IRM Work Plan Modification Sheet: June 16, 2023
Interim Remedial Measures Work Plan Soil/Sediment Removal
Weber-Knapp Company
441 Chandler Street, Jamestown, New York
NYSDEC BCP Site C907048

This Work Plan Modification Sheet identifies several minor modifications to the Work Plan titled "Interim Remedial Measures Work Plan Soil/Sediment Removal, Weber-Knapp Company, 441 Chandler Street, Jamestown, New York, NYSDEC Site # C907048", prepared by DAY Environmental Inc. (DAY), dated September 2022, which was approved by the Department on September 21, 2022). These modifications are summarized below.

1. Section 1.5, Third Paragraph, 5th Bullet: The continuous barrier wall measuring 20 ft. by 20 ft. will be constructed using interlocking steel sheet piles (i.e., changed from vinyl sheet piles.)
2. Section 1.5, Third Paragraph, 6th Bullet: Materials excavated from the removal area will be direct loaded into NYSDOT-compliant lined roll-off containers using a JLG G15-44A Telehandler, or equivalent (i.e., changed from use of a track hauler for transport of materials to the decon./staging pad located on the Western Staging Area).
3. Section 3.5, Second Paragraph, 1st Sentence: T&R Environmental will be responsible for identification and clearance of utilities prior to commencement of the work (i.e., changed from SES as the environmental remediation contractor identified to perform the work).
4. Section 3.5.1.2, Second Paragraph, 1st Sentence: a decontamination pad measuring 12 ft. by 42 ft. with eight-inch-high walls and utilizing a liner that is 40 mil in thickness will be used (i.e., changed from dimensions 35 ft by 35 ft.).
5. Section 3.5.1.2, Third Paragraph, 1st Bullet: The Frac tank that will be used to store/treat groundwater removed during the excavation process is of approximate 21,000 gallons in capacity (i.e., changed from 18,000 gallons in capacity).
6. Section 3.5.3, Third Paragraph, 1st Sentence: To limit exposure and movement of chlorinated VOC contaminated soil, excavated material will be directly placed in NYSDOT-compliant lined roll-off containers staged along the north edge of the 415 Chandler St. property for loading and subsequently moved to a staging area on the asphalt-paved parking lot on the south side of the 415 Chandler Street property (i.e., changed from movement of excavated material to the decontamination/staging pad).
7. Section 3.6.1.1, First Paragraph, 2nd Sentence: Approximate dimensions of the steel sheeting will be 1.5 ft. (width) by 12 ft. (length) and approximate 10 in. (depth).
8. Section 3.6.1.2, First Paragraph, 1st Sentence: The sheeted cell dewatering sump will be constructed by excavating a pit in the corner of the cell and subsequently installing a perforated HDPE pipe (for casement) into the pit (i.e., changed from installation of a driven well point).
9. Section 3.6.1.2, First Paragraph, 4th Sentence: The secondary containment pipe surrounding the piping that carries the groundwater from the source area cell to the frac tank, will be approximately four-inches in diameter (i.e., changed from 10-inch diameter).

10. Section 3.6.1.3, Second Paragraph, 1st Sentence: Type A and Type B materials will be segregated and loaded directly into NYSDOT-compliant lined roll-off containers. (i.e., changed from Type A and Type B materials placed on the soil staging pad).
11. Section 6.0: DAY's Field Team Leader will be Hannah Bertsch.
12. Section 6.0: The contact information for T&R, the Environmental Remediation Contractor, is 691 Addison Rd, Painted Post, NY 14870; (primary phone contact 607-383-5500); Project Manager Kyle Stone, P.E.

The above modifications (where appropriate) are depicted on the Revised Figure 6 and Revised Figure 8 of the IRM Work Plan, attached as a continuation of this Work Plan Modification Sheet. Additionally revised Figure 8 depicts areas identified in the Revised Contained-in Determination (refer to Appendix A). Specifically:

- An approximate 50 sq. ft. area within a semi-circle (i.e, in which sample locations SED-B, SED-C and SED-D are located on the perimeter), where soil/sediment that is excavated and removed from depths between 1 ft. and 5 ft. below ground surface (bgs) will be managed as hazardous waste.
- The same approximate 50 sq. ft. semi-circular area where soil/sediment that is excavated and removed from depths between 0 ft. and 1 ft. and greater than 5 ft. bgs will be subject to a contained-in determination following further characterization testing; and
- The proposed soil/sediment removal area (i.e., which includes sample locations SED-F, SED-G, SED-S, and SED-T) where soil/sediment that is excavated and removed will be subject to a contained-in determination following further characterization.

Attachments:
Revised Figure 6 - Site Plan Depicting IRM Activities Layout
Revised Figure 8 - Proposed Source Removal Area

~21,000-gallon Frac Tank
Staging Area
Decontamination Pad
River Street
Existing Stormwater Catch Basin
415 Chandler Street
Filled Roll-off Container Staging Area
MW-O
Ingress-Egress
Discharge Piping for Removal Area Dewatering
Silt Fence
Roll-off Container Loading Area
MW-P
Type A
Type B
Staging Area
Temporary Bridge
Silt Fence
441 Chandler Street (BCP Site No. C907048)

Legend

- Location of temporary monitoring well proposed for decommissioning
- Proposed removal area
- Approximate extent of vinyl sheet pile wall
- Proposed extent of temporary bridge
- Approximate extent of cofferdam
- Area protected by proposed cofferdam
- 415 Chandler Street property boundary
- 441 Chandler Street property boundary

N

0 50 100
Feet

NOTES:

415 & 441 Chandler Street property boundaries based on information presented on a property survey map titled, "Map of a survey for Weber-Knapp Company, 415 and 441 Chandler Street, City of Jamestown, County of Chautauqua, State of New York", dated August 16, 2011, prepared by Rodgers Land Surveying, 583 Falconer St., Jamestown, NY.

Aerial imagery provided by the New York State GIS Clearinghouse, date 2021

NYS ITS GIS Program Office, Westchester County GIS

DESIGNED BY	DATE	DRAWN BY	DATE DRAWN	SCALE	DATE ISSUED
CAH	07-2022	CAH	07-2022	AS NOTED	06-9-2023

DAY ENVIRONMENTAL, INC.
Environmental Consultants
Rochester, New York 14606

Project Title
441 CHANDLER STREET
JAMESTOWN, NEW YORK
NYSDEC SITE ID C907048
INTERIM REMEDIAL MEASURES WORK PLAN

Drawing Title
Site Plan Depicting IRM Activities Layout

Project No.
5635S-19

REVISED
FIGURE 6

Last Date Saved: 12 Jun 2023 Document Path: E:\GIS Mapping\Weber-Knapp\5635S-19\Weber\Remediation_WP\Sediment Removal\5635S-09c - SED_Removal - IRM Activities Layout Rev (06-23.mxd

Legend

- Sample(s) Collected July 7 and/or September 30, 2021 and total chlorinated VOC concentration measured
- Sample(s) Collected September 30, 2021 and total chlorinated VOC concentration measured
- RI Sediment Sample
- Approximate extent of steel sheet pile wall
- Removal area where soil/sediment located between 1 ft. and 5 ft. bgs must be handled/disposed as hazardous waste based on the contained-in determination; and soil/sediment above/below is subject to a contained-in determination following further testing
- Proposed removal area where soil/sediment is subject to a contained-in determination following further testing
- Approximate extent of cofferdam
- 441 Chandler Street property boundary
- Approximate extent of seasonally exposed sediment

N

Chadakoin River

SED-I (1.5') 9/30/2021
Total Chlorinated VOC = 0.017

SED-S (2') 9/30/2021
Total Chlorinated VOC = 0.002

SED-S (4') 9/30/2021
Total Chlorinated VOC = 0.003

SED-E (0-0.5') 7/7/2021
Total Chlorinated VOC = 0.001

SED-E (1') 7/7/2021
Total Chlorinated VOC = 0.006

SED-F (0-0.5') 7/7/2021
Total Chlorinated VOC = 6.175

SED-F (1') 7/7/2021
Total Chlorinated VOC = 4.090

SED-B (1') 7/7/2021
Total Chlorinated VOC = 0.693

SED-B (4') 9/30/2021
Total Chlorinated VOC = 84.220

SED-B (6') 9/30/2021
Total Chlorinated VOC = 42.385

SED-B (7') 9/30/2021
Total Chlorinated VOC = 2.202

SED-C (1') 7/7/2021
Total Chlorinated VOC = 7.363

SED-T (2') 9/30/2021
Total Chlorinated VOC = 0.362

SED-T (4') 9/30/2021
Total Chlorinated VOC = 47.048

SED-T (6') 9/30/2021
Total Chlorinated VOC = 0.234

SED-3 (0-0.5') 6/30/2020
Total Chlorinated VOC = 0.020

SED-3 (1') 6/30/2020
Total Chlorinated VOC = 4.860

SED-G (0-0.5') 7/7/2021
Total Chlorinated VOC = 2.325

SED-G (1') 7/7/2021
Total Chlorinated VOC = 10.429

SED-A (2') 7/7/2021
Total Chlorinated VOC = 12,120.000

SED-A (3') 7/7/2021
Total Chlorinated VOC = 4,012.000

SED-A (5') 9/30/2021
Total Chlorinated VOC = 8.153

SED-A (7') 9/30/2021
Total Chlorinated VOC = 0.118

SED-U (2') 9/30/2021
Total Chlorinated VOC = 0.007

SED-U (4') 9/30/2021
Total Chlorinated VOC = 0.004

SED-D (1') 7/7/2021
Total Chlorinated VOC = 0.024

SED-H (0-0.5') 7/7/2021
Total Chlorinated VOC = 0.002

SED-H (1') 7/7/2021
Total Chlorinated VOC = 0.010

Weber-Knapp Facility Building

0 5 10
Feet

NOTES:

Results in mg/Kg or parts per million (ppm) and rounded to three decimal places

The locations of test locations were tape-measured in relation to existing site structures and should be considered accurate to the degree implied by the method used.

Property boundary based on information presented on a property survey map titled, "Map of a survey for Weber-Knapp Company, 415 and 441 Chandler Street, City of Jamestown, County of Chautauqua, State of New York", dated August 16, 2011, prepared by Rodgers Land Surveying, 583 Falconer St., Jamestown, NY.

Aerial imagery provided by the New York State GIS Clearinghouse, date 2016

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DESIGNED BY	DATE
CAH	07-2022
DRAWN BY	DATE DRAWN
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SCALE	DATE ISSUED
AS NOTED	06-09-2023

DAY ENVIRONMENTAL, INC.
Environmental Consultants
Rochester, New York 14606

Project Title
441 CHANDLER STREET
JAMESTOWN, NEW YORK
NYSDEC SITE ID C907048
INTERIM REMEDIAL MEASURES WORK PLAN

Drawing Title
Proposed Source Removal Area

Project No.
5635S-19

REVISED
FIGURE 8

Interim Remedial Measures Work Plan
Soil/Sediment Removal

Weber-Knapp Company
441 Chandler Street
Jamestown, New York

NYSDEC Site # C907048

Prepared For: Weber-Knapp Company
441 Chandler Street
Jamestown, New York 14701

Prepared By: Day Environmental, Inc.
1563 Lyell Avenue
Rochester, New York 14606

Date: September 2022

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1.0 Introduction

The property addressed 441 Chandler Street, Jamestown, New York (the Site) has been accepted into the New York State (NYS) Brownfield Cleanup Program (BCP) to evaluate and remediate environmental impacts (i.e., BCP Site No. C907048). This work plan presents a scope of work to complete an interim remedial measure (IRM) to remove impacted soil/sediment from the Chadakoin River adjacent to BCP Site No. C907048. This IRM Work Plan was developed in accordance with NYSDEC Department of Environmental Restoration (DER)-10 *"Technical Guidance for Site Investigation and Remediation"*, and the applicable requirements of the NYS Brownfield Cleanup Program.

As defined within DER-10, a non-emergency or non-time critical IRM is an action that may be undertaken at any time during the course of the remedial program, in response to actual or potential environmental or public health exposures identified at the site. The use of a non-emergency IRM is encouraged when a source of contamination or exposure pathway can be effectively addressed prior to completion of the investigation and remedy selection process.

The goal of this IRM is to complete source removal to address off-site areas of contamination and environmental conditions that are considered to have the greatest potential for wildlife exposure and/or contaminant migration. Specifically, the IRM activities planned for the Site include:

- Removal, transport and disposal of impacted sediment and subsurface soil from the riverbank/riverbed of the Chadakoin River adjacent to the Site and subsequent backfill of the removal area using NYSDEC-approved import fill material.

1.1 Standards, Criteria, and Guidance

The proposed IRM will address impacts identified in sediment and subsurface soil located in the Chadakoin River bank and river bed. Samples for the various studies described herein have been collected from depths ranging between 0-0.5 feet (ft) below ground surface (bgs) and 8 ft. bgs. The samples collected from depths between the ground surface and around 2.0 ft. are considered sediment and the samples collected from greater than 2 ft. bgs are considered subsurface soil.

Sediment SCG

Standards, criteria, and guidance (SCG) values for sediment include Freshwater Sediment Guidance Values (FSGV) referenced in Table 5 of the NYSDEC Division of Fish, Wildlife and Marine Resources document titled *"Screening and Assessment of Contaminated Sediment"* dated June 24, 2014. The FSGV are presented in three categories (i.e., Class A - the value that defines the concentration of a contaminant below which toxicity is not expected to occur; Class C - the value that defines the concentration of a contaminant above which toxicity is expected to occur frequently; and Class B - the range of contaminant concentrations values between Class A and Class C that defines a need for additional information in order to determine the potential for toxicity.) As described in Section 9(A) of the above referenced document, the equilibrium partitioning-based FSGV presented in Table 5 have been normalized to 2% total organic carbon (TOC), "which allows for a direct comparison of the FSGV with the bulk sediment concentration

of nonpolar organic contaminants…If the percent TOC for a given sediment sample is known, the SGVs can be recalculated"

The table below provides a list of the normalized FSGV that are specific to the target contaminants.

Contaminant	FSGV (normalized to 2% TOC)	Concentration
trichloroethene (TCE)	Class A	1.8 mg/kg
	Class C	8.6 mg/kg
cis-1,2-dichloroethene (cis-1,2 DCE)	Class A	[See Note]
	Class C	[See Note]
trans-1,2-dichloroethene (trans-1,2 DCE)	Class A	1.2 mg/kg
	Class C	11 mg/kg
vinyl chloride (VC)	Class A	[See Note]
	Class C	[See Note]

Note: as stated in the second paragraph of Section 6(D) of the above referenced guidance document, "SGVs have not been derived for organic contaminants with an octanol-water partitioning coefficient (log Kow) less than 2.0." Therefore, FSGV for cis-1,2 DCE (i.e., log Kow ~1.86) and VC (i.e., log Kow ~1.46) are not currently available. However, FSGV for trans-1,2 DCE (i.e., log Kow ~2.06), the isomer of cis-1,2 DCE, are included in the above referenced guidance document and are presented herein as the FSGV pertaining to cis-1,2 DCE and trans-1,2 DCE, for comparison purposes.

Subsurface Soil SCG

SCG values for subsurface soil include Protection of Ecological Resources soil cleanup objectives (SCO) and Protection of Groundwater SCO referenced in the NYSDEC document titled "*6 NYCRR Part 375, Environmental Remediation Programs*" dated December 14, 2006. The table below provides a list of the SCOs that are specific to the target contaminants.

Contaminant	NYSDEC SCO	SCO Concentration
TCE	Protection of Ecological Resources	2 mg/kg
	Protection of Groundwater	0.47 mg/kg
cis-1,2 DCE	Protection of Ecological Resources	No Standard
	Protection of Groundwater	0.25 mg/kg
trans-1,2 DCE	Protection of Ecological Resources	No Standard
	Protection of Groundwater	0.19 mg/kg
VC	Protection of Ecological Resources	No Standard
	Protection of Groundwater	0.02 mg/kg

1.2 Site Description

The Site, currently owned by the Weber-Knapp Company (Weber-Knapp), is comprised of approximately 2.65 acres of land identified as Tax Parcel 387.08-3-20, and it is developed with an approximate 105,000 square foot slab-on-grade building originally constructed in 1910 with subsequent additions through the 1960s. Currently manufacturing (i.e., sheet metal cutting/stamping, welding, metal turning, and powder coat finishing), warehousing, and office operations are conducted within the building at the Site. A Project Locus Map is included as Figure 1.

The location of a former vapor degreaser that operated in the central portion of the building at the Site, is depicted on Figure 2.

1.3 Description of the Chadakoin River in the Vicinity of the Site

The Chadakoin River flows from south to north immediately adjacent to the west of BCP Site C907048, and the river is between approximately 30 ft. and 65 ft. wide, in this area (refer to Figure 3). The eastern side of the river is confined by the concrete foundation/retaining wall of the Weber-Knapp building, and to the west of the river is contained by a combination of concrete retaining walls and engineered banks (i.e., fill material, rip-rap, etc.).

The flow and depth of water in the river varies seasonally as the result of precipitation events. In addition, the flow (and depth) of the river is regulated by the Warner Dam, which is located approximately 1.5 miles upstream of BCP Site C907048. During lower stages of the river flow (i.e., typically occurring during late Spring through early Fall), portions of the river bed in the vicinity of the Site are exposed above the level of the surface water, creating seasonal bars or sediment/soil accumulation areas. The approximate extent of these areas in proximity of Site BCP C907048, is depicted on Figure 3. The main channel of the river, which is generally near the center and western side of the river in this area, flows between these seasonal bars, (refer to Figure 3). During higher flow stages (e.g., following rainfall events and discharges from the Warner Dam), the surface of the river can increase by several feet, resulting in water flowing over these seasonal bars. However, the main channel receives the highest energy flow, and the seasonal bars/sediment accumulation areas receive lower energy flow as evidenced by these sediment deposition areas. These seasonal bars/sediment accumulation areas remain despite the higher river levels.

Profiles of the ground surface and riverbed surface elevations along four transects (designated Transect CD, Transect T1, Transect T2, and Transect T3) located in the vicinity of the proposed IRM activities were developed based on an elevation survey completed on June 28, 2022. The approximate location and extent of each transect is depicted on Figure 3. The profiles for Transect T1 and Transect T3 are presented as Figure 4A, the profile for Transect CD is presented as Figure 4B. the profile for Transect T2 is presented as Figure 4C.

1.4 Remedial Investigation, IRM and Sediment Delineation Studies Completed under the BCP Program

This section summarizes the work completed to date in the vicinity of the proposed sediment soil removal IRM. Additional information regarding the studies/remedial activities completed in this portion of the Site is included in report titled *Remedial Investigation Alternatives Analysis Report, Weber-Knapp Company, 441 Chandler Street, City of Jamestown, Chautauqua County, New York BCP Site Number C907048*, prepared by Day Environmental Inc. (DAY), dated May 2021 and *Sediment Delineation Studies Summary Report, Weber Knapp Company, 441 Chandler Street, Jamestown, New York, NYSDEC Site # C907048*, prepared by DAY and dated November 2021.

1.4.1 2020 Remedial Investigation

The Remedial Investigation (RI) field studies were completed between February 2020 and July 2020, and the studies that led to the identification of the impacts to the Chadakoin River included:

- Records Review - including previous studies completed at the Site, Sanborn fire insurance maps, building plans provided by Weber-Knapp, and sanitary sewer utility maps and records obtained from the City of Jamestown Board of Public Utilities;
- Dye testing - performed on select portions of the current storm and sanitary sewer systems at the Site to confirm the information obtained during the records review and assess discharge locations;
- Sediment Sampling/Testing - included the collection of sediment samples from the east bank of the Chadakoin River for observation, field screening and subsequent analytical laboratory testing [Additional information regarding these samples is provided in Section 1.4.3 of this IRM Work Plan.];
- Analytical Laboratory Testing - testing of select samples and associated quality assurance/quality control (QA/QC) samples by a NYSDOH Environmental Laboratory Approval Program-certified laboratory; and
- Data Validation - evaluation of the analytical laboratory results by a third-party data validator to prepare data usability summary reports (DUSR);

1.4.2 2020 Soil Removal IRM

In January and February 2020, the excavation/restoration phase was completed of an IRM that included subsurface delineation, followed by excavation, removal and disposal of source material impacted with chlorinated volatile organic compounds (CVOC). The excavation/restoration phase included:

- The saw cutting and removal of an approximate 200 ft^2 section of concrete floor in the area of the former vapor degreaser;

- Excavation and removal of soil impacted with CVOC to depths up to 13.5 ft. below the surface of the concrete floor. A portion of this soil (43.73 tons) was disposed off-site as a hazardous waste and a portion of this soil (117.58 tons) was disposed off-site as a non-hazardous waste;
- Backfilling the excavation and installation of three monitoring points within the backfill material. [Note: The purpose of these monitoring points is to: 1) monitor groundwater impacts in the source area, and 2) provide a location for future remedial actions]. Following the completion of the backfill the concrete floor was replaced.

Remnants of former drainage structures were encountered in the excavation completed for the 2020 Soil Removal IRM. Available documentation indicates that a former vapor degreaser was located in this area, which was the receiving area prior to the 1966 building expansion that included the construction of the current receiving area. A floor drain for this former receiving area is depicted on a building plan dated 1960 in the area of the former degreaser and this floor drain discharged into the westerly flowing storm sewer piping. It appears that discharges from the vapor degreasing operations entered the floor drain and migrated via the storm sewer piping into the Chadakoin River. The approximate extent of the excavation completed for the 2020 Soil Removal IRM is depicted on Figure 2. The approximate path of the former and existing storm sewer drainage piping is also depicted on Figure 2.

1.4.3 RI Sediment Sample Results

As part of the RI completed at the Site, sediment samples designated SED-1, SED-2 and SED-3 were collected on June 30, 2020 from locations on the east bank of the Chadakoin River. Sediment sample SED-1 was collected from a location upstream of the Site (i.e., beneath the Chandler Street bridge). Sediment sample SED-2 was collected from below a current stormwater drainage outfall, discharging from below and adjacent to the retaining wall that comprises the western boundary of the Site. Sediment samples SED-3 were collected from below and adjacent to a current roof drain discharge outfall that discharges from the retaining wall that comprises the western boundary of the Site. [Note: Based on available information, it appears that stormwater discharges from the area of the former vapor degreaser also previously discharged to the SED-3 location.]. The approximate locations of sediment samples SED-1, SED-2 and SED-3 are presented on Figure 2.

CVOC (i.e., TCE and/or its breakdown products cis-1,2 DCE, trans -1,2 DCE, and VC), which were detected in soil, groundwater and soil vapor samples collected during various studies completed at the Site, were also identified in several of the sediment samples collected during the RI. Specifically, TCE was detected in sample SED-2(0-0.5') at a concentration of 0.0047 ppm and cis-1,2-dichloroethene and TCE were detected in sample SED-3(1') at concentrations of 1.3 parts per million (ppm) and 3.5 ppm, respectively. The concentration of TCE in sample SED-3(1') exceeded the (normalized) Class A FSGV for TCE (i.e., 1.8 ppm). Based on these test results, it was determined that further delineation was necessary to identify potential impacts to river sediments from TCE in the vicinity of sediment sample SED-3 [i.e., herein referred to as the *SED-3 Area*]. As such, additional studies were undertaken in July and September 2021.

1.4.4 2021 Sediment Delineation Studies

Sediment delineation studies were conducted at the Site on July 7, 2021 and September 30, 2021 for the purpose of collecting data needed to define the nature and extent of impacts in the vicinity of the SED-3 area. This work was conducted in accordance with the procedures and methods described in the following documents:

- *Sediment Delineation Studies Work Plan, Weber-Knapp Company, 441 Chandler Street, Jamestown, New York, NYSDEC BCP Site No. C907048*, prepared by Day Environmental, Inc. (DAY) dated June 2021 (the Work Plan). The Work Plan was approved by the NYSDEC via an email correspondence dated June 11, 2021; and
- *Sediment Delineation Studies - Preliminary Test Results, 441 Chandler Street, Jamestown, New York, NYSDEC BCP Site No. C907048* prepared by DAY dated August 4, 2021. [Note: the supplemental delineation work requirements are described in the section of this document under the heading *Recommendations for Further Delineation of VOC in Sediment and Subsurface Locations*.]

On July 7, 2021, DAY representatives mobilized to the Site to collect samples in accordance with provisions outlined in Section 3.1 of the Work Plan. During this sample event, thirteen samples (i.e., from locations designated SED-A through SED-H) were collected. The approximate locations of the sediment samples that were collected on July 7, 2021 are depicted on Figure 2. At this time, the water level in the Chadakoin River was at a relatively low stage, and similar to the conditions observed during sampling on June 30, 2020. However, sampling was terminated on July 7, 2021 prior to collecting the sediment samples from proposed sampling locations SED-K through SED-R due to heavy rains and lightning. DAY representatives returned to the Site on July 8, 2021, but were unable to enter the river, as the water in the river was several feet higher than on the previous day (presumably due to opening of the Warner Dam in response to heavy rainfall that occurred on July 7, 2021). Unseasonably wet weather resulted in continuous high flow through the Chadakoin River for the remainder of July 2021 and into August 2021.

On September 30, 2021, additional samples were collected/tested to further delineate the areal and vertical extent of the soil impact within an apparent CVOC source area. Six direct-push test borings (i.e., designated SED-A, SED-B, SED-I, SED-S, SED-T and SED-U) were advanced in the approximate locations depicted on Figure 2. Samples collected during the advancement of the test borings were observed for field evidence of potential contamination (e.g., staining, unusual odors, etc.) and screened with a PID. [Note: The river levels on September 30, 2021 were comparable to those encountered on July 7, 2021.]

The samples collected on July 7, 2021 and September 30, 2021 were delivered under chain-of-custody control to Alpha Analytical of Westborough MA (Alpha) and tested for TCL VOCs. In addition, select samples were also tested for total organic carbon (TOC).

Based on the field screening and the analytical laboratory test results for sediment and soil samples collected on July 7, 2021 and September 30, 2021, an apparent source of CVOC was identified in the sediment and subsurface soil located below and adjacent to the current roof drain discharge

outfall in the SED-3 Area (i.e., discharging from the retaining wall that comprises the western boundary of the Site). This CVOC source is evidenced in the field by a chemical-type odor and/or PID readings ranging from around 100 ppm to greater than 3,000 ppm. The total concentration of CVOC detected in the sediment and subsurface samples collected from this area range between around 0.02 ppm i.e., [SED-D (1')] and 12,120 ppm [i.e., SED-A (2')]. Also, the concentrations of TCE and cis-1,2-DCE measured in sediment sample SED-A (2') exceed the respective Class C FSGV. The concentrations of TCE, cis-1,2 DCE and/or VC in each subsurface sample collected from test boring SED-A, SED-B and SED-T exceed the respective Protection of Groundwater SCO. The total concentrations of CVOC detected in the sediment and subsurface samples collected on July 7, 2021 and September 30, 2021 are presented on Figure 2. A summary of the various CVOC detected in the sediment samples collected on July 7, 2021 and September 30, 2021 is presented in Table 1, and a summary of the various CVOC detected in the subsurface soil samples collected on July 7, 2021 and September 30, 2021 is presented in Table 2. Table 1 also includes summaries of the CVOC detected in the sediment samples collected on June 30, 2020. A comparison of the default FSGV to applicable CVOC is presented in Table 1 and a comparison of Protection of Ecological Resources SCO and Protection of Groundwater SCO to applicable CVOC is presented in Table 2.

Based on available information, the source area of CVOC impact is estimated to be around 130 sq. ft. in area, and extend vertically starting from between 1 ft. to 3 ft. bgs extending to depths ranging between around 5 ft. to 7 ft. bgs.

1.5 Proposed IRM

The IRM will consist of the excavation, removal, transport and disposal of sediment and subsurface soil from an apparent source area of CVOC within the Chadakoin River identified adjacent to the Site.

As outlined in the Decision Document for the Site that was prepared by the NYSDEC and dated April 2022, the remedial action objectives for impacted soil and/or sediment in the area of the proposed IRM include:

- Prevention of direct contact with contaminated materials;
- Prevention of surface water contamination, which may result in surface water levels in excess of ambient water quality criteria, or necessitate fish advisories;
- Prevention of migration of contaminants that would result in groundwater or surface water contamination;
- Prevent impacts to biota from ingestion/direct contact with soil/sediment causing toxicity or impacts from bioaccumulation through the terrestrial food chain; and
- Restoration of sediments to pre-release/background conditions to the extent feasible

It is currently anticipated that the components of the IRM will consist of the following:

- Due to the location of the proposed removal area and access restrictions, the Chadakoin River will be entered from the west bank (i.e., from property addressed 415 Chandler Street) at a time when the river flow and depth are as low as possible. [Note: Weber-Knapp owns the 415 Chandler Street property, however this property is not part of the Site C907048.]
- Access to the removal area will be gained by construction of a temporary bridge from the west bank of the river, across the main channel of the river, to an area of seasonally exposed riverbank located along the eastern portion of the riverbed/riverbank. A portion of the riverbank located at the western terminus of the temporary bridge will require removal and/or grading to accommodate the construction of the temporary bridge.
- A temporary cofferdam will be constructed along the east side of the river bed, between the 441 Chandler Street foundation/retaining wall and the main channel of the river, spanning the portion of river between (and extending slightly beyond) the temporary bridge and the source area.
- Following construction of the cofferdam, the area behind the cofferdam will be dewatered to allow vehicle access to the source removal area.
- A continuous barrier wall measuring 20 ft. by 20 ft. constructed using interlocking vinyl sheet piles will be driven into the subsurface around the perimeter of the removal area and extending approximately 10 ft. past the western boundary of the anticipated removal area (i.e., in the direction of the riverbed, to allow for additional soil/sediment removal in that direction, as necessary). The purpose of the vinyl sheet wall will be to create a barrier against infiltration of groundwater and to contain soil/sediments during the removal operation.
- The removal area will be excavated to a depth of around 1280 ft. above mean sea level (amsl) or a total depth of about 6 ft. below the discharge at SED-3. Timber shoring will be placed in the excavation, as necessary, to provide additional temporary support to the sidewalls as the excavation depth increases. Excavated materials will be loaded into a track hauler and transported from the removal area to a staging area located on the west side of the river.
- Dewatering (as necessary) of the excavation will be accomplished via pumping from a sump installed in the excavation, and the effluent will be pumped to a holding tank(s) located on the 415 Chandler Street property.
- Endpoint samples will be collected from the excavation sidewalls and base, to document the conditions of subsurface materials left in place (refer to Section 3.6.1.4 for further details).
- Following the completion of excavation and endpoint sampling activities, timber shoring will be removed (if installed) and the excavation will be backfilled with clean, imported

NYSDEC-approved material and compacted using the excavator bucket. The vinyl sheeting will also be removed subsequent to, or during, backfill activities.

- Demobilization will include removal of the cofferdam, deconstruction of the temporary bridge, restoration of the riverbank along the 415 Chandler Street Property and decontamination of vehicles and equipment that were in contact with impacted materials.
- Impacted sediment/soil and groundwater removed during the activities described above will be characterized and treated and/or disposed in accordance with applicable regulations.

2.0 Summary of Environmental Conditions

This section presents a summary of the findings of work conducted to date in the proposed IRM area.

2.1 Sediment Delineation Study Summary and Findings

The sediment/soil accumulation area located adjacent to the retaining wall of the 441 Chandler Street building rises between approximately one to four feet in elevation above the adjacent river bed. The accumulated sediment/soil in the vicinity of the current roof drain discharge outfall (i.e., discharging from the retaining wall that comprises the western boundary of the Site) is generally comprised of a brown to black silty sand material, with lesser amounts of fine to coarse gravel and cobbles, which is intermixed with brick fragments, metal fragments, concrete, glass, etc. in some locations. The upper one to two feet of this material contains trace to little organic material (i.e., vegetation and decaying vegetation). This material extends from the ground surface to between 2.5 ft. bgs (i.e., SED-S) and 3.5 ft. bgs (i.e., SED-A and SED-U) and it is underlain by a gray clayey-silt to silty-sand material that extends to depths between around 4.5 ft. bgs (i.e., SED-A) and 7 ft. bgs (i.e., SED-T). A coarse gray sand material containing varying amounts of gravel and silt was encountered below the clayey-silt and this deposit extends to depths between 7 ft. bgs (i.e., SED-A and SED-B) and 7.5 ft. bgs (i.e., SED-T), transitioning into a gray silty fine sand material with varying amounts of clay and gravel (i.e., apparent glacial till). Evidence of bedrock was not encountered in any of the test borings advanced for this study.

Chemical-type odors (i.e., apparent TCE) were noted on sediment/subsurface soil samples retained from sample SED-A at around 2 ft. bgs and from test boring SED-A between around 1.5 ft. and 3 ft. bgs. This material was stained black and produced a sheen on the water during decontamination of the hand sampling equipment. Petroleum-type odors were noted in the sediment samples collected from SED-F and SED-G (refer to Section 2.1), and in the sediment sample collected from test boring SED-I between around 0.5 ft. and 1.5 ft. bgs. However, no staining or sheen were observed on these samples.

PID readings greater than about 100 ppm were measured above sediment/subsurface soil samples SED-A (2') and SED-A (3') (i.e., 3,240 ppm and 631 ppm, respectively); from test boring SED-A between around 2 ft. bgs and 3 ft. bgs (i.e., ranging between 121.5 ppm and 397.3 ppm); from test boring SED-B around 5 ft. bgs (i.e., 456.2 ppm); and from test boring SED-T around 4.5 ft. bgs (i.e., 120.2 ppm).

Geologic cross section A-A', running generally from west to east across the study area and depicting subsurface conditions, is presented as Figure 5. The extent of geologic cross section A-A' is depicted on Figure 2. Total CVOC concentrations measured in samples from the test borings in this area that were tested are also presented on Figure 5, for the test locations presented on the cross section.

3.0 IRM Scope of Work

The IRM will include removal, transport and disposal of impacted sediment and subsurface soil from the riverbank/riverbed of the Chadakoin River and subsequent backfill of the removal area using NYSDEC-approved import fill material. The IRM activities will be observed and documented by DAY and/or Weber-Knapp Company employees who have received the appropriate training and instruction for the work proposed.

3.1 "Contained-In" Determination

As outlined in the NYSDEC Technical Administrative Guidance Memorandum (TAGM) 3028, dated November 30, 1992, "environmental media containing hazardous constituents from listed hazardous waste identified in 6 NYCRR Part 371, must be managed as hazardous wastes unless or until the media contain hazardous constituent concentrations which are at or below action level concentrations." The NYSDEC's "contained-in" policy is primarily intended for situations where contaminated media, especially soil, is expected to contain low concentrations of listed hazardous waste for which treatment may not be practical or feasible.

On June 23, 2022, DAY transmitted a copy of the November 2021 Sediment Delineation Studies Report (i.e., referenced in Section 1.4 and results described in Section 1.4.4 and Section 2.1) to the NYSDEC pursuant to obtaining approval of a "contained in" demonstration for the soil/sediment materials herein described as "Type A" material (refer to Section 3.6.1.3).

Following an initial discussion with the NYSDEC regarding the test results from the soil and sediment samples presented in the November 2021 Sediment Delineation Studies Report, an additional soil/sediment sample, collected on June 28, 2022 from the same approximate location as SED-A (2') (i.e., approximately 1-2 feet to the east of the SED-3 outfall and approximately 2 ft. bgs) was submitted for testing of waste characteristics [i.e., VOCs, SVOCs, RCRA Metals, herbicides and pesticides– following toxicity leaching characteristic procedure (TCLP); total PCBs, corrosivity; reactivity and flashpoint]. The test results for this sample have been transmitted to the NYSDEC, for assessment as part of the "contained-in" demonstration. A copy of the test results for the soil/sediment sample collected on June 28, 2022 is provided as Appendix A.

A "contained-in" determination from the NYSDEC was issued in a letter titled, "NYSDEC Site C907048, 441 Chandler Street, Jamestown, New York 14701, REVISED Contained-in Determination for Sediments", dated September 9, 2022. A copy of this letter is included in Appendix A.

3.2 Freshwater Mussel Survey

Freshwater mussel species that are ranked by the New York Natural Heritage Program as S1 (critically imperiled), S2 (imperiled) or a combination thereof (e.g., S1S2) have been identified in the Chadakoin River (NYSDEC Fisheries Index Number PA-63-13-4). On July 25, 2022, personnel from the NYSDEC Bureau of Ecosystem Health conducted a site inspection in the area of the proposed IRM, and observed freshwater mussel shells including shells from species ranked by the NYSDEC Natural Heritage Program as S2. Subsequently it was determined that a

freshwater mussel survey would be required for this project. This information was relayed in an email from the NYSDEC Division of Environmental Permits on July 26, 2022.

EnviroScience, Inc. of Stow, Ohio was retained by Weber-Knapp Company to prepare a survey plan and to apply for a Site-specific license to collect or possess (LCP). The survey plan was developed in accordance with the requirements outlined in the NYSDEC document titled, *New York State Freshwater Mussel Survey Guidelines for Waterbody Disturbance Projects*, dated June 2022, and was submitted to the NYSDEC Division of Environmental Permits on July 28, 2022 (revised on August 4, 2022 to include a larger downstream survey area). The Division of Environmental Permits approved a revised survey plan (dated on August 4, 2022) and the NYSDEC Special Licenses Unit granted License to Collect or Possess - Freshwater Mussels # 89 on August 8, 2022.

It is expected that the freshwater mussel survey will be completed prior to the end of the 2022 survey season (i.e., September 30, 2022). However, due to poor visibility and unsafe survey conditions created by a harmful algal bloom that has persisted in the river adjacent to the Site since August 10, 2022, the survey may have to be delayed (e.g., into October 2022 with the permission of the NYSDEC, or following the start of the 2023 survey season on or after May 15, 2023).

Depending on the findings of the freshwater mussel survey, identified mussels requiring removal will be relocated per NYDEC requirements prior to the initiation of the IRM. [Note: as indicated by the schedule in Appendix D, the freshwater mussel relocation activities (if necessary) will be completed prior to the proposed IRM activities. Currently, it is anticipated that the relocation activities will occur in May or June 2023.]

3.3 Permits

It is anticipated that the following permits will be required and obtained prior to the initiation of the proposed IRM activities:

- United States Army Corps of Engineers (USACE)-issued Section 404 Clean Water Act Nationwide Permit (NWP) for Cleanup of Hazardous and Toxic Waste (i.e., NWP 38, defined as, "*specific activities required to effect the containment, stabilization, or removal of hazardous or toxic waste materials that are performed, ordered, or sponsored by a government agency with established legal or regulatory authority.*");
- NYSDEC-issued Section 401 Water Quality Certification for work proposed under the USACE NWP;
- NYSDEC-issued permit for Excavation or Placement of Fill in Navigable Waters; and
- City of Jamestown-issued permit for construction in a FEMA floodway.

The Weber-Knapp Company is currently permitted to discharge industrial waste water to the Jamestown BPU municipal sewer system under the Industrial Wastewater Discharge Permit (IWDP) #11, dated May 19, 2022. IWDP #11 expires on August 31, 2027. Jamestown BPU will be notified when treated water collected during the IRM will be discharged to the Jamestown BPU

municipal sewer system, and test results documenting the effectiveness of the water treatment prior to discharge will be provided to the Jamestown BPU (as required).

3.4 Structural Evaluation

If necessary, a structural engineer will be retained to evaluate the site conditions and the proposed excavation to provide recommendations for structural support for the exterior building/retaining wall of the 441 Chandler Street building during the excavation process.

3.5 Site Preparation and Control

Figure 6 presents the location of the IRM area, significant existing features in the IRM area, and the anticipated layout of the IRM area during implementation of the IRM. Planned staging, transportation and support areas are located such that movement of waste materials will be limited to the extent necessary to allow excavation and safe and efficient access to each work area.

The subcontractor retained by Weber-Knapp (currently anticipated to be Sessler Environmental Services, LLC of Macedon, NY - SES) will be responsible for identification and clearance of utilities prior to commencement of the work. GPS and/or tape measurements will be used to locate IRM-related features. The anticipated extent of the IRM removal area will be marked using stakes/flagging and/or marking paint prior to initiation of IRM activities. As necessary, areas of the Site to be used for staging, decontamination and related activities will also be marked using aerosol marking paint.

3.5.1 Site Preparation

Due to its isolated location, access to the soil/sediment removal area will be from the property located adjacent to the west of BCP Site C907048 and the Chadakoin River, which is also owned and operated by the Weber-Knapp Company (i.e., 415 Chandler Street). The following section describes a temporary ingress and egress route that will be established/constructed in order to access the soil/sediment removal area, and support areas that will be established on the 415 Chandler Street property.

3.5.1.1 IRM Area Ingress/Egress

Excavation equipment, excavated soil, backfill material, and supplies will be transported to/from the soil/sediment removal area via the northern portion of the 415 Chandler Street property. An ingress/egress area will be established in the grass-covered space between the northern edge of the building and the northern property boundary (i.e., a corridor that is approximately 20 ft. wide in the vicinity of the building). The ingress/egress area on the northern portion of the 415 Chandler Street property will extend a distance of approximately 380 ft. from River Street to the west bank of the Chadakoin River.

Clearing and grading work will be required in order to construct, and subsequently utilize, a temporary bridge between the west bank and the eastern bed of the Chadakoin River. Specifically, it is anticipated that several trees will be cut and removed from the top of slope on the western

bank of the river (i.e., at the eastern 415 Chandler Street property boundary). It is anticipated that between approximately 10 cubic yards (yd^3) and 15 yd^3 of soil will be removed from the west bank of the river in the approximate location depicted on Figure 7 and subsequently stockpiled onsite for future use/restoration activities. A geotextile liner fabric will be placed on, and secured to, the exposed riverbank, and approximately five yd^3 of NYSDEC-approved import crushed rock will be placed on the geotextile liner, to re-grade the river bank ingress/egress to accommodate truck traffic.

A temporary bridge will be constructed to span the main channel of the Chadakoin River for the purpose of connecting the ingress/egress corridor on the 415 Chandler Street property with the ingress/egress corridor to be constructed along the east bed/bank of the Chadakoin River (described below). Two temporary bridge abutments will be constructed using a series of six-foot-long concrete blocks that are approximately two ft. in height and width. The concrete blocks will be lowered into, and seated on, the river bed in the approximate locations depicted on Figure 7. The footprint of each bridge abutment will consist of six concrete blocks (i.e., resulting in an area of approximately 18 ft. by 4 ft.). A second course of concrete blocks (of the same dimensions) will be placed on top of the base course, resulting in two bridge abutments with approximate height of four ft. above the river bed. A temporary bridge deck will be constructed using crane mats that are approximately four ft. wide and one ft. thick. The crane mats will span between the two concrete block abutments (i.e., a distance of approximately 25 ft.). A ramp, constructed using NYSDEC-approved imported crushed rock, will be constructed adjacent to the eastern concrete block abutment, to support the movement of construction vehicles from the temporary bridge deck to the dewatered section of the riverbed (described below). A geotextile fabric liner will be placed and secured on the riverbed prior to the construction of the crushed rock ramp to facilitate removal of the material subsequent to the completion of the soil/sediment removal activities (refer to Section 3.12.1.3)

A cofferdam will be constructed in the bed of the Chadakoin River in the approximate location depicted on Figure 6. The purpose of the cofferdam will be to isolate the soil/sediment removal area, and an upstream ingress/egress corridor, from the main body of the river. The cofferdam will be constructed using a series of cubic-yard 'supersacks' (i.e., made of thick woven polyethylene or polypropylene), filled with clean imported sand meeting NYSDEC requirements. Two rows of supersacks will be used to construct the portion of the cofferdam located upstream of the temporary bridge (i.e., starting at the exterior wall of the 441 Chandler Street building and trending north, approximately 55 ft. to the concrete block abutment of the temporary bridge). One row of supersacks will be used to construct the portions of the cofferdam located downstream of the temporary bridge (i.e., starting at the concrete block abutment of the temporary bridge, and trending northeast approximately 135 ft. to the northern edge of the soil/sediment removal area, then turning toward the east, extending approximately 25 ft. to the west bank of the river and terminating against the existing concrete retaining wall that comprises the southwest boundary of the property addressed as 583 Allen Street). Following placement of the supersacks, the area between the 441Chander Street building/retaining wall and the supersacks will be dewatered. The surface water will be discharged upstream of the cofferdam, though a sediment filter comprised of silt cloth, and allowed to flow into the main channel of the river. A single layer of silt cloth will

be installed along the inside perimeter of the cofferdam to capture sediment that may be disturbed by subsequent vehicle traffic over the newly dewatered portion of the riverbed.

3.5.1.2 Material Staging

Material staging areas will be established in the asphalt paved parking area located in the western portion of the 415 Chandler Street property and/or between the eastern side of the building on the 415 Chandler Street Property and the west bank of the Chadakoin River. These locations are described below and illustrated on Figure 6. It is anticipated that clean excavation equipment, backfill material, and supplies will be staged on the east side of the 415 Chandler Street property (i.e., in proximity to the riverbank) and that excavated material and equipment that requires decontamination will be staged on a decontamination/staging pad to be constructed on the west side of the 415 Chandler Street property (i.e., on the asphalt pavement).

Decontamination/Excavated Material Staging Pad

A pad measuring approximately 35 ft. by 35 ft. with an ethylene propylene diene monomer rubber (EPDM) watertight membrane and one-foot high berms around the sides will be constructed in the approximate location depicted on Figure 6. This pad will be used to clean/decontaminate equipment and vehicles exiting the 415 Chandler Street property, such as excavators, or support vehicles that may have come into contact with contaminated soil. At a minimum, equipment and/or vehicles that contact potentially contaminated soil will be washed down (or dry decontaminated) prior to exiting the Site. The pad will also be used to stage excavated material. Following its initial use, and/or between loading activities, the pad will be covered with secured tarps until disposal occurs.

Equipment Staging Areas

Equipment required for the soil/sediment removal will be staged in the locations depicted on Figure 6. This will include

- One 18,000-gallon capacity frac tank that will be used to store/treat groundwater removed during the excavation process;
- vehicles used for construction and excavation activities, including
    - 300 series excavator;
    - All terrain fork lift;
    - Skid steer;
    - Loader; and
    - Tracked Hauler;
- NYSDEC-approved import fill materials including:
    - Sand to fill the ‘supersacks’ that will be used to construct the cofferdam; and
    - Crushed rock or imported sand and gravel that will be used to construct the access ramp on the east side of the temporary bridge and also as backfill for the soil/sediment removal excavation.

3.5.1.3 Groundwater Monitoring Well Decommissioning

Existing monitoring wells MW-O and MW-P are temporary stick-up monitoring wells constructed of 1" inside diameter (ID) PVC that were installed on the 415 Chandler Street property as part of an Environmental Evaluation that was conducted in December 2018. The approximate locations of temporary monitoring well MW-O and MW-P are presented on Figure 6.

These temporary monitoring wells do not have protective casings installed and are located within the proposed ingress-egress corridor on the northern portion of the 415 Chandler Street property. To date, no impacts have been identified in temporary monitoring wells MW-O or MW-P and it is anticipated that the unprotected stickup casings may be damaged and/or may act as a conduit for potential discharges during the work proposed herein. Thus, it is recommended that temporary monitoring wells MW-O and MW-P be decommissioned prior to the preparation and staging work described above. The decommissioning will be completed in accordance with protocols outlined in the NYSDEC document titled "CP-43: Groundwater Monitoring Well Decommissioning Policy" dated November 3, 2009.

3.5.2 Soil/Sediment Removal Area Controls

Planned IRM work will require control measures to ensure the safety of subcontractors and protection of ecological resource receptors located in, and downstream from, the IRM work area. Although the IRM area is located in a public waterway, it is isolated from public access due to its location between private properties and away from public roadways, sidewalks, etc. Further, the ingress/egress corridor to, and staging areas for, the IRM area are also located on private property (i.e., 415 Chandler Street). The public will not be permitted to enter within the designated IRM work area, ingress/egress corridor, or staging areas during the removal operations.

In the event that excavation and backfill cannot be completed during a single shift, the open excavation will be covered until the next day to reduce exposure. The cover will consist of a single layer of poly sheeting, secured at the edges with sandbags, or similar.

If necessary, [i.e., depending on the results of Community Air Monitoring Plan (CAMP)/breathing zone monitoring] methods of limiting vapor and particulate discharges from the work area (e.g., slowing the excavation process, adding a mist to prevent dust, placing biodegradable foam to preclude vapor discharges, etc.) may be employed.

As a precaution, spill containment booms will be placed around the perimeter of the soil/sediment excavation(s) during removal activities. The booms will have a minimum diameter of three inches and will be deployed on the surface of the dewatered riverbed in an array such that they form a continuous perimeter between the excavation and any potential downgradient receptors. The booms will contain an oil-only absorbent material.

3.5.3 Support Area Controls

Surface runoff within the parking lot in the northwestern portion of the 415 Chandler Street property is directed to catch basins (refer to Figure 6). The catch basins will be protected (e.g.,

placement of filter fabric above and/or absorbent pads around the perimeter the catch basins/trench drains).

A silt fence will be erected along the west bank of the Chadakoin River in the vicinity of the staging areas depicted on Figure 6. This silt fence will reduce the potential for runoff from the staged materials (e.g., NYSDEC-approved imported crushed rock) from entering the river.

To limit exposure and tracking of chlorinated VOC contaminated soil, excavated material will only be moved from the soil removal IRM area to the staging area via the route identified on Figure 6. Efforts will be made to minimize the accumulation of impacted material outside the excavation and staging areas. If accidental spillage of impacted material occurs, it will be cleaned immediately to the satisfaction of the DAY representative.

Decontamination will be performed in accordance with NYSDEC-approved procedures. Sampling methods and equipment have been chosen to limit decontamination requirements and prevent the possibility of cross-contamination.

Prior to exiting the Site, transport and excavation vehicles/equipment will be decontaminated via washing, as deemed necessary. This washing activity will take place on the decontamination pad (decon pad). Heavy equipment may be dry decontaminated, if possible. It should be noted that, if possible, clean areas/corridors that either eliminate or minimize any decontamination washing will be utilized. Adherence to these procedures will help to ensure that extensive decontamination will not be necessary.

3.6 IRM Implementation

The IRM-related components are shown on Figure 6, Figure 7 and Figure 8. The following sections describe the specific remedial work anticipated as part of the IRM.

3.6.1 Source Area Removal

The source area of CVOC-contaminated soil will be removed and subsequently disposed at an approved disposal facility. Based on available data, it is estimated that between approximately 75 tons and 150 tons of CVOC-contaminated sediment/soil will be removed and replaced by clean soil fill (e.g., crusher run or in accordance with applicable DER-10 requirements). It is anticipated that the removal will be conducted by excavating an approximate 200 ft^2 area (dimensions depicted on Figure 8), starting along the building/retaining wall of the 441 Chandler Street Building, and progressing towards the west (i.e., approximately 15 ft. into the riverbed toward the main channel of the river). As necessary (i.e., depending on the subsurface conditions encountered and based on the results of field screening), the excavation may be extended up to 5 ft. further toward the main channel of the river (i.e., to the western edge of the sheet pile wall described in Section 3.6.1.1). The area inside this sheeting wall will be the maximum excavation limit for impacted materials to be excavated/removed from the Chadakoin River.

3.6.1.1 Removal Area Preparation and Installation of Sheeting

Prior to initiating the soil removal IRM, the sheet pile wall limits will be marked on the dewatered river bed. Vinyl interlocking sheet piles with approximate dimensions of 10 in. (depth). by 1.5 ft. (width) by 10 ft. (length) and approximate wall thickness of 0.44 in (or equivalent) will be mobilized to the removal area. The vinyl sheet piles will be driven into the riverbed for the purpose of reducing infiltration of groundwater into the cell during sediment/soil removal process.

In order to facilitate the installation of the vinyl sheeting, the sediment located at the perimeter of the sheet pile wall area may be excavated from the surface of the riverbed, to depths of one to two feet below the riverbed surface, and subsequently transported to, and staged on, the soil staging pad located on the 415 Chandler Street property. (Note: the surface sediment is anticipated to contain cobbles and/or C&D type fill materials that may inhibit installation of the vinyl sheeting and some of this material may require removal prior to driving the sheet piles). The vinyl sheet piles will be driven into the riverbed along the 20 ft. by 20 ft. perimeter (refer to Figure 8) using a vibratory head attached to an excavator, to a maximum depth of 10 ft. below the riverbed surface, or to equipment refusal (if shallower than 10 ft.).

3.6.1.2 Removal Area Dewatering

Subsequent to the installation of the vinyl sheeting, a 10-inch steel well point will be driven into the corner of the vinyl-sheet-cased source area cell. A submersible dry-prime pump with a float control will be installed into the well point, and the resulting sump will be used for groundwater management. Groundwater that is pumped from the source area cell will be transported via continuous piping to the frac tank located on the 415 Chandler Street property. The piping that carries the groundwater will be installed in a secondary containment pipe, constructed of solid-wall, corrugated, 10-inch diameter high-density polyethylene (HDPE) (e.g., drain pipe) from the source area cell to the frac tank, an approximate distance of 400 ft.

3.6.1.3 Soil Excavation and Staging

Material excavated during the IRM will be segregated into two categories based on observations and PID field measurements, as follows:

- Type A: low/moderate level contaminated soil that may contain evidence of potential impact (e.g., staining and slight/moderate chemical-like odors) and/or PID readings between 10 ppm and 500 ppm. Based on the results of the Contained-in-Determination (refer to Section 3.1), this soil will be disposed off-site as a non-hazardous waste. Currently it is estimated that approximately 100 tons of Type A material will be encountered.

- Type B: grossly contaminated soil that will be disposed off-site as a hazardous waste. Type B material is defined as material containing evidence of free product and/or PID readings above 500 ppm. Currently it is estimated that approximately 20 tons of Type B material will be encountered.

Note: The actual amount of Type A and Type B material removed will depend on the conditions encountered at the time of removal.

During excavation activities, Type A and Type B materials will be segregated and staged in separate piles or containers placed on the soil staging pad (refer to Figure 6). The soil staging pad will be lined with EPDM sheeting and securely covered to prevent run-off, prior to waste testing and transport off-site for disposal.

It is anticipated that excavated material will be transferred from the soil removal area to the staging area using a tracked hauler. Efforts will be made to avoid cross-contamination between loads by excavating like materials continuously, to the extent possible, based on access and other considerations. Care will be taken to prevent spillage of soil onto uncontaminated areas during transport. In the event spillage/leakage occurs, it will be cleaned to the satisfaction of the DAY representative immediacy upon its identification.

As necessary, lateral shoring will be installed in the excavated cell as the depth of the excavation increases. The shoring will consist of the placement of walers, constructed using timbers with approximate 6-inch width and depth dimensions, which will be secured inside the perimeter of vinyl sheeting to support the sheeting wall.

Once the excavation of the source area is complete, samples of the staged materials will be collected for analytical laboratory testing to characterize the material for off-site disposal requirements as warranted by the disposal facility.

As described in the Health and Safety Plan (HASP) presented in Appendix B, vapor screening with a PID will be conducted continuously during excavation and handling of contaminated soil for protection of on-site workers (refer to Section 3.7).

3.6.1.4 Post-Excavation Sampling

Following the soil removal, the bottom (if possible, based on the depth of the excavation and success of dewatering efforts) and side walls of the soil excavation will be sampled, and the samples collected will be submitted for testing of TCL VOCs via USEPA Method 8260. These samples will be collected in accordance with the guidance presented in DER-10. [Note: If it is necessary to complete the excavation in stages (e.g., to reduce structural impacts or reduce/eliminate the need for excavation dewatering), post-excavation samples will be collected upon the completion of each stage. The actual number and location of the samples submitted for testing will be dependent upon the final extent of the soil removal area.] Actual sample locations will be selected at the discretion of DAY with concurrence from representatives of the NYSDEC. The Quality Assurance Project Plan (QAPP) presented in Appendix C provides detailed descriptions of the applicable sampling protocols and planned testing requirements. Analytical laboratory results will be evaluated with respect to 6NYCRR Part 375 SCO and/or freshwater sediment guidance values (FSGV) referenced in Table 5 of the NYSDEC Division of Fish,

Wildlife and Marine Resources document titled *"Screening and Assessment of Contaminated Sediment"* dated June 24, 2014.

The location, depth and concentrations of residual contamination will be documented and incorporated into the database for the Site and in the IRM Construction Completion Report.

3.6.1.5 Backfill

The excavation will be backfilled with crusher run stone (or similar) imported from approved sources that meet requirements set forth in DER-10. The crusher run stone (or similar) shall be used to backfill the excavation to match the elevation of the surrounding riverbed. The backfill material will be compacted in place, using the excavator bucket, to the extent necessary to provide suitable structural support for the adjacent sidewalls.

3.6.1.6 On-Site Management of Excavated Soil

Excavated soil will be handled in accordance with applicable protocols and health and safety considerations. Detailed descriptions of the methods planned for segregating and staging soil and other excavated materials are specified in Section 3.6.1.3, Soil Excavation and Staging.

3.6.1.7 Characterization, Transportation, Disposal

Waste characterization samples will be collected from the Type A and Type B staging areas in accordance with the QAPP (Appendix C) to determine disposal options. It is anticipated that these samples will be analyzed for one or more of the following parameters:

- TCL VOCs (EPA Method 8260)
- Toxic Characteristic Leaching Procedure (TCLP) VOCs (EPA Methods 1311, 8260)
- TCLP Metals (EPA Methods 1311, 6010/7470)
- TCL SVOCs (EPA Method 8270)
- Total PCBs (EPA Method 8082)

The specific testing program required will depend on the requirements of the disposal facility.

Trucks will be logged, and drivers and their respective time on-site will be documented to ensure compliance with applicable health and safety requirements.

The excavation contractor will be responsible for loading, transporting, and disposing of waste materials (i.e., non-hazardous and hazardous contaminated soil) generated during the IRM work.

Appropriate shipping documents will be prepared for each waste shipment, for execution by the Weber-Knapp. Copies of disposal documentation will be maintained and will be available for on-site review. Documentation from the disposal facility verifying the weight of each shipment will be obtained by the excavation contractor as soon as possible.

3.7 Dust and Vapor Monitoring and Mitigation Procedures

Procedures for dust and vapor monitoring are presented in the HASP and the Community Air Monitoring Plan (CAMP) included as Appendix B.

As documented in the CAMP, continuous perimeter and work zone air monitoring will be conducted during contaminated soil removal and handling activities using Thermo Scientific, Inc. Data RAMs and MiniRAE 3000s (or equivalents). It is anticipated that one CAMP monitoring station will be set up outside of the work zone perimeter, and that vapor monitoring will be conducted within the work zone perimeter.

3.8 QA/QC Protocols

DAY will be responsible for the project management, coordination and scheduling, and quality assurance/quality control (QA/QC) of IRM activities. General QA/QC procedures, including sample preparation and holding times, are described in the Quality Assurance Project Plan (QAPP), presented as Appendix C.

Samples will be obtained, handled and characterized in accordance with NYSDEC Analytical Services Protocol (ASP) methods. Once obtained, samples will be immediately labeled and stored on ice in a cooler. An appropriately qualified New York State Department of Health (NYSDOH) Environmental Laboratory Approval Plan (ELAP) Contract Laboratory Protocol (CLP) certified subcontracted laboratory will be retained to complete the required testing. Analytical laboratory methods reflect the requirements of the NYSDEC ASP, Revised June 2000. Chain-of-custody requirements will be adhered to for designated analyses.

3.9 Decontamination Procedures

As part of the subcontractor's mobilization activities, a decontamination area for trucks, equipment, and personnel will be constructed on the Site to prevent tracking of contaminated residuals from the Site as described in Section 3.3.

To further preclude the tracking of impacted soil, drivers will follow designated truck routes to contain traffic within a limited area. If materials accumulate outside the excavation and staging areas, they will be addressed to the satisfaction of the DAY field representative.

Decontamination will be undertaken in accordance with NYSDEC-approved procedures. Sampling methods and equipment have been chosen to reduce decontamination requirements, prevent the possibility of cross-contamination, and ensure compliance with the QAPP (Appendix C).

3.10 Handling and Disposal of Contaminated Groundwater

Materials collected during dewatering of the source excavation will be pumped directly into a frac tank. It is anticipated that sediments will be allowed to settle in the frac tank and that the containerized water will subsequently be siphoned from the frac tank, pre-treated using granular

activated carbon, and subsequently discharged the wastewater treatment plan (WWTP) located at the 415 Chandler Street property for treatment prior to discharge to the Jamestown BPU sanitary sewer under a sewer use permit.

Note: If non-aqueous phase liquid (NAPL) is encountered during the soil removal IRM, sorbent pads will be used to remove it from the excavation sumps and the frac tank(s). These pads will be containerized, sampled/tested, and disposed in accordance with applicable regulations.

3.11 Disposal of Other IRM-Derived Wastes

The following IRM-derived wastes are anticipated for this project in addition to the bulk (soil and groundwater) materials discussed elsewhere:

- Chlorinated VOC-impacted debris; and
- Decontamination wastes.

Decontamination water will be containerized in the frac tank, pre-treated, treated, and discharged as described in Section 3.10.

Excavated chlorinated solvent impacted debris (e.g., concrete fill, C&D fill, etc. excavated from the riverbed) will be transported to an off-site disposal facility permitted to accept such wastes. Prior to transport, waste characterization samples will be collected for laboratory analysis in accordance with Section 3.6, and as required by the disposal facility. Waste profiling will be coordinated with the Weber- Knapp Company. Waste manifests or bills of lading will be used for off-site shipments, and such documentation will be included in the subsequent IRM Construction Completion Report.

3.12 Site Restoration

Areas impacted by the IRM will be returned to existing conditions as described below:

3.12.1.1 Excavation Backfill

Once chlorinated VOC-impacted soil/sediment has been excavated and post-excavation sampling completed the excavation(s) will be backfilled with clean soil that was imported (i.e., crushed stone) from an approved source(s) that meet the requirements set forth in DER-10. To the extent practicable, backfill will be placed in 2-foot lifts and compacted. The vinyl sheeting (and timber shoring, if utilized) will be extracted from the excavation sidewalls, and decontaminated prior to transport off the Site. If required by the NYSDEC to document the limits of the excavation, the vinyl sheeting will be left in place as a demarcation boundary, and any portion that is located above the elevation of the riverbed will be cut-off to match the grade of the riverbed.

3.12.1.2 Cofferdam

Following restoration of the source area excavation(s), the area located behind the cofferdam will be flooded by removing one or more supersacks located along the upstream border of the cofferdam (i.e., to the extent possible based on the stage of the Chadakoin River at the time of

restoration). The resulting impounded water will be evaluated to determine sediment concentrations. As necessary, sediment suspended in the water behind the cofferdam will be allowed to settle until the water quality improves. The remaining supersacks will then be removed from the riverbed and transported to the 415 Chandler Street property where they will be staged pending de-mobilization activities.

3.12.1.3 Temporary Bridge

The ramp, constructed at the east end of the temporary bridge using NYSDEC-approved imported crushed rock (refer to Section 3.5.1.1), will be excavated and removed from the riverbed. Following removal of the crushed-rock ramp, the geotextile base of the ramp will be removed from the riverbed, and area will be restored to its original grade (see below).

The decking material will be removed from the concrete bridge abutments, following which the concrete blocks that comprise the abutments will be removed from the riverbank. The temporary bridge materials will be decontaminated (as necessary) and staged on the 415 Chandler Street property prior to demobilization.

3.12.1.4 Riverbank Restoration

Following removal of the temporary bridge abutments, NYSDEC-approved import rip-rap material will be placed over the geotextile liner and crushed-rock fill on the western bank of the Chadakoin river (i.e., that was re-graded to accommodate vehicle ingress/egress traffic). The rip-rap material will be graded with a maximum diameter of 1.0 ft. and minimum diameter of 0.5 ft.

3.12.1.5 Staging Areas

Following removal of the staged soil/sediment, and frac tanks, the staging area will be restored to pre-existing conditions by decommissioning the decontamination pad, removing protective barriers around/over the catch basins, etc. The silt fencing will be removed from the west bank of the 415 Chandler Street property. Non-reusable materials will be disposed in accordance with applicable regulations. Subsequent to removal, asphalt covered areas on the 415 Chandler Street parking lot will be cleaned and high pressure washed as needed.

4.0 QA/QC Protocols

DAY will be responsible for the project management, coordination and scheduling, subcontracting, and quality assurance/quality control (QA/QC) of IRM activities. General QA/QC procedures, including sample preparation and holding times, are described in the QAPP (Appendix C).

Samples will be obtained, handled and characterized in accordance with NYSDEC Analytical Services Protocol (ASP) methods. Once obtained, samples will be immediately labeled and stored on ice in a cooler. An appropriately qualified New York State Department of Health (NYSDOH) Environmental Laboratory Approval Plan (ELAP) Contract Laboratory Protocol (CLP) certified subcontracted laboratory will be retained to complete the required testing. Analytical laboratory methods reflect the requirements of the NYSDEC ASP, Revised June 2000. Chain-of-custody requirements will be adhered to for designated analyses.

5.0 Health and Safety

A site-specific HASP has been prepared for this project and is included as Appendix B. The HASP will be reviewed by DAY employees before starting site work. Other entities can adopt the protocols set forth in the HASP, or can develop their own HASP which must be submitted to the NYSDEC and NYSDOH. Monitoring of the work area and screening of soil and groundwater will be conducted throughout the duration of IRM activities using the following (or equivalent) instrumentation:

- Aerosol particulate meter (Thermo Scientific Data RAM)
- EntryRAE Multi-Gas Monitor (or equivalent)
- Two MiniRAE 2000 or MiniRAE 3000 PIDs equipped with a 10.2 eV or 10.6 eV lamps.

Air monitoring at the Site will be continuous during ground intrusive activities. Air monitoring will be periodic during non-intrusive activities. Daily recorded perimeter real-time air monitoring readings for VOCs, as required by the CAMP presented in Appendix B, will be submitted to the NYSDEC and NYSDOH via email (as practicable) each day that the monitoring is implemented.

DAY employees and the subcontractor present on the Site during the IRM will have completed the Occupational Health and Safety (OSHA) 40-hour Hazardous Waste Operations (HAZWOPER) training with current refresher courses. A copy of the HASP will be available on-site at all times during the IRM activities.

Professional personnel entering the Site will have current OSHA HAZWOPER Certifications. Non-professional personnel will maintain OSHA 10-hour Certifications, at a minimum.

6.0 Project Organization

The key personnel responsible for the implementation of this project are anticipated as follows:

Ray Kampff	DAY Principal in Charge (585) 454-0210 x1108 rkampff@daymail.net
Carla Crampton	DAY Field Team Leader (585) 454-0210 x1116 ccrampton@daymail.net
Donald Pangborn	Weber Knapp Company Representative (716) 484-9135 x203 dpangborn@weberknapp.com
Erik Dahlgren	Weber Knapp Company Representative (716) 484-9135 x231 edahlgren@weberknapp.com

Subcontractors

Environmental Remediation Contractor

Sessler Environmental Services, LLC.
1330 Research Forest, Macedon, NY 14502
585.617.5710

To Be Determined — Analytical Laboratory
Data Validation

7.0 IRM Construction Completion Report

When appropriate as a part of the overall IRM project schedule, and in accordance with project and NYSDEC requirements, an IRM Construction Completion Report will be prepared for the IRM work specified herein that is anticipated to include:

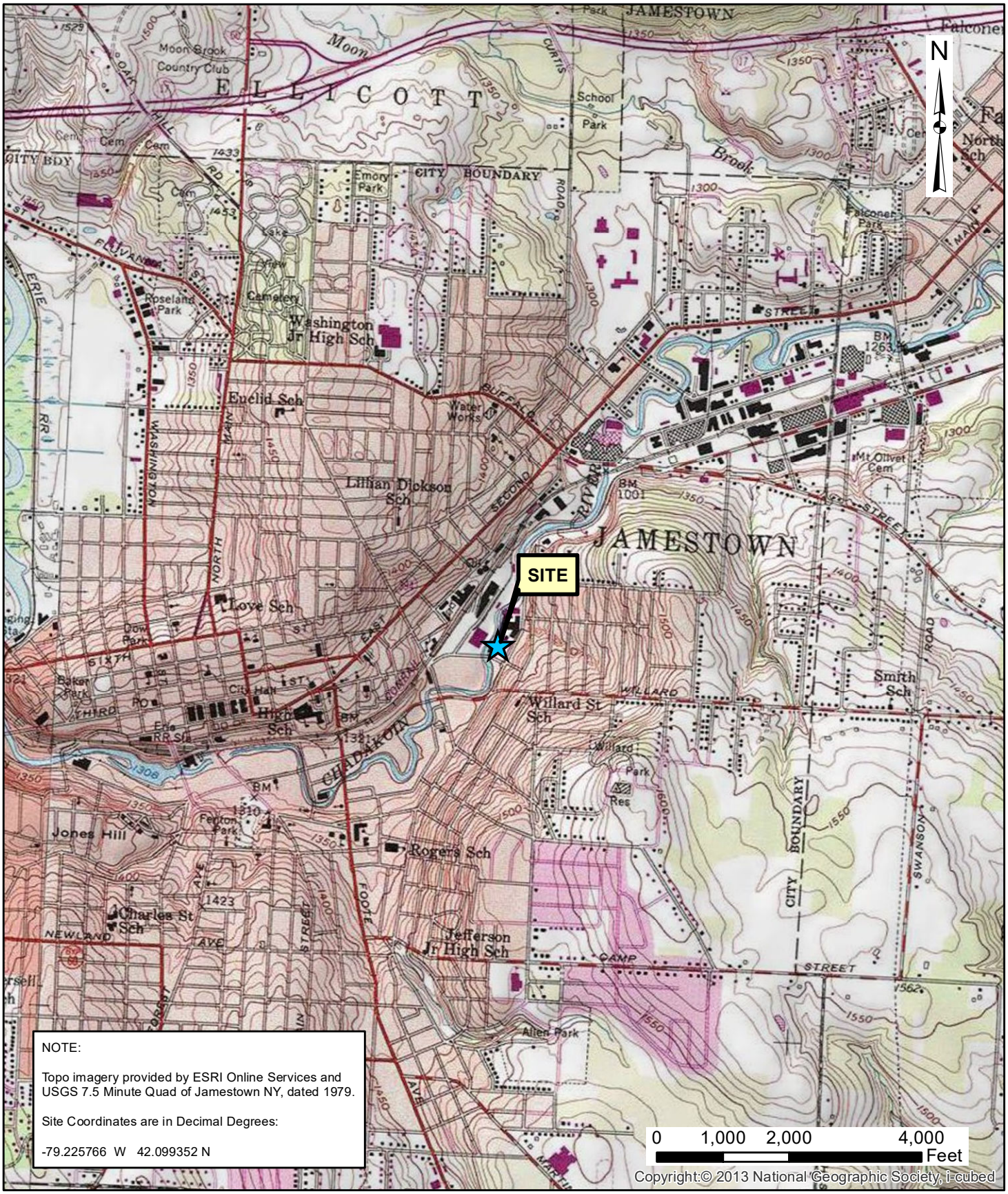
- A discussion of the IRM work completed;
- A Site Plan depicting the extent of soil removal;
- Manifests for off-site disposal of waste materials;
- Photographs;
- Tabulated post-excavation soil sampling results, including comparison to appropriate NYSDEC SCO in 6 NYCRR Part 375; and
- Analytical laboratory reports and chain-of-custody documentation.

Initially, a draft copy of this report will be provided for NYSDEC review and comment, and subsequently hard and/or electronic copies of the final report will be submitted.

8.0 Schedule

A project schedule that includes the anticipated fieldwork and report submission is included as Appendix D.

FIGURES



Document Path: E:\GIS Mapping\Weber-Knapp\5635S-19\Weber\Remediation_WP\sGW Extraction IRM 2022-05\5635S01 Project Locus Map.mxd

Last Date Saved: 04 May 2022

Date: 05-04-2022 Drawn By: CAH Scale: AS NOTED	**DAY ENVIRONMENTAL, INC.** Environmental Consultants Rochester, New York 14606 New York, New York 10170	Project Title: 441 CHANDLER STREET JAMESTOWN, NEW YORK NYSDEC SITE ID C907048 Drawing Title: Project Locus Map	Project No.: 5635S-19 FIGURE 1

SED-F (0-0.5') 7/7/2021
Total Chlorinated VOC = 6.175

SED-F (1') 7/7/2021
Total Chlorinated VOC = 4.090

SED-C (1') 7/7/2021
Total Chlorinated VOC = 7.363

SED-T (2') 9/30/2021
Total Chlorinated VOC = 0.362

SED-T (4') 9/30/2021
Total Chlorinated VOC = 47.048

SED-T (6') 9/30/2021
Total Chlorinated VOC = 0.234

SED-G (0-0.5') 7/7/2021
Total Chlorinated VOC = 2.325

SED-G (1') 7/7/2021
Total Chlorinated VOC = 10.429

SED-U (2') 9/30/2021
Total Chlorinated VOC = 0.007

SED-U (4') 9/30/2021
Total Chlorinated VOC = 0.004

SED-H (0-0.5') 7/7/2021
Total Chlorinated VOC = 0.002

SED-H (1') 7/7/2021
Total Chlorinated VOC = 0.010

SED-I (1.5') 9/30/2021
Total Chlorinated VOC = 0.017

SED-S (2') 9/30/2021
Total Chlorinated VOC = 0.002

SED-S (4') 9/30/2021
Total Chlorinated VOC = 0.003

SED-E (0-0.5') 7/7/2021
Total Chlorinated VOC = 0.001

SED-E (1') 7/7/2021
Total Chlorinated VOC = 0.006

SED-B (1') 7/7/2021
Total Chlorinated VOC = 0.693

SED-B (4') 9/30/2021
Total Chlorinated VOC = 84.220

SED-B (6') 9/30/2021
Total Chlorinated VOC = 42.385

SED-B (7') 9/30/2021
Total Chlorinated VOC = 2.202

SED-3

SED-A (2') 7/7/2021
Total Chlorinated VOC = 12,120.000

SED-A (3') 7/7/2021
Total Chlorinated VOC = 4,012.000

SED-A (5') 9/30/2021
Total Chlorinated VOC = 8.153

SED-A (7') 9/30/2021
Total Chlorinated VOC = 0.118

SED-D (1') 7/7/2021
Total Chlorinated VOC = 0.024

Weber-Knapp Facility Building

0 5 10 Feet

SED-3 (0-0.5') 6/30/2020
Total Chlorinated VOC = 0.01968

SED-3 (1') 6/30/2020
Total Chlorinated VOC = 4.860

A

A'

SED-2 (0-0.5') 6/30/2020
Total Chlorinated VOC = 0.0047

SED-2 (1') 6/30/2020
Total Chlorinated VOC = 0.00320

Chadakoin River

Approximate location of the former vapor degreaser

Allen Street

Chandler Street

SED-1 (0-0.5') 6/30/2020
Total Chlorinated VOC = U (0.00032)

NYS ITS GIS Program Office, Westchester County GIS

Legend

- RI Sediment Sample collected June 30, 2020
- Soil/sediment sample(s) Collected July 7 and/or September 30, 2021
- Soil/sediment sample(s) Collected September 30, 2021
- Extent of geologic cross-section A-A'
- 441 Chandler Street property boundary

Extent of 2020 Soil Removal IRM

- Excavation Cell 1
- Excavation Cell 2
- Approximate extent of subsurface storm sewers
- Direction of surface water flow

N

NOTES:

Results in mg/Kg or parts per million (ppm)

U = Not Detected (Method Detection Limit shown in parenthesis)

The locations of test locations were tape-measured in relation to existing site structures and should be considered accurate to the degree implied by the method used.

Property boundary based on information presented on a property survey map titled, "Map of a survey for Weber-Knapp Company, 415 and 441 Chandler Street, City of Jamestown, County of Chautauqua, State of New York", dated August 16, 2011, prepared by Rodgers Land Surveying, 583 Falconer St., Jamestown, NY.

Aerial imagery provided by the New York State GIS Clearinghouse, date 2021

0 25 50 100 Feet

DESIGNED BY CAH | DATE 07-2022
DRAWN BY CAH | DATE DRAWN 07-2022
SCALE AS NOTED | DATE ISSUED 07-19-2022

DAY ENVIRONMENTAL, INC.
Environmental Consultants
Rochester, New York 14606
New York, New York 10170

Project Title
441 CHANDLER STREET
JAMESTOWN, NEW YORK
NYSDEC SITE ID C907048
INTERIM REMEDIAL MEASURES WORK PLAN

Drawing Title
Total Chlorinated Volatile Organic Compounds Measured in Samples collected June 30, 2020, July 7 and September 30, 2021

Project No.
5635S-19

FIGURE 2

Last Date Saved: 19 Jul 2022 Document Path: E:\GIS Mapping\Weber-Knapp\5635S-19\Weber\Remediation_WP\aSediment Removal\5635S-08 - Total CVOC SED Area Impacted SCGs.mxd

Last Date Saved: 19 Jul 2022 Document Path: E:\GIS Mapping\Weber-Knapp\5635S-19\Weber\Remediation_WP\sSediment Removal\5635S-07 - SED_Removal - Existing Conditions.mxd

DESIGNED BY	DRAWN BY	SCALE	DATE
CAH	CAH	AS NOTED	07-2022

DATE DRAWN	DATE ISSUED
07-2022	07-19-2022

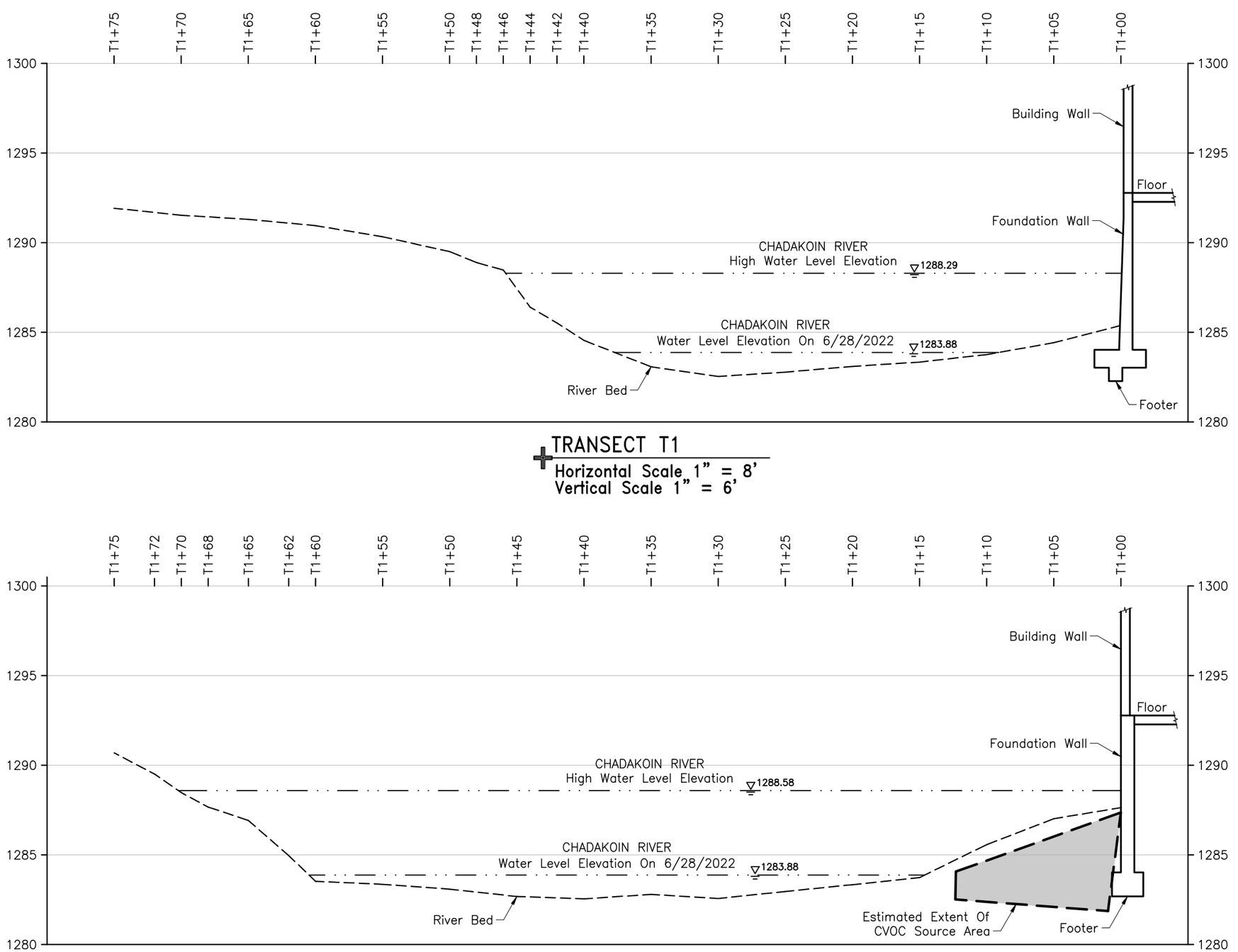
DAY ENVIRONMENTAL, INC.
Environmental Consultants
Rochester, New York 14606

Project Title
441 CHANDLER STREET
JAMESTOWN, NEW YORK
NYSDEC SITE ID C907048
INTERIM REMEDIAL MEASURE WORK PLAN

Drawing Title
Site Plan Depicting Conditions in the Chadakoin River, Documented on June 28, 2022

Project No.
5635S-19

FIGURE 3



TRANSECT T1

Horizontal Scale 1" = 8'
Vertical Scale 1" = 6'

TRANSECT T3

Horizontal Scale 1" = 8'
Vertical Scale 1" = 6'

Notes:

1. The riverbed profile is based on measurements made on June 28, 2022. Warner Dam adjusted to allow through flow to 30 cubic feet per second (cfs) during river profile measurements.
2. The high water elevation is based on measurements made from the high water stain observed on the west wall of the building.
3. The building footer elevation is based on a drawing by Beck & Tinkham Architects – R.A., entitled "Plant Addition For Weber–Knapp–Co., Plans & Details" and August 1941.

1" = 8' 0' 8' 16' 24'

1" = 6' 0' 6' 12' 18'

FIELD VERIFIED	CAH
DATE	6-28-2022
DRAWN BY	RJM
DATE DRAWN	7-1-2022
SCALE	As Noted
DATE ISSUED	7-7-2022

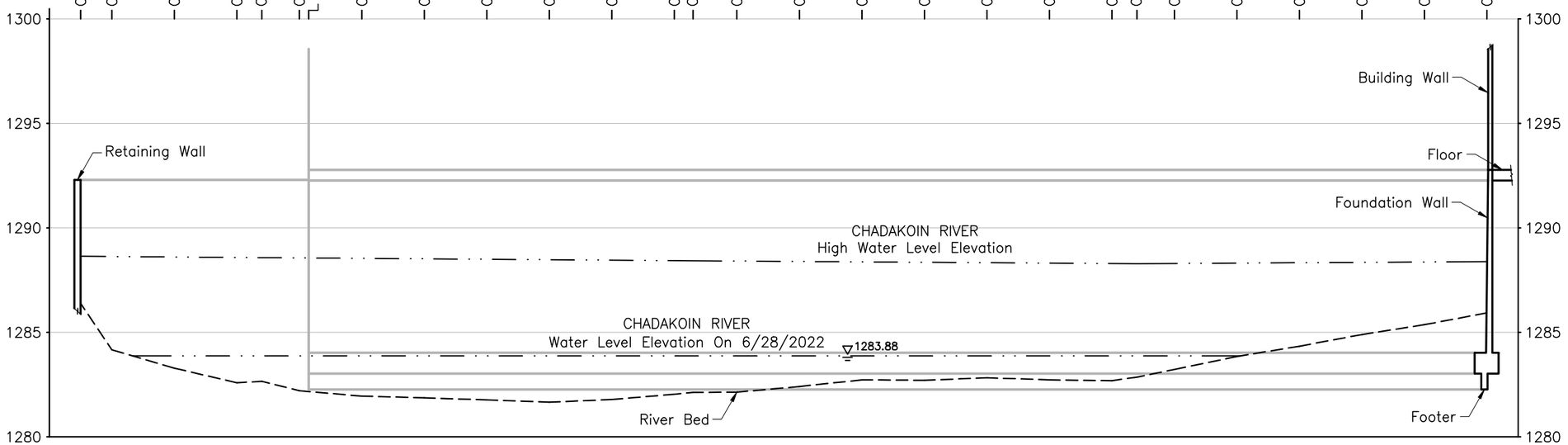
DAY ENVIRONMENTAL, INC.
ENVIRONMENTAL CONSULTANTS
ROCHESTER, NEW YORK 14606
NEW YORK, NEW YORK 10170

PROJECT TITLE
441 CHANDLER STREET
JAMESTOWN, NEW YORK
NYSDEC SITE ID C907048
WORK PLAN

DRAWING TITLE
Transect T1 and Transect T3

PROJECT NO.
5635S-19

FIGURE 4A



TRANSECT CD

Horizontal Scale 1" = 20'
Vertical Scale 1" = 6'

Notes:

1. The riverbed profile is based on measurements made on June 28, 2022. Warner Dam adjusted to allow through flow to 30 cubic feet per second (cfs) during river profile measurements.
2. The high water elevation is based on measurements made from the high water stain observed on the west wall of the building.
3. The building footer elevation is based on a drawing by Beck & Tinkham Architects – R.A., entitled "Plant Addition For Weber–Knapp–Co., Plans & Details" and August 1941.

1" = 20' 0' 20' 40' 60'

1" = 8' 0' 8' 16' 24'

FIELD VERIFIED	CAH
DRAWN BY	RJM
SCALE	As Noted
DATE	6-28-2022
DATE DRAWN	7-1-2022
DATE ISSUED	7-7-2022

DAY ENVIRONMENTAL, INC.
ENVIRONMENTAL CONSULTANTS
ROCHESTER, NEW YORK 14606
NEW YORK, NEW YORK 10170

PROJECT TITLE
441 CHANDLER STREET
JAMESTOWN, NEW YORK
NYSDEC SITE ID C907048
WORK PLAN

DRAWING TITLE
Transect CD

PROJECT NO.
5635S-19

FIGURE 4B

Xerox432AnsiB-2; 11 x 17
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Ref2:
Ref3:
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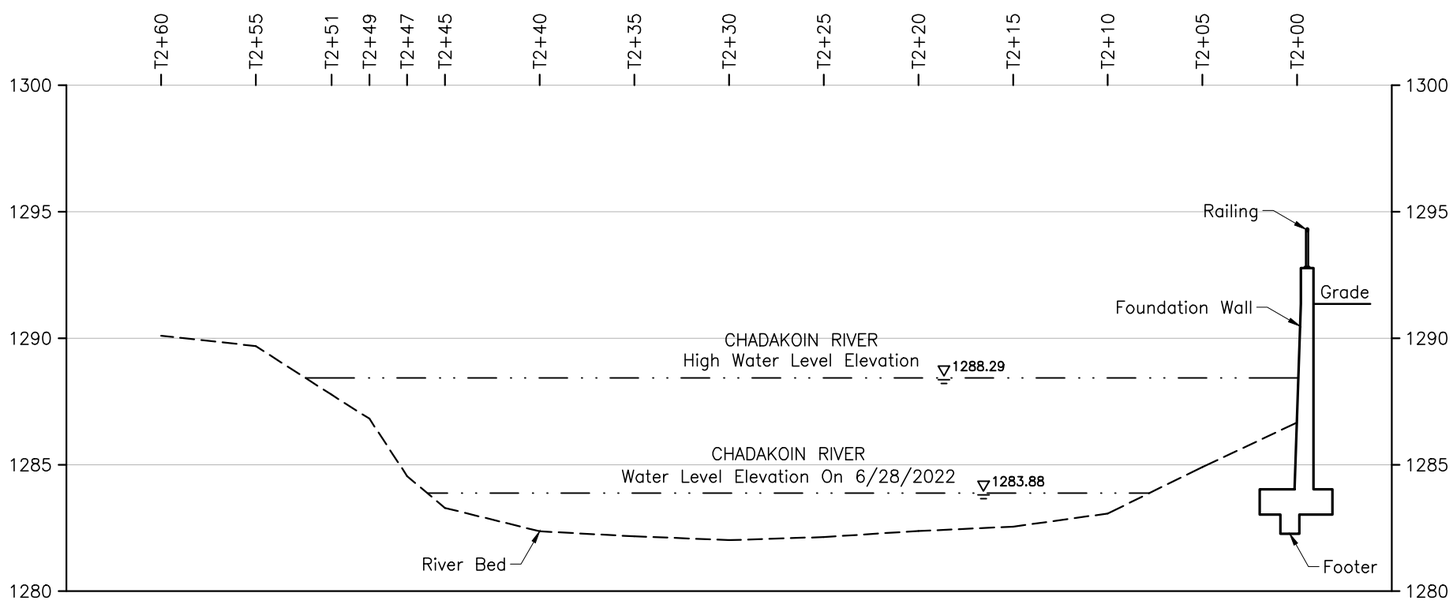
File Name: P:\Drawings\Weber-Knapp\5635S-19\River Transect Plot Sheet.dwg



TRANSECT T2

Horizontal Scale 1" = 8'
Vertical Scale 1" = 6'

Notes:

1. The riverbed profile is based on measurements made on June 28, 2022. Warner Dam adjusted to allow through flow to 30 cubic feet per second (cfs) during river profile measurements.
2. The high water elevation is based on measurements made from the high water stain observed on the west wall of the building.
3. The building footer elevation is based on a drawing by Beck & Tinkham Architects – R.A., entitled "Plant Addition For Weber–Knapp–Co., Plans & Details" and August 1941.

1" = 8' 0' 8' 16' 24'

1" = 6' 0' 6' 12' 18'

FIELD VERIFIED	CAH
DATE	6-28-2022
DRAWN BY	RJM
DATE DRAWN	7-1-2022
SCALE	As Noted
DATE ISSUED	7-7-2022

DAY ENVIRONMENTAL, INC.
ENVIRONMENTAL CONSULTANTS
ROCHESTER, NEW YORK 14606
NEW YORK, NEW YORK 10170

PROJECT TITLE
441 CHANDLER STREET
JAMESTOWN, NEW YORK
NYSDEC SITE ID C907048
WORK PLAN

DRAWING TITLE
Transect T2

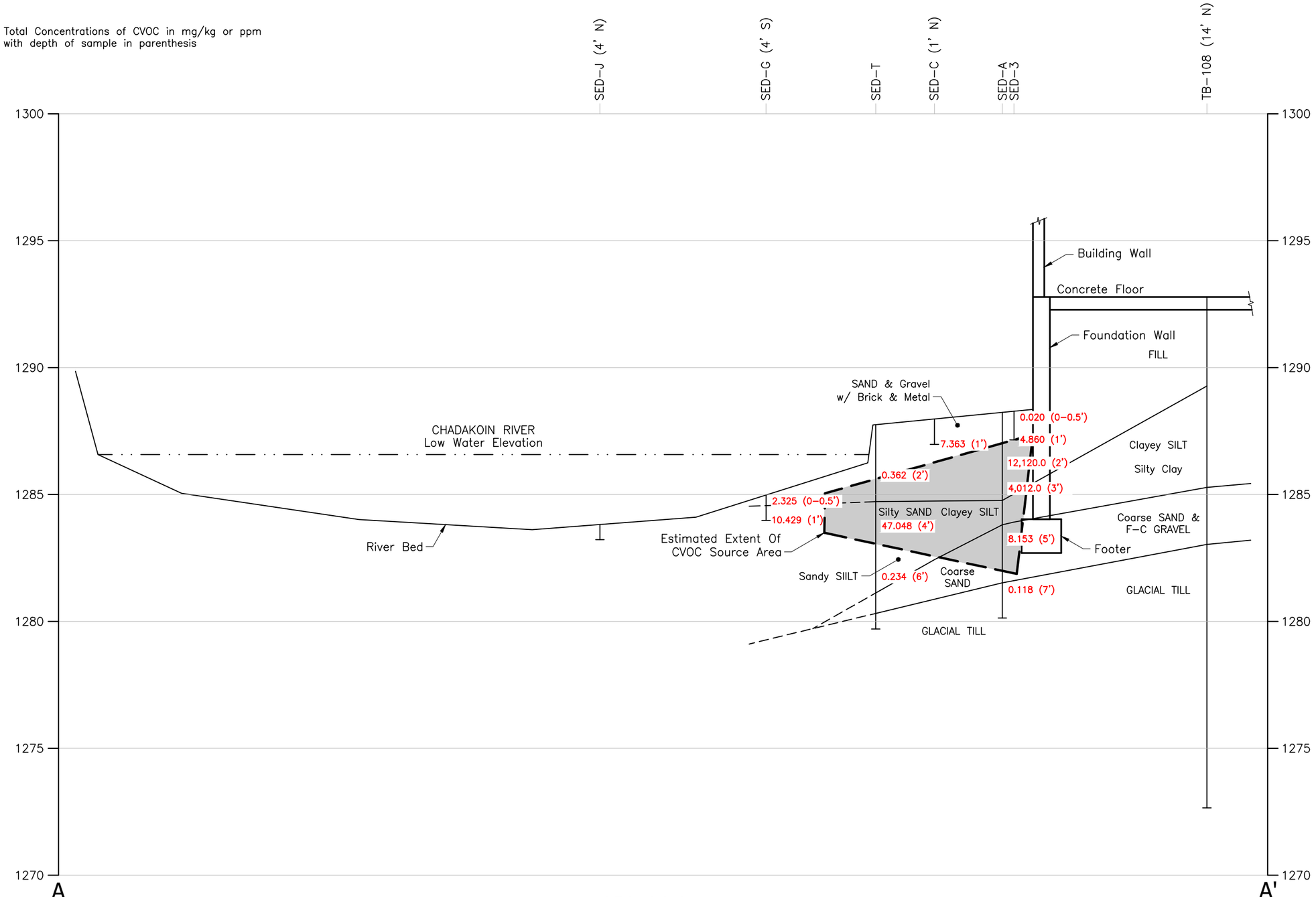
PROJECT NO.
5635S-19

FIGURE 4C

Ref1: River Transect T2 Base.dwg
Ref2:
Ref3:
Xerox432AnsiB-2; 11 x 17
Layout Name: T2
Pen Setting File: 80OpsFullcolor.ctb
Time Plotted: Thursday, July 7, 2022 10:33:03 AM
File Name: P:\Drawings\Weber-Knapp\5635S-19\River Transect Plot Sheet.dwg

LEGEND

0.362 (2') Total Concentrations of CVOC in mg/kg or ppm with depth of sample in parenthesis



Notes:

1. The subsurface conditions are based on test borings completed for the 2020 Remedial Investigation and 2021 Sediment Delineation Study.
2. The riverbed profile is based on measurements made on June 10, 2021
3. The surface water elevation is based on measurements made on July 1, 2020 and July 15 2020.
4. The building footer elevation is based on a drawing by Beck & Tinkham Architects – R.A., entitled "Plant Addition For Weber-Knapp-Co., Plans & Details" and August 1941.

GEOLOGIC CROSS SECTION A-A'

Horizontal Scale 1" = 6'
Vertical Scale 1" = 4'

1" = 6' 0' 6' 12' 18'

1" = 4' 0' 4' 8' 12'

FIELD VERIFIED	CAH
DATE	11-2021
DRAWN BY	RJM
DATE DRAWN	11-3-2021
SCALE	As Noted
DATE ISSUED	11-8-2021

DAY ENVIRONMENTAL, INC.
ENVIRONMENTAL CONSULTANTS
ROCHESTER, NEW YORK 14606
NEW YORK, NEW YORK 10170

PROJECT TITLE
441 CHANDLER STREET
JAMESTOWN, NEW YORK
NYSDEC SITE ID C907048
INTERIM REMEDIAL MEASURE WORK PLAN

DRAWING TITLE
Geologic Cross Section A-A'

PROJECT NO.
5635S-19

FIGURE 5

Last Date Saved: 09 Sep 2022 Document Path: E:\GIS Mapping\Weber-Knapp\5635S-19\WeberRemediation_WP\Sediment Removal\5635S-09a - SED_Removal - IRM Activities Layout Rev.09-22.mxd

DESIGNED BY	DRAWN BY	SCALE	DATE
CAH	CAH	AS NOTED	09-6-2022
	DATE DRAWN	DATE ISSUED	
	07-2022	07-2022	

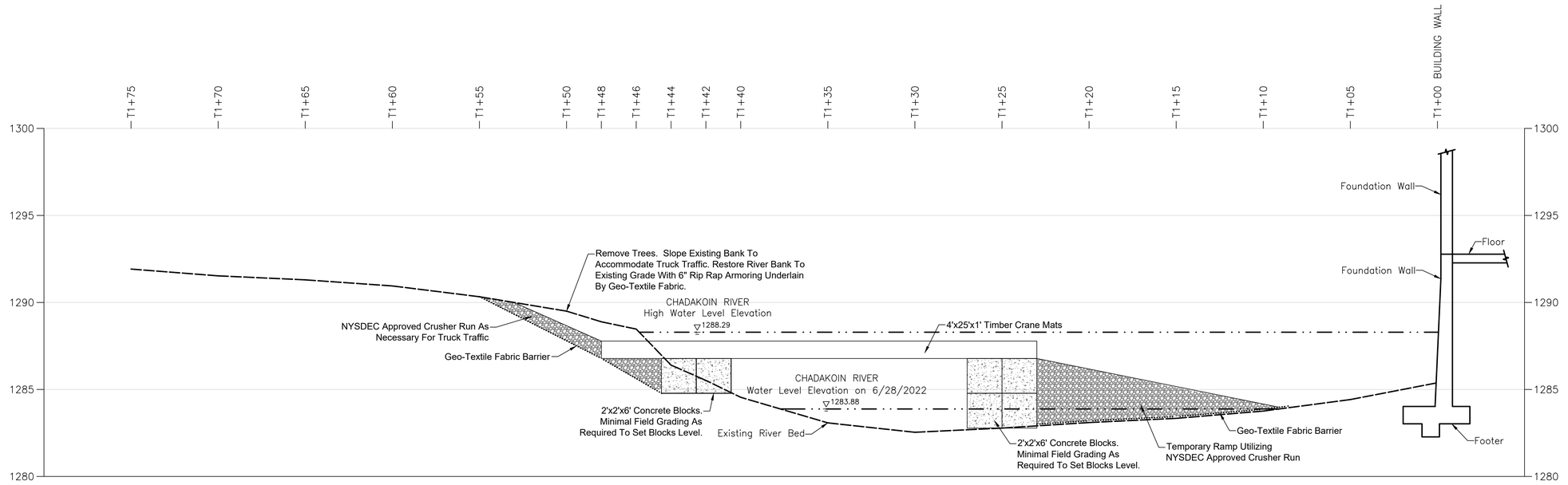
day
DAY ENVIRONMENTAL, INC.
Environmental Consultants
Rochester, New York 14606

441 CHANDLER STREET
JAMESTOWN, NEW YORK
NYSDEC SITE ID C907048
INTERIM REMEDIAL MEASURES WORK PLAN

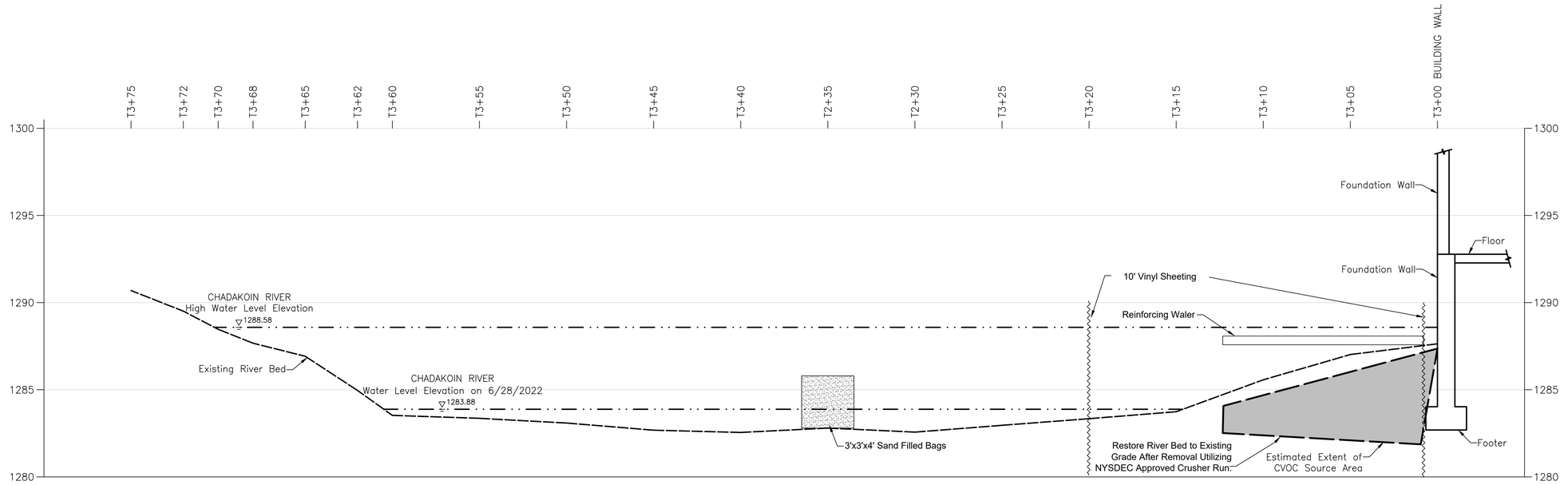
Drawing Title
Site Plan Depicting IRM Activities Layout

Project No.
5635S-19

FIGURE 6



TRANSECT T1



TRANSECT T3

NOTE: THIS DOCUMENT AND ALL INFORMATION CONTAINED WITHIN THIS DOCUMENT IS PROPRIETARY TO SESSLER ENVIRONMENTAL SERVICES ("SES"). THIS DOCUMENT HAS BEEN PREPARED FOR A SPECIFIC SITE AND INCORPORATES INFORMATION BASED ON DATA AVAILABLE FROM THE CLIENT AT THIS TIME. BY ACCEPTING AND USING THIS DOCUMENT, THE BORROWER BY RECEIPT OR RETENTION AGREES TO PROTECT ITS CONTENTS FROM FURTHER DISSEMINATION, (OTHER THAN THAT WITHIN THE ORGANIZATION NECESSARY TO EVALUATE SUCH SPECIFICATION) WITHOUT THE WRITTEN PERMISSION OF SES. THE CONTENTS OF THIS DOCUMENT ARE NOT TO BE REPRODUCED OR COPIED IN WHOLE OR IN PART WITHOUT THE WRITTEN PERMISSION OF SES AND UPON DEMAND ALL COPIES AND MATERIALS COPIED THEREFROM SHALL BE RETURNED TO SES.

LEGEND

—— N/A

EQUIPMENT SUBMITTED FOR USE

- N/A

REVISIONS:

NUMBER	DESCRIPTION	DATE
1	REVISION1	00-00-0000
2	REVISION2	00-00-0000
3	REVISION3	00-00-0000
4	REVISION4	00-00-0000

Sessler Environmental Services
1330 RESEARCH FOREST
MACEDON, NY 14502
PHONE: 1-585-617-5710
INFO@SESSLERWRECKING.COM
WWW.SESSLERENV.COM

PROJECT:

Weber Knapp
NYSDEC Site ID C907048

441 Chandler Street, Jamestown, NY 14701

CONTRACTOR:

Day Environmental, Inc.
Rochester, NY 14606

CLIENT:

Weber Knapp Company

DRAWING TITLE:

PROPOSED TEMPORARY BRIDGE CROSS SECTION

SEAL & SIGNATURE

FIGURE 7

DATE:	July 13, 2022
PROJECT NO:	TBD
DRAWN BY:	LS
CHECKED BY:	EH
SCALE:	N/A
DRAWING NUMBER:	01

SHEET 01 OF 01

Legend

- Proposed removal area
- Approximate extent of vinyl sheet pile wall
- Approximate extent of cofferdam
- Sample(s) Collected July 7 and/or September 30, 2021
- Sample(s) Collected September 30, 2021
- RI Sediment Sample
- 441 Chandler Street property boundary
- Approximate extent of seasonally exposed sediment

N

Chadakoin River

SED-I (1.5') 9/30/2021
Total Chlorinated VOC = 0.017

SED-S (2') 9/30/2021
Total Chlorinated VOC = 0.002

SED-S (4') 9/30/2021
Total Chlorinated VOC = 0.003

SED-E (0-0.5') 7/7/2021
Total Chlorinated VOC = 0.001

SED-E (1') 7/7/2021
Total Chlorinated VOC = 0.006

SED-F (0-0.5') 7/7/2021
Total Chlorinated VOC = 6.175

SED-F (1') 7/7/2021
Total Chlorinated VOC = 4.090

SED-B (1') 7/7/2021
Total Chlorinated VOC = 0.693

SED-B (4') 9/30/2021
Total Chlorinated VOC = 84.220

SED-B (6') 9/30/2021
Total Chlorinated VOC = 42.385

SED-B (7') 9/30/2021
Total Chlorinated VOC = 2.202

SED-C (1') 7/7/2021
Total Chlorinated VOC = 7.363

SED-T (2') 9/30/2021
Total Chlorinated VOC = 0.362

SED-T (4') 9/30/2021
Total Chlorinated VOC = 47.048

SED-T (6') 9/30/2021
Total Chlorinated VOC = 0.234

SED-3 (0-0.5') 6/30/2020
Total Chlorinated VOC = 0.020

SED-3 (1') 6/30/2020
Total Chlorinated VOC = 4.860

SED-G (0-0.5') 7/7/2021
Total Chlorinated VOC = 2.325

SED-G (1') 7/7/2021
Total Chlorinated VOC = 10.429

SED-A (2') 7/7/2021
Total Chlorinated VOC = 12,120.000

SED-A (3') 7/7/2021
Total Chlorinated VOC = 4,012.000

SED-A (5') 9/30/2021
Total Chlorinated VOC = 8.153

SED-A (7') 9/30/2021
Total Chlorinated VOC = 0.118

SED-U (2') 9/30/2021
Total Chlorinated VOC = 0.007

SED-U (4') 9/30/2021
Total Chlorinated VOC = 0.004

SED-D (1') 7/7/2021
Total Chlorinated VOC = 0.024

SED-H (0-0.5') 7/7/2021
Total Chlorinated VOC = 0.002

SED-H (1') 7/7/2021
Total Chlorinated VOC = 0.010

Weber-Knapp Facility Building

NOTES:

Results in mg/Kg or parts per million (ppm) and rounded to three decimal places

The locations of test locations were tape-measured in relation to existing site structures and should be considered accurate to the degree implied by the method used.

Property boundary based on information presented on a property survey map titled, "Map of a survey for Weber-Knapp Company, 415 and 441 Chandler Street, City of Jamestown, County of Chautauqua, State of New York", dated August 16, 2011, prepared by Rodgers Land Surveying, 583 Falconer St., Jamestown, NY.

Aerial imagery provided by the New York State GIS Clearinghouse, date 2016

0 5 10
Feet

DESIGNED BY	DATE
CAH	07-2022
DRAWN BY	DATE DRAWN
CAH	07-2022
SCALE	DATE ISSUED
AS NOTED	07-19-2022

DAY ENVIRONMENTAL, INC.
Environmental Consultants
Rochester, New York 14606

Project Title
441 CHANDLER STREET
JAMESTOWN, NEW YORK
NYSDEC SITE ID C907048
INTERIM REMEDIAL MEASURES WORK PLAN

Drawing Title
Proposed Source Removal Area

Project No.
5635S-19

FIGURE 8

Last Date Saved: 19 Jul 2022 Document Path: E:\GIS Mapping\Weber-Knapp\5635S-19\Weber\Remediation_WP\aSediment Removal\5635S-11 - SED_Study - Total CVOC_Wall_Removal Limits.mxd

TABLES

TABLE 1

441 Chandler Street
Jamestown, New York
NYSDEC BCP Site #C907048
Summary of Detected VOC Results in mg/Kg or Parts Per Million (ppm)
Surface Sediment Samples

Detected Constituent	CAS Number	Class A [1]	Class B [1]	Class C [1]	L2027841-01 SED-1 (0-0.5') 6/30/2020		L2027841-02 SED-2 (0-0.5') 6/30/2020		L2027841-04 SED-3 (0-0.5') 6/30/2020		L2136705-06 SED-E (0-0.5') 7/7/2021		L2136705-08 SED-F (0-0.5') 7/7/2021 (Low Level Sample)		L2136705-08 SED-F (0-0.5') 7/7/2021 (High Level Sample)		L2136705-10 SED-G (0-0.5') 7/7/2021 (Low Level Sample)		L2136705-10 SED-G (0-0.5') 7/7/2021 (High Level Sample)		L2136705-12 SED-H (0-0.5') 7/7/2021	
1,1-Dichloroethene	75-35-4	< 0.52	0.52 – 4.7	> 4.7	U (0.00023)	A	U (0.00028)	A	U (0.00034)	A	U (0.00046)	A	U (0.00028)	A	U (0.024)	A	0.0007 J	A	U (0.02)	A	U (0.0004)	A
1,2,4-Trimethylbenzene	95-63-6	< 3.4	3.4 – 30	> 30	NT		NT		NT		U (0.00064)	A	0.0067	A	0.12 J	A	0.00045 J	A	U (0.028)	A	U (0.00057)	A
1,3,5-Trimethylbenzene	108-67-8	NA	NA	NA	NT		NT		NT		U (0.00037)		0.004		0.051 J		U (0.00026)		U (0.016)		U (0.00033)	
2-Butanone (MEK)	78-93-3	NA	NA	NA	U (0.0021)		U (0.0026)		U (0.0032)		U (0.0042)		U (0.0026)		U (0.22)		U (0.003)		0.36 J		U (0.0038)	
Acetone	67-64-1	NA	NA	NA	0.010		0.015		0.094		0.014 J		0.062		U (0.49)		0.048		U (0.4)		U (0.0082)	
Benzene	71-43-2	< 0.53	0.53 - 1.90	>1.90	U (0.00016)	A	U (0.0002)	A	U (0.00024)	A	U (0.00032)	A	0.00023 J	A	U (0.017)	A	0.00088	A	U (0.014)	A	U (0.00028)	A
Carbon Disulfide	75-15-0	NA	NA	NA	U (0.0044)		U (0.0054)		0.0088 J		U (0.0087) J		U (0.0054) J		U (0.46) J		U (0.0061) J		U (0.38) J		U (0.0077) J	
Chloroethane	75-00-3	NA	NA	NA	U (0.00043)		U (0.00053)		U (0.00065)		U (0.00086)		0.00066 J		U (0.046)		0.00071 J		U (0.038)		U (0.00077)	
Chloroform	67-66-3	NA	NA	NA	U (0.00013)		U (0.00016)		U (0.0002)		U (0.00027)		U (0.00017)		U (0.014)		U (0.00019)		U (0.12)		U (0.00024)	
cis-1,2-Dichloroethene	156-59-2	See Note [2]			U (0.00017)	A	U (0.00020)	A	0.012	A	U (0.00034)	A	0.02	A	2.6	B	0.052	A	0.17	A	0.00062 J	A
Cyclohexane	110-82-7	NA	NA	NA	U (0.00052)		U (0.00064)		0.011 JH		U (0.001)		0.0037 J		U (0.055)		0.017		U (0.045)		U (0.00092)	
Ethylbenzene	100-41-4	< 0.43	0.43 – 3.7	> 3.7	U (0.00013)	A	U (0.00016)	A	0.0020 JH	A	U (0.00027)		0.00046 J	A	0.016 JH	A	0.00042 J	A	U (0.012)	A	U (0.00024)	A
Isopropylbenzene	98-82-8	< 0.21	0.21 – 1.8	> 1.8	U (0.00010)	A	U (0.00013)	A	0.0047 JH	A	U (0.00021)		0.00083 J	A	U (0.011)	A	0.0002 J	A	U (0.0091)	A	U (0.00018)	A
Methyl cyclohexane	108-87-2	NA	NA	NA	U (0.00058)		U (0.00071)		0.038 JH		U (0.0012)		U (0.00072)		U (0.061)		U (0.00081)		U (0.05)		U (0.001)	
Naphthalene	91-20-3	NA	NA	NA	NT		NT		NT		U (0.0012)		0.0026 J		0.088 J		0.0011 J		U (0.054)		U (0.0011)	
n-Butylbenzene	104-51-8	NA	NA	NA	NT		NT		NT		U (0.00032)		0.0064		0.046 J		0.0012 J		U (0.014)		U (0.00028)	
n-Propylbenzene	103-65-1	NA	NA	NA	NT		NT		NT		U (0.00033)		U (0.0002)		0.02 J		U (0.00023)		U (0.014)		U (0.00029)	
o-Xylene	95-47-6	< 0.82	0.82 – 7.2	> 7.2	U (0.00028)	A	U (0.00034)	A	0.0023 JH	A	U (0.00056)	A	0.0007 J	A	U (0.03)	A	0.00046 J	A	U (0.024)	A	U (0.0005)	A
p/m-Xylene	179601-23-1	< 0.48	0.48 – 4.2	> 4.2	U (0.00054)	A	U (0.00066)	A	0.0048 JH	A	U (0.0011)	A	0.00095 JH	A	U (0.057)	A	U (0.00075)	A	U (0.047)	A	U (0.00095)	A
p-Isopropyltoluene	99-87-6	NA	NA	NA	NT		NT		NT		U (0.0021)		0.0038		0.044 J		0.00021 J		U (0.0091)		U (0.00018)	
sec-Butylbenzene	135-98-8	NA	NA	NA	NT		NT		NT		U (0.00028)		0.0038		0.044 J		0.00047 J		U (0.012)		U (0.00025)	
Tetrachloroethene	127-18-4	< 16	16 – 57	> 57	U (0.00019)	A	U (0.00023)	A	U (0.00028)	A	U (0.00038)	A	U (0.00023)	A	U (0.02)	A	0.00062 J	A	U (0.016)	A	U (0.00033)	A
Toluene	108-88-3	< 0.93	0.93 – 4.5	> 4.5	U (0.00052)	A	U (0.00064)	A	0.0022 JH	A	U (0.001)		0.0018 JH	A	0.069 J	A	0.0011 J	A	U (0.045)	A	U (0.00092)	A
trans-1,2-Dichloroethene	156-60-5	< 1.2	1.2 – 11	> 11	U (0.00013)	A	U (0.00016)	A	0.0010 J	A	U (0.00026)		U (0.0016)	A	0.025 J	A	0.00061 J	A	U (0.011)	A	U (0.00023)	A
Trichloroethene	79-01-6	< 1.8	1.8 – 8.6	> 8.6	U (0.00013)	A	0.0047	A	U (0.00020)	A	0.00053 J	A	0.042	A	3.3 JH	B	0.680 E	A	2.1	B	0.0012	A
Vinyl chloride	75-01-4	NA	NA	NA	U (0.00032) J		U (0.00039) J		0.0058 JH		U (0.00064)		0.013		0.25		0.0092		0.055 J		U (0.00057)	
Total VOCs	NA	NA	NA	NA	0.010		0.020		0.187		0.015		0.174		6.673		0.815		2.685		0.002	
Total Chlorinated VOCs	NA	NA	NA	NA	U		0.005		0.020		0.001		0.076		6.175		0.744		2.325		0.002	
Total TICs	NA	NA	NA	NA	U		0.003 J		2.290 J		0.012 J		1.140 J		11.000 J		0.255 J		2.120 J		0.013 J	
Total VOCs and TICs	NA	NA	NA	NA	0.010		0.023		2.477		0.026		1.314		17.673		1.070		4.805		0.014	

Refer to last page of the table for notes and qualifers

TABLE 1

441 Chandler Street
Jamestown, New York
NYSDEC BCP Site #C907048
Summary of Detected VOC Results in mg/Kg or Parts Per Million (ppm)
Near-Surface Sediment Samples

Detected Constituent	CAS Number	Class A [1]	Class B [1]	Class C [1]	L2027841-03 SED-2 (1') 6/30/2020		L2027841-05 SED-3 (1') 6/30/2020		L2136705-01 SED-A (2') 7/7/2021		L2136705-03 SED-B (1') 7/7/2021 (Low Level Sample)		L2136705-03 SED-B (1') 7/7/2021 (High Level Sample)		L2136705-04 SED-C (1') 7/7/2021		L2136705-05 SED-D (1') 7/7/2021		L2136705-07 SED-E (1') 7/7/2021		L2136705-09 SED-F (1') 7/7/2021 (Low Level Sample)		L2136705-09 SED-F (1') 7/7/2021 (High Level Sample)		L2136705-11 SED-G (1') 7/7/2021		L2136705-13 SED-H (1') 7/7/2021 (Low Level Sample)		L2136705-13 SED-H (1') 7/7/2021 (High Level Sample)		L2153522-12 SED-I (1.5') 9/30/2021		L2153522-13 SED-S (2') 9/30/2021		L2153522-10 SED-T (2') 9/30/2021		L2153522-06 SED-U (2') 9/30/2021	
1,1-Dichloroethene	75-35-4	< 0.52	0.52 – 4.7	> 4.7	U (0.00022)	A	U (0.015)	A	U (4)	*	U (0.00025)	A	U (0.015)	A	U (0.024)	A	U (0.00029)	A	U (0.00028)	A	0.0035	A	U (0.018)	A	U (0.021)	A	U (0.0004)	A	U (0.024) J	A	U (0.0002)	A	U (0.00021)	A	0.00047 J	A	U (0.00039)	A
1,2,4-Trimethylbenzene	95-63-6	< 3.4	3.4 – 30	> 30	NT		NT		U (5.6)	*	U (0.00035)	A	U (0.021)	A	2.40	A	U (0.0004)	A	U (0.00039)	A	0.008	A	0.120 J	A	0.12 J	A	U (0.00056)	A	U (0.033)	A	NT		NT		NT		NT	
1,3,5-Trimethylbenzene	108-67-8	NA	NA	NA	NT		NT		U (3.2)		U (0.0002)		U (0.012)		1.60		U (0.00023)		U (0.00022)		0.0034		0.046 J		0.034 J		U (0.00033)		U (0.019)		NT		NT		NT		NT	
2-Butanone (MEK)	78-93-3	NA	NA	NA	U (0.002)		U (0.140)		U (37)		U (0.0024)		U (0.14)		0.29 J		0.0034 J		0.0085 J		0.0091 J		U (0.16)		U (0.2)		U (0.0038) J		U (0.22)		U (0.0018)		0.0028 J		0.0094 J		U (0.0036)	
Acetone	67-64-1	NA	NA	NA	0.026		U (0.300)		U (80)		0.010 J		U (0.3)		U (0.48)		0.018		0.0290		0.027		U (0.36)		U (0.42)		U (0.0081)		U (0.48) J		0.012		0.014		0.039		0.0170	
Benzene	71-43-2	< 0.53	0.53 – 1.9	> 1.9	0.028	A	U (0.010)	A	U (2.8)	*	U (0.00018)	A	U (0.01)	A	0.021 J	A	U (0.0002)	A	U (0.00019)	A	0.00046 JH	A	U (0.012)	A	U (0.015)	A	U (0.00028)	A	U (0.016)	A	0.036	A	U (0.00015)	A	0.00026 J	A	U (0.00027)	A
Bromomethane	74-83-9	NA	NA	NA	U (0.00053)		U		U (9.7) J		U (0.00062)		0.039 J		0.063 J		U (0.0007) J		U (0.00068)		U (0.00058) J		U (0.043) J		U (0.051)		U (0.00098) J		U (0.058) J		U (0.00048)		U (0.00051)		U (0.0006)		U (0.00095)	
Chloroform	67-66-3	NA	NA	NA	U (0.00013)		U		U (25)		U (0.00015)		U (0.0086)		U (0.014)		U (0.00017)		0.0002 J		U (0.0015)		U (0.01)		U (0.012)		U (0.00024) J		U (0.014)		U (0.00012)		U (0.00012)		U (0.00014)		U (0.00023)	
cis-1,2-Dichloroethene	156-59-2	See Note [2]			U (0.00016)	A	1.300	B	120.0	C	0.00053 J	A	0.0240 J	A	1.40	B	0.008	A	0.0021	A	0.34 E	A	2.30	B	0.85	A	0.0054	A	U (0.017) J	A	0.0058	A	0.0014	A	0.079	A	0.0027	A
Cyclohexane	110-82-7	NA	NA	NA	0.012		U (0.034)		U (9.1)		U (0.00058)		U (0.034)		0.077 J		U (0.00066)		U (0.00064)		0.0032 JH		U (0.04)		0.09 J		U (0.00092)		U (0.054)		0.00088 J		U (0.00048)		0.00057 J		U (0.00089)	
Ethylbenzene	100-41-4	< 0.43	0.43 – 3.7	> 3.7	0.00041 J	A	0.043 JH	A	U (2.3)	*	U (0.00015)	A	U (0.0087)	A	0.17	A	U (0.00017)	A	U (0.00016)	A	0.00049 J	A	U (0.01)	A	0.016 JH	A	U (0.00024)	A	U (0.014)	A	0.0003 J	A	U (0.00012)	A	0.0004 J	A	U (0.00023)	A
Isopropylbenzene	98-82-8	< 0.21	0.21 – 1.8	> 1.8	0.0021	A	0.067 JH	A	U (1.8)	*	U (0.00012)	A	U (0.0067)	A	0.14	A	U (0.00013)	A	U (0.00013)	A	0.0008 JH	A	0.0095 J	A	U (0.0096)	A	U (0.00018)	A	U (0.011)	A	0.0027	A	0.00016	A	0.0005 J	A	U (0.00018)	A
Methyl Acetate	79-20-9	NA	NA	NA	U (0.00086)		U (0.059)		U (16)		U (0.001)		0.063 J		0.13 J		U (0.0011)		U (0.0011)		U (0.00095)		U (0.07)		U (0.084)		U (0.0016) J		U (0.095)		U (0.00078)		U (0.00084)		U (0.00098)		U (0.0016)	
Methyl cyclohexane	108-87-2	NA	NA	NA	0.093		0.400 JH		U (10)		U (0.00064)		U (0.037)		U (0.06)		U (0.00073)		U (0.0007)		0.017		U (0.045)		U (0.053)		U (0.001)		U (0.06)		0.0045		U (0.00053)		0.00047		U (0.00099)	
Naphthalene	91-20-3	NA	NA	NA	NT		NT		U (11)		U (0.00069)		U (0.04)		0.66		U (0.00078)		U (0.00076)		0.0026 J		0.074 J		0.15 J		U (0.0011)		U (0.065)		NT		NT		NT		NT	
n-Butylbenzene	104-51-8	NA	NA	NA	NT		NT		U (2.8)		U (0.00018)		U (0.01)		0.33		U (0.0002)		U (0.0002)		0.0023		0.041		0.12		U (0.00028)		U (0.017)		NT		NT		NT		NT	
n-Propylbenzene	103-65-1	NA	NA	NA	NT		NT		U (2.8)		U (0.00018)		U (0.01)		0.24		U (0.0002)		U (0.0002)		0.00088 J		0.018 J		U (0.015)		U (0.00029)		U (0.017)		NT		NT		NT		NT	
o-Xylene	95-47-6	< 0.82	0.82 – 7.2	> 7.2	0.00078 J	A	0.083 JH	A	U (4.8)	*	U (0.00031)	A	U (0.018)	A	0.37	A	U (0.00035)	A	U (0.00034)	A	0.001	A	U (0.022)		U (0.026)	A	U (0.00049)	A	U (0.029)	A	0.00042 J	A	U (0.00026)	A	0.0012	A	U (0.00048)	A
p/m-Xylene	179601-23-1	< 0.48	0.48 – 4.2	> 4.2	0.013	A	0.120 JH	A	U (9.3)	*	U (0.0006)	A	U (0.034)	A	0.58	B	U (0.00067)	A	U (0.00066)	A	0.0012 J	A	U (0.042)	A	U (0.05)	A	U (0.00095)	A	U (0.056)	A	U (0.00046)	A	U (0.0005)	A	0.00088	A	U (0.00092)	A
p-Isopropyltoluene	99-87-6	NA	NA	NA	NT		NT		U (1.8)		U (0.00012)		U (0.0067)		0.69		U (0.00013)		U (0.00013)		0.0026		0.043		0.031 J		U (0.00018)		U (0.011)		NT		NT		NT		NT	
sec-Butylbenzene	135-98-8	NA	NA	NA	NT		NT		U (2.4)		U (0.00016)		U (0.009)		0.35		U (0.00018)		U (0.00017)		0.0027		0.040 J		0.055 J		U (0.00025)		U (0.014)		NT		NT		NT		NT	
tert-Butylbenzene	98-06-6	NA	NA	NA	NT		NT		U (2)		U (0.00012)		U (0.0073)		0.082 J		U (0.00014)		U (0.00014)		0.00046		U (0.0088)		U (0.01)		U (0.0002)		U (0.012)		NT		NT		NT		NT	
Tetrachloroethene	127-18-4	< 16	16 – 57	> 57	U (0.00018)	A	U (0.012)	A	U (3.3)	A	U (0.00021)	A	U (0.012)	A	U (0.019)	A	U (0.00024)	A	U (0.00023)	A	U (0.0002)	A	U (0.014)	A	0.029 JH	A	U (0.00033)	A	U (0.02)	A	U (0.00016)	A	U (0.00017)	A	U (0.0002)	A	U (0.00032)	A
Toluene	108-88-3	< 0.93	0.93 – 4.5	> 4.5	0.0022	A	0.100 JH	A	U (9)	*	U (0.00058)	A	U (0.034)	A	0.56	A	U (0.00065)	A	U (0.00064)	A	0.0023 JH	A	U (0.04)	A	U (0.048)	A	U (0.00092)	A	U (0.054)	A	0.0016	A	U (0.00048)	A	0.0019	A	U (0.00089)	A
trans-1,2-Dichloroethene	156-60-5	< 1.2	1.2 – 11	> 11	U (0.00012)	A	U (0.0085)	A	U (2.3)	*	U (0.00014)	A	U (0.0085)	A	U (0.014)	A	U (0.00016)	A	0.000410 J	A	0.0013 J	A	U (0.01)	A	U (0.012)	A	U (0.00023) J	A	U (0.014)	A	0.00037 J	A	U (0.00012)	A	0.00049	A	U (0.00022)	A
Trichloroethene	79-01-6	< 1.8	1.8 – 8.6	> 8.6	U (0.00012)	A	3.500	B	12,000 D	C	0.0072	A	0.630	A	1.9	B	0.014	A	0.0034	A	0.044 JH	A	0.84	A	9.2 JH	C	0.0031	A	U (0.014)	A	0.009	A	0.00012	A	0.240	A	0.0038	A
Vinyl chloride	75-01-4	NA	NA	NA	0.0032 J		0.060 J		U (5.6)		U (0.00036)		U (0.021)		4.00		0.0019		U (0.00039)		0.96 E		0.95		0.35		0.0011 J		U (0.033)		0.0016		0.0006		0.042		0.00069 J	
Total VOCs	NA	NA	NA	NA	0.181		5.673		12120.000		0.018		0.756		16.053		0.045		0.044		1.434		4.482		11.045		0.010		U		0.075		0.019		0.417		0.024	
Total Chlorinated VOCs	NA	NA	NA	NA	0.003		4.860		12,120.000		0.008		0.693		7.363		0.024		0.006		1.349		4.090		10.429		0.010		U		0.017		0.002		0.362		0.007	
Total TICs	NA	NA	NA	NA	0.0372 J		21.700 J		U		U		0.155 J		28.900 J		0.0427 J		0.0186 J		0.473 J		6.620 J		33.300 J		U J		U		NT		NT		NT		NT	
Total VOCs and TICs	NA	NA	NA	NA	0.218		32.233		24240.000		0.025		1.604		52.316		0.111		0.062		1.907		11.102		44.345		0.010		U		NA		NA		NA		NA	

NOTES:

[1] = Screening and Assessment of Contaminated Sediment (NYSDEC Division of Fish, Wildlife and Marine Resources Bureau of Habitat dated June 24, 2014) Table 5. Freshwater Sediment Guidance Values. Class **A** sediments are considered to be of low risk to aquatic life. Class **B** sediments are slightly to moderately contaminated and additional testing is required to evaluate the potential risks to aquatic life. Class **C** sediments are considered to be highly contaminated and likely to pose a risk to aquatic life.

[2] = Class A, Class B and Class C FSGV are not available for cis-1,2-Dichloroethene. However, Class A, Class B and Class C FSGV are available for trans-1,2-Dichloroethene (the isomer of cis-1,2-Dichloroethene) and are being applied to cis-1,2-Dichloroethene for comparision purposes.

TICs = Tentatively Identified Compounds

NA = Not Available

J = Estimated Value

JH = The reported value is estimated on the high side

E = Concentration exceeds the range of the instrument calibration

D= Concentration following sample dilution

* = Detection Limit exceeds Class A SGV

NT = Not Tested

Results of Data Validation for samples collected on June 30, 2020 and July 7, 2021 have been incorporated

Results of Data Validation for Samples collected September 30, 2021 has not been incorporated

TABLE 2

441 Chandler Street
Jamestown, New York
NYSDEC BCP Site #C907048
Summary of Detected VOC Results in mg/Kg or Parts Per Million (ppm)
Subsurface Soil Samples

Detected Constituent	CAS Number	ER Protection of Ecological Resources SCO (1)	GW Protection of Groundwater SCO (1)	L2136705-02 SED-A (3') 7/7/2021		L2153522-02 SED-A (5') 9/30/2021		L2153522-04 SED-A (7') 9/30/2021		L2153522-14 SED-B (4') 9/30/2021		L2153522-03 SED-B (6') 9/30/2021		L2153522-05 SED-B (7') 9/30/2021 (Low Level Sample)		L2153522-05 SED-B (7') 9/30/2021 (High Level Sample)		L2153522-08 SED-S (4') 9/30/2021		L2153522-11 SED-T (4') 9/30/2021		L2153522-09 SED-T (6') 9/30/2021		L2153522-07 SED-U (4') 9/30/2021	
1,1-Dichloroethene	75-35-4	NA	0.33	U (1.3)	*	U (0.019)		U (0.00019)		U (0.034)		0.028 J		0.00052 J		U (0.0012)		U (0.00037)		0.028 J		0.00028 J		U (0.00025)	
1,2,4-Trimethylbenzene	95-63-6	NA	3.6	2.800 J		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT	
1,2-Dichlorobenzene	95-50-1	NA	1.1	U (0.77)		U (0.012)		U (0.00012)		U (0.02)		U (0.0095)		U (0.0012)		U (0.0073)		0.0011 J		U (0.0072)		U (0.00012)		0.00047 J	
1,3,5-Trimethylbenzene	108-67-8	NA	8.4	1.000 J		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT	
2-Butanone (MEK)	78-93-3	100	0.12	U (12)	*	U (0.18)	*	U (0.0018)		U (0.31)		U (0.15)		U (0.0018)		U (0.11)		0.019		U (0.110)		U (0.00018)		0.0086 J	
Acetone	67-64-1	2.2	0.05	U (26)	*	U (0.39)	*	U (0.0039)		U (0.68)	*	U (0.32)	*	U (0.0039)		U (0.24)	*	0.066	GW	U (0.240)	*	U (0.0039)		0.034	
Benzene	71-43-2	70	0.06	U (0.88)	*	U (0.014)		U (0.00014)		0.024 J		U (0.011)		U (0.00013)		U (0.0084)		0.002		0.00087 J		U (0.00014)		0.00096	
cis-1,2-Dichloroethene	156-59-2	NA	0.25	110.0	GW	2.4	GW	0.081		26.0	GW	8.8	GW	0.360 E	GW	1.70	GW	0.00088 J		32.0	GW	0.160		0.0017	
Cyclohexane	110-82-7	NA	NA	U (2.9)		U (0.044)		U (0.00044)		U (0.077)		U (0.036)		U (0.00044)		U (0.028)		0.0082 J		U (0.027)		U (0.00044)		0.0019 J	
Ethylbenzene	100-41-4	NA	1	U (0.75)		U (0.011)		U (0.00012)		0.044 J		U (0.0093)		U (0.00011)		U (0.0071)		0.0017		0.00076 J		U (0.00012)		0.00052 J	
Isopropylbenzene	98-82-8	NA	2.3	U (0.58)		U (0.0089)		U (0.00009)		0.025 J		U (0.0072)		U (0.00009)		U (0.0055)		0.0048		U (0.0054)		U (0.00009)		0.0022	
Methyl Acetate	79-20-9	NA	NA	U (5.1)		U (0.077)		U (0.00078)		0.13 J		U (0.062)		U (0.00077)		U (0.048)		0.0036 J		0.0480 J		U (0.00078)		U (0.001)	
Methyl cyclohexane	108-87-2	NA	NA	U (3.2)		0.053 J		U (0.00049)		0.49 J		U (0.04)		U (0.00049)		U (0.030)		0.092		0.0490 J		U (0.00049)		0.0036 J	
o-Xylene	95-47-6	0.26	1.6	U (1.6)	*	U (0.024)		U (0.00024)		0.057 J		U (0.019)		U (0.00023)		U (0.015)		0.005		U (0.014)		U (0.00024)		0.0028	
p/m-Xylene	179601-23-1	0.26	1.6	U (3)	*	U (0.046)		U (0.00046)		0.180 J		U (0.037)		U (0.00045)		U (0.028)		0.0063		U (0.028)		U (0.00046)		0.00120 J	
Toluene	108-88-3	36	0.7	U (2.9)	*	U (0.044)		U (0.00044)		0.170		U (0.036)		U (0.00044)		U (0.027)		0.0076		0.042		U (0.00044)		0.0029	
trans-1,2-Dichloroethene	156-60-5	NA	0.19	U (0.73)	*	U (0.011)		0.00013 J		0.220	GW	0.037 J		0.00065 J		U (0.0069)		U (0.00021)		0.150		0.00061		U (0.00015)	
Trichloroethene	79-01-6	2	0.47	3,900 D	GW/ ER	5.7	GW/ ER	0.011		U (0.019)		33.0 D	GW/ ER	0.095		0.430		U (0.00021)		0.870	GW	0.044		0.00068	
Vinyl chloride	75-01-4	NA	0.02	2.200 J	GW	0.053 J	GW	0.026 J	GW	58.0 D	GW	0.520	GW	0.065	GW	0.072	GW	0.0015 J		14.0	GW	0.029	GW	0.0015	
Total VOCs	NA	NA	NA	4,016.000		8.206		0.118		85.340		42.385		0.521		2.202		0.220		47.189		0.234		0.063	
Total Chlorinated VOCs	NA	NA	NA	4,012.200		8.153		0.118		84.220		42.385		0.521		2.202		0.003		47.048		0.234		0.004	
Total TICs	NA	NA	NA	U		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT	
Total VOCs and TICs	NA	NA	NA	8,028.200		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	

VOC = Volatile Organic Compound

TICs = Tentatively Identified Compounds

NA = Not Available

NT = Not Tested

Results of Data Validation for samples collected on July 7, 2021 have been incorporated

Results of Data Validation for samples collected September 30, 2021 has not been incorporated

U = Not detected (Method Detection Limit shown in parenthesis)

J = Estimated Value

JH = The reported value is estimated on the high side

D = Data reported from a dilution

E = Exceeds calibration range of the instrument

(1) = Soil Cleanup Objective (SCO) referenced in 6 NYCRR Part 375 dated 12/14/2006 and CP-51 dated 10/21/10

Concentration in **BOLD** and **RED** print exceeds one or more of the following criteria.

ER = Concentration Exceeds Protection of Ecological Resources SCO

GW = Concentration Exceeds Protection of Groundwater SCO

* = Method Detection Limit exceeds one or more of the comparison criteria

APPENDIX A

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

Division of Materials Management, Bureau of Hazardous Waste and Radiation Management
625 Broadway, 9th Floor, Albany, New York 12233-7256
P: (518) 402-8651 | F: (518) 402-9024
www.dec.ny.gov

September 9, 2022

Sent via e-mail, no hard copy to follow

Mr. Charles A. Hampton
Day Environmental, Inc.
1563 Lyell Avenue
Rochester, New York 14606

RE: NYSDEC Site C907048
441 Chandler Street
Jamestown, New York 14701
REVISED - "Contained-in" Determination for Sediments

Dear Mr. Hampton:

We have completed our review of the 2021 Sediment Delineation Studies Summary Report, lab report (Alpha Analytical SDG L2234614), **Figure 8** - Proposed Removal Area (see enclosed Figure 8) and per our teleconference call on September 9, 2022, requesting a "contained-in" determination for sediments at the referenced project site.

Evaluation

Concentrations (Samples collected: July 7, 2021, September 30, 2021, and June 28, 2022) detected trichloroethene (TCE) above its current NYSDEC "contained in" soil action levels and Land Disposal Restriction concentrations. Also, TCE exhibited a hazardous waste characteristic by exceeding its TCLP regulatory level (Lab Sample ID: L2234614-01). Therefore, sediments within **SED-B**, **SED-C** and **SED-D** (shown on the aforementioned Figure 8), from 1 from to 5 ft below grade, must be managed as hazardous waste and can be transported to a permitted hazardous waste TSD facility.

Concentrations (Samples collected: July 7, 2021, and September 30, 2021) detected for individual volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), and metal were all less than their current NYSDEC "contained in" soil action levels and Land Disposal Restriction concentrations.

Concentrations (Samples collected: July 7, 2021, and September 30, 2021) for 2-butanone, 4-methyl-2-pentanone, benzene, acetone, toluene, cis-1,2-dichloroethene, vinyl chloride and trichloroethene (TCE) were all significantly less than their current "contained-in" soil action levels and Land Disposal Restriction concentrations at the

referenced project site. A “contained-in” determination will be granted after TCLP samples are collected from sediments within **SED-G**, **SED-F**, **SED-T**, **SED-S** and outside of **SED-B**, **SED-C** and **SED-D** hazardous waste area (shown on the aforementioned Figure 8) from 0 to 7 ft. Also, sediments within **SED-B**, **SED-C** and **SED-D** from 0 to 1 ft and from 6 ft to 7 ft will be granted a “contained-in” determination pending TCLP data.

As per Interim Remedial Measures Work Plan Soil/Sediment Removal, the sediments will be excavated and staged on a lined storage pad (i.e., under cover and on asphalt pavement) prior to disposal. The stockpiles will be sampled as per 3.6.1.7 Characterization, Transportation, Disposal of the IRM workplan at that time. Once we have reviewed the analytical data results for the stockpile, we will send you an approval "Contained-In" determination letter.

Should you have any questions regarding the content of this letter, please do not hesitate to contact me at (518) 402-9611 or email me at henry.wilkie@dec.ny.gov.

Sincerely,

Henry Wilkie
Assistant Environmental Engineer
RCRA Permitting Section

Enclosure: Figure 8 - Proposed Source Removal Area

ec: D. Skaros, DEC Region 9
M Taylor, DEC Region 9

Legend

- Proposed removal area
- Approximate extent of vinyl sheet pile wall
- Approximate extent of cofferdam
- Sample(s) Collected July 7 and/or September 30, 2021
- Sample(s) Collected September 30, 2021
- RI Sediment Sample
- 441 Chandler Street property boundary
- Approximate extent of seasonally exposed sediment

N

Chadakoin River

SED-I (1.5') 9/30/2021
Total Chlorinated VOC = 0.017

SED-S (2') 9/30/2021
Total Chlorinated VOC = 0.002

SED-S (4') 9/30/2021
Total Chlorinated VOC = 0.003

SED-E (0-0.5') 7/7/2021
Total Chlorinated VOC = 0.001

SED-E (1') 7/7/2021
Total Chlorinated VOC = 0.006

SED-F (0-0.5') 7/7/2021
Total Chlorinated VOC = 6.175

SED-F (1') 7/7/2021
Total Chlorinated VOC = 4.090

SED-B (1') 7/7/2021
Total Chlorinated VOC = 0.693

SED-B (4') 9/30/2021
Total Chlorinated VOC = 84.220

SED-B (6') 9/30/2021
Total Chlorinated VOC = 42.385

SED-B (7') 9/30/2021
Total Chlorinated VOC = 2.202

SED-C (1') 7/7/2021
Total Chlorinated VOC = 7.363

SED-T (2') 9/30/2021
Total Chlorinated VOC = 0.362

SED-T (4') 9/30/2021
Total Chlorinated VOC = 47.048

SED-T (6') 9/30/2021
Total Chlorinated VOC = 0.234

SED-3 (0-0.5') 6/30/2020
Total Chlorinated VOC = 0.020

SED-3 (1') 6/30/2020
Total Chlorinated VOC = 4.860

SED-G (0-0.5') 7/7/2021
Total Chlorinated VOC = 2.325

SED-G (1') 7/7/2021
Total Chlorinated VOC = 10.429

SED-A (2') 7/7/2021
Total Chlorinated VOC = 12,120.000

SED-A (3') 7/7/2021
Total Chlorinated VOC = 4,012.000

SED-A (5') 9/30/2021
Total Chlorinated VOC = 8.153

SED-A (7') 9/30/2021
Total Chlorinated VOC = 0.118

SED-U (2') 9/30/2021
Total Chlorinated VOC = 0.007

SED-U (4') 9/30/2021
Total Chlorinated VOC = 0.004

SED-D (1') 7/7/2021
Total Chlorinated VOC = 0.024

SED-H (0-0.5') 7/7/2021
Total Chlorinated VOC = 0.002

SED-H (1') 7/7/2021
Total Chlorinated VOC = 0.010

Weber-Knapp Facility Building

NOTES:

Results in mg/Kg or parts per million (ppm) and rounded to three decimal places

The locations of test locations were tape-measured in relation to existing site structures and should be considered accurate to the degree implied by the method used.

Property boundary based on information presented on a property survey map titled, "Map of a survey for Weber-Knapp Company, 415 and 441 Chandler Street, City of Jamestown, County of Chautauqua, State of New York", dated August 16, 2011, prepared by Rodgers Land Surveying, 583 Falconer St., Jamestown, NY.

Aerial imagery provided by the New York State GIS Clearinghouse, date 2016

0 5 10
Feet

DESIGNED BY	DATE
CAH	07-2022
DRAWN BY	DATE DRAWN
CAH	07-2022
SCALE	DATE ISSUED
AS NOTED	07-19-2022

DAY ENVIRONMENTAL, INC.
Environmental Consultants
Rochester, New York 14606

Project Title
441 CHANDLER STREET
JAMESTOWN, NEW YORK
NYSDEC SITE ID C907048
INTERIM REMEDIAL MEASURES WORK PLAN

Drawing Title
Proposed Source Removal Area

Project No.
5635S-19

FIGURE 8

Last Date Saved: 19 Jul 2022 Document Path: E:\GIS Mapping\Weber-Knapp\5635S-19\Weber\Remediation_WP\aSediment Removal\5635S-11 - SED_Study - Total CVOC_Wall_Removal Limits.mxd

ANALYTICAL REPORT

Lab Number:	L2234614
Client:	Day Environmental, Inc. 1563 Lyell Avenue Rochester, NY 14606
ATTN:	Ray Kampff
Phone:	(585) 454-0210
Project Name:	C907048
Project Number:	5635S-19
Report Date:	07/21/22

Certifications & Approvals: MA (M-MA086), NH NELAP (2064), CT (PH-0574), IL (200077), ME (MA00086), MD (348), NJ (MA935), NY (11148), NC (25700/666), PA (68-03671), RI (LAO00065), TX (T104704476), VT (VT-0935), VA (460195), USDA (Permit #P330-17-00196).

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

Project Name: C907048
Project Number: 5635S-19

Lab Number: L2234614
Report Date: 07/21/22

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L2234614-01	SED-A (2.0')	SOIL	441 CHANDLER ST., JAMESTOWN, NY	06/28/22 14:32	06/29/22
L2234614-02	EQUIPMENT RISSATE 6/28/22	WATER	441 CHANDLER ST., JAMESTOWN, NY	06/28/22 09:13	06/29/22

Project Name:	C907048	**Lab Number:**	L2234614
Project Number:	5635S-19	**Report Date:**	07/21/22

Case Narrative

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

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet NELAP requirements for all NELAP accredited parameters unless otherwise noted in the following narrative. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. Tentatively Identified Compounds (TICs), if requested, are reported for compounds identified to be present and are not part of the method/program Target Compound List, even if only a subset of the TCL are being reported. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively.

When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances, the specific failure is not narrated but noted in the associated QC Outlier Summary Report, located directly after the Case Narrative. QC information is also incorporated in the Data Usability Assessment table (Format 11) of our Data Merger tool, where it can be reviewed in conjunction with the sample result, associated regulatory criteria and any associated data usability implications.

Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

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

Please contact Project Management at 800-624-9220 with any questions.

Project Name:	C907048	**Lab Number:**	L2234614
Project Number:	5635S-19	**Report Date:**	07/21/22

Case Narrative (continued)

Report Submission

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

Sample Receipt

L2234614-01: The sample was received in an inappropriate container for the TCLP Extraction VOC - EPA 1311 analysis. An aliquot was taken from an unpreserved container and preserved appropriately.

PCBs

L2234614-01: The internal standard (IS) response for 1-bromo-2-nitrobenzene (779%) was above the acceptance criteria on column A/B; however, the sample was not re-analyzed due to obvious interferences. Since the IS response was above method criteria, all associated compounds reported from this column are considered to have a potentially low bias. The surrogate recoveries are outside the method acceptance criteria for 2,4,5,6-tetrachloro-m-xylene (9%) and decachlorobiphenyl (16%) due to interference with the Internal Standard.

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

Authorized Signature:  Caitlin Walukevich

Title: Technical Director/Representative Date: 07/21/22

ORGANICS

VOLATILES

Project Name: C907048 **Lab Number:** L2234614

Project Number: 5635S-19 **Report Date:** 07/21/22

SAMPLE RESULTS

Lab ID: L2234614-01 Date Collected: 06/28/22 14:32
Client ID: SED-A (2.0') Date Received: 06/29/22
Sample Location: 441 CHANDLER ST., JAMESTOWN, NY Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Analytical Method: 1,8260C
Analytical Date: 07/05/22 16:12
Analyst: MM
Percent Solids: 60%
TCLP/SPLP Ext. Date: 07/02/22 13:30

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
TCLP Volatiles by EPA 1311 - Westborough Lab						
Chloroform	ND		ug/l	7.5	2.2	10
Carbon tetrachloride	ND		ug/l	5.0	1.3	10
Tetrachloroethene	30		ug/l	5.0	1.8	10
Chlorobenzene	ND		ug/l	5.0	1.8	10
1,2-Dichloroethane	ND		ug/l	5.0	1.3	10
Benzene	1.6	J	ug/l	5.0	1.6	10
Vinyl chloride	97		ug/l	10	0.71	10
1,1-Dichloroethene	45		ug/l	5.0	1.7	10
Trichloroethene	31000	E	ug/l	5.0	1.8	10
1,4-Dichlorobenzene	ND		ug/l	25	1.9	10
2-Butanone	ND		ug/l	50	19.	10

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	81		70-130
Toluene-d8	107		70-130
4-Bromofluorobenzene	106		70-130
dibromofluoromethane	83		70-130

Project Name: C907048 **Lab Number:** L2234614

Project Number: 5635S-19 **Report Date:** 07/21/22

SAMPLE RESULTS

Lab ID: L2234614-01 D
Client ID: SED-A (2.0')
Sample Location: 441 CHANDLER ST., JAMESTOWN, NY

Date Collected: 06/28/22 14:32
Date Received: 06/29/22
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Analytical Method: 1,8260C
Analytical Date: 07/06/22 14:39
Analyst: MM
Percent Solids: 60%
TCLP/SPLP Ext. Date: 07/02/22 13:30

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
TCLP Volatiles by EPA 1311 - Westborough Lab						
Trichloroethene	120000		ug/l	1000	350	2000

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	88		70-130
Toluene-d8	107		70-130
4-Bromofluorobenzene	109		70-130
dibromofluoromethane	90		70-130

Project Name: C907048 **Lab Number:** L2234614

Project Number: 5635S-19 **Report Date:** 07/21/22

SAMPLE RESULTS

Lab ID: L2234614-02
Client ID: EQUIPMENT RISSATE 6/28/22
Sample Location: 441 CHANDLER ST., JAMESTOWN, NY

Date Collected: 06/28/22 09:13
Date Received: 06/29/22
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8260C
Analytical Date: 07/09/22 15:10
Analyst: MKS

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

Project Name: C907048 **Lab Number:** L2234614

Project Number: 5635S-19 **Report Date:** 07/21/22

SAMPLE RESULTS

Lab ID: L2234614-02 Date Collected: 06/28/22 09:13

Client ID: EQUIPMENT RISSATE 6/28/22 Date Received: 06/29/22

Sample Location: 441 CHANDLER ST., JAMESTOWN, NY Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl tert butyl ether	ND		ug/l	2.5	0.70	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	ND		ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	5.0	1.0	1
2-Butanone	ND		ug/l	5.0	1.9	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	ND		ug/l	5.0	1.0	1
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1
n-Butylbenzene	ND		ug/l	2.5	0.70	1
sec-Butylbenzene	ND		ug/l	2.5	0.70	1
tert-Butylbenzene	ND		ug/l	2.5	0.70	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Isopropylbenzene	ND		ug/l	2.5	0.70	1
p-Isopropyltoluene	ND		ug/l	2.5	0.70	1
Naphthalene	ND		ug/l	2.5	0.70	1
n-Propylbenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,3,5-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trimethylbenzene	ND		ug/l	2.5	0.70	1
Methyl Acetate	ND		ug/l	2.0	0.23	1
Cyclohexane	ND		ug/l	10	0.27	1
Freon-113	ND		ug/l	2.5	0.70	1
Methyl cyclohexane	ND		ug/l	10	0.40	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	107		70-130
Toluene-d8	97		70-130
4-Bromofluorobenzene	99		70-130
Dibromofluoromethane	108		70-130

Project Name: C907048 **Lab Number:** L2234614

Project Number: 5635S-19 **Report Date:** 07/21/22

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 07/05/22 11:17
Analyst: MM
TCLP/SPLP Extraction Date: 07/02/22 13:30

Extraction Date: 07/02/22 13:30

Parameter	Result	Qualifier	Units	RL	MDL
TCLP Volatiles by EPA 1311 - Westborough Lab for sample(s): 01 Batch: WG1659233-5					
Chloroform	ND		ug/l	7.5	2.2
Carbon tetrachloride	ND		ug/l	5.0	1.3
Tetrachloroethene	ND		ug/l	5.0	1.8
Chlorobenzene	ND		ug/l	5.0	1.8
1,2-Dichloroethane	ND		ug/l	5.0	1.3
Benzene	ND		ug/l	5.0	1.6
Vinyl chloride	ND		ug/l	10	0.71
1,1-Dichloroethene	ND		ug/l	5.0	1.7
Trichloroethene	ND		ug/l	5.0	1.8
1,4-Dichlorobenzene	ND		ug/l	25	1.9
2-Butanone	ND		ug/l	50	19.

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	89		70-130
Toluene-d8	109		70-130
4-Bromofluorobenzene	108		70-130
dibromofluoromethane	91		70-130

Project Name: C907048 **Lab Number:** L2234614

Project Number: 5635S-19 **Report Date:** 07/21/22

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 07/06/22 13:58
Analyst: MM
TCLP/SPLP Extraction Date: 07/02/22 13:30

Extraction Date: 07/02/22 13:30

Parameter	Result	Qualifier	Units	RL	MDL
TCLP Volatiles by EPA 1311 - Westborough Lab for sample(s): 01 Batch: WG1659761-5					
Chloroform	ND		ug/l	7.5	2.2
Carbon tetrachloride	ND		ug/l	5.0	1.3
Tetrachloroethene	ND		ug/l	5.0	1.8
Chlorobenzene	ND		ug/l	5.0	1.8
1,2-Dichloroethane	ND		ug/l	5.0	1.3
Benzene	ND		ug/l	5.0	1.6
Vinyl chloride	ND		ug/l	10	0.71
1,1-Dichloroethene	ND		ug/l	5.0	1.7
Trichloroethene	ND		ug/l	5.0	1.8
1,4-Dichlorobenzene	ND		ug/l	25	1.9
2-Butanone	ND		ug/l	50	19.

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	88		70-130
Toluene-d8	106		70-130
4-Bromofluorobenzene	107		70-130
dibromofluoromethane	94		70-130

Project Name: C907048 **Lab Number:** L2234614

Project Number: 5635S-19 **Report Date:** 07/21/22

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 07/09/22 09:24
Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 02 Batch: WG1661362-5					
Methylene chloride	ND		ug/l	2.5	0.70
1,1-Dichloroethane	ND		ug/l	2.5	0.70
Chloroform	ND		ug/l	2.5	0.70
Carbon tetrachloride	ND		ug/l	0.50	0.13
1,2-Dichloropropane	ND		ug/l	1.0	0.14
Dibromochloromethane	ND		ug/l	0.50	0.15
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50
Tetrachloroethene	ND		ug/l	0.50	0.18
Chlorobenzene	ND		ug/l	2.5	0.70
Trichlorofluoromethane	ND		ug/l	2.5	0.70
1,2-Dichloroethane	ND		ug/l	0.50	0.13
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70
Bromodichloromethane	ND		ug/l	0.50	0.19
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14
Bromoform	ND		ug/l	2.0	0.65
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17
Benzene	ND		ug/l	0.50	0.16
Toluene	ND		ug/l	2.5	0.70
Ethylbenzene	ND		ug/l	2.5	0.70
Chloromethane	ND		ug/l	2.5	0.70
Bromomethane	ND		ug/l	2.5	0.70
Vinyl chloride	ND		ug/l	1.0	0.07
Chloroethane	ND		ug/l	2.5	0.70
1,1-Dichloroethene	ND		ug/l	0.50	0.17
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70
Trichloroethene	ND		ug/l	0.50	0.18
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70

Project Name: C907048 **Lab Number:** L2234614

Project Number: 5635S-19 **Report Date:** 07/21/22

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 07/09/22 09:24
Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 02 Batch: WG1661362-5					
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70
Methyl tert butyl ether	ND		ug/l	2.5	0.70
p/m-Xylene	ND		ug/l	2.5	0.70
o-Xylene	ND		ug/l	2.5	0.70
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70
Styrene	ND		ug/l	2.5	0.70
Dichlorodifluoromethane	ND		ug/l	5.0	1.0
Acetone	ND		ug/l	5.0	1.5
Carbon disulfide	ND		ug/l	5.0	1.0
2-Butanone	ND		ug/l	5.0	1.9
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0
2-Hexanone	ND		ug/l	5.0	1.0
1,2-Dibromoethane	ND		ug/l	2.0	0.65
n-Butylbenzene	ND		ug/l	2.5	0.70
sec-Butylbenzene	ND		ug/l	2.5	0.70
tert-Butylbenzene	ND		ug/l	2.5	0.70
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70
Isopropylbenzene	ND		ug/l	2.5	0.70
p-Isopropyltoluene	ND		ug/l	2.5	0.70
Naphthalene	ND		ug/l	2.5	0.70
n-Propylbenzene	ND		ug/l	2.5	0.70
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70
1,3,5-Trimethylbenzene	ND		ug/l	2.5	0.70
1,2,4-Trimethylbenzene	ND		ug/l	2.5	0.70
Methyl Acetate	ND		ug/l	2.0	0.23
Cyclohexane	ND		ug/l	10	0.27
Freon-113	ND		ug/l	2.5	0.70
Methyl cyclohexane	ND		ug/l	10	0.40

Project Name: C907048 **Lab Number:** L2234614

Project Number: 5635S-19 **Report Date:** 07/21/22

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 07/09/22 09:24
Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 02 Batch: WG1661362-5					

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	101		70-130
Toluene-d8	97		70-130
4-Bromofluorobenzene	101		70-130
Dibromofluoromethane	103		70-130

Lab Control Sample Analysis
Batch Quality Control

Project Name: C907048
Project Number: 5635S-19

Lab Number: L2234614
Report Date: 07/21/22

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
TCLP Volatiles by EPA 1311 - Westborough Lab Associated sample(s): 01 Batch: WG1659233-3 WG1659233-4								
Chloroform	87		90		70-130	3		20
Carbon tetrachloride	70		72		63-132	3		20
Tetrachloroethene	90		93		70-130	3		20
Chlorobenzene	95		98		75-130	3		25
1,2-Dichloroethane	85		86		70-130	1		20
Benzene	98		100		70-130	2		25
Vinyl chloride	99		100		55-140	1		20
1,1-Dichloroethene	95		97		61-145	2		25
Trichloroethene	88		88		70-130	0		25
1,4-Dichlorobenzene	95		96		70-130	1		20
2-Butanone	82		77		63-138	6		20

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,2-Dichloroethane-d4	84		82		70-130
Toluene-d8	108		107		70-130
4-Bromofluorobenzene	108		106		70-130
dibromofluoromethane	87		86		70-130

Lab Control Sample Analysis
Batch Quality Control

Project Name: C907048
Project Number: 5635S-19

Lab Number: L2234614
Report Date: 07/21/22

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
TCLP Volatiles by EPA 1311 - Westborough Lab Associated sample(s): 01 Batch: WG1659761-3 WG1659761-4								
Chloroform	88		86		70-130	2		20
Carbon tetrachloride	72		70		63-132	3		20
Tetrachloroethene	93		95		70-130	2		20
Chlorobenzene	94		97		75-130	3		25
1,2-Dichloroethane	82		83		70-130	1		20
Benzene	100		100		70-130	0		25
Vinyl chloride	94		100		55-140	6		20
1,1-Dichloroethene	95		99		61-145	4		25
Trichloroethene	92		91		70-130	1		25
1,4-Dichlorobenzene	94		94		70-130	0		20
2-Butanone	77		78		63-138	1		20

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,2-Dichloroethane-d4	85		84		70-130
Toluene-d8	106		108		70-130
4-Bromofluorobenzene	105		105		70-130
dibromofluoromethane	87		87		70-130

Lab Control Sample Analysis

Batch Quality Control

Project Name: C907048

Project Number: 5635S-19

Lab Number: L2234614

Report Date: 07/21/22

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 02 Batch: WG1661362-3 WG1661362-4								
Methylene chloride	98		97		70-130	1		20
1,1-Dichloroethane	100		110		70-130	10		20
Chloroform	100		110		70-130	10		20
Carbon tetrachloride	110		120		63-132	9		20
1,2-Dichloropropane	98		100		70-130	2		20
Dibromochloromethane	100		100		63-130	0		20
1,1,2-Trichloroethane	100		97		70-130	3		20
Tetrachloroethene	100		100		70-130	0		20
Chlorobenzene	100		110		75-130	10		20
Trichlorofluoromethane	110		110		62-150	0		20
1,2-Dichloroethane	98		100		70-130	2		20
1,1,1-Trichloroethane	110		110		67-130	0		20
Bromodichloromethane	99		110		67-130	11		20
trans-1,3-Dichloropropene	100		100		70-130	0		20
cis-1,3-Dichloropropene	100		110		70-130	10		20
Bromoform	100		96		54-136	4		20
1,1,2,2-Tetrachloroethane	87		93		67-130	7		20
Benzene	100		100		70-130	0		20
Toluene	100		100		70-130	0		20
Ethylbenzene	100		100		70-130	0		20
Chloromethane	83		86		64-130	4		20
Bromomethane	63		75		39-139	17		20
Vinyl chloride	110		110		55-140	0		20

Lab Control Sample Analysis
Batch Quality Control

Project Name: C907048
Project Number: 5635S-19

Lab Number: L2234614
Report Date: 07/21/22

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 02 Batch: WG1661362-3 WG1661362-4								
Chloroethane	120		130		55-138	8		20
1,1-Dichloroethene	110		110		61-145	0		20
trans-1,2-Dichloroethene	97		100		70-130	3		20
Trichloroethene	100		110		70-130	10		20
1,2-Dichlorobenzene	110		83		70-130	**28**	Q	20
1,3-Dichlorobenzene	110		110		70-130	0		20
1,4-Dichlorobenzene	110		110		70-130	0		20
Methyl tert butyl ether	93		98		63-130	5		20
p/m-Xylene	110		110		70-130	0		20
o-Xylene	110		115		70-130	4		20
cis-1,2-Dichloroethene	97		100		70-130	3		20
Styrene	110		115		70-130	4		20
Dichlorodifluoromethane	120		120		36-147	0		20
Acetone	82		83		58-148	1		20
Carbon disulfide	110		110		51-130	0		20
2-Butanone	70		72		63-138	3		20
4-Methyl-2-pentanone	71		86		59-130	19		20
2-Hexanone	67		78		57-130	15		20
1,2-Dibromoethane	92		95		70-130	3		20
n-Butylbenzene	100		80		53-136	**22**	Q	20
sec-Butylbenzene	100		100		70-130	0		20
tert-Butylbenzene	110		110		70-130	0		20
1,2-Dibromo-3-chloropropane	77		80		41-144	4		20

Lab Control Sample Analysis
Batch Quality Control

Project Name: C907048
Project Number: 5635S-19

Lab Number: L2234614
Report Date: 07/21/22

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 02 Batch: WG1661362-3 WG1661362-4								
Isopropylbenzene	110		110		70-130	0		20
p-Isopropyltoluene	110		100		70-130	10		20
Naphthalene	78		79		70-130	1		20
n-Propylbenzene	110		110		69-130	0		20
1,2,4-Trichlorobenzene	94		95		70-130	1		20
1,3,5-Trimethylbenzene	110		110		64-130	0		20
1,2,4-Trimethylbenzene	110		110		70-130	0		20
Methyl Acetate	76		81		70-130	6		20
Cyclohexane	100		110		70-130	10		20
Freon-113	110		120		70-130	9		20
Methyl cyclohexane	99		110		70-130	11		20

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,2-Dichloroethane-d4	93		99		70-130
Toluene-d8	100		101		70-130
4-Bromofluorobenzene	102		98		70-130
Dibromofluoromethane	96		102		70-130

SEMIVOLATILES

Project Name: C907048 **Lab Number:** L2234614

Project Number: 5635S-19 **Report Date:** 07/21/22

SAMPLE RESULTS

Lab ID: L2234614-01
Client ID: SED-A (2.0')
Sample Location: 441 CHANDLER ST., JAMESTOWN, NY

Date Collected: 06/28/22 14:32
Date Received: 06/29/22
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Analytical Method: 1,8270D
Analytical Date: 07/14/22 20:26
Analyst: SLR
Percent Solids: 60%
TCLP/SPLP Ext. Date: 07/10/22 17:50

Extraction Method: EPA 3510C
Extraction Date: 07/13/22 22:01

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
TCLP Semivolatiles by EPA 1311 - Westborough Lab						
Hexachlorobenzene	ND		ug/l	10	3.4	1
2,4-Dinitrotoluene	ND		ug/l	25	1.9	1
Hexachlorobutadiene	ND		ug/l	10	3.0	1
Hexachloroethane	ND		ug/l	10	2.2	1
Nitrobenzene	ND		ug/l	10	3.3	1
2,4,6-Trichlorophenol	ND		ug/l	25	2.5	1
Pentachlorophenol	ND		ug/l	50	9.8	1
2-Methylphenol	ND		ug/l	25	5.5	1
3-Methylphenol/4-Methylphenol	ND		ug/l	25	2.8	1
2,4,5-Trichlorophenol	ND		ug/l	25	1.9	1
Pyridine	ND		ug/l	18	4.5	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	73		21-120
Phenol-d6	64		10-120
Nitrobenzene-d5	73		23-120
2-Fluorobiphenyl	72		15-120
2,4,6-Tribromophenol	106		10-120
4-Terphenyl-d14	84		33-120

Project Name: C907048 **Lab Number:** L2234614

Project Number: 5635S-19 **Report Date:** 07/21/22

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8270D
Analytical Date: 07/14/22 16:41
Analyst: SLR
TCLP/SPLP Extraction Date: 07/10/22 17:50

Extraction Method: EPA 3510C
Extraction Date: 07/13/22 22:01

Parameter	Result	Qualifier	Units	RL	MDL
TCLP Semivolatiles by EPA 1311 - Westborough Lab for sample(s): 01 Batch: WG1662569-1					
Hexachlorobenzene	ND		ug/l	10	3.4
2,4-Dinitrotoluene	ND		ug/l	25	1.9
Hexachlorobutadiene	ND		ug/l	10	3.0
Hexachloroethane	ND		ug/l	10	2.2
Nitrobenzene	ND		ug/l	10	3.3
2,4,6-Trichlorophenol	ND		ug/l	25	2.5
Pentachlorophenol	ND		ug/l	50	9.8
2-Methylphenol	ND		ug/l	25	5.5
3-Methylphenol/4-Methylphenol	ND		ug/l	25	2.8
2,4,5-Trichlorophenol	ND		ug/l	25	1.9
Pyridine	ND		ug/l	18	4.5

Surrogate	%Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	60		21-120
Phenol-d6	49		10-120
Nitrobenzene-d5	59		23-120
2-Fluorobiphenyl	57		15-120
2,4,6-Tribromophenol	82		10-120
4-Terphenyl-d14	70		33-120

Lab Control Sample Analysis
Batch Quality Control

Project Name: C907048
Project Number: 5635S-19

Lab Number: L2234614
Report Date: 07/21/22

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
TCLP Semivolatiles by EPA 1311 - Westborough Lab Associated sample(s): 01 Batch: WG1662569-2 WG1662569-3								
Hexachlorobenzene	64		70		40-140	9		30
2,4-Dinitrotoluene	67		74		40-132	10		30
Hexachlorobutadiene	46		53		28-111	14		30
Hexachloroethane	49		56		21-105	13		30
Nitrobenzene	51		59		40-140	15		30
2,4,6-Trichlorophenol	62		68		30-130	9		30
Pentachlorophenol	63		68		9-103	8		30
2-Methylphenol	56		61		30-130	9		30
3-Methylphenol/4-Methylphenol	63		69		30-130	9		30
2,4,5-Trichlorophenol	62		69		30-130	11		30
Pyridine	18		28		10-66	**43**	Q	30

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
2-Fluorophenol	57		64		21-120
Phenol-d6	50		56		10-120
Nitrobenzene-d5	54		63		23-120
2-Fluorobiphenyl	53		60		15-120
2,4,6-Tribromophenol	79		86		10-120
4-Terphenyl-d14	61		66		33-120

PCBS

Project Name: C907048 **Lab Number:** L2234614

Project Number: 5635S-19 **Report Date:** 07/21/22

SAMPLE RESULTS

Lab ID: L2234614-01
Client ID: SED-A (2.0')
Sample Location: 441 CHANDLER ST., JAMESTOWN, NY

Date Collected: 06/28/22 14:32
Date Received: 06/29/22
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Analytical Method: 1,8082A
Analytical Date: 07/17/22 18:04
Analyst: MEO
Percent Solids: 60%

Extraction Method: EPA 3546
Extraction Date: 07/16/22 23:05
Cleanup Method: EPA 3665A
Cleanup Date: 07/17/22
Cleanup Method: EPA 3660B
Cleanup Date: 07/17/22

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Polychlorinated Biphenyls by GC - Westborough Lab							
Aroclor 1016	ND		ug/kg	54.9	4.88	1	A
Aroclor 1221	ND		ug/kg	54.9	5.50	1	A
Aroclor 1232	ND		ug/kg	54.9	11.6	1	A
Aroclor 1242	ND		ug/kg	54.9	7.41	1	A
Aroclor 1248	ND		ug/kg	54.9	8.24	1	A
Aroclor 1254	ND		ug/kg	54.9	6.01	1	A
Aroclor 1260	ND		ug/kg	54.9	10.2	1	A
Aroclor 1262	ND		ug/kg	54.9	6.98	1	A
Aroclor 1268	ND		ug/kg	54.9	5.69	1	A
PCBs, Total	ND		ug/kg	54.9	4.88	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	65		30-150	A
Decachlorobiphenyl	62		30-150	A
2,4,5,6-Tetrachloro-m-xylene	**9**	Q	30-150	B
Decachlorobiphenyl	**16**	Q	30-150	B

Project Name: C907048 **Lab Number:** L2234614

Project Number: 5635S-19 **Report Date:** 07/21/22

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8082A
Analytical Date: 07/17/22 14:53
Analyst: JM

Extraction Method: EPA 3546
Extraction Date: 07/16/22 08:51
Cleanup Method: EPA 3665A
Cleanup Date: 07/16/22
Cleanup Method: EPA 3660B
Cleanup Date: 07/16/22

Parameter	Result	Qualifier	Units	RL	MDL	Column
Polychlorinated Biphenyls by GC - Westborough Lab for sample(s): 01 Batch: WG1663658-1						
Aroclor 1016	ND		ug/kg	32.6	2.90	A
Aroclor 1221	ND		ug/kg	32.6	3.27	A
Aroclor 1232	ND		ug/kg	32.6	6.92	A
Aroclor 1242	ND		ug/kg	32.6	4.40	A
Aroclor 1248	ND		ug/kg	32.6	4.90	A
Aroclor 1254	ND		ug/kg	32.6	3.57	A
Aroclor 1260	ND		ug/kg	32.6	6.03	A
Aroclor 1262	ND		ug/kg	32.6	4.14	A
Aroclor 1268	ND		ug/kg	32.6	3.38	A
PCBs, Total	ND		ug/kg	32.6	2.90	A

Surrogate	%Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	60		30-150	A
Decachlorobiphenyl	60		30-150	A
2,4,5,6-Tetrachloro-m-xylene	60		30-150	B
Decachlorobiphenyl	56		30-150	B

Lab Control Sample Analysis
Batch Quality Control

Project Name: C907048
Project Number: 5635S-19

Lab Number: L2234614
Report Date: 07/21/22

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits	Column
Polychlorinated Biphenyls by GC - Westborough Lab Associated sample(s): 01 Batch: WG1663658-2 WG1663658-3									
Aroclor 1016	56		56		40-140	0		50	A
Aroclor 1260	53		55		40-140	4		50	A

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	53		53		30-150	A
Decachlorobiphenyl	51		53		30-150	A
2,4,5,6-Tetrachloro-m-xylene	51		52		30-150	B
Decachlorobiphenyl	47		50		30-150	B

PESTICIDES

Project Name: C907048 **Lab Number:** L2234614

Project Number: 5635S-19 **Report Date:** 07/21/22

SAMPLE RESULTS

Lab ID: L2234614-01
Client ID: SED-A (2.0')
Sample Location: 441 CHANDLER ST., JAMESTOWN, NY

Date Collected: 06/28/22 14:32
Date Received: 06/29/22
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Analytical Method: 1,8081B
Analytical Date: 07/15/22 16:42
Analyst: MMG
Percent Solids: 60%
TCLP/SPLP Ext. Date: 07/10/22 17:50

Extraction Method: EPA 3510C
Extraction Date: 07/13/22 21:05
Cleanup Method: EPA 3620B
Cleanup Date: 07/14/22
Cleanup Method: EPA 3660B
Cleanup Date: 07/14/22

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
TCLP Pesticides by EPA 1311 - Westborough Lab							
Lindane	ND		ug/l	0.100	0.022	1	A
Heptachlor	ND		ug/l	0.100	0.016	1	A
Heptachlor epoxide	ND		ug/l	0.100	0.021	1	A
Endrin	ND		ug/l	0.200	0.021	1	A
Methoxychlor	ND		ug/l	1.00	0.034	1	A
Toxaphene	ND		ug/l	1.00	0.314	1	A
Chlordane	ND		ug/l	1.00	0.232	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	82		30-150	A
Decachlorobiphenyl	93		30-150	A
2,4,5,6-Tetrachloro-m-xylene	83		30-150	B
Decachlorobiphenyl	111		30-150	B

Project Name: C907048 **Lab Number:** L2234614

Project Number: 5635S-19 **Report Date:** 07/21/22

SAMPLE RESULTS

Lab ID: L2234614-01
Client ID: SED-A (2.0')
Sample Location: 441 CHANDLER ST., JAMESTOWN, NY

Date Collected: 06/28/22 14:32
Date Received: 06/29/22
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Analytical Method: 1,8151A
Analytical Date: 07/15/22 11:29
Analyst: AKM
Percent Solids: 60%
TCLP/SPLP Ext. Date: 07/10/22 17:50
Methylation Date: 07/14/22 06:16

Extraction Method: EPA 8151A
Extraction Date: 07/12/22 01:18

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
TCLP Herbicides by EPA 1311 - Westborough Lab							
2,4-D	ND		mg/l	0.025	0.001	1	A
2,4,5-TP (Silvex)	ND		mg/l	0.005	0.001	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
DCAA	65		30-150	A
DCAA	54		30-150	B

Project Name: C907048 **Lab Number:** L2234614

Project Number: 5635S-19 **Report Date:** 07/21/22

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8151A
Analytical Date: 07/15/22 09:05
Analyst: AKM
TCLP/SPLP Extraction Date: 07/10/22 17:50
Methylation Date: 07/14/22 06:16

Extraction Method: EPA 8151A
Extraction Date: 07/12/22 01:18

Parameter	Result	Qualifier	Units	RL	MDL	Column
TCLP Herbicides by EPA 1311 - Westborough Lab for sample(s): 01 Batch: WG1661546-1						
2,4-D	ND		mg/l	0.025	0.001	A
2,4,5-TP (Silvex)	ND		mg/l	0.005	0.001	A

Surrogate	%Recovery	Qualifier	Acceptance Criteria	Column
DCAA	66		30-150	A
DCAA	58		30-150	B

Project Name: C907048 **Lab Number:** L2234614

Project Number: 5635S-19 **Report Date:** 07/21/22

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8081B
Analytical Date: 07/15/22 15:48
Analyst: MMG
TCLP/SPLP Extraction Date: 07/10/22 17:50

Extraction Method: EPA 3510C
Extraction Date: 07/13/22 21:05
Cleanup Method: EPA 3620B
Cleanup Date: 07/14/22
Cleanup Method: EPA 3660B
Cleanup Date: 07/14/22

Parameter	Result	Qualifier	Units	RL	MDL	Column
TCLP Pesticides by EPA 1311 - Westborough Lab for sample(s): 01 Batch: WG1662552-1						
Lindane	ND		ug/l	0.100	0.022	A
Heptachlor	ND		ug/l	0.100	0.016	A
Heptachlor epoxide	ND		ug/l	0.100	0.021	A
Endrin	ND		ug/l	0.200	0.021	A
Methoxychlor	ND		ug/l	1.00	0.034	A
Toxaphene	ND		ug/l	1.00	0.314	A
Chlordane	ND		ug/l	1.00	0.232	A

Surrogate	%Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	78		30-150	A
Decachlorobiphenyl	97		30-150	A
2,4,5,6-Tetrachloro-m-xylene	78		30-150	B
Decachlorobiphenyl	131		30-150	B

Lab Control Sample Analysis

Batch Quality Control

Project Name: C907048
Project Number: 5635S-19

Lab Number: L2234614
Report Date: 07/21/22

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits	Column
TCLP Herbicides by EPA 1311 - Westborough Lab Associated sample(s): 01 Batch: WG1661546-2 WG1661546-3									
2,4-D	**171**	Q	**184**	Q	30-150	7		25	A
2,4,5-TP (Silvex)	59		71		30-150	18		25	A

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria	Column
DCAA	83		91		30-150	A
DCAA	63		72		30-150	B

Lab Control Sample Analysis
Batch Quality Control

Project Name: C907048
Project Number: 5635S-19

Lab Number: L2234614
Report Date: 07/21/22

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits	Column
TCLP Pesticides by EPA 1311 - Westborough Lab Associated sample(s): 01 Batch: WG1662552-2 WG1662552-3									
Lindane	101		102		30-150	1		20	A
Heptachlor	98		100		30-150	2		20	A
Heptachlor epoxide	94		94		30-150	1		20	A
Endrin	98		97		30-150	1		20	A
Methoxychlor	100		97		30-150	2		20	A

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	84		84		30-150	A
Decachlorobiphenyl	105		101		30-150	A
2,4,5,6-Tetrachloro-m-xylene	86		86		30-150	B
Decachlorobiphenyl	125		119		30-150	B

METALS

Project Name: C907048 **Lab Number:** L2234614

Project Number: 5635S-19 **Report Date:** 07/21/22

SAMPLE RESULTS

Lab ID: L2234614-01 Date Collected: 06/28/22 14:32

Client ID: SED-A (2.0') Date Received: 06/29/22

Sample Location: 441 CHANDLER ST., JAMESTOWN, NY Field Prep: Not Specified

Sample Depth: TCLP/SPLP Ext. Date: 07/10/22 17:50

Matrix: Soil

Percent Solids: 60%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
TCLP Metals by EPA 1311 - Mansfield Lab											
Arsenic, TCLP	ND		mg/l	1.00	0.019	1	07/15/22 06:53	07/21/22 00:58	EPA 3015	1,6010D	MC
Barium, TCLP	1.33		mg/l	0.500	0.021	1	07/15/22 06:53	07/21/22 00:58	EPA 3015	1,6010D	MC
Cadmium, TCLP	0.205		mg/l	0.100	0.010	1	07/15/22 06:53	07/21/22 00:58	EPA 3015	1,6010D	MC
Chromium, TCLP	0.021	J	mg/l	0.200	0.021	1	07/15/22 06:53	07/21/22 00:58	EPA 3015	1,6010D	MC
Lead, TCLP	3.43		mg/l	0.500	0.027	1	07/15/22 06:53	07/21/22 00:58	EPA 3015	1,6010D	MC
Mercury, TCLP	ND		mg/l	0.0010	0.0005	1	07/15/22 06:34	07/20/22 23:51	EPA 7470A	1,7470A	AW
Selenium, TCLP	ND		mg/l	0.500	0.035	1	07/15/22 06:53	07/21/22 00:58	EPA 3015	1,6010D	MC
Silver, TCLP	ND		mg/l	0.100	0.028	1	07/15/22 06:53	07/21/22 00:58	EPA 3015	1,6010D	MC

Project Name: C907048 **Lab Number:** L2234614

Project Number: 5635S-19 **Report Date:** 07/21/22

Method Blank Analysis
Batch Quality Control

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
TCLP Metals by EPA 1311 - Mansfield Lab for sample(s): 01 Batch: WG1663036-1										
Arsenic, TCLP	ND		mg/l	1.00	0.019	1	07/15/22 06:53	07/20/22 23:48	1,6010D	MC
Barium, TCLP	ND		mg/l	0.500	0.021	1	07/15/22 06:53	07/20/22 23:48	1,6010D	MC
Cadmium, TCLP	ND		mg/l	0.100	0.010	1	07/15/22 06:53	07/20/22 23:48	1,6010D	MC
Chromium, TCLP	ND		mg/l	0.200	0.021	1	07/15/22 06:53	07/20/22 23:48	1,6010D	MC
Lead, TCLP	ND		mg/l	0.500	0.027	1	07/15/22 06:53	07/20/22 23:48	1,6010D	MC
Selenium, TCLP	ND		mg/l	0.500	0.035	1	07/15/22 06:53	07/20/22 23:48	1,6010D	MC
Silver, TCLP	ND		mg/l	0.100	0.028	1	07/15/22 06:53	07/20/22 23:48	1,6010D	MC

Prep Information

Digestion Method: EPA 3015

TCLP/SPLP Extraction Date: 07/10/22 06:15

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
TCLP Metals by EPA 1311 - Mansfield Lab for sample(s): 01 Batch: WG1663038-1										
Mercury, TCLP	ND		mg/l	0.0010	0.0005	1	07/15/22 06:34	07/20/22 23:00	1,7470A	AW

Prep Information

Digestion Method: EPA 7470A

TCLP/SPLP Extraction Date: 07/10/22 06:15

Lab Control Sample Analysis

Batch Quality Control

Project Name: C907048

Project Number: 5635S-19

Lab Number: L2234614

Report Date: 07/21/22

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
TCLP Metals by EPA 1311 - Mansfield Lab Associated sample(s): 01 Batch: WG1663036-2								
Arsenic, TCLP	107		-		75-125	-		20
Barium, TCLP	92		-		75-125	-		20
Cadmium, TCLP	102		-		75-125	-		20
Chromium, TCLP	100		-		75-125	-		20
Lead, TCLP	93		-		75-125	-		20
Selenium, TCLP	102		-		75-125	-		20
Silver, TCLP	98		-		75-125	-		20
TCLP Metals by EPA 1311 - Mansfield Lab Associated sample(s): 01 Batch: WG1663038-2								
Mercury, TCLP	102		-		80-120	-		

Matrix Spike Analysis
Batch Quality Control

Project Name: C907048
Project Number: 5635S-19

Lab Number: L2234614
Report Date: 07/21/22

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
TCLP Metals by EPA 1311 - Mansfield Lab Associated sample(s): 01 QC Batch ID: WG1663036-3 QC Sample: L2234535-02 Client ID: MS Sample												
Arsenic, TCLP	ND	1.2	1.25	104		-	-		75-125	-		20
Barium, TCLP	0.666	20	19.4	94		-	-		75-125	-		20
Cadmium, TCLP	ND	0.53	0.528	100		-	-		75-125	-		20
Chromium, TCLP	ND	2	2.01	100		-	-		75-125	-		20
Lead, TCLP	ND	5.3	4.84	91		-	-		75-125	-		20
Selenium, TCLP	0.058J	1.2	1.23	102		-	-		75-125	-		20
Silver, TCLP	ND	0.5	0.499	100		-	-		75-125	-		20
TCLP Metals by EPA 1311 - Mansfield Lab Associated sample(s): 01 QC Batch ID: WG1663038-3 QC Sample: L2234535-02 Client ID: MS Sample												
Mercury, TCLP	ND	0.025	0.0235	94		-	-		80-120	-		20

Lab Duplicate Analysis
Batch Quality Control

Project Name: C907048
Project Number: 5635S-19

Lab Number: L2234614
Report Date: 07/21/22

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
TCLP Metals by EPA 1311 - Mansfield Lab Associated sample(s): 01 QC Batch ID: WG1663036-4 QC Sample: L2234535-02 Client ID: DUP Sample						
Arsenic, TCLP	ND	ND	mg/l	NC		20
Barium, TCLP	0.666	0.665	mg/l	0		20
Cadmium, TCLP	ND	ND	mg/l	NC		20
Chromium, TCLP	ND	ND	mg/l	NC		20
Lead, TCLP	ND	ND	mg/l	NC		20
Selenium, TCLP	0.058J	ND	mg/l	NC		20
Silver, TCLP	ND	ND	mg/l	NC		20
TCLP Metals by EPA 1311 - Mansfield Lab Associated sample(s): 01 QC Batch ID: WG1663038-4 QC Sample: L2234535-02 Client ID: DUP Sample						
Mercury, TCLP	ND	ND	mg/l	NC		20

INORGANICS
&
MISCELLANEOUS

Project Name:	C907048	**Lab Number:**	L2234614
Project Number:	5635S-19	**Report Date:**	07/21/22

SAMPLE RESULTS

Lab ID:	L2234614-01	Date Collected:	06/28/22 14:32
Client ID:	SED-A (2.0')	Date Received:	06/29/22
Sample Location:	441 CHANDLER ST., JAMESTOWN, NY	Field Prep:	Not Specified
Sample Depth:			
Matrix:	Soil		

Test Material Information

Source of Material:	Unknown
Description of Material:	Non-Metallic - Wet Soil
Particle Size:	Medium
Preliminary Burning Time (sec):	120

Parameter	Result	Date Analyzed	Analytical Method	Analyst
Ignitability of Solids - Westborough Lab				
Ignitability	NI	07/01/22 15:09	1,1030	PA

Project Name: C907048 **Lab Number:** L2234614

Project Number: 5635S-19 **Report Date:** 07/21/22

SAMPLE RESULTS

Lab ID: L2234614-01 Date Collected: 06/28/22 14:32

Client ID: SED-A (2.0') Date Received: 06/29/22

Sample Location: 441 CHANDLER ST., JAMESTOWN, NY Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	60.3		%	0.100	NA	1	-	07/01/22 10:02	121,2540G	RI
pH (H)	7.5		SU	-	NA	1	-	07/12/22 09:30	1,9045D	KS
Cyanide, Reactive	ND		mg/kg	10	10.	1	07/12/22 09:40	07/12/22 11:39	125,7.3	MJ
Sulfide, Reactive	ND		mg/kg	10	10.	1	07/12/22 09:40	07/12/22 11:06	125,7.3	MJ

Project Name: C907048 **Lab Number:** L2234614

Project Number: 5635S-19 **Report Date:** 07/21/22

Method Blank Analysis
Batch Quality Control

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab for sample(s): 01 Batch: WG1661696-1										
Sulfide, Reactive	ND		mg/kg	10	10.	1	07/12/22 09:40	07/12/22 11:03	125,7.3	MJ
General Chemistry - Westborough Lab for sample(s): 01 Batch: WG1661700-1										
Cyanide, Reactive	ND		mg/kg	10	10.	1	07/12/22 09:40	07/12/22 11:36	125,7.3	MJ

Lab Control Sample Analysis

Batch Quality Control

Project Name: C907048
Project Number: 5635S-19

Lab Number: L2234614
Report Date: 07/21/22

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01 Batch: WG1661644-1								
pH	100		-		99-101	-		
General Chemistry - Westborough Lab Associated sample(s): 01 Batch: WG1661696-2								
Sulfide, Reactive	98		-		60-125	-		40
General Chemistry - Westborough Lab Associated sample(s): 01 Batch: WG1661700-2								
Cyanide, Reactive	88		-		30-125	-		40

Lab Duplicate Analysis

Batch Quality Control

Project Name: C907048

Project Number: 5635S-19

Lab Number: L2234614

Report Date: 07/21/22

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG1657875-1 QC Sample: L2234997-01 Client ID: DUP Sample						
Solids, Total	92.5	92.7	%	0		20
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG1661644-2 QC Sample: L2235852-01 Client ID: DUP Sample						
pH	8.5	8.5	SU	0		5
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG1661696-3 QC Sample: L2235864-06 Client ID: DUP Sample						
Sulfide, Reactive	ND	ND	mg/kg	NC		40
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG1661700-3 QC Sample: L2235864-06 Client ID: DUP Sample						
Cyanide, Reactive	ND	ND	mg/kg	NC		40

Project Name: C907048
Project Number: 5635S-19

Lab Number: L2234614
Report Date: 07/21/22

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Cooler Information

Cooler	Custody Seal
A	Absent

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L2234614-01A	Glass 60mL/2oz unpreserved	A	NA		2.0	Y	Absent		TCLP-EXT-ZHE(14)
L2234614-01B	Glass 60mL/2oz unpreserved	A	NA		2.0	Y	Absent		IGNIT-1030(14),REACTS(14),TS(7),PH-9045(1),REACTCN(14),NYTCL-8082(365)
L2234614-01C	Amber 250ml unpreserved	A	NA		2.0	Y	Absent		IGNIT-1030(14),REACTS(14),TS(7),PH-9045(1),REACTCN(14),NYTCL-8082(365)
L2234614-01W	Amber 1000ml unpreserved Extracts	A	NA		2.0	Y	Absent		TCLP-8270(14),PEST-TCLP*(14),HERB-TCLP*(14)
L2234614-01X	Plastic 120ml HNO3 preserved Extracts	A	NA		2.0	Y	Absent		CD-CI(180),BA-CI(180),AS-CI(180),HG-C(28),PB-CI(180),SE-CI(180),CR-CI(180),AG-CI(180)
L2234614-01X9	Tumble Vessel	A	NA		2.0	Y	Absent		-
L2234614-01Y	Vial unpreserved Extracts	A	NA		2.0	Y	Absent		TCLP-VOA(14)
L2234614-01Z	Vial unpreserved Extracts	A	NA		2.0	Y	Absent		TCLP-VOA(14)
L2234614-02A	Vial HCl preserved	A	NA		2.0	Y	Absent		NYTCL-8260-R2(14)
L2234614-02B	Vial HCl preserved	A	NA		2.0	Y	Absent		NYTCL-8260-R2(14)
L2234614-02C	Vial HCl preserved	A	NA		2.0	Y	Absent		NYTCL-8260-R2(14)

*Values in parentheses indicate holding time in days

Project Name:	C907048	**Lab Number:**	L2234614
Project Number:	5635S-19	**Report Date:**	07/21/22

GLOSSARY

Acronyms

DL	- Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the limit of quantitation (LOQ). The DL includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
EDL	- Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).
EMPC	- Estimated Maximum Possible Concentration: The concentration that results from the signal present at the retention time of an analyte when the ions meet all of the identification criteria except the ion abundance ratio criteria. An EMPC is a worst-case estimate of the concentration.
EPA	- Environmental Protection Agency.
LCS	- Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LCSD	- Laboratory Control Sample Duplicate: Refer to LCS.
LFB	- Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LOD	- Limit of Detection: This value represents the level to which a target analyte can reliably be detected for a specific analyte in a specific matrix by a specific method. The LOD includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
LOQ	- Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.) Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
MDL	- Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
MS	- Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available. For Method 332.0, the spike recovery is calculated using the native concentration, including estimated values.
MSD	- Matrix Spike Sample Duplicate: Refer to MS.
NA	- Not Applicable.
NC	- Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.
NDPA/DPA	- N-Nitrosodiphenylamine/Diphenylamine.
NI	- Not Ignitable.
NP	- Non-Plastic: Term is utilized for the analysis of Atterberg Limits in soil.
NR	- No Results: Term is utilized when 'No Target Compounds Requested' is reported for the analysis of Volatile or Semivolatile Organic TIC only requests.
RL	- Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
RPD	- Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.
SRM	- Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.
STLP	- Semi-dynamic Tank Leaching Procedure per EPA Method 1315.
TEF	- Toxic Equivalency Factors: The values assigned to each dioxin and furan to evaluate their toxicity relative to 2,3,7,8-TCDD.
TEQ	- Toxic Equivalent: The measure of a sample's toxicity derived by multiplying each dioxin and furan by its corresponding TEF and then summing the resulting values.
TIC	- Tentatively Identified Compound: A compound that has been identified to be present and is not part of the target compound list (TCL) for the method and/or program. All TICs are qualitatively identified and reported as estimated concentrations.

Report Format: DU Report with 'J' Qualifiers

Project Name:	C907048	**Lab Number:**	L2234614
Project Number:	5635S-19	**Report Date:**	07/21/22

Footnotes

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

Terms

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

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

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

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

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

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

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

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

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

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

Data Qualifiers

A - Spectra identified as "Aldol Condensates" are byproducts of the extraction/concentration procedures when acetone is introduced in the process.

B - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).

C - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.

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

E - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.

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

G - The concentration may be biased high due to matrix interferences (i.e, co-elution) with non-target compound(s). The result should be considered estimated.

H - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.

I - The lower value for the two columns has been reported due to obvious interference.

J - Estimated value. The Target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit (MDL) or Estimated Detection Limit (EDL) for SPME-related analyses. This represents an estimated concentration for Tentatively

Report Format: DU Report with 'J' Qualifiers

Project Name:	C907048	**Lab Number:**	L2234614
Project Number:	5635S-19	**Report Date:**	07/21/22

Data Qualifiers

Identified Compounds (TICs).

M - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.

ND - Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.

NJ - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.

P - The RPD between the results for the two columns exceeds the method-specified criteria.

Q - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)

R - Analytical results are from sample re-analysis.

RE - Analytical results are from sample re-extraction.

S - Analytical results are from modified screening analysis.

V - The surrogate associated with this target analyte has a recovery outside the QC acceptance limits. (Applicable to MassDEP DW Compliance samples only.)

Z - The batch matrix spike and/or duplicate associated with this target analyte has a recovery/RPD outside the QC acceptance limits. (Applicable to MassDEP DW Compliance samples only.)

Project Name:	C907048	**Lab Number:**	L2234614
Project Number:	5635S-19	**Report Date:**	07/21/22

REFERENCES

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

121 Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WEF. Standard Methods Online.

125 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates IIIA, April 1998.

LIMITATION OF LIABILITIES

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

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

Certification Information

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

Westborough Facility
EPA 624/624.1: m/p-xylene, o-xylene, Naphthalene
EPA 625/625.1: alpha-Terpineol
EPA 8260C/8260D: NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene; SCM: Iodomethane (methyl iodide), 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.
EPA 8270D/8270E: NPW: Dimethylnaphthalene,1,4-Diphenylhydrazine, alpha-Terpineol; SCM: Dimethylnaphthalene,1,4-Diphenylhydrazine.
SM4500: NPW: Amenable Cyanide; SCM: Total Phosphorus, TKN, NO2, NO3.

Mansfield Facility
SM 2540D: TSS
EPA 8082A: NPW: PCB: 1, 5, 31, 87,101, 110, 141, 151, 153, 180, 183, 187.
EPA TO-15: Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.
Biological Tissue Matrix: EPA 3050B

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

Westborough Facility:

Drinking Water
EPA 300.0: Chloride, Nitrate-N, Fluoride, Sulfate; **EPA 353.2**: Nitrate-N, Nitrite-N; **SM4500NO3-F**: Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE, EPA 180.1, SM2130B, SM4500Cl-D, SM2320B, SM2540C, SM4500H-B, SM4500NO2-B**
EPA 332: Perchlorate; **EPA 524.2:** THMs and VOCs; **EPA 504.1:** EDB, DBCP.
Microbiology: **SM9215B; SM9223-P/A, SM9223B-Colilert-QT,SM9222D**.

Non-Potable Water
SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2320B, SM4500CL-E, SM4500F-BC, SM4500NH3-BH: Ammonia-N and Kjeldahl-N, **EPA 350.1**: Ammonia-N, **LACHAT 10-107-06-1-B**: Ammonia-N, **EPA 351.1, SM4500NO3-F, EPA 353.2**: Nitrate-N, **SM4500P-E, SM4500P-B, E, SM4500SO4-E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, EPA 420.1, SM4500-CN-CE, SM2540D, EPA 300: Chloride, Sulfate, Nitrate.**
EPA 624.1: Volatile Halocarbons & Aromatics,
EPA 608.3: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs
EPA 625.1: SVOC (Acid/Base/Neutral Extractables), **EPA 600/4-81-045**: PCB-Oil.
Microbiology: **SM9223B-Colilert-QT; Enterolert-QT, SM9221E, EPA 1600, EPA 1603, SM9222D.**

Mansfield Facility:

Drinking Water
EPA 200.7: Al, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Na, Ag, Ca, Zn. **EPA 200.8:** Al, Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, TL, Zn. **EPA 245.1** Hg.
EPA 522, EPA 537.1.

Non-Potable Water
EPA 200.7: Al, Sb, As, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Sr, TL, Ti, V, Zn.
EPA 200.8: Al, Sb, As, Be, Cd, Cr, Cu, Fe, Pb, Mn, Ni, K, Se, Ag, Na, TL, Zn.
EPA 245.1 Hg.
SM2340B

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

NEW YORK CHAIN OF CUSTODY

ALPHA ANALYTICAL

Westborough, MA 01581
8 Walkup Dr.
TEL: 508-898-9220
FAX: 508-898-9193

Mansfield, MA 02048
320 Forbes Blvd
TEL: 508-822-9300
FAX: 508-822-3288

Service Centers
Mahwah, NJ 07430: 35 Whitney Rd, Suite 5
Albany, NY 12205: 14 Walker Way
Tonawanda, NY 14150: 275 Cooper Ave, Suite 105

Page of

Date Rec'd in Lab: 6/30/22

ALPHA Job #: L2234614

Client Information

Client: Day Environmental, Inc
Address: 1563 Lyell Avenue
Rochester NY
Phone: 585-454-0210
Fax:
Email: r kampff@dayemail.net

Project Information

Project Name: C907048
Project Location: 441 Chandler St, Jamestown NY
Project #: 5635-19
(Use Project name as Project #)
Project Manager: Raymond Kampff
ALPHAQuote #: Weber-Knapp

Turn-Around Time

Standard: X
Rush (only if pre approved):
Due Date:
# of Days:

Deliverables

ASP-A: ☐ ASP-B: X
EQuIS (1 File): ☐ EQuIS (4 File): X
Other: ☐

Billing Information

Same as Client Info: ☐
PO #

Regulatory Requirement

NY TOGS: ☐ NY Part 375: ☐
AWQ Standards: ☐ NY CP-51: ☐
NY Restricted Use: ☐ Other: ☐
NY Unrestricted Use: ☐
NYC Sewer Discharge: ☐

Disposal Site Information

Please identify below location of applicable disposal facilities.

Disposal Facility:
NJ: ☐ NY: ☐
Other:

These samples have been previously analyzed by Alpha: ☐

Other project specific requirements/comments:

Please specify Metals or TAL.

ANALYSIS

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials	Full TCLP	CP-51 + TCL VOC	Total Bottle
34614-01	Sed-A (2.0')	6/28/22	14:32	Sediment	CH	X		3
02	Equipment Rinsate 6/28/22	6/28/22	09:13	DI H_2O	CH		X	

Sample Filtration
Done: ☐
Lab to do: ☐
Preservation
Lab to do: ☐
(Please Specify below)

Sample Specific Comments

Preservative Code:
A = None
B = HCl
C = HNO_3
D = H_2SO_4
E = NaOH
F = MeOH
G = $NaHSO_4$
H = $Na_2S_2O_3$
K/E = Zn Ac/NaOH
O = Other

Container Code
P = Plastic
A = Amber Glass
V = Vial
G = Glass
B = Bacteria Cup
C = Cube
O = Other
E = Encore
D = BOD Bottle

Westboro: Certification No: MA935
Mansfield: Certification No: MA015

Container Type	A	V										
Preservative	A	B										

Relinquished By:	Date/Time	Received By:	Date/Time
Col Demian	6/29/22 7:55	SECURE STORAGE AAL	6-29-22 7:55
SECURE STORAGE AAL	6-29-22 1212	R Cunningham AAL	6-29-22 1212
R Cunningham AAL	6-29-22 12R		6/30/22 0100

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. BY EXECUTING THIS COC, THE CLIENT HAS READ AND AGREES TO BE BOUND BY ALPHA'S TERMS & CONDITIONS. (See reverse side.)

Form No: 01-25 HC (rev. 30-Sept-2013)

APPENDIX B

HEALTH AND SAFETY PLAN
and
COMMUNITY AIR MONITORING PLAN

WEBER-KNAPP COMPANY
441 CHANDLER STREET
JAMESTOWN, NEW YORK

NYSDEC SITE NO.:C907048

Prepared for: Weber-Knapp Company
441 Chandler Street
Jamestown, New York

Prepared by: Day Environmental, Inc.
1563 Lyell Avenue
Rochester, New York 14606

Project No. 5635S-19

Date: July, 2022

TABLE OF CONTENTS

ATTACHMENTS

1.0 INTRODUCTION

Day Environmental, Inc. (DAY) prepared this Health and Safety Plan (HASP) to outline policies and procedures to protect workers and the public from potential environmental hazards during the interim remedial measure (IRM) to be conducted at, and in the vicinity of, the property addressed 441 Chandler Street, City of Jamestown, County of Chautauqua, New York (the Site). The Project Locus map presented as Figure 1 shows general location of the Site.

Although the HASP focuses on the specific work activities planned for the Site, it must remain flexible due to the nature of this work. Conditions may change and unforeseen situations can arise that require deviations from the original HASP.

1.1 Site Location and Description

The Site consists of one tax parcel, approximately 2.65 acres in area, and it is located in an urban area in Jamestown, Chautauqua County, New York. The Site is currently developed with an approximate 105,000 square foot, combined one-story and two-story masonry construction building. Currently Weber-Knapp Company owns the Site and the property is used for sheet metal cutting and stamping, welding, metal turning, powder coat finishing and also offices. The remaining portions of the Site are currently covered with asphalt or concrete-paved parking/drive areas, covered storage areas, and/or vegetation (grass and landscaping beds).

The Chadakoin River runs along the western edge of the Site and the river is between approximately 30 ft. and 65 ft. wide, in this area. The eastern side of the river is confined by the concrete foundation/retaining wall of the Weber-Knapp Company building, and to the west of the river is contained by a combination of concrete retaining walls and engineered banks (i.e., fill material, rip-rap, etc.).

The flow and depth of water in the river varies seasonally as the result of precipitation events. In addition, the flow (and depth) of the river is regulated by the Warner Dam, which is located approximately 1.5 miles upstream of BCP Site C907048. During lower stages of the river (i.e., typically occurring during late Spring through early Fall) portions of the river bed in the vicinity of the Site are exposed above the level of the surface water, creating seasonal bars or sediment accumulation areas.

1.2 Site History/Overview

The Site has been developed since at least 1902. A review of historical documentation indicates that past uses include apparent residential from at least 1902 to at least 1949; the Morse Avenue right-of-way (ROW) from at least 1902 to at least 1930; and the Weber Knapp Company from around 1910 to the present.

The Weber-Knapp Company constructed the building at the Site, starting with the southwest portion around 1910 with additions to the north and east [i.e., over the Morse Avenue Right-of-Way (ROW) and former residential properties] in 1941, 1953, 1960, 1964 and 1966.

The surrounding parcels are vacant or currently used for commercial, residential, or industrial purposes. The nearest residential area is approximately 70 feet northeast, at 562 Allen Street.

1.3 Planned Activities Covered by HASP

This HASP is intended to be used during intrusive remedial activities conducted at the Site that have the potential to encounter contaminated materials. Currently, identified activities to be completed at the Site that have the potential to encounter contaminated materials include:

- Site preparation activities
- Activities to be completed as an IRM, including:
    - excavation, staging and loading of soil/sediment materials;
    - as necessary, support systems will be installed to support existing building foundations during the soil removal process;
    - de-watering during excavation activities;
    - soil and sediment sample collection; and
    - backfill and restoration activities.

This HASP can be modified to cover other site activities as deemed appropriate. Site personnel implementing work the work described above must have the appropriate level of training required by OSHA including 40-hour Hazardous Waste Operations and Emergency Response (HAZWOPER) training and current 8-hour refresher training. The owner of the property, its contractors, and other workers at the Site will be responsible for the development and/or implementation of health and safety provisions associated with Site activities.

2.0 KEY PERSONNEL AND MANAGEMENT

The Project Manager (PM) and Site Safety Officer (SSO) are responsible for formulating health and safety requirements, and implementing the HASP.

2.1 Project Manager

The PM has the overall responsibility for the project and will coordinate with the SSO to ensure that the goals of the project are attained in a manner consistent with the HASP requirements.

2.2 Site Safety Officer

The SSO has responsibility for administering the HASP relative to site activities, and will be in the field while activities are in progress. The SSO's operational responsibilities will be monitoring, including personal and environmental monitoring, ensuring personal protective equipment (PPE) maintenance, and identification of protection levels. The air monitoring data obtained by the SSO will be available for review by regulatory agencies and other on-site personnel.

2.3 Employee Safety Responsibility

Each employee is responsible for personal safety as well as safety of others in the area. The employee will use the equipment provided in a safe and responsible manner as directed by the SSO.

2.4 Key Safety Personnel

The following individuals are anticipated to share responsibility for health and safety of DAY representatives at the Site.

DAY Project Manager	Raymond Kampff and/or David Day, P.E.
DAY Site Safety Officer	Charles Hampton, and/or Carla Crampton.

3.0 SAFETY RESPONSIBILITY

Contractors, consultants, state or local agencies, or other parties, and their employees, involved with this project will be responsible for their own safety while on-site. Their employees will be required to understand the information contained in this HASP, and must follow the recommendations that are made in this document. As an alternative, contractors, consultants, state or local agencies, or other parties, and their employees, involved with this project can utilize their own health and safety plan for this project as long as it is found acceptable to the New York State Department of Health (NYSDOH), NYSDEC and the Chautauqua County Department of Health and Human Services (CCDHHS).

4.0 JOB HAZARD ANALYSIS

There are many hazards associated with environmental work on a site, and this HASP discusses some of the anticipated hazards for this Site. The hazards listed below deal specifically with those hazards associated with the management of potentially contaminated media (e.g. soil, fill, groundwater, etc.).

4.1 Chemical Hazards

Chemical substances can enter the unprotected body by inhalation, skin absorption, ingestion, or injection (i.e., a puncture wound, etc.). A contaminant can cause damage to the point of contact or can act systemically, causing a toxic effect at a part of the body distant from the point of initial contact.

A list of selected constituents that have been detected at the Site at concentrations that exceed soil or groundwater standards, criteria and guidance (SCG) values are presented below. This list also presents the Occupational Safety and Health Administration (OSHA) permissible exposure limits (PELs), National Institute for Occupational Safety and Health (NIOSH) recommended exposure limits (RELs), and NIOSH immediately dangerous to life or health (IDLH) levels.

CONSTITUENT	OSHA PEL	NIOSH REL	IDLH
Tetrachloroethene (PCE)	678 mg/m^3	NA	1,017 mg/m^3
Trichloroethene (TCE)	537 mg/m^3	134.25 mg/m^3	5,370 mg/m^3
trans 1,2- Dichloroethene (trans 1,2-DCE)	790 mg/m^3	790 mg/m^3	3,970 mg/m^3
cis 1,2- Dichloroethene (cis 1,2-DCE)	790 mg/m^3	790 mg/m^3	3,970 mg/m^3
Vinyl Chloride	2.56 mg/m^3	NA	NA
1,1- Dichloroethene (1,1-DCE)	NA	NA	NA
Arsenic	0.010 mg/m^3	0.002 mg/m^3	5 mg/m^3
Cadmium	0.005 mg/m^3	NA	9 mg/m^3
Chromium (IV)	0.005 mg/m^3	0.0002 mg/m^3	NA
Copper	1 mg/m^3	1 mg/m^3	100 mg/m^3
Lead	0.050 mg/m^3	0.050 mg/m^3	100 mg/m^3
Mercury	0.1 mg/m^3 (c)	0.050 mg/m^3	10 mg/m^3
Nickel	1 mg/m^3	0.015 mg/m^3	10 mg/m^3
Silver	0.01 mg/m^3	0.01 mg/m^3	10 mg/m^3
Zinc (oxide)	5 mg/m^3	5 mg/m^3	500 mg/m^3

NA = Not Available mg/m^3 = milligram per cubic meter

The potential routes of exposure for these analytes and chemicals include inhalation, ingestion, skin absorption and/or skin/eye contact. The potential for exposure through any one of these routes will depend on the activity conducted. The most likely routes of exposure for the anticipated environmental activities at the Site include inhalation and skin/eye contact.

4.2 Physical Hazards

There are physical hazards associated with this project, which might compound the chemical hazards. Hazard identification, training, adherence to the planned environmental measures, and careful housekeeping can prevent many problems or accidents arising from physical hazards. Potential physical hazards associated with this project and suggested preventative measures include:

- River Related Hazards – Hidden debris or underwater hazards may cause cuts or abrasions. Steep or vegetated stream banks may increase the likelihood of falls during entry or exit from the river. Rapid changes in the water depth (i.e., due to stormwater or adjustments to the outflow of the Warner Dam) may wash away debris, equipment or personnel in the work area.
- Slip/Trip/Fall Hazards – Some areas may have wet surfaces that will greatly increase the possibility of inadvertent slips. Caution must be exercised when using steps and stairs due to slippery surfaces in conjunction with the fall hazard. Good housekeeping practices are essential to minimize the trip hazards.
- Small Quantity Flammable Liquids – Small quantities of flammable liquids will be stored in "safety" cans and labeled according to contents.
- Electrical Hazards – Electrical devices and equipment shall be de-energized prior to working near them. All extension cords will be kept out of water, protected from crushing, and observed regularly to ensure structural integrity. Temporary electrical circuits will be protected with ground fault circuit interrupters. Only qualified electricians are authorized to work on electrical circuits. Heavy equipment (e.g., excavator, backhoe, drill rig) shall not be operated within 10 feet of high voltage lines, unless proper protection form the high voltage lines is provided by the appropriate utility company.
- Noise – Work around large equipment often creates excessive noise. The effects of noise can include:
    - Workers being startled, annoyed, or distracted;
    - Physical damage to the ear resulting in pain, or temporary and or/permanent hearing loss; or
    - Communication interference that may increase potential hazards due to the inability to warn of danger and proper safety precautions to be taken.

  Proper hearing protection will be worn as deemed necessary. In general, feasible administrative or engineering controls shall be utilized when on-site personnel are subjected to noise exceeding an 8-hour time weighted average (TWA) sound level of 90 decibels on the A-weighted scale (dBA). In addition, whenever employee noise

exposures equal or exceed an 8-hour TWA sound level of 85 dBA, employers shall administer a continuing, effective hearing conservation program as described in the OSHA Regulation 29 Code of Federal Rules (CFR) Part 1910.95.

- Heavy Equipment – Each morning before start-up, heavy equipment will be checked to ensure safety equipment and devices are operational and ready for immediate use.
- Subsurface and Overhead Hazards – Before any excavation activity, efforts will be made to determine whether underground utilities and potential overhead hazards will be encountered. Underground utility clearance must be obtained prior to subsurface work.

4.3 Environmental Hazards

Environmental factors such as weather, wild animals, insects, snakes and irritant plants can pose a hazard when performing outdoor tasks. The SSO shall make reasonable efforts to alleviate these hazards should they arise.

4.3.1 Heat Stress

The combination of warm ambient temperature and protective clothing increases the potential for heat stress. In particular,

- Heat rash
- Heat cramps
- Heat exhaustion
- Heat stroke

Site workers will be encouraged to increase consumption of water or electrolyte-containing beverages such as Gatorade® when the potential for heat stress exists. In addition, workers are encouraged to take rests whenever they feel any adverse effects that may be heat-related. The frequency of breaks may need to be increased upon worker recommendation to the SSO.

4.3.2 Exposure to Cold

With outdoor work in the winter months, the potential exists for hypothermia and frostbite. Protective clothing greatly reduces the possibility of hypothermia in workers. However, personnel will be instructed to wear warm clothing and to stop work to obtain more clothing if they become too cold. Employees will also be advised to change into dry clothes if their clothing becomes wet from perspiration or from exposure to precipitation.

5.0 SITE CONTROLS

To prevent migration of contamination caused through tracking by personnel or equipment, work areas, and personal protective equipment staging/decontamination areas will be specified prior to beginning operations.

5.1 Site Zones

In the area where contaminated materials present the potential for worker exposure (work zone), personnel entering the area must wear the mandated level of protection for the area. A "transition zone" shall be established where personnel can begin and complete personal and equipment decontamination procedures. This can reduce potential off-site migration of contaminated media. Contaminated equipment or clothing will not be allowed outside the transition zone (e.g., on clean portions of the Site) unless properly containerized for disposal. Operational support facilities will be located outside the transition zone (i.e., in a "support zone"), and normal work clothing and support equipment are appropriate in this area. If possible, the support zone should be located upwind of the work zone and transition zone.

5.2 General

The following items will be requirements to protect the health and safety of workers during implementation of activities that disturb contaminated material.

- Eating, drinking, chewing gum or tobacco, smoking, or any practice that increased the probability of hand to mouth transfer and ingestion of contamination shall not occur in the work zone and/or transition zone during disturbance of contaminated material.
- Personnel admitted in the work zone shall be properly trained in health and safety techniques and equipment usage.
- No personnel shall be admitted in the work zone without the proper safety equipment.
- Proper decontamination procedures shall be followed before leaving the Site.

6.0 PROTECTIVE EQUIPMENT

This section addresses the various levels of PPE, which are or may be required at this job site. Personnel entering the work zone and transition zone shall be trained in the use of the anticipated PPE to be utilized.

6.1 Anticipated Protection Levels

The following table summarizes the protection levels (refer to Section 6.2) anticipated for tasks to be implemented during this project.

TASK	PROTECTION LEVEL	COMMENTS/MODIFICATIONS
Site mobilization	D	
Site preparation	D	
Intrusive work	C/Modified D/D	Based on air monitoring, and SSO discretion.
Decontamination Area	Modified D/D	
Site breakdown and demobilization	D	

It is anticipated that work conducted as part of this project will be performed in Level D or modified Level D PPE. If conditions are encountered that require Level A or Level B PPE, the work will immediately be stopped. The appropriate government agencies (e.g., NYSDEC, NYSDOH, MCDPH, etc.) will be notified and the proper health and safety measures will be implemented (e.g., develop and implement engineering controls, upgrade in PPE, etc.). If conditions are encountered that require Level C PPE, the work will be temporarily suspended and the work site will be evaluated to limit exposure prior to implementing Level C PPE.

6.2 Protection Level Descriptions

This section lists the minimum requirements for each protection level. Modifications to these requirements can be made upon approval of the SSO. If Level A, Level B, and/or Level C PPE is required, Site personnel that enter the work zone and/or transition zone must be properly trained and certified in the use of those levels of PPE.

6.2.1 Level D

Level D consists of the following:

- Safety glasses
- Hard hat when working with heavy equipment
- Steel-toed or composite-toed work boots
- Protective gloves during sampling or handling of potentially contaminated media

- Work clothing as prescribed by weather

6.2.2 Modified Level D

Modified Level D consists of the following:

- Safety glasses with side shields
- Hard hat when working with heavy equipment
- Steel-toed or composite-toed work boots
- Protective gloves during sampling or handling of potentially contaminated media
- Outer protective wear, such as Tyvek coverall [Tyveks (Sarans) and polyvinyl chloride (PVC) acid gear will be required when workers have a potential to be exposed to impacted liquids or impacted particulates]

6.2.3 Level C

Level C consists of the following:

- Air-purifying respirator with appropriate cartridges
- Outer protective wear, such as Tyvek coverall [Tyveks (Sarans) and PVC acid gear will be required when workers have a potential to be exposed to impacted liquids or particulates]
- Hard hat when working with heavy equipment
- Steel-toed or composite-toed work boots
- Nitrile, neoprene, or PVC overboots, if appropriate
- Nitrile, neoprene, or PVC gloves, if appropriate
- Face shield (when projectiles or splashes pose a hazard) and/or safety glasses with side shields.

6.2.4 Level B

Level B protection consists of the items required for Level C protection with the exception that an air-supplied respirator is used in place of the air-purifying respirator. Level B PPE is not anticipated to be required during this project. If the need for level B PPE becomes evident, activities in the affected area will be stopped until conditions are further evaluated, and any necessary modifications to the HASP have been approved by the PM and SSO. Subsequently, the appropriate safety measures (including Level B PPE) must be implemented prior to commencing site activities.

6.2.5 Level A

Level A protection consists of the items required for Level B protection with the addition of a fully encapsulating, vapor-proof suit capable of maintaining positive pressure. Level A PPE is not anticipated to be required during this project. If the need for level A PPE becomes evident, activities in the affected area will be stopped until conditions are further evaluated, and any necessary modifications to the HASP have been approved by the PM and SSO. Subsequently, the appropriate safety measures (including Level A PPE) must be implemented prior to commencing site activities.

6.3 Respiratory Protection

Any respirator used will meet the requirements of the OSHA 29 CFR 1910.134. Both the respirator and cartridges specified shall be fit-tested prior to use in accordance with OSHA regulations (29 CFR 1910). Air purifying respirators shall not be worn if contaminant levels exceed designated respirator cartridge use concentrations. The workers will wear respirators with approval for: organic vapors less than 1,000 ppm; and dusts, fumes and mists with a TWA less than 0.05 milligrams per cubic meter (mg/m^3).

No personnel who have facial hair, which interferes with respirator sealing surface, will be permitted to wear a respirator and will not be permitted to work in areas requiring respirator use.

Only workers who have been certified by a physician as being physically capable of respirator usage shall be issued a respirator. Personnel unable to pass a respiratory fit test or without medical clearance for respirator use will not be permitted to enter or work in areas that require respirator protection.

7.0 DECONTAMINATION PROCEDURES

This section describes the procedures necessary to ensure that both personnel and equipment are free from contamination when they leave the work site.

7.1 Personnel Decontamination

Personnel involved with activities that involve disturbing contaminated media will follow the decontamination procedures described herein to ensure that material which workers may have contacted in the work zone and/or transition zone does not result in personal exposure and is not spread to clean areas of the Site. This sequence describes the general decontamination procedure. The specific stages can vary depending on the Site, the task, and the protection level, etc.

1. Leave work zone and go to transition zone
2. Remove soil/debris from boots and gloves
3. Remove boots
4. Remove gloves
5. Remove Tyvek suit and discard, if applicable
6. Remove and wash respirator, if applicable
7. Go to support zone

7.2 Equipment Decontamination

In order to reduce the potential for cross-contamination of samples collected during this project, the following procedures will be implemented to ensure that the data collected (primarily the laboratory data) is acceptable.

It is anticipated that most of the materials used to assist in obtaining samples will be disposable one-time use materials (e.g., sampling containers, bailers, rope, pump tubing, latex gloves, etc.). However, when equipment must be re-used (e.g., drill rigs, static water level indicator, split spoon samplers, etc.), it will be decontaminated by at least one of the following methods:

- Steam clean the equipment within a dedicated decontamination area; or
- Rough wash in tap water; wash in mixture of tap water and Alconox-type soap; double rinse with deionized or distilled water; and air dry and/or dry with clean paper towel.

The decontamination area will be set-up in a location to minimize disturbance to properties surrounding the work area.

7.3 Disposal

Disposable clothing will be disposed in accordance with applicable regulations. Liquids (e.g., decontamination water, etc.) or solids (e.g., soil) generated by remedial activities will be disposed in accordance with applicable regulations.

8.0 AIR MONITORING

During activities that have the potential to disturb contaminated soil, fill material, or groundwater, air monitoring will be conducted in order to determine airborne particulate and contamination levels. This ensures that respiratory protection is adequate to protect personnel against the chemicals that are encountered and that chemical contaminants are not migrating off-site. Additional air monitoring may be conducted at the discretion of the SSO. Readings will be recorded and be available for review.

The following chart describes the direct reading instrumentation that will be utilized and appropriate action levels.

Monitoring Device	Action Level	Response/Level of PPE
PID Volatile Organic Compound Meter	< 1 ppm in breathing zone, sustained 5 minutes	Level D
	1-25 ppm in breathing zone, sustained 5 minutes	Cease work, implement measures to reduce air emissions when the work is performed, etc. If levels can not be brought below 1 ppm in the breathing zone, then upgrade PPE to Level C
	26-250 ppm in breathing zone, sustained 5 minutes	Level B, Stop work, evaluate the use of engineering controls, etc.
	>250 ppm in breathing zone	Level A, Stop work, evaluate the use of engineering controls, etc.
RTAM Particulate Meter	< 100 $\mu g/m^3$ over an integrated period not to exceed 15 minutes.	Continue working
	> 100 $\mu g/m^3$ over an integrated period not to exceed 15 minutes.	Cease work, implement dust suppression, change in way work performed, etc. If levels can not be brought below 150 $\mu g/m^3$, then upgrade PPE to Level C

$\mu g/m^3$ = microgram per cubic meter ppm = parts per million

8.1 Particulate Monitoring

During activities where contaminated materials (e.g., soil, fill, etc.) may be disturbed, air monitoring will include real-time monitoring for particulates using a real-time aerosol monitor (RTAM) particulate meter at the perimeter of the work zone in accordance with the Final DER-10 Technical Guidance for Site Investigation and Remediation (DER-10) dated May 2010. DER-10 uses an action level of 100 $\mu g/m^3$ (0.10 mg/m^3) over background conditions for an integrated

period not to exceed 15 minutes. If the action level is exceeded, or if visible dust is encountered, then work shall be discontinued until corrective actions are implemented. Corrective actions may include dust suppression, change in the way work is performed, and/or upgrade of personal protective equipment.

8.2 Volatile Organic Compound Monitoring

During activities where contaminated materials may be disturbed, a photoionization detector (PID) will be used to monitor total VOCs in the ambient air. The PID will prove useful as a direct reading instrument to aid in determining if current respiratory protection is adequate or needs to be upgraded. The SSO will take measurements before operations begin in an area to determine the concentration of VOCs naturally occurring in the air. This is referred to as a background level. Levels of VOCs will periodically be measured in the air at active work sites, and at the transition zone when levels are detected above background in the work zone.

8.3 Community Air Monitoring Plan

During activities that have the potential to disturb contaminated soil, fill material, or groundwater, this Community Air Monitoring Plan (CAMP) will be implemented. The CAMP includes real-time monitoring for VOCs and particulates (i.e., dust) at the downwind perimeter of each designated work area when activities with the potential to release VOCs or dust are in progress at the Site. This CAMP is based on the NYSDOH Generic CAMP included as Appendix 1A DER-10. The CAMP is not intended for use in establishing action levels for worker respiratory protection. Rather, the intent of this CAMP is to provide a measure of protection for the downwind community (i.e., off-site receptors including residences/businesses and on-site workers not directly involved with the subject work activities) from potential airborne contaminant releases as a direct result of project activities.

Continuous monitoring will be conducted during ground intrusive activities involving potentially contaminated soil, fill material or groundwater. Ground intrusive activities include, but are not limited to, excavation and transport of impacted materials during implementation of the IRM, advancement/installation of test borings or monitoring wells, etc.

Periodic monitoring for VOCs will be conducted during non-intrusive activities involving potentially contaminated soil, fill material or groundwater where deemed appropriate (e.g., during collection of soil samples or groundwater samples, etc.).

8.3.1 VOC Monitoring, Response Levels, and Actions

VOCs must be monitored at the downwind perimeter of the immediate work area (i.e., the work 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. 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.

- If the ambient air concentration of total organic vapors at the downwind perimeter of the work area or exclusion zone exceeds 5 ppm above background for the 15-minute average, work activities must be temporarily halted and monitoring must be continued. If the total organic vapor level readily decreases (per instantaneous readings) below 5 ppm over background, work activities can resume with continued monitoring.

- If total organic vapor levels at the downwind perimeter of the work area or exclusion zone persist at levels in excess of 5 ppm over background but less than 25 ppm, work activities must be halted, the source or vapors identified, corrective actions taken to abate emissions, and monitoring continued. After these steps, work activities can resume provided that the total organic vapor level 200 feet downwind of the exclusion zone or half the distance to the nearest potential receptor or residential/commercial structure, whichever is less (but in no case less than 20 feet), is below 5 ppm over background for the 15-minute average.

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

The 15-minute readings must be recorded and made available for NYSDEC and NYSDOH personnel to review. Instantaneous readings, if any, used for decision purposes should also be recorded.

8.3.2 Particulate Monitoring, Response Levels, and Actions

Particulate concentrations should be monitored continuously at the upwind perimeter of the work zone at temporary particulate monitoring stations. Upwind concentrations should be measured at the start of each workday and periodically thereafter to establish background conditions. 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 work activities.

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

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

Readings will be recorded and made available for review.

9.0 EMERGENCY CONTINGENCY PLAN

This section presents the emergency contingency plan (ECP) describing the procedures to be performed in the event of an emergency (e.g., fire, spill, tank/drum release, etc.). To provide first-line assistance to field personnel in the case of illness or injury, the following items will be made immediately available on the Site:

- First-aid kit;
- Portable emergency eye wash; and
- Supply of clean water.

9.1 Emergency Telephone Numbers

The following telephone numbers are listed in case there is an emergency at the Site:

Fire/Police Department:	911
Poison Control Center:	(800) 222-1222
NYSDEC	
Region 9: Headquarters	(716) 851-7220
Spill Hotline	(800) 457-7362
NYSDOH	
Public Health Duty Officer	(866) 881-2809
CCDHHS	
Environmental Health Division	(716) 753-4481
Weber Knapp Company	
Erik Dahlgren	(716) 484-9135 ext. 231
DAY ENVIRONMENTAL, INC.	
Raymond Kampff	Office - (585) 454-0210 x108
NEAREST HOSPITAL:	UPMC Chautauqua 207 Foote Avenue, Jamestown, NY 14701 (716) 487-0141 (Information) (716) 484-2121 (Ambulance)
Directions to the Hospital:	Head southeast on Chandler Street toward Allen Street. Turn right onto Allen Street. Turn Left onto Maple Street. Turn right onto Garfield Street. Garfield Street turns left and becomes Sherman Street. Turn right onto Prather Avenue. Turn right

into the hospital at 207 Foote Avenue, Jamestown, NY 14701.

9.2 Evacuation

Although unlikely, it is possible that a site emergency could require evacuating personnel from the Site. If required, the SSO will give the appropriate signal for site evacuation (i.e., hand signals, alarms, etc.).

All personnel shall exit the Site and shall congregate in an area designated by the SSO. The SSO shall ensure that all personnel are accounted for. If someone is missing, the SSO will alert emergency personnel. The appropriate government agencies will be notified as soon as possible regarding the evacuation, and any necessary measures that may be required to mitigate the reason for the evacuation.

9.3 Medical Emergency

In the event of a medical emergency involving illness or injury to one of the on-site personnel, Emergency Medical Services (EMS) and the appropriate government agencies should be notified immediately. The area in which the injury or illness occurred shall not be entered until the cause of the illness or injury is known. The nature of injury or illness shall be assessed. If the victim appears to be critically injured, administer first aid and/or cardio-pulmonary resuscitation (CPR) as needed. If appropriate, instantaneous real-time air monitoring shall be done in accordance with air monitoring outlined in Section 8.0 of this HASP.

9.4 Contamination Emergency

It is unlikely that a contamination emergency will occur; however, if such an emergency does occur, the specific work area shall be shut down and immediately secured. If an emergency rescue is needed, notify Police, Fire Department and EMS units immediately. Advise them of the situation and request an expedient response. The appropriate government agencies shall be notified immediately. The area in which the contamination occurred shall not be entered until the arrival of trained personnel who are properly equipped with the appropriate PPE and monitoring instrumentation as outlined in Section 8.0 of this HASP.

9.5 Fire Emergency

In the event of a fire on-site, all non-essential site personnel shall be evacuated to a safe, secure area. The Fire Department will be notified immediately, and advised of the situation and the identification of any hazardous materials involved. The appropriate government agencies shall be notified as soon as possible.

The four classes of fire along with their constituents are as follows:

Class A: Wood, cloth, paper, rubber, many plastics, and ordinary combustible materials.

Class B: Flammable liquids, gases and greases.

Class C: Energized electrical equipment.

Class D: Combustible metals such as magnesium, titanium, sodium, potassium.

Small fires on-site may be actively extinguished; however, extreme care shall be taken while in this operation. Approaches to the fire shall be done from the upwind side if possible. Distance from on-site personnel to the fire shall be close enough to ensure proper application of the extinguishing material but far enough away to ensure that the personnel are safe. The proper extinguisher shall be utilized for the Class(es) of fire present on the site. If possible, the fuel source shall be cut off or separated from the fire. Care must be taken when performing operations involving the shut-off of valves and manifolds, if present.

Examples of proper extinguishing agent as follows:

Class A: Water
Water with 1% Aqueous Film Forming Foam (AFFF) (Wet Water)
Water with 6% AFFF or Fluorprotein Foam
ABC Dry Chemical

Class B: ABC Dry Chemical
Purple K
Carbon Dioxide
Water with 6% AFFF

Class C: ABC Dry Chemical
Carbon Dioxide

Class D: Metal-X Dry Powder

No attempt shall be made against large fires, these shall be handled by the Fire Department.

9.6 Spill or Air Release

In the event of a spill or air release of hazardous materials on-site, the specific area of the spill or release shall be shut down and immediately secured. The area in which the spill or release occurred shall not be entered until the cause can be determined and site safety can be evaluated. Non-essential site personnel shall be evacuated to a safe and secure area. The appropriate government agencies shall be notified as soon as possible. The spilled or released material shall be immediately indentified and appropriate containment measures shall be implemented, if

possible. Real-time air monitoring shall be implemented as outlined in Section 8.0 of this HASP. If the materials are unknown, Level B protection is mandatory. If warranted, samples of the materials shall be acquired to facilitate identification.

9.7 Locating Containerized Waste and/or Underground Storage Tanks

In the event that unanticipated containerized waster (e.g., drums) and/or underground storage tanks (USTs) are located during investigation and/or subsequent remedial activities, the work must be stopped in the specific area until site safety can be evaluated and addressed. Non-essential Site personnel shall not work in the immediate area until conditions including possible exposure hazards are addressed. The appropriate government agencies shall be notified as soon as possible. The SSO shall monitor the area as outlined in Section 8.0 of this HASP.

Prior to handling, unanticipated containers will be visually assessed by the SSO to gain as much information as possible about their contents. As a precautionary measure, personnel shall assume that unlabelled containers and/or tanks contain hazardous materials until their contents are characterized. To the extent possible based upon the nature of the containers encountered, actions may be taken to stabilize the area and prevent migration (e.g., placement of berms, etc.). Subsequent to initial visual assessment and any required stabilization, properly trained personnel will sample, test, remove, and dispose of any containers and/or tanks, and their contents. After visual assessment and air monitoring, if the material remains unknown, Level B protection (or higher) is mandatory.

10.0 ABBREVIATIONS

AFFF	Aqueous Film Forming Foams
CAMP	Community Air Monitoring Program
CCDHHS	Chautauqua County Department of Health and Human Services
CFR	Code of Federal Regulations
cis 1,2-DCE	cis 1,2-dichloroethene
CPR	Cardio-Pulmonary Resuscitation
DAY	Day Environmental, Inc.
dBA	Decibels on the A-Weighted Scale
ECP	Emergency Contingency Plan
EMS	Emergency Medical Service
HASP	Health and Safety Plan
HAZWOPER	Hazardous Waste Operations and Emergency Response
IDLH	Immediately Dangerous to Life or Heath
IDW	Investigation Derived Waste
mg/m^3	Milligram Per Meter Cubed
NIOSH	National Institute for Occupational Safety and Health
NYSDEC	New York State Department of Environmental Conservation
NYSDOH	New York State Department of Health
OSHA	Occupational Safety and Health Administration
PCE	Tetrachloroethene
PEL	Permissible Exposure Limit
PID	Photoionization Detector
PM	Project Manager
PM-10	Particulate Matter Less Than 10 Micrometers In Diameter
PPE	Personal Protection Equipment
ppm	Parts Per Million
PVC	Polyvinyl Chloride
REL	Recommended Exposure Limit
RTAM	Real-Time Aerosol Monitor
SCG	Standards, Criteria and Guidance
SSO	Site Safety Officer
TCE	Trichloroethene
TWA	Time-Weighted Average
UST	Underground Storage Tank
$\mu g/m^3$	Micrograms Per Meter Cubed
VOC	Volatile Organic Compound

ATTACHMENT 1

Figure 1 – Route for Emergency Services

From 441 Chandler St, Jamestown, NY 14701
To 207 Foote Ave, Jamestown, NY 14701

4 min (0.8 mile)

via Allen St

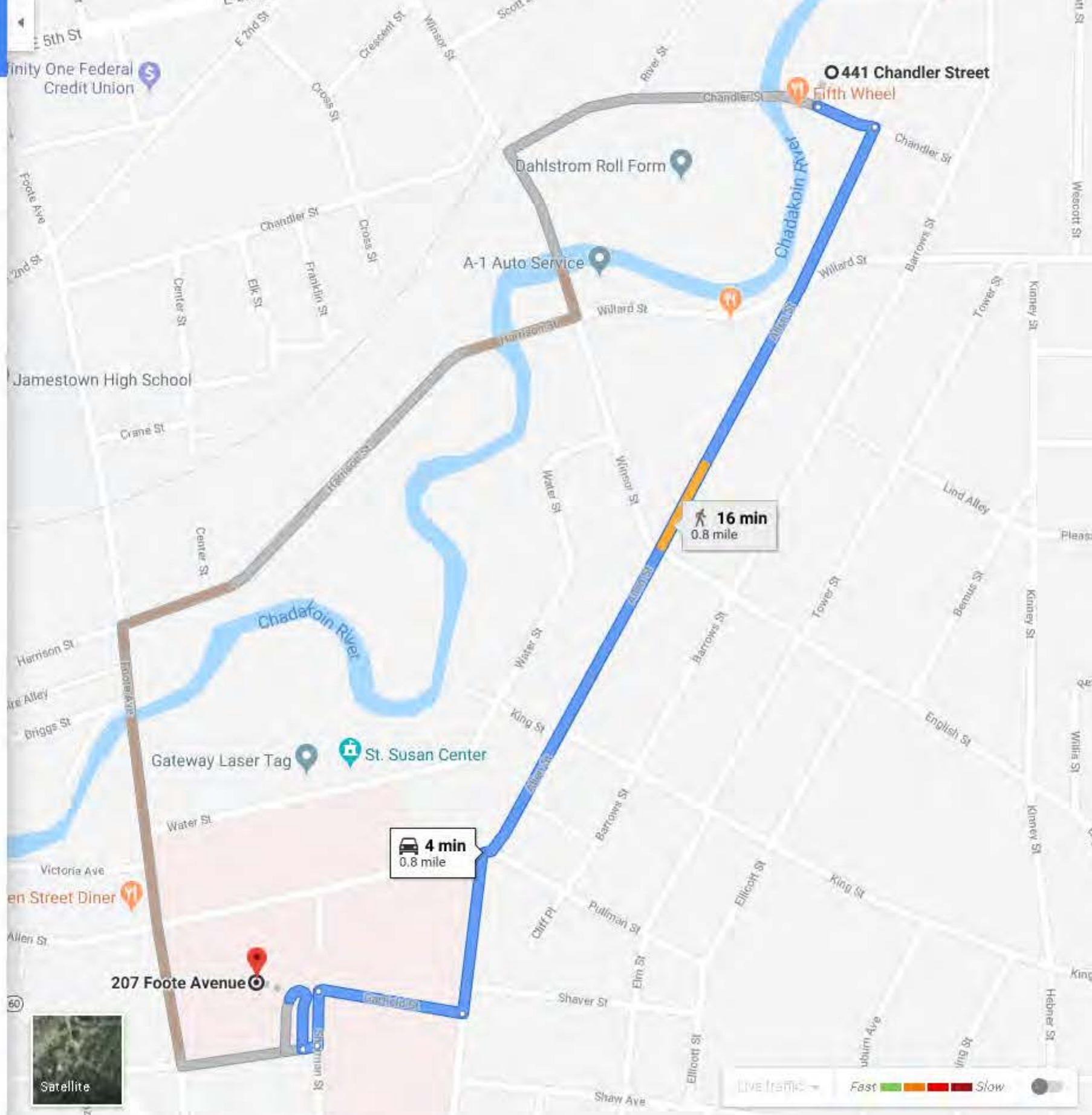
Fastest route

441 Chandler St
Jamestown, NY 14701

1. Head southeast on Chandler St toward Allen St
   190 ft
2. Turn right onto Allen St
   0.5 mi
3. Turn left onto Maple St
   0.1 mi
4. Turn right onto Garfield St
   459 ft
5. Garfield St turns left and becomes Sherman St
   171 ft
6. Turn right onto Prather Ave
   49 ft
7. Turn right
   Destination will be on the right
   240 ft

207 Foote Ave
Jamestown, NY 14701

These directions are for planning purposes only. You may find that construction projects, traffic, weather, or other events may cause conditions to differ from the map results, and you should plan your route accordingly. You must obey all signs or notices regarding your route.



APPENDIX C

QUALITY ASSURANCE PROJECT PLAN

WEBER-KNAPP COMPANY
441 CHANDLER STREET
ROCHESTER, NEW YORK

NYSDEC SITE NUMBER C907048

Prepared for: Weber-Knapp Company
441 Chandler Street
Jamestown, New York

Prepared by: Day Environmental, Inc.
1563 Lyell Avenue
Rochester, New York

Project No.: 5635S-19

Date: July 2022

Table of Contents

1.0 INTRODUCTION

This project-specific Quality Assurance Project Plan (QAPP) was prepared in accordance with Section 2.4 of the New York State Department of Environmental Conservation (NYSDEC) Technical Guidance, For Site Investigation and Remediation DER-10 dated May 2010. This QAPP provides quality assurance/quality control (QA/QC) protocols and guidance that are to be followed when implementing the interim remedial measures (IRM) for 441 Chandler Street, Jamestown, New York (Site) to ensure that data of a known and acceptable precision and accuracy are generated. The QAPP also provides a summary of the project, identifies personnel responsibilities, and provides procedures to be used during sampling of environmental media, other field activities, and the analytical laboratory testing of samples. The components of the QAPP are provided herein.

1.1 PROJECT SCOPE AND PROJECT GOALS

The QAPP applies to the aspects of the project associated with the collection of field data, the collection and analytical laboratory testing of field samples and QA/QC samples, and the evaluation of the quality of the data that is generated. Specifically, the IRM will include collection of end-point subsurface soil and/or river sediment samples following the completion of excavation activies described in the IRM work plan. In general, the project goal is to obtain sufficient information to characterize the nature and extent of residial contamination (if any) following the completeion of the IRM activities to develop a Site Management Plan (SMP) for the Site. In addititon, waste samples (i.e., soil/sediment) and treated media (i.e., containerized surface water and/or groundwater that has been treated through granular activated carbon, or equivlent) may be collected and tested to document contaminant levels prior to disposal and/or discharge.

2.0 PROJECT/TASK ORGANIZATION

Project organization and tentative personnel to implement the work are outlined in this section of the QAPP.

2.1 DAY ORGANIZATION

Information regarding key personnel for Day Environmental, Inc. (DAY) is provided below, and resumes of key personnel are included in Attachment 1.

DAY Principal in Charge

The Principal in Charge is responsible for such things as the review of project documents and ensuring that the project is completed in accordance with relative work plans. Mr. Raymond L. Kampff will serve as DAY's Principle-in-Charge on this project.

DAY Project Manager

The DAY Project Manager has the overall responsibility for implementing the project and ensuring that the project meets the objectives and quality standards as presented in this QAPP. Mr. Charles A. Hampton will serve as DAY's Project Manager on this project, and will serve as DAY's primary point of contact and control for the project.

DAY Quality Assurance Officer

The Quality Assurance Officer is responsible for QA/QC on this project. The Quality Assurance Officer's responsibilities on this project are not as a project manager or task manager involved with project productivity or profitability as job performance criteria. Jeffery A. Danzinger will serve as DAY's Quality Assurance Officer on this project. The Quality Assurance Officer may conduct audits of the operations at the Site to ensure that work is being performed in accordance with the QAPP.

DAY Technical Staff

DAY's technical staff for this project consists of experienced professionals (e.g., professional engineers, engineers-in-training, scientists, technicians, etc.) that possess the qualifications necessary to effectively and efficiently complete the project tasks. The technical staff will be used to gather and analyze data, prepare various project documentation, etc.

2.2 ANALYTICAL LABORATORIES

A New York State Department of Health (NYSDOH) Environmental Laboratory Approval Program (ELAP)-certified analytical laboratory will be utilized to provideanalytical laboratory services assocaited with this project. The specific analytical laboratory has not yet been selected, but the laboratory utilized will meet the NYSDOH ELAP criteria. A copy of the Lab's Quality Assurance Plan (QAP) can be provied upon request.

3.0 QUALITY ASSURANCE/QUALITY CONTROL

As part of this QAPP, QA/QC protocol and procedures have been developed and are described below. The objective of the QA/QC protocol and procedures is to ensure that the information, data, and decisions associated with this project are technically sound and properly documented. The QA/QC protocol and procedures also pertain to the collection, evaluation, and review of activities and data that are part of this project. These QA/QC protocol and procedures will be modified in supplemental work plans when deemed appropriate.

3.1 OPERATION AND CALIBRATION OF ON-SITE MONITORING EQUIPMENT

On-site monitoring equipment will play a significant role in meeting the RI objectives and to determine the appropriate personal protective equipment (PPE) as noted in the Health and Safety Plan (HASP). The on-site, monitoring equipment includes volatile organic compound (VOC) monitors, particulate monitors, and a global position system (GPS) reciever. Operation and calibration of on-site monitoring equipment that are anticipated for use during the RI are discussed below.

3.1.1 VOC Monitoring Equipment

Real-time monitoring for VOCs will be conducted to evaluate the nature and extent of petroleum- or solvent-type discharges at the Site and to determine the appropriate PPE as noted in the HASP. The primary field instrument for monitoring VOCs during the RI will be a photoionization detector (PID). It is anticipated that a Minirae 3000 PID (or equivalent) equipped with a 10.6 eV lamp and/or a RAE ppbRAE 3000 PID will be used during this project. An accredited firm/testing laboratory will calibrate the equipment on a yearly basis. During fieldwork, the PID will be calibrated on a daily basis in accordance with the manufacturer's specifications. Isobutylene gas will be used to calibrate the PID prior to use and as necessary during fieldwork. Measurements will be collected before operations begin in an area to determine the amount of VOCs naturally occurring in the air (i.e., background concentrations).

3.1.2 Particulate Monitoring Equipment

Particulate monitoring will be conducted during intrusive activities as noted in the Community Air Monitoring Plan (CAMP) portion of the HASP. It is anticipated that the particulate air monitoring will be conducted using a real-time aerosol monitor (RATM) particulate meter. An accredited firm/testing laboratory will calibrate the equipment on an as needed basis. During fieldwork, the particulate meter will be regularly calibrated in accordance with the manufacturer's specifications. Measurements will be collected along the upwind perimeter of the intrusive investigation activities to determine the amount of particulates naturally occurring in the air (i.e., background concentrations) as per the requirements of the CAMP.

3.1.3 Global Positioning System Equipment

A GPS unit will be used to obtain the precise locations of sampling points and significant site features. It is anticipated that a Trimble GeoXH will be used during this project. The GPS location accuracy of <1 horizontal foot is the data quality objective for this project. The GPS unit will be calibrated as needed in accordance with the manufacturer's

specifications. The GPS location data will conform to Jamestown's GIS coordinate system (NAD 1983 State Plane New York West) to match adjacent features that may affect contaminant migration such as underground utilities.

3.3 GENERAL SOIL SCREENING AND LOGGING

A DAY representative will: document visual observations; screen the soil/sediment samples with a PID; collect selected portions of the samples for possible laboratory analysis; collect other portions of the samples (and process and screen the headspace of these selected samples with a PID), photograph sample collection activities, and prepare logs that provide pertinent field information.

Pertinent information that will be recorded on soil/sediment sample logs will include:

- Date, sample identification, and project identification;
- Name of individual developing the log;
- Depths recorded in feet and fractions thereof (tenths of feet) referenced to ground (or riverbed) surface;
- Description of soil type using the Unified Soil Classification System (or equivalent); and
- PID screening results of ambient headspace air above selected soil samples.

3.4 SOIL SAMPLE HEADSPACE SCREENING

The recovered soil/sediment samples will be visually examined by a DAY representative for evidence of suspect contamination (e.g., staining, unusual odors) and screened with a PID. Portions of the recovered soil/sediment samples may be placed in containers for possible analytical laboratory testing. Different portions of the soil samples will be placed in sealable Ziploc®-type plastic baggies, and will be field screened the same day they are collected. Each sample will be agitated and homogenized for at least 30 seconds and allowed to equilibrate for at least three minutes. The ambient headspace air inside the baggie above each sample will be screened for total VOC vapors with the PID equipped with a 10.6 eV lamp. The sampling port for the PID will be placed in the ambient air headspace inside the bag by opening a corner of the "locked" portion of the bag. The PID will monitor air inside the baggie for a period of at least 15 seconds and the peak readings measured will be recorded on a log sheet or log book.

3.7 WASTE CHARACTERIZATION SAMPLING

Material that has been excavated and stockpiled at the Site will be managed in accordance with the guidelines outlined in Seciton 3 of the IRM Work Plan. Supplemental sampling of the waste materials is anticipated in order to obtain approvals from appropriate disposal and/or recycling at an authorized solid waste management facility or publicly owned wastewater treatment works (liquids). The following protocols likely apply to IDW sampling:

- The objective of IDW sampling is to characterize a substantial mass of waste requiring disposal. Consequently, the sample should be collected in a manner that is representative of the entire waste mass and not limited to a specific zone of concern or observed contamination.
- Grab samples may be composited to form one sample for analytical analyses.

4.0 EQUIPMENT DECONTAMINATION PROCEDURES

In order to reduce the potential for cross-contamination of samples collected during this project, the following procedures will be implemented to ensure that the data collected (primarily the laboratory data) is acceptable.

It is anticipated that most of the materials used to assist in obtaining samples will be disposable one-time use materials (e.g., sampling containers, acetate macrocore liners, bailers, rope, pump tubing, latex gloves, etc.). However, when equipment must be re-used (e.g., drill rigs, static water level indicator, split spoon samplers, etc.), it will be decontaminated by at least one of the following methods:

- Steam clean the equipment within a dedicated decontamination area; or
- Rough wash in tap water; wash in mixture of tap water and Alconox-type soap; double rinse with deionized or distilled water; and air dry and/or dry with clean paper towel.

The effectiveness of the equipment decontamination of non-dedicated sampling equipment such as split-spoon samplers will be evaluated via analytical laboratory testing of field blanks (e.g., rinsate samples). Decontamination liquids, disposable equipment and PPE will be containerized and left on-site until a proper disposal method is determined. The location of a dedicated decontamination area at, or in the vicinity of the Site will be determined, with NYSDEC input, prior to the commencement of the RI field activities.

5.0 SAMPLE HANDLING AND CUSTODY REQUIREMENTS

During sampling activities, personnel will wear disposable latex or nitrile gloves. Between collection of samples, personnel performing the sampling will discard used latex gloves and put on new gloves to preclude cross-contamination between samples. As few personnel as possible will handle samples or be in charge of their custody prior to shipment to the analytical laboratory.

New laboratory-grade sample containers will be used for each sample collected. Sufficient volume will be collected to ensure that the laboratory has adequate sample volume to perform the specified analyses. Soil samples will be collected in accrodance with United States Environmental Protection Agency (USEPA) Method 5035 when VOC analysis is going to be performed. Samples to be tested for emerging contaminantts will be collected and tested in accordance with NYSDEC guidance documents available at the time of the study.

Samples will be preserved as specified by the analytical laboratory for the type of parameters and matrices being tested. The required amount of preservatives will be added by the analytical laboratory to the sample containers prior to delivery to the Site.

Chain-Of-Custody

Samples that are collected for subsequent testing as part of this project will be handled using chain-of-custody control. Chain-of-custody documentation will accompany samples from their inception to their analysis, and copies of chain-of-custody documentation will be included with the laboratory's report. The chain-of-custody will include the date and time the sample was collected, the sample identity and sampling location, the requested analysis, and any request for accelerated turnaround time.

Sample Labels

Sample labels for field samples and QC samples with adhesive backing will be placed on sample containers in order to identify the sample. Sample information will be clearly written on the sample labels using waterproof ink. Sufficient sample information will be provided on the label to allow for cross-reference with the field sampling records or sample logbook.

The following information will be provided on each sample label:

Site identification/address;
Date and time of collection;
Sample identification;
Intended analyses; and
Preservation required.

Transportation of Samples

Samples will be handled, packaged and shipped in accordance with applicable regulations, and in a manner that does not diminish their quality or integrity. Samples will be delivered to the laboratory in a timely manner so that they may be processed/tested by the laboratory within the applicable method holding times.

6.0 ANALYTICAL QUALTIY ASSURANCE/QUALITY CONTROL

Analytical laboratory test results will be reported in NYSDEC Analytical Services Protocol (ASP) Category B deliverable reports. Analytical laboratory test results for soil samples will be reported on a dry-weight basis. The analytical laboratory will make every effort to analyze the samples using the lowest practical quantitation limits (PQLs) possible for soil and groundwater samples. In addition, analytical laboratory results will be provided to the NYSDEC using the NYSDEC's Equis Format.

The analytical laboratory will provide internal QA/QC checks that are required by NYSDEC ASP and/or USEPA contract laboratory protocol (CLP) protocol, such as analyses performed, spike blanks, internal standards, surrogate samples, calibration standards, and reference standards. Laboratory reports will be reviewed as outlined in the laboratories QAP. Laboratory results will be compared to data quality indicators in accordance with the laboratory's QAP and the NYSDEC ASP.

In order to provide control over the collection, analysis, review, and interpretation of analytical laboratory data, the following QA/QC samples will be included as part of this project.

- One MS/MSD for each sample matrix, for each sampling event of 20 samples, or per shipment if less than 20 samples, within a seven-day period. Specific parameters that MS/MSD samples will be tested for is dependent upon the test parameters of the field samples that are being analyzed.
- One field blank will be collected from reusable sampling equipment for each sampling event of 20 samples, or per shipment if less than 20 samples. The field blank(s) will be tested for the suite parameters of the samples obtained using the subject re-useable sampling equipment (i.e. stainless steel shovel or excavator bucket).

Data Usability Summary Report

A qualified subconsultant will be retained to complete a data usability summary report (DUSR) on the Category B deliverables analytical laboratory data that is generated as part of the scope of work in the RI/RAA work plan. The DUSR will be conducted in accordance with the provisions set forth in Appendix 2B of DER-10 Technical Guidance for Site Investigation and Remediation dated May 2010. The findings of the DUSR will be incorporated in the final RI/RAA report.

Reporting

Analytical and QC data will be included in the final RI/RAA report. The final report will summarize the environmental work and provide evaluation of the data that is generated, including the validity of the results in the context of QA/QC procedures.

7.0 RECORD KEEPING AND DATA MANAGEMENT

DAY will document project activities in a bound field book on a daily basis. Information that will be recorded in the field book (or on location-specific field logs) will include:

- Dates and time work is performed;
- Details on work being performed;
- Details on field equipment being used;
- Field evidence of contamination such as staining, odors, degree of saturation, etc.
- Field meter measurements collected during monitoring activities;
- Sampling locations and depths measured in tenths of feet;
- Measurements of sample locations, and test locations, excavations, etc.;
- Personnel and equipment on-site;
- Weather conditions; and
- Other pertinent information as warranted.

Differential GPS, swing ties from existing surveyed site structures, and/or a licensed surveyor will be used to collect spatial data. The spatial data will be plotted using integrated GIS and/or computer-aided design (CAD) mapping. Electronic and hard copy files will be maintained by DAY.

As noted above, DAY will utilize its Trimble Geo-XH sub-foot accuracy GPS with ESRI ArcPad installed software with GIS shape files that have been developed for the Site.

8.0 ACRONYMS

ASP	Analytical Services Protocol
CAMP	Community Air Monitoring Plan
CLP	Contract Laboratory Protocol
DAY	Day Environmental, Inc.
DNAPL	Dense Non-Aqueous Phase Liquid
DUSR	Data Usability Summary Report
ELAP	Environmental Laboratory Approval Program
GPS	Global Positioning System
HASP	Health and Safety Plan
IDW	Investigation-Derived Waste
LNAPL	Light Non-Aqueous Phase Liquid
MS/MSD	Matrix Spike/Matrix Spike Duplicate
NTU	Nephelometric Turbidity Units
NYSDEC	New York State Department of Environmental Conservation
NYSDOH	New York State Department of Health
PID	Photoionization Detector
PPE	Personal Protective Equipment
PQL	Practical Quantitation Limit
QAP	Quality Assurance Plan
QAPP	Quality Assurance Project Plan
QA/QC	Quality Assurance/Quality Control
RI/RAA	Remedial Investigation/Remedial Alternatives Analysis
TCL	Target Compound List
USEPA	United States Environmental Protection Agency
VOC	Volatile Organic Compound

ATTACHMENT 1

Resumes of Key Personnel

RAYMOND L. KAMPFF

EXPERIENCE

Day Environmental, Inc.: May 1994 to present
Years with Other Firms: 18 years

AREAS OF SPECIALIZATION

- Environmental Site Assessment
- Environmental Restoration
- Geology

EDUCATION

University of Rochester, B. A. Geology 1974
Monroe Community College, Civil Engineering Technology 1976
Various continuing education courses/seminars in environmental regulations, remediation techniques and other technical issues

REGISTRATION/AFFILIATIONS

- 40-Hour OSHA Hazardous Waste Site Worker Training
- 8-Hour OSHA Hazardous Waste Site Supervisor Training
- 8 Hour OSHA Hazardous Waste Site Worker Refresher Training

RESPONSIBILITIES AND PROJECT EXPERIENCE

Mr. Kampff has over 39 years of professional experience and is currently responsible for the overall technical and administrative direction of DAY's Site Evaluation/Environmental Restoration Group. Mr. Kampff's experience includes environmental studies and remediation at inactive hazardous waste sites, industrial facilities, petroleum spill sites, Brownfield sites and municipal properties. Some of his representative projects are described below.

Environmental Site Assessment

Environmental Site Assessment for a Manufacturing Facility: Olean, New York. Responsible for a Phase I Environmental Site Assessment (ESA) and a Limited Phase II ESA for this 14-acre site currently developed with a 280,000 square foot industrial facility. The site was originally developed in the 1890s, and historically it has been used for various purposes including the manufacture of chemicals, metal furniture and industrial coatings. These studies were done to characterize the site in sufficient detail to prepare an application to enter the New York State Brownfield Cleanup Program (BCP).

Site Evaluation and Assessment of PCB Impact: Innis-Arden Golf Course. Reviewed documents and evaluated analytical laboratory data presented as part of a claim that discharges from a nearby railroad line operated by Metro-North Railroad (MNR) caused PCB-impact identified within ponds and streams on the golf course. The evaluation completed determined that nearby industrial facilities, and not MNR, were the responsible for the PCB contamination on the golf course.

Environmental Evaluation, Precast Concrete Facility, Manchester, New York. Responsible for the environmental evaluation of this 105-acre former railroad yard that was re-developed with an approximate 70,500 square foot structure in the late 1980s for use as a pre-cast concrete manufacturing facility. The site assessment studies conducted included testing of soil, groundwater and soil vapors to evaluate areas of potential environmental concern pursuant to the sale of the property. These studies included the delineation of an area of

the site impacted with petroleum that resulted in the New York State Department of Environmental Conservation (NYSDEC) opening a spill file, and another area on the site where groundwater impacted with chlorinated solvents was identified.

Petroleum Spills

Petroleum Spill Remediation and Closure: Metro-North Railroad's Brewster Yard, North White Plains Yard and Harmon Yard in New York. Assisted MNR with the assessment and remediation of various petroleum spills at these railroad yards where petroleum impact from historic operations resulted in the accumulation of several feet of free product in some locations. The work included the design and construction of a combination of active and passive removal systems, design and operation of long-term monitoring networks to document the effectiveness of remedial efforts and, the preparation of status reports for submittal to the NYSDEC to document remedial efforts pursuant to spill closure.

Seneca-Cayuga ARC Spill Remediation: Waterloo, New York. Responsible for site characterization studies to assess the nature and extent of historic petroleum releases resulting from leaking tanks and discharges into septic systems. Subsequently, designed and implemented a remedial action plan to address petroleum impacts and to mitigate vapors in an adjacent building under construction. The remedial activities included the removal of underground storage tanks and petroleum-impacted soil/groundwater, the installation of a sub-slab depressurization system, and the preparation of a Site Management Plan (SMP) to address future impacts (if encountered).

Remedial Action Plan Development and Implementation: Mott Haven Yard, Bronx, New York. Completed site characterization studies to define the nature and extent of petroleum spills resulting from a combination of leaking tanks and discharges from railroad equipment. Based on the findings of the characterization studies, a removal of soil impacted with free product was conducted in accessible areas and systems were designed and implemented to preclude future discharges (e.g., installation of state-of the art fueling system, development of SPCC plans, construction of secondary containment systems). Subsequently, a Remedial Action Plan (RAP) describing methods to be implemented to collect residual free product from the groundwater was prepared for submittal to the NYSDEC.

York Oil Superfund Site RI/FS: Moira, New York. Managed several studies to evaluate on-site contamination and off-site pathways at this former waste oil recycling facility where large quantities of PCB and solvent-laden oils spilled onto the ground and migrated into adjacent wetlands.

Brownfield and RI/FS Projects

Interim Remedial Measure (IRM) Construction, Confidential Industrial Client: Akron, New York. Responsible for construction oversight during the implementation of IRM activities at an approximate 3-acre former waste disposal area used to dispose of hazardous and industrial wastes. Work included construction oversight during waste consolidation and capping activities, coordination with the NYSDEC, implementation of design modifications and preparation of various closure reports. Also, responsible for long term monitoring and the preparation of Periodic Review Reports.

Dry Cleaners: Jamestown, New York: Responsible for studies completed to evaluate the extent of chlorinated solvents in the soil and groundwater at this dry cleaning facility that has operated for the past 50 years. Also developed and implemented remediation system to actively remove more than 200 gallons of Dense Non-Aqueous Liquid (DNAPL), the design and construction of a permeable reactive barrier to preclude off-site migration, and the implementation of in-situ bioremediation to address residual impacts.

Harmon Railroad Yard Former Wastewater Lagoon: Croton-on-Hudson, New York. Responsible for the preparation of the Site Management Plan (SMP), long-term monitoring, preparation of status and Periodic Review Report reports, and implementation of corrective actions for Operation Units OU-I and OU II at this NYSDEC Inactive Hazardous Waste Site.

Manufacturing Facility: Rochester, New York. Responsible for the Remedial Investigation conducted at this facility where groundwater is impacted with elevated concentration of chlorinated solvents and heavy metals. Work includes studies designed to assess the nature and extent of impact with the soil, groundwater and soil vapor (including sub-slab studies within on-site structures and assessment of potential off-site impacts). Studies also included the design and implementation of pilot studies to evaluate bioaugmentation and phytoremediation as potential long-term remedial options.

Environmental Restoration Projects

Remediation of Petroleum Contaminated Soils, DePaul Community Facilities: Rochester, New York. Responsible for the design and construction of a combined active and passive soil vapor extraction system at this facility constructed on the site of a former gasoline station.

Track Platform Assessment and Encapsulation, Grand Central Terminal: New York, New York. Project Manager for a testing program designed to define the extent of PCB contamination and develop a comprehensive remedial program consisting of the initial cleaning of the impacted track area following by a double epoxy coating was required for this site. Due to the location of the site, care was taken to limit potential exposure to the public during remedial activities

Former Dry Cleaners: Canandaigua, New York. Responsible for site characterization studies to define subsurface conditions and the nature and extent of chlorinated solvent impact (tetrachloroethene and breakdown products), implementation of a soil removal interim remedial measure (IRM), installation of a sub-slab vapor mitigation system and implementation of biostimulation to address residual contamination.

Former Gasoline Station: Hornell, New York. Responsible for the completion of site investigations and the development and implementation of remedial options including source removal with the subsequent installation of an air sparging system augmented the injection of microbes designed to expedite the remediation process.

DAY ENVIRONMENTAL, INC.

JEFFREY A. DANZINGER, P.G.

EXPERIENCE

Day Environmental, Inc.: October 1991 to present
Years with Other Firms: 5 years

AREAS OF SPECIALIZATION

- Environmental Site Assessment
- Environmental Restoration/Remediation
- Environmental Computer Modeling
- Risk Assessment/Geology/Hydrogeology

EDUCATION

University of Colorado at Boulder; B.A. Geology; 1986
Various continuing education courses/seminars in environmental studies and remediation

REGISTRATION/AFFILIATIONS

OSHA Hazardous Waste Site Worker and Supervisor Training, and Confined Space Training

RESPONSIBILITIES AND PROJECT EXPERIENCE

Mr. Danzinger has over 30 years of professional experience working on environmental projects as a consultant. Mr. Danzinger is responsible for development and completion of Phase II studies, hydrogeologic studies, environmental restoration, remediation and Brownfield projects and environmental compliance projects for independent clients and government agencies. He also serves as the company Assistant Health and Safety Officer. Mr. Danzinger has performed over 240 Phase I Environmental Site Assessments, over 200 Phase II Environmental Site Assessments and over 25 environmental restoration projects. Examples are provided below:

Niagara County Brownfield Projects: Mr. Danzinger has managed Phase I ESA and Phase II ESA projects under the Niagara County Department of Economic Development Brownfield program that is funded by USEPA brownfield grants. These included: a Phase I ESA with asbestos survey at the Palace Theater in Lockport, New York; a Phase II ESA on an approximate 20.9 acre portion of Tonawanda Island, North Tonawanda, NY that was formerly occupied by a wood and lumber industrial operation; and a Phase I ESA followed by a Phase II ESA at Site in North Tonawanda that was a former gas station that also included former/current automobile-related repair/service operations. Types of Phase II ESA work completed included: a drum and container inventory, advancement of test borings; excavation of test pits; collection and analysis of soil, air, sub-slab, and groundwater samples; asbestos and/or lead-based paint surveys; a radiological survey, evaluation of a former transformer building for polychlorinated biphenyls; a geophysical survey, and data validation. Mr. Danzinger prepared Quality Assurance Project Plans (QAPPs) and reports for the Phase II ESAs, as well as opinions of probable costs associated with addressing environmental conditions at the Sites.

Andrews Street Site, Rochester, New York: DAY was retained by the City of Rochester to perform Demolition-Phase environmental services, Remedial Investigation/Remedial Alternatives Analysis (RI/RAA) services, and Interim Remedial Measure (IRM) services at the Andrews Street Site. Mr. Danzinger managed extensive and specialized investigative studies, including: sampling and monitoring of soil, groundwater and building materials; and preparation of various work plans, safety plans, quality assurance project plans, and associated project reports. Studies completed included: a utility assessment including videotaping; a geophysical survey; test pits; borings; membrane interface probe (MIP) PID and halogen specific detector (XSD) and hydraulic profiling tool (HPT) data collection; installation and monitoring of overburden and bedrock groundwater monitoring wells. As part of DAY's

services, Mr. Danzinger also managed subcontractor procurement procedures, and interfaced with representatives of the Client and regulatory agencies. Mr. Danzinger played a critical role in the development of specialized innovative GIS interpolation modeling of soil and MIP XSD data that were successful in defining the extent of PCE IRMs, including source area soil removal and subsequent in-situ chemical oxidation using potassium permanganate. The project resulted in the City of Rochester receiving a Certificate of Completion from the New York State Department of Environmental Conservation (NYSDEC).

Slag and Fill Management Project, Greece and Rochester, New York: Project Manager to address fill material containing regulated solid waste (slag) that was generated during a City of Rochester redevelopment project and was inadvertently placed on a vacant residential subdivision parcel in the Town of Greece. Mr. Danzinger's responsibilities included: preparing for and attending meetings with municipalities, regulators, and the general public; development of work plans; coordination and management of field activities; and development of closure reports.

Former Air Force Plant No. 51, Greece, New York: This Site was used for the manufacture of ocean-going ships and cranes during and immediately following World War II, and for the manufacture of B-52 aircraft parts and Talos ground handling equipment during the 1950's. Mr. Danzinger was Project Manager for the investigation of this Site under the NYSDEC Voluntary Cleanup Program (VCP). Fifteen areas of concern (AOCs) were incorporated into seven operable units (OUs). Tasks Mr. Danzinger has managed include: development of environmental work plans and site-specific health and safety plans; inventory, characterization and disposal of abandoned wastes; sampling and dismantling of abandoned wet-type electrical equipment; investigation of, and development of a remedial work plan for a former wastewater treatment lagoon/pond area; investigation of an existing stormwater system and former septic system areas; investigation and remediation of a former underground storage tank area; and monitoring and recovery of dense non-aqueous phase liquid (DNAPL) as an interim remedial measure.

Former Photech Imaging Systems, 1000 Driving Park Avenue, Rochester, New York: Mr. Danzinger was responsible for managing the completion of a SI/RA report (NYSDEC Environmental Restoration Program Site ID B-00016-8) at this Brownfield Site that consisted of 12 vacant buildings of varying degrees of disrepair that were situated on an approximate 12.5-acre parcel. The buildings formerly housed various manufacturing, laboratory, office and warehouse operations. Various underground and aboveground storage tank systems and a wastewater silver recovery system were operated at the Site. Other features at the Site included a burn pit area, and a retention pond basin. The SI/RA identified the nature and extent of contamination and also identified options and associated estimated costs for cleanup.

Former Ford Garage, 2624 Main Street, Gorham, New York: On behalf of the Town of Gorham, New York, Mr. Danzinger managed environmental services at this Brownfield Site under the NYSDEC Environmental Restoration Program (Site ID#B-00153-8). These services included a Phase I ESA report, a Site Investigation/Remedial Alternatives (SI/RA) report, development of a Remedial Work Plan (RWP), Health and Safety Plan (HASP), and Citizen Participation Plan (CPP). The Site was formerly operated as an automobile sales and service facility, and also as a gasoline station. Remediation consisted of a source area soil removal, in-situ bioremediation, institutional controls and engineering controls. Mr. Danzinger managed the preparation of a Final Engineering Report (FER), a Site Management Plan (SMP), an Alta survey, and an Environmental Easement of the project, which resulted in the Town of Gorham receiving a Certificate of Completion from the NYSDEC.

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Former Vogt Manufacturing Facility, 100 Fernwood Ave., Rochester, New York: Under the NYSDEC Brownfield Cleanup Program (BCP Site #C828119), Mr. Danzinger managed remedial investigation and implementation of interim remedial measures at this Brownfield Site. This industrial-zoned Site consists of eleven contiguous parcels totaling approximately 8.14 acres that was originally occupied by Vogt Manufacturing Corporation, which manufactured auto trimmings (e.g., textile trimmings spinning and weaving). The main building was later converted for multi-tenant light industrial/commercial use, including plastic products manufacturer, tool and die makers, machine shops, painters, printers, graphics companies, and sheet metal contractors. Mr. Danzinger was responsible for the development of a Remedial Investigation/Remedial Alternatives Analysis (RI/RAA) report, a Remedial Work Plan (RWP), a Final Engineering Report, and a Site Management Plan (SMP). Mr. Danzinger also assisted in the preparation of an Alta Survey and Environmental Easement for the Sites. As a result of the work completed, the Client received a Certificate of Completion from the NYSDEC.

High-Rise Apartment Complex, 185 Mt. Hope Ave., Rochester, New York: Under the NYSDEC Brownfield Cleanup Program (BCP Site #C828124), Mr. Danzinger managed remedial investigation and implementation of remedial measures at this Brownfield Site. This Site consists of an apartment building with an associated paved parking lot located on approximately 1.106 acres of land. The apartment building houses 202 residential units, totals approximately 143,000 square feet, and consists of a multi-level eight to twelve-story brick and concrete-block, slab-on-grade building constructed in 1975. Prior to the residential development in 1975, former uses at the Site included: rail yards, former Erie Canal feeder, and possibly a portion of a gasoline station. The remedy included: a source area soil removal; in-situ remediation, and preparation of a Final Engineering Report (FER), Site Management Plan, and Environmental Easement. As a result of the work completed, DAY's client received a Certificate of Completion from the NYSDEC, the apartment building was renovated, and exterior Site improvements were constructed.

Low-Rise Apartment Complex, 225-405 Mt. Hope Ave., Rochester, New York: Under the NYSDEC Brownfield Cleanup Program (BCP Site #C828125), Mr. Danzinger managed the remedial investigation and remediation at this Brownfield Site. This Site consists of approximately 6.016 acres of land that was improved with five four-story apartment buildings. The brick and concrete-block, slab-on-grade apartment buildings were constructed in 1975, and these buildings housed 200 units totaling approximately 205,000 square feet. Prior to residential development in 1975, past uses/activities at the Site included commercial, warehouse, feeder canal, rail yards, a work shop, auto repair, car sales, a wagon shop, a junk-yard and iron cutting facility, a brick storage yard, a tannery, and a coal yard. The remedy included abatement of PCB transformers, source area soil removals, in-situ remediation, preparation of a site management plan and environmental easement, and removal of impacted topsoil across the site. As a result of the work completed, the five old apartment buildings were demolished, the Client received a Certificate of Completion from the NYSDEC, and nine new multi-story residential buildings and associated exterior improvements were constructed.

Former Manufactured Gas Plant (MGP), Canandaigua, New York: Mr. Danzinger was involved with the development and implementation of a work plan and health and safety plan to evaluate this Site. Mr. Danzinger managed the associated site studies consisting of test borings/monitoring well installation, soil gas studies, sampling and testing of impacted media (e.g. soil/fill, groundwater, surface waters/sediments) to characterize site conditions and delineate contaminant plumes. Based upon the assessment of site conditions, Mr. Danzinger assisted in the development of a report that summarized the findings of the environmental studies, identified various remedial options consisting of a combination of waste removal/isolation and in-situ treatment, and presented conceptual remedial design schemes with estimated implementation costs.

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80-100 Charlotte Street, Rochester, New York: DAY initially completed Phase I ESA, Phase II ESA and cost estimating services for this Site using City of Rochester funding mechanisms. Through a competitive request for proposal process, the City of Rochester subsequently awarded DAY the Brownfield Cleanup Project for this Site that was funded with a USEPA Brownfield Initiative Grant. DAY's services under the USEPA Brownfields Initiative Grant included: the development of an Analysis of Brownfields Cleanup Alternatives (ABCA) report; review of a Citizens Participation Plan (CPP) that was developed by the City of Rochester; the development of a corrective action plan (CAP) and a health and safety plan HASP); coordination, management, documentation and implementation of a source area soil removal enhanced by the placement of bioremediation stimulant product in a portion of the excavation; utilization of global positioning system (GPS) and geographical information system (GIS) on the project, installation and monitoring of groundwater wells on a long-term basis; and associated reporting of the work completed at the Site. No further action is required by the NYSDEC for this Site. Mr. Danzinger also managed EMP requirements at this Site during redevelopment that involved construction of a five new multi-story townhouse buildings.

Former Hallman's Auto Dealership, Rochester, New York: Site was formerly used as an automobile dealership and service center for over 50 years. Redevelopment of this Brownfield site included demolition of the service garage, construction of new residential apartments and townhouses, and conversion of a portion of the existing building (including former automobile showroom) into retail/restaurant commercial space. Mr. Danzinger completed an ASTM RBCA risk assessment using site-specific data generated during a Phase II environmental study and the proposed residential and commercial uses of portions of the site. As a result of performing the risk assessment, risk-based corrective measures that were completed in conjunction with redevelopment at this Site included: removal of over 20 underground storage tanks, removal and off-site disposal of petroleum-contaminated soils and fill material containing ash with elevated levels of heavy metals; design and installation of a free product recovery system; design and installation of passive venting systems with a vapor barrier; and design and installation of a soil vapor extraction system. Mr. Danzinger was responsible for developing and implementing an environmental project work plan, a health and safety plan, and an environmental management plan for this redevelopment project. In addition, DAY provided on-site environmental air monitoring services and site documentation services during construction activities that had the potential to disturb contaminated media. After the project was completed, Mr. Danzinger was involved with the development of a closure report for this Site.

Former Railroad Car Shops Site, East Rochester, New York: Mr. Danzinger was responsible for managing subsurface studies and an ASTM RBCA risk assessment on a portion of this former railroad car shop site. The Site was confirmed to be impacted with fill containing elevated heavy metals and weathered petroleum product. Mr. Danzinger was involved with the development and implementation of a health and safety plan and environmental management plan that included the design and monitoring of a passive vapor barrier vent system that was installed beneath a new industrial building that was constructed on this Site. In addition, DAY provided on-site environmental air monitoring services and site documentation services during construction activities that had the potential to disturb contaminated media. This project was successful in identifying pre-existing environmental conditions prior to transfer of ownership while obtaining regulatory agency approvals for the new owner to redevelop the vacant parcel with a new industrial facility.

Former Petroleum Bulk Storage Facility, Mt. Morris, New York: Mr. Danzinger managed an environmental site investigation at this former petroleum bulk storage facility under the New York State Environmental Restoration Bond Act Program. Mr. Danzinger was involved in the preparation and implementation of detailed work plans, implementation of fieldwork, and preparation of a Site Investigation/Remedial Alternatives Report (SI/RAR).

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Residential Care Facility, Rochester, New York: DAY's Client developed this approximate 3-acre property into a residential care facility on property that formerly contained several vehicle repair shops/gasoline stations, the City of Rochester Streets Department maintenance facility and the City of Rochester automobile pound. In addition, a portion of the Erie Canal, later converted to a trolley system, traversed the property. Subsequently, the canal/trolley line was backfilled with various construction-type debris and other assorted material (including petroleum-contaminated material). Mr. Danzinger was involved with development of a health and safety plan and an environmental management plan (EMP), which included the removal of localized areas of petroleum-contaminated soil for treatment via an on-site 4,500 cubic yard biopile, the installation of an active venting system installed beneath the building footprint, and long-term monitoring. DAY also provided on-site environmental air monitoring services and site documentation services during construction activities that had the potential to disturb contaminated media.

Multiple-Parcel Brownfield Site, Rochester, New York: Responsible for the completion of a Phase I ESA for the City of Rochester at a five-parcel Brownfield site. The Site is located within the Western Gateway Zone of the New York State Economic Development Zone (EDZ) Program, and the City of Rochester was evaluating the restoration of these parcels for incorporation into an adjoining industrial park. Site improvements encompassed over 610,000 square feet of floor space in multiple level industrial buildings of varying structural condition. Former uses of the Site included: appliance manufacturing, tool and die shops, printing/lithographing operations, shoe manufacturing, circuit board manufacturing, box manufacturing; cabinet manufacturing; possible foundry operations, chromium plating operations, basket manufacturing, automobile services, welding operations, and warehousing/distribution operations. Mr. Danzinger was also responsible for the management of Phase II Studies on a portion of this Site.

14-60 Charlotte Street, Rochester, New York: This Brownfield Site consisted of seven parcels of underutilized commercial land totaling approximately 1.3 acres. Mr. Danzinger was responsible for managing a Phase I ESA, Phase II studies, and remediation services at the Site. Contamination addressed at this Site was attributable to an on-site UST, on-site former automobile repair operations, on-site fill materials, and off-site dry-cleaning and automobile repair operations. Project deliverables included: a Phase I ESA report, Phase II reports, a Corrective Action Plan (CAP); a Health and Safety Plan (HASP) that included a Community Air Monitoring Plan (CAMP); an Environmental Management Plan (EMP); an exposure assessment with site-specific PSSI calculations; a closure report, and conceptual sub-slab depressurization system (engineering control) designs for use during redevelopment of the Site. Mr. Danzinger also managed EMP requirements at this Site during redevelopment that involved construction of a new multi-story apartment building.

Assessment of Transformer Maintenance Shop at Utility Company, Rochester, New York: A utility company's facility contained a transformer maintenance shop that had been operated since the 1950s. Mr. Danzinger managed the development and implementation of a characterization sampling plan; evaluated the characterization data and identified areas requiring remediation; and developed a report documenting the investigation and proposed remedial actions. This project was conducted in accordance with 40 CFR §§ 761. The USEPA documents titled "Verification of PCB Spill Cleanup by Sampling and Analysis" dated August 1985, "Field Manual for Grid sampling of PCB Spill Sites to Verify Cleanup" dated May 1986, "Wipe Sampling and Double Wash/Rinse Cleanup" dated April 18, 1991, and. Region 1 "Draft" document titled "Standard Operating Procedure For Sampling Concrete in the Field" dated December 1, 1997 were utilized in the sampling protocol.

DAY ENVIRONMENTAL, INC.

CHARLES A. HAMPTON

EXPERIENCE

Day Environmental Inc.: June 2008 to present
Years with Other Firms: 3 years

AREAS OF SPECIALIZATION

- Environmental Site Assessment
- Environmental Restoration
- Geographical Information Systems (GIS)

EDUCATION

Trinity University; B.S. Geology; 2000
Various continuing education seminars in Environmental Site Assessments and GIS

REGISTRATIONS/AFFILIATIONS

24-Hour OSHA Hazardous Waste Site Worker Training
8-Hour OSHA Hazardous Waste Site Worker Refresher Training

RESPONSIBILITIES AND PROJECT EXPERIENCE

Mr. Hampton's current responsibilities include management of Phase II Environmental Site Assessments and ongoing environmental remediation projects. Mr. Hampton has over 10 years of professional experience working on environmental projects as a consultant. Mr. Hampton has also performed various geotechnical and hydrogeologic tasks while working on projects as a consultant with other firms.

Site Redevelopment, Rochester New York: Responsible for the management of tasks required by a site-specific Environmental Management Plan implemented during the redevelopment of an urban property into multi-family residences. Work included management of continuous air monitoring during excavation activities, removal and disposal of petroleum-contaminated fill material, and the preparation of reports documenting the various tasks implemented at the site.

Tank Removal, Rochester New York: Responsible for coordination, observation and documentation of the removal of multiple underground storage tanks at a former gas station site. Tasks included coordination of subcontractors, confirmatory sampling, and the preparation of tank removal documentation.

Fill Removal, Rochester, New York: Responsible for the oversight of removal of contaminated fill material at a former sewage treatment plant location. Work included intrusive investigations and sampling to quantify the extent of contamination, confirmatory sampling during soil removal, and the preparation of a report to document the removal.

Phase I Assessments, New York State: Conducted Phase I Environmental Site Assessments for the purpose of real estate transactions. These assessments were conducted on a variety of different types of facilities including agricultural, residential, commercial, and industrial properties.

Phase II Assessments, New York State: Conducted Phase II Environmental Site Assessments for the purpose of contaminant identification and categorization. These assessments were conducted on a variety of different types of facilities including agricultural, residential, and commercial properties.

Geotechnical and Hydrologic Investigations, New York State: Staff Geologist responsible for various investigations to determine geotechnical and hydrogeologic site properties for residential and commercial development.

APPENDIX D

Proposed IRM Project Schedule
441 Chandler Street
Jamestown, New York
NYSDEC Site No. C907048