FINAL BASIS OF DESIGN REPORT

Former Adirondack Steel Site
Operable Units 02 and 03 (Site No. 401039)
Albany County, Colonie, New York

Prepared for:

NEW YORK STATE OF OPPORTUNITY | Department of Environmental Conservation

New York State Department of Environmental Conservation
Division of Environmental Remediation

Prepared by:

EA ENGINEERING, P.C. and Its Affiliate
EA SCIENCE and TECHNOLOGY

October 2017

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Prepared for

New York State Department of Environmental Conservation
Division of Environmental Remediation
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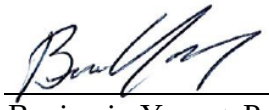

24 October 2017

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TABLE OF CONTENTS

Page

LIST OF FIGURES

LIST OF TABLES

LIST OF ACRONYMS AND ABBREVIATIONS

µg/L	Microgram(s) per liter
BOD	Basis of Design
bgs	Below ground surface
CFR	Code of Federal Regulations
cm/sec	Centimeters per second
CP	Canadian Pacific
cy	Cubic yard
DER	Division of Environmental Remediation
DPT	Direct push technology
EA	EA Engineering, P.C. and Its Affiliate EA Science and Technology
EEEPC	Ecology and Environment Engineering, P.C.
EPA	United States Environmental Protection Agency
FS	Feasibility study
ft	Feet (foot)
GZA	Goldberg, Zoino Associates
IRM	Interim Remedial Measure
LKD	Lime kiln dust
mg/kg	Milligram(s) per kilogram
ND	Non-detect
NFA	No Further Action
No.	Number
NUS	NUS Corporation
NYSDEC	New York State Department of Environmental Conservation
OU	Operable unit
PCB	Polychlorinated biphenyl
PDI	Pre-design investigation
Popli	Popli Design Group
POTW	Publicly owned treatment works
ppb	Pats per billion
ppm	Parts per million

RA	Remedial action
RCRA	Resource Conservation and Recovery Act
RD	Remedial design
RI	Remedial investigation
ROD	Record of decision
ROW	Right-of-way
SCG	Standards, criteria and guidance
SCO	Soil cleanup objective
SMP	Site management plan
SVOCs	Semi-volatile organic compounds
TSCA	Toxic Substances Control Act
VOC	Volatile organic compound
WA	Work assignment

1. INTRODUCTION

The New York State Department of Environmental Conservation (NYSDEC) issued a Work Assignment (WA) to EA Engineering, P.C. and Its Affiliate EA Science and Technology (EA) to perform Pre-Design Investigation (PDI) activities and prepare a remedial design (RD) for the Former Adirondack Steel Site Operable Unit (OU)-2 and OU-3 (Site Number [No.] 401039) located in Colonie, New York (**Figure 1**).

The Record of Decision (ROD) for OU-3 (NYSDEC 2015) calls for the excavation and offsite disposal of polychlorinated biphenyl (PCB) contaminated soil exceeding 1 part per million (ppm) in the top foot of soil and 10 ppm below the top foot of soil. The ROD for OU-2 (NYSDEC 2016) states that, to the extent feasible, as limited by the proximity to an active railroad, soil, sediment, and fill from OU-2 exceeding 1 ppm of PCBs will be excavated and transported offsite for disposal. Between the two RODs, it was estimated that 20,500 cubic yards (cy) of material would need to be removed and disposed of offsite.

This Basis of Design (BOD) is consistent with the remedial actions (RAs) outlined in the OU-3 and OU-2 RODs; however, based on an evaluation of historical data and performance of additional sampling, EA has refined the excavation areas presented in the RODs (using a grid system) to more systematically identify the extent of contamination and to recalculate the required excavation volumes. Within OU-3, EA has estimated that approximately 6,711 cy of material exceeds the cleanup criteria presented in the ROD and requires removal and offsite disposal; within OU-2, approximately 4,575 cy of material exceeds the cleanup criteria presented in the ROD and requires removal and offsite disposal (for a total of approximately 12,370 cy).

This BOD Report provides a foundation to develop the contract documents required to execute the proposed RAs. In addition, this BOD Report summarizes the results of the PDI, and includes an assessment of the proposed debris, soil, and sediment removal. This report also provides design assumptions that will be used to prepare contract specifications and preliminary design plans, as well as regulatory requirements for handling and disposal of contaminated materials.

The BOD Report is organized as follows:

- ***Section 1***—Introduction.
- ***Section 2***—Site Description. This section provides a brief description of the site, its operational history, and the RAs for the two OUs presented in the RODs (NYSDEC 2015 and 2016).
- ***Section 3***—Pre-Design Investigation Summary. This section presents the results of the PDI activities conducted by EA during 2016 and 2017.
- ***Section 4***—Basis of Design. This section presents the nature and extent of impacted soil, sediment, and other materials. This section presents the design assumptions that will be

used for the preparation of the contract documents, including preliminary design drawings, specifications, bid documents, the Site Management Plan (SMP), and the Environmental Easement. Regulatory requirements for the RAs and a description of changes to the selected remedy as defined by the ROD are also included.

- ***Section 5***—Drawings and Specifications. This section presents the preliminary design drawings and specifications to be used in the development of contract documents.

2. SITE DESCRIPTION

The Former Adirondack Steel Site is currently a Class 2 site listed on the NYSDEC Registry of Inactive Hazardous Waste Sites (Site No. 401039). The site is located at 191 Watervliet-Shaker Road in the Town of Colonie, Albany County, New York, and is the location of an abandoned steel mill; the Adirondack Steel Casting Co. Inc. A site location map is provided in **Figure 1**.

Adirondack Steel Casting Co. Inc. produced steel casting for various industrial customers. The site contained transformers associated with the steel mill that were the source of the known PCB contamination at the site. A variety of tenants also occupied the property while it was known as the Adirondack Industrial Park. PCBs are understood to have reached soil at the site through routine maintenance of transformers, poor handling of used fluids, and/or unauthorized scavenging. The property contains eight dilapidated, unoccupied buildings (two of which are on the Class 2 site), foundation slabs of the original production buildings, deteriorating access roads, and emerging tree growth (**Figure 2**). The northern end of the property also contains a 9-acre landfill that received spent foundry and core sands; furnace slag and refractories; and dust from collector furnace and slag.

The Former Adirondack Steel Site currently occupies 4.2 acres of the 38.5 former industrial property and includes three OUs: OU-1 (0.4 acres onsite), OU-2 (2.1 acres offsite), and OU-3 (3.8 acres onsite).

- **OU-1:** Comprised of the soil in the vicinity of the North Power Station and South Power Station where electrical equipment containing PCBs and volatile organic compounds (VOCs) was maintained or damaged resulting in releases of fluid to the ground surface. These releases resulted in the contamination of the soil in three locations over a portion of the Former Adirondack Steel Site property. OU-1 includes the former excavation areas near the former power station buildings and foundation slabs, and is contained within the boundaries of OU-3. OU-1 remedial work has been completed and a No Further Action (NFA) ROD was signed on 31 March 2010.

- **OU-2:** Comprised of the offsite drainage ditch that runs along the eastern and northern boundary of the Former Adirondack Steel property. The ditch also borders the west side of the Canadian Pacific (CP) railroad right-of-way (ROW). The drainage ditch is a concrete and rip-rap lined swale. The ditch primarily consists of surface water runoff from the site and discharge from OU-3 drainage ditch. Water in the ditch is stagnant at some locations and flows south starting from a grade break located near the southern end of OU-3 (**Figure 2**) south of the metal building. Surface water south of the grade break flows south through the drainage ditch offsite near Watervliet-Shaker Road. North of this point, it drains in a northerly direction to where it extends below Barker Lane, to a point near Early Drive where it turns east, crossing below the CP railroad ROW. Sediment and soil within the drainage ditch is contaminated with PCBs originally released from OU-1, with higher detections located at the confluence of the OU-3 and OU-2 drainage ditches. Further samples were collected as part of a PDI in April 2017.

- **OU-3:** Comprised of the onsite drainage ditch and adjacent uplands consisting primarily of fill material and associated surface debris piles located sporadically within the boundaries of OU-1 and OU-3. It contains portions of the site with PCB contaminated soil not included in OU-1. To the west and north, OU-3 borders a large foundation slab and other unused buildings, and CP railroad to the east. A PDI was completed at OU-3 in October and November 2016.

The Former Adirondack Steel Site property is zoned "industrial" and has been acquired by a private party. A composting facility has been constructed on the offsite western portion of the property not impacted by PCBs. The area surrounding the Adirondack Steel Co. property is a mix of industrial and residential use. A site layout map is provided in **Figure 2**.

2.1 PREVIOUS INVESTIGATIONS AND ACTIVITIES

2.1.1 Soil and Surface Water Sampling – 1979

In 1979, Clough Associates conducted a review of operations of the landfill due to NYSDEC regulations of solid waste facilities. No cover material was spread over the wastes when it was active and the landfill is unlined (NUS Corporation [NUS] 1991). Permeability tests were performed on the landfill material. At the time, the top 2 feet (ft) of the landfill material exhibited no percolation, indicating a very low permeability. Materials deeper than 2 ft were found to have a permeability coefficient between 10^{-4} and 10^{-5} centimeters per second (cm/sec). The natural clay soils beneath the landfill were found to have a permeability coefficient of 10^{-6} cm/sec.

Two samples of the landfill soil material were collected by Clough Associates. The exact locations of sample collection is unknown. They were analyzed and found to contain phenol (0.38 milligrams per kilogram [mg/kg]), copper (53–141 mg/kg), chromium (97–157 mg/kg), lead (28.8–47 mg/kg), and zinc (21.4–65 mg/kg) (Ecology and Environment Engineering, P.C. [EEEPC] 2008).

Three surface water samples were also collected: one upstream sample and two downstream/landfill runoff samples. The exact locations of sample collection is unknown. Higher levels of silver, nickel, zinc, chlorine demand, 5-day biological oxygen demand, and chemical oxygen demand were found in downstream versus upstream samples (EEEPC 2008). It was concluded that the landfill was not producing significant quantities of leachate.

2.1.2 Investigation 1988–1989

Goldberg, Zoino Associates (GZA) reportedly performed a 4-month investigation at the site from November 1988 to February 1989. Thirty to forty wells were reported to have been installed, but during the 1991 Site Investigation by NUS, only four wells were located (NUS 1991). No further details on the investigation activities conducted by GZA are known.

2.1.3 Site Investigation – 1991

NUS prepared a site inspection report under contract to the United States Environmental Protection Agency (EPA) (NUS 1991). In November 1990, one groundwater sample, 4 surface water samples, 3 sediment samples, and 8 soil samples were collected at the Former Adirondack Steel Site. These samples were analyzed for VOCs, semi-volatile organic compounds (SVOCs), PCBs, pesticides, and inorganic compounds (EEEPC 2008).

A groundwater sample was collected near the southeast corner of the site. It was found to contain a low level of Aroclor 1260 and several metals, with significant levels of lead and manganese.

Significant levels of carbon disulfide, chlorobenzene, 1,4-dichlorobenzene, and Aroclor 1260 were found in surface water and/or sediment samples, especially at the location where the OU-3 drainage ditch empties into the OU-2 drainage ditch. Elevated levels of metals such as aluminum, barium, chromium, copper, and manganese were also found.

Surface soils were collected in two locations within the landfill. They were found to contain Aroclor 1260 and elevated concentrations of several metals (e.g., chromium, copper, iron, nickel). Surface soil samples were collected from the eastern portion of the site. Elevated concentrations of many metals were found in the samples, with the highest concentrations of individual metals often found in samples taken between the former furnace and power buildings. An elevated concentration of Aroclor 1260 (2,800 ppm) was also found near the former power buildings.

2.1.4 Action by the United States Environmental Protection Agency – 1990s

NYSDEC referred the Former Adirondack Steel Site to the EPA in July 1992 for immediate appropriate action under the Emergency Response Program in order to alleviate surficial PCB contamination at and around the north transformer pad. As a result, the EPA initiated an Emergency Removal Action in 1993. In order to reduce the potential for additional offsite migration of PCB-laden soils, the contaminated soils were excavated and stored in a small, secured warehouse building onsite. In September 1994, the EPA issued an Administrative Order to Timmons Corporation, the property owner at the time. The Timmons Corporation responded with the intent to comply and consolidated the contaminated soil in another secure building on the east side of the property. The owner reportedly intended to dispose of the soil offsite in 1998, but failed to do so. Therefore, the EPA completed disposal in 1999.

2.1.5 Remedial Investigation (OU-1 and OU-3)

A Remedial Investigation (RI) was performed for OU-1 and OU-3 between 2005 and 2007 by EEEPC (EEEPC 2008). The first phase of the RI was performed in October through December 2005 and April 2006. Additional RI fieldwork was performed in May through August 2007. In April 2008, EEEPC further assessed the lateral extent of PCB contamination in sediment located in bermed soil east of Lincoln Avenue, in the ROW and in the OU-2 drainage ditch.

The RI activities included a site visit; records search; asbestos, surface water, and sediment, manhole/sump water and sediment, surface soil, groundwater and existing drum sampling; drum inventory; geophysical survey of the landfill; subsurface direct-push investigation; monitoring well installation; well development and aquifer testing; test trench excavations; site survey; transformer, drum and capacitor removal; and development of a site base map. One general conclusion from the RI is that the site is mainly contaminated with PCBs and selected metals with minor occurrences of VOCs and SVOCs (EEEPC 2008).

2.1.6 Interim Remedial Measure

Based on the results of the RI, an interim remedial measure (IRM) was conducted to excavate PCB contaminated soil in OU-1 (EEEPC 2010). The primary purpose of the IRM was to excavate all PCB contaminated soil greater than or equal to 1 ppm from the top foot of soil and excavate soil greater than or equal to 10 ppm from all depths within the OU-1 area. Confirmation soil samples were collected from each excavation to ensure all PCB contaminated soil was removed. This RA was conducted from 4 May 2009 through 1 July 2009. Over the course of the IRM, 2,044 tons of hazardous soils and 1,611 tons of non-hazardous soils were disposed of offsite. Hazardous soil is defined by the Toxic Substances Control Act (TSCA) (40 Code of Federal Regulations [CFR] 261) as soil containing PCBs greater than equal to 50 ppm.

2.1.7 Record of Decision for OU-1

In March 2010, NYSDEC completed the ROD for OU-1 (NYSDEC 2010a). The ROD stated NFA would take place for OU-1 and imposed institutional controls to prevent excavation/surfacing of subsurface soils.

2.1.8 Remedial Investigation for OU-2

In 2011, EEEPC conducted additional PCB delineation sampling in OU-2. Sediment and soil was collected near the railroad and north drainage ditch of OU-2. A total of 102 subsurface soil borings were installed using direct-push technology (DPT) across the OU-2 drainage ditch. Samples were analyzed for PCBs with select samples also being analyzed for VOCs, SVOCs, and total organic compounds. PCBs were detected above the EPA screening criteria for analytical Method SW8082 in 26 samples. The report concluded that PCBs are pervasive throughout the drainage ditches in sediment and subsurface soil samples, with the highest concentrations found near the intersection of the OU-2 and OU-3 drainage ditches.

2.1.9 Supplemental Remedial Investigation/Feasibility Study for OU-3

A supplemental RI was performed for OU-3 in 2014 (EEEPC 2014a) to further delineate PCB contamination and identify data gaps to assist in the evaluation of remedial alternatives in the Feasibility Study (FS) (EEEC 2014b), and remove and dispose of a debris pile located in OU-3. EEEPC collected subsurface soil samples from 13 locations from 2 to 4 ft below ground surface (bgs) and 4 to 8 ft bgs. Samples were also collected near the debris pile. EEEPC removed and

disposed of 111 tons from the debris pile composed mainly of empty plastic containers. Based on the RI and FS, the NYSDEC issued the ROD identifying the selected remedy for OU-3 (NYSDEC 2015).

2.1.10 Record of Decision for OU-3

The selected remedy identified in the ROD (NYSDEC 2016) includes excavation and offsite disposal of PCB contaminated soil, sediment, and fill from OU-3, backfilling of the excavation with clean fill, abandonment of onsite groundwater monitoring wells, imposition of institutional controls, and development of a corresponding site management plan. Soil cleanup objectives (SCOs) for PCBs as specified in the ROD are 1 ppm for surface soil (0–1 ft bgs) and drainage ditch sediment, and 10 ppm for subsurface soils (>1 ft bgs). The ROD estimated that approximately 18,400 cy of soil would need to be removed from OU-3 to achieve RA objectives.

2.1.11 Record of Decision for OU-2

In March 2016, an ROD was issued for OU-2 (NYSDEC 2016). The selected remedy includes excavation and disposal (to the extent feasible) of soil, sediment, and fill from the OU, which exceeds 1 ppm of PCBs. It was estimated that approximately 2,100 cy of material would need to be removed from the OU-2 drainage ditch.

2.1.12 Pre-Design Investigations for OU-3 and OU-2

A PDI was conducted for OU-3 and OU-2 in October through November 2016 and April 2017, respectively. Additional samples were collected from the two OUs to fill data gaps and develop the BOD. Results of the PDIs are discussed in Section 3.

2.2 CLEANUP CRITERIA

Analytical results for the Former Adirondack Steel Site are compared to applicable and relevant SCGs associated with remedial sites under the NYSDEC Division of Environmental Remediation (DER)-10 Technical Guidance for Site Investigation and Remediation (NYSDEC 2010b). SCGs are promulgated requirements and non-promulgated guidance which govern activities that may affect the environment, and are widely used at different stages of investigation and remediation of a site.

The historical and PDI data were evaluated using SCGs, and the RAs will be evaluated against the SCGs established in the ROD as follows:

- 6 New York CFR Part 375 Environmental Remediation Programs SCOs (NYSDEC 2006, as amended)

- NYSDEC Final Commissioner Policy, CP-51 (October 2010c)

CP-51 defines SCOs for PCBs under Section I for presumptive soil remedies where neither the unrestricted SCO nor the ecological SCO are applicable. Specifically, CP-51 SCOs for PCBs are:

- 1 ppm for surface soils (0–1 ft bgs) and drainage ditch sediment
- 10 ppm for subsurface soils (>1 ft bgs).

Furthermore, the data were also compared to the following disposal criteria:

- TSCA (40 CFR 761), which applies to materials containing concentrations of PCBs greater than 50 ppm for disposal.

- Resource Conservation and Recovery Act (RCRA) (40 CFR 261) to determine if any waste materials would carry a hazardous waste code based on Toxicity Characteristic Leaching Procedure analysis.

3. PRE-DESIGN INVESTIGATION SUMMARY

The PDI activities involved sample collection from OU-3 and OU-2, which were performed by EA under two separate NYSDEC WAs during 2016 and 2017. For the OU-3 PDI, EA collected 5-point composite surface soil samples, surface soil grab samples, and soil boring samples from discrete depth intervals. For the OU-2 PDI, samples of sediment in the drainage ditch, surface and subsurface soil from the banks of the drainage ditch, and composited surface samples from the OU-3 debris piles were collected. As shown in **Figures 3 and 4**, EA established and utilized a 25 ft by 25 ft, alpha-numerical grid system which enabled a systematic evaluation of PCB contamination. Topographic surveys of OU-2 and OU-3 (pre- and post-sampling) and a stormwater flow study were also performed.

The field sampling locations, collections procedures, and laboratory analyses performed on samples during the investigations are presented in the PDI Report, Former Adirondack Steel Site OU-03 (EA 2017a) and PDI Report, Former Adirondack Steel Site OU-02 (EA 2017b). **Figures 3 and 4** depict all of the PDI sampling locations for OU-2 and OU-3.

3.1 SITE SURVEY

Popli Design Group (Popli) of Penfield, New York, a New York State licensed Land Surveyor, completed a high-resolution topographic survey in October 2016 (pre-sampling) and April 2017 (post-sampling). The survey covered approximately 4.2 acres of OU-3, areas north and west of OU-3 and the areas west of OU-2; the survey ties into previous surveys, also performed by Popli, of the OU-2 drainage ditch. In addition, Popli marked out OU-3 and OU-2 sampling locations prior to sampling. A topographic survey can be found in the drawing set provided in **Appendix A**.

3.2 OU-3 CONTAMINATION DELINEATION

3.2.1 Lithological Characterization

Samples from 29 soil borings were collected in OU-3 during October 2016. For the majority of the borings, topsoil and organic material were encountered at grade, which overlays a sand or silty sand and gravel fill material. Some of the soil borings were advanced through the gravel driveway or adjacent to debris piles. In these instances, subsurface material generally had a higher amount of gravel and/or glass and debris. Two soil borings were advanced to native soils; SB-B2 (advanced to 4 ft bgs) and SB-136 (advanced to 10 ft bgs) both recovered a grey clayey silt material.

EA combined the results of the PDI investigation with previous investigations to generate two cross sections depicting lithology west to east (**Figure 5**) and south to north (**Figure 6**) across the site. Cross section A-A' (**Figure 5**) shows the depth to native soil and bedrock generally increasing from west to east, with native soil found 4–6 ft bgs on the north west portion of OU-3 and approximately 17 ft bgs on the north east portion of OU-3. Depth to native soil in the OU-2

drainage ditch is approximately 7 ft bgs. Bedrock follows a similar trend and is found progressively deeper from west to east across OU-3.

Moving south to north, cross section B-B' (**Figure 6**) shows the depth to native soil and bedrock varies without a consistent trend. Native soil is shallowest (2–4 ft bgs) in the OU-3 drainage ditch (SB-NDW-CTR-002), near the OU-1 excavation area (SB-H9 and SB-1), and at the southern end of the site (SB-31). Depth to bedrock varies between 22 ft bgs in the OU-3 drainage ditch and approximately 29 ft bgs along the banks of the OU-2 drainage ditch.

3.2.2 Surface Soil Sampling

EA collected 16 composited surface soil samples from 16 grid locations as well as 12 grab samples with the purpose of defining horizontal limits of PCB contamination in OU-3.

- Of the 16 composited surface soil samples collected, 13 samples contained concentrations of total PCBs greater than 1 ppm, exceeding the SCO for surface soil.
  - — Five of the 16 composite surface soil samples had concentrations of PCBs exceeding 50 ppm, exceeding TSCA standards.
  - — The samples collected from SB-D13B and SB-SIDEA6(X)-6.5' were located within the footprint of the OU-1 area (**Figure 3**) excavated in 2010 and had results exceeding 50 ppm.
- Results from surface soil grab samples (0–1 ft bgs) ranged in concentration from non-detect (ND) (SB-B16 and SB-F15) to 15 ppm (SB-D14a), with the majority of results below the 1 ppm SCO. Only 2 of 12 grab surface samples exceeded surface criteria (SB-A16 and SB-D14a):
  - — Sample grid C67 (SB-A16) is located on the boundary of OU-3 and OU-2. Based on the data of previous investigations, it was suspected C67 would have concentrations of PCBs below SCOs. Based on the results from the PDI, SB-A16 had a concentration of 1.6 ppm.
  - — SB-D14a was located within an area that, in previous investigations, was determined to be clean. However, the sampling grid is adjacent to grid I64 where PCBs were observed at a concentration greater than 50 ppm.
- The remaining 13 surface sampling locations (both grab and composite) had PCB concentrations below the CP-51 surface soil standard of 1 ppm.

Surface soil results are detailed with all other historical results in **Table 1**. Horizontal extents of surface contamination are defined on the northern side of the drainage ditch, and data seems to indicate that contamination is mainly in the northern portion of the site, from grid rows 60–72.

It should be noted that confirmation sampling performed during the OU-1 IRM excavation in 2009 reported PCB concentrations below SCOs; however, follow-up DPT sampling performed during the OU-2 RI found PCB concentrations of 4.6 ppm collected from 12–16 ft bgs, and the results from the PDI also suggest that surface contamination may still exist in these areas. Samples SB-H14, SB-F13, and SB-G14B are located along the edge of a concrete pad and were selected in the PDI work plan to horizontally delineate the extent of PCB contamination. Given the results from previous investigations in adjacent grids, it was not expected that concentrations would exceed TSCA limits of 50 ppm. However, these 3 locations (all of which are along the edge of a concrete pad) had PCB concentration meeting TSCA's definition of hazardous waste.

3.2.3 Sub-Surface Soil Sampling

The purpose of the subsurface soil sampling was to vertically delineate PCB contamination. Samples from the soil boring locations were collected using DPT at various depths, ranging from 2 to 10 ft bgs.

- Concentrations of PCBs in subsurface soil samples obtained during the PDI ranged from ND to 110 ppm across the site.

- Generally, PCB concentrations in subsurface soils sampled during the PDI were below the 10 ppm SCO with the exception of SB-030-0405 and SB-156-0506 (with concentrations of 20 ppm and 13 ppm, respectively), as well as 2 samples that exceeded TSCA. The 2 samples with PCB concentrations exceeding TSCA were SB-156-0405 and SB-A18-0102 with results of 110 ppm and 78 ppm, respectively.

- Sample locations SB-A18 and SB-156 are both located at the northeastern portion of the site, along the OU-2 and OU-3 boundary.

  — SB-A18 is at the confluence of the OU-3 and OU-2 drainage ditches, where hazardous concentrations of PCBs have been found. In previous investigations, it was concluded that PCBs migrated via the OU-3 drainage ditch to OU-2.

  — SB-156 is located slightly southwest of SB-A18 in grid area C67, which is adjacent to a TSCA classified grid (C68). The C67 grid was previously classified as having PCBs below CP-51 based on historical data. The results from sampling grid SB-156 show PCB concentrations exceeding 110 ppm (from 4 to 5 ft bgs) and 13 ppm from (5 to 6 ft bgs). While there is a significant decrease in PCBs from 4 to 5 ft bgs and 5 to 6 ft bgs at SB-156, the grid space is not vertically delineated as there are no results deeper than 6 ft bgs with concentrations below SCOs of 10 ppm.

- EA confirmed the vertical extent of contamination in 29 of the 48 grid spaces sampled, since the deepest subsurface sampling results were observed to be below the SCO of 10 ppm. In addition, 2 samples collected from native soil (SB-136 and SB-B2) had PCB concentrations below 1 ppm, suggesting native soils are likely the vertical boundary of

PCB contamination. The 2 cross-sections generated with historical data (**Figures 5 and 6**) show the majority of PCB contamination as being within the fill material. Samples collected from native soil generally had concentrations below CP-51 criteria.

EA also consolidated OU-3 surface and subsurface sampling results with those of previous investigations, expanding on the analysis performed as part of the PDI Work Plan (EA 2017c). EA plotted all PCB data on the grid spaces (**Figures 7 and 8)** and updated the classification of each grid containing a PDI sampling location to vertically and horizontally delineate PCB contamination (**Figures 9 and 10**). In **Figures 7 and 8**, symbols used to depict contamination type/location (i.e., large red dot, medium green dot, and small blue dot) were color coded and sized based on the magnitude of concentration. Dots were layered as necessary to display the results of multiple depth intervals collected at the same location. Debris pile sample results (triangle markers) were also color coded based PCB concentration.

In **Figures 9 and 10**, EA classified each grid by the greatest concentration of PCBs found in that grid space, regardless of depth, using the following approach:

- Numbers within grid spaces indicate the depth of contamination.
- The depth of contamination, for red and green spaces, was defined as *the depth at which concentrations were less than or equal to the CP-51 SCO of 10 ppm*, meaning those grid spaces were marked with the depth of the first sample with PCBs below CP-51 criteria.
- The depths shown in blue grid spaces show the deepest sample interval collected with PCBs below 10 ppm.

3.2.4 Debris Pile Sampling

EA collected 12 composite samples from the 6 debris pile areas identified during the OU-3 PDI topographic survey and soil sampling. The piles are a combination of concrete and asphalt rubble and other various debris. Samples were composited using a minimum of 5 locations within each debris pile sampling location (**Figures 3 and 4**), with the exception of sample location DP-A15. At DP-A15 concrete was collected from a single location. EA used a hammer drill to collect concrete material, following 40 CFR 761.286.

- Eleven of the 12 debris pile samples had PCB concentrations below 1 ppm.
- Sample location DP-F16 had the highest PCB concentration of 3.1 ppm, exceeding CP-51 criteria for surface soil within OU-3.
- All debris pile samples were below TSCA Hazardous Waste Criteria of 50 ppm.

Descriptions of the sampling locations and materials are provided in Appendix D of the OU-2 PDI Report (EA 2017b).

Following a conversation with Dr. James Haklar (EPA), it was determined that composite sampling cannot be used for characterization for disposal as there is a concern of unintentional dilution. Thus, debris pile samples will have to be re-sampled prior to offsite disposal, though it is expected that debris material which have non-hazardous PCB concentrations can be disposed at a facility permitted to accept PCB-contaminated waste, and will not need to be taken to a hazardous waste facility.

3.3 OU-2 CONTAMINATION DELINEATION

EA sampled sediment and upland soil on the banks of the drainage ditch in OU-2 to further define the extent of PCB contamination (**Figure 3**). Data was used to refine the lateral extent of contamination and the estimated quantity of TSCA and non-TSCA waste materials.

- Results from sediment grab samples (0–0.5 ft bgs) ranged in concentration from ND (SD-AA17) to 46 ppm (SD-A21).
  - Of the 7 sediment samples collected, 4 samples contained concentrations of total PCBs greater than 1 ppm, exceeding the Residential SCO for offsite soil and sediment.
  - None of the samples had concentrations of PCBs exceeding 50 ppm (exceeding TSCA standards); however, sample locations SD-A23a and SD-A21 had PCB concentrations of 42 ppm and 46 ppm, respectively.
    - Sample SD-A23a is located immediately downstream of grid space C81 which reported historical concentrations of PCBs of 890 ppm at 1–2 ft bgs.
    - Sample SD-A21 is located approximately 75 ft from the nearest upstream grid space (C73) with concentrations exceeding 50 ppm.
  - Two additional locations, SD-A28 and SD-A29, reported PCB concentrations exceeding the SCO with concentrations of 4.6 ppm and 4.1 ppm, respectively. These 2 sampling locations are adjacent to grid space C92, which has a historical PCB concentration of 79 ppm at 0–0.5 ft bgs. In samples obtained at the southern end of the OU-2 drainage ditch, locations SD-AA5 and SD-AA17 reported results below 1 ppm.
- Samples from the upland soil boring locations were collected at a depths of 0–1 ft bgs and 1–2 ft bgs. Concentrations of PCBs ranged from non-detect to 0.81 ppm (SB-A22-0102) with no samples exceeding the Residential SCO of 1 ppm. More detailed results are presented in the OU-2 PDI Report (EA 2017b).

Similar to the exercise performed for OU-3 (described in Section 3.2.3), EA also consolidated OU-2 sampling results with results of previous investigations, expanding on the data gap analysis

performed as part of the PDI Work Plan (EA 2017b). EA updated the classification of each grid containing a PDI sampling location to vertically and horizontally delineate PCB contamination (**Figures 9 and 10**). In **Figures 9 and 10**, EA classified each grid by the greatest concentration of PCBs found in that grid space, regardless of depth, using the following approach:

- Numbers within grid spaces indicate the depth of contamination.
- The depth of contamination, for red and green spaces, was defined as *the depth at which concentrations were less than or equal to the CP-51 SCO of 10 ppm*, meaning those grid spaces were marked with the depth of the first sample with PCBs below CP-51 criteria.
- The depths shown in blue grid spaces show the deepest sample interval collected with PCBs below 10 ppm.
- Grids that have not been fully vertically delineated (i.e., PCB contamination at deepest sampling intervals exceeds CP-51) are outlined in yellow.

3.4 STORMWATER FLOW STUDY

In October 2016, 3 pressure transducers were installed in the OU-3 and OU-2 drainage ditches to measure stream stage, as described below:

- Transducer #1 was installed on the west end of the OU-3 drainage ditch approximately 20 ft east of a 36-inch diameter culvert pipe.
- Transducer #2 was installed at the east end of the OU-3 drainage ditch approximately 30 ft upstream of the confluence with the OU-2 drainage ditch.
- Transducer #3 was installed in the OU-2 drainage ditch approximately 120 ft north of the confluence.

After analyzing the first 6 months of transducer data (October 2016 – April 2017), it was determined that the hydraulics near Transducer #2 and Transducer #3 were incompatible with standard open channel flow estimate techniques. It was suspected that a combination of debris (rocks, tires, trash, trees, etc.) in the flow line of the OU-2 channel and possibly an undersized downstream culvert resulted in temporary ponding of water in the vicinity on the confluence. Therefore, in April 2017, Transducer #2 was moved to the 5.5 ft by 3.5 ft box culvert at the north end of the OU-2 drainage ditch and Transducer #3 was moved to the south end of the OU-2 drainage ditch, south of the site boundary.

Data was collected from the transducers periodically following the transducer installation and relocation. Transducer #2 has yielded instantaneous and cumulative flow measurements that correlate well with precipitation data and estimated watershed acreage. EA used the data from the transducers to calculate discharge and estimate water handling requirements for the BOD.

Calculations of discharge from OU-3 and OU-2 indicate that water will need to be diverted around the work area to address contamination in the channel.

The transducers will remain in place recording data and EA will update hydraulic models accordingly throughout the design process.

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4. BASIS OF DESIGN

4.1 NATURE AND EXTENT OF CONTAMINATION SUMMARY

4.1.1 OU-3 Upland

EA prepared an overlay of the site and all available sample data (using the 996 surface and subsurface soil samples collected as part of historical investigations and the PDI (EA 2017a). The overlay consists of a 25 ft by 25 ft grid system which enabled a systematic evaluation of PCB contamination. All samples collected in a given grid area were compared and the sample with the highest concentration of PCBs at any depth intervals was used to determine the overall range of contamination in a grid space. Grids were classified as having a PCB concentration of *less than the cleanup goals* ("clean" [blue]), *exceeding cleanup goals* ("non-TSCA" [green]), or *exceeding hazardous concentrations* ("TSCA" [red]). The grid by grid evaluation also aided in determining the vertical extent of contamination.

- PCBs in soil are present up at concentrations to 1,590 ppm in surface soil (location SB-149 in grid I64) while subsurface concentrations have been detected up to 12,000 ppm (location N-DW-CTR-005 from 2 to 4 ft bgs in grid L68). As shown in from **Figures 7 and 8**, the site is heterogeneous with samples of varying concentrations and depths of PCB contamination in close proximity to each other.

- **Figures 9 and 10** show the majority of PCB contamination in OU-3 located in the northern to northeast region of the site. The recent PDI investigation indicated that PCBs extend further (horizontally) than initially known. Red grid spaces, containing hazardous concentrations of PCBs, are clustered along the southern bank of the OU-3 drainage ditch. Other detections of TSCA level waste can be seen along columns 6–64. **Figures 9 and 10** also reveal that the lateral extent of contamination in the northern portion of OU-3 is reasonably well delineated, with only a few grids that were not sampled.

- In **Figures 11 and 12**, EA grouped areas of similar PCB concentrations and depths and estimated the depth and level of PCB contamination in non-delineated grids. The management classification (i.e., clean, non-TSCA, or TSCA) of grids that were *not* sampled was based on the levels of contamination of neighboring grids, using the following approach:

  — If an unsampled grid is adjacent to a TSCA grid, the un-sampled grid was classified as TSCA.

  — If an unsampled grid is adjacent to a non-TSCA grid, the un-sampled grid was classified as non-TSCA.

  — If an unsampled grid is surrounded by clean grids, the un-sampled grid is presumed clean.

Many sampled grids have the vertical extent of PCB contamination delineated, meaning the deepest sampling depths in that grid space have returned sampling results below the CP-51 guidance level (10 ppm). For non-delineated grid spaces, the vertical extent of contamination was estimated using sample data from deeper intervals in adjacent grid spaces. **Figures 11 and 12** only show PCB impacted areas exceeding CP-51, where remedial action will take place.

4.1.2 OU-3 Drainage Ditch

As stated in the OU-3 FS Report (EEEPC 2014b), it is understood that PCBs entered the drainage ditch via runoff of site soil. PCBs in soil/sediment are then transported by surface water flow.

- Fifty-one samples collected from the OU-3 drainage ditch during the PDI indicate that the majority of the ditch contains PCBs in excess of 1 ppm (the cleanup standard for the drainage ditch sediment and offsite soil).

- It appears that the top 2 ft is contaminated across most of the ditch with increasing depth and concentrations near the confluence with OU-2 (**Figure 13**).

- The highest concentrations of PCBs are found at the intersection of the OU-3 and OU-2 drainage ditch, and in sections of the channel adjacent to areas with high upland PCB concentrations.

4.1.3 OU-2 Drainage Ditch

Contaminants from OU-1 and OU-3 entered the OU-3 drainage ditch through stormwater runoff. The OU-3 channel discharges into the OU-2 drainage ditch and has transported PCBs to the northern end of OU-2. PCBs reached the southern end of OU-2 through stormwater runoff from OU-3.

- Contamination is predominantly in the surface soil and fines on the northern side of the drainage ditch, with data indicating that contamination is mainly in the northern portion of the site, from grid columns 64 to 82 and in column 99 (**Figure 14**). In the southern end of OU-2, PCB impact is localized, occurring at a lower frequency and magnitude.

- Besides the few locations with concentrations greater than 1 ppm, the majority of contamination in OU-2 is clustered around the confluence of the OU-2 and OU-3 drainage ditches.

Given the results of the PDI and historical investigations, exceedances appear to be contained within localized “hot spots” and in the vicinity of the confluence.

4.1.4 OU-2 Upland/Banks of Drainage Ditch

- The offsite upland areas and banks of the OU-2 drainage ditch have limited PCB contamination as shown on **Figures 9 and 10**.

- The few locations where PCBs have been detected are near the confluence and adjacent to sections of the OU-2 and OU-3 channels along the western bank of the ditch with PCB concentrations exceeding SCOs.

- The bank north of the confluence is impacted in localized areas as far as 250 ft north of the confluence.

4.2 VOLUMES AND TYPES OF MEDIA REQUIRING TREATMENT

4.2.1 OU-3 Fill and Sediment Dredging Volume

The required excavation volume is estimated to be 6,711 cy of impacted material from OU-3 and 970 cy of debris.

- It is estimated that 2,560 cy of impacted material will be classified as *TSCA hazardous material*, and 4,151 cy of impacted material will be classified as *non-TSCA material*.

- As mentioned, it is suspected that the majority (if not all) of the debris will be disposed of offsite as non-hazardous waste.

EA estimated the quantity of soil and sediment exceeding CP-51 by grouping areas of PCB concentrations and depths and estimating the depth and level of PCB contamination in non-delineated grids as described above. In conjunction with **Figures 11 and 12, Table 2** was generated to summarize the grouping of areas with similar PCB concentrations and the changes in grid classifications between the PDI and BOD. As stated, the classification of some grid spaces and depth of excavation was altered based on surrounding grids.

Once the final grid classifications were determined, the proposed excavation volume of each grid was estimated by multiplying the proposed depth of excavation by the 25 ft by 25 ft area. The volume of each grid in OU-3 was summed and a 30 percent factor of safety was added to arrive at the total proposed volume to be excavated from OU-3. The final total volume excavated from OU-3 may change due to field conditions and results of confirmation sampling to be conducted during RA implementation. The grid spaces will be excavated until sampling from the four sidewalls and bottom return PCB concentrations below the requirements of CP-51. However, some deep PCB contamination may need to remain in place if removal is impractical.

4.2.2 OU-2 Fill Volume and Sediment Dredging Volume

Using the same method of estimation described in Section 4.2.1, EA estimates approximately 4,575 cy of impacted material will be excavated from OU-2; it is anticipated that 3,520 cy of the

material exceeds the residential SCO of 1 ppm PCBs while 1,055 cy of material will exceed TSCA. This volume is based on a targeted excavation approach, remediating the isolated areas that exceed the Residential SCO.

As shown on **Figure 11**, EA proposes excavating a minimum of 1 ft from grid rows 67 to 99. This section of OU-2, near the confluence, contains some of the highest concentrations of PCBs (**Figure 14**). Given the data gaps along the channel, and the potential for fines and contamination to migrate (coupled with varying PCB concentrations along that stretch), EA anticipates the need to excavate OU-2 beginning just south of the confluence through the culvert pipe under 14th Street.

The final total volume excavated from OU-2 may change due to field conditions and results of confirmation sampling. Confirmation sampling will be conducted in all excavated grid locations to assure PCB concentration is below 1 ppm. As stated above, there is potential for PCB contamination to exist in the non-delineated grid, adjacent to the excavation areas. The grid spaces will be excavated until sampling from the four sidewalls and bottom return PCB concentrations below the requirements of CP-51 (i.e. below 1 ppm). However, after discussions with NYSDEC, it was agreed that some deep, isolated PCB contamination slightly exceeding the cleanup criteria may have to remain in place. In grid space C49, for example, PCBs were historically detected at 1.1 ppm at 4–8 ft bgs; however, PCBs were not detected in surface sediment. Therefore, EA proposes leaving this type of localized material in place.

4.3 PHYSICAL SITE CHARACTERISTICS AND DESIGN IMPLICATIONS

4.3.1 Depth to Groundwater

Based on monitoring well gauging performed in 2005 and 2006, groundwater ranges from 3 to 7 ft bgs in OU-3. In OU-3 it is anticipated that groundwater will be encountered in some of the TSCA grids with deeper soil contamination as well as several of the non-TSCA grids along the OU-3 drainage ditch. During remediation the remedial contractor will likely need to pump groundwater to a tank or lined surface impoundment for offsite disposal or onsite treatment to no more than 3 micro grams per liter (µg/L) (3 parts per billion [ppb]) PCBs for discharge to a publicly owned treatment works (POTW) in accordance with 40 CFR § 761.79 (b)(1)(ii), or to 0.5 µg/L (0.5 ppb) for unrestricted use as specified in 40 CFR § 761.30(u)(3) and § 761.79 (b)(1)(iii). Soil excavated from below the water table, within the OU-3 and OU-2 drainage ditch will need to be dewatered and possibly amended with a stabilizing agent such a lime kiln dust (LKD) or Portland cement prior to being transported offsite for disposal.

4.3.2 Railroad

The proximity and elevation of the CP railroad easement to the OU-2 drainage ditch will limit the depths of excavation and conductance of work activities along OU-2. In addition to ensuring slope stability and protecting against physical damage to the railroad, contractors will also be required to adhere to the *CP Minimum Safety Requirements for Contractors Working on Railway Property* (CP 2007) within CP's areas of jurisdiction. Until confirmation from the railroad is

received, EA assumes CP's right of way extends 50 ft from the centerline of the tracks. This distance places the boundary of CP's right of way generally along the centerline of the OU-2 channel, meaning work conducted in the channel and along the east banks of OU-2 requires prior approval from CP and will have to be conducted in a way that protects the integrity of the railroad.

4.3.3 Sediment characteristics

Hydrated sediment remediation in the drainage ditches requires dewatering and stabilization with an agent such as LKD or Portland cement prior to offsite disposal. Water drained from the sediment will likely need to be stored in a tank or lined surface impoundment for offsite disposal or onsite treatment to no more than 3 µg/L (3 ppb) PCBs for discharge to a POTW in accordance with 40 CFR § 761.79 (b)(1)(ii), or to 0.5 µg/L (0.5 ppb) for unrestricted use as specified in 40 CFR§ 761.30(u)(3) and § 761.79 (b)(1)(iii).

4.3.4 Hydrologic Evaluation

A 333 acre offsite watershed west of OU-3 is the source to intermittent flow observed in the OU-3 drainage ditch. The OU-3 drainage ditch flows east toward the railroad tracks combining with the OU-2 drainage ditch (near grid row 72). When water from the OU-3 drainage ditch combines with the OU-2 ditch, it changes direction to flow north toward Baker Lane. Water in the OU-2 ditch is stagnant at some locations and flows south starting from a grade break located near grid row 43 at the southern end of OU-3. North of grid row 43, the OU-2 drainage ditch is armored with 1–2 ft. diameter rip-rap and water flows in a northerly direction to a 24-inch diameter culvert pipe under Barker Lane. From the culvert pipe, water continues to flow north in an open ditch to a point near Early Drive where it is joined by another small drainage ditch, turns east, and crosses beneath the CP railroad ROW in a box culvert.

Currently, flow in the OU-2 and OU-3 drainage ditches is partially obstructed by vegetation, debris and undersized culvert pipes within the channels. Two culverts on the southern end of OU-2 restrict flow offsite, causing ponding. On the northern end of OU-2, flow to the north is generally less restricted during rain/high flow events when water can flow over debris obstacles in the channel. When water levels are lower; however, water is backs up with pooling created by tires, shopping carts, and other various debris in the channel.

During the RAs, flow in the ditches will require management, bypassing areas during active removal to minimize the volume of water requiring treatment. For the OU-3 ditch, water will have to be detained and diverted around the ditch work areas, to the northern end of the OU-2 ditch.

In the central and northern portion of OU-2, the majority of the flow is attributable to the OU-3 drainage ditch with some runoff contributions from the vegetated area west of the railroad tracks. During the RA, the majority of surface water will be managed by bypassing flow from the OU-3 drainage ditch. Runoff from upland areas adjacent to the ditch will likely be addressed by installing coffer dams upstream and downstream of OU-2 excavation areas. The spacing of the

coffer dams will vary based on the area being excavated but the remedial contractor will be expected to isolate TSCA soil excavation areas from non-TSCA soil excavation areas to avoid cross contamination.

4.3.5 Property and Site Access

Prior to conducting the RAs, the contractor will need permission from CP to conduct work in the ROW. The boundary of the ROW and requirements of the railroad will determine the extent of excavation on the east side of OU-2.

Access agreements will also have to be obtained from nearby property owners. Permission to excavate and work in the area between Baker Lane and the OU-3 boundary will be needed.

4.4 PERMITTING

The project will be completed as part of the New York State Superfund Program. As the project is being completed by the NYSDEC, approvals that would come from the NYSDEC will be granted through the approval of the BOD and RA Work Plans. A review of the permit and other approvals required are summarized in the following table.

Permit/Approval Requirements

Permit/Approval	Responsible Agency	Reason Needed	Processing Time	Permit Assessment Process	Permit/Approval Required (Y/N)
Self-Implementing Remediation	EPA	Compliance with 40 CFR 761(a) and/or (c) in remediation of PCBs; PCB waste management at properties contaminated with PCBs as a result of spill, release, or other unauthorized disposal.	60-90 days	Submit notification to EPA Regional Administrator ≥ 30 days prior to date cleanup is to begin. EPA has 30 days to review and respond.	Yes
Site Access/Boundaries of Work Area	CP Railroad	Permission to work in CP ROW, approval of excavation boundaries in OU-2 sufficient to protect CP's property.	60-90 days	Submit RD and construction drawings for review to CP. Contractor will have to be in contact with CP to develop work plan and safety plan for construction avidities conducted in ROW.	Yes
New York State Historic Preservation Act of 1980 Consultation	New York State Office of Parks, Recreation and Historic Preservation; State Historic Preservation Office	Project completed by a state agency that could potentially impact a cultural resource.	30-90 days	Consultation with State Historic Preservation Office. Complete application for consultation which includes project description, photos of project site, United States Geologic Survey quadrangle map, and completed project cover form.	Yes
State Environmental Quality Review Compliance	NYSDEC	Project completed by a state agency	60-90 days	Not required for DER projects	No
State Pollutant Discharge Elimination System Permit	NYSDEC	Constructing or using and outlet or point source that discharges waste water into surface or groundwater. May need to treat and discharge water in excavations or as part of dewatering.	60-90 days	Contractor will need to have a pre-application conference with NYSDEC, submit application to NYSDEC.	Yes, contractor will have to prepare and submit permit application.
Stormwater Permit for Construction Activity (GP-0-15-002)	NYSDEC	Construction activity that will involve soil disturbance of 1+ acres.	60-90 days	Contractor will need to prepare a Stormwater Pollution Prevention Plan and submit a completed Notice of Intent.	Yes, contractor will have to prepare and submit permit application
Protection of Waters Permit	NYSDEC	Confirm drainage ditch is not classified as a protected stream/river; RA involves excavation of sediment, placement of fill in ditches; also construction of impounding structure to divert OU-3 drainage ditch	60-90 days	Prepare and file a permit form with supporting drawings and documentation.	Not required if dam/impoundment structure is less than 6 ft, max capacity less than 1 M gals, or the height is between 6-15 ft and max capacity is less than 3M gals

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4.5 PHASED CONSTRUCTION APPROACH

The RAs for OU-3 and OU-2 will begin with preliminary activities (permitting, work plan and safety plan preparation) and site preparations. Work areas will be sequenced from upstream to downstream to prevent possible re-contamination. Once water is diverted from the OU-3 drainage ditch, excavation will begin on the west side of the OU-3 ditch and upland area, progressing to the east, working from north to south. OU-2 will also be remediated from the upstream to downstream areas. Beginning at the grade break in the drainage ditch, the remedial contractor will first work south. Again, from the grade break work will be conducted from south to north, through the confluence with OU-3 and until the end of excavations in grid row 99. Work areas in the OU-2 and OU-3 drainage ditch will be isolated with a temporary diversion product and dewatered to prevent areas with high PCB concentrations from further migrating/contaminating sediment downstream. Excavated soil will be directly loaded for disposal to prevent double handling. Excavated material from the drainage ditches will be dewatered prior to load out for disposal. An interim grading plan is presented in the drawing package (**Appendix A**).

The following list presents a typical sequence for implementation of the RAs.

Phase 1 – Site Preparation

- Repairs and modifications to site security fence – extend along OU-2 work areas
- Setup construction office(s) and sanitation facilities
- Setup perimeter air monitoring
- Mobilize heavy equipment
- Installation of erosion and sedimentation controls (silt fencing/silt curtain)
- Improve and extend access roads through OU-3 to OU-2 for excavation and loading
- Clearing and grubbing
- Construct decontamination pad
- Debris pile removal and disposal
- Construct/install storage basin and bypass of OU-3 drainage ditch in western section of OU-3 to location away from work area.

Phase 2 – Sediment Dredging from OU-3

- Divert OU-3 drainage ditch by creating water storage basin upstream of grid row “T”
- Use temporary diversion product (e.g., Portadam®) to isolate and de-water work areas
- Clearing of vegetation and debris on banks and within channel
- Erosion and sedimentation controls
- Sediment removal and transport for dewatering and disposal
- Confirmation sampling
- Backfill, grading, and reshaping channel
- Placement of rip-rap and/or vegetation to stabilize banks.

Phase 3 – Excavation and grading of OU-3 Fill Area

- Clearing, grubbing , and removal of surface debris
- Placement of erosion and sediment control along banks of OU-3 and OU-2 drainage ditch as well as perimeter of site
- Excavation and disposal of TSCA classified material at approved hazardous waste facility
- Excavation and disposal of non-TSCA classified material at approved RCRA disposal facility
- Confirmation sampling
- Placement of demarcation layer
- Backfill and grading with clean fill.

Phase 4 – Sediment Dredging from OU-2

- OU-2 ditch will be divided at the grade break into the southern and northern work areas
- Clearing of vegetation and debris on banks and within channel
- Build temporary access roads for excavation/loading.
- Erosion and sedimentation controls
- Use temporary diversion product to isolate and de-water work areas
- Sediment removal and transport for dewatering and disposal
- Confirmation sampling
- Backfill, grading, and reshaping channel
- Placement of rip-rap and/or vegetation to stabilize banks.

4.6 SITE MANAGEMENT PLAN UPDATE

As part of the RD, EA will prepare SMPs for OU-2 and OU-2. The SMPs will include the following activities:

- Management of the site to restrict excavation
- Identification of use restrictions
- Provisions for the engineering and institutional controls.

Draft SMPs will be prepared in conjunction with the RD and amended as needed following completion of the RAs.

5. DRAWINGS AND SPECIFICATIONS

5.1 DRAWINGS

Drawings for the RD are likely to include, but are not limited to, the following:

- Cover sheet
- Legend, general notes and abbreviations
- Existing conditions
- Erosion and sediment control plan
- Presentation of analytical data
- Soil excavation plan
- Sediment excavation plan
- Drainage ditch excavation cross-sections
- Grading and restoration plans
- Site restoration details.

Preliminary drafts of the design drawings are provided in **Appendix A.**

5.2 SPECIFICATIONS

Specifications that may be part of the RAs contract include the following:

- **Standard NYSDEC Specifications**

  — 00001 Progress Schedule
  — 00002 Concrete
  — 00003 Minimum Requirements for Health and Safety

- **Division 1**

  — 01000 Definitions
  — 01 10 00 Site Description and Summary of Work
  — 01 30 00 Administrative Requirements
  — 01 33 00 Project Submittals
  — 01 50 00 Surveys
  — 01 58 00 Project Identification and Signs
  — 01 34 00 Regulatory Requirements
  — 01 35 29.13 Site Health and Safety
  — 01 57 20 Environmental Protection
  — 01 45 04 Contractor Quality Control
  — 02 32 00 Sampling
  — 01 50 00 Temporary Construction Facilities and Controls

— 31 25 00 Erosion and Sedimentation Controls
— 01 78 00 Closeout Submittals

- **Division 2**

— 31 10 00 Site Clearing
— 02 61 13 Handling of Contaminated Material
— 31 23 16 Excavation
— 31 23 23 Fill Material
— 02223 Transportation and Offsite Disposal
— 01 74 19 Construction Waste Management and Disposal
— 02300 Decontamination
— 02305 Barrier Protection Material
— 02371 Geotextile
— 02372 Geomembrane
— 31 05 13 Soils for Earthwork
— 31 22 13 Rough Grading
— 31 00 00 Earthwork
— 02401 Water Management
— 02450 Fencing
— 02480 Site Restoration
— 02671 Monitoring Wells

5.3 MEASUREMENT AND PAYMENT SCHEDULE

A draft bid tab and measurement and payment schedule was prepared to outline the major work components of this BOD. A draft of the two documents is provided in **Appendix B** and will be incorporated into the contract documents as part of the final RD.

6. REFERENCES

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Figures

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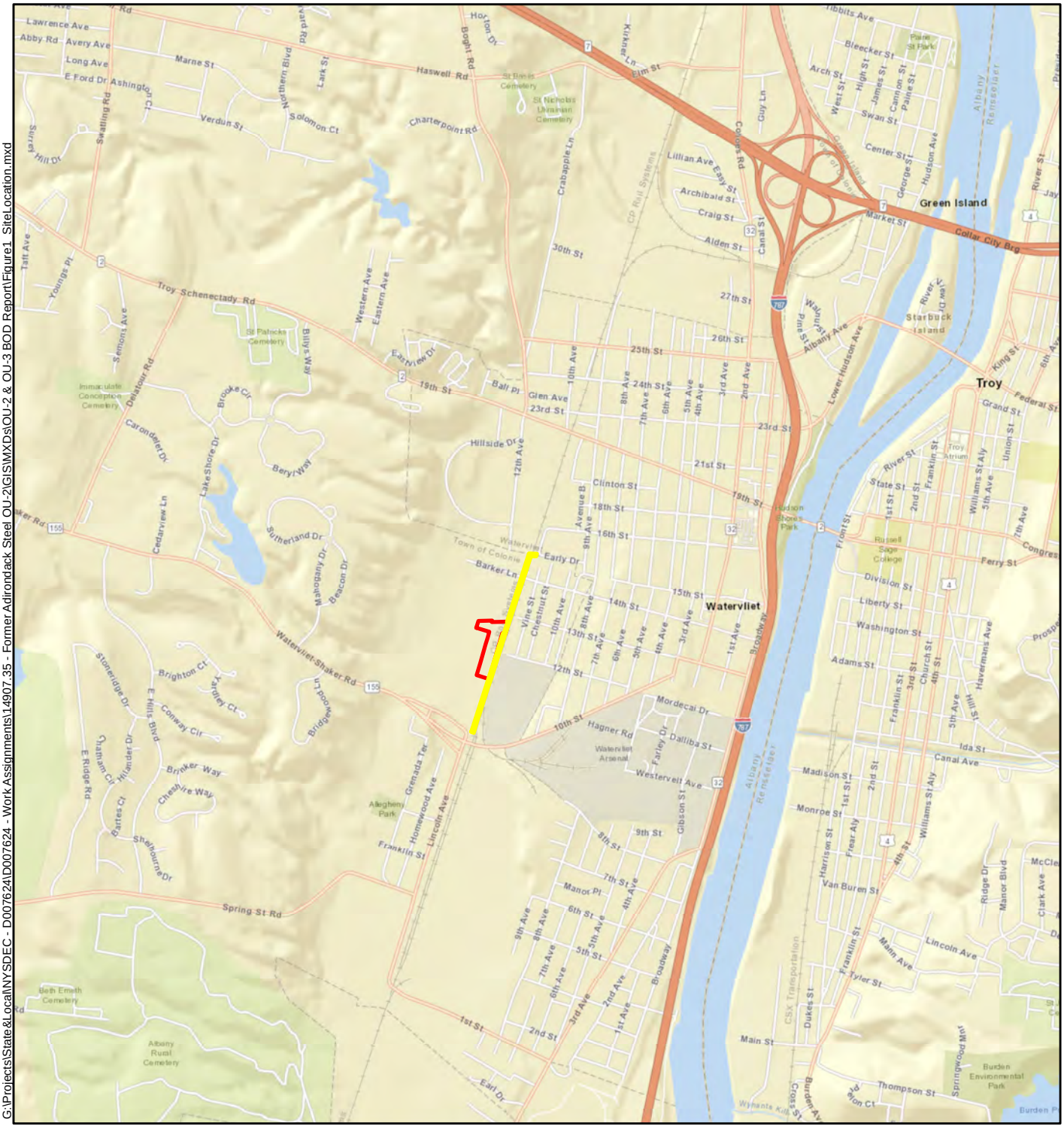

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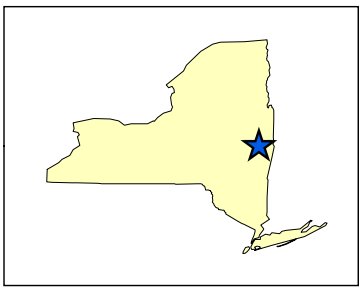

Legend

- OU-2 Approximate Boundary
- OU3 Approximate Boundary

0 0.25 0.5
Miles

N

Figure 1
Site Location
Former Adirondack Steel OU-2 and OU-3 Sites (401039)
Colonie, New York

Map Date: 8/30/2017
Source: ESRI, 2011
Projection: NAD 1983 State Plane New York East

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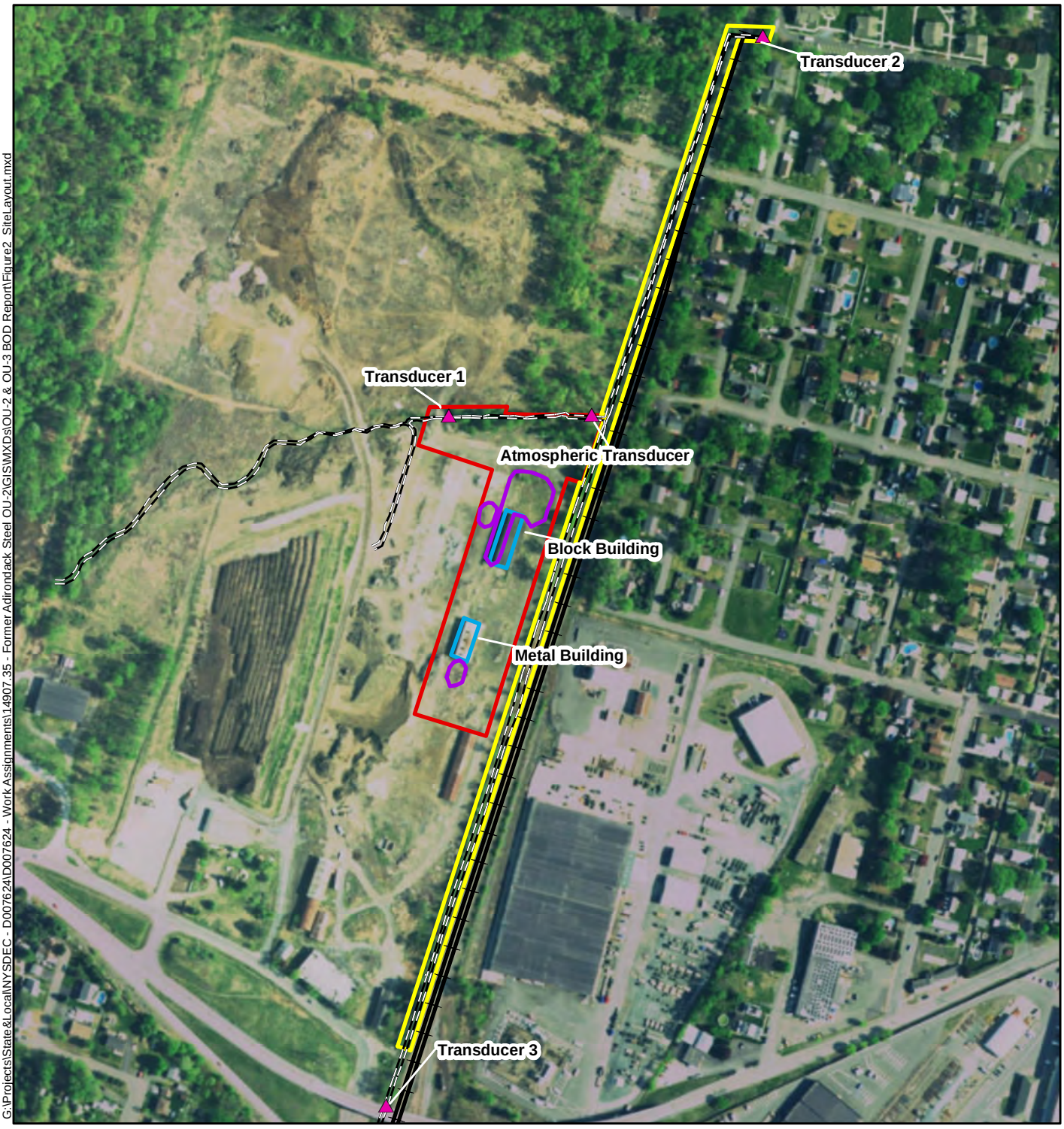

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0 100 200
Feet

N

Legend

- Transducer Locations
- Ditch
- Railroad
- OU-1 Boundary
- OU-2 Boundary
- OU-3 Boundary
- OU 3 Buildings

Figure 2
Site Layout
FORMER ADIRONDACK STEEL OU-2 AND OU-3 (Site No. 401039)
Colonie, New York

Map Date: 8/22/2017
Source: ESRI, 2011
Projection: NAD 1983 State Plane New York East

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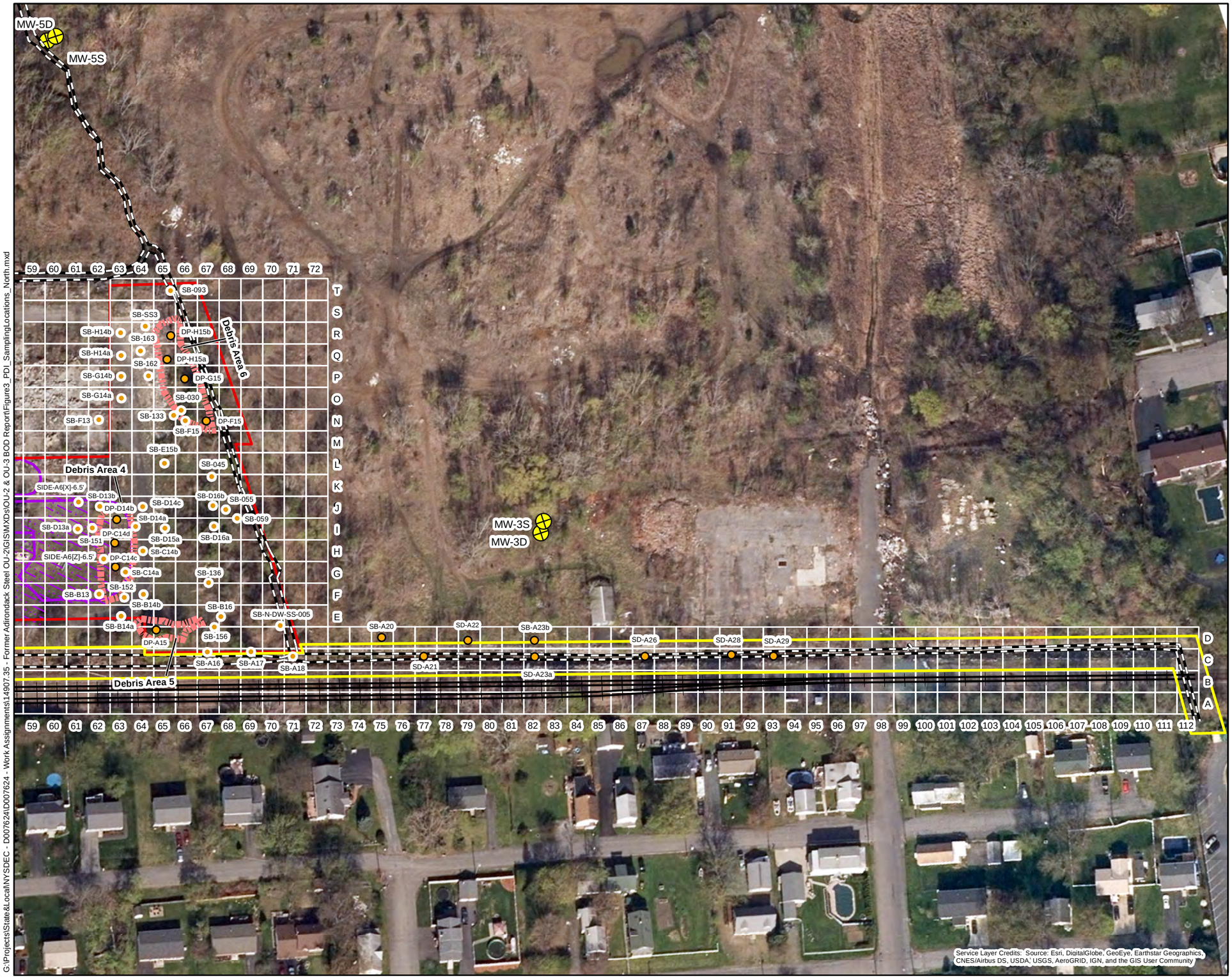

VICINITY MAP

Legend

- OU-2 PDI Sampling Location
- OU-3 PDI Sampling Location
- Ditch
- Railroad
- Debris Pile
- Monitoring Wells
- OU-1 Boundary
- IRM Excavation
- OU-2 Boundary
- OU-3 Boundary

Map Date: 8/30/2017
Source: ESRI, 2011
Projection: NAD 1983 State Plane New York East

N
0 50 100
Feet

Figure 3
PDI Sampling Locations - North
FORMER ADIRONDACK STEEL OU-2 AND OU-3 (Site No. 401039)
COLONIE, NEW YORK

G:\Projects\State&Local\NYSDEC - D007624\D007624 - Work Assignments\149075 - Former Adirondack Steel OU-2\GIS\MXDs\OU-2 & OU-3 BOD Report\Figure3_PDI_SamplingLocations_North.mxd

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VICINITY MAP

Legend

- OU-2 PDI Sampling Locations
- OU-3 PDI Sampling Location
- Ditch
- Railroad
- Debris Pile
- Monitoring Wells
- OU-1 Boundary
- IRM Excavation Area
- OU-2 Boundary
- OU-3 Boundary

Map Date: 8/30/2017
Source: ESRI, 2011
Projection: NAD 1983 State Plane New York East

N

0 50 100
Feet

Department of Environmental Conservation

Figure 4
PDI Sampling Locations - South
FORMER ADIRONDACK STEEL OU-2 AND OU-3 (Site No. 401039)
COLONIE, NEW YORK

G:\Projects\State&Local\NYSDEC - D007624\D007624 - Work Assignments\14907.35 - Former Adirondack Steel OU-2\GIS\MXDs\OU-2 & OU-3 BOD Report\Figure4_PDI_SamplingLocations_South-rev.mxd

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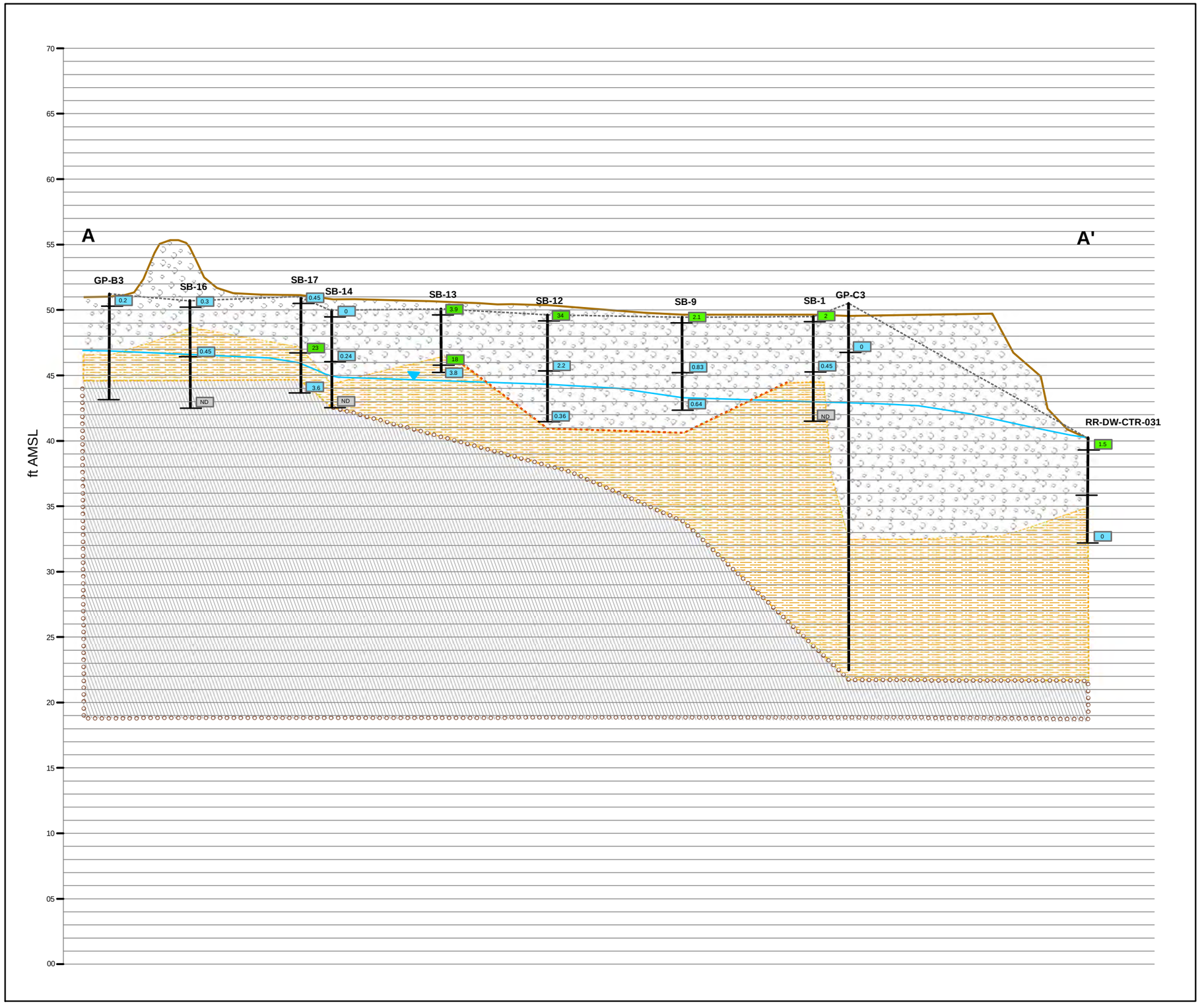
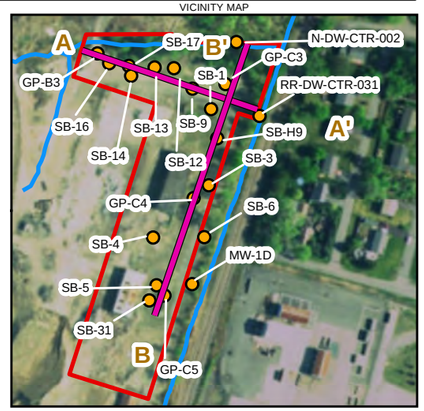


VICINITY MAP



Legend

- Borehole Elevation
- Inferred Bedrock
- Inferred Fill
- Topography
- Groundwater
- Borehole
- Fill
- Clayey Silt
- Bedrock
- Exceeds CP-51
- Meets CP-51
- Non-Detect

Note:
Results are reported in parts per million (ppm)
ND: Non-Detect
SCO: Soil Cleanup Objective
CP-51: Per CP-51 (Commissioner Policy #51) remedial program may include PCBs of 1 ppm in surface soils and 10 ppm in subsurface soils. Subsurface soil shall mean soil beneath 1 foot of soil cover for commercial and industrial uses.
Drainage ditch in OU-2 and OU-3 and off-site area subject to Residential SCO
[as determined by NYSDEC 6 NYCRR Table 375-6.8(b)].
Residential SCO: 1 ppm at all depths

Aerial: ESRI, 2011
Map Date: 8/29/2017
Projection: NAD 1983 State Plane New York East

N

0 50 100
Feet

Figure 5
Cross Section A-A'
FORMER ADIRONDACK STEEL OU-2 and OU-3 (Site No. 401039)
COLONIE, NEW YORK

G:\Projects\State&LocalNYSDEC - D007624\D007624 - Work Assignments\s14907.35 - Former Adirondack Steel OU-2\GIS\MXDs\OU-2 & OU-3 BOD Report\Figure5_CrossSection_AA.mxd

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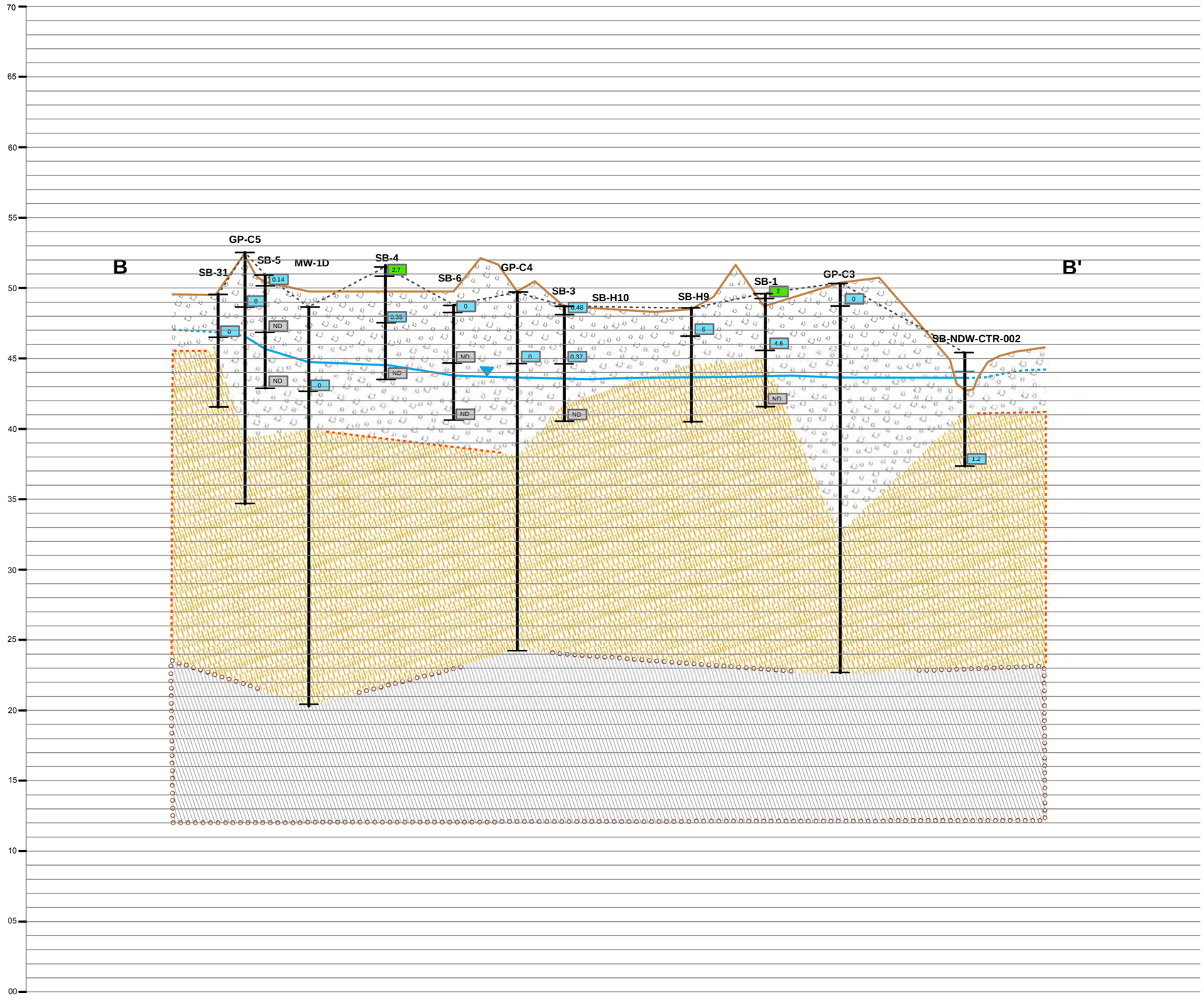

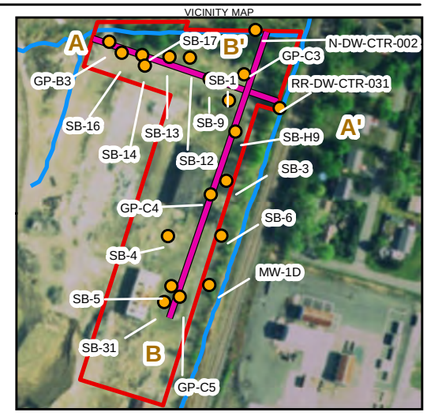

Legend

- Borehole Elevation
- Inferred Bedrock
- Inferred Fill
- Topography
- Groundwater
- Inferred Groundwater
- Borehole
- Fill
- Clayey Silt
- Bedrock
- Exceeds CP-51
- Meets CP-51
- Non-Detect

Note:
Results are reported in parts per million (ppm)
ND: Non-Detect
SCO: Soil Cleanup Objective
CP-51: Per CP-51 (Commissioner Policy #51) remedial program may include PCBs of 1 ppm in surface soils and 10 ppm in subsurface soils. Subsurface soil shall mean soil beneath 1 foot of soil cover for commercial and industrial uses.
Drainage ditch in OU-2 and OU-3 and off-site area subject to Residential SCO.
[as determined by NYSDEC 6 NYCRR Table 375-6.8(b)]
Residential SCO: 1 ppm at all depths

Aerial: ESRI, 2011
Map Date: 8/29/2017
Projection: NAD 1983 State Plane New York East

0 150 300
Feet

Figure 6
Cross Section B-B'
FORMER ADIRONDACK STEEL OU-2 AND OU-3 (Site No. 401039)
COLONIE, NEW YORK

G:\Projects\State&LocalNYSDEC - D007624\D007624 - Work Assignments\s14907.35 - Former Adirondack Steel OU-2\GIS\MXDs\OU-2 & OU-3 BOD Report\Figure6_CrossSection_BB.mxd

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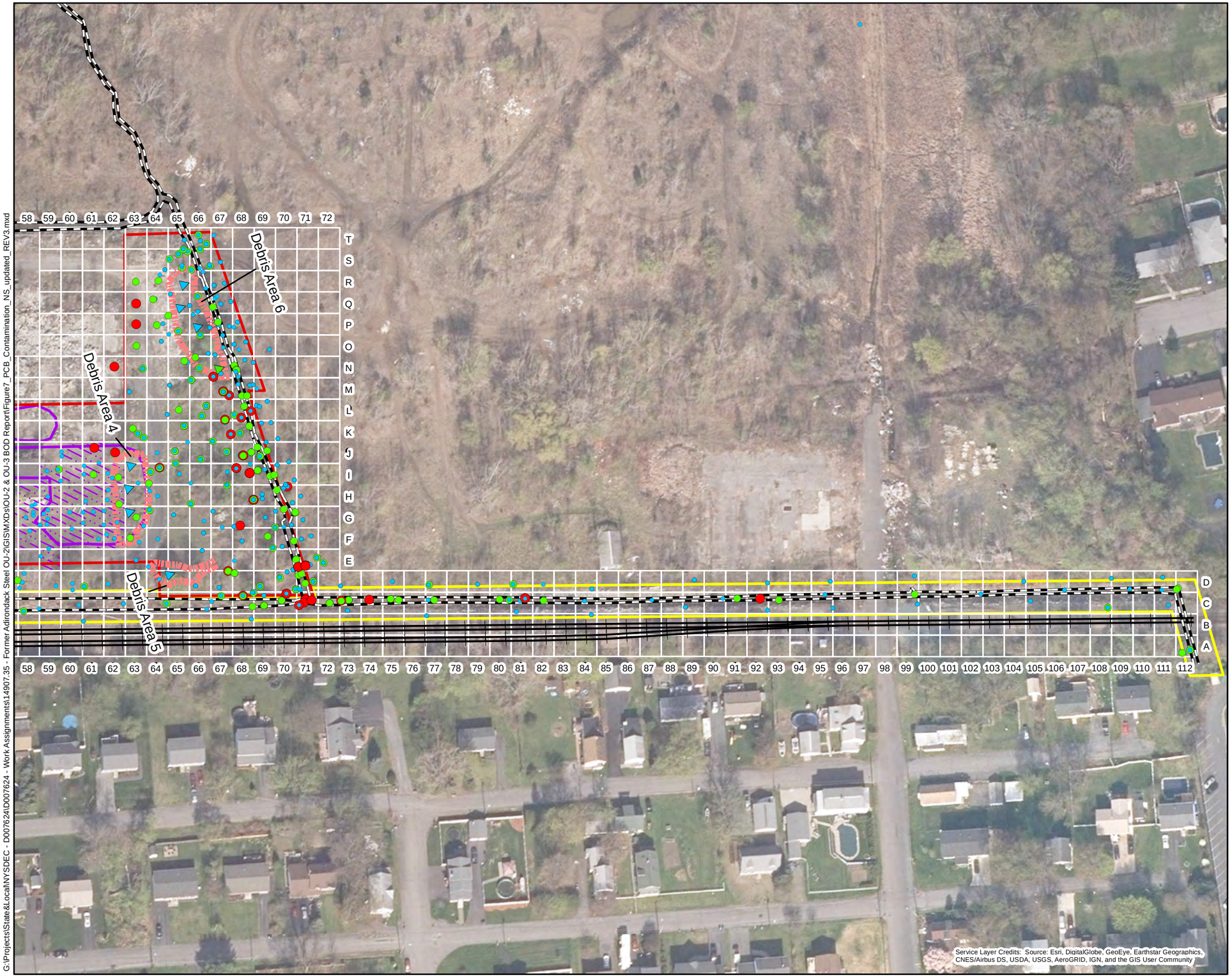

VICINITY MAP

Legend

- Ditch
- Railroad
- Debris Area
- OU-1 Boundary
- IRM Excavation Area
- OU-2 Boundary
- OU-3 Boundary

PCB Contamination Type

- Hazardous
- Exceeds CP-51/Residential SCO
- Meets CP-51/Residential SCO

Debris Pile Results

- > 49.99 ppm
- 1 - 49.99 ppm
- < 1 ppm

Note:
SCO: Soil Cleanup Objective
CP-51: Per CP-51 (Commissioner Policy #51) remedial program may include PCBs of 1 ppm in surface soils and 10 ppm in subsurface soils. Subsurface soil shall mean soil beneath 1 foot of soil cover for commercial and industrial uses.
Drainage ditch in OU-2 and OU-3 and off-site area subject to Residential SCO.
[as determined by NYSDEC 6 NYCRR Table 375-6.8(b)]
Residential SCO: 1 ppm at all depths
TSCA: Toxic Substance Control Act
TSCA applies to PCBs greater than or equal to 50 ppm.
ppm: parts per million

Map Date: 8/30/2017
Source: ESRI, 2011
Projection: NAD 1983 State Plane New York East

N

0 50 100

Feet

Figure 7
PCB Sample Locations and Concentrations for Surface and Subsurface - North

FORMER ADIRONDACK STEEL OU-2 AND OU-3 (Site No. 401039)
COLONIE, NEW YORK

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VICINITY MAP

Legend

- Ditch
- Railroad
- Debris Area
- OU-1 Boundary
- IRM Excavation Area
- OU-2 Boundary
- OU-3 Boundary

Contamination Type

- Exceeds TSCA
- Exceeds CP-51/Residential SCO
- Meets CP-51/Residential SCO

Debris Pile Results

- > 49.99 ppm
- 1 - 49.99 ppm
- < 1 ppm

Note:
SCO: Soil Cleanup Objective
CP-51: Per CP-51 (Commissioner Policy #51) remedial program may include PCBs of 1 ppm in surface soils and 10 ppm in subsurface soils. Subsurface soil shall mean soil beneath 1 foot of soil cover for commercial and industrial uses.
Drainage ditch in OU-2 and OU-3 and off-site area subject to Residential SCO.
[as determined by NYSDEC 6 NYCRR Table 375-6.8(b)]
Residential SCO: 1 ppm at all depths
TSCA: Toxic Substance Control Act
TSCA applies to PCBs greater than or equal to 50 ppm.
ppm: parts per million
Map Date: 8/30/2017
Source: ESRI, 2011
Projection: NAD 1983 State Plane New York East

N

0 50 100

Feet

Figure 8
PCB Sample Locations and Concentrations for Surface and Subsurface - South
FORMER ADIRONDACK STEEL OU-2 AND OU-3 (Site No. 401039)
COLONIE, NEW YORK

G:\Projects\State&Local\NYSDEC - D007624\D0007624 - Work Assignments\149907.35 - Former Adirondack Steel OU-2\GIS\MXDs\OU-2 & OU-3 BOD Report\Figure8_PCB_Contamination_SS_updated_rev.mxd

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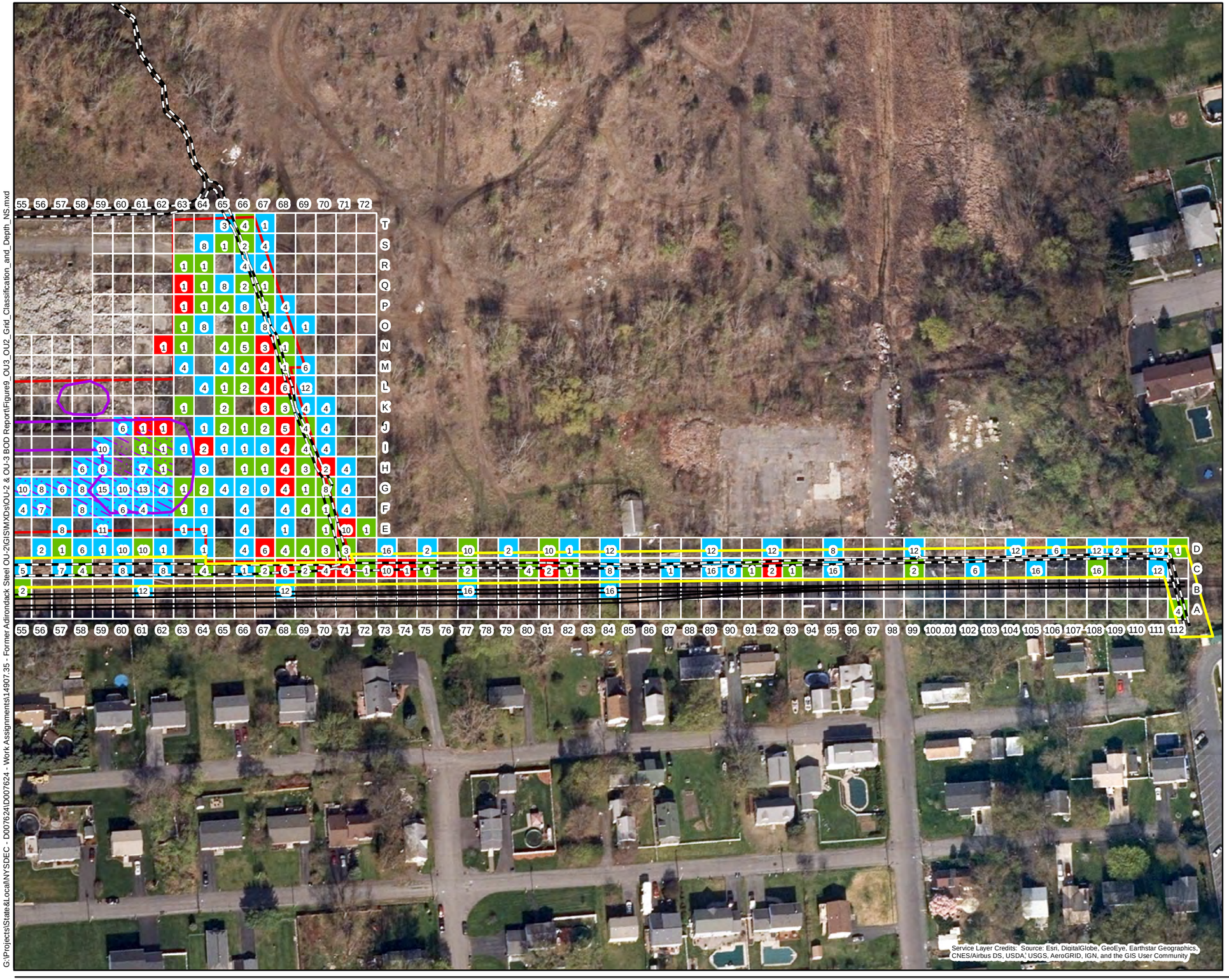

VICINITY MAP

Legend

- Ditch
- Railroad
- OU-1 Boundary
- IRM Excavation Area
- OU-2 Boundary
- OU-3 Boundary
- Exceeds TSCA
- Exceeds CP-51/Residential SCO
- Meets CP-51/Residential SCO

Note:
Each grid was classified by the greatest concentration of PCBs in said grid space.
Values shown in red and green grids represent total depth of impacted soil (below ground surface) where PCB concentrations exceed CP-51/Residential SCO criteria
Values shown in blue grids represent the total depth of soil (below ground surface) where PCB concentrations meet CP-51/Residential SCO criteria
SCO: Soil Cleanup Objective
CP-51: Per CP-51 (Commissioner Policy #51) remedial program may include PCBs of 1 ppm in surface soils and 10 ppm in subsurface soils. Subsurface soil shall mean soil beneath 1 foot of soil cover for commercial and industrial uses.
Drainage ditch in OU-2 and OU-3 and off-site area subject to Residential SCO.
[as determined by NYSDEC 6 NYCRR Table 375-6.8(b)]
Residential SCO: 1 ppm at all depths
TSCA: Toxic Substance Control Act
TSCA applies to PCBs greater than or equal to 50 ppm.
ppm: parts per million
Vertically Unbound: PCB contamination at deepest sampling intervals exceed Residential SCO.

Map Date: 8/30/2017
Source: ESRI, 2011
Projection: NAD 1983 State Plane New York East

N
0 50 100
Feet

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Figure 9
Grid Classifications Based on Historic and PDI Sampling Results - North

FORMER ADIRONDACK STEEL OU-2 AND OU-3 (Site No. 401039)
COLONIE, NEW YORK

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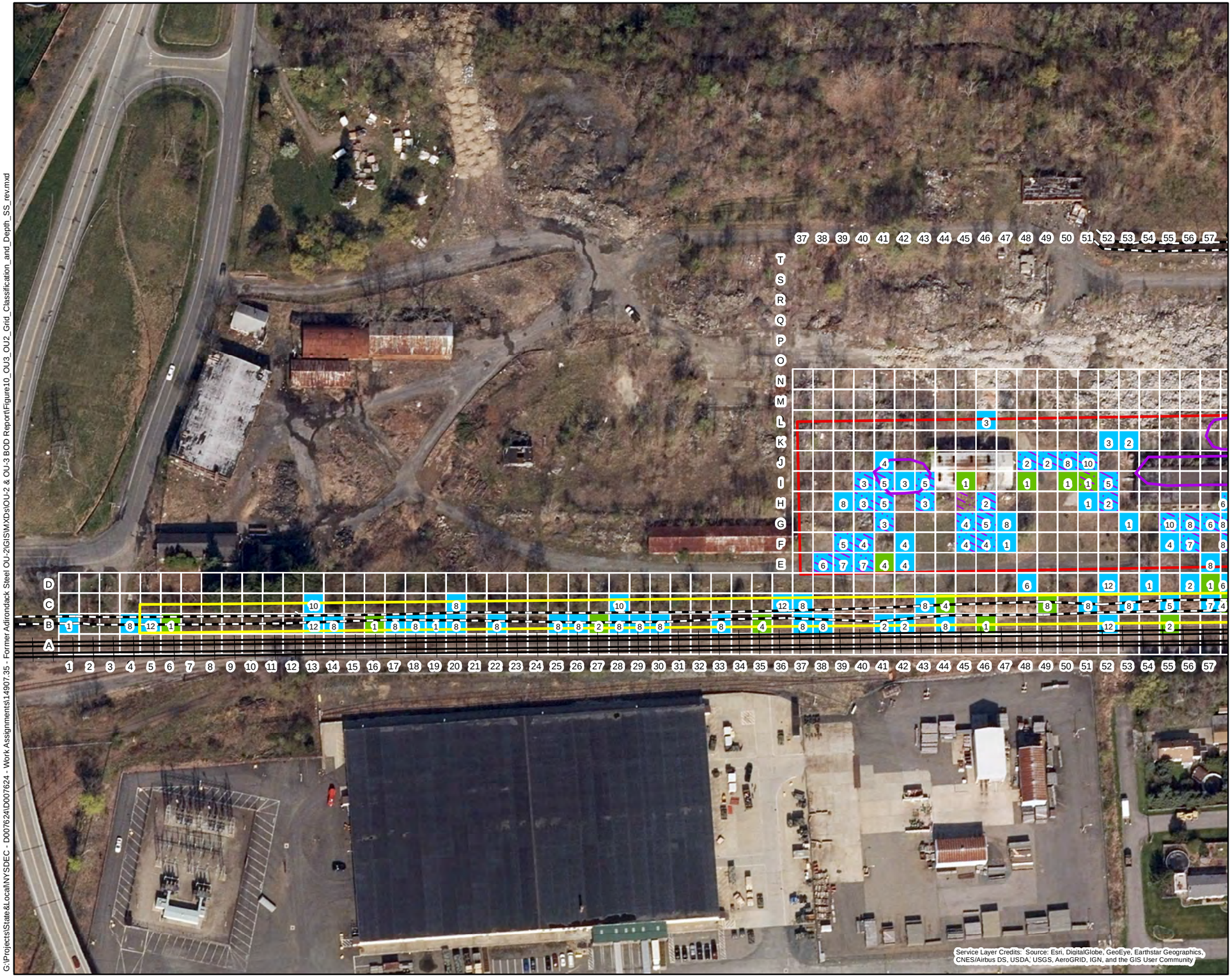

Service Layer Credits: Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

VICINITY MAP

Legend

- Ditch
- Railroad
- OU-1 Boundary
- IRM Excavation Area
- OU-2 Boundary
- OU-3 Boundary
- Exceeds TSCA
- Exceeds CP-51/Residential SCO
- Meets CP-51/Residential SCO

Note:
Each grid was classified by the greatest concentration of PCBs in said grid space.
Values shown in red and green grids represent total depth of impacted soil (below ground surface) where PCB concentrations exceed CP-51/Residential SCO criteria
Values shown in blue grids represent the total depth of soil (below ground surface) where PCB concentrations meet CP-51/Residential SCO criteria
CP-51 from surface soil until depth indicated
SCO: Soil Cleanup Objective
CP-51: Per CP-51 (Commissioner Policy #51) remedial program may include PCBs of 1 ppm in surface soils and 10 ppm in subsurface soils. Subsurface soil shall mean soil beneath 1 foot of soil cover for commercial and industrial uses.
Drainage ditch in OU-2 and OU-3 and off-site area subject to Residential SCO.
[as determined by NYSDEC 6 NYCRR Table 375-6.8(b)]
Residential SCO: 1 ppm at all depths
TSCA: Toxic Substance Control Act
TSCA applies to PCBs greater than or equal to 50 ppm.
ppm: parts per million
Vertically Unbound: PCB contamination at deepest sampling intervals exceed Residential SCO.
Map Date: 8/30/2017
Source: ESRI, 2011
Projection: NAD 1983 State Plane New York East

N
0 50 100
Feet

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Figure 10
Grid Classifications Based on Historic and PDI Sampling Results - South
FORMER ADIRONDACK STEEL OU-2 AND OU-3 (Site No. 401039)
COLONIE, NEW YORK

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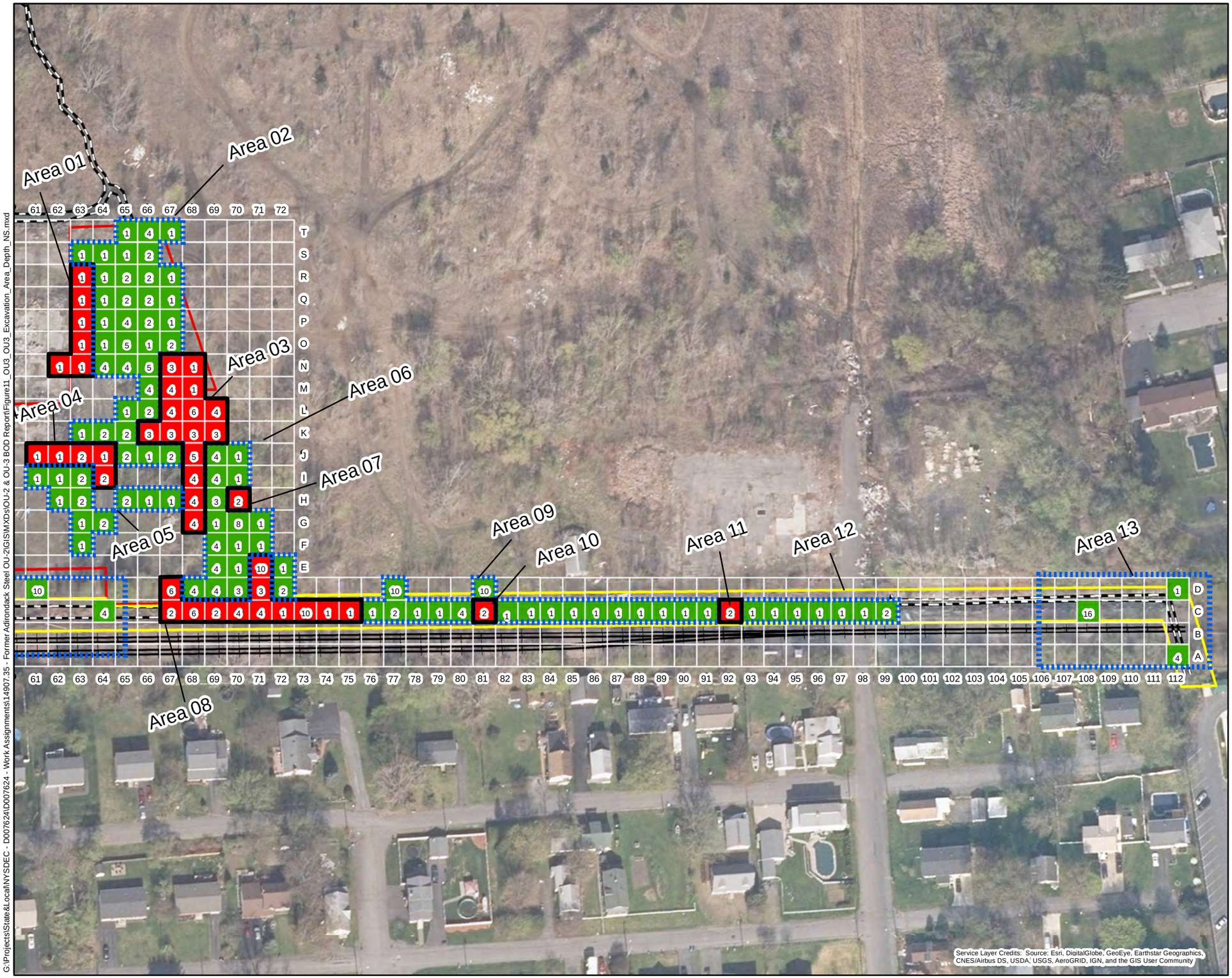

VICINITY MAP

Legend

- Ditch
- Railroad
- OU-2 Boundary
- OU-3 Boundary
- TSCA Work Area
- Non-TSCA Work Area

Excavation Type

- TSCA
- Non-TSCA /Exceeds CP-51

Note:
Number on each grid indicates proposed depth of excavation.
CP-51: Per CP-51 (Commissioner Policy #51) remedial program may include PCBs of 1 ppm in surface soils and 10 ppm in subsurface soils. Subsurface soil shall mean soil beneath 1 foot of soil cover for commercial and industrial uses.
Drainage ditch in OU-2 and OU-3 and off-site area subject to Residential SCO.
[as determined by NYSDEC 6 NYCRR Table 375-6.8(b)]
Residential SCO: 1 ppm at all depths
TSCA: Toxic Substance Control Act
TSCA applies to PCBs greater than or equal to 50 ppm.
ppm: parts per million
SCO: Soil Cleanup Objective

Map Date: 8/30/2017
Source: ESRI, 2011
Projection: NAD 1983 State Plane New York East

N

0 50 100
Feet

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Figure 11
OU-2 and OU-3 Proposed Excavation Boundaries and Depths - North
FORMER ADIRONDACK STEEL OU-2 AND OU-3 (Site No. 401039)
COLONIE, NEW YORK

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VICINITY MAP

Legend

- Ditch
- Railroad
- OU-2 Boundary
- OU-3 Boundary
- TSCA Work Area
- Non-TSCA Work Area

Excavation Type

- TSCA
- Non-TSCA/Exceeds CP-51

Note:
Numbers on each grid indicate proposed depth of excavation.
CP-51: Per CP-51 (Commissioner Policy #51) remedial program may include PCBs of 1 ppm in surface soils and 10 ppm in subsurface soils. Subsurface soil shall mean soil beneath 1 foot of soil cover for commercial and industrial uses.
Drainage ditch in OU-2 and OU-3 and off-site area subject to Residential SCO.
[as determined by NYSDEC 6 NYCRR Table 375-6.8(b)]
Residential SCO: 1 ppm at all depths
TSCA: Toxic Substance Control Act
TSCA applies to PCBs greater than or equal to 50 ppm.
ppm: parts per million
SCO: Soil Cleanup Objective

Map Date: 8/30/2017
Source: ESRI, 2011
Projection: NAD 1983 State Plane New York East

N

0 50 100
Feet

Figure 12
OU-2 and OU-3 Proposed Excavation Boundaries and Depths - South

FORMER ADIRONDACK STEEL OU-2 AND OU-3 (Site No. 401039)
COLONIE, NEW YORK

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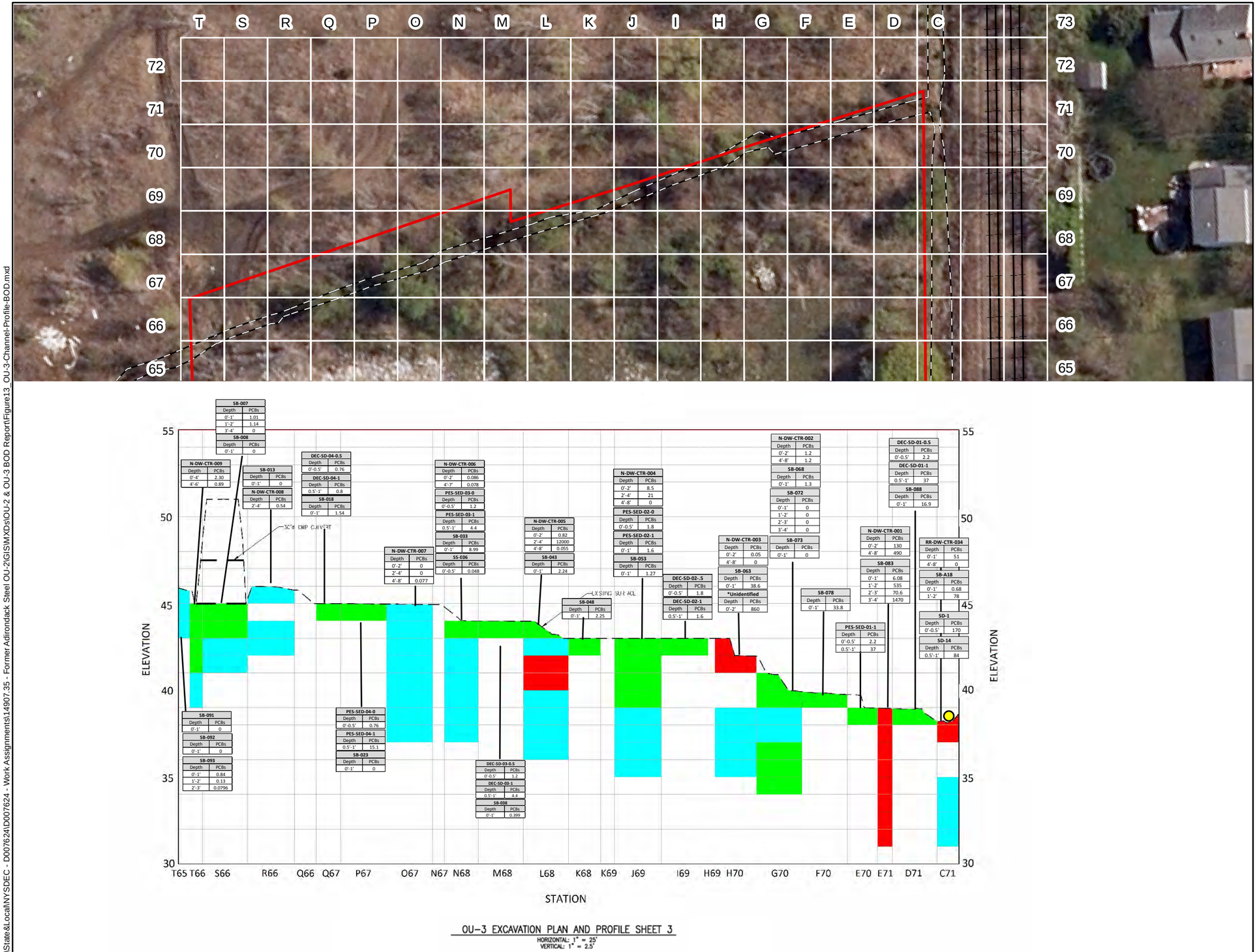

OU-3 EXCAVATION PLAN AND PROFILE SHEET 3
HORIZONTAL: 1" = 25'
VERTICAL: 1" = 2.5'

Service Layer Credits: Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

VICINITY MAP

Legend

- Ditch
- Railroad
- Exceeds TSCA
- Exceeds Residential SCO
- Meets Residential SCO
- OU-3 Boundary
- OU-3 PDI Sampling Location

Note:
Results reported in ppm
Elevations reported in feet above mean sea level (ft amsl)
SCO: Soil Cleanup Objective
Residential SCO: 1 ppm at all depths
[as determined by NYSDEC 6 NYCRR Table 375-6.8(b)]
TSCA: Toxic Substance Control Act
TSCA applies to PCBs greater than or equal to 50 ppm.
ppm: parts per million

Map Date: 8/30/2017
Source: ESRI, 2011
Projection: NAD 1983 State Plane New York East

N

0 50 100
Feet

NEW YORK STATE OF OPPORTUNITY Department of Environmental Conservation

Figure 13
OU-3 Drainage Ditch Profile and PCB Concentration

FORMER ADIONDACK STEEL OU-2 (Site No. 401039)
COLONIE, NEW YORK

G:\Projects\State&Local\NYSDEC - D007624\D007624 - Work Assignments\14907.35 - Former Adirondack Steel OU-2\GIS\MXDs\OU-2 & OU-3 BOD Report\Figure13_OU-3-Channel-Profile-BOD.mxd

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VICINITY MAP

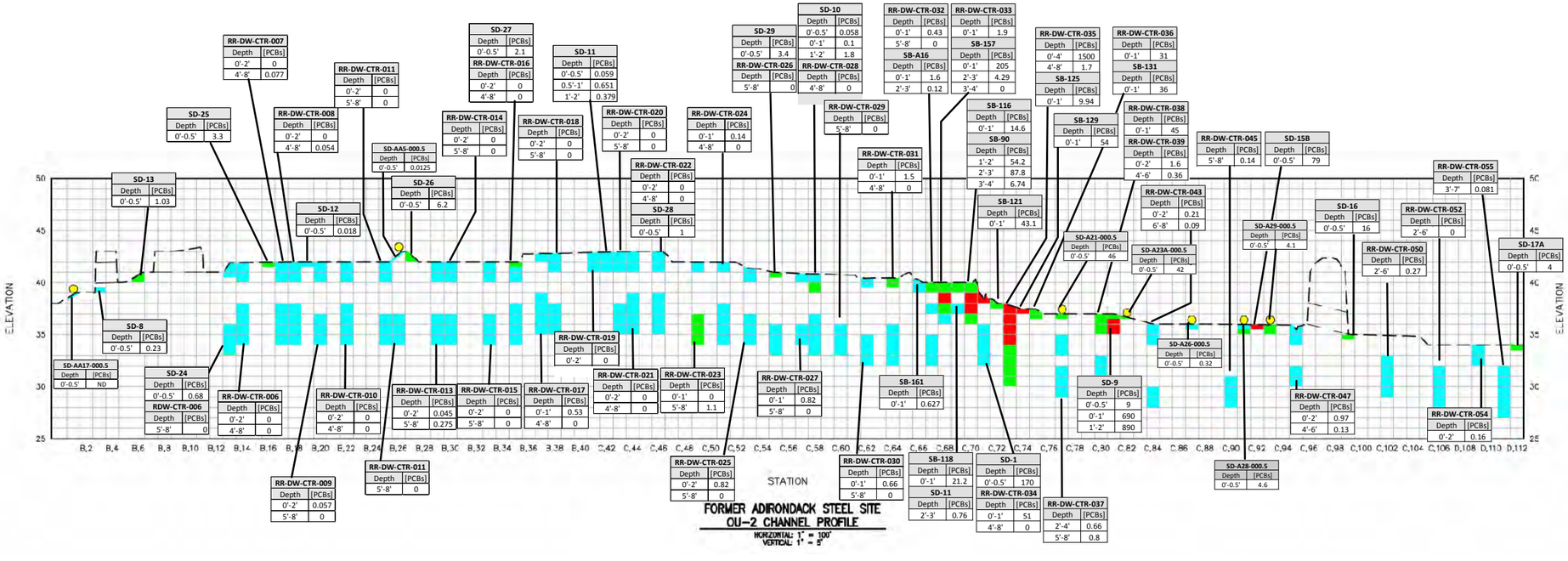
Legend

- Railroad
- Ditch
- Exceeds TSCA
- Exceeds Residential SCO
- Meets Residential SCO
- OU-2 Boundary
- OU-2 PDI Sampling Location

Note:
Results reported in ppm
Elevations reported in feet above mean sea level (ft amsl)
SCO: Soil Cleanup Objective
Residential SCO: 1 ppm at all depths
[as determined by NYSDEC 6 NYCRR Table 375-6.8(b)]
TSCA: Toxic Substance Control Act
TSCA applies to PCBs greater than or equal to 50 ppm.
ppm: parts per million

Map Date: 8/30/2017
Source: ESRI, 2011
Projection: NAD 1983 State Plane New York East

N
0 50 100
Feet



Service Layer Credits: Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

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Figure 14
OU-2 Site Profile and PCB Concentrations
FORMER ADIRONDACK STEEL OU-2 AND OU-3 (Site No. 401039)
COLONIE, NEW YORK

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Tables

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Table 1 Summary of Sampling Locations in OU-2 and OU-3

SN	Grid	Grid Group	Sample ID	Start Depth (bgs)	End Depth (bgs)	PCB (ppm)	Data Point Color	Grid Color	Sampling Event
1	A112	A112	RR-DW-CTR-056	0	2	10	G	G	OU-2 RI EEEPC 2009
2	A112		RR-DW-CTR-056	2	4	11	G		OU-2 RI EEEPC 2009
3	A112		RR-DW-CTR-056	4	8	0.084	B		OU-2 RI EEEPC 2009
4	A112		SD-18A	0	0.5	0.7	B		EEEPC 2008
5	A112		SD-18B	0.5	1	7.1	G		EEEPC 2008
6	B1	B1	SD-AA17	0	0.5	ND	B	B	OU-2 PDI EA 2017
7	B13	B13	rr-dw-ctr-005-ctr	5	8	ND	B	B	OU-2 RI EEEPC 2009
8	B13		rr-dw-es-002-east	2	4	ND	B		OU-2 RI EEEPC 2009
9	B13		rr-dw-es-002-east	6	8	ND	B		OU-2 RI EEEPC 2009
10	B13		rr-dw-es-002-east	8	12	ND	B		OU-2 RI EEEPC 2009
11	B13		SD-24	0	0.5	0.7	B		EEEPC 2008
12	B14	B14	RR-DW-CTR-006	0	2	ND	B	B	OU-2 RI EEEPC 2009
13	B14		RR-DW-CTR-006	4	8	ND	B		OU-2 RI EEEPC 2009
14	B16	B16	SD-25	0	0.5	3.3	G	G	EEEPC 2008
15	B17	B17	rr-dw-ctr-007-ctr	0	2	ND	B	B	OU-2 RI EEEPC 2009
16	B17		rr-dw-ctr-007-ctr	4	8	0.077	B		OU-2 RI EEEPC 2009
17	B18	B18	rr-dw-ctr-008-ctr	0	2	ND	B	B	OU-2 RI EEEPC 2009
18	B18		rr-dw-ctr-008-ctr	4	8	0.054	B		OU-2 RI EEEPC 2009
19	B19	B19	SD-12	0	0.5	0.018	B	B	OU-1 RI EEEPC 2005-2008
20	B20	B20	RR-DW-ES-003	0	2	ND	B	B	OU-2 RI EEEPC 2009
21	B20		RR-DW-ES-003	2	4	ND	B		OU-2 RI EEEPC 2009
22	B20		RR-DW-ES-003	4	8	ND	B		OU-2 RI EEEPC 2009
23	B20		RR-DW-CTR-009	0	2	0.057	B		OU-2 RI EEEPC 2009
24	B20		RR-DW-CTR-009	5	8	ND	B		OU-2 RI EEEPC 2009
25	B22	B22	RR-DW-CTR-010	0	2	ND	B	B	OU-2 RI EEEPC 2009
26	B22		RR-DW-CTR-010	4	8	ND	B		OU-2 RI EEEPC 2009
27	B25	B25	RR-DW-CTR-011	0	2	ND	B	B	OU-2 RI EEEPC 2009
28	B25		RR-DW-CTR-011	5	8	ND	B		OU-2 RI EEEPC 2009
29	B26	B26	rr-dw-ctr-012-ctr	5	8	ND	B	B	OU-2 RI EEEPC 2009
30	B26		SD-AA5	0	0.5	0.0125	B		OU-2 PDI EA 2017
31	B27	B27	SD-26	1	2	6.2	G	G	EEEPC 2008
32	B28	B28	rr-dw-es-004-east	0	2	ND	B	B	OU-2 RI EEEPC 2009
33	B28		rr-dw-es-004-east	2	4	ND	B		OU-2 RI EEEPC 2009
34	B28		rr-dw-es-004-east	4	8	ND	B		OU-2 RI EEEPC 2009
35	B29	B29	rr-dw-ctr-013-ctr	0	2	0.045	B	B	OU-2 RI EEEPC 2009
36	B29		rr-dw-ctr-013-ctr	5	8	0.275	B		OU-2 RI EEEPC 2009
37	B3	B3	SD-8	0	0.5	0.23	B	B	OU-1 RI EEEPC 2005-2008
38	B30	B30	rr-dw-ctr-014-ctr	0	2	ND	B	B	OU-2 RI EEEPC 2009
39	B30		rr-dw-ctr-014-ctr	5	8	ND	B		OU-2 RI EEEPC 2009
40	B33	B33	rr-dw-ctr-015-ctr	0	2	ND	B	B	OU-2 RI EEEPC 2009
41	B33		rr-dw-ctr-015-ctr	5	8	ND	B		OU-2 RI EEEPC 2009
42	B35	B35	RR-DW-CTR-016	0	2	ND	B	G	OU-2 RI EEEPC 2009
43	B35		RR-DW-CTR-016	4	8	ND	B		OU-2 RI EEEPC 2009
44	B35		SD-27	1	2	2.1	G		EEEPC 2008
45	B37	B37	RR-DW-ES-005	0	2	ND	B	B	OU-2 RI EEEPC 2009
46	B37		RR-DW-ES-005	2	4	ND	B		OU-2 RI EEEPC 2009
47	B37		RR-DW-ES-005	4	8	ND	B		OU-2 RI EEEPC 2009
48	B38	B38	RR-DW-CTR-018	0	2	ND	B	B	OU-2 RI EEEPC 2009
49	B38		RR-DW-CTR-018	5	8	ND	B		OU-2 RI EEEPC 2009
50	B4	B4	rr-dw-ws-001-west	0	2	0.45	B	B	OU-2 RI EEEPC 2009
51	B4		rr-dw-ws-001-west	2	4	0.082	B		OU-2 RI EEEPC 2009
52	B4		rr-dw-ws-001-west	4	8	ND	B		OU-2 RI EEEPC 2009
53	B41	B41	rr-dw-ctr-019-ctr	0	2	ND	B	B	OU-2 RI EEEPC 2009
54	B42	B42	SD-11-.5	0	0.5	0.018	B	B	OU-1 RI EEEPC 2005-2008
55	B42		SD-11-1	0	1	0.6	B		OU-1 RI EEEPC 2005-2008
56	B42		SD-11-2	0	2	0.38	B		OU-1 RI EEEPC 2005-2008

Notes:
ND = Non Detect
NS = Not Sampled bgs = Below ground surface
ppm = Parts per million
Grid Color Designations
B = Blue, Meets CP-51/SCO
G = Green, Non-TSCA
R = Red, TSCA
Cleanup Criteria
SCO = Soil Cleanup Objective
CP-51 = Commissioner's Policy #51 where PBCs must be < 1 ppm in surface soil and < 10 ppm in subsurface soil. Subsurface soil means soil > 1ft bgs
Drainage Ditch in OU-2 and OU-3 and offsite area subject to Residential SCO (6 NYCRR Table 375-6.8(b)) which is 1 ppm at all depths
TSCA = Toxic Substances Control Act, which applies to hazardous concentrations of PCBs (> 50 ppm)

Table 1 Summary of Sampling Locations in OU-2 and OU-3

SN	Grid	Grid Group	Sample ID	Start Depth (bgs)	End Depth (bgs)	PCB (ppm)	Data Point Color	Grid Color	Sampling Event
57	B44	B44	RR-DW-ES-006	0	2	ND	B	B	OU-2 RI EEEPC 2009
58	B44		RR-DW-ES-006	2	4	ND	B		OU-2 RI EEEPC 2009
59	B44		RR-DW-ES-006	4	8	ND	B		OU-2 RI EEEPC 2009
60	B44		RR-DW-CTR-021	0	2	ND	B		OU-2 RI EEEPC 2009
61	B44		RR-DW-CTR-021	4	8	ND	B		OU-2 RI EEEPC 2009
62	B46	C46*	rr-dw-ctr-022-ctr	0	2	ND	B	G	OU-2 RI EEEPC 2009
63	B46		rr-dw-ctr-022-ctr	4	8	ND	B		OU-2 RI EEEPC 2009
64	B46		SD-28	0	1	1	G		EEEPC 2008
65	B5	B5	rr-dw-es-001-east	2	4	0.18	B	B	OU-2 RI EEEPC 2009
66	B5		rr-dw-es-001-east	6	8	ND	B		OU-2 RI EEEPC 2009
67	B5		rr-dw-es-001-east	8	12	ND	B		OU-2 RI EEEPC 2009
68	B52	B52	rr-dw-es-007-east	2	4	0.049	B	B	OU-2 RI EEEPC 2009
69	B52		rr-dw-es-007-east	6	8	ND	B		OU-2 RI EEEPC 2009
70	B52		rr-dw-es-007-east	8	12	ND	B		OU-2 RI EEEPC 2009
71	C55	C55*	RR-DW-CTR-26	5	8	ND	B	G	OU-2 RI EEEPC 2009
72	B55		SD-29	1	2	3.4	G		EEEPC 2008
73	B6	B6	SD-13	0	0.5	1.05	G	G	EEEPC 2008
74	B61	B61	RR-DW-ES-008	2	4	ND	B	B	OU-2 RI EEEPC 2009
75	B61		RR-DW-ES-008	6	8	ND	B		OU-2 RI EEEPC 2009
76	B61		RR-DW-ES-008	8	12	ND	B		OU-2 RI EEEPC 2009
77	B68	B68	RR-DW-ES-009	2	4	0.08	B	B	OU-2 RI EEEPC 2009
78	B68		RR-DW-ES-009	6	8	ND	B		OU-2 RI EEEPC 2009
79	B68		RR-DW-ES-009	8	12	ND	B		OU-2 RI EEEPC 2009
80	B77	B77	RR-DW-ES-011	2	4	ND	B	B	OU-2 RI EEEPC 2009
81	B77		RR-DW-ES-011	10	12	ND	B		OU-2 RI EEEPC 2009
82	B77		RR-DW-ES-011	12	16	ND	B		OU-2 RI EEEPC 2009
83	C102	C102	RR-DW-CTR-050	2	4	0.27	B	B	OU-2 RI EEEPC 2009
84	C102		RR-DW-CTR-050	4	6	ND	B		OU-2 RI EEEPC 2009
85	C105		rr-dw-es-018	2	4	0.073	B		OU-2 RI EEEPC 2009
86	C105		rr-dw-es-018	10	12	ND	B		OU-2 RI EEEPC 2009
87	C105	C64	rr-dw-es-018	12	16	ND	B	B	OU-2 RI EEEPC 2009
88	C108	C108	RR-DW-ES-019	12	16	1.1	G	G	OU-2 RI EEEPC 2009
89	C108		RR-DW-ES-019	2	4	ND	B		OU-2 RI EEEPC 2009
90	C108		RR-DW-ES-019	10	12	ND	B		OU-2 RI EEEPC 2009
91	C111	C111	RR-DW-ES-020	2	4	ND	B	B	OU-2 RI EEEPC 2009
92	C111		RR-DW-ES-020	10	12	ND	B		OU-2 RI EEEPC 2009
93	C13	C13	rr-dw-ws-002-west	0	2	ND	B	B	OU-2 RI EEEPC 2009
94	C13		rr-dw-ws-002-west	4	6	ND	B		OU-2 RI EEEPC 2009
95	C13		rr-dw-ws-002-west	6	10	ND	B		OU-2 RI EEEPC 2009
96	C20	C20	RR-DW-WS-003	0	2	ND	B	B	OU-2 RI EEEPC 2009
97	C20		RR-DW-WS-003	2	4	ND	B		OU-2 RI EEEPC 2009
98	C20		RR-DW-WS-003	4	8	ND	B		OU-2 RI EEEPC 2009
99	C28	C28	RR-DW-WS-004	2	4	0.18	B	B	OU-2 RI EEEPC 2009
100	C28		RR-DW-WS-004	4	6	ND	B		OU-2 RI EEEPC 2009
101	C28		RR-DW-WS-004	6	10	ND	B		OU-2 RI EEEPC 2009
102	C37	C37	RR-DW-CTR-017	0	1	0.53	B	B	OU-2 RI EEEPC 2009
103	C37		RR-DW-CTR-017	4	8	ND	B		OU-2 RI EEEPC 2009
104	C37		RR-DW-017-PIPE	0	1	0.41	B		OU-2 RI EEEPC 2009
105	C43	C43	rr-dw-ctr-020-ctr	0	2	ND	B	B	OU-2 RI EEEPC 2009
106	C43		rr-dw-ctr-020-ctr	5	8	ND	B		OU-2 RI EEEPC 2009
107	C44	C44	RR-DW-WS-006	2	4	4	B	B	OU-2 RI EEEPC 2009
108	C44		RR-DW-WS-006	4	6	0.085	B		OU-2 RI EEEPC 2009
109	C44		RR-DW-WS-006	6	10	ND	B		OU-2 RI EEEPC 2009
110	C49	C49	RR-DW-CTR-023	0	1	ND	B	G	OU-2 RI EEEPC 2009
111	C49		RR-DW-CTR-023	5	8	1.1	G		OU-2 RI EEEPC 2009
112	C51	C51	RR-DW-CTR-024	0	1	0.14	B	B	OU-2 RI EEEPC 2009
113	C51		RR-DW-CTR-024	4	8	ND	B		OU-2 RI EEEPC 2009
114	C53	C53	RR-DW-CTR-025	0	2	ND	B	B	OU-2 RI EEEPC 2009
115	C53		RR-DW-CTR-025	5	8	ND	B		OU-2 RI EEEPC 2009
116	C57	C57	RR-DW-CTR-027	0	1	0.82	B	B	OU-2 RI EEEPC 2009
117	C57		RR-DW-CTR-027	5	7	ND	B		OU-2 RI EEEPC 2009
118	C58	C58	RR-DW-CTR-028	4	8	ND	B	G	OU-2 RI EEEPC 2009
119	C58		SD-10-.5	0	0.5	0.058	B		OU-1 RI EEEPC 2005-2008
120	C58		SD-10-1	0	1	0.1	B		OU-1 RI EEEPC 2005-2008
121	C58		SD-10-2	0	2	1.8	G		OU-1 RI EEEPC 2005-2008
122	C60	C60	rr-dw-ctr-029-ctr	5	8	ND	B	B	OU-2 RI EEEPC 2009
123	C62	C62	RR-DW-CTR-030	0	1	0.66	B	B	OU-2 RI EEEPC 2009
124	C62		RR-DW-CTR-030	5	8	ND	B		OU-2 RI EEEPC 2009
125	C64	C64	rr-dw-ctr-031	0	1	1.5	G	G	OU-2 RI EEEPC 2009
126	C64		rr-dw-ctr-031	4	8	ND	B		OU-2 RI EEEPC 2009

Table 1 Summary of Sampling Locations in OU-2 and OU-3

SN	Grid	Grid Group	Sample ID	Start Depth (bgs)	End Depth (bgs)	PCB (ppm)	Data Point Color	Grid Color	Sampling Event
127	C66	C66	SB-161	0	1	0.627	B	B	USEPA 2011
128	C67	C67	SB-A16	0	1	1.6	G	G	OU-3 PDI EA 2016
129	C67		SB-A16	2	3	0.12	B		OU-3 PDI EA 2016
130	C67		rr-dw-ctr-032	0	1	0.43	B		OU-2 RI EEEPC 2009
131	C67		rr-dw-ctr-032	5	8	ND	B		OU-2 RI EEEPC 2009
132	C68	C68	SB-157	0	1	16.7	G	R	USEPA 2011
133	C68		SB-157	1	2	205	R		USEPA 2011
134	C68		SB-157	2	3	4.29	B		USEPA 2011
135	C68		SB-157	3	4	ND	B		USEPA 2011
136	C68		rr-dw-ctr-033	0	1	1.9	G		OU-2 RI EEEPC 2009
137	C68		rr-dw-ws-009	2	4	5.1	B		OU-2 RI EEEPC 2009
138	C68		rr-dw-ws-009	6	8	ND	B		OU-2 RI EEEPC 2009
139	C68		rr-dw-ws-009	8	12	0.05	B		OU-2 RI EEEPC 2009
140	C69	C69	SB-A17	0	1	0.72	B	G	OU-3 PDI EA 2016
141	C69		SB-A17	2	3	0.76	B		OU-3 PDI EA 2016
142	C69		SB-118	0	1	21.2	G		USEPA 2011
143	C69		SB-119	0	1	18.5	G		USEPA 2011
144	C69		SB-120	0	1	14.5	G		USEPA 2011
145	C70	C70	SB-090	0	1	10.2	G	R	USEPA 2011
146	C70		SB-115	0	1	9.5	G		USEPA 2011
147	C70		SB-116	0	1	14.6	G		USEPA 2011
148	C70		SB-117	0	1	4.01	G		USEPA 2011
149	C70		SB-090	1	2	54.2	R		USEPA 2011
150	C70		SB-090	2	3	87.8	R		USEPA 2011
151	C70		SB-090	3	4	6.74	B		USEPA 2011
152	C71	C71	SB-A18	0	1	0.68	B	R	OU-3 PDI EA 2016
153	C71		SB-A18	1	2	78	R		OU-3 PDI EA 2016
154	C71		SD-1	0	0.5	170	R		OU-1 RI EEEPC 2005-2008
155	C71		SD-14	0.5	1	84	R		EEEPC 2008
156	C71		rr-dw-ctr-034	0	1	51	R		OU-2 RI EEEPC 2009
157	C71		rr-dw-ctr-034	4	8	ND	B		OU-2 RI EEEPC 2009
158	C72	C72	SB-121	0	1	43.1	G	G	USEPA 2011
159	C72		SB-122	0	1	37.6	G		USEPA 2011
160	C72		SB-123	0	1	1.71	G		USEPA 2011
161	C73	C73	SB-124	0	1	2.57	G	R	USEPA 2011
162	C73		SB-125	0	1	9.94	G		USEPA 2011
163	C73		SB-126	0	1	7.02	G		USEPA 2011
164	C73		rr-dw-ctr-035	0	4	1500	R		OU-2 RI EEEPC 2009
165	C73		rr-dw-es-010	10	12	ND	B		OU-2 RI EEEPC 2009
166	C73		rr-dw-es-010	12	16	0.13	B		OU-2 RI EEEPC 2009
167	C73		rr-dw-es-010	2	4	ND	B		OU-2 RI EEEPC 2009
168	C73		rr-dw-ctr-035	4	8	1.7	B		OU-2 RI EEEPC 2009
169	C73		SB-8	0	0.3	ND	B		OU-3 SRI EEEPC 2013
170	C73		SB-8	2	4	27	G		OU-3 SRI EEEPC 2013
171	C73		SB-8	4	8	1.1	B		OU-3 SRI EEEPC 2013
172	C74	C74	SB-127	0	1	8.59	G	R	USEPA 2011
173	C74		SB-128	0	1	11.9	G		USEPA 2011
174	C74		SB-129	0	1	54	R		USEPA 2011
175	C75	C75	SB-130	0	1	30.3	G	G	USEPA 2011
176	C75		SB-131	0	1	36	G		USEPA 2011
177	C75		SB-132	0	1	13.1	G		USEPA 2011
178	C75		RR-DW-CTR-036	0	1	31	G		OU-2 RI EEEPC 2009
179	C77	C77	RR-DW-CTR-037	2	4	0.66	B	G	OU-2 RI EEEPC 2009
180	C77		RR-DW-CTR-037	5	8	0.8	B		OU-2 RI EEEPC 2009
181	C77		SD-A21	0	0.5	46	G		OU-2 PDI EA 2017
182	C80	C80	rr-dw-ctr-038	0	1	45	G	G	OU-2 RI EEEPC 2009
183	C80		rr-dw-ctr-039	0	2	1.6	G		OU-2 RI EEEPC 2009
184	C80		rr-dw-ctr-039	4	6	0.36	B		OU-2 RI EEEPC 2009
185	C81	C81	rr-dw-es-012	10	12	0.11	B	R	OU-2 RI EEEPC 2009
186	C81		rr-dw-es-012	12	16	ND	B		OU-2 RI EEEPC 2009
187	C81		rr-dw-es-012	2	4	ND	B		OU-2 RI EEEPC 2009
188	C81		SD-9-.5	0	0.5	9	G		OU-1 RI EEEPC 2005-2008
189	C81		SD-9-1	0	1	690	R		OU-1 RI EEEPC 2005-2008
190	C81		SD-9-2	1	2	890	R		OU-1 RI EEEPC 2005-2008
191	C82	C82	SD-A23a	0	0.5	42	G	G	OU-2 PDI EA 2017
192	C84	C84	RR-DW-ES-013	2	4	ND	B	B	OU-2 RI EEEPC 2009
193	C84		RR-DW-ES-013	10	12	ND	B		OU-2 RI EEEPC 2009
194	C84		RR-DW-ES-013	12	16	ND	B		OU-2 RI EEEPC 2009
195	C84		RR-DW-CTR-043	0	2	0.21	B		OU-2 RI EEEPC 2009
196	C84		RR-DW-CTR-043	6	8	0.09	B		OU-2 RI EEEPC 2009
197	C87	C87	SD-A26	0	0.5	0.32	B	B	OU-2 PDI EA 2017

Table 1 Summary of Sampling Locations in OU-2 and OU-3

SN	Grid	Grid Group	Sample ID	Start Depth (bgs)	End Depth (bgs)	PCB (ppm)	Data Point Color	Grid Color	Sampling Event
198	C89	C89	rr-dw-es-014	2	4	ND	B	B	OU-2 RI EEEPC 2009
199	C89		rr-dw-es-014	10	12	0.067	B		OU-2 RI EEEPC 2009
200	C89		rr-dw-es-014	12	16	ND	B		OU-2 RI EEEPC 2009
201	C90	C90	RR-DW-CTR-045	5	8	0.14	B	G	OU-2 RI EEEPC 2009
202	C91	C91	SD-A28	0	0.5	4.6	G	G	OU-2 PDI EA 2017
203	C92	C92	RR-DW-ES-015	2	4	0.54	B	R	OU-2 RI EEEPC 2009
204	C92		RR-DW-ES-015	10	12	ND	B		OU-2 RI EEEPC 2009
205	C92		SD-15A	0	0.5	37	G		EEEPC 2008
206	C92		SD-15B	0.5	1	79	R		EEEPC 2008
207	C93	C93	SD-A29	0	0.5	4.1	G	G	OU-2 PDI EA 2017
208	C95	C95	RR-DW-ES-016	2	4	0.047	B	B	OU-2 RI EEEPC 2009
209	C95		RR-DW-ES-016	10	12	ND	B		OU-2 RI EEEPC 2009
210	C95		RR-DW-ES-016	12	16	ND	B		OU-2 RI EEEPC 2009
211	C95		RR-DW-CTR-047	0	2	0.097	B		OU-2 RI EEEPC 2009
212	C95		RR-DW-CTR-047	4	6	0.13	B		OU-2 RI EEEPC 2009
213	C99	C99	RR-DW-ES-017	2	4	ND	B	G	OU-2 RI EEEPC 2009
214	C99		RR-DW-ES-017	10	12	ND	B		OU-2 RI EEEPC 2009
215	C99		RR-DW-ES-017	12	16	ND	B		OU-2 RI EEEPC 2009
216	C99		SD-16	0	0.5	16	G		EEEPC 2008
217	D104	D104	RR-DW-WS-018	2	4	0.065	B	B	OU-2 RI EEEPC 2009
218	D104		RR-DW-WS-018	6	8	ND	B		OU-2 RI EEEPC 2009
219	D104		RR-DW-WS-018	8	12	ND	B		OU-2 RI EEEPC 2009
220	D106	D106	RR-DW-CTR-52	2	4	ND	B	B	OU-2 RI EEEPC 2009
221	D106		RR-DW-CTR-52	4	6	ND	B		OU-2 RI EEEPC 2009
222	D108	D108	RR-DW-WS--19	2	4	ND	B	B	OU-2 RI EEEPC 2009
223	D108		RR-DW-WS--19	6	8	ND	B		OU-2 RI EEEPC 2009
224	D108		RR-DW-WS--19	8	12	ND	B		OU-2 RI EEEPC 2009
225	D109	D109	RR-DW-CTR-054	0	2	0.16	B	B	OU-2 RI EEEPC 2009
226	D111	D111	RR-DW-CTR-055	3	7	0.081	B	B	OU-2 RI EEEPC 2009
227	D111		RR-DW-WS-020	2	4	ND	B		OU-2 RI EEEPC 2009
228	D111		RR-DW-WS-020	6	8	ND	B		OU-2 RI EEEPC 2009
229	D111		RR-DW-WS-020	8	12	ND	B		OU-2 RI EEEPC 2009
230	D112	D112	SD-17A	0	0.5	4	G	G	EEEPC 2008
231	D112		SD-17B	0.5	1	1.2	G		EEEPC 2008
232	D36	D36	RR-DW-WS-005	2	4	ND	B	B	OU-2 RI EEEPC 2009
233	D36		RR-DW-WS-005	6	8	ND	B		OU-2 RI EEEPC 2009
234	D36		RR-DW-WS-005	8	12	ND	B		OU-2 RI EEEPC 2009
235	D48	D48	MW-1D	0	6	ND	B	B	OU-1 RI EEEPC 2005-2008
236	D52	D52	SB-6	0	1	0.19	B	B	OU-3 SRI EEEPC 2013
237	D52		SB-6	2	4	ND	B		OU-3 SRI EEEPC 2013
238	D52		rr-dw-ws-007-west	2	4	0.44	B		OU-2 RI EEEPC 2009
239	D52		rr-dw-ws-007-west	6	8	0.19	B		OU-2 RI EEEPC 2009
240	D52		rr-dw-ws-007-west	8	12	ND	B		OU-2 RI EEEPC 2009
241	D54	D54	SB-I13	0	1	0.18	B	B	OU-1 RI EEEPC 2005-2008
242	D56	D56	SB-I12-2	0	2	0.59	B	B	OU-1 RI EEEPC 2005-2008
243	D56		SB-I12-1	0	1	0.56	B		OU-1 RI EEEPC 2005-2008
244	D57	D57	SS-I11	0	0.5	1.4	G	G	OU-1 RI EEEPC 2005-2008
245	D58	D58	BOT-SSI11-6'	0	6	ND	B	B	IRM Confirmation 2013
246	D58		SIDE-A8-2'	0	2	0.68	B		IRM Confirmation 2013
247	D58		SB-I11	0	2	0.067	B		OU-1 RI EEEPC 2005-2008
248	D59	D59	SS-I10	0	0.5	0.71	B	B	OU-1 RI EEEPC 2005-2008
249	D60	D60	PES-905-8-10'	0	10	ND	B	B	Unknown**
250	D60		TMW-6	0	0	ND	B		OU-1 RI EEEPC 2005-2008
251	D61	D61	RR-DW-WS-008	2	4	20	G	G	OU-2 RI EEEPC 2009
252	D61		RR-DW-WS-008	10	12	ND	B		OU-2 RI EEEPC 2009
253	D61		RR-DW-WS-008	12	16	ND	B		OU-2 RI EEEPC 2009
254	D62	D62	SS-I09	0	0.5	0.86	B	B	OU-1 RI EEEPC 2005-2008
255	D64	D64	SB-153	0	1	ND	B	B	USEPA 2011
256	D66	D66	SB-160	0	1	0.367	B	B	USEPA 2011
257	D66		SB-160	1	2	ND	B		USEPA 2011
258	D66		SB-160	2	3	ND	B		USEPA 2011
259	D66		SB-160	3	4	0.316	B		USEPA 2011
260	D67	D67	SB-156	4	5	110	R	R	OU-3 PDI EA 2016
261	D67		SB-156	5	6	13	G		OU-3 PDI EA 2016
262	D67		SB-159	0	1	ND	B		USEPA 2011
263	D67		SB-159	1	2	ND	B		USEPA 2011
264	D67		SB-159	2	3	2.8	B		USEPA 2011
265	D67		SB-159	3	4	0.532	B		USEPA 2011

Table 1 Summary of Sampling Locations in OU-2 and OU-3

SN	Grid	Grid Group	Sample ID	Start Depth (bgs)	End Depth (bgs)	PCB (ppm)	Data Point Color	Grid Color	Sampling Event
266	D68	D68	SB-156	0	1	ND	B	G	USEPA 2011
267	D68		SB-156	1	2	0.332	B		USEPA 2011
268	D68		SB-156	2	3	25	G		USEPA 2011
269	D68		SB-156	3	4	19.7	G		USEPA 2011
270	D69	D69	SB-155	0	1	1.88	G	G	USEPA 2011
271	D69		SB-155	1	2	1.53	B		USEPA 2011
272	D69		SB-155	2	3	0.723	B		USEPA 2011
273	D69		SB-155	3	4	ND	B		USEPA 2011
274	D70	D70	SB-084	0	1	0.617	B	G	USEPA 2011
275	D70		SB-085	0	1	2.08	G		USEPA 2011
276	D70		SB-089	0	1	33.8	G		USEPA 2011
277	D70		SB-084	1	2	ND	B		USEPA 2011
278	D70		SB-085	1	2	5.59	B		USEPA 2011
279	D70		SB-089	1	2	12.7	G		USEPA 2011
280	D70		SB-084	2	3	ND	B		USEPA 2011
281	D70		SB-085	2	3	0.312	B		USEPA 2011
282	D70		SB-089	2	3	40.7	G		USEPA 2011
283	D70		SB-084	3	4	ND	B		USEPA 2011
284	D70		SB-085	3	4	ND	B		USEPA 2011
285	D70		SB-089	3	4	2.21	B		USEPA 2011
286	D71	D71	SB-087	0	1	19	G	G	USEPA 2011
287	D71		SB-087	0	1	0.807	B		USEPA 2011
288	D71		SB-088	0	1	16.9	G		USEPA 2011
289	D71		SB-087	1	2	ND	B		USEPA 2011
290	D71		SB-087	2	3	ND	B		USEPA 2011
291	D71		SD01	0	0.5	0.17	B		OU-1 RI EEEPC 2005-2008
292	D71		DEC-SD-01-.5	0	0.5	2.2	G		Check
293	D71		DEC-SD-01-1	0	1	37	G		Check
294	D73	D73	rr-dw-ws-010	2	4	ND	B	B	OU-2 RI EEEPC 2009
295	D73		rr-dw-ws-010	10	12	ND	B		OU-2 RI EEEPC 2009
296	D73		rr-dw-ws-010	12	16	ND	B		OU-2 RI EEEPC 2009
297	D75	D75	SB-A20	0	1	0.0359	B	B	OU-2 PDI EA 2017
298	D75		SB-A20	1	2	0.051	B		OU-2 PDI EA 2017
299	D77	D77	rr-dw-ws-011	2	4	33	G	G	OU-2 RI EEEPC 2009
300	D77		rr-dw-ws-011	10	12	0.046	B		OU-2 RI EEEPC 2009
301	D77		rr-dw-ws-011	12	16	ND	B		OU-2 RI EEEPC 2009
302	D79	D79	SB-A22	0	1	0.15	B	B	OU-2 PDI EA 2017
303	D79		SB-A22	1	2	0.81	B		OU-2 PDI EA 2017
304	D81	D81	RR-DW-WS-012	12	16	ND	B	G	OU-2 RI EEEPC 2009
305	D81		rr-dw-ws-012	2	4	3.4	G		OU-2 RI EEEPC 2009
306	D81		rr-dw-ws-012	10	12	ND	B		OU-2 RI EEEPC 2009
307	D82	D82	SB-A23b	0	1	0.0188	B	B	OU-2 PDI EA 2017
308	D84	D84	RR-DW-WS-013	2	4	0.06	B	B	OU-2 RI EEEPC 2009
309	D84		RR-DW-WS-013	6	8	ND	B		OU-2 RI EEEPC 2009
310	D84		RR-DW-WS-013	8	12	ND	B		OU-2 RI EEEPC 2009
311	D89	D89	RR-DW-WS-014	2	4	ND	B	B	OU-2 RI EEEPC 2009
312	D89		RR-DW-WS-014	6	8	ND	B		OU-2 RI EEEPC 2009
313	D89		RR-DW-WS-014	8	12	ND	B		OU-2 RI EEEPC 2009
314	D92	D92	RR-DW-WS-015	2	4	0.072	B	B	OU-2 RI EEEPC 2009
315	D92		RR-DW-WS-015	6	8	ND	B		OU-2 RI EEEPC 2009
316	D92		RR-DW-WS-015	8	12	ND	B		OU-2 RI EEEPC 2009
317	D95	D95	rr-dw-ws-016-west	0	2	ND	B	B	OU-2 RI EEEPC 2009
318	D95		rr-dw-ws-016-west	2	4	ND	B		OU-2 RI EEEPC 2009
319	D95		rr-dw-ws-016-west	4	8	ND	B		OU-2 RI EEEPC 2009
320	D99	D99	RR-DW-WS-017	2	4	0.65	B	B	OU-2 RI EEEPC 2009
321	D99		RR-DW-WS-017	6	8	ND	B		OU-2 RI EEEPC 2009
322	D99		RR-DW-WS-017	8	12	ND	B		OU-2 RI EEEPC 2009
323	E38	E38	BOT-SB35-6'	0	6	ND	B	B	IRM Confirmation 2013
324	E39	E39	SIDE-A1(B)-5.5'	0	5.5	ND	B	G	IRM Confirmation 2013
325	E39		SIDE-A1-6.5'	0	6.5	0.053	B		IRM Confirmation 2013
326	E39		SIDE-A1-5.5'	0	5.5	3.1	G		IRM Confirmation 2013
327	E40	E40	SB-B2	2	4	0.0161	B	B	OU-3 PDI EA 2016
328	E40		BOT-SB32(2)-7'	0	7	0.6	B		IRM Confirmation 2013
329	E40		BOT-SB32(1)-7'	0	7	0.07	B		IRM Confirmation 2013
330	E40		SB-34	0	2	0.5	B		OU-1 RI EEEPC 2005-2008
331	E40		SS-34	0	0.5	0.32	B		OU-1 RI EEEPC 2005-2008
332	E41	E41	SB-6	4	8	ND	B	B	OU-3 SRI EEEPC 2013
333	E42	E42	SB-B3a	2	4	0.0076	B	B	OU-3 PDI EA 2016

Table 1 Summary of Sampling Locations in OU-2 and OU-3

SN	Grid	Grid Group	Sample ID	Start Depth (bgs)	End Depth (bgs)	PCB (ppm)	Data Point Color	Grid Color	Sampling Event
334	E57	E57	SB-3	0	0.6	0.48	B	B	OU-3 SRI EEEPC 2013
335	E57		SB-3	2	4	0.37	B		OU-3 SRI EEEPC 2013
336	E57		SB-3	4	8	ND	B		OU-3 SRI EEEPC 2013
337	E59	E59	PES-906-9-11'	0	11	0.19	B	B	Check
338	E63	E63	SB-B14a	0	1	0.12	B	B	OU-3 PDI EA 2016
339	E64	E64	SS-I08	0	0.5	0.094	B	B	OU-1 RI EEEPC 2005-2008
340	E66	E66	SB-158	0	1	ND	B	B	USEPA 2011
341	E66		SB-158	1	2	ND	B		USEPA 2011
342	E66		SB-158	2	3	ND	B		USEPA 2011
343	E66		SB-158	3	4	ND	B		USEPA 2011
344	E68	E68	SB-B16	0	1	ND	B		OU-3 PDI EA 2016
345	E70	E70	SB-N-DW-SS-0001	0	1	0.3	B	G	OU-3 PDI EA 2016
346	E70		SB-N-DW-SS-0102	1	2	0.0633	B		OU-3 PDI EA 2016
347	E70		PES-SED-01-1	0	1	37	G		Check
348	E70		PES-SED-01-0	0	0	2.2	G		Check
349	E70		PES-SED-01-1	0	1	37	G		Check
350	E70		PES-SED-01-0	0	0	2.2	G		Check
351	E70		n-dw-ss-005	2	4	ND	B		OU-2 RI EEEPC 2009
352	E70		n-dw-ss-005	6	8	ND	B		OU-2 RI EEEPC 2009
353	E70		n-dw-ss-005	8	12	ND	B		OU-2 RI EEEPC 2009
354	E71	E71	SB-081	0	1	1.82	G	R	USEPA 2011
355	E71		SB-082	0	1	ND	B		USEPA 2011
356	E71		SB-083	0	1	6.08	G		USEPA 2011
357	E71		SB-081	1	2	0.366	B		USEPA 2011
358	E71		SB-082	1	2	ND	B		USEPA 2011
359	E71		SB-083	1	2	535	R		USEPA 2011
360	E71		SB-081	2	3	ND	B		USEPA 2011
361	E71		SB-082	2	3	ND	B		USEPA 2011
362	E71		SB-083	2	3	70.6	R		USEPA 2011
363	E71		SB-081	3	4	ND	B		USEPA 2011
364	E71		SB-082	3	4	ND	B		USEPA 2011
365	E71		SB-083	3	4	1470	R		USEPA 2011
366	E71		n-dw-ctr-001	0	2	130	R		OU-2 RI EEEPC 2009
367	E71		n-dw-ns-001	10	12	ND	B		OU-2 RI EEEPC 2009
368	E71		n-dw-ns-001	12	16	0.42	B		OU-2 RI EEEPC 2009
369	E71		n-dw-ns-001	2	4	ND	B		OU-2 RI EEEPC 2009
370	E71		n-dw-ctr-001	4	8	490	R		OU-2 RI EEEPC 2009
371	E72	E72	SB-086	0	1	8.28	G	G	USEPA 2011
372	E72		SB-086	1	2	0.898	B		USEPA 2011
373	E72		SB-086	2	3	ND	B		USEPA 2011
374	E72		SB-086	3	4	ND	B		USEPA 2011
375	F39	F39	A1-S-CWALL-3'	0	3	ND	B	B	IRM Confirmation 2013
376	F39		BOT-SB01(1)-5'	0	5	ND	B		IRM Confirmation 2013
377	F39		SIDE-A1-C-5'	0	5	0.32	B		IRM Confirmation 2013
378	F40	F40	A1-N-CWALL-4'	0	4	ND	B	B	IRM Confirmation 2013
379	F42	F42	SB-B3b	2	4	0.0059	B	B	OU-3 PDI EA 2016
380	F46	F46	SIDE-A11(B)-4'	0	4	0.73	B	B	IRM Confirmation 2013
381	F46		GP-C5	0	4	ND	B		OU-1 RI EEEPC 2005-2008
382	F47	F47	SS-02	0	0.5	ND	B	B	OU-1 RI EEEPC 2005-2008
383	F55	F55	GP-C4	0	4.5	ND	B	B	OU-1 RI EEEPC 2005-2008
384	F56	F56	PES-904-5-7'	0	7	ND	B	B	Check
385	F58	F58	PES-902-6-8'	0	8	ND	B	B	Check
386	F59	F59	SS-H10E	0	1	0.48	B	B	OU-1 RI EEEPC 2005-2008
387	F60	F60	SIDE-A4-6'	0	6	ND	B	B	IRM Confirmation 2013
388	F61	F61	SB-H9	0	2	6	G	G	OU-1 RI EEEPC 2005-2008
389	F62	F62	SIDE-A6(K)-2'	0	2	ND	B	B	IRM Confirmation 2013
390	F63	F63	SB-152	1	2	0.05	B	G	OU-3 PDI EA 2016
391	F63		SB-152	0	1	8.98	G		USEPA 2011
392	F66	F66	SB-146	0	1	ND	B	B	USEPA 2011
393	F66		SB-146	1	2	ND	B		USEPA 2011
394	F66		SB-146	2	3	0.431	B		USEPA 2011
395	F66		SB-146	3	4	7.53	B		USEPA 2011
396	F68	F68	SB-154	0	1	ND	B	B	USEPA 2011
397	F68		SB-154	1	2	ND	B		USEPA 2011
398	F68		SB-154	2	3	ND	B		USEPA 2011
399	F68		SB-154	3	4	ND	B		USEPA 2011

Table 1 Summary of Sampling Locations in OU-2 and OU-3

SN	Grid	Grid Group	Sample ID	Start Depth (bgs)	End Depth (bgs)	PCB (ppm)	Data Point Color	Grid Color	Sampling Event
400	F69	F69	SB-075	0	1	0.913	B	G	USEPA 2011
401	F69		SB-080	0	1	2.09	G		USEPA 2011
402	F69		SB-075	1	2	ND	B		USEPA 2011
403	F69		SB-080	1	2	7.07	B		USEPA 2011
404	F69		SB-075	2	3	0.264	B		USEPA 2011
405	F69		SB-080	2	3	0.315	B		USEPA 2011
406	F69		SB-075	3	4	13.3	G		USEPA 2011
407	F69		SB-080	3	4	ND	B		USEPA 2011
408	F7	F7	SB-B14b	0	1	0.16	B	B	OU-3 PDI EA 2016
409	F70	F70	SB-078	0	1	33.8	G	G	USEPA 2011
410	F70		SB-079	0	1	ND	B		USEPA 2011
411	F70		SB-079	1	2	ND	B		USEPA 2011
412	F70		SB-079	2	3	ND	B		USEPA 2011
413	F70		SB-079	3	4	ND	B		USEPA 2011
414	F71	F71	SB-076	0	1	ND	B	B	USEPA 2011
415	F71		SB-077	0	1	ND	B		USEPA 2011
416	F71		SB-076	1	2	ND	B		USEPA 2011
417	F71		SB-077	1	2	ND	B		USEPA 2011
418	F71		SB-076	2	3	ND	B		USEPA 2011
419	F71		SB-077	2	3	ND	B		USEPA 2011
420	F71		SB-076	3	4	ND	B		USEPA 2011
421	F71		SB-077	3	4	ND	B		USEPA 2011
422	F9	F9	SB-B13	0	1	0.79	B	B	OU-3 PDI EA 2016
423	G41	G41	SIDE-A12-3'	0	3	0.84	B	B	IRM Confirmation 2013
424	G41		BOT-SB23-3'	0	3	0.05	B		IRM Confirmation 2013
425	G45	G45	SIDE-A11-4'	0	4	0.07	B	B	IRM Confirmation 2013
426	G46	G46	BOT-SB30(1)-3'	0	3	0.14	B	B	IRM Confirmation 2013
427	G46		BOT-SB31(1)-5	0	5	0.03	B		IRM Confirmation 2013
428	G53	G53	SB-H13	0	1	0.94	B	B	OU-1 RI EEEPC 2005-2008
429	G55	G55	PES-907-8-10'	0	10	ND	B	B	Unknown**
430	G55		BOT-SBH12-8'	0	8	ND	B		IRM Confirmation 2013
431	G55		SIDE-A9-6'	0	6	ND	B		IRM Confirmation 2013
432	G56	G56	PES-903-6-8'	0	6	ND	B	B	Unknown**
433	G57	G57	SIDE-A7-5'	0	5	0.6	B	B	IRM Confirmation 2013
434	G57		SBOT-SH11(1)-6'	0	6	ND	B		IRM Confirmation 2013
435	G58	G58	PES-901-6-8'	0	8	1.9	G	G	Unknown**
436	G58		SIDE-A4(M)-5.5'	0	5.5	0.11	B		IRM Confirmation 2013
437	G58		SIDE-A4(L)-5.5'	0	5.5	8.4	G		IRM Confirmation 2013
438	G59	G59	SIDE-A4(D)-6'	0	6	0.27	B	B	IRM Confirmation 2013
439	G59		BOT-SSH10(6)-6'	0	6	ND	B		IRM Confirmation 2013
440	G59		BOT-SSH10(4)-10	0	10	ND	B		IRM Confirmation 2013
441	G59		A4-SouthWest15	0	15	ND	B		IRM Confirmation 2013
442	G59		SB-H10	0	2	4.6	G		OU-1 RI EEEPC 2005-2008
443	G59		SB-H10	0	5	0.33	B		OU-1 RI EEEPC 2005-2008
444	G60	G60	BOT-SSH10(3)-10	0	10	ND	B	B	IRM Confirmation 2013
445	G60		SIDE-A4(G)-5.5'	0	5.5	0.7	B		IRM Confirmation 2013
446	G61	G61	BOT-SSH10(1)-10	0	10	ND	B	B	IRM Confirmation 2013
447	G61		BOT-SSH10(2)-12	0	12.5	ND	B		IRM Confirmation 2013
448	G61		SIDE-SH10W(2)-3	0	3	0.57	B		IRM Confirmation 2013
449	G62	G62	BOT-SBH9(1)-3'	0	3	ND	B	B	IRM Confirmation 2013
450	G62		BOT-SBH9(2)-3'	0	3	0.32	B		IRM Confirmation 2013
451	G62		SIDE-A6(N)-4'	0	4	ND	B		IRM Confirmation 2013
452	G63	G63	SB-C14a	0	1	2.8	G	G	OU-3 PDI EA 2016
453	G63		SS-H08	0	0.5	0.12	B		OU-1 RI EEEPC 2005-2008
454	G63		SS-H08	0	0.5	0.12	B		OU-1 RI EEEPC 2005-2008
455	G64	G64	SB-1	0	0.6	2	G	G	OU-3 SRI EEEPC 2013
456	G64		SB-1	2	4	4.6	B		OU-3 SRI EEEPC 2013
457	G64		SB-1	4	8	ND	B		OU-3 SRI EEEPC 2013
458	G64		SB-11	4	8	0.66	B		OU-3 SRI EEEPC 2013
459	G65	G65	SB-150	0	1	0.291	B	B	USEPA 2011
460	G65		SB-150	1	2	0.757	B		USEPA 2011
461	G65		SB-150	2	3	1.93	B		USEPA 2011
462	G65		SB-150	3	4	ND	B		USEPA 2011
463	G66	G66	GP-C3	0	1.8	ND	B	B	OU-1 RI EEEPC 2005-2008

Table 1 Summary of Sampling Locations in OU-2 and OU-3

SN	Grid	Grid Group	Sample ID	Start Depth (bgs)	End Depth (bgs)	PCB (ppm)	Data Point Color	Grid Color	Sampling Event
464	G67	G67	SB-136	8	9	ND	B	B	OU-3 PDI EA 2016
465	G67		SB-141	0	1	ND	B		USEPA 2011
466	G67		SB-141	1	2	ND	B		USEPA 2011
467	G67		SB-141	2	3	ND	B		USEPA 2011
468	G67		SB-141	3	4	ND	B		USEPA 2011
469	G68	G68	SB-137	0	1	ND	B	R	USEPA 2011
470	G68		SB-137	1	2	ND	B		USEPA 2011
471	G68		SB-137	2	3	2.11	B		USEPA 2011
472	G68		SB-137	3	4	180	R		USEPA 2011
473	G68		SB-10	0	0.6	ND	B		OU-3 SRI EEEPC 2013
474	G68		SB-10	2	4	ND	B		OU-3 SRI EEEPC 2013
475	G68		SB-10	4	8	9.4	B		OU-3 SRI EEEPC 2013
476	G69	G69	SB-070	0	1	ND	B	G	USEPA 2011
477	G69		SB-074	0	1	2.04	G		USEPA 2011
478	G69		SB-070	1	2	ND	B		USEPA 2011
479	G69		SB-074	1	2	0.285	B		USEPA 2011
480	G69		SB-070	2	3	0.394	B		USEPA 2011
481	G69		SB-074	2	3	ND	B		USEPA 2011
482	G69		SB-070	3	4	5.05	B		USEPA 2011
483	G69		SB-074	3	4	ND	B		USEPA 2011
484	G70	G70	SB-068	0	1	1.3	G	G	USEPA 2011
485	G70		SB-069	0	1	ND	B		USEPA 2011
486	G70		SB-072	0	1	ND	B		USEPA 2011
487	G70		SB-073	0	1	ND	B		USEPA 2011
488	G70		SB-069	1	2	0.474	B		USEPA 2011
489	G70		SB-072	1	2	ND	B		USEPA 2011
490	G70		SB-069	2	3	ND	B		USEPA 2011
491	G70		SB-072	2	3	ND	B		USEPA 2011
492	G70		SB-069	3	4	ND	B		USEPA 2011
493	G70		SB-072	3	4	ND	B		USEPA 2011
494	G70		n-dw-ctr-002	0	2	1.2	G		OU-2 RI EEEPC 2009
495	G70		n-dw-ctr-002	4	8	1.2	B		OU-2 RI EEEPC 2009
496	G71	G71	SB-071	0	1	ND	B	B	USEPA 2011
497	G71		SB-071	1	2	ND	B		USEPA 2011
498	G71		SB-071	2	3	ND	B		USEPA 2011
499	G71		SB-071	3	4	ND	B		USEPA 2011
500	H39	H39	SB-7	0	0.3	0.86	B	B	OU-3 SRI EEEPC 2013
501	H39		SB-7	2	4	0.19	B		OU-3 SRI EEEPC 2013
502	H39		SB-7	4	8	ND	B		OU-3 SRI EEEPC 2013
503	H40	H40	BOT-SB29-3'	0	3	ND	B	B	IRM Confirmation 2013
504	H40		SIDE-A13(B)-3'	0	3	0.2	B		IRM Confirmation 2013
505	H41	H41	SIDE-A13-3'	0	3	0.07	B	B	IRM Confirmation 2013
506	H41		BOT-SB28-3'	0	3	0.05	B		IRM Confirmation 2013
507	H41		SB-22	0	2	0.014	B		OU-1 RI EEEPC 2005-2008
508	H43	H43	SIDE-A2(B)-1'	0	1	0.41	B	B	IRM Confirmation 2013
509	H43		BOT-SB27(2)-3'	0	3	0.36	B		IRM Confirmation 2013
510	H46	H46	BOT-SB19(1)-2'	0	2	0.99	B	B	IRM Confirmation 2013
511	H46		SB-5	0	0.8	0.14	B		OU-3 SRI EEEPC 2013
512	H46		SB-5	2	4	ND	B		OU-3 SRI EEEPC 2013
513	H46		SB-5	4	8	ND	B		OU-3 SRI EEEPC 2013
514	H51	H51	SB-C8	0	1	0.45	B	B	OU-3 PDI EA 2016
515	H52	H52	BOT_SB39(1)-2'	0	2	ND	B	B	IRM Confirmation 2013
516	H58	H58	SIDE-A4(I)-5.5'	0	5.5	1.6	G	G	IRM Confirmation 2013
517	H58		SIDE-A4(C)-6'	0	6	0.27	B		IRM Confirmation 2013
518	H61	H61	SIDE-A4(B)-7	0	7	ND	B	B	IRM Confirmation 2013
519	H62	H62	SIDE-A6[Z]-6.5'	0	1	8.4	G	G	OU-3 PDI EA 2016
520	H62		SIDE-A6(Z)-6.5	0	6.5	ND	B		IRM Confirmation 2013
521	H62		SIDE-A6(M)-5.5'	0	5.5	0.18	B		IRM Confirmation 2013
522	H64	H64	SB-C14b	0	1	0.15	B	B	OU-3 PDI EA 2016
523	H64		SIDE-A5-3'	0	3	0.71	B		IRM Confirmation 2013
524	H64		BOT-SBG9-3'	0	3	ND	B		IRM Confirmation 2013
525	H66	H66	SB-145	0	1	1.8	G	G	USEPA 2011
526	H66		SB-145	1	2	ND	B		USEPA 2011
527	H66		SB-145	2	3	2.51	B		USEPA 2011
528	H67	H67	SB-136	0	1	3.25	G	G	USEPA 2011
529	H67		SB-136	1	2	ND	B		USEPA 2011
530	H67		SB-136	2	3	ND	B		USEPA 2011
531	H67		SB-136	3	4	ND	B		USEPA 2011

Table 1 Summary of Sampling Locations in OU-2 and OU-3

SN	Grid	Grid Group	Sample ID	Start Depth (bgs)	End Depth (bgs)	PCB (ppm)	Data Point Color	Grid Color	Sampling Event
532	H68	H68	SB-065	0	1	55.5	R	R	USEPA 2011
533	H68		SB-065	1	2	218	R		USEPA 2011
534	H68		SB-065	2	3	145	R		USEPA 2011
535	H68		SB-065	3	4	16.7	G		USEPA 2011
536	H68		SB-065	4	5	ND	B		USEPA 2011
537	H68		SB-065	5	6	ND	B		USEPA 2011
538	H68		SB-065	6	7	0.491	B		USEPA 2011
539	H68		SB-065	7	8	ND	B		USEPA 2011
540	H69	H69	SB-064	0	1	0.329	B	B	USEPA 2011
541	H69		SB-064	1	2	1.12	B		USEPA 2011
542	H69		SB-064	2	3	3.18	B		USEPA 2011
543	H69		SB-064	3	4	ND	B		USEPA 2011
544	H69		n-dw-ss-004	2	4	0.23	B		OU-2 RI EEEPC 2009
545	H69		n-dw-ss-004	6	8	0.2	B		OU-2 RI EEEPC 2009
546	H69		n-dw-ss-004	8	12	ND	B		OU-2 RI EEEPC 2009
547	H70	H70	SB-063	0	1	38.6	G	R	USEPA 2011
548	H70		SB-067	0	1	ND	B		USEPA 2011
549	H70		SB-067	1	2	ND	B		USEPA 2011
550	H70		SB-067	2	3	ND	B		USEPA 2011
551	H70		SB-067	3	4	ND	B		USEPA 2011
552	H70		n-dw-ctr-003	0	2	0.05	B		OU-2 RI EEEPC 2009
553	H70		n-dw-ns-002	2	4	ND	B		OU-2 RI EEEPC 2009
554	H70		Unidentified**	0	2	860	R		Unknown**
555	H70		n-dw-ns-002	0	2	ND	B		OU-2 RI EEEPC 2009
556	H70		n-dw-ns-002	4	8	0.14	B		OU-2 RI EEEPC 2009
557	H70		n-dw-ctr-003	4	8	ND	B		OU-2 RI EEEPC 2009
558	H71	H71	SB-066	0	1	0.411	B	B	USEPA 2011
559	H71		SB-066	1	2	ND	B		USEPA 2011
560	H71		SB-066	2	3	ND	B		USEPA 2011
561	H71		SB-066	3	4	ND	B		USEPA 2011
562	I41	I41	SB-24	0	2	0.45	B	B	OU-1 RI EEEPC 2005-2008
563	I41		SS-24	0	0.5	0.45	B		OU-1 RI EEEPC 2005-2008
564	I42	I42	SB-26	0	3	0.063	B	B	OU-1 RI EEEPC 2005-2008
565	I43	I43	SIDE-A2-1'	0	1	0.12	B	B	IRM Confirmation 2013
566	I43		BOT-SB36-2'	0	2	0.32	B		IRM Confirmation 2013
567	I43		BOT-SB27(1)-3'	0	3	0.13	B		IRM Confirmation 2013
568	I43		SB-27-3	0	3	0.25	B		OU-1 RI EEEPC 2005-2008
569	I43		SB-27-5	0	5	0.37	B		OU-1 RI EEEPC 2005-2008
570	I45	I45	SS-03	0	0.5	1.8	G	G	OU-1 RI EEEPC 2005-2008
571	I48	I48	SS-37	0	0.5	5.4	G	G	OU-1 RI EEEPC 2005-2008
572	I48		SB-SS-37	1	3	ND	B		OU-3 PDI EA 2016
573	I50	I50	SB-D7	0	1	1.1	G	G	OU-3 PDI EA 2016
574	I50		GP-01	0	8	ND	B		OU-1 RI EEEPC 2005-2008
575	I51	I51	SIDE-A3(B)-1'	0	1	0.501	B	G	IRM Confirmation 2013
576	I51		SIDE-A10-2'	0	2	ND	B		IRM Confirmation 2013
577	I51		SB-4	0	0.6	2.7	G		OU-3 SRI EEEPC 2013
578	I51		SB-4	2	4	0.35	B		OU-3 SRI EEEPC 2013
579	I51		SB-4	4	8	ND	B		OU-3 SRI EEEPC 2013
580	I52	I52	SB-39-2	0	2	0.16	B	B	OU-1 RI EEEPC 2005-2008
581	I52		SB-39-5	1	5	0.11	B		OU-1 RI EEEPC 2005-2008
582	I59	I59	BOT-SD5(3)-10'	0	10	0.63	B	B	IRM Confirmation 2013
583	I59		BOT-SD5(3)-7'	0	7	0.09	B		IRM Confirmation 2013
584	I59		SD05	0	0.5	7.9	G		OU-1 RI EEEPC 2005-2008
585	I61	I61	SB-D13a	0	1	18	G	G	OU-3 PDI EA 2016
586	I61		BOT-SSG9(1)-7'	0	7	ND	B		IRM Confirmation 2013
587	I61		SIDE-A6(C)-5'	0	5	1.1	G		IRM Confirmation 2013
588	I62	I62	SB-151	1	2	2.7	B	G	OU-3 PDI EA 2016
589	I62		SB-151	0	1	40.3	G		USEPA 2011
590	I62		SIDE-A6(O)-5'	0	5	0.19	B		IRM Confirmation 2013
591	I63	I63	SS-G08	0	0.5	0.7	B	B	OU-1 RI EEEPC 2005-2008
592	I64	I64	SB-D14a	0	1	15	G	R	OU-3 PDI EA 2016
593	I64		SB-D14a	2	3	ND	B		OU-3 PDI EA 2016
594	I64		SB-149	0	1	1590	R		USEPA 2011
595	I64		SB-149	1	2	37.4	G		USEPA 2011
596	I64		SB-149	2	3	ND	B		USEPA 2011
597	I64		SB-149	3	4	ND	B		USEPA 2011
598	I64		SB-G9	0	2	10	G		OU-1 RI EEEPC 2005-2008
599	I65	I65	SB-D15a	0	1	0.26	B	B	OU-3 PDI EA 2016
600	I66	I66	SS-G07	0	0.5	0.19	B	B	OU-1 RI EEEPC 2005-2008

Table 1 Summary of Sampling Locations in OU-2 and OU-3

SN	Grid	Grid Group	Sample ID	Start Depth (bgs)	End Depth (bgs)	PCB (ppm)	Data Point Color	Grid Color	Sampling Event
601	I67	I67	SB-D16a	0	1	0.28	B	B	OU-3 PDI EA 2016
602	I67		SB-D16a	2	3	0.13	B		OU-3 PDI EA 2016
603	I68	I68	SB-059	4	5	0.32	B	R	OU-3 PDI EA 2016
604	I68		SB-060	0	1	51.6	R		USEPA 2011
605	I68		SB-060	1	2	140	R		USEPA 2011
606	I68		SB-060	2	3	78.5	R		USEPA 2011
607	I68		SB-060	3	4	989	R		USEPA 2011
608	I68		SB-11	0	0.6	530	R		OU-3 SRI EEEPC 2013
609	I68		SB-11	2	4	2400	R		OU-3 SRI EEEPC 2013
610	I69	I69	SB-058	0	1	0.872	B	G	USEPA 2011
611	I69		SB-059	0	1	0.881	B		USEPA 2011
612	I69		SB-059	1	2	0.63	B		USEPA 2011
613	I69		SB-059	2	3	12.9	G		USEPA 2011
614	I69		SB-059	3	4	4.09	B		USEPA 2011
615	I69		DEC-SD-02-.5	0	0.5	1.8	G		Unknown**
616	I69		DEC-SD-02-1	0	1	1.6	G		Unknown**
617	I70	I70	SB-057	0	1	ND	B	B	USEPA 2011
618	I70		SB-061	0	1	ND	B		USEPA 2011
619	I70		SB-062	0	1	ND	B		USEPA 2011
620	I70		SB-057	1	2	ND	B		USEPA 2011
621	I70		SB-061	1	2	ND	B		USEPA 2011
622	I70		SB-062	1	2	ND	B		USEPA 2011
623	I70		SB-057	2	3	ND	B		USEPA 2011
624	I70		SB-061	2	3	ND	B		USEPA 2011
625	I70		SB-062	2	3	ND	B		USEPA 2011
626	I70		SB-057	3	4	ND	B		USEPA 2011
627	I70		SB-061	3	4	ND	B		USEPA 2011
628	I70		SB-062	3	4	ND	B		USEPA 2011
629	J41	J41	SB-25	0	4	ND	B	B	OU-1 RI EEEPC 2005-2008
630	J41		SS-25	0	0.5	0.46	B		OU-1 RI EEEPC 2005-2008
631	J48	J48	BOT-SB37(1)-2	0	2	ND	B	B	IRM Confirmation 2013
632	J49	J49	SIDE-A11(C)-2'	0	2	0.2	B	B	IRM Confirmation 2013
633	J50	J50	A3-SWC-8'	0	8	ND	B	B	IRM Confirmation 2013
634	J51	J51	BOT-SB38-3'	0	3	0.377	B	B	IRM Confirmation 2013
635	J51		SIDE-A3-1'	0	1	0.196	B		IRM Confirmation 2013
636	J51		BOT-SS16-4'	0	4	0.81	B		IRM Confirmation 2013
637	J51		GP-02	0	10	ND	B		OU-1 RI EEEPC 2005-2008
638	J51		SS-18	0	0.5	0.93	B		OU-1 RI EEEPC 2005-2008
639	J60	J60	SIDE-A6(F)-6'	0	6	ND	B	B	IRM Confirmation 2013
640	J60		SB-05	0	2	0.087	B	B	OU-1 RI EEEPC 2005-2008
641	J61	J61	SIDE-A6[X]-6.5'	0	1	960	R	R	OU-3 PDI EA 2016
642	J61		SIDE-A6(X)-6.5	0	6.5	4.6	G		IRM Confirmation 2013
643	J62	J62	SB-D13b	0	1	610	R	R	OU-3 PDI EA 2016
644	J64	J64	SB-D14c	0	1	0.7	B	B	OU-3 PDI EA 2016
645	J65	J65	SB-144	0	1	1.08	G	G	USEPA 2011
646	J65		SB-144	1	2	43.7	G		USEPA 2011
647	J65		SB-144	2	3	0.471	B		USEPA 2011
648	J65		SB-9	0	0.6	2.1	G		OU-3 SRI EEEPC 2013
649	J65		SB-9	2	4	0.83	B		OU-3 SRI EEEPC 2013
650	J65		SB-9	4	8	0.64	B		OU-3 SRI EEEPC 2013
651	J66	J66	SB-140	0	1	4.35	G	G	USEPA 2011
652	J66		SB-140	1	2	1.5	B		USEPA 2011
653	J66		SB-140	2	3	ND	B		USEPA 2011
654	J66		SB-140	3	4	ND	B		USEPA 2011
655	J67	J67	SB-D16b	0	1	5.7	G	G	OU-3 PDI EA 2016
656	J67		SB-D16b	2	3	0.27	B		OU-3 PDI EA 2016
657	J68	J68	SB-055	5	6	ND	B	R	OU-3 PDI EA 2016
658	J68		SB-054	0	1	24.1	G		USEPA 2011
659	J68		SB-055	0	1	103	R		USEPA 2011
660	J68		SB-054	1	2	6.07	B		USEPA 2011
661	J68		SB-055	1	2	186	R		USEPA 2011
662	J68		SB-054	2	3	15.6	G		USEPA 2011
663	J68		SB-055	2	3	99.4	R		USEPA 2011
664	J68		SB-054	3	4	18.5	G		USEPA 2011
665	J68		SB-055	3	4	21.7	G		USEPA 2011

Table 1 Summary of Sampling Locations in OU-2 and OU-3

SN	Grid	Grid Group	Sample ID	Start Depth (bgs)	End Depth (bgs)	PCB (ppm)	Data Point Color	Grid Color	Sampling Event
666	J69	J69	SB-052	0	1	0.482	B	G	USEPA 2011
667	J69		SB-053	0	1	1.27	G		USEPA 2011
668	J69		SB-052	1	2	ND	B		USEPA 2011
669	J69		SB-052	2	3	ND	B		USEPA 2011
670	J69		SB-052	3	4	ND	B		USEPA 2011
671	J69		PES-SED-02-0	0	0.5	1.8	G		Check
672	J69		PES-SED-02-1	0	1	1.6	G		Check
673	J69		n-dw-ctr-004	0	2	8.5	G		OU-2 RI EEEPC 2009
674	J69		n-dw-ctr-004	2	4	21	G		OU-2 RI EEEPC 2009
675	J69		n-dw-ctr-004	4	8	ND	B		OU-2 RI EEEPC 2009
676	J70	J70	SB-056	0	1	ND	B	B	USEPA 2011
677	J70		SB-056	1	2	ND	B		USEPA 2011
678	J70		SB-056	2	3	ND	B		USEPA 2011
679	J70		SB-056	3	4	ND	B		USEPA 2011
680	K52	K52	SB-17-2	0	2	0.009	B	B	OU-1 RI EEEPC 2005-2008
681	K52		SB-17-3	0	3	ND	B		OU-1 RI EEEPC 2005-2008
682	K53	K53	SB-16	0	2	ND	B	B	OU-1 RI EEEPC 2005-2008
683	K63	K63	SB-148	0	1	4.94	G	G	USEPA 2011
684	K63		SB-164	0	1	13	G		USEPA 2011
685	K63		SB-148	1	2	ND	B		USEPA 2011
686	K63		SB-2	0	0.6	1.9	G		OU-3 SRI EEEPC 2013
687	K63		SB-2	2	4	1.2	B		OU-3 SRI EEEPC 2013
688	K63		SB-2	4	8	0.36	B		OU-3 SRI EEEPC 2013
689	K65	K65	SB-139	0	1	5.07	G	G	USEPA 2011
690	K65		SB-139	1	2	15.2	G		USEPA 2011
691	K65		SB-139	2	3	4.66	B		USEPA 2011
692	K65		SB-139	3	4	2.27	B		USEPA 2011
693	K65		SS-F07	0	0.5	0.82	B		OU-1 RI EEEPC 2005-2008
694	K67	K67	SB-45	4	5	0.0434	B	R	OU-3 PDI EA 2016
695	K67		SB-050	0	1	49.2	R		USEPA 2011
696	K67		SB-135	0	1	12.3	G		USEPA 2011
697	K67		SB-050	1	2	46.1	G		USEPA 2011
698	K67		SB-135	1	2	3.87	B		USEPA 2011
699	K67		SB-050	2	3	191	R		USEPA 2011
700	K67		SB-135	2	3	1.16	B		USEPA 2011
701	K67		SB-050	3	4	5.98	B		USEPA 2011
702	K67		SB-135	3	4	ND	B		USEPA 2011
703	K68	K68	SB-048	0	1	2.25	G	G	USEPA 2011
704	K68		SB-049	0	1	30.7	G		USEPA 2011
705	K68		SB-049	1	2	4.3	B		USEPA 2011
706	K68		SB-049	2	3	2.49	B		USEPA 2011
707	K68		SB-049	3	4	0.943	B		USEPA 2011
708	K69	K69	SB-046	0	1	ND	B	B	USEPA 2011
709	K69		SB-047	0	1	0.357	B		USEPA 2011
710	K69		SB-046	1	2	0.844	B		USEPA 2011
711	K69		SB-047	1	2	ND	B		USEPA 2011
712	K69		SB-046	2	3	ND	B		USEPA 2011
713	K69		SB-047	2	3	ND	B		USEPA 2011
714	K69		SB-046	3	4	ND	B		USEPA 2011
715	K69		SB-047	3	4	ND	B		USEPA 2011
716	K70	K70	SB-051	0	1	ND	B	B	USEPA 2011
717	K70		SB-051	1	2	ND	B		USEPA 2011
718	K70		SB-051	2	3	ND	B		USEPA 2011
719	K70		SB-051	3	4	ND	B		USEPA 2011
720	L46	L46	TT-1	0	3	ND	B	B	OU-1 RI EEEPC 2005-2008
721	L64	L64	SB-143	0	1	0.458	B	B	USEPA 2011
722	L64		SB-143	1	2	1.98	B		USEPA 2011
723	L64		SB-143	2	3	ND	B		USEPA 2011
724	L64		SB-143	3	4	ND	B		USEPA 2011
725	L65	L65	SB-E15b	0	1	1.8	G	G	OU-3 PDI EA 2016
726	L66	L66	SB-134	0	1	20.4	G	G	USEPA 2011
727	L66		SB-134	1	2	19.7	G		USEPA 2011
728	L66		SB-134	2	3	8.15	B		USEPA 2011
729	L66		SB-134	3	4	7.87	B		USEPA 2011
730	L66		SB-12	0	0.6	34	G		OU-3 SRI EEEPC 2013
731	L66		SB-12	2	4	2.2	B		OU-3 SRI EEEPC 2013
732	L66		SB-12	4	8	0.36	B		OU-3 SRI EEEPC 2013
733	L67	L67	SB-045	4	5	0.0434	B	R	OU-3 PDI EA 2016
734	L67		SB-045	0	1	ND	B		USEPA 2011
735	L67		SB-045	1	2	ND	B		USEPA 2011
736	L67		SB-045	2	3	78.6	R		USEPA 2011
737	L67		SB-045	3	4	15.3	G		USEPA 2011

Table 1 Summary of Sampling Locations in OU-2 and OU-3

SN	Grid	Grid Group	Sample ID	Start Depth (bgs)	End Depth (bgs)	PCB (ppm)	Data Point Color	Grid Color	Sampling Event
738	L68	L68	SB-043	0	1	2.24	G	R	USEPA 2011
739	L68		SB-044	0	1	ND	B		USEPA 2011
740	L68		SB-044	1	2	2.37	B		USEPA 2011
741	L68		SB-044	2	3	11.6	G		USEPA 2011
742	L68		SB-044	3	4	1.63	B		USEPA 2011
743	L68		n-dw-ctr-005	0	2	0.82	B		OU-2 RI EEEPC 2009
744	L68		n-dw-ss-003	2	4	150	R		OU-2 RI EEEPC 2009
745	L68		n-dw-ctr-005	2	4	12000	R		OU-2 RI EEEPC 2009
746	L68		n-dw-ctr-005	4	8	0.055	B		OU-2 RI EEEPC 2009
747	L68		n-dw-ss-003	6	8	0.071	B		OU-2 RI EEEPC 2009
748	L68		n-dw-ss-003	8	12	0.11	B		OU-2 RI EEEPC 2009
749	L69	L69	SB-041	0	1	ND	B	B	USEPA 2011
750	L69		SB-042	0	1	ND	B		USEPA 2011
751	L69		SB-041	1	2	ND	B		USEPA 2011
752	L69		SB-042	1	2	ND	B		USEPA 2011
753	L69		SB-041	2	3	ND	B		USEPA 2011
754	L69		SB-042	2	3	ND	B		USEPA 2011
755	L69		SB-041	3	4	ND	B		USEPA 2011
756	L69		SB-042	3	4	ND	B		USEPA 2011
757	L69		n-dw-ns-003	2	4	0.23	B		OU-2 RI EEEPC 2009
758	L69		n-dw-ns-003	6	8	ND	B		OU-2 RI EEEPC 2009
759	L69		n-dw-ns-003	8	12	ND	B		OU-2 RI EEEPC 2009
760	M63	M63	SB-147	0	1	0.465	B	B	USEPA 2011
761	M63		SB-147	1	2	ND	B		USEPA 2011
762	M63		SB-147	2	3	ND	B		USEPA 2011
763	M63		SB-147	3	4	ND	B		USEPA 2011
764	M65	M65	SB-138	0	1	0.501	B	B	USEPA 2011
765	M65		SB-138	1	2	6.64	B		USEPA 2011
766	M65		SB-138	2	3	ND	B		USEPA 2011
767	M65		SB-138	3	4	ND	B		USEPA 2011
768	M66	M66	SB-13	0	0.6	3.9	G	G	OU-3 SRI EEEPC 2013
769	M66		SB-13	2	4	18	G		OU-3 SRI EEEPC 2013
770	M66		SB-13	4	8	3.8	B		OU-3 SRI EEEPC 2013
771	M66	M66	SS-1	0	0.5	0.37	B	G	OU-3 SRI EEEPC 2013
772	M66		SB-17	0	0.6	0.45	B		OU-3 SRI EEEPC 2013
773	M66		SB-17	2	4	23	G		OU-3 SRI EEEPC 2013
774	M66		SB-17	4	8	3.6	B		OU-3 SRI EEEPC 2013
775	M67	M67	SB-039	0	1	37.3	G	R	USEPA 2011
776	M67		SB-040	0	1	145	R		USEPA 2011
777	M67		SB-039	1	2	125	R		USEPA 2011
778	M67		SB-040	1	2	0.692	B		USEPA 2011
779	M67		SB-039	2	3	5.31	B		USEPA 2011
780	M67		SB-040	2	3	119	R		USEPA 2011
781	M67		SB-039	3	4	0.331	B		USEPA 2011
782	M67		SB-040	3	4	31.2	G		USEPA 2011
783	M67		SB-040	4	5	ND	B		USEPA 2011
784	M67		SB-040	4	5	ND	B		USEPA 2011
785	M67		SB-040	5	6	ND	B		USEPA 2011
786	M67		SB-040	6	7	ND	B		USEPA 2011
787	M67		SB-040	7	8	ND	B		USEPA 2011
788	M68	M68	SB-036	0	1	ND	B	G	USEPA 2011
789	M68		SB-037	0	1	ND	B		USEPA 2011
790	M68		SB-038	0	1	0.399	B		USEPA 2011
791	M68		SB-036	1	2	ND	B		USEPA 2011
792	M68		SB-037	1	2	ND	B		USEPA 2011
793	M68		SB-036	2	3	ND	B		USEPA 2011
794	M68		SB-037	2	3	ND	B		USEPA 2011
795	M68		SB-036	3	4	ND	B		USEPA 2011
796	M68		SB-037	3	4	ND	B		USEPA 2011
797	M68		DEC-SD-03-.5	0	0.5	1.2	G		NYSDEC
798	M68		DEC-SD-03-1	0	1	4.4	G		NYSDEC
799	M69	M69	TT-2	0	6	ND	B	B	OU-1 RI EEEPC 2005-2008
800	N62	N62	SB-F13	0	1	82	R	R	OU-3 PDI EA 2016
801	N63	N63	SB-142	0	1	1.79	G	G	USEPA 2011
802	N63		SB-142	1	2	0.518	B		USEPA 2011
803	N63		SB-142	2	3	ND	B		USEPA 2011
804	N63		SB-142	3	4	ND	B		USEPA 2011
805	N65	N65	SB-133	4	5	9.4	B	G	OU-3 PDI EA 2016
806	N65		SB-133	0	1	ND	B		USEPA 2011
807	N65		SB-133	1	2	0.45	B		USEPA 2011
808	N65		SB-133	2	3	9.59	B		USEPA 2011
809	N65		SB-133	3	4	10.9	G		USEPA 2011

Table 1 Summary of Sampling Locations in OU-2 and OU-3

SN	Grid	Grid Group	Sample ID	Start Depth (bgs)	End Depth (bgs)	PCB (ppm)	Data Point Color	Grid Color	Sampling Event
810	N66	N66	SB-030	4	5	20	G	G	OU-3 PDI EA 2016
811	N66		SB-F15	0	1	ND	B		OU-3 PDI EA 2016
812	N66		SB-F15	2	3	14	G		OU-3 PDI EA 2016
813	N66		SB-F15	4	5	2.3	B		OU-3 PDI EA 2016
814	N67	N67	SB-034	0	1	ND	B	R	USEPA 2011
815	N67		SB-035	0	1	458	R		USEPA 2011
816	N67		SB-034	1	2	ND	B		USEPA 2011
817	N67		SB-035	1	2	49.9	R		USEPA 2011
818	N67		SB-034	2	3	0.419	B		USEPA 2011
819	N67		SB-035	2	3	5.5	B		USEPA 2011
820	N67		SB-034	3	4	0.462	B		USEPA 2011
821	N67		SB-035	3	4	ND	B		USEPA 2011
822	N68	N68	SB-031	0	1	ND	B	G	USEPA 2011
823	N68		SB-032	0	1	ND	B		USEPA 2011
824	N68		SB-033	0	1	8.99	G		USEPA 2011
825	N68		SB-031	1	2	ND	B		USEPA 2011
826	N68		SB-032	1	2	0.337	B		USEPA 2011
827	N68		SB-031	2	3	ND	B		USEPA 2011
828	N68		SB-032	2	3	ND	B		USEPA 2011
829	N68		SB-031	3	4	ND	B		USEPA 2011
830	N68		SB-032	3	4	ND	B		USEPA 2011
831	N68		SS-E06	0	0.5	0.048	B		OU-1 RI EEEPC 2005-2008
832	N68		PES-SED-03-0	0	0.5	1.2	G		Unknown**
833	N68		PES-SED-03-1	0	1	4.4	G		Unknown**
834	N68		n-dw-ctr-006	0	2	0.086	B		OU-2 RI EEEPC 2009
835	N68		n-dw-ctr-006	4	7	0.078	B		OU-2 RI EEEPC 2009
836	O63	O63	SB-G14a	0	1	7.1	G	G	OU-3 PDI EA 2016
837	O64	O64	SB-14	0	1	ND	B	B	OU-3 SRI EEEPC 2013
838	O64		SB-14	0	0.6	ND	B		OU-3 SRI EEEPC 2013
839	O64		SB-14	2	4	0.24	B		OU-3 SRI EEEPC 2013
840	O64		SB-14	4	8	ND	B		OU-3 SRI EEEPC 2013
841	O66	O66	SB-025	0	1	1.44	G	B	USEPA 2011
842	O66		SB-030	0	1	0.58	B		USEPA 2011
843	O66		SB-025	1	2	ND	B		USEPA 2011
844	O66		SB-030	1	2	0.673	B		USEPA 2011
845	O66		SB-025	2	3	1.44	B		USEPA 2011
846	O66		SB-030	2	3	ND	B		USEPA 2011
847	O66		SB-025	3	4	ND	B		USEPA 2011
848	O66		SB-030	3	4	7.04	B		USEPA 2011
849	O67	O67	SB-028	0	1	ND	B	B	USEPA 2011
850	O67		SB-029	0	1	ND	B		USEPA 2011
851	O67		SB-029	1	2	ND	B		USEPA 2011
852	O67		SB-029	2	3	ND	B		USEPA 2011
853	O67		SB-029	3	4	ND	B		USEPA 2011
854	O67		N-DW-CTR-007	0	2	ND	B		OU-2 RI EEEPC 2009
855	O67		N-DW-CTR-007	2	4	ND	B		OU-2 RI EEEPC 2009
856	O67		N-DW-CTR-007	4	8	0.077	B		OU-2 RI EEEPC 2009
857	O68	O68	SB-026	0	1	ND	B	B	USEPA 2011
858	O68		SB-027	0	1	ND	B		USEPA 2011
859	O68		SB-026	1	2	ND	B		USEPA 2011
860	O68		SB-027	1	2	ND	B		USEPA 2011
861	O68		SB-026	2	3	ND	B		USEPA 2011
862	O68		SB-027	2	3	ND	B		USEPA 2011
863	O68		SB-026	3	4	1.31	B		USEPA 2011
864	O68		SB-027	3	4	ND	B		USEPA 2011
865	O68		SS-D06	0	1	0.008	B		OU-1 RI EEEPC 2005-2008
866	O69	O69	SS-D05	0	0.5	ND	B	B	OU-1 RI EEEPC 2005-2008
867	P63	P63	SB-G14b	0	1	210	R	R	OU-3 PDI EA 2016
868	P64	P64	SB-162	1	2	ND	B	G	OU-3 PDI EA 2016
869	P64		SB-162	2	3	ND	B		OU-3 PDI EA 2016
870	P64		SB-163	0	1	16.6	G		USEPA 2011
871	P64		SS-2	0	0.5	23	G		OU-3 SRI EEEPC 2013

Table 1 Summary of Sampling Locations in OU-2 and OU-3

SN	Grid	Grid Group	Sample ID	Start Depth (bgs)	End Depth (bgs)	PCB (ppm)	Data Point Color	Grid Color	Sampling Event
872	P66	P66	SB-020	0	1	ND	B	B	USEPA 2011
873	P66		SB-024	0	1	0.497	B		USEPA 2011
874	P66		SB-020	1	2	1.07	B		USEPA 2011
875	P66		SB-024	1	2	ND	B		USEPA 2011
876	P66		SB-024	2	3	ND	B		USEPA 2011
877	P66		SB-024	3	4	ND	B		USEPA 2011
878	P66		n-dw-ss-002	2	4	0.042	B		OU-2 RI EEEPC 2009
879	P66		n-dw-ss-002	6	8	ND	B		OU-2 RI EEEPC 2009
880	P67	P67	SB-022	0	1	ND	B	G	USEPA 2011
881	P67		SB-023	0	1	ND	B		USEPA 2011
882	P67		SB-022	1	2	ND	B		USEPA 2011
883	P67		SB-022	2	3	0.378	B		USEPA 2011
884	P67		SB-022	3	4	ND	B		USEPA 2011
885	P67		PES-SED-04-0	0	0.5	0.76	B		Unknown**
886	P67		PES-SED-04-1	0	1	15.1	G		Unknown**
887	P68	P68	SB-021	0	1	ND	B	B	USEPA 2011
888	P68		SB-021	1	2	ND	B		USEPA 2011
889	P68		SB-021	2	3	ND	B		USEPA 2011
890	P68		SB-021	3	4	ND	B		USEPA 2011
891	P68		n-dw-ns-004	2	4	ND	B		OU-2 RI EEEPC 2009
892	Q63	Q63	SB-H14a	0	1	210	R	R	OU-3 PDI EA 2016
893	Q64	Q64	SB-163	1	2	0.0365	B	G	OU-3 PDI EA 2016
894	Q64		SB-163	2	3	ND	B		OU-3 PDI EA 2016
895	Q64		SB-162	0	1	4.88	G		USEPA 2011
896	Q65	Q65	SB-015	0	1	ND	B	B	USEPA 2011
897	Q65		SB-015	1	2	ND	B		USEPA 2011
898	Q65		SB-015	2	3	4	B		USEPA 2011
899	Q65		SB-015	3	4	1.74	B		USEPA 2011
900	Q65		SB-16	0	0.6	0.31	B		OU-3 SRI EEEPC 2013
901	Q65		SB-16	2	4	0.45	B		OU-3 SRI EEEPC 2013
902	Q65		SB-16	4	8	ND	B		OU-3 SRI EEEPC 2013
903	Q66	Q66	SB-014	0	1	6.89	G	G	USEPA 2011
904	Q66		SB-019	0	1	0.399	B		USEPA 2011
905	Q66		SB-014	1	2	0.783	B		USEPA 2011
906	Q66		SB-019	1	2	5.58	B		USEPA 2011
907	Q66		SB-014	2	3	ND	B		USEPA 2011
908	Q66		SB-019	2	3	0.373	B		USEPA 2011
909	Q66		SB-014	3	4	ND	B		USEPA 2011
910	Q66		SB-019	3	4	ND	B		USEPA 2011
911	Q67	Q67	SB-016	0	1	ND	B	G	USEPA 2011
912	Q67		SB-017	0	1	0.319	B		USEPA 2011
913	Q67		SB-018	0	1	1.54	G		USEPA 2011
914	Q67		SB-016	1	2	ND	B		USEPA 2011
915	Q67		SB-017	1	2	0.301	B		USEPA 2011
916	Q67		SB-016	2	3	ND	B		USEPA 2011
917	Q67		SB-017	2	3	ND	B		USEPA 2011
918	Q67		SB-016	3	4	ND	B		USEPA 2011
919	Q67		SB-017	3	4	ND	B		USEPA 2011
920	Q67		DEC-SD-04-.5	0	0.5	0.8	B		NYSDEC
921	Q67		DEC-SD-04-1	0	1	0.8	B		NYSDEC
922	R63	R63	SB-H14b	0	1	7	G	G	OU-3 PDI EA 2016
923	R64	R64	SB-SS3	1	2	ND	B	G	OU-3 PDI EA 2016
924	R64		SS-3	0	0.5	1.8	G		OU-3 SRI EEEPC 2013
925	R66	R66	SB-013	0	1	ND	B	B	USEPA 2011
926	R66		N-DW-CTR-008	2	4	0.54	B		OU-2 RI EEEPC 2009
927	R67	R67	SB-011	0	1	ND	B	B	USEPA 2011
928	R67		SB-012	0	1	ND	B		USEPA 2011
929	R67		SB-011	1	2	ND	B		USEPA 2011
930	R67		SB-012	1	2	ND	B		USEPA 2011
931	R67		SB-011	2	3	ND	B		USEPA 2011
932	R67		SB-012	2	3	ND	B		USEPA 2011
933	R67		SB-011	3	4	0.389	B		USEPA 2011
934	R67		SB-012	3	4	0.457	B		USEPA 2011
935	S64	S64	SB-15	0	1	0.11	B	B	OU-3 SRI EEEPC 2013
936	S64		SB-15	0	0.6	0.11	B		OU-3 SRI EEEPC 2013
937	S64		SB-15	2	4	0.28	B		OU-3 SRI EEEPC 2013
938	S64		SB-15	4	8	ND	B		OU-3 SRI EEEPC 2013

Table 1 Summary of Sampling Locations in OU-2 and OU-3

SN	Grid	Grid Group	Sample ID	Start Depth (bgs)	End Depth (bgs)	PCB (ppm)	Data Point Color	Grid Color	Sampling Event
939	S65	S65	SB-003	0	1	1.14	G	G	USEPA 2011
940	S65		SB-004	0	1	1.28	G		USEPA 2011
941	S65		SB-005	0	1	5.11	G		USEPA 2011
942	S65		SB-010	0	1	1.81	G		USEPA 2011
943	S65		SB-003	1	2	3.02	B		USEPA 2011
944	S65		SB-004	1	2	0.391	B		USEPA 2011
945	S65		SB-005	1	2	4.68	B		USEPA 2011
946	S65		SB-010	1	2	3.64	B		USEPA 2011
947	S65		SB-004	2	3	ND	B		USEPA 2011
948	S65		SB-004	3	4	2.07	B		USEPA 2011
949	S65		GP-B3	0	1	0.2	B		OU-1 RI EEEPC 2005-2008
950	S65		n-dw-ss-001	2	4	6.9	G		OU-2 RI EEEPC 2009
951	S65		n-dw-ss-001	10	12	ND	B		OU-2 RI EEEPC 2009
952	S65		n-dw-ss-001	12	16	ND	B		OU-2 RI EEEPC 2009
953	S66	S66	SB-002	0	1	3.83	G	G	USEPA 2011
954	S66		SB-007	0	1	1.01	G		USEPA 2011
955	S66		SB-008	0	1	ND	B		USEPA 2011
956	S66		SB-009	0	1	20.9	G		USEPA 2011
957	S66		SB-002	1	2	2.69	B		USEPA 2011
958	S66		SB-007	1	2	1.14	B		USEPA 2011
959	S66		SB-009	1	2	0.656	B		USEPA 2011
960	S66		SB-002	2	3	ND	B		USEPA 2011
961	S66		SB-007	2	3	0.622	B		USEPA 2011
962	S66		SB-002	3	4	0.315	B		USEPA 2011
963	S66		SB-007	3	4	ND	B		USEPA 2011
964	S66		n-dw-ctr-008	2	4	0.54	B		OU-2 RI EEEPC 2009
965	S67	S67	SB-006	0	1	0.989	B	B	USEPA 2011
966	S67		SB-006	1	2	0.556	B		USEPA 2011
967	S67		SB-006	2	3	0.887	B		USEPA 2011
968	S67		SB-006	3	4	0.44	B		USEPA 2011
969	T65	T65	SB-093	1	2	0.13	B	B	OU-3 PDI EA 2016
970	T65		SB-093	2	3	0.0796	B		OU-3 PDI EA 2016
971	T65		SB-091	0	1	ND	B		USEPA 2011
972	T65		SB-092	0	1	ND	B		USEPA 2011
973	T65		SB-093	0	1	0.835	B		USEPA 2011
974	T66	T66	SB-001	0	1	2.06	G	G	USEPA 2011
975	T66		SB-001	1	2	1.59	B		USEPA 2011
976	T66		SB-001	2	3	ND	B		USEPA 2011
977	T66		SB-001	3	4	ND	B		USEPA 2011
978	T66		n-dw-ctr-009	0	4	2.3	G		OU-2 RI EEEPC 2009
979	T66		n-dw-ns-005	2	4	0.68	B		OU-2 RI EEEPC 2009
980	T66		n-dw-ns-005	6	8	ND	B		OU-2 RI EEEPC 2009
981	T66		n-dw-ctr-009	4	6	0.89	B		OU-2 RI EEEPC 2009
982	T66		n-dw-ns-005	8	12	0.75	B		OU-2 RI EEEPC 2009
983	T67	T67	SS-11	0	0.5	0.053	B	B	OU-1 RI EEEPC 2005-2008

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Table 2 Proposed Excavation Areas

SN	Excavation Area	Grid Group	Grid ID	PDI Grid Classification	RA Grid Classification	Proposed Excavation Depth
1	Area 01	Area 01	N62	R	R	1
2		Area 01	N63	G		1
3		Area 01	O63	G		1
4		Area 01	P63	R		1
5		Area 01	Q63	R		1
6		Area 01	R63	G		1
7	Area 02	Area 02	J65	G	G	2
8		Area 02	J66	G		1
9		Area 02	J67	G		2
10		Area 02	K63	G		1
11		Area 02	K64**	--		2
12		Area 02	K65	G		2
13		Area 02	L65	G		1
14		Area 02	L66	G		2
15		Area 02	M66	G		4
16		Area 02	N64	G		4
17		Area 02	N65	G		4
18		Area 02	N66	G		5
19		Area 02	O64	B		1
20		Area 02	O65**	--		5
21		Area 02	O66	B		1
22		Area 02	O67	B		2
23		Area 02	P64	G		1
24		Area 02	P65	G		4
25		Area 02	P66	B		2
26		Area 02	P67	G		1
27		Area 02	Q64	G		1
28		Area 02	Q65	B		2
29		Area 02	Q66	G		2
30		Area 02	Q67	G		1
31		Area 02	R64	G		1
32		Area 02	R65**	--		2
33		Area 02	R66	B		2
34		Area 02	R67*	--		1
35		Area 02	S63**	--		1
36		Area 02	S64	B		1
37		Area 02	S65	G		1
38		Area 02	S66	G		2
39		Area 02	T65*	--		1
40		Area 02	T66	G		4
41		Area 02	T67*	--		1

Notes:

*Assigned based on adjacent grid

**Grid with no data

***Assigned grid classification based on sediment data from drainage ditch in adjacent grid.

Grid Color Designations

B = Blue, Meets CP-51/SCO

G = Green, Non-TSCA

R = Red=Red, TSCA

Cleanup Criteria

SCO = Soil Cleanup Objective

CP-51 = Commissioner's Policy #51 where PCBs must be < 1 ppm in surface soil and < 10 ppm in subsurface soil. Subsurface soil means soil > 1ft bgs

OU-2 and OU-3 drainage ditches and all offsite areas subject to Residential SCO (6 NYCRR Table 375-6.8(b)) of 1 ppm at all depths

TSCA = Toxic Substances Control Act, which applies to hazardous concentrations of PCBs (> 50 ppm)

PDI = Preliminary Design Investigation

RA = Remedial Action

Table 2 Proposed Excavation Areas

SN	Excavation Area	Grid Group	Grid ID	PDI Grid Classification	RA Grid Classification	Proposed Excavation Depth
42	Area 03	Area 03	G68	R	R	4
43		Area 03	H68	R		4
44		Area 03	I68	R		4
45		Area 03	J68	R		5
46		Area 03	K66**	--		3
47		Area 03	K67	R		3
48		Area 03	K68	G		3
49		Area 03	K69*	B		3
50		Area 03	L67	R		4
51		Area 03	L68	R		6
52		Area 03	L69*	B		4
53		Area 03	M67	R		4
54		Area 03	M68	G		1
55		Area 03	N67	R		3
56		Area 03	N68	G		1
57	Area 04	Area 04	I64	R		2
58		Area 04	J61	R		1
59		Area 04	J62	R		1
60		Area 04	J63**	--		1
61		Area 04	J64	B		1
62	Area 05	Area 05	F63	G	G	1
63		Area 05	G63	G		1
64		Area 05	G64	G		2
65		Area 05	H62	G		1
66		Area 05	H63**	--		2
67		Area 05	H65**	--		2
68		Area 05	H66	G		1
69		Area 05	H67	G		1
70		Area 05	I61	G		1
71		Area 05	I62	G		1
72		Area 05	I63	B		2

Table 2 Proposed Excavation Areas

SN	Excavation Area	Grid Group	Grid ID	PDI Grid Classification	RA Grid Classification	Proposed Excavation Depth
73	Area 06	Area 06	D68	G	G	4
74		Area 06	D69	G		4
75		Area 06	D70	G		3
76		Area 06	D72**	--		2
77		Area 06	E69**	--		4
78		Area 06	E70	G		1
79		Area 06	E72	G		1
80		Area 06	F69	G		4
81		Area 06	F70	G		1
82		Area 06	F71	B		1
83		Area 06	G69	G		1
84		Area 06	G70	G		8
85		Area 06	G71	B		1
86		Area 06	H69	B		3
87		Area 06	I69	G		4
88		Area 06	I70*	B		1
89		Area 06	J69	G		4
90		Area 06	J70*	B		1
91	Area 07	Area 07	H70	R	R	2
92	Area 08	Area 08	C67	G	R	2
93		Area 08	C68	R		6
94		Area 08	C69	G		2
95		Area 08	C70	R		4
96		Area 08	C71	R		4
97		Area 08	C72	G		1
98		Area 08	C73	R		10
99		Area 08	C74	R		1
100		Area 08	C75	G		1
101		Area 08	D67	R		6
102		Area 08	D71	G		3
103		Area 08	E71	R		10
104	Area 09	Area 09	C76**	--	G	1
105		Area 09	C77	G		2
106		Area 09	C78**	--		1
107		Area 09	C79**	--		1
108		Area 09	C80	G		4
109		Area 09	D77	G		10
110		Area 09	D81	G		10
111		Area 09	C82	G		1
112		Area 09	C83**	--		1
113		Area 09	C84*	B		1
114		Area 09	C85**	--		1
115		Area 09	C86**	--		1
116		Area 09	C87	B		1
117		Area 09	C88**	--		1
118		Area 09	C89	B		1
119		Area 09	C90	G		1
120		Area 09	C91	G		1

Table 2 Proposed Excavation Areas

SN	Excavation Area	Grid Group	Grid ID	PDI Grid Classification	RA Grid Classification	Proposed Excavation Depth
121	Area 10	Area 10	C81	R	R	2
122	Area 11	Area 11	C92	R	R	2
123	Area 12	Area 12	C93	G	G	1
124		Area 12	C94**	--		1
125		Area 12	C95	B		1
126		Area 12	C96**	--		1
127		Area 12	C97**	--		1
128		Area 12	C98**	--		1
129		Area 12	C99	G		2
130	Area 13	Area 13	A112	G	G	4
131		Area 13	C108	G		16
132		Area 13	D112	G		1
133	Area 14	Area 14	B46**	--	G	1
134		Area 14	B55**	--		2
135		Area 14	C44	G		4
136		Area 14	C45**	--		2
137		Area 14	C46***	G		1
138		Area 14	C49	G		8
139		Area 14	C55***	G		5
140		Area 14	C58	G		4
141		Area 14	C64	G		4
142		Area 14	D57	G		1
143		Area 14	D61	G		10
144	Area 15	Area 15	B16	G	G	1
145		Area 15	B27	G		1
146		Area 15	B35	G		4
147		Area 15	B6	G		1
148	Area 16	Area 16	I45	G	G	1
149		Area 16	I48	G		1
150		Area 16	I49**	--		1
151		Area 16	I50	G		1
152		Area 16	I51	G		1

Appendix A

Draft Drawings

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FORMER ADIRONDACK STEEL SITE

BASIS OF DESIGN

OPERABLE UNITS 02 AND 03

COLONIE, NEW YORK

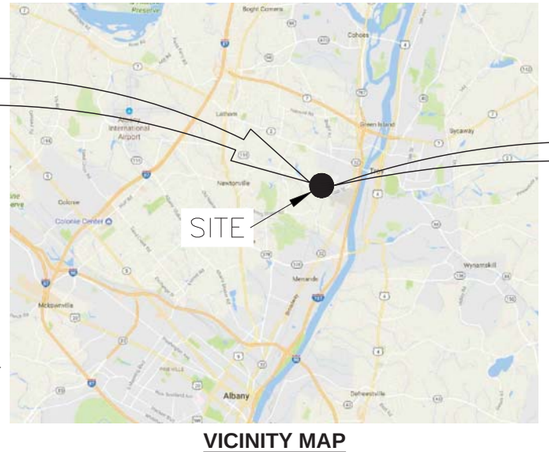
NYS REGISTRY NO. 401039

BASIS OF DESIGN DRAWINGS

PREPARED FOR
NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
ALBANY, NY

NEW YORK MAP

NTS



VICINITY MAP

NTS

SITE MAP

NTS

30% DRAFT - NOT FOR CONSTRUCTION

Department of Environmental Conservation
NEW YORK STATE OF OPPORTUNITY

NO.	DATE	DESCRIPTION
		REVISIONS

TITLE SHEET

FORMER ADIRONDACK STEEL SITE
BASIS OF DESIGN
COLONIE, NEW YORK

PREPARED BY:
EA ENGINEERING, P.C.
AND ITS AFFILIATE
EA SCIENCE AND
TECHNOLOGY

CARRS#	
EA #	14907.35
DESIGN #	
FILE	14907.35-Planset.dwg
DRAWN BY	DPA
DATE	AUGUST 2017
SCALE	AS SHOWN
SS	

SHEET #
1 OF 16

GENERAL CONSTRUCTION NOTES:

1. ALL WORK SHALL BE COMPLETED IN ACCORDANCE WITH THE CONTRACT DOCUMENTS. THE CONTRACTOR IS RESPONSIBLE FOR PERFORMING ALL WORK IN ACCORDANCE WITH ALL LOCAL, STATE, AND FEDERAL REGULATIONS AS REQUIRED.
2. THE CONTRACTOR IS RESPONSIBLE FOR PROTECTING IN PLACE ALL ACTIVE UTILITY STRUCTURES (BOTH BELOW AND ABOVE GROUND), PIPING, AND APPURTENANCES THAT ARE TO REMAIN IN PLACE.
3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MINIMIZING AND CLEANING UP DUST AND MUD ON ALL ROADS DUE TO VEHICLES ARRIVING AND LEAVING THE JOB SITE AS PART OF THIS WORK.
4. IT SHALL BE DISTINCTLY UNDERSTOOD THAT FAILURE TO MENTION SPECIFICALLY ANY WORK THAT WOULD NORMALLY BE REQUIRED TO COMPLETE THE PROJECT SHALL NOT RELIEVE THE CONTRACTOR OF HIS RESPONSIBILITY TO COMPLETE SUCH WORK.
5. SHOULD A CHANGE OR DISCREPANCY IN SITE CONDITIONS BE IDENTIFIED BY THE CONCTRACTOR, THE ENGINEER AND DEPARTMENT SHALL BE NOTIFIED IMMEDIATELY TO RESOLVE THE SITUATION. THE CONTRACTOR SHALL ASSUME ALL RESPONSIBILITY FOR ANY FIELD CORRECTIONS OR ADJUSTMENTS MADE WITHOUT NOTIFYING THE ENGINEER AND DEPARTMENT.
6. EXISTING UTILITIES AND STRUCTURES (UNDERGROUND, SURFACE, OR OVERHEAD) ARE INDICATED ONLY TO THE EXTENT THAT SUCH INFORMATION WAS MADE AVAILABLE TO OR DISCOVERED BY THE ENGINEER IN PREPARING THE DRAWINGS. LOCATION, CONFIGURATIONS, AND ELEVATIONS OF EXISTING UNDERGROUND POWER, TELEPHONE, FIBER OPTIC CABLE, DUCT WAYS, SPRINKLER SYSTEMS, SEPTIC SYSTEMS, AND WATER, GAS, AND SEWER SERVICE LINES MAY NOT ALL BE INDICATED. OTHER UTILITIES AND STRUCTURES MAY BE PRESENT. UNDERGROUND LOCATIONS AND ELEVATIONS OF EXISTING UTILITIES AND STRUCTURES, AS FURNISHED BY THE OWNER OF EACH UTILITY OR STRUCTURE, ARE APPROXIMATE. OVERHEAD UTILITIES ARE NOT SHOWN IN PROFILE.
7. IT IS THE CONTRACTOR'S RESPONSIBILITY TO REPAIR, CONSTRUCT, AND MAINTAIN THE SITE SECURITY FENCING IN ACCORDANCE WITH THE CONTRACT DOCUMENTS. JOB SAFETY SHALL BE SOLELY THE RESPONSIBILITY OF THE CONTRACTOR.
8. SEED IN ACCORDANCE WITH CONTRACT DOCUMENTS.
9. CLEAR AND GRUB IN ACCORDANCE WITH CONTRACT DOCUMENTS.
10. RESTORE ANY EXISTING STRUCTURES THAT ARE DISTURBED, DAMAGED, OR REMOVED BY CONSTRUCTION TO THEIR ORIGINAL LOCATION AND CONDITION.

INDEX OF SHEETS

ABBREVIATIONS:

'	FEET
"	INCHES
APPROX.	APPROXIMATE
BMP	BEST MANAGEMENT PRACTICES
EA	EA ENGINEERING, P.C. & IT'S AFFILIATE EA SCIENCE AND TECHNOLOGY
LOD	LIMITS OF DISTURBANCE
LOE	LIMITS OF EXCAVATION
MIN	MINIMUM
N	NORTH
NAD83	NORTH AMERICAN DATUM 1983
NO.	NUMBER
NRCS	NATURAL RESOURCES CONSERVATION SERVICE
NYSDOT	NEW YORK STATE DEPARTMENT OF TRANSPORATION
PSI	POUNDS PER SQUARE INCH
PVC	POLYVINYL CHLORIDE PIPE
SF	SILT FENCE
STA	STATION
TYP	TYPICAL

INFORMATION SOURCE NOTES:

1. TOPOGRAPHIC SURVEY COMPLETED BY POPLI DESIGN GROUP, DATE OF SURVEY, FEBRUARY 2010.
2. HORIZONTAL DATUM IS NAD83(96) – NEW YORK STATE PLANE COORDINATE, EAST ZONE AND VERTICAL DATUM IS NORTH AMERICAN VERTICAL DATUM (NAVD)88.
3. IMAGE SOURCE: GOOGLE EARTH.
4. FEMA INFORMATION SCALED FROM PANEL MAP NO.3610130012D.
5. WETLAND BOUNDARY AND EDGE OF WATER WAS OBSERVED OCTOBER 2014. WATER SURFACE ELEVATIONS ARE VARIABLE AND SITE CONDITIONS MAY BE DIFFERENT THAN CONDITIONS DEPICTED.

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Department of Environmental Conservation

NEW YORK STATE OF OPPORTUNITY

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GENERAL NOTE, INDEX, AND LEGEND

FORMER ADIRONDACK STEEL SITE
BASIS OF DESIGN
COLONIE, NEW YORK

PREPARED BY:
EA ENGINEERING, P.C.
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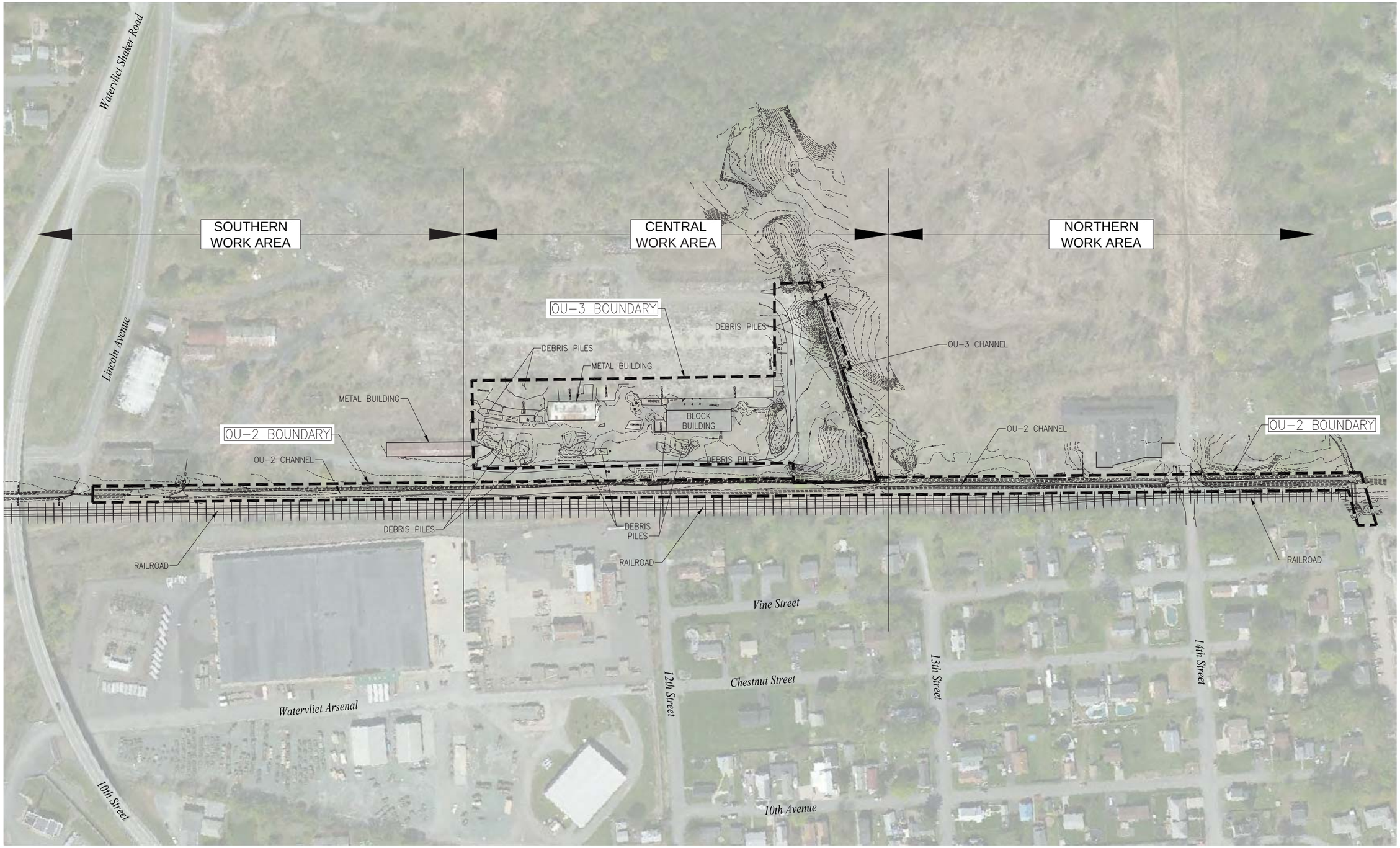
SHEET #
2 OF 16



EXISTING CONDITIONS AND OPERATIONAL UNITS
1" = 100'

100 50 0 100 200
GRAPHIC SCALE IN FEET

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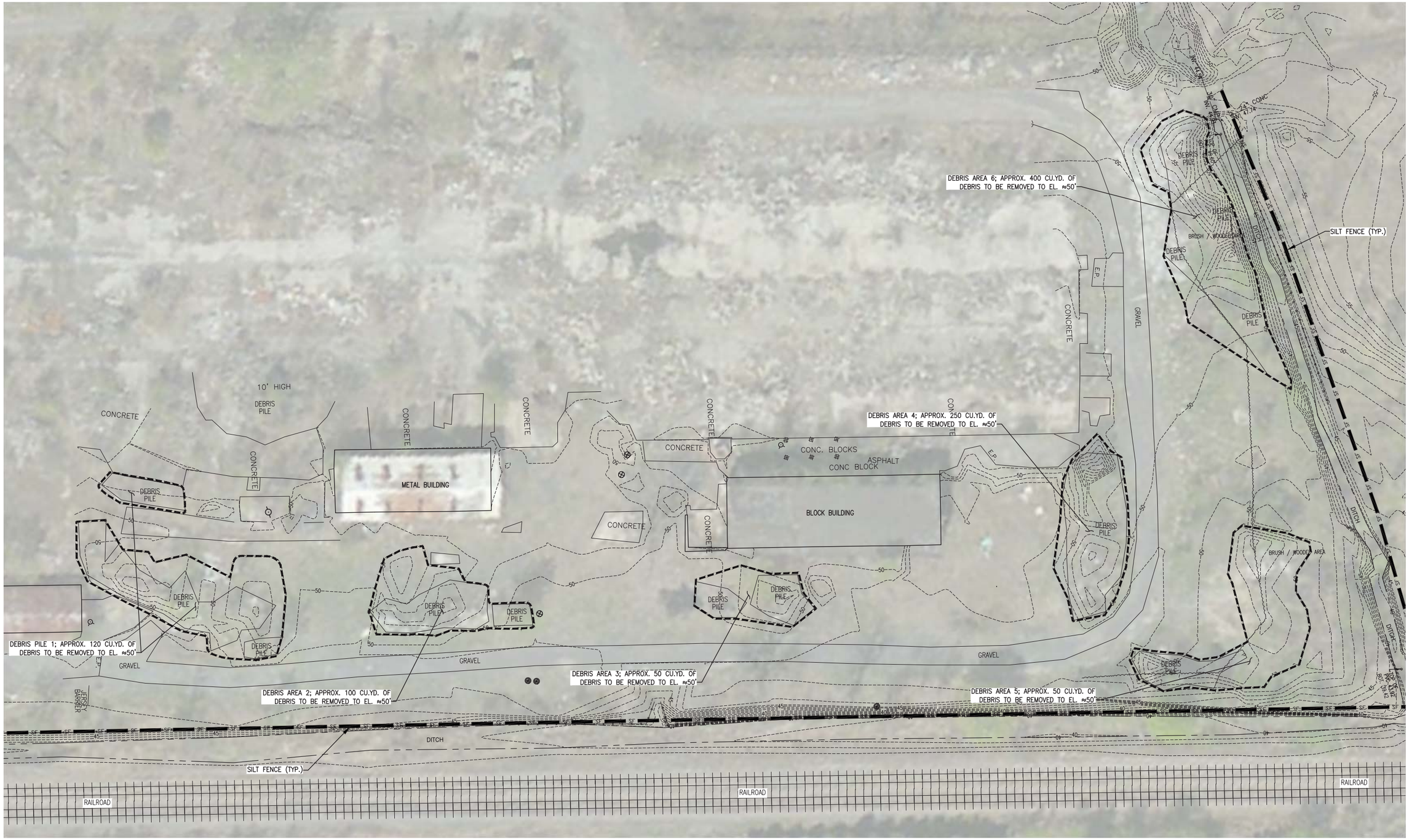

PHASE I EROSION CONTROL & DEBRIS PILE REMOVAL

1" = 30'

30 15 0 30 60

GRAPHIC SCALE IN FEET

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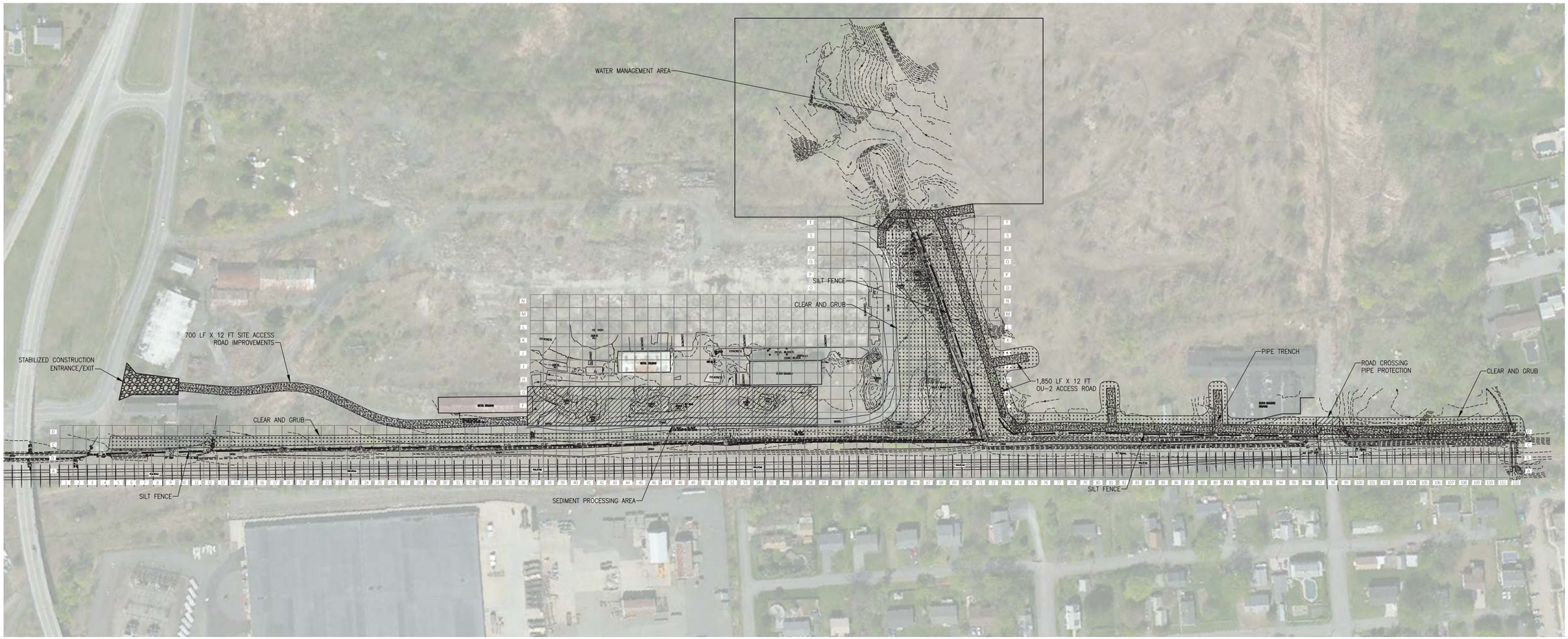
4 OF 16



PROPOSED CONDITIONS, PHASE II EROSION CONTROL, AND SITE PREPARATIONS

1" = 100'

100 50 0 100 200

GRAPHIC SCALE IN FEET

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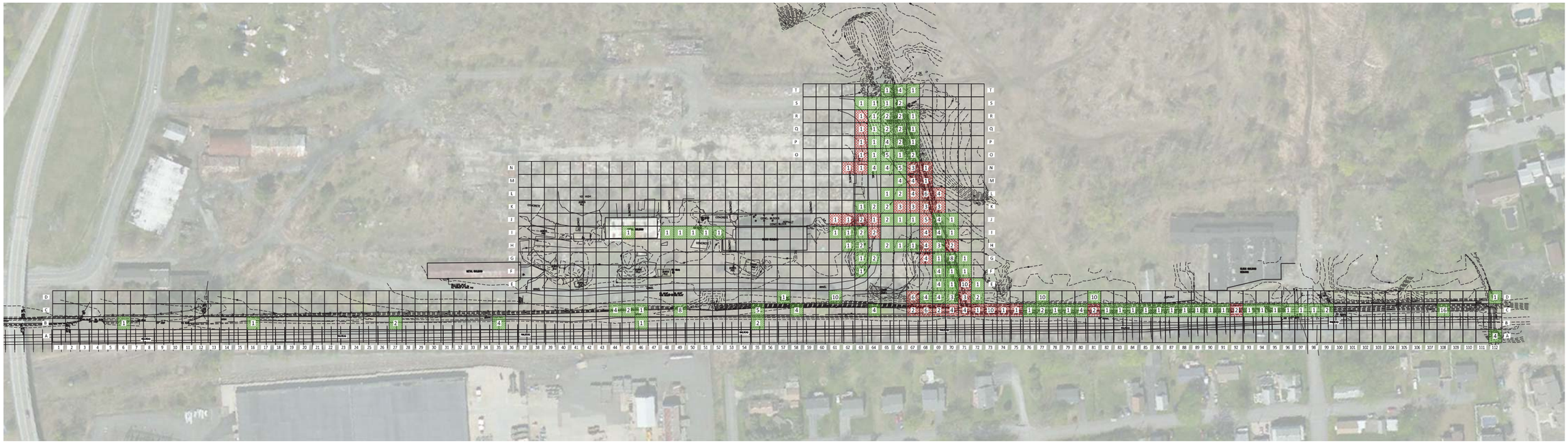
5 OF 16

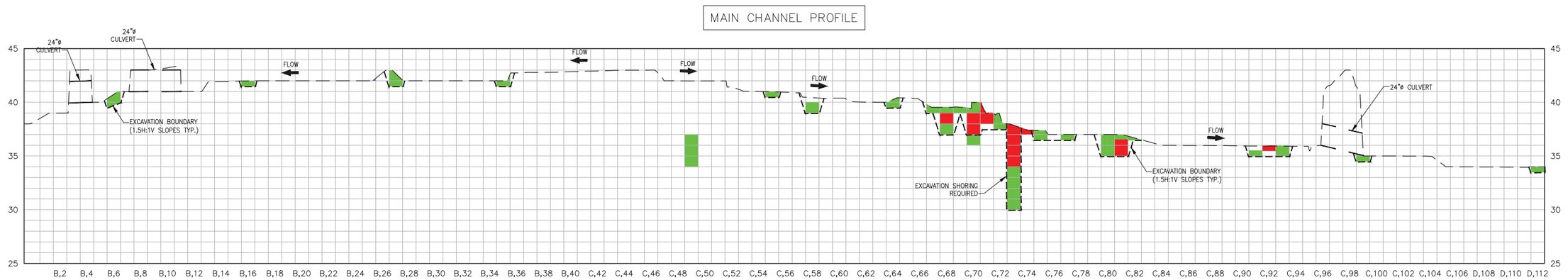


LEGEND

EXCAVATION DEPTH — NON–TSCA / TSCA

OU–2 PCB EXCAVATION BOUNDARIES
1" = 100'

100 50 0 100 200
GRAPHIC SCALE IN FEET



OU–2 PCB EXCAVATION CHANNEL REMEDIATION PROFILE
HORIZONTAL: 1" = 100'
VERTICAL: 1" = 5'

100 50 0 100 200
GRAPHIC SCALE IN FEET
HORIZONTAL

5 2.5 0 5 10
GRAPHIC SCALE IN FEET
VERTICAL

NOTES:
1. ONLY GRID SPACES WITH ANALYTICAL DATA ARE SHOWN IN THE PROFILE.
2. ONLY DATA COLLECTED FROM THE OU–2 DRAINAGE DITCH WAS INCLUDED IN THIS PROFILE. DATA FROM THE BANKS/UPLAND AREAS ARE NOT INCLUDED.

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PCB EXCAVATION BOUNDARIES AND OU–2 CHANNEL REMEDIATION PROFILE

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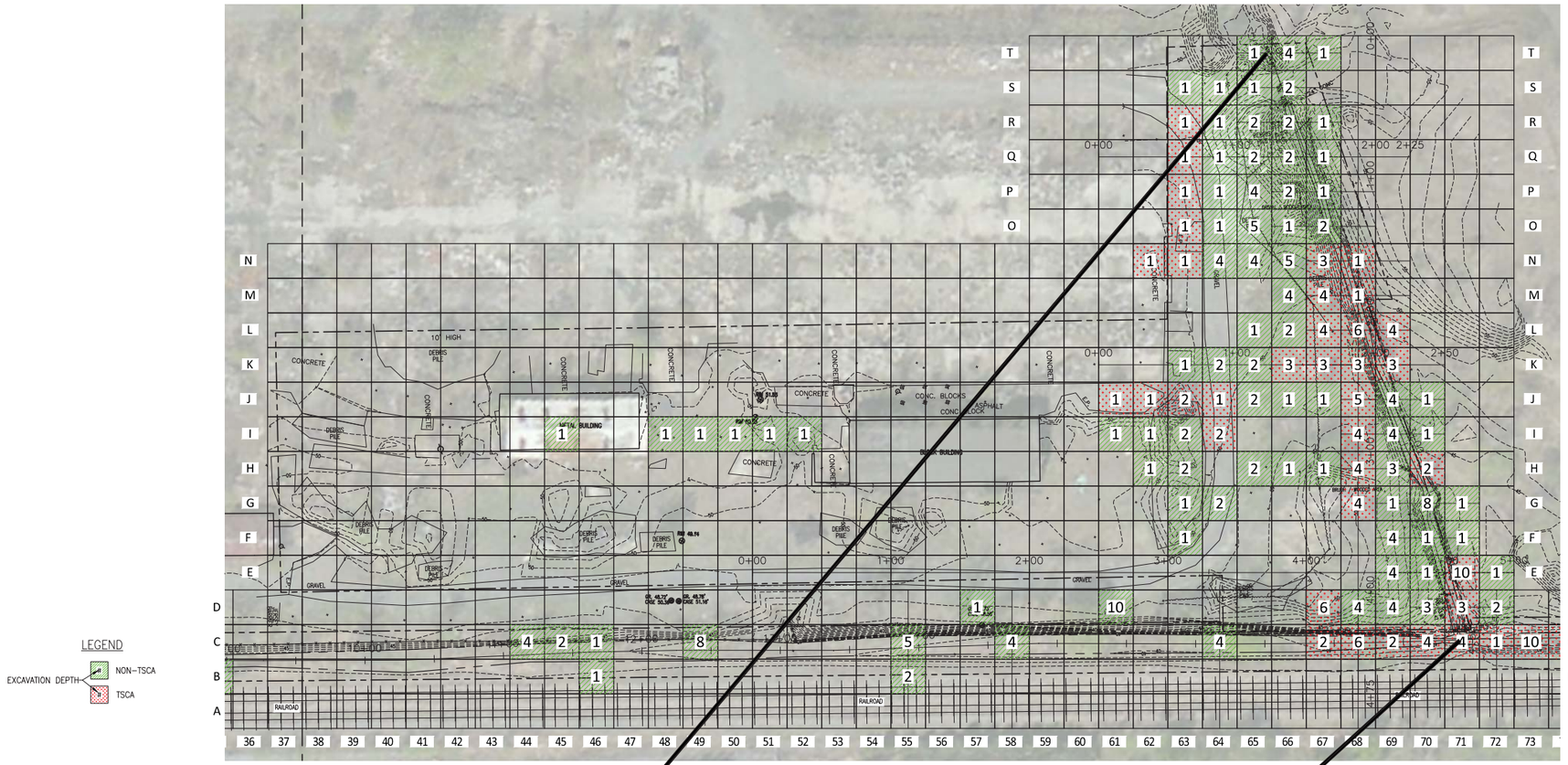
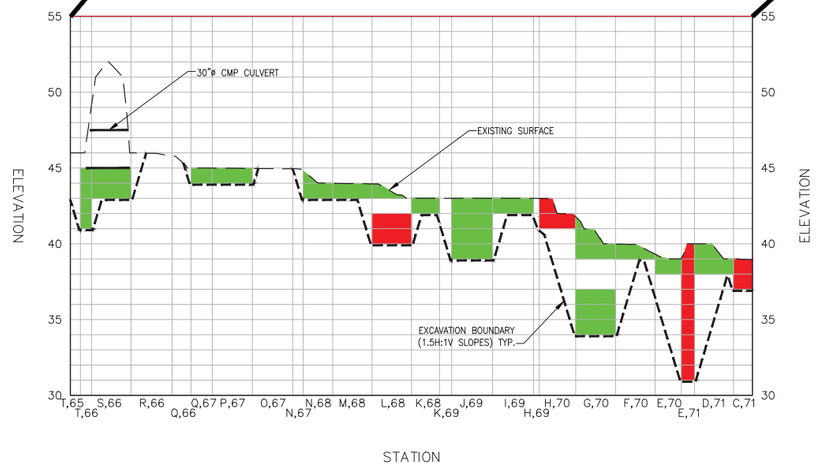
SHEET #
6 OF 16



OU-3 PCB EXCAVATION BOUNDARIES
SCALE: 1" = 50'

50 25 0 50 100
GRAPHIC SCALE IN FEET



OU-3 PCB EXCAVATION CHANNEL REMEDIATION PROFILE
HORIZONTAL: 1" = 50'
VERTICAL: 1" = 5'

50 25 0 50 100
GRAPHIC SCALE IN FEET
HORIZONTAL

5 2.5 0 5 10
GRAPHIC SCALE IN FEET
VERTICAL

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PCB EXCAVATION BOUNDARIES AND OU-3 CHANNEL REMEDIATION PROFILE

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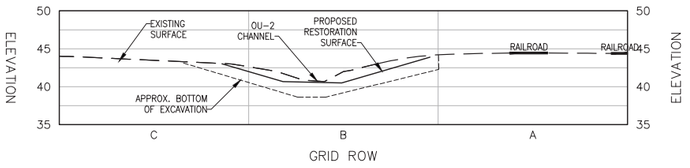
7 OF 16

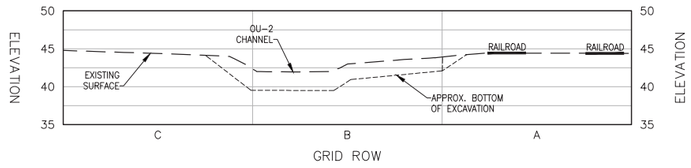


OU-2 GRID COLUMN 6 CROSS SECTION

1" = 10'

10 5 0 10 20

GRAPHIC SCALE IN FEET

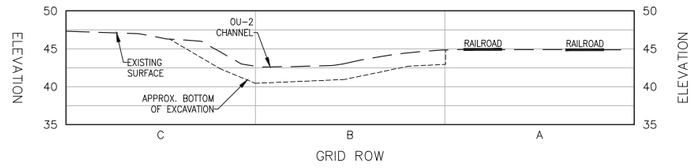


OU-2 GRID COLUMN 15 CROSS SECTION

1" = 10'

10 5 0 10 20

GRAPHIC SCALE IN FEET

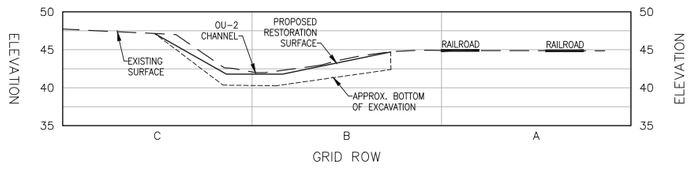


OU-2 GRID COLUMN 27 CROSS SECTION

1" = 10'

10 5 0 10 20

GRAPHIC SCALE IN FEET

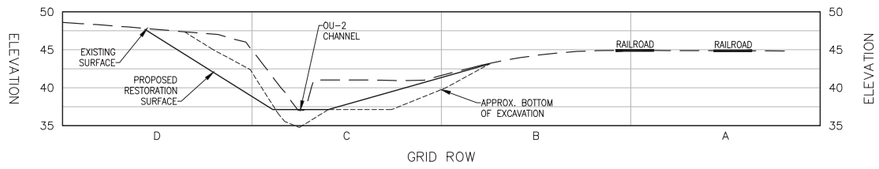


OU-2 GRID COLUMN 35 CROSS SECTION

1" = 10'

10 5 0 10 20

GRAPHIC SCALE IN FEET

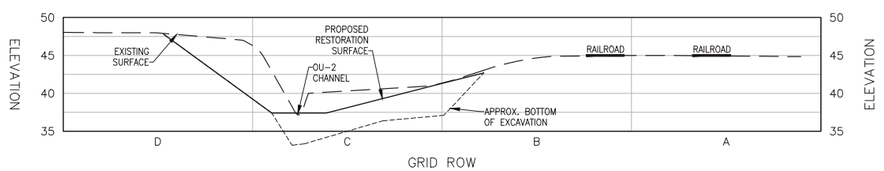


OU-2 GRID COLUMN 55 CROSS SECTION

1" = 10'

10 5 0 10 20

GRAPHIC SCALE IN FEET

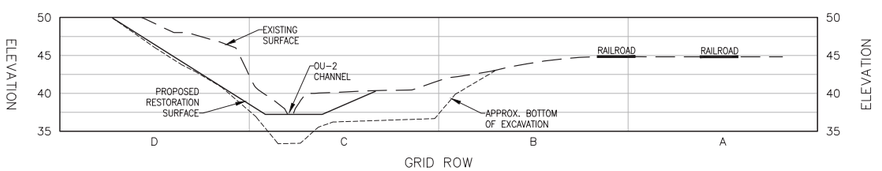


OU-2 GRID COLUMN 58 CROSS SECTION

1" = 10'

10 5 0 10 20

GRAPHIC SCALE IN FEET



OU-2 GRID COLUMN 64 CROSS SECTION

1" = 10'

10 5 0 10 20

GRAPHIC SCALE IN FEET

NOTES:

1. IN THE OU-2 DRAINAGE CHANNEL THE CONTRACTOR IS TO EXCAVATE TO THE BOTTOM OF EXCAVATION AS DEPICTED IN THE CONTRACT DRAWINGS, THEN COLLECT VERIFICATION SAMPLES TO DETERMINE IF PCB CONCENTRATIONS ARE LESS THAN 1 mg/kg OR IF ADDITIONAL EXCAVATION IS REQUIRED.
2. UNLESS OTHERWISE SHOWN ON THE CONTRACT DRAWINGS, THE CONTRACTOR IS TO PLACE (D_{50} = 12-IN) RIPRAP TO THE PRE-EXCAVATION ELEVATION.
3. CROSS-SECTIONS ARE PRESENTED FOR SELECT GRID SPACES IN THE DRAINAGE DITCH WITH ANALYTICAL DATA.

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PCB EXCAVATION BOUNDARIES AND OU-2 CHANNEL REMEDIATION SECTIONS 1

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COLONIE, NEW YORK

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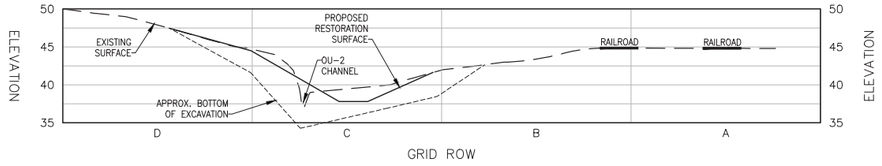
8 OF 16

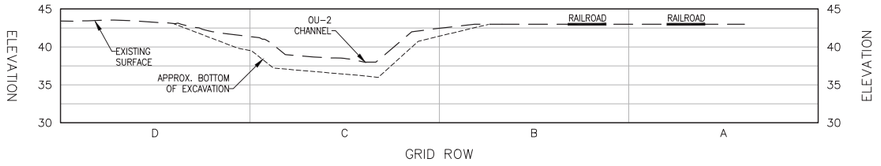


OU-2 GRID COLUMN 68 CROSS SECTION

1" = 10'

10 5 0 10 20

GRAPHIC SCALE IN FEET

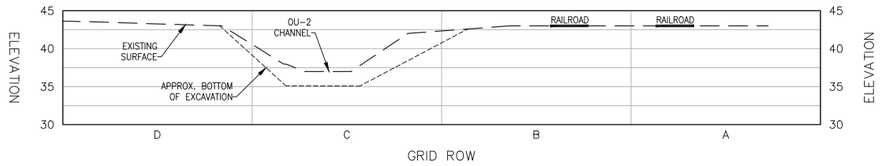


OU-2 GRID COLUMN 72 CROSS SECTION

1" = 10'

10 5 0 10 20

GRAPHIC SCALE IN FEET

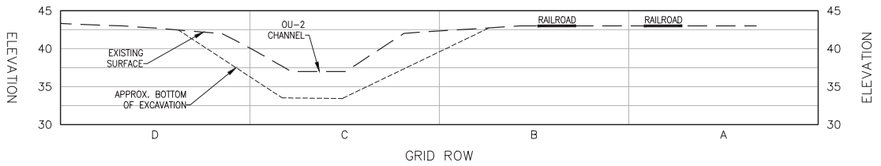


OU-2 GRID COLUMN 76 CROSS SECTION

1" = 10'

10 5 0 10 20

GRAPHIC SCALE IN FEET

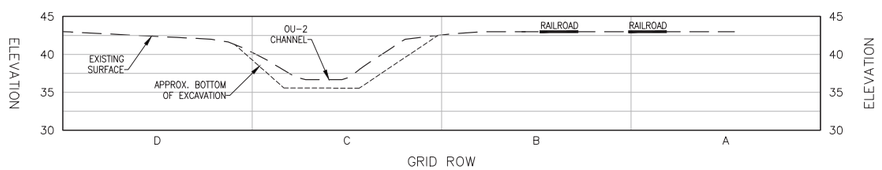


OU-2 GRID COLUMN 80 CROSS SECTION

1" = 10'

10 5 0 10 20

GRAPHIC SCALE IN FEET



OU-2 GRID COLUMN 82 CROSS SECTION

1" = 10'

10 5 0 10 20

GRAPHIC SCALE IN FEET

NOTES:

1. IN THE OU-2 DRAINAGE CHANNEL THE CONTRACTOR IS TO EXCAVATE TO THE BOTTOM OF EXCAVATION AS DEPICTED IN THE CONTRACT DRAWINGS, THEN COLLECT VERIFICATION SAMPLES TO DETERMINE IF PCB CONCENTRATIONS ARE LESS THAN 1 mg/kg OR IF ADDITIONAL EXCAVATION IS REQUIRED.
2. UNLESS OTHERWISE SHOWN ON THE CONTRACT DRAWINGS, THE CONTRACTOR IS TO PLACE (D_{50} = 12-IN) RIPRAP TO THE PRE-EXCAVATION ELEVATION.
3. CROSS-SECTIONS ARE PRESENTED FOR SELECT GRID SPACES IN THE DRAINAGE DITCH WITH ANALYTICAL DATA.

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PCB EXCAVATION BOUNDARIES AND OU-2 CHANNEL REMEDIATION SECTIONS 2

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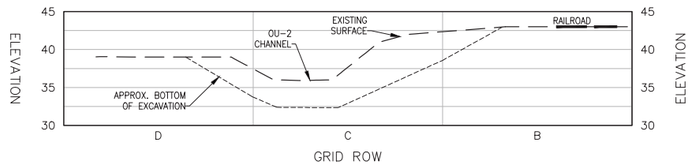
9 OF 16

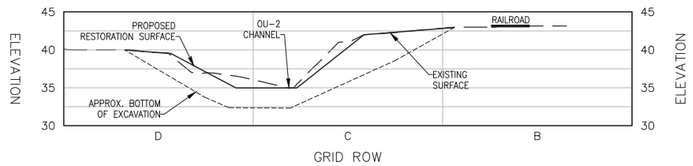


OU-2 GRID COLUMN 92 CROSS SECTION

1" = 10'

10 5 0 10 20

GRAPHIC SCALE IN FEET

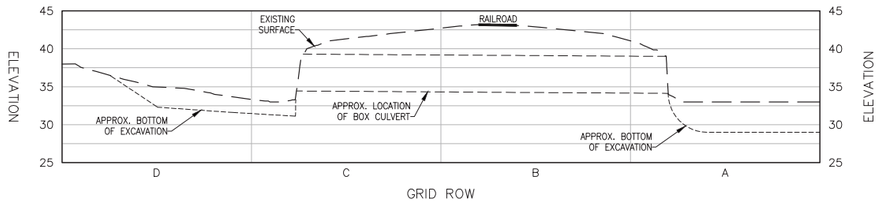


OU-2 GRID COLUMN 99 CROSS SECTION

1" = 10'

10 5 0 10 20

GRAPHIC SCALE IN FEET



OU-2 GRID COLUMN 112 CROSS SECTION

1" = 10'

10 5 0 10 20

GRAPHIC SCALE IN FEET

NOTES:

1. IN THE OU-2 DRAINAGE CHANNEL THE CONTRACTOR IS TO EXCAVATE TO THE BOTTOM OF EXCAVATION AS DEPICTED IN THE CONTRACT DRAWINGS, THEN COLLECT VERIFICATION SAMPLES TO DETERMINE IF PCB CONCENTRATIONS ARE LESS THAN 1 mg/kg OR IF ADDITIONAL EXCAVATION IS REQUIRED.
2. UNLESS OTHERWISE SHOWN ON THE CONTRACT DRAWINGS, THE CONTRACTOR IS TO PLACE (D_{90} = 12-IN) RIPRAP TO THE PRE-EXCAVATION ELEVATION.

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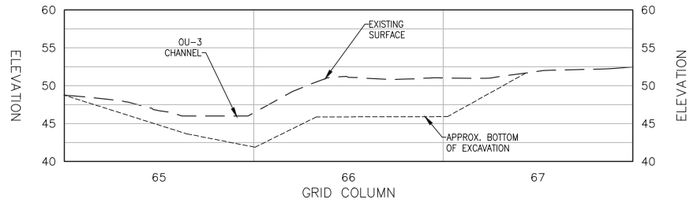
10 OF 16

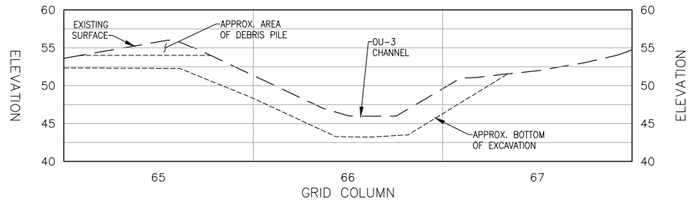


OU-3 GRID ROW T CROSS SECTION

1" = 10'

10 5 0 10 20

GRAPHIC SCALE IN FEET



OU-3 GRID ROW R CROSS SECTION

1" = 10'

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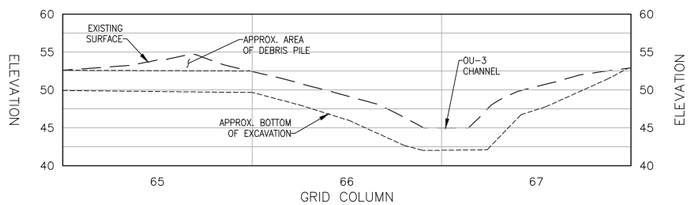
GRAPHIC SCALE IN FEET



OU-3 GRID ROW Q CROSS SECTION

1" = 10'

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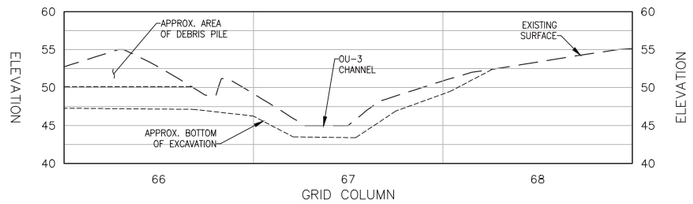

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1" = 10'

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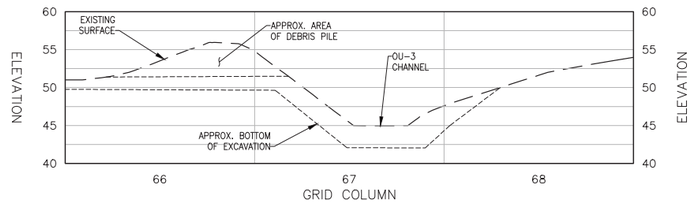
GRAPHIC SCALE IN FEET

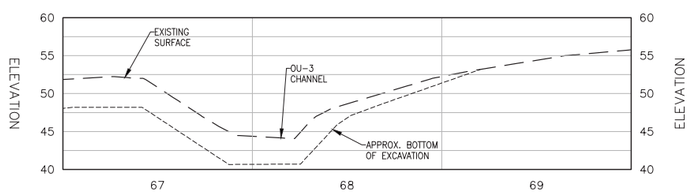


OU-3 GRID ROW O CROSS SECTION

1" = 10'

10 5 0 10 20

GRAPHIC SCALE IN FEET

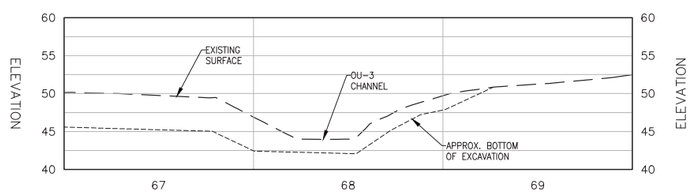


OU-3 GRID ROW N CROSS SECTION

1" = 10'

10 5 0 10 20

GRAPHIC SCALE IN FEET



OU-3 GRID ROW M CROSS SECTION

1" = 10'

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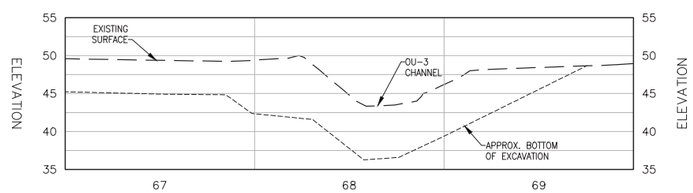
GRAPHIC SCALE IN FEET



OU-3 GRID ROW L CROSS SECTION

1" = 10'

10 5 0 10 20

GRAPHIC SCALE IN FEET

NOTES:

1. IN THE OU-3 DRAINAGE CHANNEL THE CONTRACTOR IS TO EXCAVATE TO THE BOTTOM OF EXCAVATION AS DEPICTED IN THE CONTRACT DRAWINGS, THEN COLLECT VERIFICATION SAMPLES TO DETERMINE IF PCB CONCENTRATIONS ARE LESS THAN 1 mg/kg OR IF ADDITIONAL EXCAVATION IS REQUIRED.
2. UNLESS OTHERWISE SHOWN ON THE CONTRACT DRAWINGS, THE CONTRACTOR IS TO PLACE (D_{50} = 12-IN) RIPRAP TO THE PRE-EXCAVATION ELEVATION.

30% DRAFT - NOT FOR CONSTRUCTION

Department of Environmental Conservation

NEW YORK STATE OF OPPORTUNITY

NO.	DATE	DESCRIPTION
		REVISIONS

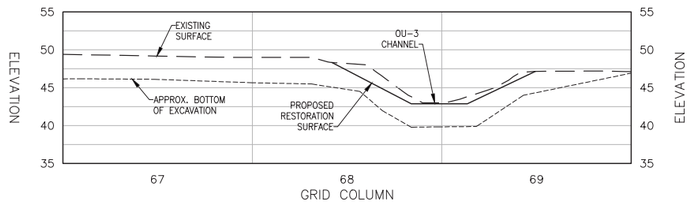
PCB EXCAVATION BOUNDARIES AND OU-3 CHANNEL REMEDIATION SECTIONS 1

FORMER ADIRONDACK STEEL SITE
BASIS OF DESIGN
COLONIE, NEW YORK

PREPARED BY:
EA ENGINEERING, P.C. AND ITS AFFILIATE EA SCIENCE AND TECHNOLOGY

CARRS#	
E.A #	14907.35
DESIGN #	
FILE	14907.35-Planset.dwg
DRAWN BY	DPA
DATE	AUGUST 2017
SCALE	AS SHOWN
SS	

SHEET #
11 OF 16



OU-3 GRID ROW K CROSS SECTION

1" = 10'

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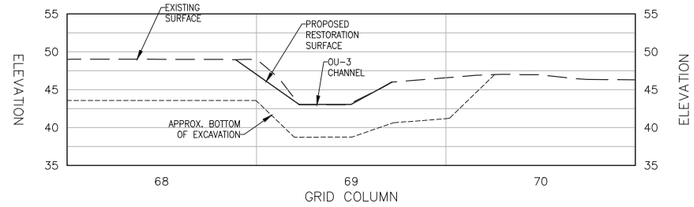
GRAPHIC SCALE IN FEET



OU-3 GRID ROW J CROSS SECTION

1" = 10'

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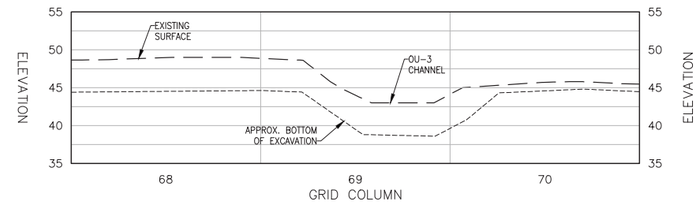
GRAPHIC SCALE IN FEET



OU-3 GRID ROW I CROSS SECTION

1" = 10'

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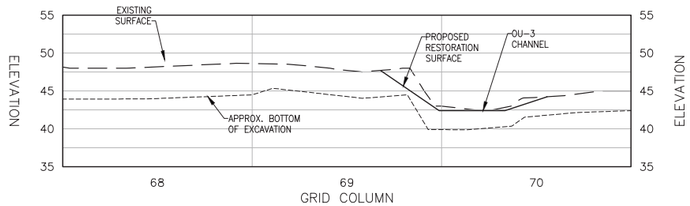
GRAPHIC SCALE IN FEET



OU-3 GRID ROW H CROSS SECTION

1" = 10'

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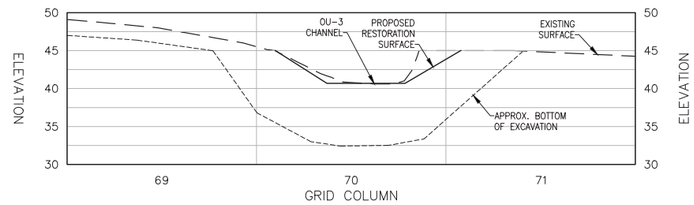
GRAPHIC SCALE IN FEET

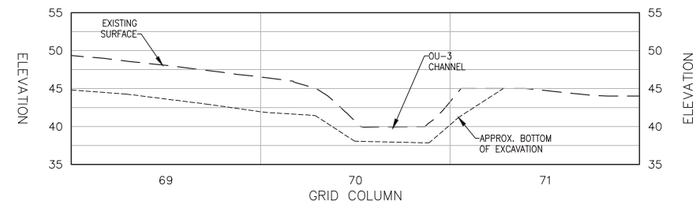


OU-3 GRID ROW G CROSS SECTION

1" = 10'

10 5 0 10 20

GRAPHIC SCALE IN FEET



OU-3 GRID ROW F CROSS SECTION

1" = 10'

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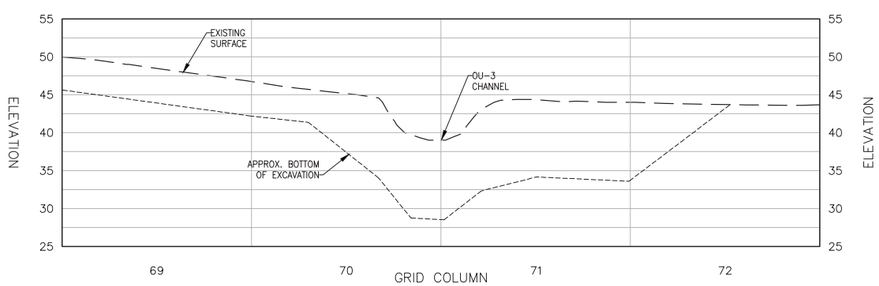
GRAPHIC SCALE IN FEET



OU-3 GRID ROW E CROSS SECTION

1" = 10'

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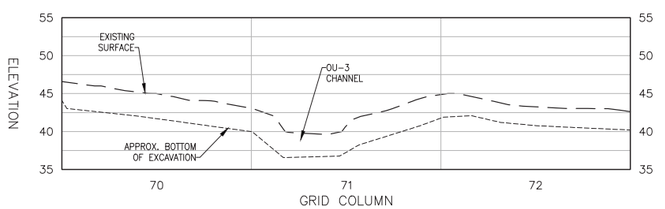
GRAPHIC SCALE IN FEET



OU-3 GRID ROW D CROSS SECTION

1" = 10'

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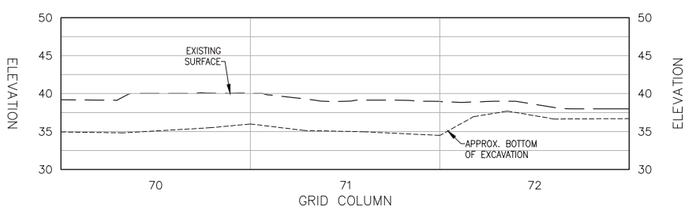
GRAPHIC SCALE IN FEET



OU-3 GRID ROW C CROSS SECTION

1" = 10'

10 5 0 10 20

GRAPHIC SCALE IN FEET

30% DRAFT - NOT FOR CONSTRUCTION

Department of Environmental Conservation

NEW YORK STATE OF OPPORTUNITY

NO.	DATE	DESCRIPTION
		REVISIONS

PCB EXCAVATION BOUNDARIES AND OU-3 CHANNEL REMEDIATION SECTIONS 2

FORMER ADIRONDACK STEEL SITE
BASIS OF DESIGN
COLONIE, NEW YORK

PREPARED BY:
EA ENGINEERING, P.C.
AND ITS AFFILIATE
EA SCIENCE AND TECHNOLOGY

CARRS#	
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SS	

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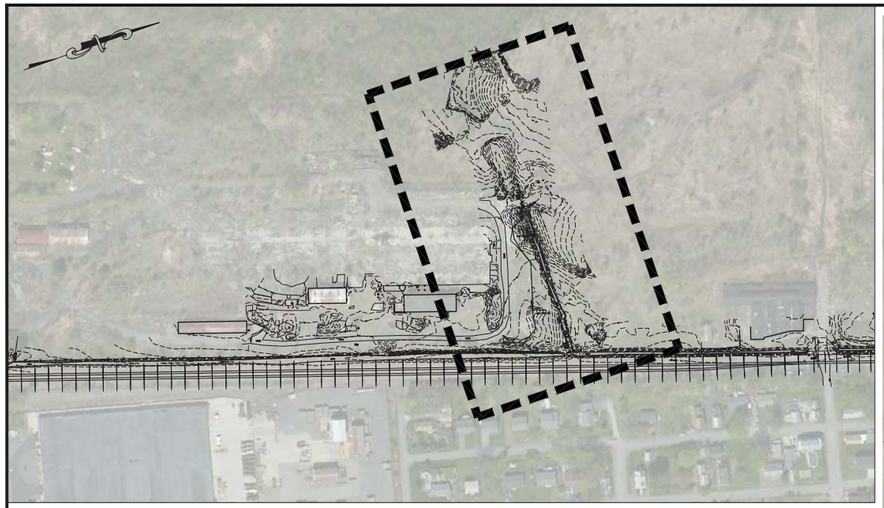
12 OF 16



200 100 0 200 400
GRAPHIC SCALE IN FEET

LOCATION REFERENCE MAP
SCALE: 1" = 200'

OU-3 INTERIM GRADING PLAN
SCALE: 1" = 30'

30 15 0 30 60
GRAPHIC SCALE IN FEET

30% DRAFT - NOT FOR CONSTRUCTION

Department of Environmental Conservation
NEW YORK STATE OF OPPORTUNITY

NO.	DATE	DESCRIPTION
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OU-3 INTERIM GRADING PLAN

FORMER ADIRONDACK STEEL SITE
BASIS OF DESIGN
COLONIE, NEW YORK

PREPARED BY:
EA ENGINEERING, P.C.
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DATE	AUGUST 2017
SCALE	AS SHOWN
SS	

SHEET #
13 OF 16

TO BE PROVIDED IN
60% DESIGN

OU-3 FINAL GRADING PLAN

SCALE:

XX X 0 XX XXXX

GRAPHIC SCALE IN FEET

30% DRAFT - NOT FOR CONSTRUCTION

NEW YORK STATE OF OPPORTUNITY. Department of Environmental Conservation

OU-3 FINAL GRADING PLAN

FORMER ADIRONDACK STEEL SITE
BASIS OF DESIGN
COLONIE, NEW YORK

NO.	DATE	DESCRIPTION
		REVISIONS

PREPARED BY:
EA ENGINEERING, P.C.
AND ITS AFFILIATE
EA SCIENCE AND
TECHNOLOGY

CARRS#	
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DRAWN BY	DPA
DATE	AUGUST 2017
SCALE	AS SHOWN
SS	

SHEET #
14 OF 16

TO BE PROVIDED IN
60% DESIGN

DETAILS 1

SCALE:

XX X 0 XX XXXX

GRAPHIC SCALE IN FEET

30% DRAFT - NOT FOR CONSTRUCTION

NEW YORK STATE OF OPPORTUNITY. Department of Environmental Conservation

NO.	DATE	DESCRIPTION
		REVISIONS

DETAILS 1

FORMER ADIRONDACK STEEL SITE
BASIS OF DESIGN
COLONIE, NEW YORK

PREPARED BY:
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15 OF 16

TO BE PROVIDED IN
60% DESIGN

DETAILS 2

SCALE:

XX X 0 XX XXXX

GRAPHIC SCALE IN FEET

30% DRAFT - NOT FOR CONSTRUCTION

NEW YORK STATE OF OPPORTUNITY. Department of Environmental Conservation

NO.	DATE	DESCRIPTION
		REVISIONS

DETAILS 2

FORMER ADIRONDACK STEEL SITE
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SHEET #
16 OF 16

Appendix B

Measurement and Payment Schedule

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SECTION XII
MEASUREMENT FOR PAYMENT

PART 1 - GENERAL

1.1 DESCRIPTION

A. This section covers the methods and procedures that the New York State Department of Environmental Conservation (NYSDEC) will use to measure the Contractor's work and to provide payment. This general outline of the measurement and payment features will not in any way limit the responsibility of the Contractor for making a thorough investigation of the Contract Documents to determine the scope of the work included in each bid task.

1. Payment will be made to the **CONTRACTOR** in accordance with the specified methods of measurement and the unit or lump sum prices stipulated in the accepted bid. Payment will constitute complete compensation for all work required by the Contract Documents including all costs of accepting the general risks, liabilities and obligations, expressed or implied. Payment under all tasks will include, but not necessarily be limited to, compensation for furnishing all supervision, labor, equipment, overhead, profit, material, services, applicable taxes, and for performing all other related work required. No other payment will be made.

2. No payment shall be made for work performed by the **CONTRACTOR** to replace defective work, work which is not required by the Contract Documents, work outside the limits of the Contract and additional work necessary due to actions of the **CONTRACTOR**, unless ordered by the **ENGINEER** in writing.

1.2 ENGINEER'S ESTIMATE OF QUANTITIES

A. The estimated quantities for unit price items, as listed in the Bid Schedule, are only approximate and are included solely for the purpose of comparison of Bids. The **ENGINEER** does not expressly, or by implication, agree that the nature of the materials encountered or required shall correspond therewith and reserves the right to increase or decrease any such quantity or to eliminate any quantity as the **ENGINEER** may deem necessary.

1.3 INCIDENTAL ITEMS

A. Except for the items designated hereunder for measurement and payment, the costs of items necessary to complete the work as specified are considered incidental to the items specified for measurement and payment. The costs of incidental items shall be included in the prices of items specified for measurement and payment.

1.4 QUANTITIES

B. The estimated quantities indicated in the Bid Schedule are the quantities estimated for the evaluation of bids. The actual quantities of items to be paid for on a unit price basis may vary significantly from the quantities indicated in the Bid Schedule.

1.5 RELATED PROVISIONS SPECIFIED ELSEWHERE

A. Payment to **CONTRACTOR**: Refer to General Conditions and Contract Agreement.

B. Changes in Contract Price: Refer to General Conditions and Contract Agreement.

PART 2 - MEASUREMENT

2.1 LUMP SUM BASIS

A. Measurement of all lump sum items will be on a total job basis.

2.2 VOLUME BASIS

A. Where items are specified to be measured on a volume basis, the volume will be determined on an in-place basis (prior to excavation for excavation or after placement and compaction for imported fill) between the existing and final ground surfaces or grade lines shown on the drawings. If no tolerance is specified, the tolerance shall be interpreted to be 0.00 foot.

2.3 AREA BASIS

A. Where items are specified to be measured on an area basis, the area will be measured as the actual surface area within the specified limits based on a plan view. If a specified width of an item is indicated, the area will be determined by the actual length along the centerline multiplied by the specified width. No adjustments will be made for the required overlap of materials.

2.4 LENGTH BASIS

A. Where items are specified to be measured on a length basis, the length will be measured as the actual length along the centerline within specified limits based on a plan view. No adjustments will be made for the required overlap of materials.

2.5 UNIT BASIS

A. Where items are specified to be measured on a unit basis, measurement will be of each particular unit as specified.

PART 3 - BID ITEMS

3.1 BID ITEM 1: MOBILIZATION, DEMOBILIZATION & SITE PREPARATION (limited to 15 percent of total bid amount)

A. General

1. Bid Item 1 shall be bid Lump Sum price for mobilization, demobilization and site preparation as specified and directed herein. The **CONTRACTOR** shall submit a separate bid breakdown (Section III, Article 12) for this Bid Item that shows the individual cost of providing items in the scope of work for this Bid Item as described below plus mobilization, demobilization, and miscellaneous items not specified elsewhere:

    a. Plan and execution of the project in accordance with DER-10 Section 1.14 “Sustainability and Green Remediation”

    b. Project Plans, including but not limited to, Health and Safety Plan (HASP), Quality Assurance Project Plan, Sampling Analysis Plan (SAP), Community Air Monitoring Plan, Water Management Plan, etc.

    c. Obtain all required work and environmental permits

    d. Mobilization and demobilization (including pre-mobilization and demobilization equipment wipe sampling);

    e. Temporary utilities

    f. Field offices and support areas

    g. Provide and post project signs

    h. Sanitary facilities

    i. Provide labor, equipment, and materials to provide decontamination facilities

    j. Lease, provide, construct necessary stockpile and staging areas

    k. Construct necessary access roads

    l. Handling and proper disposal of contractor generated waste

m. Provide all submittals (i.e., schedules, shop drawings, and record drawings, etc.)

n. Cost of bonds and insurance

o. Other work not specifically in other bid items including but not limited to: compliance with applicable regulatory requirements, preconstruction and construction planning, scheduling, submittals, reporting, administration and documentation, quality control, environmental protection, and spill control.

B. Measurement and Payment

1. The **CONTRACTOR** shall submit a bid breakdown and a schedule of values for this Bid Item that shows the individual cost of mobilization, demobilization, and miscellaneous items not elsewhere specified but necessary for a complete and proper remediation.

2. Measurement for payment shall be for items complete, installed, and properly functioning. The CONTRACTOR may invoice for up to 50 percent upon mobilization of forces, 30 percent of this item upon substantial completion of the work and the remaining 20 percent at final completion. Payment shall be lump sum bid for each individual item described above, including mobilization, demobilization, and miscellaneous as submitted in the **CONTRACTOR**'s bid breakdown.

3.2 BID ITEM 2: CLEARING AND GRUBBING

A. General

1. Bid Item 2 shall be bid per acre of clearing and grubbing in accordance with Section 311000 – Site Clearing. This item shall include the following activities:

a. Supply material, and provide all necessary material, tools, labor, and equipment to clear and grub any vegetation hindering access to excavations.

b. Handling and chipping of cleared and grubbed material. Handling of other miscellaneous wastes on-site including rubbish and recyclable materials shall be handled under Bid Item 3.

B. Measurement for Payment

1. **CONTRACTOR** shall submit a bid breakdown for this item that shows the individual costs of the above items and other miscellaneous items not elsewhere specified but necessary for all clearing and grubbing.

2. Measurement of Payment for Bid Item 2 shall be the unit cost to complete the work as shown on the Contract Drawings and specified herein. Payment shall be for each acre of work completed as determined by the **ENGINEER**.

3. All costs associated with clearing and grubbing, including but not limited to, the clearing and grubbing of living or dead vegetative grow in the excavation areas and adjacent areas as necessary for access, appropriate felling of trees as described in Section 311000 – Site Clearing, grubbing ad determined to be necessary by the **ENGINEER**, and appropriate disposal of cleared and grubbed material.

3.3 BID ITEM 3: DEBRIS PILE REMOVAL AND DISPOSAL

A. General

1. Bid Item 3 shall provide a unit price per cubic yard of debris removed from the debris piles identified by the **ENGINEER** as indicated on the Contract Drawings and in accordance with Section XXX – Debris Pile Removal.

2. **CONTRACTOR** shall submit a bid breakdown for this item that shows the cost per cubic yard of debris removed.

B. Measurement for Payment

1. Measurement for payment of this Bid Item shall be for the actual quantity of material properly removed and disposed of as measured and calculated based on survey completed by a NYS-licensed surveyor, and as indicated in **ENGINEER's** records.

2. The **CONTRACTOR** shall not be reimbursed for excavation/removal of materials from unauthorized areas.

3. Payment for survey shall be covered under Bid Item 6.

4. Transportation and disposal of debris pile material shall be covered under Bid Items 9 and 10.

3.4 BID ITEM 4: S U R F A C E WATER MANAGEMENT

A. General

1. Bid Item 4 shall provide a lump sum price to divert surface water from active remediation, excavation, and channel/drainage ditch areas for the duration of invasive work as specified in Section 02410 – Water Management.

    a. The **CONTRACTOR's** lump sum price must include development, submittal, and approval of planning documents, work plans, and permits required to divert surface water from the active remediation, excavation, and channel/drainage ditch areas.

    b. The **CONTRACTOR** must furnish all labor, equipment, material, and management to establish, operate, and maintain surface water controls necessary to minimize to the extent practicable the quantity of surface water that becomes impaired as a result of contact with impacted soil and sediment during remediation. Incidental contaminated water generated as a result of constructing surface water diversion facilities is to be collected, sampled, treated or disposed of in accordance with Section 02223 – Transportation and Offsite Disposal and payment will be covered under Lump Sum Bid Item No. 8.

    c. Upon completion of polychlorinated biphenyl (PCB) remediation and restoration of the OU-2 and OU-3 drainage channels, the **CONTRACTOR** must furnish all labor, equipment, and material necessary to reestablish surface water flow to the OU-2 and OU-3 drainage channels as shown on the Contract Drawings and Section 2480 – Site Restoration.

B. Measurement for Payment

1. Measurement for payment of this Bid Item shall be the lump sum cost to complete the work as shown on the Contract Drawings and specified herein. Payment shall be 25 percent of the lump sum price upon the **ENGINEER'S** approval of work plans; the **CONTRACTOR** can invoice for 40 percent of the lump sum price upon completion of construction work to divert surface water flow from the OU-2 and OU-3 drainage channels as determined by the **ENGINEER**; the **CONTRACTOR** can invoice for 20 percent of the lump sum price upon substantial completion of PCB remediation and restoration work; the **CONTRACTOR** can invoice for 15 percent of the lump sum price once surface water flow is reestablished to the OU-2 and OU-3 drainage channels.

3.5 BID ITEM 5: EROSION AND SEDIMENT CONTROL

A. General

1. This Bid Item 5 shall provide a lump sum bid for providing and maintaining temporary erosion and sediment control throughout the remedial action in accordance with Section 312500 – Erosion and Sedimentation Controls and directed herein to include the following activities:

   a. Provide all necessary tools, materials, labor, equipment and incidentals necessary to comply with environmental regulations and **CONTRACTOR's** Erosion and Sediment Control Plan.

   b. Implement stormwater pollution prevention measures to prevent sediment and contamination from entering streams or waterbodies as specified in the Contract Documents and the requirement of the State Pollution Discharge Elimination System permit.

B. Measurement for Payment

1. **CONTRACTOR** shall submit a bid breakdown for this item that shows the individual cost of installing and maintaining temporary erosion and sediment control measures.

2. Measurement and payment for this bid item shall be for items completed, installed, and properly functioning. The **CONTRACTOR** may invoice for up to 50 percent of this item upon successful installation of erosion and sediment controls as approved by the **ENGINEER**, 30 percent of this item upon substantial completion of the work, and the remaining 20 percent at final completion.

3.6 BID ITEM 6: SITE SURVEY

A. General

1. Bid Item 6 shall provide a lump sum bid for completion the site survey prior to remediation activities, interim surveys for the purposes of documenting work for measurement for payment and sampling locations, quantities of material excavated, and the final survey to document site restoration. All work for Bid Item 6 shall be performed by a licensed professional land surveyor registered to practice in the State of New York.

B. Measurement for Payment

1. The **CONTRACTOR** shall submit a bid breakdown for these items that shows the individual cost of the above items and other miscellaneous items not elsewhere specified but necessary for complete and proper site surveys.

2. Measurement for payment of for Bid Item 6 shall be the lump sum cost to complete the work described in Section 015000 – Survey. Payment shall be for the lump sum of work completed as determined by the **ENGINEER**.

3. All costs associated with site survey including, but not limited to, construction related survey activities, preparation of final survey record, and as-built drawings shall be paid under this bid item.

3.7 BID ITEM 7: EXCAVATION

A. General

1. Bid Item 7 shall provide a unit price bid per cubic yard of material (i.e., fill/waste, soil, and sediment) properly excavated in accordance with Section 02111 – Excavation of Impacted Material.

2. The **CONTRACTOR** shall not be reimbursed for exaction of materials resulting from unapproved excavations. Materials from unapproved excavations shall be properly backfilled by the **CONTRACTOR**. The **CONTRACTOR** shall not be reimbursed for excavation, consolidation, or backfilling of unapproved excavations.

3. Item(s) shall also include any sheeting/shoring or sloping of excavation.

4. The **CONTRACTOR** shall submit a separate bid breakdown for this item showing the individual cost per ton for providing items in the scope of work for this Bid Item.

B. Measurement for Payment

1. Measurement for payment of Bid Item 7 shall be for the actual quantity of material which is properly excavated for disposal as measured and calculated based on survey completed by a land surveyor licensed to practice in New York State, as indicated by the **ENGINEER's** records.

2. If sheeting is used, measurement shall be made to the inside face of the sheeting plus one-half the horizontal depth of the sheeting section, perpendicular to the inside face.

3. Measurement shall be made at mid-depth of the excavation. Depth shall be measured from the existing grade to the bottom of excavation.

4. Payment for the survey shall be covered in Bid Item 6 – Site Survey.

3.8 BID ITEM 8: DEWATERING, TREATMENT & DISPOSAL OF CONTAMINATED LIQUIDS

A. General

1. Bid Item 8 shall provide a lump sum bid for the total quantity of impacted liquid properly collected, sampled, treated prior to surface discharge in accordance with Section 02410 – Water Management, or store onsite prior to offsite disposal at an approved facility in accordance 2223 – Transportation and Offsite Disposal.

    a. **CONTRACTOR** shall provide all labor, equipment, and material required to manage impacted and Toxic Substance Control Act (TSCA) regulated liquids that are generated as a result of surface water entering excavations, excavation below the groundwater table, dewatering of saturated material, and decontamination activities.

    b. **CONTRACTOR** must obtain all required approvals and permits prior to discharging treated water to any publicly owned treatment works or water body.

    c. Item shall include the sampling, characterization, treatment, storage, discharge, and/or transportation and disposal of liquid waste collected generated during the work

B. Measurement for Payment

1. Measurement for Payment for Bid Item 8 shall be based on percentage complete for the work as shown on the Contract Drawings and specified herein. Payment shall be 50 percent of the lump sum price upon completion of construction work to treat/handle impacted water flow from the OU-2 and OU-3 excavation areas; the **CONTRACTOR** can invoice for 35 percent of the lump sum price upon substantial completion of PCB remediation and restoration work, as approved by the **ENGINEER**; the **CONTRACTOR** can invoice for 15 percent of the lump sum price upon final completion of the work.

3.9 BID ITEM 9: WASTE TRANSPORTATION AND DISPOSAL OF NON-HAZARDOUS MATERIAL (PCB CONCENTRATIONS LESS THAN 50 parts per million [ppm])

A. General

1. Bid Item 9 shall provide a unit price bid per ton of impacted material properly staged, characterized, transported, and disposed offsite as non-hazardous waste in accordance with Section 02223 – Transportation and Disposal.

    a. Sizing, processing (adding drying agent, stabilizing), staging, and loading non-hazardous designated waste for transport.

    b. Transportation of non-hazardous impacted material designated appropriately permitted facility.

    c. Disposal of non-hazardous impacted material at an appropriately permitted facility.

2. Item shall include characterization sampling, loading, transportation, and disposal of impacted material previously identified by **ENGINEER** and confirmed by CONTRACTOR's sampling to be non-hazardous waste (i.e., less than 50 ppm PCBs). The Contract Drawings identify areas designated as non-hazardous impacted material based on previous PCB sampling. All impacted materials will require characterization sampling to determine disposal requirements.

B. Measurement for Payment

1. **CONTRACTOR** shall submit a bid breakdown for this item that shows the individual costs to complete the work. Measurement for payment of Bid Item 9 shall be for the actual quantity of material which is properly sampled, transported and disposed as indicated by the **ENGINEER's** records. **CONTRACTOR** shall provide **CONTRACTOR's** reuse, recycling, and disposal report as back up for invoices, SECTION 02223. Payment shall be made per ton (2,000 pounds) or portion thereof, as measured by certified weigh tickets and documented on disposal manifests.

2. **CONTRACTOR** shall not be reimbursed for the characterization sampling, loading, transportation, and disposal of materials resulting from unapproved excavations. Materials from unapproved excavations shall be properly backfilled by the **CONTRACTOR**. The **CONTRACTOR** shall not be reimbursed for excavation, consolidation, or backfilling of unapproved excavations.

3.10 BID ITEM 10: WASTE TRANSPORTATION & DISPOSAL OF HAZARDOUS MATERIAL (PCB CONCENTRATIONS OF 50PPM OR GREATER)

A. General

1. Bid Item 10 shall provide a unit price bid per ton of impacted material properly staged, characterized, transported, and disposed offsite as TSCA designated hazardous waste in accordance with Section 02223 – Transportation and Disposal.

    a. Sizing, processing (adding drying agent, stabilizing), staging, and loading of TSCA designated waste for transport.

    b. Transportation of TSCA designated waste to an appropriately permitted facility; and

    c. Disposal of TSCA designated waste at an appropriately permitted facility.

2. Item shall include characterization sampling, loading, transportation, and disposal of impacted material previously identified by **ENGINEER** to be TSCA regulated waste (i.e., greater than or equal to 50 ppm PCBs). The Contract Drawings identify areas designated as TSCA regulated based on previous PCB sampling. All impacted materials will require characterization sampling to determine disposal requirements.

B. Measurement for Payment

1. **CONTRACTOR** shall submit a bid breakdown for this item that shows the individual costs to complete the work. Measurement for payment of Bid Item 10 shall be for the actual quantity of material which is properly sampled, transported, and disposed as indicated by the **ENGINEER's** records. **CONTRACTOR** shall provide **CONTRACTOR's** reuse, recycling, and disposal report as back up for invoices, SECTION 02223. Payment shall be made per ton (2,000 pounds) or portion thereof, as measured by certified weigh tickets and documented on disposal manifests.

2. **CONTRACTOR** shall not be reimbursed for the characterization sampling, loading, transportation, and disposal of materials resulting from unapproved excavations. Materials from unapproved excavations shall be properly backfilled by the **CONTRACTOR**. The **CONTRACTOR** shall not be reimbursed for excavation, consolidation, or backfilling of unapproved excavations.

3.11 BID ITEM 11: POST EXCAVATION CONFIRMATION SAMPLING

A. General

1. Bid Item 11 shall provide a unit price bid per properly collected and analyzed soil confirmation sample.

B. Measurement for Payment

1. **CONTRACTOR** shall submit a bid breakdown for this item that shows the individual cost of confirmation sampling in accordance with **CONTRACTOR's** SAP.

2. Measurement for payment for Bid Item 11 shall be the properly collected, analyzed, and validated soil confirmation samples as verified by the **ENGINEER** post-collection and analysis. **CONTRACTOR** shall submit a Data Usability Summary Report for all confirmation sample data. Payment shall be at the unit price bid for each properly collected and analyzed sample.

3.12 BID ITEM 12: BACKFILL

A. General

1. Bid Item 12 shall provide a unit price bid for each cubic yard of granular fill material properly backfilled to the lines and grades indicated on the Contract Drawings and outlined in the Section 312323 – Fill Material.

B. Measurement for Payment

1. Measurement for Payment for Bid Item 12 shall be the amount of material transported, properly placed and compacted as documented by a New York State-licensed surveyor. Payment shall be made as measured as in place volume as measured by a New York State-licensed surveyor. Payments of surveys shall be handled under Bid Item 6.

2. Required sampling of proposed backfill sources shall be paid under this bid item.

3.13 BID ITEM 13: WELL DECOMMISSIONING

A. General

1. Bid Item 13, well decommissioning, shall provide a lump sum price of properly decommissioned and disposed wells.

B. Measurement for Payment

1. **CONTRACTOR** shall submit a bid breakdown for this item that shows the individual costs of decommissioning wells.

2. Measurement for payment for Bid Item 13 shall be the properly decommissioned well as documented by the **ENGINEER** during decommissioning. Payment shall be at the lump sum price for the satisfactory decommissioning of all wells outlined in the Contract Drawings. Payment shall be for the well decommissioned and properly disposed of.

3. Disposal costs shall be handled under Bid Item 9.

3.14 BID ITEM 14: SITE RESTORATION

A. General

1. Bid Item 14 shall provide a unit price bid per acre of properly completed site restoration in accordance with Section 02480 – Site Restoration and directed herein to include the following activities:

   a. Provide all necessary tools, labor, and equipment to re-grade site to lines and grades shown in the Contract Drawings.

   b. Supply materials and provide all necessary tools, labor, and equipment to place topsoil over re-graded and excavation areas.

   c. Supply materials, and provide all necessary tools, labor, and equipment to seed and mulch re-graded and excavation areas.

B. Measurement for Payment

1. Measurement for Payment of Bid Item 14 shall be for the actual acre which is properly re-graded, restored, measured, and documented by a New York State-Licensed surveyor. Payment shall be made at the unit price bid per acres as measured by a New York State-licensed surveyor. Payment of surveys shall be handled under Bid Item 6.

3.15 BID ITEM 15: SITE SERVICES (Limited to 7 percent of total bid amount)

A. General

1. Bid Item 12 shall be bid Unit Price for temporary site services as specified and directed herein, and include all Work to properly provide, operate and maintain the temporary Site facilities and services until Final Completion of the Contract.

    a. Site Security

    b. Security Fencing Maintenance and Removal

    c. Disposal of Contractor-Generated Solid Waste

    d. Meteorological Station

    e. Permitting and Compliance

    f. Project Meetings

    g. Site Superintendence

    h. Decontamination in accordance with 40 CFR 761.79

    i. Decontamination Pad Maintenance

    j. Staging/Stockpile Area Maintenance

    k. Utilities, for onsite and provide and maintain utilities for adjacent and adjoining structures as deemed necessary during the performance of contract work

    l. Sanitary Facilities Maintenance

    m. Adequate erosion control and storm water control, if required, to prevent or minimize the negative impact to the surrounding environment

    n. Misting of building materials prior to and during demolition; and Dust suppression via water wetting, or other approved method.

B. Measurement for Payment

1. The **CONTRACTOR** shall submit a separate bid breakdown for this item showing the individual cost per day for providing items in the scope of work for this Bid Item.

2. Measurement for payment of this Bid Item shall be by calendar day beginning after satisfactory installation of site facilities and shall end at substantial completion or at the end of the Contract Time specified in

Section VI Article 6.1, whichever occurs first. Payment shall be unit price bid for each individual item described above as submitted in the **CONTRACTOR's** bid breakdown. A 50 percent reduction in payment would occur for each calendar day that operation and/or maintenance of any item included in this Bid Item was unsatisfactory or unused as measured and determined by the **ENGINEER.**

3.16 BID ITEM 16: HEALTH AND SAFETY

A. General

1. Bid Item 16 shall be bid unit price per day to implement the **CONTRACTOR's** Health and Safety Plan at the site submitted in accordance with Section 013529.13 – Site Health and Safety as including the items below:

    a. Health and Safety Officer

    b. Decontamination Station

    c. Health and Safety Equipment

    d. Emergency Response

    e. Air Monitoring

    f. Dust Control

    g. Sampling, Analyses, Handling, and Disposal of Personal Protective Equipment and Decontamination Wastes not specifically included in other bid items.

B Measurement for Payment

1. The **CONTRACTOR** shall submit a bid breakdown showing the capital and daily O&M costs for items included in this Bid Item (Items not included in Bid Item 15, Site Services).

2. Measurement for payment of this Bid Item shall be for each day the HASP has been implemented and adhered to in the opinion of the **ENGINEER**. Payment will be made in full for Bid Item 16 for each day that:

    a. All of the elements of the **CONTRACTOR's** HASP are in place

b. The **CONTRACTOR** conducts the activities necessary to fully implement the HASP.

3. Measurement for Payment of this Bid Item shall be by calendar day beginning after the satisfactory installation of site facilities and shall end at substantial completion or at the end of the Contract Time specified in XXX, whichever is sooner. Payment shall be unit price bid for each individual item described above as submitted in the **CONTRACTOR's** bid breakdown. A 50 percent reduction in payment will occur for each calendar day that operation and/or maintenance of any item included in this Bid Item was unsatisfactory or unused as determined by the **ENGINEER**. All daily maintenance costs for health and safety are part of this Bid Item including everything required in the HASP. A 100 percent reduction in payment will occur for each day the **CONTRACTOR** fails to adhere (in the opinion of the **ENGINEER)** to the HASP.

Bid
New York State Department of Environmental Conservation
Adirondack Steel Site
Contract No. XXXX; NYS Site Number: 401039

Payment Item Number	Description	Unit	Estimated Quantity	Unit Price		Total Amount ($)
				Words	Figures	
Bid Item 1	Mobilization, Demobilization & Site Preparation (Limited to 15% of Total Bid)	LS	1			
Bid Item 2	Clearing and Grubbing	ACRES	4.2			
Bid Item 3	Debris Pile Removal & Disposal	CY	970			
Bid Item 4	Surface Water Management	LS	1			
Bid Item 5	Erosion and Sediment Control	LS	1			
Bid Item 6	Site Survey	LS	1			
Bid Item 7	Excavation	CY	11,050			
Bid Item 8	Dewatering, Treatment, and Disposal of Contaminated Liquids	LS	1			
Bid Item 9	Waste Transportation & Disposal (Non-Hazardous, PCB Concentrations Less Than 50 PPM)	TONS	10,744			
Bid Item 10	Waste Transportation & Disposal (Hazardous, PCB Concentrations Greater Than/Equal to 50 PPM)	TONS	8,041			
Bid Item 11	Post Excavation Confirmation Sampling	EA	930			
Bid Item 12	Backfill	CY	11,050			
Bid Item 13	Well Decommissioning	LS	1			
Bid Item 14	Site Restoration	LS	1			
Bid Item 15	Site Services	DAY				
Bid Item 16	Health and Safety	DAY				

Grand Total Bid $ _____
(Price in figures)

Contractor Authorized Representative	Contractor Name	Date

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