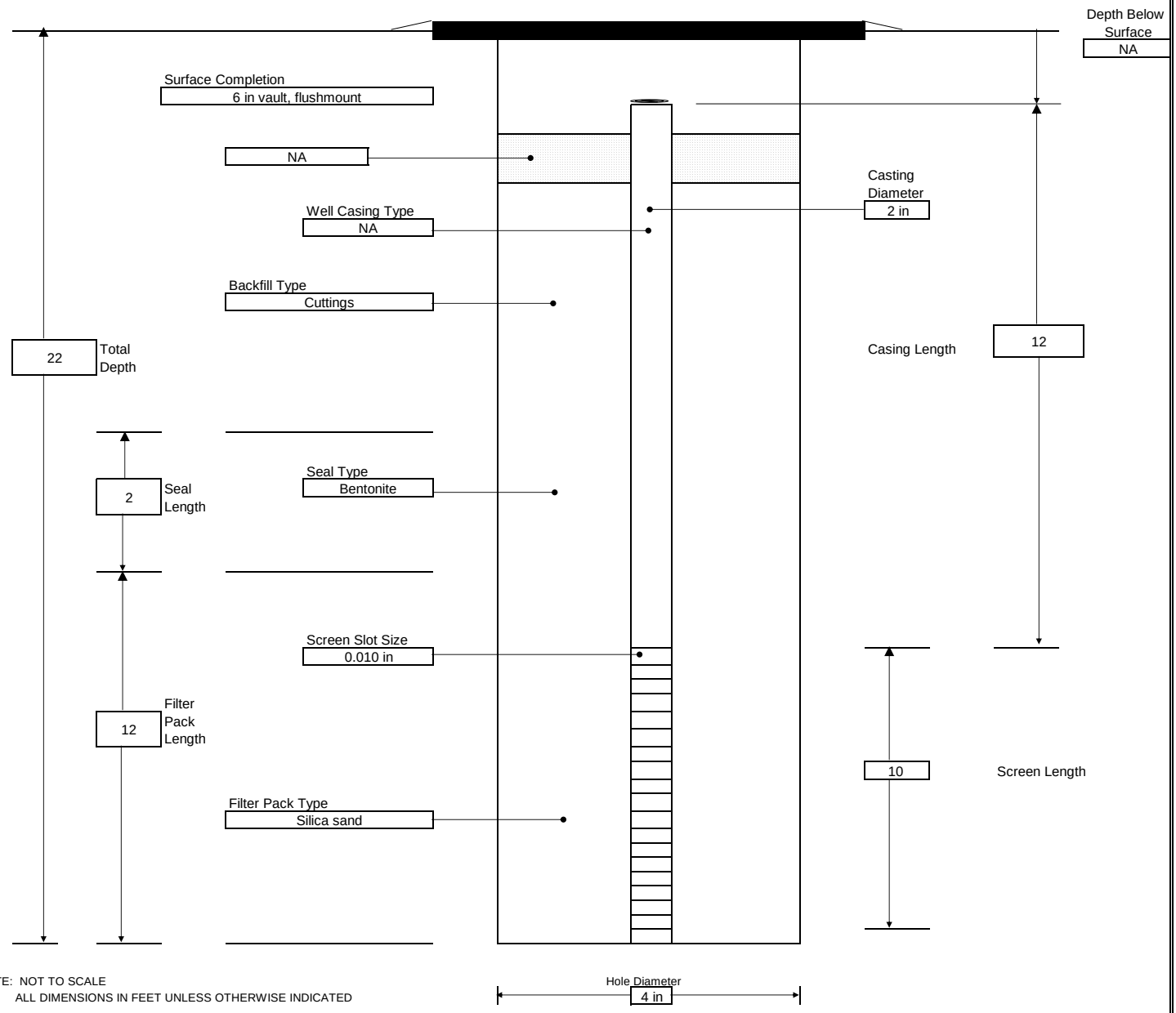
CONTRACTOR: Nothnagle Drilling, Inc.
DRILLER: K. Busch
LABELLA REPRESENTATIVE: S. Rife

BORING LOCATION:
GROUND SURFACE ELEVATION: DATUM:
START DATE: 1/18/2017 END DATE: 1/18/2017

TYPE OF DRILL RIG: CME-55
AUGER SIZE AND TYPE: 3 3/4" Hollow Stem
OVERBURDEN SAMPLING METHOD: Macro Core
ROCK DRILLING METHOD: NX Core

WATER LEVEL DATA

DATE	TIME	WATER	CASING	REMARKS



NOTE: NOT TO SCALE
ALL DIMENSIONS IN FEET UNLESS OTHERWISE INDICATED

GENERAL NOTES:
1) STRATIFICATION LINES REPRESENT APPROXIMATE BOUNDARY BETWEEN SOIL TYPES, TRANSITIONS MAY BE GRADUAL
2) WATER LEVEL READINGS HAVE BEEN MADE AT TIMES AND UNDER CONDITIONS STATED, FLUCTUATIONS OF GROUNDWATER MAY OCCUR DUE TO OTHER FACTORS THAN THOSE PRESENT AT THE TIME MEASUREMENTS WERE MADE.

BEDROCK DATA:

ROCK UNIT: Lockport Dolostone RUN: 12' to 22' FRACTURE DEPTHS: 12'2", 12'9", 13'9", 14'7", 15'8 1/2", 16'1", 16'4", 17'1 1/2", 17'4", 17'6", 17'10", 19'7", 20'2 1/2", 20'9", 21', 21'2"

DESCRIPTION:

Medium to dark gray, fine-grained, non-fossiliferous Dolostone that is highly fractured. Fractures are mostly horizontal, but some low-angle and vertical fractures are present. Trace vugs are present which exhibit small amounts of calcite permineralization. Larger horizontal and low angle fractures contain highly weathered rock, which presents as clay and silt.

LABELLA Associates, D.P.C.
300 STATE STREET, ROCHESTER, NEW YORK
ENVIRONMENTAL ENGINEERING CONSULTANTS

PROJECT
Phase II Environmental Site Assessment
471 & 485 Hague Street, Rochester, New York
Client: Genesee Regional Bank

WELL: IW-2
SHEET 1 OF 1
JOB # 2170177
CHKD. BY:

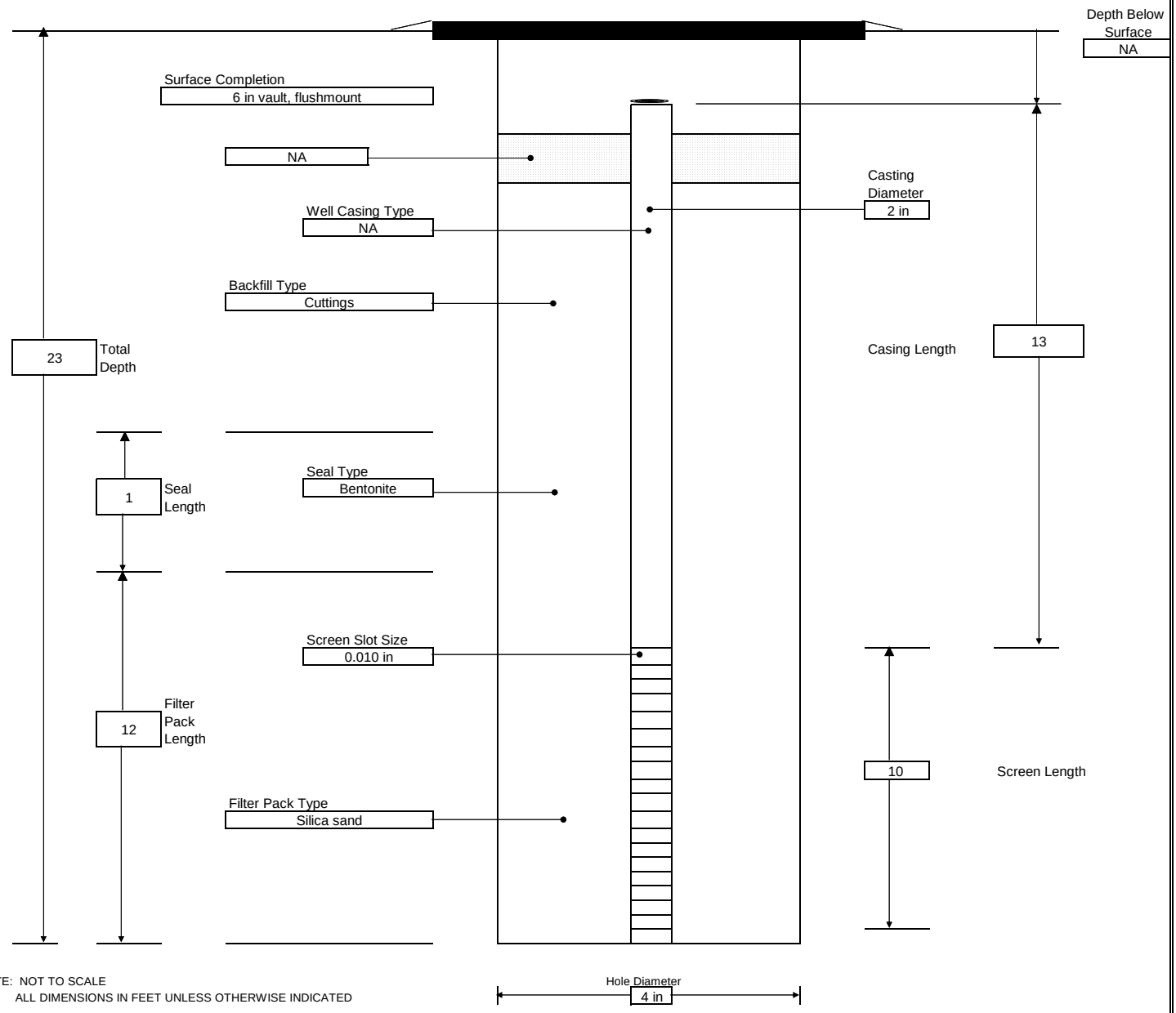
CONTRACTOR: Nothnagle Drilling, Inc.
DRILLER: K. Busch
LABELLA REPRESENTATIVE: S. Rife

BORING LOCATION:
GROUND SURFACE ELEVATION: DATUM:
START DATE: 1/18/2017 END DATE: 1/19/2017

TYPE OF DRILL RIG: CME-55
AUGER SIZE AND TYPE: 3 3/4" Hollow Stem
OVERBURDEN SAMPLING METHOD: Macro Core
ROCK DRILLING METHOD: NX Core

WATER LEVEL DATA

DATE	TIME	WATER	CASING	REMARKS



NOTE: NOT TO SCALE
ALL DIMENSIONS IN FEET UNLESS OTHERWISE INDICATED

GENERAL NOTES:
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2) WATER LEVEL READINGS HAVE BEEN MADE AT TIMES AND UNDER CONDITIONS STATED, FLUCTUATIONS OF GROUNDWATER MAY OCCUR DUE TO OTHER FACTORS THAN THOSE PRESENT AT THE TIME MEASUREMENTS WERE MADE.

BEDROCK DATA:

ROCK UNIT: Lockport Dolostone RUN: 13' to 23' FRACTURE DEPTHS: 13'7", 13'9", 14'2", 14'10", 15'5", 15'6 1/2", 15'8", 15'10 1/2", 16'4", 16'7 1/2", 17'4 1/2", 18', 18'10 1/2", 19'4", 20', 20'2", 20'6 1/2", 21'5", 22', 22'6", 22'10"

DESCRIPTION:

Medium to dark gray, fine-grained, non-fossiliferous Dolostone that is highly fractured. Fractures are mostly horizontal. Trace vugs are present which exhibit small amounts of calcite permineralization. Larger horizontal and low angle fractures contain highly weathered rock, which presents as clay and silt.

LABELLA Associates, D.P.C.
300 STATE STREET, ROCHESTER, NEW YORK
ENVIRONMENTAL ENGINEERING CONSULTANTS

PROJECT
Phase II Environmental Site Assessment
471 & 485 Hague Street, Rochester, New York
Client: Genesee Regional Bank

WELL: IW-3
SHEET 1 OF 1
JOB # 2170177
CHKD. BY:

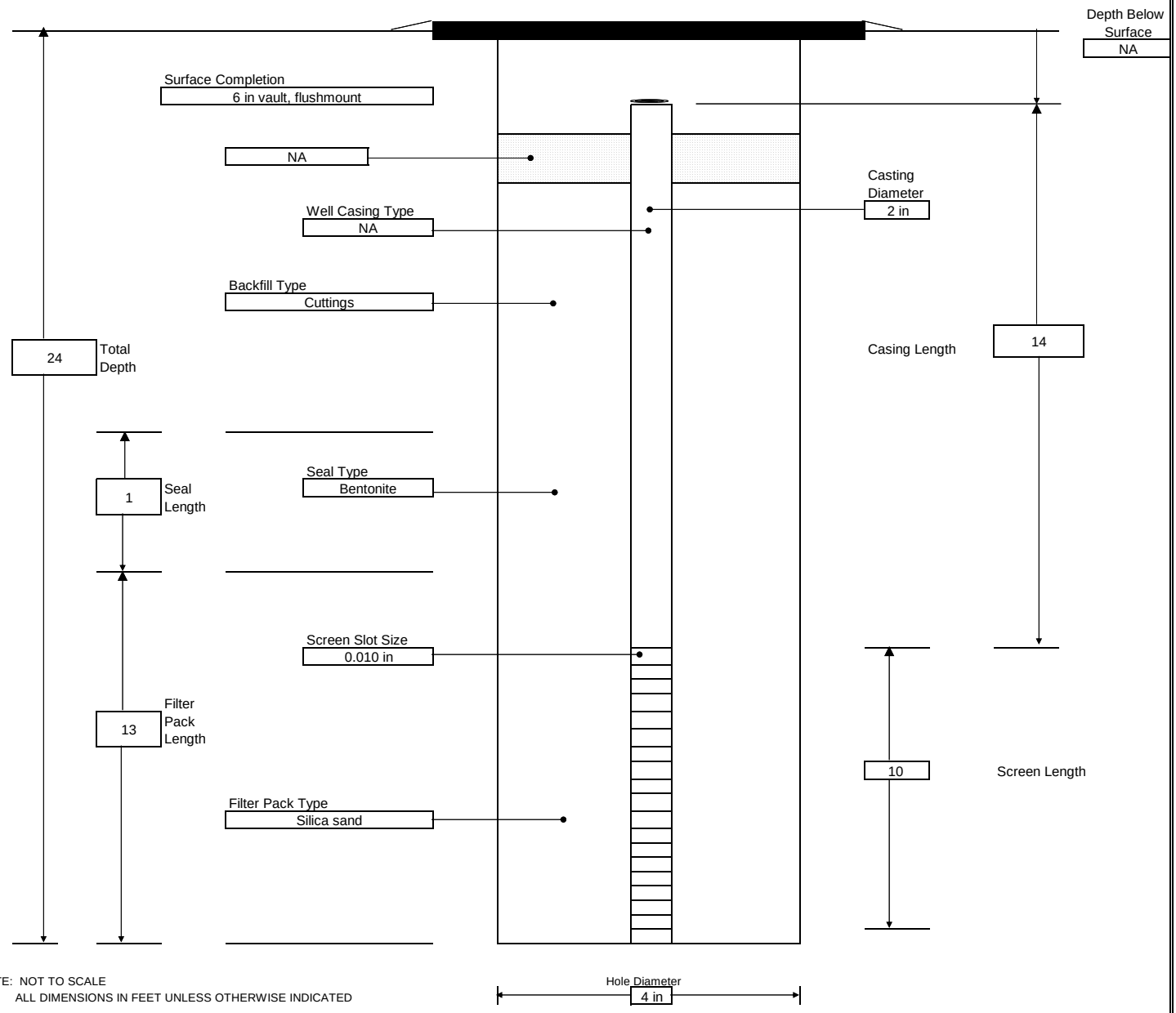
CONTRACTOR: Nothnagle Drilling, Inc.
DRILLER: K. Busch
LABELLA REPRESENTATIVE: S. Rife

BORING LOCATION:
GROUND SURFACE ELEVATION: DATUM:
START DATE: 1/19/2017 END DATE: 1/19/2017

TYPE OF DRILL RIG: CME-55
AUGER SIZE AND TYPE: 3 3/4" Hollow Stem
OVERBURDEN SAMPLING METHOD: Macro Core
ROCK DRILLING METHOD: NX Core

WATER LEVEL DATA

DATE	TIME	WATER	CASING	REMARKS



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GENERAL NOTES:
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2) WATER LEVEL READINGS HAVE BEEN MADE AT TIMES AND UNDER CONDITIONS STATED, FLUCTUATIONS OF GROUNDWATER MAY OCCUR DUE TO OTHER FACTORS THAN THOSE PRESENT AT THE TIME MEASUREMENTS WERE MADE.

BEDROCK DATA:

ROCK UNIT: Lockport Dolostone RUN: 14 to 24' FRACTURE DEPTHS: 14'1 1/2", 14'9 1/2", 15'1", 15'4", 15'11", 16'2", 16'8", 16'9 1/2", 18', 18'7", 19'2", 20'1", 20'9", 21'2", 21'7", 21'11", 22'4 1/2", 23', 23'2 1/2", 23'5", 23'7"

DESCRIPTION:

Medium to dark gray, fine-grained, non-fossiliferous Dolostone that is highly fractured. Fractures are mostly horizontal. Trace vugs are present which exhibit small amounts of calcite permineralization. Larger horizontal and low angle fractures contain highly weathered rock, which presents as clay and silt.

Jay Hague Site
Monroe County
Rochester, New York

FIELD SAMPLING PLAN

NYSDEC Site Number: C828216

Prepared for:

Jay Hague Properties, LLC
12 Walnut Hill Drive
Penfield, New York 14526

Prepared By:

Joseph C. Lu Engineering PC
339 East Avenue, Suite 200
Rochester, NY 14604

September 2023

Contents

1.0 Groundwater Monitoring

Groundwater monitoring will be performed on a semiannual basis to assess the remedy. The network of monitoring wells has been installed to monitor both up-gradient and down-gradient groundwater conditions at the Site. The location of all wells is indicated on Figure 2 of the SMP.

The sampling frequency or sampling requirements may be modified with the approval of NYSDEC Project Manager. The SMP will be modified to reflect changes in sampling plans approved by the NYSDEC. Sampling locations, required analytical parameters and schedule are provided in the table below:

Groundwater Monitoring Locations					
Well ID	**Location**	**X Coordinate**	**Y Coordinate**	**Elevation (ft.)**	**Analysis**
Upgradient Sampling Locations					
MW-02	on-Site	1397918.6698	1152717.0177	99.54	EPA 8260 TCL VOCs
IW-03		1397988.1805	1152805.5192	99.32	
Downgradient Sampling Locations					
MW-04	on-Site	1397952.0411	1152854.1172	99.28	EPA 8260 TCL VOCs
MW-05		1398048.9343	1152852.6149	99.19	
MW-06	off-Site	1398009.0578	1152875.9433	99.57	

2.0 Sampling Protocol

All groundwater sampling activities will be recorded in a field book and/or a groundwater-sampling log presented in Appendix I. Other observations (e.g., well integrity, etc.) will be noted on the well sampling log. The well sampling log will serve as the inspection form for the groundwater monitoring well network.

2.1 Purging and Sampling Equipment

The following equipment will be used during purging and sampling of all groundwater monitoring wells:

- Peristaltic GeoPump and dedicated high density polyethylene (HDPE) tubing.
- An electronic water level measurement unit with an accuracy of 0.01-foot.
- YSI water quality meter (or similar) with a flow-through cell, which includes probes for measurement of pH, reduction-oxidation potential, turbidity, dissolved oxygen, temperature, and conductivity.
- A PID will be used to get a headspace reading on the well head.

Each piece of equipment will be checked to be in proper working order before its use and calibrated as required by the manufacturer. Prior to each use, field analytical equipment probe(s) will be decontaminated. After each use, the instrument will be checked and stored in an area shielded from weather conditions. The calibration of each instrument is to be checked at the beginning of each day of groundwater sampling.

2.2 Sampling Procedure

Groundwater samples will be analyzed by an Environmental Laboratory Approval Program (ELAP)-certified laboratory in accordance with the table provided in Section 3.1.2 and the NYSDEC Part 360 requirements. The following procedures will be used for monitoring well groundwater sampling:

- Wear appropriate personal protective equipment as specified in the HASP. In addition, samplers will use new sampling gloves for the collection of each sample.
- Unlock well and remove the well cap. If no key is available for well lock, cut locks and replace at the completion of sampling with NYSDEC-coded locks.
- Obtain PID readings and record them in the field logbook.
- Measure the static water level in the well with an electronic water level indicator. The water level indicator will be washed with Alconox detergent and water, then rinsed with deionized water between individual wells to prevent cross-contamination. Decontamination fluids will be containerized.
- Calculate the volume of water in the well.
- Place new, clean polyethylene sheeting around the well casing to prevent contamination of sampling equipment in the event sampling equipment is dropped.
- Purge three (3) to five (5) well volumes of water from the well, using methods described below. Purge water and decontamination fluid will be containerized for characterization and discharge in accordance with a Monroe County Department of Public Works short term discharge permit.
- Pump with a submersible pump equipped with: (1) a check valve to avoid backflush and (2) new polyethylene tubing dedicated to each well. Set intake at the surface level of the groundwater and start pump; continue to lower the intake line ensuring that all standing water in the well has been purged.
- Allow field parameters of pH, Eh, dissolved oxygen, specific conductivity, and temperature to stabilize before sampling. Purging will be complete if the following conditions are met:
  - Consecutive pH readings are ±0.2 pH units of each other
  - Consecutive water temperatures are ±0.5°C (0.9°F) of each other
  - Consecutive measured specific conductance is ±10 percent of each other.
- If the well goes dry before the required volumes are removed, the well may be sampled when it recovers (recovery period up to 24 hours).
- Collect the sample aliquot for VOC analysis into the appropriate sample bottles. Sample bottles containing appropriate preservative for the parameter to be analyzed will be obtained from the laboratory.
- Obtain a field measurement of pH, dissolved oxygen, temperature, and specific conductivity and record it on the purging and sampling form. The instruments will be decontaminated between wells to prevent cross-contamination.
- Place the analytical samples in cooler and chill to ≤ 4°C (39.2°F). The samples will be shipped to the analytical laboratories within 24-hours.
- Re-lock well cap.
- Fill out the field logbook, sample log sheet, labels, custody seals, and chain-of custody forms.

Groundwater samples will be placed in appropriate sample containers, sealed, and submitted to the laboratory for analysis. The samples will be labeled with sufficient detail, including Site number, matrix, sample location, and month/year of collection. QA/QC samples will be collected at the frequency of one duplicate and one matrix spike/matrix spike duplicate (MS/MSD) per sampling event. Sample forms to be completed during groundwater sampling activities are included in Appendix I.

3.0 Monitoring Well Repairs, Replacement, and Decommissioning

If biofouling or silt accumulation occurs in the on-Site and/or off-Site monitoring wells, the wells will be physically agitated/surged and redeveloped. Additionally, monitoring wells will be properly decommissioned and replaced (as per the Monitoring Plan), 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 will be notified prior to any repair or decommissioning of monitoring wells for the purpose of replacement, and the repair or decommissioning and replacement process will be documented in the subsequent periodic report. Well decommissioning without replacement will be done only with the prior approval of NYSDEC. Well abandonment will be performed in accordance with NYSDEC's Commissioner Policy (CP) – 43: Groundwater Monitoring Well Decommissioning Policy (12/18/2009). Monitoring wells that are decommissioned because they have been rendered unusable will be reinstalled in the nearest available location, unless otherwise approved by the NYSDEC.

4.0 Quality Assurance/Quality Control

All sampling and analyses will be performed in accordance with the requirements of the Quality Assurance Project Plan (QAPP) prepared for the Site (Appendix K). Main Components of the QAPP include:

- QA/QC Objectives for Data Measurement
- Sampling Program:
  - Sample containers will be properly washed, decontaminated, and appropriate preservative will be added (if applicable) prior to their use by the analytical laboratory. Containers with preservative will be tagged as such.
  - Sample holding times will be in accordance with the NYSDEC Analytical Services Protocol (ASP) requirements.
  - Field QC samples (e.g., trip blanks, coded field duplicates, and matrix spike/matrix spike duplicates) will be collected as necessary.
- Sample Tracking and Custody
- Calibration Procedures:
  - All field analytical equipment will be calibrated immediately prior to each day's use. Calibration procedures will conform to manufacturer's standard instructions.
  - The laboratory will follow all calibration procedures and schedules as specified in United States Environmental Protection Agency (USEPA) SW-846 and subsequent updates that apply to the instruments used for the analytical methods.
- Analytical Procedures

- Preparation of a Data Usability Summary Report (DUSR), which will present the results of data validation, including a summary assessment of laboratory data packages, sample preservation and chain of custody procedures, and a summary assessment of precision, accuracy, representativeness, comparability, and completeness for each analytical method.
- Internal QC and checks
- QA performance and system audits
- Preventative maintenance procedures and schedules
- Corrective action measures.

5.0 Reporting Requirements

Forms and any other information generated during regular monitoring events and inspections will be kept on file at the Jay-Hague Properties, LLC offices. All forms, and other relevant reporting formats used during the monitoring/inspection events, will be (1) subject to approval by NYSDEC and (2) submitted at the time of the PRR, as specified in the Reporting Plan of this SMP.

All monitoring results will be reported to NYSDEC on a periodic basis in the PRR. A letter report will also be prepared, subsequent to each sampling event.

The reports will include, at a minimum:

- Date of event
- Personnel conducting sampling
- Description of the activities performed
- Type of samples collected (e.g., groundwater, outdoor air, etc.)
- Copies of all field forms completed (e.g., well sampling logs, chain-of-custody documentation, etc.)
- 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 EQuIS database)
- Electronic Data Deliverable [EDD])
- Any observations, conclusions, or recommendations
- A determination as to whether groundwater conditions have changed since the last reporting event.

Data will be reported in hard copy or digital format as determined by NYSDEC. A summary of the monitoring program deliverables are summarized in the table below:

SCHEDULE OF MONITORING/INSPECTION REPORTS	
Task	**Reporting Frequency**
Periodic Review Report	Annually

6.0 Contingency Plan

Emergencies may include injury to personnel, fire or explosion, environmental release, or serious weather conditions.

6.1 Emergency Phone Numbers

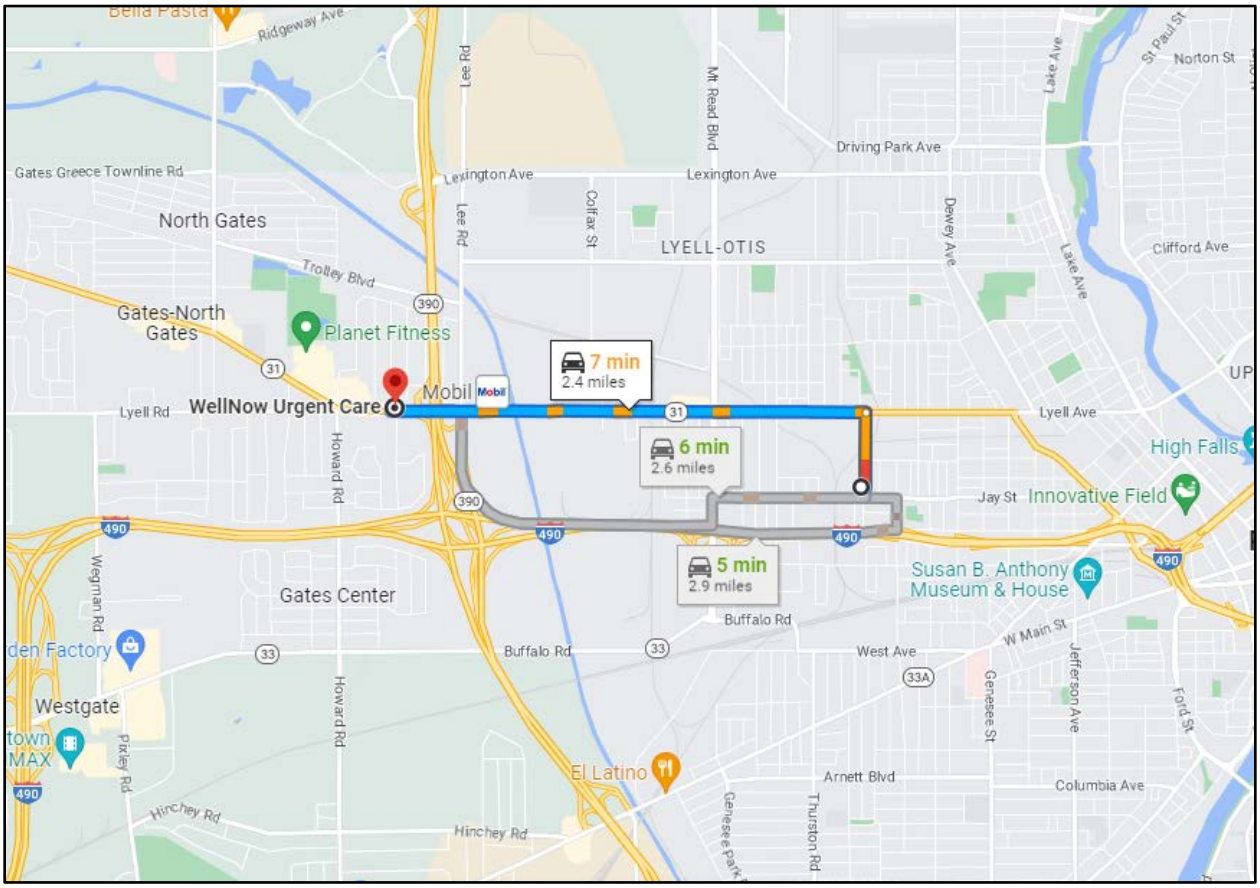
In the event of any environmentally related situation or unplanned occurrence requiring assistance the Owner or Owner's representative(s) should contact the appropriate party from the contact list below. For emergencies, appropriate emergency response personnel should be contacted. Prompt contact should also be made to NYSDEC Region 8. The emergency contact list must be maintained in an easily accessible location at the Site.

EMERGENCY CONTACT NUMBERS	
Medical, Fire, and Police:	911
Dig Safe NY:	811
Poison Control Center:	(800) 222-1222
Pollution Toxic Chemical Oil Spills:	(800) 457-7362
NYSDEC Spills Hotline	(585) 226-5428 Avon
NYSDEC – Division of Environmental Remediation, Region 8	(585) 226-5353

Note: Contact numbers subject to change and should be updated as necessary

Directions to Nearest Healthcare Facility

Site Location: 485 Hague Street, Rochester, NY 14606
Nearest Facility Name: WellNow Urgent Care
Facility Location: 2232 Lyell Avenue, Rochester, NY 14606
Facility Telephone: 585-417-4125



Directions to the Hospital:

1. Head North on Hague Street – Continue 0.3 mi
2. Turn left onto Lyell Ave – Continue 0.8 mi
3. Turn Right onto Matilda Street – Continue 59 ft
4. The destination is on the right

Total Distance: 1.4 mi
Total Estimated Time: 7 minutes

6.2 Response Procedures

As appropriate, the fire department and other emergency response group will be notified immediately by telephone of the emergency. The emergency telephone number list is found at the beginning of this Contingency Plan. The list will also be posted prominently at the Site and made readily available to personnel at all times.

6.2.1 Spill Procedures

In the event that a hazardous substance is released on the Site, all Site personnel shall be notified immediately. If the substance poses an immediate threat to human health and the environment, evacuation and notification of the appropriate authorities including the NYSDEC Spill Response team (listed in the previous table) may be necessary. If the release is minimal and does not pose a health risk, the leak shall be contained, and the spilled material shall be cleaned up with appropriately sized absorbent pads. Materials used to contain the substance shall be disposed of properly.

6.2.2 Evacuation Plan

If Site evacuation is necessary, Site personnel shall exit the Site using either entrance on either Jay or Hague Street, on the south or east the Site.

Jay-Hague Site (#C828216)
485 Hague Street
City of Rochester
Monroe County, New York

Quality Assurance Project Plan

Prepared for:

Jay Hague Properties, LLC
12 Walnut Hill Drive
Penfield, New York 14526

Prepared By:

339 East Avenue, Suite 200
Rochester, NY 14604

September 2020

Lu Project No. 50380

Table of Contents

Tables

1.0 Introduction

This Quality Assurance Project Plan (QAPP) was prepared as part of the Remedial Investigation (RI) Work Plan for the Jay Hague Site and is subject to the review and approval by the New York State Department of Environmental Conservation (NYSDEC) and New York State Department of Health (NYSDOH). The project work will be performed by Lu Engineers and conducted under their direction by NYSDEC-approved contractors. Project-specific descriptions of each phase of work can be found in the RI Work Plan.

This QAPP presents the policies, organization, objectives, functional activities, and specific quality assurance (QA) and quality control (QC) activities that will be implemented by Lu Engineers for this project. This QAPP is designed to ensure that all technical data generated by Lu Engineers is accurate, representative, and will ultimately withstand judicial scrutiny.

All QA/QC procedures are implemented in accordance with applicable professional technical standards, NYSDEC and Environmental Protection Agency (EPA) requirements, government regulations and guidelines, and specific project goals and requirements. This QAPP is prepared in accordance with all NYSDEC and EPA QAPP guidance documents.

This QAPP incorporates the following activities:

- Sample Management and chain of custody;
- Document control;
- Laboratory quality control; and
- Review of project deliverables.

Analytical samples will be collected in the field utilizing standard operating procedures (SOPs) and sent to the contracted (NYSDOH) Environmental Laboratory Approval Program (ELAP) CLP-certified laboratory for analysis. Field data compilation, tabulation, and analysis will be checked for accuracy. Calculations and other post-field tasks will be reviewed by field personnel and the project manager.

Equipment used to take field measurements will be maintained and calibrated in accordance with established procedures. Records of calibration and maintenance will be kept by assigned personnel. Field testing and data acquisition will be performed in standard fashion following strict guidelines.

Document control procedures will be used to coordinate the distribution, coding, storage, retrieval, and review of all data collected during all sampling tasks. These include, but are not limited to, the sampling of soil/sediment, groundwater, and wastes.

In addition, the project laboratory has developed SOPs for individual analytical methods and internal QC procedures. These documents are an important aspect of their QA program and are available for review upon request.

2.0 Project Objectives

The intent of this project is to further delineate the nature and extent of contamination at the Jay Hague Site and identify current or potential human exposure pathways to documented subsurface impacts of tetrachloroethene (PCE) and associated daughter products. As part of site characterization and investigation, a total fluids extraction (TFE) pilot test will be implemented. Following the test, additional

soil borings and sampling will be conducted to evaluate on-Site contamination as well as off-Site impacts originating from the Site.

The identification of significant Site characteristics, extent of contamination, and exposure pathways (if completed exposure pathways are indicated) will provide the basis for developing remedial alternatives. The scope of work is described in the RI Work Plan Section 3.0.

A complete project description, including Site history and background information, is given in Section 2.0 of the RI Work Plan.

3.0 Project Organization and Responsibility

In accordance with Lu Engineers' QA program, experienced senior technical staff will be assigned to the project QA/QC functions. Our management structure provides for direct and constant operational responsibility, clear lines of authority, and the integration of QA activities. The various QA functions are explained below.

QA contacts include Lu Engineers project manager and QA Officer. Qualifications of key personnel are included in Appendix D.

Paradigm Environmental, Inc, a NYSDOH ELAP-CLP certified laboratory, will provide analytical services for the project. A list of their certifications and accreditations is attached in Appendix D.

Project Manager:

The project manager for this project will be Gregory L. Andrus, P.G. As project manager, Mr. Andrus will be responsible for implementing the project and will have the authority to commit the resources necessary to meet project objectives and requirements. The project manager's primary function is to ensure that technical, financial, and scheduling objectives are achieved. The project manager will provide the major point of contact and control for matters concerning the project. The project manager will:

- Work directly with the NYSDEC Regional Office to complete and implement a work plan for the project;
- Define project objectives and schedule;
- Establish project policy and procedures to address the specific needs of the project as a whole, as well as the objectives of each task;
- Acquire and apply technical managerial resources as needed to ensure performance within budget and schedule constraints;
- Orient all staff concerning the project's special considerations;
- Develop and meet ongoing project and/or task staffing requirements, including mechanisms to review and evaluate each task product;
- Review the work performed on each task to ensure its quality, responsiveness, and timeliness;
- Review and analyze overall task performance with respect to planned requirements and authorizations;
- Approve all external reports (deliverables) before their submission to the client;

- Ultimately be responsible for the preparation and quality of interim and final reports; and
- Represent the project team at meetings.

Quality Assurance Officer (QAO):
The QA officer is Janet Bissi, CHMM. Mrs. Bissi will be responsible for maintaining QA for a specific program and the projects within that program. Specific functions and duties include:

- Providing an external and, thereby, independent QA function to the project;
- Responsibility for field and sampling audits conducted by qualified QA personnel;
- Coordinating with client personnel, Lu Engineers' project manager, laboratory management, and staff to ensure that QA objectives appropriate to the project are set and that personnel are aware of these objectives;
- Coordinating with project management and personnel to ensure that QC procedures appropriate to demonstrating data validity sufficient to meet QA objectives are developed and in place;
- Interfacing with the data validator (if necessary) and development of a project specific data usability report;
- Coordinating with QA personnel to ensure that QC procedures are followed and documented;
- Requiring and/or reviewing corrective actions taken in the event of QC failures;
- Reporting non-conformance with QC criteria or QA objectives, including an assessment of the impact on data quality or project objectives, to the project manager.

Technical Staff:
The technical staff (team members) for this project will be drawn from Lu Engineers pool of resources. The technical team staff will be utilized to gather and analyze data and to prepare various task reports and support materials. All of the designated technical team members are experienced professionals who possess the degree of specialization, training, and technical competence required to effectively and efficiently perform the required work.

Data Validation and QA Staff:
If necessary, data validation and QA staff will include data validation chemists, QA auditors, and other technical specialists who remain independent of the laboratory and project management. The staff will independently validate analytical data to assess and summarize their accuracy, precision, and reliability and determine their usability. The staff will also perform audits and document the historical record of project activities, including any factors affecting data usability, such as data discrepancies and deviations from standard practices. The staff will act under the direction of the QA officer and project manager in accordance with specific project requirements. A third party data validation staff is to be determined.

4.0 Sampling Procedures

4.1 Sampling Design

Sampling for this project is designed to delineate the nature and extent of contamination at the Site. Surface soil sampling, soil borings and sampling, groundwater sampling, and soil vapor intrusion (SVI) sampling will be used to evaluate Site conditions.

Approximately 12 soil borings will be advanced as part of groundwater monitoring well installation during the investigation phase of this project. Subsurface soil samples will be collected to fulfill requirements of the NYSDEC and NYSDOH. It is anticipated that one (1) sample be taken from each boring.

Soil and groundwater samples will be collected and analyzed for:

- Target Compound List (TCL) Volatile organic compounds (VOCs) by EPA Method 8260;
- Semi-volatile organic compounds (SVOCs (B/N)) by EPA method 8270;
- Resource Conservation and Recovery Acts (RCRA) metals by EPA Method 6010/7473;
- Polychlorinated biphenyls (PCBs) by EPA Method 8082;
- Pesticides/herbicides by EPA Method 8151;
- NYSDEC emerging contaminants including Per- and Polyfluoroalkyl Substances (PFAS) and 1,4-dioxane by EPA Method 537.1.

Soil sampling will be based on field screening observations as indicated in the RI Work Plan Section 4.0. Groundwater samples will be collected from pre-existing and newly installed monitoring wells.

To further evaluate subsurface conditions, a TFE pilot test will be executed on Site. Subsequent groundwater sampling, possible additional soil borings, and SVI sampling at the two (2) existing buildings, will also be conducted to determine the extent of environmental impacts at the Site.

Continuous perimeter and work zone air monitoring for VOCs will also be conducted during all soil removal and staging activities using a photoionization detector (PID) equipped with a 10.2 eV bulb to ensure health and safety of workers and the public.

A Site map showing sample locations is provided in Figure 5 of the RI Work Plan.

4.2 QC Samples

Various types of field QC samples are used to check the cleanliness and representativeness of field handling methods. They are analyzed in the laboratory as samples, and their purpose is to assess the sampling and transport procedures as possible sources of sample contamination and document overall sampling and analytical precision. Rigorous documentation of all field QC samples in the Site logbooks is mandatory.

- **Trip Blanks** are similar to field blanks with the exception that they are not exposed to field conditions. Their analytical results give the overall level of contamination from everything except ambient field conditions. Trip blanks are prepared at the lab prior to the sampling event and shipped with the sample bottles. Trip blanks are prepared by adding organic-free water to a 40-ml VOA vial. One trip blank will be used with every batch of water samples shipped for volatile organic analysis. Each trip blank will be transported to the sampling location, handled like a sample, and returned to the laboratory for analysis without being opened in the field.

- **Field Equipment/Rinsate Blanks** are blank samples designed to demonstrate that sampling equipment has been properly prepared and cleaned before field use and that cleaning procedures between samples are sufficient to minimize cross-contamination. Rinsate blanks

are prepared by passing analyte-free water over sampling equipment and analyzing the samples for all applicable parameters. If a sampling team is familiar with a particular site, its members may be able to predict which areas or samples are likely to have the highest concentration of contaminants. Unless other constraints apply, these samples should be taken last to avoid excessive contamination of sampling equipment. Rinsate blanks are not required if dedicated sampling equipment is used for sample collection.

- **Field Duplicates** consist of a set of two (2) samples collected independently at a sampling location during a single sampling event. Field duplicates can be sent to the laboratory so that they are indistinguishable from other analytical samples and personnel performing the analysis are not able to determine which of the samples are field duplicates. Field duplicates are designed to assess the consistency of the overall sampling and analytical system.

4.3 Decontamination Procedures

All decontamination will be performed in accordance with NYSDEC-approved procedures. Sampling methods and equipment have been chosen to minimize decontamination requirements and prevent the possibility of cross-contamination. All drilling equipment will be decontaminated prior to drilling, after drilling each boring, and after the completion of all drilling. Special attention will be given to the drilling assembly, augers, split-spoons, and PVC casing. Split-spoons will be decontaminated prior to and following each use.

Split-spoons and other non-disposable sampling equipment, and stainless steel spoons will be decontaminated using the following procedure:

- Initially cleaning equipment of all foreign matter;
- Scrubbing equipment with brushes in alconox solution;
- Rinsing equipment with distilled water; and
- Rinsing equipment with 10% nitric acid (when sampling for metals only);
- Triple-rinsing equipment with distilled water; and
- Allowing equipment to air dry.

All drill cuttings and water generated during drilling borings will remain on site. All waters generated by decontamination or by sampling monitoring wells will be stored in drums or an onsite holding tank.

A temporary decontamination pool will be established in a secure area on site using 6-mil polyethylene sheeting. The drill rig and associated tooling will be decontaminated using steam-cleaning methods at the designated location. Fluids generated during decontamination will be collected in the plastic-lined pool. All decontamination wastes will be transferred into drums or an onsite holding tank for appropriate staging and disposal. Final disposal of soils and water will be dependent on the results of the soil and groundwater analyses to be conducted during this investigation.

4.4 Sampling Methods

This section describes the sampling procedures to be utilized for each environmental medium that will be collected and analyzed in accordance with the Site RI Work Plan and Tables 1 and 5.1 of this plan.

All sampling procedures described are consistent with EPA sampling procedures as described in SW-846, third edition and the NYSDEC Analytical Services Protocols (ASP), or equivalent.

4.4.1 Surface Soil Samples

Surface soil samples will be collected from two (2) greenspace areas located on Site. Samples will be obtained from an approximate depth of 6 to 10-inches bgs with a pre-cleaned stainless steel trowel or spoon and transferred to the appropriate clean glass containers. All tools to be used will be decontaminated according to procedures outlined in Section 4.3 prior to usage. Any observable physical characteristics of the soil will be recorded on appropriate sampling logs.

Samples will be collected and immediately labeled and placed on ice in a cooler for preparation for delivery to Paradigm Environmental Services, Inc. Refer to Sections 5.0 and 5.1 respectively for sample handling and custody as well as preservation and shipping procedures.

4.4.2 Subsurface Soil Samples

Soil borings will be advanced using a CME-75 or equivalent drill rig equipped with hollow stem augers. A four (4) foot sample barrel lined with a new acetate sleeve will be used at each location. Throughout the boring process, the field scientist will screen and evaluate soil samples for the presence of staining or other unusual observations. Samples noted to have these characteristics may require analysis even though no PID readings may have been observed. If no PID readings or other indications of impacts are observed, a sample will be collected from the bottom of the soil boring, at the bedrock/overburden interface.

Samples will be transferred into appropriate clean glass containers provided by the project laboratory, and immediately labeled and placed on ice in a cooler for preparation for delivery to Paradigm Environmental Services, Inc. Refer to Sections 5.0 and 5.1 respectively for sample handling and custody as well as preservation and shipping procedures.

Screening will be performed by placing a representative soil sample into a Ziploc® (or equivalent) plastic bag, sealing the bag, and then allowing the sample to volatilize for at least 15 minutes. The concentration of VOCs will then be measured by inserting the tip of the PID or equivalent device into the sample's headspace and taking a reading. VOC measurements will be entered on the boring log.

Including the soil samples to be collected during the installation of extraction wells as part of the proposed pilot study (refer to section 5.1), it is anticipated that a total of 16 soil samples will be collected and analyzed (see Table 1).

Cuttings from each boring will be containerized as appropriate in shippable UN IA2/X400 or equivalent drums.

4.4.3 Groundwater Samples

The groundwater sampling plan outlined in this subsection has been prepared in general accordance with RCRA Groundwater Monitoring Technical Enforcement Guidance Document 9950.1 (September 1986), Office of Solid Waste and Emergency Response as modified by NYSDEC-specific request.

Newly installed wells will initially be surged in order to draw sediments out of the sand pack and into the well for removal. If significant effort does not attain the proposed goal of 50 NTU, the well will be considered as developed if all other parameters have stabilized. Resultant development/purge water will be containerized as appropriate.

Static water levels will be measured to within 0.01 foot prior to purging and sampling. Purging and sampling of each well will be accomplished using pre-cleaned dedicated PVC bailers on new polypropylene line. All wells will be purged a minimum of three volumes of water standing in the casing or to dryness. Temperature, pH, conductivity, and turbidity will be measured and recorded during purging.

After purging, the turbidity of each well will be measured. Sample volumes for parameters will be collected immediately following purging, with the volatile sample collected first. Upon returning to the well, the turbidity will be re-measured and recorded. No additional purging will be performed.

Groundwater samples will be collected according to the following procedures:

- Water clarity will be quantified during sampling with a turbidity meter;
- When transferring water from the bailer or pump line to sample containers, care will be taken to avoid agitating the sample, since agitation promotes the loss of volatile constituents;
- Any observable physical characteristics of the groundwater (e.g., color, sheen, odor, turbidity) at the time of sampling will be recorded; and
- Weather conditions (i.e., air temperature, sky condition, recent heavy rainfall, drought conditions) at the time of sampling will be recorded.

All groundwater samples and their accompanying QA/QC samples will be analyzed as specified in the work plan. A total of two (2) rounds of groundwater sampling will be performed throughout the site investigation. Initial sampling will be conducted following well installation and development, and follow-up sampling for cVOCs will be conducted after implementation of the pilot test to evaluate effectiveness (refer to RI Work Plan section 5.0).

The goals of the groundwater investigation include:

- Evaluation of groundwater quality,
- Assessment of the potential for off-Site sources migrating on-Site,
- Assessment of the potential for off-Site migration of Site contaminants of concern,
- Establishing a reasonably complete understanding of Site hydrogeology.

Prior to sampling each well, the groundwater level and total well depth will be measured and recorded. Groundwater sampling will be conducted in accordance with EPA Low-Flow Groundwater Sampling Procedures. Variable-speed peristaltic pumps with dedicated ¼-inch diameter polyethylene tubing will be utilized for the collection of groundwater samples. Field observations (e.g. odor) and parameters including turbidity, pH, conductivity, and temperature will be measured during purging and recorded on the sampling log. Both new and existing groundwater wells will be sampled during this process.

Once these parameters stabilize, the sample will be collected and immediately labeled and placed on ice in a cooler for preparation for delivery to Paradigm Environmental Services, Inc. Refer to Sections 5.0 and 5.1 respectively for sample handling and custody as well as preservation and shipping procedures.

4.5 Sample Documentation

4.5.1 Logbooks

All field activities will be documented in a field logbook. This logbook will provide a record of activities conducted at the site. All entries will be signed and dated at the end of each day of fieldwork. The field logbook will include the following: date and time of all entries; names of all personnel on Site; weather conditions (temperature, precipitation, etc.); location of activity; and description of activity.

In addition, Lu Engineers will complete the following standard field forms as necessary:

- Test boring/probing log
- Groundwater elevations, sampling and conductivity logs
- Field sampling records, including SVI
- Chain of custody for all analytical laboratory sampling.

As with any data logbooks, no pages will be removed for any reason. If corrections are necessary, these must be made by drawing a single line through the original entry (so that the original entry can still be read) and writing the corrected entry alongside it. The correction must be initialed and dated. Most corrected errors will require a footnote explaining the correction.

4.5.2 Sample Identification

All containers of samples collected by Lu Engineers from the project will be identified using a format identified in the field on a label affixed to the sample container (labels are to be covered with Mylar tape). Generally, the format will include two (2) letters identifying the Site, two (2) letters identifying the type of sample (GW – Groundwater), two (2) numbers identifying a sample location, 2-4 additional numbers identifying a sample depth if appropriate, additional letters identifying special parameters (MS/MSD – Matrix Spike, Matrix Spike Duplicate).

Each sample will be labeled and sealed immediately after collection. To minimize handling of sample containers, labels will be filled out prior to sample collection. The sample label will be filled out using waterproof ink and will be firmly affixed to the sample containers and protected with Mylar tape. The sample label will give the sample number, the date of the collection, analysis required, and pH and preservation, if appropriate.

The laboratory sample number will appear on a barcode label affixed to each sample, extract, or digestate.

4.6 Field Instrumentation

All instruments and equipment used during sampling and analysis will be operated, calibrated, and maintained according to manufacturer's guidelines and recommendations. Operation, calibration, and maintenance will be performed by personnel properly trained in these procedures. Documentation of

calibration information will be maintained in the appropriate log book or reference file and will be available upon request. Instruments will be calibrated before each use.

5.0 Sample Handling and Custody

This section describes procedures for sample handling and chain-of-custody to be followed by Lu Engineers' sampling personnel and the analytical laboratory. The purpose of these procedures is to ensure that the integrity of the samples is maintained during their collection, transportation, storage, and analysis. All chain-of-custody requirements comply with SOPs indicated in EPA sample-handling protocol.

Sample identification documents will be carefully prepared so that sample identification and chain-of-custody can be maintained and sample disposition controlled. Sample identification documents include field notebooks, sample labels, custody seals, chain-of-custody records, and laboratory sample log-in and tracking forms.

The primary objective of the chain-of-custody procedures is to provide an accurate written record that can be used to trace the possession and handling of a sample from the moment of collection through analyses. A sample is in custody if it is:

- In someone's physical possession;
- In someone's view;
- Locked up; or
- Kept in a secured area that is restricted to authorized personnel.

5.1 Sample Containers and Preservation

For sampling performed by Lu Engineers, certified pre-cleaned sample containers obtained from a reliable supplier will be provided by the analytical laboratory. All containers provided by the laboratory are pre-cleaned (Level 1), with certificates of analysis available for each bottle type. Certifications of Analysis provided by the vendor are kept on file by the laboratory.

All samples will be stored on ice pending delivery to the laboratory. In addition, all water samples for volatile analysis will be preserved with HCl to a pH of less than 2. All water samples for metals analysis will be preserved by adding concentrated nitric acid until the sample pH is lowered to 2.0 standard units or less. Sample pH will be checked in the field using indicator paper. A list of preservatives and holding times for each type of analysis is included in the following Table.

Sample Preservation and Holding Times

Sample Matrix	Analysis	Container Type and Size	Preservation	Holding Time
Soil	VOC	2-4 oz. wide mouth glass jar with Teflon-lined cap	Cool to 4°C; zero headspace	14 days
	SVOC	2-4 oz. amber wide mouth glass jar with Teflon-lined cap	Cool to 4°C	14 days
	Metals	8 ox. glass jar	Cool to 4°C	6 months
	PCBs	8 ox. glass jar with Teflon-lined cap	Cool to 4°C	14 days
	PFAS	250-ml container made of HDPE or polypropelene with unlined caps	2-6°C	14 days
	1,4-Dioxane	8 ox. glass jar	Cool to 4°C	7 days
Groundwater	VOC	3-40-ml. glass vial with Teflon-lined cap	Cool to 4°C; zero headspace	7 days, unpreserved 14 days, preserved
	SVOC	2- ½ L Amber jugs with Teflon-lined cap	Cool to 4°C	7 days
	Metals	40-ml. polyethylene or glass	HNO_3 to a pH <2	6 months
	PCBs	2 – ½ L Amber jugs	Cool to 4°C	7 days
	PFAS	250-ml container made of HDPE or polypropelene with unlined caps	2-6°C	14 days
	1,4-Dioxane	2 x 1L glass amber	Cool to 4°C	7 days

Sample preservation will be verified at the lab immediately prior to extraction, digestion, and/or analysis and the pH will be recorded in the extraction/digestion logbook. The pH may be checked upon arrival, if desired. If the samples are improperly preserved, a QA/QC discrepancy form will be submitted to the lab manager and QA coordinator for appropriate follow-up action (i.e., evaluation of the data during the data validation process and, if necessary, additional instruction of personnel regarding proper procedures).

5.2 Field Custody Procedures

- Sample bottles must be obtained pre-cleaned from the laboratory or directly from an approved retail source. All containers will be prepared in a manner consistent with the NYSDEC ASP 1991 bottle-washing procedures. Coolers or boxes containing cleaned bottles should be sealed with a custody tape seal during transport to the field or while in storage prior to use.
- All containers will have assigned lot numbers to ensure traceability through the supplier.
- As few persons as possible should handle samples.
- The sample collector is personally responsible for the care and custody of samples collected until the samples are transferred to another person or dispatched properly under chain-of-custody rules.
- The sample collector will record sample data in the field notebook.
- The project manager will determine whether proper custody procedures were followed during the fieldwork and decide if additional samples are required.

5.2.1 Custody Seals

Custody seals are preprinted adhesive-backed seals with security slots designed to break if the seals are disturbed. A custody seal is placed over the cap of individual sample bottles by the sampling technician. Sample shipping containers (coolers, cardboard boxed, etc., as appropriate) are sealed in as many places as necessary to ensure security. Seals must be signed and dated before use. Strapping tape should be placed around the lid to ensure that seals are not accidentally broken during shipment and in a manner that allows easy removal by laboratory personnel. On receipt at the laboratory, the custodian must check (and certify, by completing logbook entries) that seals on boxes and bottles are intact.

5.2.2 Chain-of-Custody Record

The chain-of-custody record must be fully completed in duplicate, using black carbon paper or equivalent where possible, by the field technician who has been designated by the project manager as responsible for sample shipment to the appropriate laboratory for analysis. In addition, if samples are known to require rapid turnaround in the laboratory because of project time constraints or analytical concerns (e.g., extraction time or sample retention period limitations, etc.), the person completing the chain-of-custody record should note these constraints in the "Remarks" section of the custody record.

5.3 Sample Handling, Packaging and Shipping

The transportation and handling of samples must be accomplished in a manner that not only protects the integrity of the sample but also prevents any detrimental effects due to the possible hazardous nature of samples. Regulations for packaging, marking, labeling, and shipping hazardous materials are promulgated by the United States Department of Transportation (DOT) in the Code of Federal Regulations, 49 CFR 171 through 177.

5.3.1 Sample Packaging

Samples must be packaged carefully to avoid breakage or contamination and must be shipped to the laboratory at proper temperatures. The following sample packaging requirements will be followed:

- Sample bottle lids must never be mixed. All sample lids must stay with the original containers.
- The sample bottle should never be completely filled except for VOA bottles. At a minimum, a 10% void space should be left in the bottle to allow for expansion. The sample volume level should be marked with a grease pencil or by placing the top of the label at the appropriate sample height.
- All sample bottles must be sealed around the neck or the jar lid with clear tape. Any custody seals should be affixed prior to sealing the bottle.
- All sample bottles shall be placed in plastic Ziploc® bags to minimize contact with inert packing material, unless foam inserts are used.
- Foam inserts should be used as inert packing material when shipping low hazard water samples via a common carrier to the laboratory.
- Low-hazard environmental samples are to be cooled. "Blue ice" or some other artificial icing material, or ice placed in plastic bags, may be used. Ice will not be used as a substitute for packing material.

- A duplicate custody record must be placed in a plastic bag and taped to the inside of the cooler lid. Custody seals are affixed to the sample cooler.
- The cooler will be labeled as containing a hazardous material if it contains medium or high-hazard samples. Labeling requirements differ depending on the type of material being shipped; the majority of soil samples may be shipped as a class "9" hazardous material with the proper shipping name "OTHER REGULATED SUBSTANCES (ENVIRONMENTAL SAMPLES)."
- A hazardous material shipping manifest will be completed for each cooler of medium to high-hazard samples and affixed to the lid of the cooler.
- Low-hazard environmental samples do not require a hazardous material shipping manifest. The words "LABORATORY SAMPLES" should be printed on the top of the cooler for low-hazard samples.
- Samples packaged and shipped as limited-quantity radioactive material must comply with DOT and shipper regulations for package contamination limits, surface exposure rate, and air bill completion.

5.3.2 Shipping Containers

Environmental samples will be properly packaged and labeled for transport and dispatched for analysis to the appropriate subcontracted laboratory for geotechnical analyses. A separate chain-of-custody record must be prepared for each container. The following requirements for marking and labeling of shipping containers will be observed:

- Use abbreviations only where specified;
- The words "This End Up" or "This Side Up" must be clearly printed on the top of the outer package. Upward-pointing arrows should be placed on the sides of the package. The words "Laboratory Samples" should also be printed on the top of the package; and
- After a container has been closed, two custody seals are placed on the container—one on the front and one on the back. The seals are protected from accidental damage by placing strapping tape over them.

Field personnel will make timely arrangements for transportation of samples to the laboratory. When custody is relinquished to a shipper, field personnel will telephone the laboratory custodian to inform him of the expected time of arrival of the sample shipment and to advise him of any time constraints on sample analysis.

5.3.3 Shipping Procedures

- The coolers in which the samples are packed must be accompanied by a chain-of-custody record. When transferring samples, the individuals relinquishing and receiving them must sign, date, and note the time on the record. This record documents sample custody transfer.
- Samples must be dispatched to the laboratory for analysis with a separate chain-of-custody record accompanying each shipment. Shipping containers must be sealed with custody seals for shipment to the laboratory. The method of shipment, name of courier, and other pertinent information are entered in the "Remarks" section of the chain-of-custody record.
- All shipments must be accompanied by the chain-of-custody record identifying their contents. The original record accompanies the shipment, and the yellow copy is retained by the site team leader.

- If sent by mail, the package is registered with return receipt requested. If sent by common carrier, a bill of lading is used. Freight bills, Postal Service receipts, and bills of lading are retained as part of the permanent documentation.
- Samples must be shipped to the analytical laboratory within 24 to 48 hours from the time of collection.

5.4 Laboratory Custody Procedures

The designated sample custodian at the laboratory will be responsible for maintaining the chain-of-custody for samples received at the lab. The custodian must adhere to the following basic requirements:

- When the sample arrives at the lab, the custodian will complete a Cooler Receipt & Preservation Form for each cooler/package container.
- Upon receipt, the coolers are examined for the presence and condition of custody seals, locks, shipping papers, etc. Shipping labels are removed and placed on scrap paper and added to the receiving paper work. The custodian then completes the chain-of-custody record by signing and recording the date and time the package is opened.
- Acceptance criteria for cooler temperature is 0-6^{o}C. If a cooler exhibits a temperature outside this range, the anomalies are noted on the Cooler Receipt & Preservation Form.
- The custodian will then unload the samples from the cooler(s)/container(s), assign an identification number to each sample container, and affix a barcode label to each sample container for logging in and out of the LIMS system.

Adherence to this procedure will ensure that all samples can be referenced in the computer tracking system. All sample control and chain-of-custody procedures applicable to the analytical laboratory are presented in laboratory SOPs available for review.

6.0 Analytical Methods

All laboratory analyses will be performed by Paradigm Environmental, Inc., an accredited and appropriately (NYSDEC ELAP CLP) certified analytical laboratory. Organic methods to be performed by the laboratory for this project are listed in Table 1 of this QAPP.

6.1 Analytical Capabilities

The analytical laboratory is fully equipped for analysis of all types of water, air, and soil samples for chemical contaminants, bacteriological quality, and general characterization. Proven and approved analytical techniques are used, backed up by a rigorous system of QC and QA checks to ensure reliable and defensible data. All laboratory work is performed in accordance with guidelines established by EPA, the New York State Department of Health (NYSDOH), and the National Institute of Occupational Safety and Health (NIOSH).

Organic analysis is accomplished by gas chromatography (GC), high performance liquid chromatography (HPLC), and or GC/mass spectrometry (MS). Liquid, soil, and air samples are analyzed routinely for pesticides, polychlorinated biphenyls (PCBs), volatile organics, extractable organics, and other groups of compounds, as necessary. The laboratory uses two (2) types of instruments for analysis of metals in various matrices: AAS and ICP.

Laboratory procedures to be utilized for sample preparation and analysis are referenced in the NYSDEC Analytical Services Protocol.

6.2 Method Detection Limits

Method detection limits are determined according to procedures outlined in 40 CFR Part 136, Appendix B or EPA Contract Laboratory Protocol. General analytical detection limits are usually determined by the lowest point on the curve. Detection limits are determined at least annually for all appropriate analytical methods. A listing of the laboratory's method detection limits is available upon request.

6.3 Quality Control Samples

Laboratory QC consists of analysis of laboratory blanks, duplicates, spikes, standards, and QC check samples as appropriate to the methodology. These laboratory QC samples are described below.

6.3.1 Laboratory Blanks

Three (3) types of laboratory blanks, one or more of which will be utilized depending on the analysis are described below:

- Method blanks consist of analyte-free water and are subjected to every step of the analytical procedure to determine possible contamination.
- Reagent blanks are similar to method blanks but incorporate only one of the preparation reagents in the analysis. When a method blank indicates significant contamination, one or more reagent blanks are analyzed to determine the source.
- Calibration blanks consist of pure reagent matrix and are used to zero an instrument's response, thus establishing the baseline.

6.3.2 Calibration Standards

A calibration standard may be prepared in the laboratory by dissolving a known amount of a pure compound in an appropriate matrix. The final concentration calculated from the known quantities is the true value of the standard. The results obtained from these standards are used to generate a standard curve and thereby quantitate the compound in the environmental sample. A minimum of three (3) calibration standards will be used to generate a standard curve for all analyses.

6.3.3 Reference Standard

A reference standard is prepared in the same manner as a calibration standard but from a different source. Reference standards may be obtained from the EPA. The final concentration calculated from the known quantities is the "true" value of the standard. The important difference in a reference standard is that it is not carried through the same process used for the environmental samples, but is analyzed without digestion or extraction. A reference standard result is used to validate an existing concentration calibration standard file or calibration curve.

6.3.4 Spike Sample

A sample spike is prepared by adding to an environmental sample (before extraction or digestion) a known amount of pure compound of the same type that is to be assayed for in the environmental sample. Spikes are added at one (1) to ten (10) times the expected sample concentration or approximately 10 times the method detection limit. These spikes simulate the background and

interferences found in the actual samples, and the calculated percent recovery of the spike is taken as a measure of the accuracy of the total analytical method.

A blank spike is the same as a spike sample except the spike is added to analyte-free water. The blank spike is used to determine whether the sample preparation and analysis are under control.

6.3.5 Surrogate Standard

A surrogate is prepared by adding a known amount of pure compound to the environmental sample; the compound selected is not one expected to be found in the sample, but is similar in nature to the compound of interest. Surrogate compounds are added to the sample prior to extraction or digestion. Surrogate spike concentrations indicate the percent recovery of the analytes and, therefore, the efficiency of the methodology.

6.3.6 Internal Standard

Internal standards are similar to surrogate standards in chemical composition but are used to quantify the concentration of analytes sampled based on the relative response factor. Internal standards are added to the environmental sample just prior to instrumental analysis.

6.3.7 Laboratory Duplicate or Matrix Spike Duplicate

Laboratory duplicates are aliquots of the same sample that are split prior to analysis and treated exactly the same throughout the analytical method. Spikes and duplicates for the batch are normally aliquots of the same sample. For organics, spikes are added at approximately ten (10) times the method detection limit. The RPD between the values of the matrix spike and matrix spike duplicate for organics or between the original and the duplicate for inorganics is taken as a measure of the precision of the analytical method.

In general, the tolerance limit for RPDs between laboratory duplicates should not exceed 20% for validation in homogeneous samples.

6.3.8 Check Standard/Samples

Inorganic and organic check standards or samples are prepared with reference standards or are available from the EPA. They are used as a means of evaluating analytical techniques of the analyst. Check standards or samples are subjected to the entire sample procedure, including extraction, digestion, etc., as appropriate for the analytical method utilized. The check standard or sample can provide information on the accuracy of the analytical method independent of various sample matrices.

6.4 Laboratory Instrumentation

Laboratory capabilities will be demonstrated initially for instrument and reagent/ standards performance as well as accuracy and precision of analytical methodology. A discussion of reagent/standard procedures and brief descriptions of calibration procedures for major instrument types follow.

All standards are obtained directly from EPA or through a reliable commercial supplier with a proven record for quality standards. All commercially supplied standards will be traceable to EPA or NIST reference standards and appropriate documentation will be obtained from the supplier. In cases

where documentation is not available, the laboratory will analyze the standard and compare the results to a known EPA-supplied or previous NIST-traceable standard.

All sections of the laboratory will have SOP for standard and reagent procedures to document specific standard receipt, documentation, and preparation activities. In general, the individual SOPs incorporate the following items:

- Documentation and labeling of date received, lot number, date opened, and expiration date;
- Documentation of traceability;
- Preparation, storage, and labeling of stock and working solutions; and
- Establishing and documenting expiration dates and disposal of unusable standards.

Each laboratory instrument will be labeled clearly with a unique identifier that relates to all laboratory calibration documentation. Laboratory SOPs and calibration procedures are detailed in the laboratory's Quality Assurance Manual, available upon request.

7.0 Data Reporting and Validation

7.1 Deliverables

Once the contract laboratory has provided all analytical data and hydrogeologic information has been evaluated, Lu Engineers will develop a report on the findings of the investigation and remedial measures. The report will be prepared as indicated by the following outline:

1.0 SUMMARY OF FIELD ACTIVITIES
2.0 CONTAMINATION EVALUATION
  2.1 Findings
  2.2 Data Evaluation
  2.3 Regulatory Review
  2.4 Exposure Pathways
3.0 CONCLUSIONS AND RECOMMENDATIONS

The report will carefully document all findings of the investigation and will be supplemented with photographic documentation, subsurface soil logs, cross sections, and study area plans indicating groundwater flow direction and subaerial contaminant distribution.

7.1.1 Category B Data Package

All analytical data will be reported by the laboratory with NYSDEC ASP Category B deliverables. The Category B data package includes:

1. A detailed summary of the report contents and any quality control outliers or corrective actions taken.
2. Chain of Custody documentation
3. Sample Information including: date collected, date extracted, date analyzed, and analytical methods.
4. Data (including raw data) for:
   - samples
   - laboratory duplicates

- method blanks
- spikes and spike duplicates
- surrogate recoveries
- internal standard recoveries
- calibrations
- any other applicable QC data

5. Method detection limits and/or instrument detection limits
6. Run logs, standard preparation logs, and sample preparation logs
7. Percent solids (where applicable).

7.1.2 Quality Assurance Reports

For the laboratory, a general QA report summarizing problems encountered throughout the laboratory effort, including sample custody, analyses, and reporting, is provided to Lu Engineers' project QA management by the QA coordinator. This report identifies areas of concern and possible resolutions in an effort to ensure data quality.

Upon completion of a project sampling effort, analytical and QC data will be included in a comprehensive report that summarizes the work and provides a data evaluation. A discussion of the validity of the results in the context of QA/QC procedures will be made, as well as a summation of all QA/QC activity.

Serious analytical or sampling problems will be reported to NYSDEC. Time and type of corrective action, if needed, will depend on the severity of the problem and relative overall project importance. Corrective actions may include altering procedures in the field, conducting an audit, or modifying laboratory protocol. All corrective actions will be implemented after notification and approval of NYSDEC.

In addition to the laboratory report narrative, QA data validation reports that include any contractual requirements will also be provided to NYSDEC. These QA reports will be submitted with the analytical data, on a monthly basis, or at the conclusion of the project.

7.2 Data Validation and Usability

Prior to the submission of the report to NYSDEC, all data will be evaluated for precision, accuracy, and completeness.

QA/QC requirements from both methodology and company protocols will be strictly adhered to during sampling and analytical work. All data generated will be reviewed by comparing and interpreting results from instrumental responses, retention time, determination of percent recovery of spiked samples or blanks, and reproducibility of duplicate sample results. All calculations and data manipulations are included in the appropriate methodology references. Control charts and calibration curves will be used to review the data and identify outlying results.

7.2.1 Data Validation

It is understood that a data usability summary report (DUSR) will be prepared for this project. If necessary, a third-party validator will be responsible for an independent review of all analytical work performed under the NYSDEC ASP-CLP protocol. The functions will be to assess and summarize the

quality and reliability of the data for the purpose of determining its usability and to document for the historical record of each site any factors affecting data usability, such as discrepancies, poor laboratory practices, and site locations that are difficult to analyze. The data validator will be responsible for determining completeness and compliance. Lu Engineers' QA officer will be responsible for determining data usability and overseeing the work of the data validator.

Information available to the data validator and the QA officer for performance of these functions include the NYSDEC ASP Category B data package, information from the sampling team regarding field conditions and field QA samples, chain-of-custody and shipping forms. The data package is designed to provide all necessary documentation to verify compliance with NYSDEC ASP CLP protocol and the accuracy and reliability of the reported results.

The laboratory will deliver the data package to the project QA coordinator for processing prior to submission to the data validator. The project QA coordinator will review the report for immediate problems, summarize the data for in-house use, and process the work order for the third-party data-validation subcontract within five working days.

In order to effectively review the data package, the data validator will obtain a general overview of each case. This includes the exact number of samples, their assigned numbers, and their matrix. The data validator will deliver the data validation report within 30 days of receipt of the data package.

If a problem arises between the data validator and the laboratory, the data validator must submit written questions to the laboratory. The laboratory will be required to respond in writing within 10 working days to correct any deficiencies. If the data validator does not receive a written response from the laboratory within the specified time period, the data in question shall be considered noncompliant.

Sampling locations will be obtained from the sampling records, such as the chain-of-custody forms. This information is necessary for preparation of the data summary, evaluation of adherence to sample holding times, discussion of matrix problems, and discussion of contaminants detected in the samples.

The following is a brief outline of the data validation process:

- Compilation of all samples with the dates of sampling, laboratory receipt, and analysis;
- Compilation of all QC samples, such as field blanks, field duplicates, MS/MSD samples, laboratory blanks, and laboratory replicates;
- Review of chain-of-custody documents for completeness and correctness;
- Review of laboratory analytical procedure and instrument performance criteria;
- Qualification of data outside acceptable QC criteria ranges;
- Preparation of a memorandum summarizing any problems encountered and the potential effects on data usability;
- Preparation of a data summary, including validated results, with sample matrix, location, and identification; and
- Tabulation of field duplicates, laboratory replicate, and blank results.

Copies of all data validation and usability reports, as well as all data summary packages, will be provided to the NYSDEC project manager. In addition, copies of all analytical raw data will be provided to NYSDEC upon request.

7.2.2 Data Usability

A DUSR will be provided after review and evaluation of the analytical data package. The DUSR will contain required elements listed in Appendix 2B of *DER-10 Technical Guidance for Site Investigation and Remediation*.

The DUSR will include a description of the samples and analytical procedures used. Any data deficiencies, protocol deviations, or quality control problems will be discussed as to their effect on data results. The report will also include any suggestions for resampling or reanalysis.

Tables

Table 1. Proposed Sampling and Analysis Summary

Sample Type	Sample Location	Analytical Parameter	Reporting Level	No. of Field Samples	Field Duplicates	Blanks		MS/MSD	Total
						Equip.	Trip		
Surface Soil	Greenspace	Full suite*	Category B (Level IV)	2	1	1	n/a	1/1	6
		PFAS and 1,4-dioxane		1					
Subsurface Soil	Borings (extraction/monitoring wells)	Full suite*		4	1	1	n/a	1/1	18
		cVOCs		8					
		PFAS and 1,4-dioxane		2					
Groundwater Round 1	Proposed Monitoring Wells	Full suite*		7	1	1	1	1/1	24
	Proposed Extraction Wells	cVOCs		6					
	Existing Wells	cVOCs		4					
	Proposed Monitoring Wells	PFAS and 1,4-dioxane		2					
Groundwater Round 2 (Post Pilot Test)	Proposed Extraction Wells	cVOCs		4	1	1	1	1/1	9

*Full suite to include analysis of TCL VOCs by EPA Method 8260, SVOCs by EPA Method 8270, RCRA metals by EPA Method 6010/7473, PCBs by EPA Method 8082, pesticides/herbicides by EPA Method 8151

Jay-Hague Site (#C828216)
485 Hague Street
City of Rochester
Monroe County, New York

Health and Safety Plan

Prepared for:

Jay Hague Properties, LLC
12 Walnut Hill Drive
Penfield, New York 14526

Prepared By:

339 East Avenue, Suite 200
Rochester, NY 14604

July 2023

Project No. 50380

Table of Contents

Appendicies

A. General Information

Project Title:	Jay Hague Site	**Project No.**	50380-01
Project Manager:	Greg Andrus		
Location:	485 Hague Street Rochester, New York, Monroe County		
Prepared By:	Ben Seifert	**Date Prepared:**	07/17/2023
		Date Revised:	
Approved By:		**Date Approved:**	
Site Safety Officer Review:	Ben Seifert	**Date Reviewed:**	

Site Description/Unusual Features

The Site is located at 485 Hague Street in a suburban area of the City of Rochester, New York at the northwest corner of the intersection of Jay and Hague Streets. The Site is comprised of approximately 1.36 acres, and is listed as parcel 105.80-1-13.001, which consists of 485 Hague Street and a rectangular portion of a parcel formerly listed as part of 1030 Jay Street (acquired in 2009). The Site is zoned for industrial use and is comprised of one (1) 1-story building and one (1) 2-story building. Both buildings are occupied by Woerner Industries, LLC and are utilized for furniture manufacturing.

Based on a review of information collected from previous investigations, the following was found:

- The Site has been occupied by Woerner Industries Inc. (later Woerner Industries, LLC), since the 1970s.
- Records indicate the Site has historically been utilized as a machine shop, metal stamping and fabrication shop, tool manufacturing operation, and furniture manufacturing facility.
- The Site has been subject to several limited subsurface investigations identifying noted contaminants of concern (COC). Contaminants detected in environmental media (e.g. soil, groundwater, and soil vapor) on Site, including tetrachloroethene (PCE) and its degradation products, are presumably related to historical operations.

Scope/Objective of Work

The objective of this plan is to provide a mechanism for establishing safe working conditions at the Site. The safety procedures and protective equipment have been established based on analysis of potential physical, chemical, and biological hazards. Specific hazard control methodologies have been evaluated and selected to minimize the potential of accident or injury.

This Health and Safety Plan discusses general safety hazards associated with various potential field activities to be conducted at the Site including but not limited to:

- Mobilization;
- Field engineering and Surveying;
- Clearing and Grubbing;
- Monitoring well Abandonment/Installation;
- Groundwater Monitoring;
- Landfill Cap Activities;
- Equipment Cleaning/Demobilization.

Each subcontracted company will utilize their own standard safe operating procedures provided the minimum requirements of this HASP are met.

Proposed Date of Field Activities: Ongoing

Background Information:

[X] Complete [ ] Preliminary

Overall Chemical Hazard:

[ ] Serious [ ] Moderate
[X] Low [ ] Unknown

Overall Physical Hazard:

[ ] Serious [ ] Moderate
[X] Low [ ] Unknown

B. Site/Waste Characteristics

Waste Type(s):

[ ] Liquid [X] Solid [ ] Sludge [ ] Gas/Vapor

Characteristic(s):

[ ] Flammable/Ignitable [X] Volatile [ ] Corrosive [X] Acutely Toxic
[ ] Explosive [ ] Reactive [X] Carcinogen [ ] Radioactive
[ ] Other: _____

Physical Hazard(s):

[X] Overhead [ ] Confined Space [ ] Below Grade [X] Trip/Fall
[X] Puncture [ ] Burn [X] Cut [ ] Splash
[X] Noise [X] Other: Underground/overhead utilities

Locations of Chemicals/Waste

Surface soils within landscaped areas along the eastern façades of the existing Site buildings.

Estimated Volume of Chemicals/Wastes:
The quantity of surface soils to be removed as part of the IRM is estimated at 30-cubic yards.

Site Currently in Operation:
[X] Yes [ ] No [ ] Not Applicable

C. Hazard Evaluation

Physical Hazard Evaluation		
Task	**Hazard(s)**	**Hazard Prevention**
All	General physical hazards associated with drill rig and geoprobe operations (spinner augers, overhead equipment, noise, and drill rig movement).	Hard hats, eye protection, and steel-toed boots required at all times while working around drill rig. Hearing protection required during sampling (hammering). Keep safe distance from rig and all moving parts.
	Contact with or inhalation of contaminants, potentially in high concentration in sampling media and/or fire and explosion	To minimize exposure to chemical contaminants, a thorough review of suspected contaminants should be completed and implementation of an adequate protection program.
	Back strain and muscle fatigue due to lifting	Use proper lifting techniques to prevent back strain.
	Heat stress/ cold stress exposure	Implement heat stress management techniques such as shifting work hours, increasing fluid intake, and monitoring employees**.** See Appendix A**.**
	Slip/ tripping/ overhead/ fall	Observe terrain and drilling equipment while walking to minimize slips and falls. Steel-toed boots provide additional support and stability. Use adequate lighting. Wear hard hat. Inspect all lifting equipment prior to use.
	Utility Lines	Identify location(s) prior to work, maintain 25 foot minimum distance to overhead utilities.
	Weather Extremes	Establish Site-specific contingencies for severe weather situations. Discontinue work in severe weather.
	Native wildlife presents the possibility of insect bites and associated diseases.	Avoid wildlife when possible. Use insect repellant.

Basic health and safety protection (steel-toed boots, work clothes, and safety glasses or goggles) will be worn by all personnel at all times. Snakes, insects, and other endemic wildlife should be avoided at all times. Any encounters that result in bites or scratches should be reported to the Site Safety Officer immediately. All allergies should be reported to the Site Safety Officer prior to the start of the project.

Chemical Hazard Evaluation

Compound	PEL	REL	TLV	Dermal Hazard (Y/N)	Route(s) of Exposure	Acute Symptoms	Description	Ionization Potential (eV)
Benzo(a)pyrene	0.2	0.1	--	Y	Inh, Ing, Abs, Con	Skin rash, a burning feeling, skin color changes, warts, and bronchitis.	Aromatic hydrocarbon consisting of five fused benzene rings and formed during the incomplete combustion of organic matter. Faint aromatic odor; reasonably anticipated to be a human carcinogen.	70
Benzo(b)fluoranthene	--	--	--	--	Inh, Ing, Abs, Con	--		70
Chrysene	0.2	0.1	--	Y	Inh, Ing, Abs, Con	Irritation to skin, eyes, nose, and throat. Coughing/wheezing.	Colorless, white, crystalline solid formed during the incomplete combustion of organic matter. Probable carcinogen in humans.	120
Benzo(a)anthracene	0.2	0.1	--	--	Inh, Ing, Abs, Con	--	Odorless, colorless to yellow/brown powder formed during the incomplete combustion of organic matter. Probable carcinogen in humans.	70
Indeno(1,2,3-cd)pyrene	--	--	--	--	Inh, Ing, Abs, Con	--	Odorless, colorless to yellow/brown powder formed during the incomplete combustion of organic matter. Probable carcinogen in humans.	120
Benzo(k)fluoranthene	--	--	--	Y	Inh, Ing, Abs, Con	Irritation to the skin and eyes.	Pale yellow aromatic hydrocarbon consisting of five fused rings and is produced by the incomplete combustion of organic matter. Probable carcinogen in humans.	70
Dibenz(a,h)anthracene	--	--	--	Y	Inh, Ing, Abs, Con	Irritation to skin, eyes, nose, and throat. Coughing/wheezing, headache, dizziness, nausea and vomiting.	Colorless, white, or light yellow crystalline solid. Probable carcinogen in humans.	--
Phenol	19	19	19	Y	Inh, Ing, Abs, Con	Irritation to skin, eyes, nose, and throat. Coughing/wheezing, headache, dizziness, nausea and vomiting.	Colorless, white, or light yellow crystalline solid	8.5

KEY:

PEL = Permissible Exposure Limit (mg/m^3)
REL = Recommended Exposure Limit (mg/m^3)
--- = Information not available
TLV = Threshold Limit Value (ACGIH)

Inh = Inhalation
Ing = Ingestion
mg/m^3 = Milligrams per cubic meter
* = Chemical is a known or suspected carcinogen

Abs = Skin Absorption
Con = Skin and/or eye Contact
ppm = Parts per million
sk = Skin notation

D. Site Safety Work Plan

Site Control:

	Yes	No		Yes	No
Perimeter Identified:	[X]	[ ]	Site Secured:	[X]	[ ]
Work Areas Designated:	[X]	[ ]	Zones of Contamination Identified:	[X]	[ ]

Anticipated Level of PPE:

Level A	Level B	Level C	Level D
--	--	(Available)	[X]

All Site work will be performed at Level D (steel-toed boots, work clothes, eye protection, gloves and hard hats) unless monitoring indicates otherwise. Gloves will be worn if contact with Site soil, sludge or water is anticipated. Level C will be available and used when indicated by sustained PID readings of 25 ppm or greater above ambient air.

Air Monitoring:
Lu Engineers will conduct air monitoring in accordance with the New York State Department of Health (NYSDOH) Generic Community Air Monitoring Plan (CAMP), as well as a Special Requirements CAMP, which are included in Attachment C of the RIWP. Monitoring at the site will include volatile organic compounds (VOCs) and particulates monitoring with instrumentation, and visual monitoring of fugitive dust migration.

Particulate monitoring will take place on a continuous basis, and locations will vary according to wind direction. Upwind and downwind monitoring station locations will be adjusted to accommodate wind changes and re-establish baseline levels. Particulate readings will be taken with an instrument that can measure particulate matter less than 10 micrometers in size (PM-10) and be capable of real-time monitoring. The particulate monitoring equipment will have an audible alarm to indicate when action levels have been exceeded. In addition to particulate monitoring with instrumentation, fugitive dust migration will be visually assessed during all work activities.

VOC monitoring locations will vary according to wind direction; the upwind location will be determined at the start of each work day and a VOC reading taken. Should wind direction change, another reading will be taken at a new upwind location to establish baseline levels. The downwind measurement will be taken at the downwind perimeter of the work area.

The following table summarizes s air monitoring requirements and frequency.

Contaminant	Monitoring Device	Frequency
Organic Vapors	PID	Continuous monitoring during any building interior work. Periodic screening of work areas/exposed soils during any excavation work.
Ignition Sources	O^2/Explosimeter	Continuous monitoring during any interior building work
Particulate	TSI DustTrak™ or equivalent	Continuous upwind and downwind monitoring during excavation work.

CAMP data summary will be provided to NYSDOH on a weekly basis at a minimum. The NYSDEC and NYSDOH will be notified immediately of any CAMP exceedances and corrective actions taken.

Work Zone Action Levels:

PID readings of 1 to 25 ppm above background at breathing zone and sustained for 1 minute
ACTION: Halt work to let vapors dissipate, continuous air monitoring.

PID readings 25 to 50 ppm above background at breathing zone and sustained for 1 minute
ACTION: Upgrade to Level C, continuous air monitoring.

PID readings **> 50ppm** above background at breathing zone and sustained for 1 minute
ACTION: Stop work, evacuate work zone and evaluate with continuous air monitoring.

O2 readings must remain between 19.5% and 22.0%. Explosivity must be above 10% LEL. The area must be evacuated, and ignition sources eliminated if levels are not within their standard. Refer to Appendix D of this HASP for more detail.

Decontamination Solutions and Procedures for Equipment, Sampling Gear, etc.:
Disposable sampling equipment will be used where possible. If decontamination is necessary, distilled, or deionized water and Alconox (or equivalent) will be used. A 10% nitric acid rinse will be added if metals sampling is to be conducted.

Sampling Handling Procedures Including Protective Wear:
All sample handling will be performed while wearing nitrile gloves. To minimize hazards to lab personnel, sample volumes will be no larger than necessary, and the outside of all sample containers will be wiped clean prior to being relinquished.

Personnel Decontamination Protocol:
Soap, water and paper towels will be available for all personnel and will be used before eating, drinking or leaving the Site. Disposable PPE will be double bagged and disposed of as non-hazardous waste unless PCBs are detected.

Work Limitations (time of day, weather conditions, etc.) and Heat/Cold Stress Requirements:
All work will be completed during daylights hours. Severe inclement weather may be cause to suspend outdoor activities. Cold/heat stress protocol will dictate work/rest regimen. Heavy equipment will not be used during electrical storms. No transfer of materials can be conducted outside of normal working hours.

E. Training Requirements

All personnel conducting field activities on-Site are required to have completed training sessions in accordance with Occupational Safety and Health Administration (OSHA) for Parts 1926 and 1910 (Title 29 Code of Federal Regulations [CFR] Part 1926.65 and Part 1910.120 - Hazardous Waste Operations and Emergency Response- 'HazWOPER'). This training shall consist of a minimum of 40 hours of instruction off-Site and three days of actual field experience under the direct supervision of a trained, experienced supervisor. Each employer will maintain documentation stating that its on-Site personnel have complied with this regulation.

In addition, each employee PPE worn by each employee will be in compliance with OSHA Parts 1910.132-140. Also, if respirator use is required, each employee needed to wear a respirator will be in compliance with OSHA Respiratory Protection standards Part 1910.134.
All personnel will have reviewed this HASP and received a Site-specific health and safety briefing prior to participating in field work.

All visitors entering the work area must review the HASP and be equipped with the proper PPE. All Site personnel and visitors shall sign the last page of the HASP as an acknowledgement that they have read and understand the Site health and safety requirements.

Team Member*	Responsibility
Greg Andrus	Project Manager
Ben Seifert	Environmental Project Scientist and Field Team Leader
Klajdi Macolli	Environmental Project Scientist
Janet Bissi	Environmental Field Technician

* All Lu Engineers field staff participate in a medical monitoring program and have completed applicable training per 29CFR 1910.120. Respiratory protection program meets requirements of 29CFR 1910.134.

Special Site Equipment, Facilities or Procedures
Personnel will be required to maintain the Buddy System when entering and working on-Site. All parties will be required to attend an on-Site briefing, which will identify the roles of each organization's personnel and will integrate emergency procedures for all Site participants. Sanitary Facilities and Lighting Must Meet 29 CFR 1910.120

Site Entry Procedures and Special Considerations:
Lu Engineers Technical Staff will be required to adhere to this HASP. Special requirements by the Construction Contractor will be addressed during project commencement at an on-Site briefing, which will identify the roles of each organization's personnel and will integrate emergency procedures for all Site participants.

Accident and Injury Reporting
Any work-related incident, accident, injury, illness, exposure, or property loss must be reported to the project manager. This includes:

- Accident, injury, illness, or exposure of an employee;
- Injury of a subcontractor;
- Damage, loss, or theft of property, and/or;
- Any motor vehicle accident regardless of fault, which involves a company vehicle, rental vehicle, or personal vehicle while employee is acting in the course of employment.

F. COVID-19 Precautions

Coronavirus Disease 2019 (COVID-19) is a respiratory disease caused by the SARS-CoV-2 virus. Due to the spread of this virus and the containment efforts taken by public health and government officials, the following interim Health & Safety protocols outlined in this section are to be implemented across all offices, field offices and project sites. Additional, updated information on COVID-19 can be found at the CDC website: https://www.cdc.gov/coronavirus/2019-ncov/community/index.html.

Transmission

Both COVID-19 and the flu can be spread from person to person through droplets caused by an infected person coughing, sneezing, or talking. Flu can be spread by an infected person for several days before their symptoms appear, and COVID-19 is believed to be spread in the same manner.

Symptoms

The following symptoms may appear 2 to 14 days after exposure:

- Fever
- Cough
- Difficulty breathing and/or shortness of breath
- Chest pain/pressure

Seek direction from your medical provider and inform the project manager and site safety officer as soon as possible. Employees shall notify the project manager and site safety officer immediately should you suspect or find yourself/someone presenting symptoms.

Basic Practices

Lu Engineers employees and contractors will be diligent about performing the following basic practices to mitigate the spread of COVID-19:

- Maintain social distancing (minimum of 6 feet) and avoid close contact with all workers and people and wear an M-90 or equivalent facemask when working with others.
- Wear proper mask/face covering
- Wash your hands frequently to help protect yourself and others from the spread of germs.
- Cover your mouth and nose with a tissue when coughing or sneezing.
- Avoid touching your eyes, nose, and mouth.
- Avoid the sharing of food or leaving food available for others to consume.
- Remain up to date with current guidance for gatherings and meetings.
- Remain isolated and call or email the site safety officer if you are feeling sick.
- If you have fever, cough and difficulty breathing, seek medical care early.

All employees are required to utilize prevention practices and strategies to reduce their chances of contracting the virus.

G. Emergency Information

Local Resources:

Ambulance:	911
Hospital Emergency Room:	Highland Hospital 1000 South Ave, Rochester, NY 14620
Poison Control Center:	911
Police (include local, county sheriff, state):	911
Fire Department:	911
Airport:	N/A
Local Laboratory:	N/A
UPS/Federal Express:	N/A

Site Resources:

Site Emergency Evaluation Alarm Method:	Sound vehicle horn.
Water Supply Source:	Gallons of water will be available in vehicles.
Telephone Location, Number:	None available
Cellular Phone, if Available:	None available
Radio:	TBD
Other:	TBD

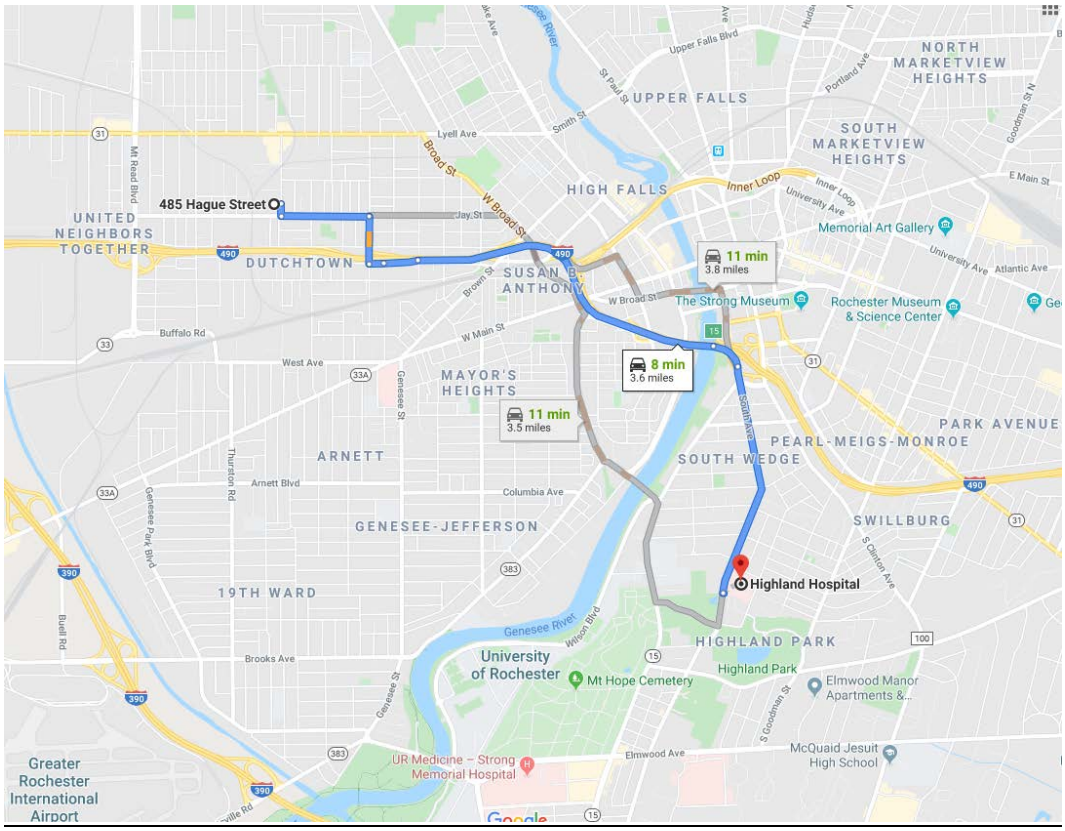
Emergency Contacts:

Fire/Police Department:	911
Lu Engineers' Safety Director:	(585) 385-7417

Emergency Routes

Field team must know route(s) prior to start of work.

Directions from the Site to the hospital:



Head south on Hague Street towards Jay Street. Head east on Jay Street for 0.4 miles. Head south onto Child Street for 0.2 miles before merging on-ramp for I-490 E. Merge onto I-490 E and continue for 2.7 miles. Take exit 15 for NY-15 and merge onto South Avenue. Continue on South Avenue for 1 mile before turning east onto Bellevue Drive. The destination will be directly ahead.

On-Site Assembly Area: At Site entry point .

Emergency egress routes to get off-Site: N/A .

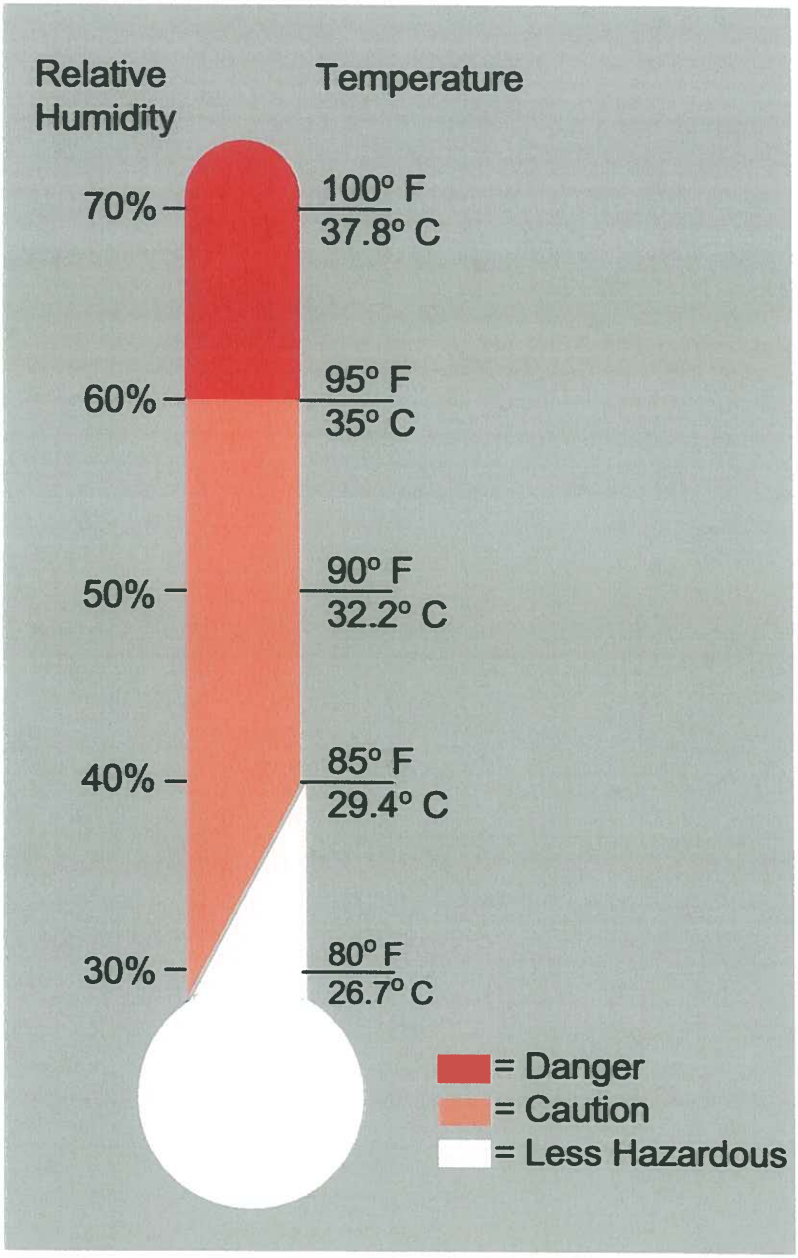
APPENDIX A

HEAT STRESS AND COLD EXPOSURE

THE HEAT EQUATION

HIGH TEMPERATURE + HIGH HUMIDITY + PHYSICAL WORK = HEAT ILLNESS

When the body is unable to cool itself through sweating, **serious** heat illnesses may occur. The most severe heat-induced illnesses are **heat exhaustion** and **heat stroke**. If actions are not taken to treat heat exhaustion, the illness could progress to heat stroke and possible **death**.



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OSHA 3154
1998

HEAT EXHAUSTION

What Happens to the Body:

HEADACHES, DIZZINESS/LIGHT HEADEDNESS, WEAKNESS, MOOD CHANGES (irritable, or confused/can't think straight), FEELING SICK TO YOUR STOMACH, VOMITING/THROWING UP, DECREASED and DARK COLORED URINE, FAINTING/PASSING OUT, and PALE CLAMMY SKIN.

What Should Be Done:

- Move the person to a cool shaded area to rest. Don't leave the person alone. If the person is dizzy or light headed, lay them on their back and raise their legs about 6-8 inches. If the person is sick to their stomach lay them on their side.
- Loosen and remove any heavy clothing.
- Have the person drink some cool water (a small cup every 15 minutes) if they are not feeling sick to their stomach.
- Try to cool the person by fanning them. Cool the skin with a cool spray mist of water or wet cloth.
- If the person does not feel better in a few minutes call for emergency help (Ambulance or Call 911).

(If heat exhaustion is not treated, the illness may advance to heat stroke.)

HEAT STROKE—A MEDICAL EMERGENCY

What Happens to the Body:

DRY PALE SKIN (no sweating), HOT RED SKIN (looks like a sunburn), MOOD CHANGES (irritable, confused/not making any sense), SEIZURES/FITS, and COLLAPSE/PASSED OUT (will not respond).

What Should Be Done:

- Call for emergency help (Ambulance or Call 911).
- Move the person to a cool shaded area. Don't leave the person alone. Lay them on their back and if the person is having seizures/fits remove any objects close to them so they won't strike against them. If the person is sick to their stomach lay them on their side.
- Remove any heavy and outer clothing.
- Have the person drink some cool water (a small cup every 15 minutes) if they are alert enough to drink anything and not feeling sick to their stomach.
- Try to cool the person by fanning them. Cool the skin with a cool spray mist of water, wet cloth, or wet sheet.
- If ice is available, place ice packs under the arm pits and groin area.

How to Protect Workers

- Learn the signs and symptoms of heat-induced illnesses and what to do to help the worker.
- Train the workforce about heat-induced illnesses.
- Perform the heaviest work in the coolest part of the day.
- Slowly build up tolerance to the heat and the work activity (usually takes up to 2 weeks).
- Use the buddy system (work in pairs).
- Drink plenty of cool water (one small cup every 15-20 minutes)
- Wear light, loose-fitting, breathable (like cotton) clothing.
- Take frequent short breaks in cool shaded areas (allow your body to cool down).
- Avoid eating large meals before working in hot environments.
- Avoid caffeine and alcoholic beverages (these beverages make the body lose water and increase the risk for heat illnesses).

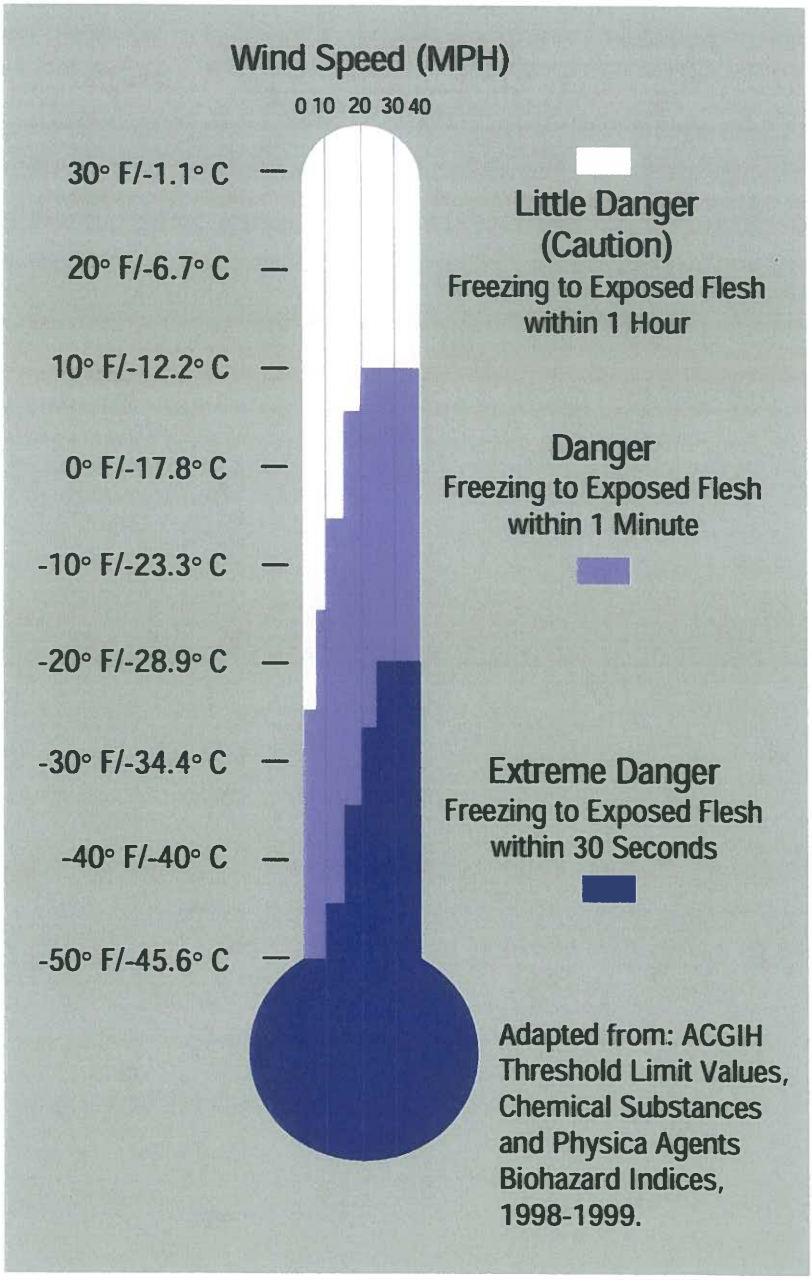
Workers Are at Increased Risk When

- They take certain medication (check with your doctor, nurse, or pharmacy and ask if any medicines you are taking affect you when working in hot environments).
- They have had a heat-induced illness in the past.
- They wear personal protective equipment (like respirators or suits).

THE COLD STRESS EQUATION

LOW TEMPERATURE + WIND SPEED + WETNESS = INJURIES & ILLNESS

When the body is unable to warm itself, serious cold-related illnesses and injuries may occur, and permanent tissue damage and death may result. **Hypothermia** can occur when *land temperatures* are **above** freezing or *water temperatures* are below 98.6°F/ 37°C. Cold-related illnesses can slowly overcome a person who has been chilled by low temperatures, brisk winds, or wet clothing.



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FROST BITE

What Happens to the Body:

FREEZING IN DEEP LAYERS OF SKIN AND TISSUE; PALE, WAXY-WHITE SKIN COLOR; SKIN BECOMES HARD and NUMB; USUALLY AFFECTS THE FINGERS, HANDS, TOES, FEET, EARS, and NOSE.

What Should Be Done: (land temperatures)

- Move the person to a warm dry area. Don't leave the person alone.
- Remove any wet or tight clothing that may cut off blood flow to the affected area.
- **DO NOT** rub the affected area, because rubbing causes damage to the skin and tissue.
- **Gently** place the affected area in a warm (105°F) water bath and monitor the water temperature to **slowly** warm the tissue. Don't pour warm water directly on the affected area because it will warm the tissue too fast causing tissue damage. Warming takes about 25-40 minutes.
- After the affected area has been warmed, it may become puffy and blister. The affected area may have a burning feeling or numbness. When normal feeling, movement, and skin color have returned, the affected area should be dried and wrapped to keep it warm. **NOTE:** If there is a chance the affected area may get cold again, do not warm the skin. If the skin is warmed and then becomes cold again, it will cause severe tissue damage.
- Seek medical attention as soon as possible.

HYPOTHERMIA - (Medical Emergency)

What Happens to the Body:

NORMAL BODY TEMPERATURE (98.6° F/37°C) DROPS TO OR BELOW 95°F (35° C); FATIGUE OR DROWSINESS; UNCONTROLLED SHIVERING; COOL BLUISH SKIN; SLURRED SPEECH; CLUMSY MOVEMENTS; IRRITABLE, IRRATIONAL OR CONFUSED BEHAVIOR.

What Should Be Done: (land temperatures)

- Call for emergency help (i.e., Ambulance or Call 911).
- Move the person to a warm, dry area. Don't leave the person alone. Remove any wet clothing and replace with warm, dry clothing or wrap the person in blankets.
- Have the person drink warm, sweet drinks (sugar water or sports-type drinks) if they are alert. **Avoid drinks with caffeine** (coffee, tea, or hot chocolate) or alcohol.
- Have the person move their arms and legs to create muscle heat. If they are unable to do this, place warm bottles or hot packs in the arm pits, groin, neck, and head areas. **DO NOT** rub the person's body or place them in warm water bath. This may stop their heart.

What Should Be Done: (water temperatures)

- Call for emergency help (Ambulance or Call 911). Body heat is lost up to 25 times faster in water.
- **DO NOT** remove any clothing. Button, buckle, zip, and tighten any collars, cuffs, shoes, and hoods because the layer of trapped water closest to the body provides a layer of insulation that slows the loss of heat. Keep the head out of the water and put on a hat or hood.
- Get out of the water as quickly as possible or climb on anything floating. **DO NOT** attempt to swim unless a floating object or another person can be reached because swimming or other physical activity uses the body's heat and reduces survival time by about 50 percent.
- If getting out of the water is not possible, wait quietly and conserve body heat by folding arms across the chest, keeping thighs together, bending knees, and crossing ankles. If another person is in the water, huddle together with chests held closely.

How to Protect Workers

- Recognize the environmental and workplace conditions that lead to potential cold-induced illnesses and injuries.
- Learn the signs and symptoms of cold-induced illnesses/injuries and what to do to help the worker.
- Train the workforce about cold-induced illnesses and injuries.
- Select proper clothing for cold, wet, and windy conditions. Layer clothing to adjust to changing environmental temperatures. Wear a hat and gloves, in addition to underwear that will keep water away from the skin (polypropylene).
- Take frequent short breaks in warm dry shelters to allow the body to warm up.
- Perform work during the warmest part of the day.
- Avoid exhaustion or fatigue because energy is needed to keep muscles warm.
- Use the buddy system (work in pairs).
- Drink warm, sweet beverages (sugar water, sports-type drinks). Avoid drinks with caffeine (coffee, tea, or hot chocolate) or alcohol.
- Eat warm, high-calorie foods like hot pasta dishes.

Workers Are at Increased Risk When...

- They have predisposing health conditions such as cardiovascular disease, diabetes, and hypertension.
- They take certain medication (check with your doctor, nurse, or pharmacy and ask if any medicines you are taking affect you while working in cold environments).
- They are in poor physical condition, have a poor diet, or are older.

APPENDIX B

ADDITIONAL POTENTIAL PHYSICAL AND CHEMICAL HAZARDS

ADDITIONAL POTENTIAL PHYSICAL AND CHEMICAL HAZARDS	
POTENTIAL PHYSICAL HAZARDS	**CONTROL METHODS**
Overhead Hazards/Falling Objects	Overhead hazards will be identified prior to each task (i.e., inspecting drill rig mast, building structure). Hard hats will be required for each task that poses an overhead hazard.
Contact with Utilities	Prior to initiating Site activities, all utilities will be located by the appropriate utility company and will be marked and/or barricaded to minimize the potential of accidental contact. A minimum distance of 10 feet between the derrick and overhead power lines must be maintained at all times.
Noise Exposure	Areas of potentially high sound pressure levels (>85 dBA) will be restricted to authorized personnel only. Engineering controls will be used to the extent possible. Hearing protection will be made available to all workers on-Site. Exposure to time-weighted average levels in excess of 85 dBA is not anticipated.
POTENTIAL CHEMICAL HAZARDS	**GENERAL CONTROL METHODS**
Contaminant Inhalation	Direct reading instruments will be used to monitor airborne contaminants. Established Lu Engineers' action levels will limit exposure to safe levels. Respiratory protection will be used as appropriate.
Contaminant Ingestion	Standard safety procedures such as restricting eating, drinking, and smoking to the support zone and utilizing proper personal decontamination procedures will minimize ingestion as a potential route of exposure.
Dermal Contaminant Contact	The proper selection and use of personal protective clothing and decontamination procedures will minimize dermal contaminant contact.
Potential contact with lower concentration waste and naturally occurring contaminants (i.e., methane)	Dermal contact with contaminants will be minimized by proper use of the following PPE: • Tyvex coveralls • Neoprene gloves • Booties (latex) or over-boots.
Contact with or inhalation of decontamination solutions.	Material Safety Data Sheets for all decon solutions. First aid equipment available. **See Appendix C.**

APPENDIX C

EQUIPMENT CHECKLIST

EQUIPMENT CHECKLIST

PROTECTIVE GEAR			
LEVEL A	**N/A**	**LEVEL B**	**N/A**
SCBA		SCBA	
SPARE AIR TANKS		SPARE AIR TANKS	
ENCAPSULATING SUITE		PROTECTIVE COVERALL	
SURGICAL GLOVES		RAIN SUIT	
NEOPRENE SAFETY BOOTS		BUTYL APRON	
BOOTIES		SURGICAL GLOVES	
GLOVES		GLOVES	
OUTER WORK GLOVES		OUTER WORK GLOVES	
HARD HAT		NEOPRENE SAFETY BOOTS	
CASCADE SYSTEM		BOOTIES	
5-MINUTE COOLING VEST		HARD HAT WITH FACE SHIELD	
		CASCADE SYSTEM	
		MANIFOLD SYSTEM	
LEVEL C		**LEVEL D**	
ULTRA-TWIN RESPIRATOR		NEOPRENE SAFETY BOOTS	
POWER AIR PURIFYING RESPIRATOR		BOOTIES (available)	
CARTRIDGES		NITRILE	
5-MINUTE ESCAPE MASK		HARD HAT WITH FACE SHIELD (available)	
PROTECTIVE COVERALL		SAFETY GLASSES	X
RAIN SUIT	X	GLOVES	X
BUTYL APRON		WORK GLOVES (available)	X
SURGICAL GLOVES		SAFETY BOOTS	X
GLOVES	X	BLAZE ORANGE VEST	
OUTER WORK GLOVES	X	TICK/CHIGGER GATORS	
NEOPRENE SAFETY BOOTS		HEARING PROTECTION	x
HARD HAT WITH FACE SHIELD			
BOOTIES			
HARD HAT	X		

EQUIPMENT CHECKLIST

INSTRUMENTATION	NO.	FIRST AID EQUIPMENT	NO.
THERMAL DESORBER		FIRST AID KIT	X
O_2/EXPLOSIMETER W/CAL.KIT (Drilling)		OXYGEN ADMINISTRATOR	
PID (10.2 eV lamp)	X	STRETCHER	
MAGNETOMETER		PORTABLE EYE WASH	
PIPE LOCATOR		BLOOD PRESSURE MONITOR	
WEATHER STATION		FIRE EXTINGUISHER	X
DRAEGER PUMP, TUBES			
BRUNTON COMPASS		**DECON EQUIPMENT**	
MONITOX CYANIDE		WASH TUBS	
HEAT STRESS MONITOR		BUCKETS	X
NOISE EQUIPMENT		SCRUB BRUSHES	X
PERSONAL SAMPLING PUMPS		PRESSURIZED SPRAYER	
Dust Trek (Particulates) (Drilling)	X	DETERGENT (Type: Alconox) = TSP	X
		SOLVENT (HEXANE)	
		PLASTIC SHEETING	
RADIATION EQUIPMENT		TARPS AND POLES	
DOCUMENTATION FORMS		TRASH BAGS	X
PORTABLE RATEMETER		TRASH CANS	
SCALER/RATEMETER		MASKING TAPE	
NaI Probe		DUCT TAPE	X
ZnS Probe		PAPER TOWELS	X
GM Pancake Probe		FACE MASK	
GM Side Window Probe		FACE MASK SANITIZER	
MICRO R METER		FOLDING CHAIRS	
ION CHAMBER		STEP LADDERS	
ALERT DOSIMETER		DISTILLED WATER	X
MINI-RAD			

EQUIPMENT CHECKLIST

SAMPLING EQUIPMENT	NO.	MISCELLANEOUS (cont.)	NO.
4-OZ BOTTLES	X	BUNG WRENCH	X
1 LITER AMBER BOTTLES		SOIL AUGER	
VOA BOTTLES		PICK	
SOIL SAMPLING (CORING) TOOL		SHOVEL	X
SOIL VAPOR PROBE		CATALYTIC HEATER	
THIEVING RODS WITH BULBS		PROPANE GAS	
SPOONS		BANNER TAPE	X
GENERAL TOOL KIT		SURVEYING METER STICK	
FILTER PAPER		CHAINING PINS AND RING	
PERSONAL SAMPLING PUMP SUPPLIES		TABLES	
4-OZ JARS	X	WEATHER RADIO	
		BINOCULARS	
VEHICLE EQUIPMENT		MEGAPHONE	
TOOL KIT	X	PORTABLE RADIOS (4)	
HYDRAULIC JACK		CELL PHONE	X
LUG WRENCH		CAMERA	X
TOW CHAIN		HEARING PROTECTION	X
VAN CHECK OUT			
GAS	X	**SHIPPING EQUIPMENT**	
OIL	X	COOLERS	X
ANTIFREEZE		PAINT CANS WITH LIDS, 7 CMIPS EACH	
BATTERY		VERMICULITE	
WINDSHIELD WASH	X	SHIPPING LABELS	X
TIRE PRESSURE		DOT LABELS: “DANGER”, “UP”;	
		“INSIDE CONTAINER COMPLIES...”;	
MISCELLANEOUS		“HAZARD GROUP”	
PITCHER PUMP		STRAPPING TAPE	
SURVEYOR’S TAPE		BOTTLE LABELS	X
100 FIBERGLASS TAPE	X	BAGGIES	X
300 NYLON ROPE		CUSTODY SEALS	X
NYLON STRING		CHAIN-OF-CUSTODY FORMS	X
SURVEYING FLAGS		FEDERAL EXPRESS FORMS	X
FILM		CLEAR PACKING TAPE	X
WHEELBARROW			

APPENDIX D

CAMP REQUIREMENTS

Appendix 1A
New York State Department of Health
Generic Community Air Monitoring Plan

Overview

A Community Air Monitoring Plan (CAMP) requires real-time monitoring for volatile organic compounds (VOCs) and particulates (i.e., dust) at the downwind perimeter of each designated work area when certain activities are in progress at contaminated sites. The CAMP is not intended for use in establishing action levels for worker respiratory protection. Rather, its intent is to provide a measure of protection for the downwind community (i.e., off-site receptors including residences and businesses and on-site workers not directly involved with the subject work activities) from potential airborne contaminant releases as a direct result of investigative and remedial work activities. The action levels specified herein require increased monitoring, corrective actions to abate emissions, and/or work shutdown. Additionally, the CAMP helps to confirm that work activities did not spread contamination off-site through the air.

The generic CAMP presented below will be sufficient to cover many, if not most, sites. Specific requirements should be reviewed for each situation in consultation with NYSDOH to ensure proper applicability. In some cases, a separate site-specific CAMP or supplement may be required. Depending upon the nature of contamination, chemical- specific monitoring with appropriately-sensitive methods may be required. Depending upon the proximity of potentially exposed individuals, more stringent monitoring or response levels than those presented below may be required. Special requirements will be necessary for work within 20 feet of potentially exposed individuals or structures and for indoor work with co-located residences or facilities. These requirements should be determined in consultation with NYSDOH.

Reliance on the CAMP should not preclude simple, common-sense measures to keep VOCs, dust, and odors at a minimum around the work areas.

Community Air Monitoring Plan

Depending upon the nature of known or potential contaminants at each site, real-time air monitoring for VOCs and/or particulate levels at the perimeter of the exclusion zone or work area will be necessary. Most sites will involve VOC and particulate monitoring; sites known to be contaminated with heavy metals alone may only require particulate monitoring. If radiological contamination is a concern, additional monitoring requirements may be necessary per consultation with appropriate DEC/NYSDOH staff.

Continuous monitoring will be required for all ground intrusive activities and during the demolition of contaminated or potentially contaminated structures. Ground intrusive activities include, but are not limited to, soil/waste excavation and handling, test pitting or trenching, and the installation of soil borings or monitoring wells.

Periodic monitoring for VOCs will be required during non-intrusive activities such as the collection of soil and sediment samples or the collection of groundwater samples from existing monitoring wells. "Periodic" monitoring during sample collection might reasonably consist of taking a reading upon arrival at a sample location, monitoring while opening a well cap or

overturning soil, monitoring during well baling/purging, and taking a reading prior to leaving a sample location. In some instances, depending upon the proximity of potentially exposed individuals, continuous monitoring may be required during sampling activities. Examples of such situations include groundwater sampling at wells on the curb of a busy urban street, in the midst of a public park, or adjacent to a school or residence.

VOC Monitoring, Response Levels, and Actions

Volatile organic compounds (VOCs) must be monitored at the downwind perimeter of the immediate work area (i.e., the exclusion zone) on a continuous basis or as otherwise specified. Upwind concentrations should be measured at the start of each workday and periodically thereafter to establish background conditions, particularly if wind direction changes. The monitoring work should be performed using equipment appropriate to measure the types of contaminants known or suspected to be present. The equipment should be calibrated at least daily for the contaminant(s) of concern or for an appropriate surrogate. The equipment should be capable of calculating 15-minute running average concentrations, which will be compared to the levels specified below.

1. 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.

2. 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.

3. If the organic vapor level is above 25 ppm at the perimeter of the work area, activities must be shutdown.

4. All 15-minute readings must be recorded and be available for State (DEC and NYSDOH) personnel to review. Instantaneous readings, if any, used for decision purposes should also be recorded.

Particulate Monitoring, Response Levels, and Actions

Particulate concentrations should be monitored continuously at the upwind and downwind perimeters of the exclusion zone at temporary particulate monitoring stations. The particulate monitoring should be performed using 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. The equipment must be equipped with an audible alarm to indicate exceedance of the action level. In addition, fugitive dust migration should be visually assessed during all work activities.

1. If the downwind PM-10 particulate level is 100 micrograms per cubic meter (mcg/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 mcg/m^3 above the upwind level and provided that no visible dust is migrating from the work area.

2. If, after implementation of dust suppression techniques, downwind PM-10 particulate levels are greater than 150 mcg/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 mcg/m^3 of the upwind level and in preventing visible dust migration.

3. All readings must be recorded and be available for State (DEC and NYSDOH) and County Health personnel to review.

December 2009

ATTACHMENT 1: SPECIAL REQUIREMENTS CAMP

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 mcg/m^3 (micrograms per cubic meter), work activities should be suspended until controls are implemented and are successful in reducing the total particulate concentration to 150 mcg/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.

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.

SITE-WIDE INSPECTION FORM

Jay Hague Site
City of Rochester, Monroe County

NAME OF INSPECTOR:_____

COMPANY OF INSPECTOR:_____

DATE OF INSPECTION:_____

CURRENT USE OF SITE CONSISTENT WITH COMMERICAL OR INDUSTRIAL USE: _____ YES _____ NO

HAS A CHANGE OF USE OCCURRED SINCE THE LAST CERTIFICATION? _____ YES _____ NO

IF YES, THEN EXPLAIN:_____
_____
_____

GENERAL DESCRIPTION OF COVER:

1) SOIL COVER SYSTEM

_____
_____
_____

2) ASPHALT/CONCRETE COVER

_____
_____
_____

3) BUILDING SLABS

_____
_____
_____

HAS THE COVER BEEN PENETRATED? _____YES _____NO
IF YES, THEN EXPLAIN:_____
_____
_____
_____
_____

HAVE ANY STRUCTURES BEEN CONSTRUCTED ON THE SITE SINCE THE LAST INSPECTION? _____ YES _____NO
IF YES, THEN EXPLAIN:_____
_____

HAVE COVER CONDITIONS CHANGED SINCE THE LAST INSPECTION?
_____YES _____NO
IF YES, THEN EXPLAIN:_____
_____
_____

IS ANY MAINTENANCE OF THE COVER REQUIRED?
_____YES _____NO
IF YES, THEN EXPLAIN:_____
_____
_____

IS NYSDEC NOTIFICATION AND CORRECTIVE ACTION NEEDED BASED ON ANY OF THE OBSERVATIONS LISTED ABOVE?
_____YES _____NO
IF YES, THEN EXPLAIN:_____
_____
_____

ADDITIONAL OBSERVATIONS, CONCLUSIONS OR RECCOMMENDATIONS:
_____
_____
_____
_____

ANY CHANGES TO THE SITE OR REQUIRED MAINTENANCE SHOULD BE MARKED IN THE CORRESPONDING LOCATION ON THE ATTACHED MAP

REMEDIAL SYSTEM OPTIMIZATION FOR Jay Hague Site C828216

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