# DESIGN SOIL INVESTIGATION REPORT

## WEST BRANCH OF BLOODY BROOK
## ONONDAGA COUNTY, NEW YORK

***PROJECT NO. 129916***

November 2011

Submitted to:

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# *TABLE OF CONTENTS*


1.0 INTRODUCTION ..... 1

2.0 SOIL SAMPLING AND ANALYSIS SUMMARY ..... 2

2.1 WOODED AREA SAMPLING AND ANALYSIS SUMMARY ..... 2
2.2 RESIDENTIAL/APARTMENT COMPLEX AREA SAMPLING AND ANALYSIS SUMMARY ..... 3
2.3 COMMERCIAL/LIGHT INDUSTRIAL AREA SAMPLING AND ANALYSIS SUMMARY ..... 4
2.4 QUALITY CONTROL SAMPLING AND ANALYSIS SUMMARY ..... 4

3.0 SAMPLING METHODOLOGY ..... 5

4.0 DATA VALIDATION ..... 7

5.0 GREEN AND SUSTAINABLE REMEDIATION ..... 8

6.0 SCHEDULE AND REPORTING ..... 9


# *TABLES*


Table 1A Summary of Soil Lithology and Analytical Data for Borings Located on Figure 3A
Table 1B Summary of Soil Lithology and Analytical Data for Borings Located on Figure 3B
Table 1C Summary of Soil Lithology and Analytical Data for Borings Located on Figure 3C


# *FIGURES*


Figure 1 Site Location Map
Figure 2 Site Area Map
Figure 3A Sampling Locations – Sheet 1 of 3
Figure 3B Sampling Locations – Sheet 2 of 3
Figure 3C Sampling Locations – Sheet 3 of 3


# *APPENDIX*


Appendix A Data Validation Reports

# 1.0 INTRODUCTION

This Design Soil Investigation Report (DSI Report) has been developed by Shaw Environmental, Inc. (Shaw) on behalf of Lockheed Martin Corporation (Lockheed Martin), and is being submitted to the New York State Department of Environmental Conservation (NYSDEC). This DSI Report summarizes the sample collection and analysis completed for soil adjacent to the West Branch of Bloody Brook (WBBB) to facilitate completion of a remedial design. Additionally, the tables and figures include the analytical results and sample locations associated with soil samples collected from sampling events completed at the site by Lockheed Martin, NYSDEC, and Onondaga County between 1994 and 2008. For the purposes of this DSI Report, the site is defined as that portion of the WBBB and the surrounding area commencing on the southern boundary of the New York State Thruway (Thruway) and ending at Onondaga Lake Parkway.[1] A site location map has been included as **Figure 1**.

The design soil investigation activities summarized in this report were completed by Shaw on behalf of Lockheed Martin in accordance with the February 2011 *Design Soil Investigation Work Plan* (DSI Work Plan). The DSI Work plan was approved by the NYSDEC in a letter dated March 2, 2011. Additionally, the design soil investigation sampling activities were performed pursuant to a Voluntary Cleanup Agreement (VCA) between Lockheed Martin and NYSDEC (Index #: D7-0001-01-09, effective July 20, 2002).

[1] The term "site" in the VCA is defined as: a portion of the banks, surface waters and sediments of the West and Middle Branches of Bloody Brook located in the Town of Salina, which commences downstream of Interstate 90, the New York State Thruway, and which extends generally southward past the confluence of the West Branch and the Middle Branch of Bloody Brook, and ends on the upstream side of Onondaga Lake Parkway. After examining data developed during remedial investigation work in the Middle Branch, NYSDEC determined that no further action was required for that branch of Bloody Brook. For this reason, the term "site" in this DSI Report relates only to those areas within the VCA Site where the remedial program continues to be implemented and remedial action is expected to be proposed.

# 2.0 SOIL SAMPLING AND ANALYSIS SUMMARY

The objective of the design soil investigation was to provide additional characterization of cadmium-impacted soil along the WBBB. The additional characterization was achieved by employing a flexible analysis approach. At certain locations, soil samples were collected and held at the laboratory and were analyzed contingent on the analytical results of other samples. If analysis of held samples were determined to be necessary, the analysis was performed within laboratory and analytical procedure holding times. If analysis was determined to not be necessary, the soil samples were properly disposed by the laboratory. Analysis was completed using United States Environmental Protection Agency (USEPA) SW-846 Method 6010B by a New York State Department of Health (NYSDOH) Environmental Laboratory Accreditation Program (ELAP) certified laboratory.

**Sections 2.1, 2.2, 2.3, and 2.4** of this DSI report summarize the design soil investigation sample locations, depths, and analyses. The sampling and analysis summary is presented in **Sections 2.1, 2.2, 2.3** using the three areas (i.e., wooded area, residential/apartment complex area, and commercial/light industrial area) that make up the site as shown on **Figure 2**. **Section 2.4** summarizes the quality control sampling and analysis.

The locations where samples were collected during and prior to the design soil investigation are shown on **Figures 3A, 3B, and 3C**. The locations where samples were collected as part of the design soil investigation are identified as "existing design sampling location" and "design sampling location not analyzed."

The analytical results for soil samples collected during and prior to the design soil investigation are presented in **Tables 1A, 1B, and 1C.** The information found on **Tables 1A, 1B, and 1C** corresponds to the sample locations found on **Figures 3A, 3B, and 3C**, respectively. The samples collected as part of the design soil investigation are identified on the tables with a boring identification that starts with "DI" except for samples collected from locations SSSWP-1E, SSSWP-1N, SSSWP-1R, SSSWP-1S, and SSSWP-1W (located in the wooded area). The analytical results for soil samples collected from the SSSWP locations are included in **Table 1A**.

## 2.1 Wooded Area Sampling and Analysis Summary

In the wooded area, 15 samples from five locations were collected and analyzed for cadmium. At each location, a sample was collected from depth intervals of 0 to 6 inches, 6 to 12 inches,

and 1 to 2 feet, and all 15 samples were analyzed for cadmium. The locations of samples collected from the wooded area are shown on **Figure 3A** and the analytical results are summarized in **Table 1A**.

## *2.2 Residential/Apartment Complex Area Sampling and Analysis Summary*

From within and adjacent to the residential/apartment complex area, 740 samples from 156 locations were collected and submitted to a laboratory. At each location, a sample was collected from 1-foot depth intervals starting from the ground surface to the bottom of the boring. As proposed in the DSI Work Plan, the bottom or final depth of each boring in this area varied from 2 feet to 16 feet below ground surface. The final depth of each boring was proposed in the DSI Work Plan and was determined from site specific information (e.g., lithology, current location of brook, historical location of brook, and existing analytical results).

As proposed in the DSI Work Plan, certain samples were sent to the laboratory and analyzed for cadmium, and other samples were sent to the laboratory to be held for analysis contingent on the analytical results of other samples. From the residential/apartment complex area, 492 samples were analyzed.

At sample locations DI-03-04, DI-13-02, DI-47-01, and DI-47-02, the sampling personnel were unable to advance the sampling equipment to the proposed final depth of the boring. After at least three attempts (i.e., moving the boring slightly from the proposed location) to advance the soil sampling equipment through the depth of refusal, certain soil samples at locations DI-03-04, DI-13-02, DI-47-01, and DI-47-02 were not collected as proposed in the DSI Work Plan.

Access was not granted for two properties. After several attempts by Lockheed Martin and NYSDEC to gain access to the two properties, NYSDEC agreed that the samples proposed at soil sample locations DI-05-01, DI-18-01 through -03, and DI-32-01 through -03 would not be collected during the design soil investigation activities.

Soil samples from locations DI-07-01 through -03, DI-09-01 through -03, DI-11-01 through -03, DI-32A-01, DI-32C-01 through -02, and DI-33-01 were collected in 2009. These samples were collected in advance of the design soil investigation activities with NYSDEC approval to support the Onondaga County Department of Water Environment Protection's storm water drainage improvement project.

The locations of samples collected from within and adjacent to the residential/apartment complex area are shown on **Figures 3A and 3B**, and the analytical results are summarized in **Tables 1A and 1B**. Additionally, sample locations where refusal was encountered are identified in the tables.

## *2.3 Commercial/Light Industrial Area Sampling and Analysis Summary*

In the commercial/light industrial area, 18 samples from three locations were collected and analyzed for cadmium. At each location, a sample was collected from 1-foot depth intervals starting from the ground surface to a depth of 6 feet below ground surface. All 18 samples were analyzed for cadmium. The locations of samples collected from commercial/light industrial area are shown on **Figure 3C** and the analytical results are summarized in **Table 1C**.

## *2.4 Quality Control Sampling and Analysis Summary*

Quality control samples were collected to provide the necessary data for validation of the analytical results. Blind field duplicate, matrix spike, and matrix spike duplicate samples were collected at a frequency of approximately 1 for each 20 samples collected. Specifically, 28 blind field duplicate, 32 matrix spike, and 32 matrix spike duplicate samples were analyzed. Blind field duplicate samples were created by collecting double volume for a sample then splitting the sample volume between two sample containers to be used for the sample and the blind field duplicate. The matrix spike and matrix spike duplicate samples were created by providing triple sample volume for a sample then splitting the sample volume into three sample containers to be used for the sample, matrix spike, and matrix spike duplicate.

# 3.0 SAMPLING METHODOLOGY

The soil samples discussed in **Section 2.0** of this report were collected using either a stainless steel hand auger or a Geoprobe. At most locations, a hand auger was used where samples were collected at depths up to 4 feet below ground surface, and a Geoprobe was used at locations where samples were collected from depths of 4 feet below ground surface or greater.

Samples taken using a hand auger were collected by removing soil from the ground in 6-inch increments. Samples taken using a Geoprobe were collected by driving the sampling tools into the ground with the Geoprobe and removing the soil in disposable 2-foot acetate sleeves. The sleeves were removed from the sampling equipment and cut open to expose the soil. The soil removed from each borehole using a hand auger or a Geoprobe was placed on polyethylene sheeting in the order it was removed from the ground and was split into 1-foot intervals. Each 1-foot interval was physically characterized and sampled by placing a representative portion of the 1-foot interval into a laboratory supplied sample container using new, disposable nitrile gloves. Samples were kept in a cooler with ice and delivered to the laboratory under proper chain of custody. The soil remaining after completing the sample collection at each boring was returned to the borehole in the same depth interval it was removed from the ground.

During the design soil investigation activities, air monitoring was completed in accordance with the March 2011 *Community Air Monitoring Plan for Design Soil Investigation* (CAMP). Ambient air monitoring activities were completed to measure volatile organic carbon (VOC) and particulate concentrations from locations upwind and downwind of the soil sampling activities. VOC and particulate concentrations were recorded for each 15-minute interval using the data logging software internal to the monitoring equipment. During the sampling activities, the action levels outlined in the CAMP were not exceeded. The readings were exported from the monitoring equipment and placed in the project records.

As outlined in the DSI Work Plan, following the completion of sampling activities at each sample location, reusable sampling equipment was decontaminated. The decontamination procedure consisted of a wash with a phosphate-fee detergent and potable water and a potable water rinse, followed by a 10% nitric acid rinse, and a final distilled water rinse. Following the completion of design soil investigation activities at each property, a New York State Licensed Surveyor surveyed the location and elevation of each boring.

Considerable efforts were made to limit the amount of disturbance to the properties being sampled. For example, a turf wheel-mounted or a track-mounted Geoprobe was used in place of a larger truck or tractor-mounted unit. In addition, to minimize disturbance of vegetation and creation of ruts, plywood was placed on lawns to create a platform for the Geoprobe to be driven to and operated at a sample location. On a few properties, minor damage occurred to the ground cover. Following field activities, uneven surfaces were graded and grass seed was planted in the damaged areas. In addition, to minimize any inconvenience to residents of the properties being sampled, field activities were performed between the hours of 8:00 am and 5:00 pm and the use of equipment and vehicles was minimized.

Field personnel took detailed field notes of all design soil investigation activities. Those notes included recording of sample locations, sample depths, physical characterization of sample intervals, and site conditions (e.g., weather). The detailed notes were placed in the project records.

## 4.0 Data Validation

The NYSDEC Analytical Service Protocol (ASP) Category B deliverable data packages provided by the laboratory for the soil samples collected in 2011 have been reviewed by a third party data validation company. The results of the data validation are summarized in three data usability summary reports included as **Attachment A** of this DSI Report. As indicated in the data validation reports, all analytical results from the soil samples collected in 2011 are usable either as reported or with edits and/or minor qualifications. The data summarized in **Tables 1A, 1B, and 1C** are presented with the edits and/or qualifications applied by the data validation company.

## 5.0 Green and Sustainable Remediation

As discussed in the DSI Work Plan, green and sustainable practices were implemented during the design soil investigation activities. Energy consumption was minimized and fewer pollutants and greenhouse gases were emitted during sample collection with the use of smaller all-terrain vehicles or walk behind Geoprobe units versus using full-size truck or tractor-mounted units. The use of the less intrusive sampling equipment and procedures also minimized disruption to the environment by preventing unintended impacts to the groundcover and soil (e.g., minimize damage to groundcover and erosion of soil). In addition, vehicle idling was reduced with the requirement that all vehicles and equipment be shut off when not in use for more than 5 minutes. Mobilization and demobilization to and from the site by all field personnel was minimized, and carpooling was used when feasible. Material management and waste reduction practices were implemented for the project. For example, paper usage was minimized by requesting that all analytical data and analytical reports be delivered in an electronic format.

# 6.0 SCHEDULE AND REPORTING

As stated in the DSI Work Plan, this DSI report is being submitted to the NYSDEC following receipt of the validated data. The validated data was submitted to NYSDEC electronically using the EQuIS$^{TM}$ software application and the NYSDEC standard electronic data deliverable (EDD) format. In addition, Lockheed Martin provided to each property owner a letter summarizing the design soil investigation activities completed at their property. A table and figure summarizing the analytical results and the locations of soil samples collected during the recent and historical soil sampling activities was attached to the letters sent to individual owners having properties with design soil investigation data.

After reviewing all of the available analytical results for the site (including the results collected during the design soil investigation), Lockheed Martin has determined that additional sampling activities will not be necessary to delineate the extent of cadmium-impacted soil at the site.

The design soil investigation analytical results will be used to supplement the September 10, 2009 *Draft Remedial Action Work Plan West Branch of Bloody Brook* (RAWP) which NYSDEC has not yet approved. Upon submittal of this DSI Report, Lockheed Martin will begin the revision of the RAWP.

# *TABLES*

**Table 1A**
**Summary of Soil Lithology and Analytical Data for Borings Located on Figure 3A**
**Design Soil Investigation Summary Report**
**West Branch of Bloody Brook**
**Bloody Brook Voluntary Cleanup Program**
**Onondaga County, New York**

| Boring ID | Figure Coordinates | Sampling Interval | Analyte | Surface Elevation (ft) | Brook Elevation (ft) | Sample Elevation at Bottom of Interval (ft) | Sample Relation to Brook Level | General Lithology | Collection Date | Result (mg/kg) |
|---|---|---|---|---|---|---|---|---|---|---|
| DI-01-01 | G9 | 0' - 1' | Cadmium | 385.50 | 375.85 | 384.50 | Above | Sandy silt, organics and wood | 5/2/2011 | 0.15 J |
| | | 1' - 2' | Cadmium | | 375.85 | 383.50 | Above | Sandy silt | 5/2/2011 | 0.059 J [0.19 J] |
| | | 2' - 3' | Cadmium | | 375.85 | 382.50 | Above | Sandy silt | 5/2/2011 | 0.11 J |
| | | 3' - 4' | Cadmium | | 375.85 | 381.50 | Above | Sandy silt | 5/2/2011 | 0.047 J |
| | | 4' - 5' | Cadmium | | 375.85 | 380.50 | Above | Sandy silt | 5/2/2011 | 0.11 J |
| | | 5' - 6' | Cadmium | | 375.85 | 379.50 | Above | Sandy silt | 5/2/2011 | 0.060 J |
| | | 6' - 7' | Cadmium | | 375.85 | 378.50 | Above | Silty sand with little clay, Sandy silt with organics at 6'-8" | 5/2/2011 | 0.19 J |
| | | 7' - 8' | Cadmium | | 375.85 | 377.50 | Above | Silt with little clay | 5/2/2011 | 0.079 J |
| | | 8' - 9' | Cadmium | | 375.85 | 376.50 | Above | Grades to fine sand, little silt, silt with organics at 8'-10" | 5/2/2011 | 3.1 |
| | | 9' - 10' | Cadmium | | 375.85 | 375.50 | At | Organics with some silt, trace sand, trace clay | 5/2/2011 | 2,450 |
| | | 10' - 11' | Cadmium | | 375.85 | 374.50 | Below | Grades to fine sand with white crystals, little silt | 5/2/2011 | 2.6 |
| | | 11' - 12' | Cadmium | | 375.85 | 373.50 | Below | Medium to fine sand | 5/2/2011 | 0.49 B |
| | | 12' - 13' | Cadmium | | 375.85 | 372.50 | Below | Medium to fine sand | 5/2/2011 | 13.8 |
| DI-01-02 | G9 | 0' - 1' | Cadmium | 386.29 | 375.82 | 385.29 | Above | Silt with fine sand, trace clay | 4/27/2011 | Held[11] |
| | | 1' - 2' | Cadmium | | 375.82 | 384.29 | Above | Silt with fine sand, trace clay | 4/27/2011 | Held[11] |
| | | 2' - 3' | Cadmium | | 375.82 | 383.29 | Above | Silt with fine sand, trace clay | 4/27/2011 | Held[11] |
| | | 3' - 4' | Cadmium | | 375.82 | 382.29 | Above | Silt with fine sand, some clay | 4/27/2011 | Held[11] |
| | | 4' - 5' | Cadmium | | 375.82 | 381.29 | Above | Clayey silt | 4/27/2011 | Held[11] |
| | | 5' - 6' | Cadmium | | 375.82 | 380.29 | Above | Clayey silt | 4/27/2011 | Held[11] |
| | | 6' - 7' | Cadmium | | 375.82 | 379.29 | Above | Silty clay | 4/27/2011 | Held[11] |
| | | 7' - 8' | Cadmium | | 375.82 | 378.29 | Above | Silty clay | 4/27/2011 | Held[11] |
| | | 8' - 9' | Cadmium | | 375.82 | 377.29 | Above | Silty clay | 4/27/2011 | 0.40 |
| | | 9' - 10' | Cadmium | | 375.82 | 376.29 | Below | Silty clay | 4/27/2011 | 0.12 J |
| | | 10' - 11' | Cadmium | | 375.82 | 375.29 | At | Sandy silt, little clay at 10'-2" | 4/27/2011 | 0.26 |
| | | 11' - 12' | Cadmium | | 375.82 | 374.29 | Below | Sandy silt, little clay, organics | 4/27/2011 | 12.9 |
| | | 12' - 13' | Cadmium | | 375.82 | 373.29 | Below | Silty clay | 4/27/2011 | 1.1 |
| | | 13' - 14' | Cadmium | | 375.82 | 372.29 | Below | Silty clay | 4/27/2011 | 2.8 |
| | | 14' - 15' | Cadmium | | 375.82 | 371.29 | Below | Silty clay, organics | 4/27/2011 | 18.8 |
| DI-01-03 | G9 | 0' - 1' | Cadmium | 388.52 | 375.77 | 387.52 | Above | Sandy, silt, trace clay | 4/27/2011 | See Note 12 |
| | | 1' - 2' | Cadmium | | 375.77 | 386.52 | Above | Sandy, silt, trace clay | 4/27/2011 | See Note 12 |
| | | 2' - 3' | Cadmium | | 375.77 | 385.52 | Above | Sandy, silt, trace clay | 4/27/2011 | See Note 12 |
| | | 3' - 4' | Cadmium | | 375.77 | 384.52 | Above | Sandy, silt, trace clay | 4/27/2011 | See Note 12 |
| | | 4' - 5' | Cadmium | | 375.77 | 383.52 | Above | Sandy, silt, trace clay | 4/27/2011 | See Note 12 |
| | | 5' - 6' | Cadmium | | 375.77 | 382.52 | Above | Sandy Silt to Silty Sand | 4/27/2011 | See Note 12 |
| | | 6' - 7' | Cadmium | | 375.77 | 381.52 | Above | Coarse to fine sand, little gravel, little silt at 6'-7" | 4/27/2011 | See Note 12 |
| | | 7' - 8' | Cadmium | | 375.77 | 380.52 | Above | Organics, fine silty clay | 4/27/2011 | See Note 12 |
| | | 8' - 9' | Cadmium | | 375.77 | 379.52 | Above | Organics, coarse to fine sand | 4/27/2011 | See Note 12 |
| | | 9' - 10' | Cadmium | | 375.77 | 378.52 | Above | Organics, wood | 4/27/2011 | See Note 12 |
| | | 10' - 11' | Cadmium | | 375.77 | 377.52 | Above | Organics, wood | 4/27/2011 | See Note 12 |
| | | 11' - 12' | Cadmium | | 375.77 | 376.52 | Above | Organics, wood | 4/27/2011 | See Note 12 |
| | | 12' - 13' | Cadmium | | 375.77 | 375.52 | At | Sandy, silt, some organics | 4/27/2011 | See Note 12 |
| | | 13' - 14' | Cadmium | | 375.77 | 374.52 | Below | Organics with some sand, trace gravel at 13'-4" | 4/27/2011 | See Note 12 |
| | | 14' - 15' | Cadmium | | 375.77 | 373.52 | Below | Organics with some sand, trace gravel | 4/27/2011 | See Note 12 |
| | | 15' - 16' | Cadmium | | 375.77 | 372.52 | Below | Organics and clay with little sand | 4/27/2011 | See Note 12 |
| DI-02-01 | E9 | 0' - 1' | Cadmium | 378.97 | 374.00 | 377.97 | Above | Clayey silt, silt, gabion rock | 4/27/2011 | 22 |
| | | 1' - 2' | Cadmium | | 374.00 | 376.97 | Above | Clayey silt, silty clay | 4/27/2011 | 1.7 |
| | | 2' - 3' | Cadmium | | 374.00 | 375.97 | Above | Clayey silt, silty clay | 4/27/2011 | 0.21 J |
| | | 3' - 4' | Cadmium | | 374.00 | 374.97 | Above | Clayey silt, sandy silt | 4/27/2011 | 0.13 J |
| | | 4' - 5' | Cadmium | | 374.00 | 373.97 | At | Sandy silt, clayey silt | 4/27/2011 | 0.16 J |
| | | 5' - 6' | Cadmium | | 374.00 | 372.97 | Below | Clayey silt, sandy silt, silt | 4/27/2011 | 1.1 |
| | | 6' - 7' | Cadmium | | 374.00 | 371.97 | Below | Sandy silt, silt, clayey silt | 4/27/2011 | 2.9 |
| | | 7' - 8' | Cadmium | | 374.00 | 370.97 | Below | Silty clay, clay, sandy silt, silty sand, organics | 4/27/2011 | 0.49 |
| | | 8' - 9' | Cadmium | | 374.00 | 369.97 | Below | Till | 5/2/2011 | 0.47 B |
| | | 9' - 10' | Cadmium | | 374.00 | 368.97 | Below | Till | 5/2/2011 | 0.27 B |
| DI-02-02 | E9 | 0' - 1' | Cadmium | 379.40 | 374.00 | 378.40 | Above | Clayey silt, silt | 4/27/2011 | 0.80 |
| | | 1' - 2' | Cadmium | | 374.00 | 377.40 | Above | Clayey silt | 4/27/2011 | 0.070 J |
| | | 2' - 3' | Cadmium | | 374.00 | 376.40 | Above | Silty clay, clayey silt | 4/27/2011 | Held[11] |
| | | 3' - 4' | Cadmium | | 374.00 | 375.40 | Above | Silty clay | 4/27/2011 | Held[11] |

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**Onondaga County, New York**

| Boring ID | Figure Coordinates | Sampling Interval | Analyte | Surface Elevation (ft) | Brook Elevation (ft) | Sample Elevation at Bottom of Interval (ft) | Sample Relation to Brook Level | General Lithology | Collection Date | Result (mg/kg) |
|---|---|---|---|---|---|---|---|---|---|---|
| DI-03-01 | D12 | 0' - 1' | Cadmium | 378.75 | 371.37 | 377.75 | Above | Silt, little fine sand, trace clay | 4/27/2011 | 0.45 B |
| | | 1' - 2' | Cadmium | | 371.37 | 376.75 | Above | Silt, little fine sand, trace clay | 4/27/2011 | <0.26 U |
| | | 2' - 3' | Cadmium | | 371.37 | 375.75 | Above | Silt, little fine sand, trace clay | 4/27/2011 | <0.25 U |
| | | 3' - 4' | Cadmium | | 371.37 | 374.75 | Above | Clayey silt | 4/27/2011 | <0.24 U |
| | | 4' - 5' | Cadmium | | 371.37 | 373.75 | Above | Clayey silt | 4/27/2011 | <0.23 U |
| | | 5' - 6' | Cadmium | | 371.37 | 372.75 | Above | Clayey silt | 4/27/2011 | <0.25 U |
| | | 6' - 7' | Cadmium | | 371.37 | 371.75 | At | Clayey silt | 4/27/2011 | <0.26 U |
| | | 7' - 8' | Cadmium | | 371.37 | 370.75 | Below | Clayey silt | 4/27/2011 | 0.096 J |
| DI-03-02 | C12 | 0' - 1' | Cadmium | 379.68 | 371.37 | 378.68 | Above | Silt with little fine sand, trace gravel | 4/27/2011 | 0.23 J |
| | | 1' - 2' | Cadmium | | 371.37 | 377.68 | Above | Silt, trace clay | 4/27/2011 | 0.17 J |
| | | 2' - 3' | Cadmium | | 371.37 | 376.68 | Above | Silt, trace clay | 4/27/2011 | 0.15 J |
| | | 3' - 4' | Cadmium | | 371.37 | 375.68 | Above | Silt, some clay | 4/27/2011 | 0.16 J |
| | | 4' - 5' | Cadmium | | 371.37 | 374.68 | Above | Silty clay | 4/27/2011 | 0.25 J |
| | | 5' - 6' | Cadmium | | 371.37 | 373.68 | Above | Silty clay | 4/27/2011 | <0.25 U |
| | | 6' - 7' | Cadmium | | 371.37 | 372.68 | Above | Silty clay | 4/27/2011 | <0.23 U |
| | | 7' - 8' | Cadmium | | 371.37 | 371.68 | At | Silty clay | 4/27/2011 | <0.24 U |
| | | 8' - 9' | Cadmium | | 371.37 | 370.68 | Below | Silt | 4/27/2011 | <0.22 U |
| DI-03-03 | C12 | 0' - 1' | Cadmium | 380.30 | 371.37 | 379.30 | Above | Sandy gravel, organics, little silt | 4/27/2011 | 0.18 J |
| | | 1' - 2' | Cadmium | | 371.37 | 378.30 | Above | Medium to fine sand with little silt, trace gravel | 4/27/2011 | 0.067 J |
| | | 2' - 3' | Cadmium | | 371.37 | 377.30 | Above | Silty clay | 4/27/2011 | 0.068 J |
| | | 3' - 4' | Cadmium | | 371.37 | 376.30 | Above | Silty clay | 4/27/2011 | <0.24 |
| | | 4' - 5' | Cadmium | | 371.37 | 375.30 | Above | Medium to fine sand with trace gravel, trace silt | 4/27/2011 | 0.057 J |
| | | 5' - 6' | Cadmium | | 371.37 | 374.30 | Above | Silty clay, trace gravel at 5'-7" | 4/27/2011 | 0.048 J |
| | | 6' - 7' | Cadmium | | 371.37 | 373.30 | Above | Clayey silt | 4/27/2011 | 0.084 J |
| | | 7' - 8' | Cadmium | | 371.37 | 372.30 | Above | Clayey silt | 4/27/2011 | 0.063 J |
| | | 8' - 9' | Cadmium | | 371.37 | 371.30 | At | Clay with some silt | 4/27/2011 | 1.3 |
| | | 9' - 10' | Cadmium | | 371.37 | 370.30 | Below | Clay with some silt | 4/27/2011 | 170 |
| DI-03-04 | C12 | 0' - 1' | Cadmium | 380.27 | 371.37 | 379.27 | Above | Sandy gravel, trace silt, organics | 4/27/2011 | 0.28 |
| | | 1' - 2' | Cadmium | | 371.37 | 378.27 | Above | Sandy gravel, some silt | 4/27/2011 | 0.23 |
| | | 2' - 3' | Cadmium | | 371.37 | 377.27 | Above | Coarse to fine sand, trace gravel, trace silt | 4/27/2011 | 0.31 |
| | | 3' - 4' | Cadmium | | 371.37 | 376.27 | Above | Coarse to fine sand, trace gravel, trace silt | 4/27/2011 | 0.25 |
| | | 4' - 5' | Cadmium | | 371.37 | 375.27 | Above | Sandy gravel, trace silt | 4/27/2011 | 0.13 J |
| | | 5' - 6' | Cadmium | | 371.37 | 374.27 | Above | Clayey silt and debris at 5'-7" | 4/27/2011 | 0.29 |
| | | 6' - 7' | Cadmium | | 371.37 | 373.27 | Above | --- | Refusal | Refusal[13] |
| | | 7' - 8' | Cadmium | | 371.37 | 372.27 | Above | --- | Refusal | Refusal[13] |
| | | 8' - 9' | Cadmium | | 371.37 | 371.27 | At | --- | Refusal | Refusal[13] |
| | | 9' - 10' | Cadmium | | 371.37 | 370.27 | Below | --- | Refusal | Refusal[13] |
| | | 10' - 11' | Cadmium | | 371.37 | 369.27 | Below | --- | Refusal | Refusal[13] |
| DI-03-05 | C12 | 0' - 1' | Cadmium | 380.56 | 371.37 | 379.56 | Above | Medium gravel, coarse to fine sand, trace silt | 4/27/2011 | 0.33 |
| | | 1' - 2' | Cadmium | | 371.37 | 378.56 | Above | Medium gravel, coarse to fine sand, trace silt | 4/27/2011 | 0.30 |
| | | 2' - 3' | Cadmium | | 371.37 | 377.56 | Above | Medium gravel, coarse to fine sand, trace silt | 4/27/2011 | 0.27 |
| | | 3' - 4' | Cadmium | | 371.37 | 376.56 | Above | Medium gravel, coarse to fine sand, some silt | 4/27/2011 | 0.31 |
| | | 4' - 5' | Cadmium | | 371.37 | 375.56 | Above | Medium gravel, coarse to fine sand, some silt | 4/27/2011 | 0.11 J |
| | | 5' - 6' | Cadmium | | 371.37 | 374.56 | Above | Silt, fine sand, trace clay | 4/27/2011 | 0.12 J |
| | | 6' - 7' | Cadmium | | 371.37 | 373.56 | Above | Silt, fine sand, trace clay | 4/27/2011 | 0.15 J |
| | | 7' - 8' | Cadmium | | 371.37 | 372.56 | Above | Silt, fine sand, trace clay | 4/27/2011 | 0.14 J |
| | | 8' - 9' | Cadmium | | 371.37 | 371.56 | At | Fine to coarse sand, trace silt at 8'-3" | 4/27/2011 | 0.074 J |
| | | 9' - 10' | Cadmium | | 371.37 | 370.56 | Below | Sandy gravel, little silt, Silty sand at 9'-8" | 4/27/2011 | 0.15 J |
| | | 10' - 11' | Cadmium | | 371.37 | 369.56 | Below | Silty clay with organics | 4/27/2011 | 267 |
| | | 11' - 12' | Cadmium | | 371.37 | 368.56 | Below | Silty clay with organics, strong odor | 4/27/2011 | 5.9 |

**Table 1A**
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**Design Soil Investigation Summary Report**
**West Branch of Bloody Brook**
**Bloody Brook Voluntary Cleanup Program**
**Onondaga County, New York**

| Boring ID | Figure Coordinates | Sampling Interval | Analyte | Surface Elevation (ft) | Brook Elevation (ft) | Sample Elevation at Bottom of Interval (ft) | Sample Relation to Brook Level | General Lithology | Collection Date | Result (mg/kg) |
|---|---|---|---|---|---|---|---|---|---|---|
| DI-17-01 | D13 | 0' - 1' | Cadmium | 378.07 | 371.28 | 377.07 | Above | Silty sand, sandy silt, roots | 5/2/2011 | 0.43 |
| | | 1' - 2' | Cadmium | | 371.28 | 376.07 | Above | Sandy silt, clayey silt | 5/2/2011 | 0.15 J |
| | | 2' - 3' | Cadmium | | 371.28 | 375.07 | Above | Sandy silt | 5/2/2011 | 0.057 J |
| | | 3' - 4' | Cadmium | | 371.28 | 374.07 | Above | Sandy silt, clayey silt | 5/2/2011 | 0.048 J |
| | | 4' - 5' | Cadmium | | 371.28 | 373.07 | Above | Silt, sandy silt | 5/2/2011 | 0.090 J |
| | | 5' - 6' | Cadmium | | 371.28 | 372.07 | Above | Silt, clayey silt, organics | 5/2/2011 | 161 |
| | | 6' - 7' | Cadmium | | 371.28 | 371.07 | At | Sandy silt | 5/2/2011 | 0.38 B |
| | | 7' - 8' | Cadmium | | 371.28 | 370.07 | Below | Sandy silt, silt | 5/2/2011 | <0.31 U |
| | | 8' - 9' | Cadmium | | 371.28 | 369.07 | Below | Sandy silt, clayey silt | 5/2/2011 | 0.46 B |
| DI-17-02 | D13 | 0' - 1' | Cadmium | 378.72 | 371.28 | 377.72 | Above | Sandy silt, little clay, roots | 5/2/2011 | Held[11] |
| | | 1' - 2' | Cadmium | | 371.28 | 376.72 | Above | Sandy silt | 5/2/2011 | Held[11] |
| | | 2' - 3' | Cadmium | | 371.28 | 375.72 | Above | Sandy silt | 5/2/2011 | Held[11] |
| | | 3' - 4' | Cadmium | | 371.28 | 374.72 | Above | Sandy silt | 5/2/2011 | Held[11] |
| | | 4' - 5' | Cadmium | | 371.28 | 373.72 | Above | Sandy silt | 5/2/2011 | 0.33 |
| | | 5' - 6' | Cadmium | | 371.28 | 372.72 | Above | Sandy silt with little clay | 5/2/2011 | 1.2 |
| | | 6' - 7' | Cadmium | | 371.28 | 371.72 | At | Clayey silt with little fine sand | 5/2/2011 | 0.37 |
| | | 7' - 8' | Cadmium | | 371.28 | 370.72 | Below | Silty clay with little fine sand | 5/2/2011 | Held[11] |
| | | 8' - 9' | Cadmium | | 371.28 | 369.72 | Below | Silty clay with little fine sand | 5/2/2011 | Held[11] |
| | | 9' - 10' | Cadmium | | 371.28 | 368.72 | Below | Clayey silt | 5/2/2011 | Held[11] |
| DI-19-01 | E4 | 0' - 1' | Cadmium | 386.10 | 383.00 | 385.10 | Above | Clayey silt, organics, roots | 5/3/2011 | 4.3 B |
| | | 1' - 2' | Cadmium | | 383.00 | 384.10 | Above | Sandy silt, silt, gravel | 5/3/2011 | 5.5 B |
| | | 2' - 3' | Cadmium | | 383.00 | 383.10 | At | Sandy silt, silt, clayey silt, gravel | 5/3/2011 | 14.9 B |
| | | 3' - 4' | Cadmium | | 383.00 | 382.10 | Below | Sandy silt, gravels, clayey silt | 5/3/2011 | 1.0 B |
| DI-19-02 | E4 | 0' - 1' | Cadmium | 387.10 | 383.00 | 386.10 | Above | Clayey silt, silt, sandy silt, roots | 5/3/2011 | 0.16 J |
| | | 1' - 2' | Cadmium | | 383.00 | 385.10 | Above | Sandy silt, silt, clayey silt, roots | 5/3/2011 | 13.4 |
| | | 2' - 3' | Cadmium | | 383.00 | 384.10 | Above | Sandy silt, silt | 5/3/2011 | 2.6 |
| | | 3' - 4' | Cadmium | | 383.00 | 383.10 | At | Sandy silt, clayey silt, silt | 5/3/2011 | 2.9 |
| DI-19-03 | F4 | 0' - 1' | Cadmium | 387.10 | 383.00 | 386.10 | Above | Clayey silt, sandy silt, silt, roots | 5/3/2011 | 0.76 |
| | | 1' - 2' | Cadmium | | 383.00 | 385.10 | Above | Silt, sandy silt, roots | 5/3/2011 | 0.30 |
| DI-20-01 | F5 | 0' - 1' | Cadmium | 386.33 | 382.82 | 385.33 | Above | Clayey silt, silt | 5/3/2011 | 171 B |
| | | 1' - 2' | Cadmium | | 382.82 | 384.33 | Above | Clayey silt, silt, sandy silt, gravel, roots | 5/3/2011 | 1.2 B |
| | | 2' - 3' | Cadmium | | 382.82 | 383.33 | Above | Sandy silt, silt, roots | 5/3/2011 | 2.6 B |
| | | 3' - 4' | Cadmium | | 382.82 | 382.33 | At | Clayey silt, sandy silt, silt, gravel | 5/3/2011 | 0.52 B |
| DI-20-02 | F5 | 0' - 1' | Cadmium | 387.72 | 382.82 | 386.72 | Above | Clayey silt, silt, silty clay | 5/3/2011 | 0.29 |
| | | 1' - 2' | Cadmium | | 382.82 | 385.72 | Above | Clayey silt, silt, plastic bag (fill) | 5/3/2011 | 0.23 J |
| | | 2' - 3' | Cadmium | | 382.82 | 384.72 | Above | Silt, sandy silt | 5/3/2011 | Held[11] |
| | | 3' - 4' | Cadmium | | 382.82 | 383.72 | Above | Silt, sandy silt | 5/3/2011 | Held[11] |
| DI-21-01 | F9 | 0' - 1' | Cadmium | 381.68 | 375.00 | 380.68 | Above | Silty sand, organics | 4/29/2011 | 0.83 |
| | | 1' - 2' | Cadmium | | 375.00 | 379.68 | Above | Silty sand, organics | 4/29/2011 | 0.33 |
| | | 2' - 3' | Cadmium | | 375.00 | 378.68 | Above | Silty sand | 4/29/2011 | 0.097 J |
| | | 3' - 4' | Cadmium | | 375.00 | 377.68 | Above | Silty sand | 4/29/2011 | 0.042 J |
| DI-22-01 | F10 | 0' - 1' | Cadmium | 382.43 | 373.75 | 381.43 | Above | Silty sand, trace clay | 4/29/2011 | 0.73 |
| | | 1' - 2' | Cadmium | | 373.75 | 380.43 | Above | Sandy silt, silty sand | 4/29/2011 | 0.19 J |
| | | 2' - 3' | Cadmium | | 373.75 | 379.43 | Above | Sandy silt, silty sand | 4/29/2011 | 0.14 J |
| | | 3' - 4' | Cadmium | | 373.75 | 378.43 | Above | Sandy silt, silty sand | 4/29/2011 | 0.074 J |
| DI-23-01 | D11 | 0' - 1' | Cadmium | 378.00 | 371.82 | 377.00 | Above | Silty clay, clayey silt | 4/27/2011 | 6.2 B |
| | | 1' - 2' | Cadmium | | 371.82 | 376.00 | Above | Clayey silt, silty clay | 4/27/2011 | 0.65 B [0.61 B] |
| | | 2' - 3' | Cadmium | | 371.82 | 375.00 | Above | Silty clay, clay | 4/27/2011 | <0.21 U |
| | | 3' - 4' | Cadmium | | 371.82 | 374.00 | Above | Silty clay, clay | 4/27/2011 | 0.64 B |
| DI-23-02 | D11 | 0' - 1' | Cadmium | 378.27 | 371.82 | 377.27 | Above | Clayey silt, silty clay | 4/27/2011 | 0.30 |
| | | 1' - 2' | Cadmium | | 371.82 | 376.27 | Above | Clayey silt, sandy silt | 4/27/2011 | 0.086 J |
| | | 2' - 3' | Cadmium | | 371.82 | 375.27 | Above | Silt, sandy silt, clayey silt | 4/27/2011 | Held[11] |
| | | 3' - 4' | Cadmium | | 371.82 | 374.27 | Above | Sandy silt, silt, silty sand | 4/27/2011 | Held[11] |
| DI-24-01 | D11 | 0' - 1' | Cadmium | 378.54 | 371.68 | 377.54 | Above | Silty sand, trace clay | 4/26/2011 | 0.76 |
| | | 1' - 2' | Cadmium | | 371.68 | 376.54 | Above | Silt, little fine sand, trace clay | 4/26/2011 | 0.15 J |
| | | 2' - 3' | Cadmium | | 371.68 | 375.54 | Above | Clayey silt with some fine sand | 4/26/2011 | 0.17 J |
| | | 3' - 4' | Cadmium | | 371.68 | 374.54 | Above | Clayey silt with some fine sand | 4/26/2011 | 0.18 J |
| DI-25-01 | D12 | 0' - 1' | Cadmium | 379.06 | 371.55 | 378.06 | Above | Sandy silt, trace clay | 4/26/2011 | 0.30 |
| | | 1' - 2' | Cadmium | | 371.55 | 377.06 | Above | Sandy silt, trace clay | 4/26/2011 | 0.13 J [0.17 J] |
| | | 2' - 3' | Cadmium | | 371.55 | 376.06 | Above | Clayey silt, some fine sand | 4/26/2011 | 0.052 J |
| | | 3' - 4' | Cadmium | | 371.55 | 375.06 | Above | Clayey silt, some fine sand, decrease in fine sand | 4/26/2011 | 0.11 J |

**Table 1A**
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**Bloody Brook Voluntary Cleanup Program**
**Onondaga County, New York**

| Boring ID | Figure Coordinates | Sampling Interval | Analyte | Surface Elevation (ft) | Brook Elevation (ft) | Sample Elevation at Bottom of Interval (ft) | Sample Relation to Brook Level | General Lithology | Collection Date | Result (mg/kg) |
|---|---|---|---|---|---|---|---|---|---|---|
| DI-26-01 | D12 | 0' - 1' | Cadmium | 377.76 | 371.51 | 376.76 | Above | Clayey silt, silty clay | 4/28/2011 | 0.91 |
| | | 1' - 2' | Cadmium | | 371.51 | 375.76 | Above | Clayey silt, silt with plastic sheeting (fill) | 4/28/2011 | 0.30 |
| | | 2' - 3' | Cadmium | | 371.51 | 374.76 | Above | Sandy silt, silty clay, gravel (fill) | 4/28/2011 | 74.2 J [9.2 J] |
| | | 3' - 4' | Cadmium | | 371.51 | 373.76 | Above | Clayey silt, sandy silt, silt | 4/28/2011 | 129 |
| DI-26-02 | D12 | 0' - 1' | Cadmium | 378.47 | 371.51 | 377.47 | Above | Fine sand, little silt | 4/28/2011 | 0.66 |
| | | 1' - 2' | Cadmium | | 371.51 | 376.47 | Above | Silty sand | 4/28/2011 | 0.13 J |
| | | 2' - 3' | Cadmium | | 371.51 | 375.47 | Above | Silty sand | 4/28/2011 | 0.098 J |
| | | 3' - 4' | Cadmium | | 371.51 | 374.47 | Above | Sandy silt | 4/28/2011 | 0.13 J |
| DI-27-01 | D13 | 0' - 1' | Cadmium | 375.77 | 371.10 | 374.77 | Above | Clayey silt, sandy silt, silt | 4/28/2011 | 0.61 |
| | | 1' - 2' | Cadmium | | 371.10 | 373.77 | Above | Sandy silt, silty sand | 4/28/2011 | 0.074 J |
| | | 2' - 3' | Cadmium | | 371.10 | 372.77 | Above | Sandy silt, clayey silt | 4/28/2011 | 0.29 |
| | | 3' - 4' | Cadmium | | 371.10 | 371.77 | At | Sandy silt, clayey silt, silty clay | 4/28/2011 | 0.12 J |
| DI-28-01 | C13 | 0' - 1' | Cadmium | 378.30 | 371.17 | 377.30 | Above | Silty clay | 4/26/2011 | 0.16 J |
| | | 1' - 2' | Cadmium | | 371.17 | 376.30 | Above | Clay, silty clay | 4/26/2011 | 0.083 J |
| | | 2' - 3' | Cadmium | | 371.17 | 375.30 | Above | Clay, silty clay | 4/26/2011 | 0.039 J |
| | | 3' - 4' | Cadmium | | 371.17 | 374.30 | Above | Clay | 4/26/2011 | 0.043 J [<0.26] |
| DI-29-01 | C14 | 0' - 1' | Cadmium | 377.73 | 370.97 | 376.73 | Above | Silt, clayey silt | 4/26/2011 | 0.23 J |
| | | 1' - 2' | Cadmium | | 370.97 | 375.73 | Above | Silty clay, clay | 4/26/2011 | 0.18 J |
| | | 2' - 3' | Cadmium | | 370.97 | 374.73 | Above | Silty clay, clay | 4/26/2011 | 0.24 |
| | | 3' - 4' | Cadmium | | 370.97 | 373.73 | Above | Clay, silty clay, trace sandy silt | 4/26/2011 | 0.11 J |
| DI-30-01 | D14 | 0' - 1' | Cadmium | 376.03 | 370.79 | 375.03 | Above | Clayey silt, sandy silt, silty sand | 4/28/2011 | 1.0 |
| | | 1' - 2' | Cadmium | | 370.79 | 374.03 | Above | Sandy silt, silty sand | 4/28/2011 | 0.89 |
| | | 2' - 3' | Cadmium | | 370.79 | 373.03 | Above | Sandy silt, silty sand, clayey silt | 4/28/2011 | 0.32 |
| | | 3' - 4' | Cadmium | | 370.79 | 372.03 | Above | Sandy silt, silty sand, clayey silt | 4/28/2011 | 0.11 J [0.17 J] |
| DI-31-01 | C15 | 0' - 1' | Cadmium | 373.64 | 370.63 | 372.64 | Above | Clayey silt, silt | 4/28/2011 | 0.19 J |
| | | 1' - 2' | Cadmium | | 370.63 | 371.64 | Above | Clayey silt, silty clay | 4/28/2011 | 0.22 J |
| | | 2' - 3' | Cadmium | | 370.63 | 370.64 | At | Silty clay, clay | 4/28/2011 | 0.13 J |
| | | 3' - 4' | Cadmium | | 370.63 | 369.64 | Below | Silty clay, clay | 4/28/2011 | 0.15 J |
| DI-40-01 | C3 | 0' - 1' | Cadmium | 392.97 | 384.00 | 391.97 | Above | Fine sand, little silt, organics to 6" then fine sand, trace silt | 8/25/2011 | 1.3 |
| | | 1' - 2' | Cadmium | | 384.00 | 390.97 | Above | Fine sand, trace silt | 8/25/2011 | 0.15 J |
| | | 2' - 3' | Cadmium | | 384.00 | 389.97 | Above | Fine sand, trace silt | 8/25/2011 | 0.12 J [0.21] |
| | | 3' - 4' | Cadmium | | 384.00 | 388.97 | Above | Fine sand, trace silt | 8/25/2011 | 0.13 J |
| DI-41-01 | G5 | 0' - 1' | Cadmium | 382.64 | 381.76 | 381.64 | At | Clayey silt, silt, sandy silt | 5/2/2011 | 1.1 |
| | | 1' - 2' | Cadmium | | 381.76 | 380.64 | Below | Clayey silt, sandy silt, silt | 5/2/2011 | 0.19 J |
| | | 2' - 3' | Cadmium | | 381.76 | 379.64 | Below | Sandy silt, silt, clayey silt | 5/2/2011 | 0.19 J |
| | | 3' - 4' | Cadmium | | 381.76 | 378.64 | Below | Sandy silt, clayey silt, silty clay, gravel | 5/2/2011 | 0.65 |
| DI-42-01 | H9 | 0' - 1' | Cadmium | 387.05 | 376.73 | 386.05 | Above | Fine to medium sand, some silt | 8/24/2011 | 0.31 [0.47] |
| | | 1' - 2' | Cadmium | | 376.73 | 385.05 | Above | Fine to medium sand, some silt | 8/24/2011 | 0.20 J |
| | | 2' - 3' | Cadmium | | 376.73 | 384.05 | Above | Fine to medium sand, some silt | 8/24/2011 | 0.063 J |
| | | 3' - 4' | Cadmium | | 376.73 | 383.05 | Above | Fine to medium sand, some silt, trace clay | 8/24/2011 | 0.075 J |
| DI-43-01 | C16 | 0' - 1' | Cadmium | 375.75 | 370.42 | 374.75 | Above | Clayey silt, sandy silt | 4/28/2011 | 13.1 |
| | | 1' - 2' | Cadmium | | 370.42 | 373.75 | Above | Sandy silt, silt | 4/28/2011 | 0.29 J [0.74 J] |
| | | 2' - 3' | Cadmium | | 370.42 | 372.75 | Above | Silty clay | 4/28/2011 | 0.24 J |
| | | 3' - 4' | Cadmium | | 370.42 | 371.75 | Above | Silty clay | 4/28/2011 | 0.24 J |
| DI-43-02 | C16 | 0' - 1' | Cadmium | 376.96 | 370.41 | 375.96 | Above | Clayey silt, silty sand | 4/28/2011 | 0.35 |
| | | 1' - 2' | Cadmium | | 370.41 | 374.96 | Above | Silty clay | 4/28/2011 | 0.23 J |
| | | 2' - 3' | Cadmium | | 370.41 | 373.96 | Above | Silty clay, clayey silt | 4/28/2011 | Held[11] |
| | | 3' - 4' | Cadmium | | 370.41 | 372.96 | Above | Silty clay | 4/28/2011 | Held[11] |
| DI-44-01 | D15 | 0' - 1' | Cadmium | 376.35 | 370.53 | 375.35 | Above | Silt, fine sand with some silt at 3" | 4/28/2011 | 0.37 |
| | | 1' - 2' | Cadmium | | 370.53 | 374.35 | Above | Silty sand | 4/28/2011 | 0.50 |
| | | 2' - 3' | Cadmium | | 370.53 | 373.35 | Above | Sandy silt | 4/28/2011 | 0.19 J |
| | | 3' - 4' | Cadmium | | 370.53 | 372.35 | Above | Sandy silt | 4/28/2011 | 0.22 J |
| DI-51-01 | E8 | 0' - 1' | Cadmium | 381.02 | 376.00 | 380.02 | Above | Clayey silt, silt | 4/27/2011 | 3.8 B |
| | | 1' - 2' | Cadmium | | 376.00 | 379.02 | Above | Clayey silt | 4/27/2011 | <0.26 U |
| | | 2' - 3' | Cadmium | | 376.00 | 378.02 | Above | Clayey silt, sandy silt, silty clay | 4/27/2011 | <0.24 U |
| | | 3' - 4' | Cadmium | | 376.00 | 377.02 | Above | Sandy silt | 4/27/2011 | 2.0 B |
| DI-51-02 | E8 | 0' - 1' | Cadmium | 380.77 | 376.00 | 379.77 | Above | Clayey silt | 4/27/2011 | 0.53 |
| | | 1' - 2' | Cadmium | | 376.00 | 378.77 | Above | Clayey silt, silt | 4/27/2011 | 0.13 J |
| | | 2' - 3' | Cadmium | | 376.00 | 377.77 | Above | Sandy silt, silty sand, clayey silt | 4/27/2011 | Held[11] |
| | | 3' - 4' | Cadmium | | 376.00 | 376.77 | Above | Sandy silt, silty sand | 4/27/2011 | Held[11] |

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| Boring ID | Figure Coordinates | Sampling Interval | Analyte | Surface Elevation (ft) | Brook Elevation (ft) | Sample Elevation at Bottom of Interval (ft) | Sample Relation to Brook Level | General Lithology | Collection Date | Result (mg/kg) |
|---|---|---|---|---|---|---|---|---|---|---|
| DI-52-01 | H7 | 0' - 1' | Cadmium | 382.99 | 377.75 | 381.99 | Above | Fine sand, trace silt, wet | 8/25/2011 | 0.042 J |
| | | 1' - 2' | Cadmium | | 377.75 | 380.99 | Above | Fine sand, trace silt, wet | 8/25/2011 | 0.059 J |
| | | 2' - 3' | Cadmium | | 377.75 | 379.99 | Above | Gravelly sand | 8/25/2011 | 0.059 J |
| | | 3' - 4' | Cadmium | | 377.75 | 378.99 | Above | Gravelly sand | 8/25/2011 | 0.054 J |
| DI-53-01 | I7 | 0' - 1' | Cadmium | 381.59 | 377.49 | 380.59 | Above | Sandy silt, organics, trace clay | 4/29/2011 | 2.5 |
| | | 1' - 2' | Cadmium | | 377.49 | 379.59 | Above | Sandy silt, organics, trace clay | 4/29/2011 | 1.3 J [0.39 J] |
| | | 2' - 3' | Cadmium | | 377.49 | 378.59 | Above | Sandy silt, organics, trace clay | 4/29/2011 | 0.39 |
| | | 3' - 4' | Cadmium | | 377.49 | 377.59 | At | Sandy silt, organics, trace clay | 4/29/2011 | 0.13 J |
| DI-53-02 | I7 | 0' - 1' | Cadmium | 382.27 | 377.53 | 381.27 | Above | Clayey silt, sandy silt, silt, organics | 4/29/2011 | 0.83 |
| | | 1' - 2' | Cadmium | | 377.53 | 380.27 | Above | Sandy silt, silt, organics | 4/29/2011 | 2.1 |
| | | 2' - 3' | Cadmium | | 377.53 | 379.27 | Above | Silt, sandy silt | 4/29/2011 | Held[11] |
| | | 3' - 4' | Cadmium | | 377.53 | 378.27 | Above | Sandy silt, silt, clayey silt | 4/29/2011 | Held[11] |
| DI-54-01 | H9 | 0' - 1' | Cadmium | 389.95 | 385.14 | 388.95 | Above | Fine sand, trace silt & organics | 8/25/2011 | 0.18 J [0.15 J] |
| | | 1' - 2' | Cadmium | | 385.14 | 387.95 | Above | Fine sand, trace silt & organics | 8/25/2011 | 0.11 J |
| | | 2' - 3' | Cadmium | | 385.14 | 386.95 | Above | Fine sand, trace silt & organics | 8/25/2011 | 0.094 J |
| | | 3' - 4' | Cadmium | | 385.14 | 385.95 | Above | Fine sand, trace silt & organics | 8/25/2011 | 0.096 J |
| DI-60-01 | G6 | 0' - 1' | Cadmium | 383.00 | 380.02 | 382.00 | Above | Clayey silt, silt, roots | 5/2/2011 | <0.24 U |
| | | 1' - 2' | Cadmium | | 380.02 | 381.00 | Above | Clayey silt, sandy silt | 5/2/2011 | <0.24 U [<0.25 U] |
| | | 2' - 3' | Cadmium | | 380.02 | 380.00 | At | Sandy silt, fine to coarse gravel | 5/2/2011 | <0.30 U |
| | | 3' - 4' | Cadmium | | 380.02 | 379.00 | Below | Sandy silt, clay, silt, fine to coarse gravel | 5/2/2011 | <0.30 U |
| DI-61-01 | H7 | 0' - 1' | Cadmium | 382.96 | 379.18 | 381.96 | Above | Silty clay, clayey silt, roots | 5/2/2011 | 1.1 |
| | | 1' - 2' | Cadmium | | 379.18 | 380.96 | Above | Clayey silt, sandy silt, gravel, roots | 5/2/2011 | 0.20 J |
| | | 2' - 3' | Cadmium | | 379.18 | 379.96 | Above | Sandy silt, clayey silt, silty clay, gravel | 5/2/2011 | 0.099 J |
| | | 3' - 4' | Cadmium | | 379.18 | 378.96 | At | Sandy silt, clayey silt, silty clay, gravel | 5/2/2011 | <0.24 U |
| DI-SB-01-05 | D10 | 0' - 1' | Cadmium | 382.16 | 372.41 | 381.16 | Above | Silty sand, organics, trace gravel | 5/2/2011 | 4.0 |
| | | 1' - 2' | Cadmium | | 372.41 | 380.16 | Above | Silt, little clay, little fine sand | 5/2/2011 | 0.24 |
| | | 2' - 3' | Cadmium | | 372.41 | 379.16 | Above | Silt | 5/2/2011 | 0.23 |
| | | 3' - 4' | Cadmium | | 372.41 | 378.16 | Above | Sandy silt, fine sand with trace clay at 3'-10" | 5/2/2011 | <0.26 U |
| | | 4' - 5' | Cadmium | | 372.41 | 377.16 | Above | Silt with some fine sand, little clay | 5/2/2011 | 0.20 J |
| | | 5' - 6' | Cadmium | | 372.41 | 376.16 | Above | Silty sand | 5/2/2011 | 0.26 |
| | | 6' - 7' | Cadmium | | 372.41 | 375.16 | Above | Silty sand | 5/2/2011 | 0.14 J |
| | | 7' - 8' | Cadmium | | 372.41 | 374.16 | Above | Silty sand | 5/2/2011 | 0.16 J |
| | | 8' - 9' | Cadmium | | 372.41 | 373.16 | Above | Silt with little clay, organic silt at 8'-8" | 5/2/2011 | 0.19 J |
| | | 9' - 10' | Cadmium | | 372.41 | 372.16 | At | Organic silt | 5/2/2011 | 0.45 |
| DI-SB-03-05 | D14 | 0' - 1' | Cadmium | 380.60 | 370.90 | 379.60 | Above | Silty sand, organics | 5/2/2011 | 0.091 J |
| | | 1' - 2' | Cadmium | | 370.90 | 378.60 | Above | Silty sand | 5/2/2011 | <0.25 |
| | | 2' - 3' | Cadmium | | 370.90 | 377.60 | Above | Silty sand | 5/2/2011 | 0.058 J |
| | | 3' - 4' | Cadmium | | 370.90 | 376.60 | Above | Silty sand | 5/2/2011 | 0.069 J |
| | | 4' - 5' | Cadmium | | 370.90 | 375.60 | Above | Grades to Clayey silt, little fine sand | 5/2/2011 | 0.077 J [0.12 J] |
| | | 5' - 6' | Cadmium | | 370.90 | 374.60 | Above | Clayey silt | 5/2/2011 | 0.065 J |
| | | 6' - 7' | Cadmium | | 370.90 | 373.60 | Above | Clayey silt | 5/2/2011 | 0.12 J |
| | | 7' - 8' | Cadmium | | 370.90 | 372.60 | Above | Clayey silt, organics | 5/2/2011 | 0.13 J |
| | | 8' - 9' | Cadmium | | 370.90 | 371.60 | Above | Silty clay | 5/2/2011 | 0.25 |
| | | 9' - 10' | Cadmium | | 370.90 | 370.60 | At | Silty clay | 5/2/2011 | <0.26 |
| OCDDS-4 | D11 | 0" - 6" | Cadmium | --- | --- | --- | --- | --- | 10/1996 | 3.8 |
| | | 0" - 6" | PCBs | | --- | --- | --- | --- | 10/1996 | 0.042 |
| OCDDS-5 | C15 | 0" - 6" | Cadmium | --- | --- | --- | --- | --- | 10/1996 | 26.4 |
| | | 0" - 6" | PCBs | | --- | --- | --- | --- | 10/1996 | 0.193 |
| OCDDS-6 | D14 | 0" - 6" | Cadmium | --- | --- | --- | --- | --- | 10/1996 | 0.14 |
| | | 0" - 6" | PCBs | | --- | --- | --- | --- | 10/1996 | <0.025 |
| OCDDS-7 | E9 | 0" - 6" | Cadmium | --- | --- | --- | --- | --- | 10/1996 | 80.5 |
| | | 0" - 6" | PCBs | | --- | --- | --- | --- | 10/1996 | 0.801 |
| OCDDS-10 | E7 | 0" - 6" | Cadmium | --- | --- | --- | --- | --- | 10/1996 | 0.4 |
| | | 0" - 6" | PCBs | | --- | --- | --- | --- | 10/1996 | <0.025 |
| Pre-SS-P1 | F7 | --- | Cadmium | --- | --- | --- | --- | --- | 4/17/1997 | 1.3 |
| | | --- | PCBs | | --- | --- | --- | --- | 4/17/1997 | <0.026 |
| Post-SS-P1 | F7 | --- | Cadmium | --- | --- | --- | --- | --- | 5/15/1997 | 0.14 |
| | | --- | PCBs | | --- | --- | --- | --- | 5/15/1997 | <0.026 |

**Table 1A**
**Summary of Soil Lithology and Analytical Data for Borings Located on Figure 3A**
**Design Soil Investigation Summary Report**
**West Branch of Bloody Brook**
**Bloody Brook Voluntary Cleanup Program**
**Onondaga County, New York**

| Boring ID | Figure Coordinates | Sampling Interval | Analyte | Surface Elevation (ft) | Brook Elevation (ft) | Sample Elevation at Bottom of Interval (ft) | Sample Relation to Brook Level | General Lithology | Collection Date | Result (mg/kg) |
|---|---|---|---|---|---|---|---|---|---|---|
| SA-SB-01-01 | D10 | 0" - 2" | Cadmium | 377.74 | 372.41 | 377.57 | Above | Sand | 10/20/2003 | 6.3 |
| | | 0' - 1' | Cadmium | | 372.41 | 376.74 | Above | Sand/Wood | 10/20/2003 | 15.8 |
| | | 1' - 2' | Cadmium | | 372.41 | 375.74 | Above | Clayey Sand | 10/20/2003 | 3.4 |
| | | 2' - 3' | Cadmium | | 372.41 | 374.74 | Above | Clayey Sand | 10/20/2003 | <0.59 |
| | | 3' - 4' | Cadmium | | 372.41 | 373.74 | Above | Clayey Sand | 10/20/2003 | <0.58 |
| | | 4' - 5' | Cadmium | | 372.41 | 372.74 | At | Organic Silt/Sand | 10/20/2003 | 442 |
| | | 5' - 6' | Cadmium | | 372.41 | 371.74 | Below | Organic Silt/Sand to Clayey Sand | 10/20/2003 | 0.86 |
| | | 6' - 7' | Cadmium | | 372.41 | 370.74 | Below | Clayey Sand | 10/20/2003 | 4.3 |
| SA-SB-01-02 | D10 | 0" - 2" | Cadmium | 378.76 | 372.41 | 378.59 | Above | Sand | 10/20/2003 | 5.09 |
| | | 0' - 1' | Cadmium | | 372.41 | 377.76 | Above | Sand | 10/20/2003 | 1.87 |
| | | 1' - 2' | Cadmium | | 372.41 | 376.76 | Above | Sand | 10/20/2003 | <0.593 |
| | | 2' - 3' | Cadmium | | 372.41 | 375.76 | Above | Sand | 10/20/2003 | <0.581 |
| | | 3' - 4' | Cadmium | | 372.41 | 374.76 | Above | Sand | 10/20/2003 | <0.574 |
| | | 4' - 5' | Cadmium | | 372.41 | 373.76 | Above | Sand | 10/20/2003 | <0.583 |
| | | 5' - 6' | Cadmium | | 372.41 | 372.76 | At | Sand to Organic Silt/Sand | 10/20/2003 | 431 |
| | | 6' - 7' | Cadmium | | 372.41 | 371.76 | Below | Organic Silt/Sand | 10/20/2003 | 46.1 |
| | | 7' - 8' | Cadmium | | 372.41 | 370.76 | Below | Clayey Sand | 10/20/2003 | <0.670 |
| SA-SB-01-03 | D10 | 0" - 2" | Cadmium | 379.72 | 372.41 | 379.55 | Above | Topsoil | 10/20/2003 | 3.36 |
| | | 0' - 1' | Cadmium | | 372.41 | 378.72 | Above | Topsoil | 10/20/2003 | 2.64 |
| | | 1' - 2' | Cadmium | | 372.41 | 377.72 | Above | Silty Sand | 10/20/2003 | 6.48 [3.86] |
| | | 2' - 3' | Cadmium | | 372.41 | 376.72 | Above | Silty Sand | 10/20/2003 | <0.611 |
| | | 3' - 4' | Cadmium | | 372.41 | 375.72 | Above | Silty Sand | 10/20/2003 | <0.58 |
| | | 4' - 5' | Cadmium | | 372.41 | 374.72 | Above | Silty Sand | 10/20/2003 | <0.592 |
| | | 5' - 6' | Cadmium | | 372.41 | 373.72 | Above | Silty Sand | 10/20/2003 | <0.60 |
| | | 6' - 7' | Cadmium | | 372.41 | 372.72 | At | Organic Silt/Sand | 10/20/2003 | 401 |
| | | 7' - 8' | Cadmium | | 372.41 | 371.72 | Below | Organic Silt/Sand to Silty Clay | 10/20/2003 | 52.1 |
| | | 8' - 9' | Cadmium | | 372.41 | 370.72 | Below | Silty Clay | 10/20/2003 | <0.668 |
| SA-SB-01-04 | D10 | 0" - 2" | Cadmium | 381.29 | 372.41 | 381.12 | Above | Sand | 10/20/2003 | 2.36 |
| | | 0' - 1' | Cadmium | | 372.41 | 380.29 | Above | Sand | 10/20/2003 | 1.36 |
| | | 1' - 2' | Cadmium | | 372.41 | 379.29 | Above | Silty Sand | 10/20/2003 | <0.597 |
| | | 2' - 3' | Cadmium | | 372.41 | 378.29 | Above | Silty Sand to Silty Clay | 10/20/2003 | <0.623 |
| | | 3' - 4' | Cadmium | | 372.41 | 377.29 | Above | Silty Clay | 10/20/2003 | <0.590 [<0.593] |
| | | 4' - 5' | Cadmium | | 372.41 | 376.29 | Above | Silty Sand | 10/20/2003 | <0.589 |
| | | 5' - 6' | Cadmium | | 372.41 | 375.29 | Above | Silty Sand | 10/20/2003 | <0.597 |
| | | 6' - 7' | Cadmium | | 372.41 | 374.29 | Above | Silty Sand | 10/20/2003 | <0.608 |
| | | 7' - 8' | Cadmium | | 372.41 | 373.29 | Above | Silty Sand | 10/20/2003 | <0.608 |
| | | 8' - 9' | Cadmium | | 372.41 | 372.29 | At | Silty Sand to Organic Silt/Sand | 10/20/2003 | 79.1 |
| | | 9' - 10' | Cadmium | | 372.41 | 371.29 | Below | Organic Silt/Sand to Clay | 10/20/2003 | 0.85 |
| SA-SB-02-01 | E11 | 0" - 2" | Cadmium | 378.60 | 371.90 | 378.43 | Above | Topsoil | 10/24/2003 | 4.4 |
| | | 0' - 1' | Cadmium | | 371.90 | 377.60 | Above | Silty Sand | 10/24/2003 | 1.4 |
| | | 1' - 2' | Cadmium | | 371.90 | 376.60 | Above | Silty Sand | 10/24/2003 | <0.55 [1.4] |
| | | 2' - 3' | Cadmium | | 371.90 | 375.60 | Above | Silty Sand | 10/24/2003 | <0.55 |
| | | 3' - 4' | Cadmium | | 371.90 | 374.60 | Above | Silty Sand | 10/24/2003 | <0.54 |
| | | 4' - 5' | Cadmium | | 371.90 | 373.60 | Above | Silty Sand | 10/24/2003 | 1.6 |
| | | 5' - 6' | Cadmium | | 371.90 | 372.60 | Above | Organic Silt/Sand | 10/24/2003 | 322 |
| | | 6' - 7' | Cadmium | | 371.90 | 371.60 | At | Organic Silt/Sand | 10/24/2003 | <0.7 |
| | | 7' - 8' | Cadmium | | 371.90 | 370.60 | Below | Sandy Clay | 10/24/2003 | <0.59 |
| | | 8' - 9' | Cadmium | | 371.90 | 369.60 | Below | Sand to Silty Clay | 10/24/2003 | <0.61 |
| | | 9' - 10' | Cadmium | | 371.90 | 368.60 | Below | Silty Clay to Organic Silt/Sand | 10/24/2003 | <0.65 |
| | | 10' - 11' | Cadmium | | 371.90 | 367.60 | Below | Organic Silt/Sand/ Gravel | 10/24/2003 | <0.68 |
| | | 11' - 12' | Cadmium | | 371.90 | 366.60 | Below | Silty Clay | 10/24/2003 | <0.57 |
| SA-SB-02-02 | E11 | 0" - 2" | Cadmium | 380.20 | 371.90 | 380.03 | Above | Topsoil | 10/21/2003 | 1.02 |
| | | 0' - 1' | Cadmium | | 371.90 | 379.20 | Above | Silty Sand | 10/21/2003 | 0.761 |
| | | 1' - 2' | Cadmium | | 371.90 | 378.20 | Above | Silty Sand | 10/21/2003 | <0.552 |
| | | 2' - 3' | Cadmium | | 371.90 | 377.20 | Above | Silty Sand | 10/21/2003 | <0.577 |
| | | 3' - 4' | Cadmium | | 371.90 | 376.20 | Above | Silty Sand | 10/21/2003 | <0.559 |
| | | 4' - 5' | Cadmium | | 371.90 | 375.20 | Above | Silty Sand | 10/21/2003 | <0.577 |
| | | 5' - 6' | Cadmium | | 371.90 | 374.20 | Above | Silty Sand | 10/21/2003 | <0.611 |
| | | 6' - 7' | Cadmium | | 371.90 | 373.20 | Above | Silty Sand to Organic Silt/Sand | 10/21/2003 | 282 |
| | | 7' - 8' | Cadmium | | 371.90 | 372.20 | At | Organic Silt/Sand | 10/21/2003 | 144 |
| | | 8' - 9' | Cadmium | | 371.90 | 371.20 | Below | Organic Silt/Sand | 10/21/2003 | 121 |
| | | 9' - 10' | Cadmium | | 371.90 | 370.20 | Below | Organic Silt/Sand to Silty Clay | 10/21/2003 | 6.6 |
| | | 10' - 11' | Cadmium | | 371.90 | 369.20 | Below | Silty Clay | 10/21/2003 | <0.62 |
| | | 11' - 12' | Cadmium | | 371.90 | 368.20 | Below | Silty Clay | 10/21/2003 | <0.632 |

**Table 1A**
**Summary of Soil Lithology and Analytical Data for Borings Located on Figure 3A**
**Design Soil Investigation Summary Report**
**West Branch of Bloody Brook**
**Bloody Brook Voluntary Cleanup Program**
**Onondaga County, New York**

| Boring ID | Figure Coordinates | Sampling Interval | Analyte | Surface Elevation (ft) | Brook Elevation (ft) | Sample Elevation at Bottom of Interval (ft) | Sample Relation to Brook Level | General Lithology | Collection Date | Result (mg/kg) |
|---|---|---|---|---|---|---|---|---|---|---|
| SA-SB-02-03 | E11 | 0" - 2" | Cadmium | 381.79 | 371.90 | 381.62 | Above | Topsoil | 10/21/2003 | <0.652 |
| | | 0' - 1' | Cadmium | | 371.90 | 380.79 | Above | Silty Sand | 10/21/2003 | <0.621 |
| | | 1' - 2' | Cadmium | | 371.90 | 379.79 | Above | Silty Sand | 10/21/2003 | <0.568 |
| | | 2' - 3' | Cadmium | | 371.90 | 378.79 | Above | Silty Sand | 10/21/2003 | <0.571 |
| | | 3' - 4' | Cadmium | | 371.90 | 377.79 | Above | Silty Sand | 10/21/2003 | <0.578 |
| | | 4' - 5' | Cadmium | | 371.90 | 376.79 | Above | Silty Sand | 10/21/2003 | <0.568 |
| | | 5' - 6' | Cadmium | | 371.90 | 375.79 | Above | Silty Sand | 10/21/2003 | <0.590 |
| | | 6' - 7' | Cadmium | | 371.90 | 374.79 | Above | Silty Sand | 10/21/2003 | <0.585 |
| | | 7' - 8' | Cadmium | | 371.90 | 373.79 | Above | Organic Silt/Sand | 10/21/2003 | 0.682 |
| | | 8' - 9' | Cadmium | | 371.90 | 372.79 | Above | Silty Sand | 10/21/2003 | 39.2 |
| | | 9' - 10' | Cadmium | | 371.90 | 371.79 | At | Organic Silt/Sand | 10/21/2003 | <0.678 |
| | | 10' - 11' | Cadmium | | 371.90 | 370.79 | Below | Organic Silt/Sand to Clayey Silt | 10/21/2003 | 13.6 |
| | | 11' - 12' | Cadmium | | 371.90 | 369.79 | Below | Clayey Silt to Silty Clay | 10/21/2003 | <0.668 |
| | | 12' - 13' | Cadmium | | 371.90 | 368.79 | Below | Silty Clay | 10/21/2003 | <0.613 |
| SA-SB-02-04 | E11 | 0" - 2" | Cadmium | 385.39 | 371.90 | 385.22 | Above | Topsoil | 10/21/2003 | <0.698 |
| | | 0' - 1' | Cadmium | | 371.90 | 384.39 | Above | Silty Sand | 10/21/2003 | <0.659 |
| | | 1' - 2' | Cadmium | | 371.90 | 383.39 | Above | Silty Sand | 10/21/2003 | <0.602 |
| | | 2' - 3' | Cadmium | | 371.90 | 382.39 | Above | Silty Sand to Sand | 10/21/2003 | <0.588 |
| | | 3' - 4' | Cadmium | | 371.90 | 381.39 | Above | Sand | 10/21/2003 | <0.550 |
| | | 4' - 5' | Cadmium | | 371.90 | 380.39 | Above | Sand | 10/21/2003 | <0.590 |
| | | 5' - 6' | Cadmium | | 371.90 | 379.39 | Above | Sand | 10/21/2003 | <0.564 |
| | | 6' - 7' | Cadmium | | 371.90 | 378.39 | Above | Sand | 10/21/2003 | <0.566 |
| | | 7' - 8' | Cadmium | | 371.90 | 377.39 | Above | Sand | 10/21/2003 | <0.578 |
| | | 8' - 9' | Cadmium | | 371.90 | 376.39 | Above | Sand | 10/21/2003 | <0.584 |
| | | 9' - 10' | Cadmium | | 371.90 | 375.39 | Above | Organic Silt/Sand | 10/21/2003 | <0.610 |
| | | 10' - 11' | Cadmium | | 371.90 | 374.39 | Above | Silt/Sand | 10/21/2003 | <0.621 |
| | | 11' - 12' | Cadmium | | 371.90 | 373.39 | Above | Silt/Sand | 10/21/2003 | <0.629 [<0.620] |
| | | 12' - 13' | Cadmium | | 371.90 | 372.39 | At | Silt/Sand | 10/21/2003 | <0.636 |
| | | 13' - 14' | Cadmium | | 371.90 | 371.39 | Below | Silt/Sand to Organic Silt/Sand | 10/21/2003 | 98.4 |
| SA-SB-03-01 | D14 | 0" - 2" | Cadmium | 375.50 | 370.88 | 375.33 | Above | Topsoil | 10/21/2003 | 23.8 |
| | | 0' - 1' | Cadmium | | 370.88 | 374.50 | Above | Silty Sand | 10/21/2003 | 31.8 |
| | | 1' - 2' | Cadmium | | 370.88 | 373.50 | Above | Silty Sand | 10/21/2003 | 28.2 |
| | | 2' - 3' | Cadmium | | 370.88 | 372.50 | Above | Silty Sand | 10/21/2003 | 2.8 |
| | | 3' - 4' | Cadmium | | 370.88 | 371.50 | Above | Silty Sand to Organic Silt/Sand | 10/21/2003 | 153 |
| | | 4' - 5' | Cadmium | | 370.88 | 370.50 | At | Organic Silt/Sand | 10/21/2003 | 372 |
| | | 5' - 6' | Cadmium | | 370.88 | 369.50 | Below | Clayey Sand to Sand | 10/21/2003 | 1.8 |
| SA-SB-03-02 | D14 | 0" - 2" | Cadmium | 376.72 | 370.89 | 376.55 | Above | Silty Sand | 10/21/2003 | 4.22 |
| | | 0' - 1' | Cadmium | | 370.89 | 375.72 | Above | Silty Sand | 10/21/2003 | 4.15 |
| | | 1' - 2' | Cadmium | | 370.89 | 374.72 | Above | Silty Sand | 10/21/2003 | <0.566 |
| | | 2' - 3' | Cadmium | | 370.89 | 373.72 | Above | Silty Sand | 10/21/2003 | <0.605 |
| | | 3' - 4' | Cadmium | | 370.89 | 371.72 | Above | Silty Sand | 10/21/2003 | <0.608 |
| | | 4' - 5' | Cadmium | | 370.89 | 370.72 | At | Organic Silt/Sand | 10/21/2003 | 142 |
| | | 5' - 6' | Cadmium | | 370.89 | 369.72 | Below | Organic Silt/Sand | 10/21/2003 | 36.6 |
| | | 6' - 7' | Cadmium | | 370.89 | 368.72 | Below | Organic Silt/Sand | 10/21/2003 | 3.58 |
| | | 7' - 8' | Cadmium | | 370.89 | 367.72 | Below | Organic Silt/Sand | 10/21/2003 | <0.726 |
| SA-SB-03-03 | D14 | 0" - 2" | Cadmium | 378.06 | 370.90 | 377.89 | Above | Topsoil | 10/21/2003 | <0.713 |
| | | 0' - 1' | Cadmium | | 370.90 | 377.06 | Above | Silty Sand | 10/21/2003 | <0.638 |
| | | 1' - 2' | Cadmium | | 370.90 | 376.06 | Above | Silty Sand | 10/21/2003 | <0.583 [<0.582] |
| | | 2' - 3' | Cadmium | | 370.90 | 375.06 | Above | Silty Sand | 10/21/2003 | <0.604 |
| | | 3' - 4' | Cadmium | | 370.90 | 374.06 | Above | Silty Sand | 10/21/2003 | <0.633 |
| | | 4' - 5' | Cadmium | | 370.90 | 373.06 | Above | Silty Sand | 10/21/2003 | <0.661 |
| | | 5' - 6' | Cadmium | | 370.90 | 372.06 | Above | Silty Sand to Organic Silt/Sand | 10/21/2003 | 34.8 |
| | | 6' - 7' | Cadmium | | 370.90 | 371.06 | At | Organic Silt/Sand | 10/21/2003 | 14.1 |
| | | 7' - 8' | Cadmium | | 370.90 | 370.06 | Below | Organic Silt/Sand to Organic Silty Clay | 10/21/2003 | <0.707 |
| | | 8' - 9' | Cadmium | | 370.90 | 369.06 | Below | Organic Silty Clay | 10/21/2003 | <0.677 |

**Table 1A**
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**Bloody Brook Voluntary Cleanup Program**
**Onondaga County, New York**

| Boring ID | Figure Coordinates | Sampling Interval | Analyte | Surface Elevation (ft) | Brook Elevation (ft) | Sample Elevation at Bottom of Interval (ft) | Sample Relation to Brook Level | General Lithology | Collection Date | Result (mg/kg) |
|---|---|---|---|---|---|---|---|---|---|---|
| SA-SB-03-04 | D14 | 0" - 2" | Cadmium | 379.39 | 370.90 | 379.22 | Above | Topsoil | 10/21/2003 | <0.717 |
| | | 0' - 1' | Cadmium | | 370.90 | 378.39 | Above | Silty Sand | 10/21/2003 | <0.629 |
| | | 1' - 2' | Cadmium | | 370.90 | 377.39 | Above | Silty Sand | 10/21/2003 | <0.600 |
| | | 2' - 3' | Cadmium | | 370.90 | 376.39 | Above | Silty Sand | 10/21/2003 | <0.590 [<0.590] |
| | | 3' - 4' | Cadmium | | 370.90 | 375.39 | Above | Silty Sand | 10/21/2003 | <0.578 |
| | | 4' - 5' | Cadmium | | 370.90 | 374.39 | Above | Silty Sand | 10/21/2003 | <0.605 |
| | | 5' - 6' | Cadmium | | 370.90 | 373.39 | Above | Silty Sand | 10/21/2003 | <0.610 |
| | | 6' - 7' | Cadmium | | 370.90 | 372.39 | Above | Silty Sand | 10/21/2003 | <0.622 |
| | | 7' - 8' | Cadmium | | 370.90 | 371.39 | At | Silty Sand to Organic Sandy Silt | 10/21/2003 | 19.0 |
| | | 8' - 9' | Cadmium | | 370.90 | 370.39 | Below | Organic Sandy Silt to Silty Clay | 10/21/2003 | <0.749 |
| | | 9' - 10' | Cadmium | | 370.90 | 369.39 | Below | Silty Sand | 10/21/2003 | 1.61 |
| SA-SB-04-01 | C15 | 0" - 2" | Cadmium | 379.69 | 370.68 | 379.52 | Above | Topsoil | 10/20/2003 | <0.654 |
| | | 0' - 1' | Cadmium | | 370.68 | 378.69 | Above | Silty Sand | 10/20/2003 | <0.613 |
| | | 1' - 2' | Cadmium | | 370.68 | 377.69 | Above | Silty Sand | 10/20/2003 | <0.589 |
| | | 2' - 3' | Cadmium | | 370.68 | 376.69 | Above | Silty Sand | 10/20/2003 | <0.566 |
| | | 3' - 4' | Cadmium | | 370.68 | 375.69 | Above | Silty Sand | 10/20/2003 | <0.572 |
| | | 4' - 5' | Cadmium | | 370.68 | 374.69 | Above | Clay/Silt | 10/20/2003 | <0.573 |
| | | 5' - 6' | Cadmium | | 370.68 | 373.69 | Above | Clay/Silt | 10/20/2003 | <0.610 |
| | | 6' - 7' | Cadmium | | 370.68 | 372.69 | Above | Clay/Silt | 10/20/2003 | <0.583 |
| | | 7' - 8' | Cadmium | | 370.68 | 371.69 | Above | Clay/Silt | 10/20/2003 | <0.629 |
| | | 8' - 9' | Cadmium | | 370.68 | 370.69 | At | Clay/Silt | 10/20/2003 | 7.84 |
| | | 9' - 10' | Cadmium | | 370.68 | 369.69 | Below | Organic Silt/Sand | 10/20/2003 | <0.671 |
| | | 10' - 11' | Cadmium | | 370.68 | 368.69 | Below | Clay | 10/20/2003 | 3.73 |
| SA-SB-04-02 | C15 | 0" - 2" | Cadmium | 377.96 | 370.69 | 377.79 | Above | Topsoil | 10/20/2003 | <0.677 |
| | | 0' - 1' | Cadmium | | 370.69 | 376.96 | Above | Silty Sand | 10/20/2003 | <0.597 |
| | | 1' - 2' | Cadmium | | 370.69 | 375.96 | Above | Silty Sand | 10/20/2003 | <0.602 |
| | | 2' - 3' | Cadmium | | 370.69 | 374.96 | Above | Silty Sand | 10/20/2003 | <0.586 |
| | | 3' - 4' | Cadmium | | 370.69 | 737.96 | Above | Silty Sand | 10/20/2003 | <0.602 |
| | | 4' - 5' | Cadmium | | 370.69 | 372.96 | Above | Silty Sand to Sand | 10/20/2003 | <0.573 |
| | | 5' - 6' | Cadmium | | 370.69 | 371.96 | Above | Sand to Silty Sand | 10/20/2003 | <0.613 [<0.595] |
| | | 6' - 7' | Cadmium | | 370.69 | 370.96 | At | Silty Clay to Organic Clayey Silt | 10/20/2003 | 139 |
| | | 7' - 8' | Cadmium | | 370.69 | 369.96 | Below | Organic Silt/Sand | 10/20/2003 | 1.73 |
| | | 8' - 9' | Cadmium | | 370.69 | 368.96 | Below | Organic Silt/Sand | 10/20/2003 | 11.9 |
| SA-SB-04-03 | C15 | 0" - 2" | Cadmium | 377.06 | 370.70 | 376.89 | Above | Topsoil | 10/20/2003 | 2.7 |
| | | 0' - 1' | Cadmium | | 370.70 | 376.06 | Above | Silty Sand | 10/20/2003 | 2.17 |
| | | 1' - 2' | Cadmium | | 370.70 | 375.06 | Above | Silty Sand | 10/20/2003 | <0.588 |
| | | 2' - 3' | Cadmium | | 370.70 | 374.06 | Above | Silty Sand | 10/20/2003 | <0.561 |
| | | 3' - 4' | Cadmium | | 370.70 | 373.06 | Above | Silty Sand | 10/20/2003 | <0.617 |
| | | 4' - 5' | Cadmium | | 370.70 | 372.06 | Above | Silty Sand | 10/20/2003 | <0.603 |
| | | 5' - 6' | Cadmium | | 370.70 | 371.06 | At | Silty Sand | 10/20/2003 | <0.635 |
| | | 6' - 7' | Cadmium | | 370.70 | 370.06 | Below | Silty Sand to Organic Silt/Sand | 10/20/2003 | 1,920 |
| | | 7' - 8' | Cadmium | | 370.70 | 369.06 | Below | Organic Silt/Sand | 10/20/2003 | 199 |
| SA-SB-04-04 | C15 | 0" - 2" | Cadmium | 376.90 | 370.71 | 376.73 | Above | Topsoil | 10/20/2003 | 7.4 |
| | | 0' - 1' | Cadmium | | 370.71 | 375.90 | Above | Silty Sand | 10/20/2003 | 5.3 |
| | | 1' - 2' | Cadmium | | 370.71 | 374.90 | Above | Sandy Silt | 10/20/2003 | <0.62 |
| | | 2' - 3' | Cadmium | | 370.71 | 373.90 | Above | Sandy Silt | 10/20/2003 | <0.56 |
| | | 3' - 4' | Cadmium | | 370.71 | 372.90 | Above | Silty Sand | 10/20/2003 | <0.59 |
| | | 4' - 5' | Cadmium | | 370.71 | 371.90 | Above | Silty Sand | 10/20/2003 | <0.58 |
| | | 5' - 6' | Cadmium | | 370.71 | 370.90 | At | Silty Sand to Organic Silt/Sand | 10/20/2003 | 84.7 |
| | | 6' - 7' | Cadmium | | 370.71 | 369.90 | Below | Organic Silt/Sand | 10/20/2003 | 112 |
| | | 7' - 8' | Cadmium | | 370.71 | 368.90 | Below | Silty Sand | 10/20/2003 | 456 |
| SB-19 | E9 | 0" - 2" | Cadmium | --- | --- | --- | --- | --- | 06/2002 | 34.7 |
| SB-20 | E8 | 0" - 2" | Cadmium | --- | --- | --- | --- | --- | 06/2002 | 10.9 |
| SB-21 | E10 | 0" - 2" | Cadmium | --- | --- | --- | --- | --- | 06/2002 | 82.3 |
| SB-22 | E9 | 0" - 2" | Cadmium | --- | --- | --- | --- | --- | 06/2002 | 12.2 |
| | | 0' - 1' | Cadmium | | --- | --- | --- | --- | 06/2002 | 0.68 |
| SB-23 | D12 | 0" - 2" | Cadmium | --- | --- | --- | --- | --- | 06/2002 | 27.1 |
| SB-24 | D11 | 0" - 2" | Cadmium | --- | --- | --- | --- | --- | 06/2002 | 15.8 |
| SB-25 | D13 | 0" - 2" | Cadmium | --- | --- | --- | --- | --- | 06/2002 | 3.76 |
| SB-26 | D13 | 0" - 2" | Cadmium | --- | --- | | --- | | 06/2002 | 8.34 |
| SB-27 | D15 | 0" - 2" | Cadmium | --- | --- | --- | --- | --- | 06/2002 | 11.9 |
| SB-28 | C14 | 0" - 2" | Cadmium | --- | --- | --- | --- | --- | 06/2002 | 10.9 |

**Table 1A**
**Summary of Soil Lithology and Analytical Data for Borings Located on Figure 3A**
**Design Soil Investigation Summary Report**
**West Branch of Bloody Brook**
**Bloody Brook Voluntary Cleanup Program**
**Onondaga County, New York**

| Boring ID | Figure Coordinates | Sampling Interval | Analyte | Surface Elevation (ft) | Brook Elevation (ft) | Sample Elevation at Bottom of Interval (ft) | Sample Relation to Brook Level | General Lithology | Collection Date | Result (mg/kg) |
|---|---|---|---|---|---|---|---|---|---|---|
| SB-51 | E4 | 0' - 1' | Cadmium | --- | --- | --- | --- | Topsoil | 11/2002 | 266 |
| | | 1' - 2' | Cadmium | | --- | --- | --- | Sandy Silt | 11/2002 | 146 |
| | | 2' - 3' | Cadmium | | --- | --- | --- | Sandy Silt | 11/2002 | 4.9 |
| | | 3' - 4' | Cadmium | | --- | --- | --- | Sandy Silt | 11/2002 | 7.2 |
| SB-52 | G7 | 0' - 1' | Cadmium | --- | --- | --- | --- | Topsoil | 11/2002 | 14.9 |
| | | 1' - 2' | Cadmium | | --- | --- | --- | Clayey Silt | 11/2002 | 22.1 |
| | | 2' - 3' | Cadmium | | --- | --- | --- | Clayey Silt | 11/2002 | 1.8 |
| | | 3' - 4' | Cadmium | | --- | --- | --- | Clayey Silt | 11/2002 | <0.67 |
| SB-53 | F8 | 0' - 1' | Cadmium | --- | --- | --- | --- | Topsoil | 11/2002 | <0.61 |
| | | 1' - 2' | Cadmium | | --- | --- | --- | Sandy Silt | 11/2002 | <0.58 |
| | | 2' - 3' | Cadmium | | --- | --- | --- | Sandy Silt | 11/2002 | <0.56 |
| | | 3' - 4' | Cadmium | | --- | --- | --- | Sandy Silt | 11/2002 | <0.55 |
| SB-54 | G9 | 0' - 1' | Cadmium | --- | --- | --- | --- | Topsoil | 11/2002 | 1.7 |
| | | 1' - 2' | Cadmium | | --- | --- | --- | Sandy Silt | 11/2002 | <0.58 |
| | | 2' - 3' | Cadmium | | --- | --- | --- | Sandy Silt/Peat | 11/2002 | 438 |
| | | 3' - 4' | Cadmium | | --- | --- | --- | Peat | 11/2002 | 1,800 |
| SB-55 | G9 | 0' - 1' | Cadmium | --- | --- | --- | --- | Sandy Silt | 11/2002 | 47.7 |
| | | 1' - 2' | Cadmium | | --- | --- | --- | Sandy Silt | 11/2002 | 27.0 |
| | | 2' - 3' | Cadmium | | --- | --- | --- | Clayey Silt | 11/2002 | 35.8 |
| | | 3' - 4' | Cadmium | | --- | --- | --- | Peat | 11/2002 | 440 |
| SB-56 | E9 | 0" - 2" | Cadmium | --- | --- | --- | --- | --- | 11/2002 | 64.6 |
| SB-57 | E10 | 0' - 1' | Cadmium | --- | --- | --- | --- | Top Soil | 11/2002 | 195 |
| | | 1' - 2' | Cadmium | | --- | --- | --- | Sandy Silt | 11/2002 | 98.9 |
| | | 2' - 3' | Cadmium | | --- | --- | --- | Sandy Silt/Peat | 11/2002 | 219 |
| | | 3' - 4' | Cadmium | | --- | --- | --- | Peat | 11/2002 | 420 |
| SB-58 | E10 | 0" - 2" | Cadmium | --- | --- | --- | --- | --- | 11/2002 | 197 |
| SB-59 | E10 | 0' - 1' | Cadmium | --- | --- | --- | --- | Sandy Silt | 11/2002 | 42.5 |
| | | 1' - 2' | Cadmium | | --- | --- | --- | Sandy Silt | 11/2002 | 310 |
| | | 2' - 3' | Cadmium | | --- | --- | --- | Sandy Silt | 11/2002 | 84.5 |
| | | 3' - 4' | Cadmium | | --- | --- | --- | Sandy Silt | 11/2002 | 636 |
| SB-60 | C15 | 0' - 1' | Cadmium | --- | --- | --- | --- | Silty Sand | 11/2002 | 7.8 |
| | | 1' - 2' | Cadmium | | --- | --- | --- | Clayey Silt | 11/2002 | 10.9 |
| | | 2' - 3' | Cadmium | | --- | --- | --- | Clayey Silt | 11/2002 | 4.5 |
| | | 3' - 4' | Cadmium | | --- | --- | --- | Clayey Silt/Peat | 11/2002 | 139 |
| SB-201 | E8 | 0" - 2" | Cadmium | --- | --- | --- | --- | --- | 11/2002 | 0.61 |
| | | 0' - 1' | Cadmium | | --- | --- | --- | Sandy Silt | 11/2002 | <0.61 |
| | | 1' - 2' | Cadmium | | --- | --- | --- | Sandy Silt | 11/2002 | <0.58 |
| | | 2' - 3' | Cadmium | | --- | --- | --- | Sandy Silt | 11/2002 | <0.55 |
| | | 3' - 4' | Cadmium | | --- | --- | --- | Sand | 11/2002 | <0.56 |
| SB-202 | E10 | 0" - 2" | Cadmium | --- | --- | --- | --- | --- | 11/2002 | 7.5 |
| | | 0' - 1' | Cadmium | | --- | --- | --- | Sandy Silt | 11/2002 | 20.4 |
| | | 1' - 2' | Cadmium | | --- | --- | --- | Silty Sand | 11/2002 | 18.4 |
| | | 2' - 3' | Cadmium | | --- | --- | --- | Sandy Silt | 11/2002 | 8.7 |
| | | 3' - 4' | Cadmium | | --- | --- | --- | Sandy Silt/Peat | 11/2002 | 2,330 |
| SB-203 | D12 | 0" - 2" | Cadmium | --- | --- | --- | --- | --- | 11/2002 | 8.7 |
| | | 0' - 1' | Cadmium | | --- | --- | --- | Silty Sand | 11/2002 | 6.1 |
| | | 1' - 2' | Cadmium | | --- | --- | --- | Silty Sand | 11/2002 | <0.58 |
| | | 2' - 3' | Cadmium | | --- | --- | --- | Silty Sand | 11/2002 | 2.0 |
| | | 3' - 4' | Cadmium | | --- | --- | --- | Silty Sand | 11/2002 | 353 |
| SB-204 | D12 | 0' - 1' | Cadmium | --- | --- | --- | --- | Silty Sand | 11/2002 | 98.1 |
| | | 1' - 2' | Cadmium | | --- | --- | --- | Silty Sand | 11/2002 | 47.6 |
| | | 2' - 3' | Cadmium | | --- | --- | --- | Silty Sand | 11/2002 | 80.4 |
| | | 3' - 4' | Cadmium | | --- | --- | --- | Silty Sand/Peat | 11/2002 | 219 |
| SB-205 | D13 | 0" - 2" | Cadmium | --- | --- | --- | --- | --- | 11/2002 | 2.5 |
| | | 0' - 1' | Cadmium | | --- | --- | --- | Topsoil | 11/2002 | 16.4 |
| | | 1' - 2' | Cadmium | | --- | --- | --- | Fill | 11/2002 | 2.6 |
| | | 2' - 3' | Cadmium | | --- | --- | --- | Fill/Sandy Silt | 11/2002 | 148 |
| | | 3' - 4' | Cadmium | | --- | --- | --- | Sandy Silt/Peat | 11/2002 | 291 |
| SB-206 | C14 | 0" - 2" | Cadmium | --- | --- | --- | --- | --- | 11/2002 | 31.7 |
| | | 0' - 1' | Cadmium | | --- | --- | --- | Topsoil | 11/2002 | 29.4 |
| | | 1' - 2' | Cadmium | | --- | --- | --- | Sandy Silt | 11/2002 | 1.2 |
| | | 2' - 3' | Cadmium | | --- | --- | --- | Sandy Silt/Peat | 11/2002 | 79.8 |
| | | 3' - 4' | Cadmium | | --- | --- | --- | Peat | 11/2002 | 82.6 |

**Table 1A**
**Summary of Soil Lithology and Analytical Data for Borings Located on Figure 3A**
**Design Soil Investigation Summary Report**
**West Branch of Bloody Brook**
**Bloody Brook Voluntary Cleanup Program**
**Onondaga County, New York**

| Boring ID | Figure Coordinates | Sampling Interval | Analyte | Surface Elevation (ft) | Brook Elevation (ft) | Sample Elevation at Bottom of Interval (ft) | Sample Relation to Brook Level | General Lithology | Collection Date | Result (mg/kg) |
|---|---|---|---|---|---|---|---|---|---|---|
| SB-207 | D15 | 0' - 1' | Cadmium | --- | --- | --- | --- | Topsoil | 11/2002 | 45.8 |
| | | 1' - 2' | Cadmium | | --- | --- | --- | Sandy Silt | 11/2002 | 233 |
| | | 2' - 3' | Cadmium | | --- | --- | --- | Sandy Silt | 11/2002 | 71.4 |
| | | 3' - 4' | Cadmium | | --- | --- | --- | Silty Sand | 11/2002 | 125 |
| SB-217 | C1 | 0" - 2" | Cadmium | 389.18 | 384.22 | 389.01 | Above | Organic Silt/Sand | 10/29/2003 | 1.5 |
| | | 0' - 1' | Cadmium | | 384.22 | 388.18 | Above | Organic Silt/Sand | 10/29/2003 | 6.0 |
| | | 1' - 2' | Cadmium | | 384.22 | 387.18 | Above | Organic Silt/Sand | 10/29/2003 | 2.1 |
| | | 2' - 3' | Cadmium | | 384.22 | 386.18 | Above | Sandy Silt | 10/29/2003 | 0.68 |
| | | 3' - 4' | Cadmium | | 384.22 | 385.18 | Above | Clayey Silt | 10/29/2003 | <0.65 |
| | | 4' - 5' | Cadmium | | 384.22 | 384.18 | At | Till | 10/29/2003 | <0.53 |
| SB-218 | D1 | 0" - 2" | Cadmium | 390.79 | 384.20 | 390.62 | Above | Topsoil | 10/29/2003 | 1.0 |
| | | 0' - 1' | Cadmium | | 384.20 | 389.79 | Above | Silty Sand | 10/29/2003 | 0.76 |
| | | 1' - 2' | Cadmium | | 384.20 | 388.79 | Above | Silty Sand | 10/29/2003 | <0.60 |
| | | 2' - 3' | Cadmium | | 384.20 | 387.79 | Above | Fill | 10/29/2003 | <0.60 |
| | | 3' - 4' | Cadmium | | 384.20 | 386.79 | Above | Fill to Organic Silt Sand to Silt/Sand/ Gravel | 10/29/2003 | <0.67 |
| | | 4' - 5' | Cadmium | | 384.20 | 385.79 | Above | Silt/Sand/ Gravel | 10/29/2003 | <0.63 |
| | | 5' - 6' | Cadmium | | 384.20 | 384.79 | Above | Silt/Sand/ Gravel/Peat | 10/29/2003 | <0.56 |
| | | 6' - 7' | Cadmium | | 384.20 | 383.79 | At | Till | 10/29/2003 | <0.55 |
| | | 7' - 8' | Lithology | | 384.20 | 382.79 | Below | Till | 10/29/2003 | NA |
| SB-219 | D4 | 0" - 2" | Cadmium | 385.96 | 383.55 | 385.79 | Above | Topsoil | 10/30/2003 | 247 |
| | | 0' - 1' | Cadmium | | 383.55 | 384.96 | Above | Topsoil | 10/30/2003 | 466 [29] |
| | | 1' - 2' | Cadmium | | 383.55 | 383.96 | At | Organic Silt/Sand | 10/30/2003 | 40.5 |
| | | 2' - 3' | Cadmium | | 383.55 | 382.96 | Below | Organic Silt/Sand | 10/30/2003 | 270 |
| | | 3' - 4' | Cadmium | | 383.55 | 381.96 | Below | Organic Silt/Sand | 10/30/2003 | 2,200 |
| | | 4' - 5' | Cadmium | | 383.55 | 380.96 | Below | Silt/Sand/ Cobble | 10/30/2003 | 153 |
| | | 5' - 6' | Cadmium | | 383.55 | 379.96 | Below | Till | 10/30/2003 | <0.54 |
| | | 6' - 7' | Lithology | | 383.55 | 378.96 | Below | Till | 10/30/2003 | NA |
| | | 7' - 8' | Lithology | | 383.55 | 377.96 | Below | Till | 10/30/2003 | NA |
| SB-220 | E4 | 0" - 2" | Cadmium | 388.56 | 383.76 | 388.39 | Above | Silty Sand | 10/30/2003 | 1.5 |
| | | 0' - 1' | Cadmium | | 383.76 | 387.56 | Above | Silty Sand | 10/30/2003 | <0.60 |
| | | 1' - 2' | Cadmium | | 383.76 | 386.56 | Above | Silty Sand | 10/30/2003 | <0.57 |
| | | 2' - 3' | Cadmium | | 383.76 | 385.56 | Above | Silty Sand | 10/30/2003 | <0.56 |
| | | 3' - 4' | Cadmium | | 383.76 | 384.56 | Above | Silty Sand | 10/30/2003 | <0.58 |
| | | 4' - 5' | Cadmium | | 383.76 | 383.56 | At | Silt/Sand/ Gravel/Cobble | 10/30/2003 | <0.54 |
| | | 5' - 6' | Cadmium | | 383.76 | 382.56 | Below | Silt/Sand/ Gravel/Cobble | 10/30/2003 | <0.56 |
| | | 6' - 7' | Cadmium | | 383.76 | 381.56 | Below | Silt/Sand/ Gravel/Cobble | 10/30/2003 | <0.54 |
| | | 7' - 8' | Cadmium | | 383.76 | 380.56 | Below | Silt/Sand/ Gravel/Cobble | 10/30/2003 | <0.56 |
| SB-221 | E5 | 0" - 2" | Cadmium | 384.32 | 383.00 | 384.15 | Above | Topsoil | 10/28/2003 | 65.1 |
| | | 0' - 1' | Cadmium | | 383.00 | 383.32 | At | Silty Sand | 10/28/2003 | 59.1 |
| | | 1' - 2' | Cadmium | | 383.00 | 382.32 | Below | Silty Sand to Organic Silt/Sand | 10/28/2003 | 1,430 |
| | | 2' - 3' | Cadmium | | 383.00 | 381.32 | Below | Organic Silt/Sand | 10/28/2003 | 2,090 |
| | | 3' - 4' | Cadmium | | 383.00 | 380.32 | Below | Sandy Silt to Till | 10/28/2003 | 13.3 |
| | | 4' - 5' | Cadmium | | 383.00 | 379.32 | Below | Till | 10/28/2003 | <0.56 |
| SB-222 | E4 | 0" - 2" | Cadmium | 383.87 | 383.00 | 383.70 | Above | Topsoil | 10/28/2003 | 508 |
| | | 0' - 1' | Cadmium | | 383.00 | 382.87 | At | Organic Silt/Sand | 10/28/2003 | 434 |
| | | 1' - 2' | Cadmium | | 383.00 | 381.87 | Below | Silty Sand | 10/28/2003 | 36.4 |
| | | 2' - 3' | Cadmium | | 383.00 | 380.87 | Below | Silty Sand | 10/28/2003 | 1.3 |
| | | 3' - 4' | Cadmium | | 383.00 | 379.87 | Below | Organic Silt/Sand | 10/28/2003 | 0.65 |
| | | 4' - 5' | Cadmium | | 383.00 | 378.87 | Below | Organic Silt/Sand | 10/28/2003 | 8.1 |
| | | 5' - 6' | Cadmium | | 383.00 | 377.87 | Below | Till | 10/28/2003 | <0.53 |
| | | 6' - 7' | Lithology | | 383.00 | 376.87 | Below | Till | 10/28/2003 | NA |
| SB-223 | F5 | 0" - 2" | Cadmium | 380.90 | 382.18 | 380.73 | Below | Organic Silt/Sand | 10/28/2003 | 937 |
| | | 0' - 1' | Cadmium | | 382.18 | 379.90 | Below | Organic Silt/Sand | 10/28/2003 | 1,960 |
| | | 1' - 2' | Cadmium | | 382.18 | 378.90 | Below | Organic Silt/Sand | 10/28/2003 | 389 |
| | | 2' - 3' | Cadmium | | 382.18 | 377.90 | Below | Organic Silt/Sand | 10/28/2003 | 7.5 |
| | | 3' - 4' | Cadmium | | 382.18 | 376.90 | Below | Organic Silt/Sand | 10/28/2003 | 2.5 [2.8] |
| | | 4' - 5' | Cadmium | | 382.18 | 375.90 | Below | Till | 10/28/2003 | 26.6 |
| | | 5' - 6' | Cadmium | | 382.18 | 374.90 | Below | Till | 10/28/2003 | <0.55 |
| | | 6' - 7' | Cadmium | | 382.18 | 373.90 | Below | Till | 10/28/2003 | <0.533 |
| | | 7' - 8' | Cadmium | | 382.18 | 372.90 | Below | Till | 10/28/2003 | <0.545 |

**Table 1A**
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**Bloody Brook Voluntary Cleanup Program**
**Onondaga County, New York**

| Boring ID | Figure Coordinates | Sampling Interval | Analyte | Surface Elevation (ft) | Brook Elevation (ft) | Sample Elevation at Bottom of Interval (ft) | Sample Relation to Brook Level | General Lithology | Collection Date | Result (mg/kg) |
|---|---|---|---|---|---|---|---|---|---|---|
| SB-224 | F5 | 0" - 2" | Cadmium | 382.28 | 382.18 | 382.11 | At | Silty Sand | 10/28/2003 | 9.6 |
| | | 0' - 1' | Cadmium | | 382.18 | 381.28 | Below | Silty Sand | 10/28/2003 | 3.1 |
| | | 1' - 2' | Cadmium | | 382.18 | 380.28 | Below | Silty Sand | 10/28/2003 | 897 |
| | | 2' - 3' | Cadmium | | 382.18 | 379.28 | Below | Organic Silt/Sand | 10/28/2003 | 1,630 |
| | | 3' - 4' | Cadmium | | 382.18 | 378.28 | Below | Organic Silt/Sand to Till | 10/28/2003 | 212 |
| | | 4' - 5' | Cadmium | | 382.18 | 377.28 | Below | Till | 10/28/2003 | 17.5 |
| | | 5' - 6' | Cadmium | | 382.18 | 376.28 | Below | Till | 10/28/2003 | <0.54 |
| | | 6' - 7' | Cadmium | | 382.18 | 375.28 | Below | Till | 10/28/2003 | <0.546 |
| SB-225 | G7 | 0" - 2" | Cadmium | 381.14 | 379.18 | 380.97 | Above | Silty Sand | 10/28/2003 | 70.9 |
| | | 0' - 1' | Cadmium | | 379.18 | 380.14 | Above | Silty Sand | 10/27/2003 | 28.5 |
| | | 1' - 2' | Cadmium | | 379.18 | 379.14 | At | Silty Sand | 10/27/2003 | 5.2 |
| | | 2' - 3' | Cadmium | | 379.18 | 378.14 | Below | Organic Silt/Sand | 10/27/2003 | 1,240 |
| | | 3' - 4' | Cadmium | | 379.18 | 377.14 | Below | Organic Silt/Sand | 10/27/2003 | 8.6 |
| | | 4' - 5' | Cadmium | | 379.18 | 376.14 | Below | Organic Silt/Sand | 10/27/2003 | 1,140 |
| | | 5' - 6' | Cadmium | | 379.18 | 375.14 | Below | Silty Sand/Gravel/Cobbles | 10/27/2003 | <0.50 |
| | | 6' - 7' | Cadmium | | 379.18 | 374.14 | Below | Silty Sand/Gravel/Cobbles | 10/27/2003 | <0.51 |
| | | 7' - 8' | Cadmium | | 379.18 | 373.14 | Below | Silty Sand/Gravel/Cobbles | 10/27/2003 | <0.52 |
| | | 8' - 9' | Lithology | | 379.18 | 372.14 | Below | Silty Sand/Gravel/Cobbles | 10/27/2003 | NA |
| | | 9' - 10' | Lithology | | 379.18 | 371.14 | Below | Silty Sand/Gravel/Cobbles | 10/27/2003 | NA |
| SB-226 | G7 | 0" - 2" | Cadmium | 380.59 | 379.30 | 380.42 | Above | Silty Sand | 10/28/2003 | 151 |
| | | 0' - 1' | Cadmium | | 379.30 | 379.59 | At | Silty Sand | 10/27/2003 | 15.4 |
| | | 1' - 2' | Cadmium | | 379.30 | 378.59 | Below | Organic Silt/Sand | 10/27/2003 | 124 |
| | | 2' - 3' | Cadmium | | 379.30 | 377.59 | Below | Organic Silt/Sand | 10/27/2003 | 4.2 [3.9] |
| | | 3' - 4' | Cadmium | | 379.30 | 376.59 | Below | Organic Silt/Sand | 10/27/2003 | 0.80 |
| | | 4' - 5' | Cadmium | | 379.30 | 375.59 | Below | Till | 10/27/2003 | 4.3 |
| | | 5' - 6' | Cadmium | | 379.30 | 374.59 | Below | Till | 10/27/2003 | <0.55 |
| | | 6'-7' | Cadmium | | 379.30 | 373.59 | Below | Till | 10/27/2003 | <0.53 |
| | | 7' - 8' | Cadmium | | 379.30 | 372.59 | Below | Till | 10/27/2003 | <0.53 |
| SB-227 | D4 | 0" - 2" | Cadmium | 386.29 | 383.69 | 386.12 | Above | Topsoil | 10/28/2003 | 41.7 |
| | | 0' - 1' | Cadmium | | 383.69 | 385.29 | Above | Silty Sand | 10/28/2003 | 63.8 |
| | | 1' - 2' | Cadmium | | 383.69 | 384.29 | Above | Silty Sand | 10/28/2003 | 235 |
| | | 2' - 3' | Cadmium | | 383.69 | 383.29 | At | Sandy Silt | 10/28/2003 | 86.4 |
| | | 3' - 4' | Cadmium | | 383.69 | 382.29 | Below | Organic Silt/Sand to Till | 10/28/2003 | 13.7 |
| SB-228 | E6 | 0" - 2" | Cadmium | 384.13 | 383.00 | 383.96 | Above | Topsoil | 10/28/2003 | 12.6 |
| | | 0' - 1' | Cadmium | | 383.00 | 383.13 | At | Silty Sand To Silty Clay | 10/28/2003 | 1.5 [1.1] |
| | | 1' - 2' | Cadmium | | 383.00 | 382.13 | Below | Silty Sand | 10/28/2003 | <0.59 |
| | | 2' - 3' | Cadmium | | 383.00 | 381.13 | Below | Silty Sand/ Gravel | 10/28/2003 | 5.6 |
| SB-400 | E3 | 0" - 2" | Cadmium | 391.92 | 383.63 | 391.75 | Above | Topsoil | 10/30/2003 | <0.72 |
| | | 0' - 1' | Cadmium | | 383.63 | 390.92 | Above | Topsoil | 10/30/2003 | <0.59 |
| | | 1' - 2' | Cadmium | | 383.63 | 389.92 | Above | Silty Sand | 10/30/2003 | <0.56 |
| | | 2' - 3' | Cadmium | | 383.63 | 388.92 | Above | Silty Sand | 10/30/2003 | <0.54 |
| | | 3' - 4' | Cadmium | | 383.63 | 387.92 | Above | Silty Sand | 10/30/2003 | <0.53 |
| | | 4' - 5' | Cadmium | | 383.63 | 386.92 | Above | Silty Sand | 10/30/2003 | <0.55 |
| | | 5' - 6' | Cadmium | | 383.63 | 385.92 | Above | Silty Sand | 10/30/2003 | <0.55 |
| | | 6' - 7' | Cadmium | | 383.63 | 384.92 | Above | Silty Sand/ Gravel | 10/30/2003 | <0.53 |
| | | 7' -8 ' | Cadmium | | 383.63 | 383.92 | At | Silty Sand/ Gravel | 10/30/2003 | <0.54 |
| | | 8' - 9' | Cadmium | | 383.63 | 382.92 | Below | Sand | 10/30/2003 | <0.55 |
| | | 9' - 10' | Cadmium | | 383.63 | 381.92 | Below | Sand | 10/30/2003 | <0.54 |
| | | 10' - 11' | Cadmium | | 383.63 | 380.92 | Below | Silty Sand/ Gravel | 10/30/2003 | <0.56 |
| | | 11' - 12' | Cadmium | | 383.63 | 379.92 | Below | Silty Sand/ Gravel | 10/30/2003 | <0.53 |
| | | 12' - 13' | Cadmium | | 383.63 | 378.92 | Below | Silty Sand/ Gravel | 10/30/2003 | <0.56 |
| | | 13' - 14' | Cadmium | | 383.63 | 377.92 | Below | Silty Sand/ Gravel | 10/30/2003 | <0.54 |
| | | 14' - 15' | Cadmium | | 383.63 | 376.92 | Below | Silty Sand/ Gravel | 10/30/2003 | <0.55 |
| | | 15' - 16' | Cadmium | | 383.63 | 375.92 | Below | Silty Sand/ Gravel | 10/30/2003 | <0.54 |
| SB-401 | B1 | 0" - 2" | Cadmium | 387.37 | 384.28 | 387.20 | Above | Organic Silt/Sand | 10/28/2003 | 489 |
| | | 0' - 1' | Cadmium | | 384.28 | 386.37 | Above | Organic Silt/Sand | 10/28/2003 | 771 |
| | | 1' - 2' | Cadmium | | 384.28 | 385.37 | Above | Organic Silt/Sand | 10/28/2003 | 61.5 |
| | | 2' - 3' | Cadmium | | 384.28 | 384.37 | At | Organic Silt/Sand to Till | 10/28/2003 | 35.6 |
| | | 3' - 4' | Cadmium | | 384.28 | 383.37 | Below | Till | 10/28/2003 | <0.55 |

**Table 1A**
**Summary of Soil Lithology and Analytical Data for Borings Located on Figure 3A**
**Design Soil Investigation Summary Report**
**West Branch of Bloody Brook**
**Bloody Brook Voluntary Cleanup Program**
**Onondaga County, New York**

| Boring ID | Figure Coordinates | Sampling Interval | Analyte | Surface Elevation (ft) | Brook Elevation (ft) | Sample Elevation at Bottom of Interval (ft) | Sample Relation to Brook Level | General Lithology | Collection Date | Result (mg/kg) |
|---|---|---|---|---|---|---|---|---|---|---|
| SB-402 | D2 | 0" - 2" | Cadmium | 389.59 | 384.19 | 389.42 | Above | Organic Silt/Sand | 10/29/2003 | 22.0 |
| | | 0' - 1' | Cadmium | | 384.19 | 388.59 | Above | Organic Silt/Sand | 10/29/2003 | <0.69 |
| | | 1' - 2' | Cadmium | | 384.19 | 387.59 | Above | Organic Silt/Sand | 10/29/2003 | <0.63 |
| | | 2' - 3' | Cadmium | | 384.19 | 386.59 | Above | Organic Silt/Sand /Gravel | 10/29/2003 | <0.68 |
| | | 3' - 4' | Cadmium | | 384.19 | 385.59 | Above | Organic Silt/Sand /Gravel | 10/29/2003 | <0.63 |
| | | 4' - 5' | Cadmium | | 384.19 | 384.59 | At | Organic Silt/Sand /Gravel | 10/29/2003 | <0.64 |
| | | 5' - 6' | Cadmium | | 384.19 | 383.59 | Below | Organic Silt/Sand /Gravel to Sand | 10/29/2003 | <0.61 [<0.61] |
| | | 6' - 7' | Cadmium | | 384.19 | 382.59 | Below | Till | 10/29/2003 | <0.56 |
| SB-403 | D4 | 0" - 2" | Cadmium | 385.52 | 383.59 | 385.35 | Above | Topsoil | 10/30/2003 | 17.8 |
| | | 0' - 1' | Cadmium | | 383.59 | 384.52 | Above | Organic Silt/Sand | 10/30/2003 | 16.3 |
| | | 1' - 2' | Cadmium | | 383.59 | 383.52 | At | Organic Silt/Sand | 10/30/2003 | 38.3 |
| | | 2' - 3' | Cadmium | | 383.59 | 382.52 | Below | Silt/Sand/ Gravel/Cobble | 10/30/2003 | 89.1 |
| | | 3' - 4' | Cadmium | | 383.59 | 381.52 | Below | Silt/Sand/ Gravel/Cobble | 10/30/2003 | 5.3 |
| SB-404 | E4 | 0" - 2" | Cadmium | 385.59 | 383.00 | 385.42 | Above | Topsoil | 10/28/2003 | 11.4 |
| | | 0' - 1' | Cadmium | | 383.00 | 384.59 | Above | Silty Sand | 10/28/2003 | 9.8 [10.3] |
| | | 1' - 2' | Cadmium | | 383.00 | 383.59 | Above | Silty Sand | 10/28/2003 | 1.3 |
| | | 2' - 3' | Cadmium | | 383.00 | 382.59 | At | Silty Sand | 10/28/2003 | <0.57 |
| | | 3' - 4' | Cadmium | | 383.00 | 381.59 | Below | Silty Sand | 10/28/2003 | <0.54 |
| | | 4' - 5' | Cadmium | | 383.00 | 380.59 | Below | Till | 10/28/2003 | <0.53 |
| | | 5' - 6' | Lithology | | 383.00 | 379.59 | Below | Till | 10/28/2003 | NA |
| | | 6' - 7' | Lithology | | 383.00 | 378.59 | Below | Till | 10/28/2003 | NA |
| SB-405 | F6 | 0" - 2" | Cadmium | 384.96 | 382.18 | 384.79 | Above | Topsoil | 10/28/2003 | 2.0 |
| | | 0' - 1' | Cadmium | | 382.18 | 383.96 | Above | Silty Sand | 10/28/2003 | <0.61 |
| | | 1' - 2' | Cadmium | | 382.18 | 382.96 | Above | Silty Sand | 10/28/2003 | <0.64 |
| | | 2' - 3' | Cadmium | | 382.18 | 381.96 | At | Sand/Gravel | 10/28/2003 | <0.56 |
| | | 3' - 4' | Cadmium | | 382.18 | 380.96 | Below | Fill | 10/28/2003 | <0.60 |
| | | 4' - 5' | Cadmium | | 382.18 | 379.96 | Below | Fill | 10/28/2003 | <0.63 |
| | | 5' - 6' | Cadmium | | 382.18 | 378.96 | Below | Silty Sand | 10/28/2003 | <0.54 |
| | | 6' - 7' | Cadmium | | 382.18 | 377.96 | Below | Till | 10/28/2003 | <0.53 |
| | | 7' - 8' | Lithology | | 382.18 | 376.96 | Below | Till | 10/28/2003 | NA |
| SB-406 | G7 | 0" - 2" | Cadmium | 381.26 | 378.86 | 381.09 | Above | Gravel | 10/28/2003 | 4.6 |
| | | 0' - 1' | Cadmium | | 378.86 | 380.26 | Above | Gravel | 10/27/2003 | 0.92 |
| | | 1' - 2' | Cadmium | | 378.86 | 379.26 | At | Silty Sand | 10/27/2003 | <0.56 |
| | | 2' - 3' | Cadmium | | 378.86 | 378.26 | Below | Silty Sand | 10/27/2003 | <0.52 [<0.55] |
| | | 3' - 4' | Cadmium | | 378.86 | 377.26 | Below | Silty Sand | 10/27/2003 | <0.55 |
| | | 4' - 5' | Cadmium | | 378.86 | 376.26 | Below | Silty Sand | 10/27/2003 | <0.56 |
| | | 5' - 6' | Cadmium | | 378.86 | 375.26 | Below | Silty Sand | 10/27/2003 | <0.53 |
| | | 6' - 7' | Cadmium | | 378.86 | 374.26 | Below | Silty Sand | 10/27/2003 | <0.53 |
| | | 7' - 8' | Cadmium | | 378.86 | 373.26 | Below | Silty Sand | 10/27/2003 | <0.54 |
| | | 8' - 9' | Lithology | | 378.86 | 372.26 | Below | Sand/Gravel/Cobbles | 10/27/2003 | NA |
| | | 9' - 10' | Lithology | | 378.86 | 371.26 | Below | Sand/Gravel/Cobbles | 10/27/2003 | NA |
| SB-407 | H7 | 0" - 2" | Cadmium | 380.91 | 377.49 | 380.74 | Above | Topsoil | 10/30/2003 | 392 |
| | | 0' - 1' | Cadmium | | 377.49 | 379.91 | Above | Silty Sand | 10/30/2003 | 170 |
| | | 1' - 2' | Cadmium | | 377.49 | 378.91 | Above | Silty Sand | 10/30/2003 | 0.86 |
| | | 2' - 3' | Cadmium | | 377.49 | 377.91 | At | Organic Silt/Sand | 10/30/2003 | <0.59 [<0.58] |
| | | 3' - 4' | Cadmium | | 377.49 | 376.91 | Below | Organic Silt/Sand | 10/30/2003 | <0.60 |
| | | 4' - 5' | Cadmium | | 377.49 | 375.91 | Below | Organic Silt/Sand to Peat | 10/30/2003 | 49.1 |
| | | 5' - 6' | Cadmium | | 377.49 | 374.91 | Below | Till | 10/30/2003 | <0.56 |
| | | 6' - 7' | Lithology | | 377.49 | 373.91 | Below | Till | 10/30/2003 | NA |
| SB-408 | F8 | 0" - 2" | Cadmium | 382.11 | 377.43 | 381.94 | Above | Topsoil | 10/28/2003 | 4.7 |
| | | 0' - 1' | Cadmium | | 377.43 | 381.11 | Above | Silty Sand | 10/27/2003 | 1.1 |
| | | 1' - 2' | Cadmium | | 377.43 | 380.11 | Above | Silty Sand | 10/27/2003 | <0.62 |
| | | 2' - 3' | Cadmium | | 377.43 | 379.11 | Above | Silty Sand | 10/27/2003 | <0.54 |
| | | 3' - 4' | Cadmium | | 377.43 | 378.11 | Above | Sand/Gravel/Cobbles | 10/27/2003 | <0.52 |
| | | 4' - 5' | Cadmium | | 377.43 | 377.11 | At | Sand/Gravel/Cobbles | 10/27/2003 | <0.52 |
| | | 5' - 6' | Cadmium | | 377.43 | 376.11 | Below | Sand/Gravel/Cobbles | 10/27/2003 | <0.52 |
| | | 6' - 7' | Cadmium | | 377.43 | 375.11 | Below | Clayey Silt | 10/27/2003 | <0.56 |
| | | 7' - 8' | Cadmium | | 377.43 | 374.11 | Below | Clayey Silt | 10/27/2003 | <0.54 |
| | | 8' - 9' | Lithology | | 377.43 | 373.11 | Below | Clayey Silt | 10/27/2003 | NA |
| | | 9' - 10' | Lithology | | 377.43 | 372.11 | Below | Clayey Silt | 10/27/2003 | NA |
| | | 10' - 11' | Lithology | | 377.43 | 371.11 | Below | Silty Sand | 10/27/2003 | NA |
| | | 11' - 12' | Lithology | | 377.43 | 370.11 | Below | Silty Sand | 10/27/2003 | NA |

**Table 1A**
**Summary of Soil Lithology and Analytical Data for Borings Located on Figure 3A**
**Design Soil Investigation Summary Report**
**West Branch of Bloody Brook**
**Bloody Brook Voluntary Cleanup Program**
**Onondaga County, New York**

| Boring ID | Figure Coordinates | Sampling Interval | Analyte | Surface Elevation (ft) | Brook Elevation (ft) | Sample Elevation at Bottom of Interval (ft) | Sample Relation to Brook Level | General Lithology | Collection Date | Result (mg/kg) |
|---|---|---|---|---|---|---|---|---|---|---|
| SB-409 | G8 | 0" - 2" | Cadmium | 380.44 | 376.73 | 380.27 | Above | Topsoil | 10/28/2003 | 153 |
| | | 0' - 1' | Cadmium | | 376.73 | 379.44 | Above | Silty Sand | 10/28/2003 | 61.6 |
| | | 1' - 2' | Cadmium | | 376.73 | 378.44 | Above | Silty Sand | 10/28/2003 | 0.7 |
| | | 2' - 3' | Cadmium | | 376.73 | 377.44 | Above | Silty Sand | 10/28/2003 | <0.57 |
| | | 3' - 4' | Cadmium | | 376.73 | 376.44 | At | Silty Sand | 10/28/2003 | <0.59 |
| | | 4' - 5' | Cadmium | | 376.73 | 375.44 | Below | Silty Sand | 10/28/2003 | 4.4 |
| | | 5' - 6' | Cadmium | | 376.73 | 374.44 | Below | Silty Sand to Organic Silt/Sand | 10/28/2003 | 992 [1,360] |
| | | 6' - 7' | Cadmium | | 376.73 | 373.44 | Below | Organic Silt/Sand | 10/28/2003 | 2.4 |
| | | 7' - 8' | Cadmium | | 376.73 | 372.44 | Below | Sand/Gravel | 10/28/2003 | 0.96 |
| | | 8' - 9' | Cadmium | | 376.73 | 371.44 | Below | Peat to Organic Silt/Sand | 10/28/2003 | 1,540 |
| | | 9' - 10' | Cadmium | | 376.73 | 370.44 | Below | Organic Silt/Sand to Sand/Gravel | 10/28/2003 | 1.2 |
| | | 10' - 11' | Cadmium | | 376.73 | 369.44 | Below | Sand/Gravel | 10/28/2003 | <0.56 |
| | | 11' - 12' | Cadmium | | 376.73 | 368.44 | Below | Till | 10/28/2003 | <0.53 |
| SB-410 | G9 | 0" - 2" | Cadmium | 378.99 | 375.85 | 378.82 | Above | Silty Sand | 10/28/2003 | 2.2 |
| | | 0' - 1' | Cadmium | | 375.85 | 377.99 | Above | Silty Sand | 10/28/2003 | 1.6 |
| | | 1' - 2' | Cadmium | | 375.85 | 376.99 | Above | Silty Sand | 10/28/2003 | 16.3 |
| | | 2' - 3' | Cadmium | | 375.85 | 375.99 | At | Silty Sand to Peat | 10/28/2003 | 4,230 |
| | | 3' - 4' | Cadmium | | 375.85 | 374.99 | Below | Peat | 10/28/2003 | 7.7 |
| | | 4' - 5' | Cadmium | | 375.85 | 373.99 | Below | Peat to Clayey Silt | 10/28/2003 | 463 |
| | | 5' - 6' | Cadmium | | 375.85 | 372.99 | Below | Organic Silt/Sand | 10/28/2003 | 1.4 |
| SB-411 | H8 | 0" - 2" | Cadmium | 379.09 | 377.20 | 378.92 | Above | Topsoil | 10/28/2003 | 15.6 |
| | | 0' - 1' | Cadmium | | 377.20 | 378.09 | Above | Silty Sand | 10/28/2003 | 3.6 |
| | | 1' - 2' | Cadmium | | 377.20 | 377.09 | At | Silty Sand | 10/28/2003 | 4.3 |
| | | 2' - 3' | Cadmium | | 377.20 | 376.09 | Below | Organic Silt/Sand | 10/28/2003 | <1.0 |
| | | 3' - 4' | Cadmium | | 377.20 | 375.09 | Below | Organic Silt/Sand | 10/28/2003 | <0.78 |
| | | 4' - 5' | Cadmium | | 377.20 | 374.09 | Below | Organic Silt/Sand | 10/28/2003 | 2.1 |
| | | 5' - 6' | Cadmium | | 377.20 | 373.09 | Below | Organic Silt/Sand to Sand/Gravel | 10/28/2003 | <0.63 |
| | | 6' - 7' | Cadmium | | 377.20 | 372.09 | Below | Sand | 10/28/2003 | <0.60 [<0.63] |
| | | 7' - 8' | Cadmium | | 377.20 | 371.09 | Below | Sand to Till | 10/28/2003 | <0.56 |
| SB-412 | H8 | 0" - 2" | Cadmium | 378.81 | 377.16 | 378.64 | Above | Topsoil | 10/28/2003 | 29.3 |
| | | 0' - 1' | Cadmium | | 377.16 | 377.81 | Above | Silty Sand | 10/28/2003 | 11.4 |
| | | 1' - 2' | Cadmium | | 377.16 | 376.81 | At | Silty Sand | 10/28/2003 | 71.8 |
| | | 2' - 3' | Cadmium | | 377.16 | 375.81 | Below | Peat | 10/28/2003 | 2,360 |
| | | 3' - 4' | Cadmium | | 377.16 | 374.81 | Below | Peat to Organic Silt/Sand | 10/28/2003 | 1,140 |
| | | 4' - 5' | Cadmium | | 377.16 | 373.81 | Below | Organic Silt/Sand | 10/28/2003 | 1,730 |
| | | 5' - 6' | Cadmium | | 377.16 | 372.81 | Below | Organic Silt/Sand | 10/28/2003 | 13.6 |
| | | 6' - 7' | Cadmium | | 377.16 | 371.81 | Below | Till | 10/28/2003 | 16.3 |
| | | 7' - 8' | Cadmium | | 377.16 | 370.81 | Below | Till | 10/28/2003 | 1.1 |
| SB-413 | E10 | 0" - 2" | Lithology | 377.15 | 372.46 | 376.98 | Above | Sand | 10/20/2003 | NA |
| | | 0' - 1' | Lithology | | 372.46 | 376.15 | Above | Sand | 10/20/2003 | NA |
| | | 1' - 2' | Lithology | | 372.46 | 375.15 | Above | Sand to Silty Sand | 10/20/2003 | NA |
| | | 2' - 3' | Lithology | | 372.46 | 374.15 | Above | Silty Sand | 10/20/2003 | NA |
| | | 3' - 4' | Lithology | | 372.46 | 373.15 | Above | Organic Silt/Sand | 10/20/2003 | NA |
| | | 4' - 5' | Cadmium | | 372.46 | 372.15 | At | Organic Silt/Sand | 10/20/2003 | 2.2 |
| | | 5' - 6' | Cadmium | | 372.46 | 371.15 | Below | Organic Clayey Sand | 10/20/2003 | 3.5 |
| | | 6' - 7' | Cadmium | | 372.46 | 370.15 | Below | Organic Silt/Sand | 10/20/2003 | <0.85 |
| SB-414 | E10 | 0" - 2" | Cadmium | 379.56 | 372.62 | 379.39 | Above | Topsoil | 10/24/2003 | 34.9 |
| | | 0' - 1' | Cadmium | | 372.62 | 378.56 | Above | Sandy Silt | 10/24/2003 | 96.1 |
| | | 1' - 2' | Cadmium | | 372.62 | 377.56 | Above | Sandy Silt | 10/24/2003 | 16.0 |
| | | 2' - 3' | Cadmium | | 372.62 | 376.56 | Above | Sandy Silt | 10/24/2003 | 14.7 [13.9] |
| | | 3' - 4' | Cadmium | | 372.62 | 375.56 | Above | Sandy Silt | 10/24/2003 | 5,350 |
| | | 4' - 5' | Cadmium | | 372.62 | 374.56 | Above | Organic Silt/Sand | 10/24/2003 | 120 |
| | | 5' - 6' | Cadmium | | 372.62 | 373.56 | Above | Organic Silt/Sand to Clayey Silt | 10/24/2003 | 6.9 |
| | | 6' - 7' | Cadmium | | 372.62 | 372.56 | At | Organic Clayey Silt | 10/24/2003 | 1.3 |
| | | 7' - 8' | Cadmium | | 372.62 | 371.56 | Below | Organic Silt/Sand | 10/24/2003 | <0.72 |
| SB-435 | C1 | 0" - 2" | Cadmium | 389.14 | 384.27 | 388.97 | Above | Organic Silty Sand | 4/28/2004 | 394 |
| | | 0' - 1' | Cadmium | | 384.27 | 388.14 | Above | Silty Sand | 4/28/2004 | 166 |
| | | 1' - 2' | Cadmium | | 384.27 | 387.14 | Above | Silty Sand | 4/28/2004 | 24.4 |
| | | 2' - 3' | Cadmium | | 384.27 | 386.14 | Above | Till | 4/28/2004 | 4.43 [4.87] |
| SB-436 | B1 | 0" - 2" | Cadmium | 388.91 | 384.28 | 388.74 | Above | Organic Silt | 4/28/2004 | 42.8 |
| | | 0' - 1' | Cadmium | | 384.28 | 387.91 | Above | Organic Silt | 4/28/2004 | 23.4 |
| | | 1' - 2' | Cadmium | | 384.28 | 386.91 | Above | Organic Silt | 4/28/2004 | 2.55 |
| | | 2' - 3' | Cadmium | | 384.28 | 385.91 | Above | Organic Silt | 4/28/2004 | <0.736 |

**Table 1A**
**Summary of Soil Lithology and Analytical Data for Borings Located on Figure 3A**
**Design Soil Investigation Summary Report**
**West Branch of Bloody Brook**
**Bloody Brook Voluntary Cleanup Program**
**Onondaga County, New York**

| Boring ID | Figure Coordinates | Sampling Interval | Analyte | Surface Elevation (ft) | Brook Elevation (ft) | Sample Elevation at Bottom of Interval (ft) | Sample Relation to Brook Level | General Lithology | Collection Date | Result (mg/kg) |
|---|---|---|---|---|---|---|---|---|---|---|
| SB-437 | B2 | 0" - 2" | Cadmium | 390.63 | 384.24 | 390.46 | Above | Organic Silt | 4/28/2004 | 1.33 |
| | | 0' - 1' | Cadmium | | 384.24 | 389.63 | Above | Organic Silt | 4/28/2004 | <0.655 |
| | | 1' - 2' | Cadmium | | 384.24 | 388.63 | Above | Organic Silt | 4/28/2004 | <0.644 |
| | | 2' - 3' | Cadmium | | 384.24 | 387.63 | Above | Silt | 4/28/2004 | <0.596 |
| | | 3' - 4' | Cadmium | | 384.24 | 386.63 | Above | Silt | 4/28/2004 | <0.605 |
| SB-438 | C4 | 0" - 2" | Cadmium | 387.97 | 383.63 | 387.80 | Above | Organic Silty Sand | 4/28/2004 | 3.84 |
| | | 0' - 1' | Cadmium | | 383.63 | 386.97 | Above | Organic Silty Sand | 4/28/2004 | 1.91 |
| | | 1' - 2' | Cadmium | | 383.63 | 385.97 | Above | Organic Silty Sand | 4/28/2004 | 1.03 |
| | | 2' - 3' | Cadmium | | 383.63 | 384.97 | Above | Silty Sand | 4/28/2004 | 4.63 |
| | | 3' - 4' | Cadmium | | 383.63 | 383.97 | At | Silty Sand | 4/28/2004 | 5.65 |
| SB-439 | E4 | 0" - 2" | Cadmium | 387.12 | 383.00 | 386.95 | Above | Organic Silty Sand | 4/28/2004 | 1.34 |
| | | 0' - 1' | Cadmium | | 383.00 | 386.12 | Above | Organic Silty Sand | 4/28/2004 | <0.641 |
| | | 1' - 2' | Cadmium | | 383.00 | 385.12 | Above | Organic Silty Sand | 4/28/2004 | <0.634 [<0.628] |
| SB-440 | E6 | 0" - 2" | Cadmium | 387.30 | 383.00 | 387.13 | Above | Silty Sand | 4/28/2004 | 1.45 |
| | | 0' - 1' | Cadmium | | 383.00 | 386.30 | Above | Silty Sand | 4/28/2004 | <0.644 |
| | | 1' - 2' | Cadmium | | 383.00 | 385.30 | Above | Sand | 4/28/2004 | <0.614 |
| | | 2' - 3' | Cadmium | | 383.00 | 384.30 | Above | Sand | 4/28/2004 | <0.576 |
| | | 3' - 4' | Cadmium | | 383.00 | 383.30 | At | Sand | 4/28/2004 | <0.590 |
| | | 4' - 5' | Cadmium | | 383.00 | 382.30 | Below | Sand | 4/28/2004 | <0.610 |
| SB-441 | F5 | 0" - 2" | Cadmium | 383.56 | 382.50 | 383.39 | Above | Organic Silty Sand | 4/28/2004 | 2.37 |
| | | 0' - 1' | Cadmium | | 382.50 | 382.56 | At | Organic Silty Sand | 4/28/2004 | 13.4 |
| | | 1' - 2' | Cadmium | | 382.50 | 381.56 | Below | Organic Silty Sand | 4/28/2004 | 7.13 |
| | | 2' - 3' | Cadmium | | 382.50 | 380.56 | Below | Silty Sand | 4/28/2004 | 2.37 |
| SB-442 | G7 | 0" - 2" | Cadmium | 381.80 | 379.18 | 381.63 | Above | Organic Silt | 4/28/2004 | 4.74 |
| | | 0' - 1' | Cadmium | | 379.18 | 380.80 | Above | Organic Silty Sand | 4/28/2004 | 0.685 |
| | | 1' - 2' | Cadmium | | 379.18 | 379.80 | Above | Organic Silty Sand | 4/28/2004 | <0.618 |
| | | 2' - 3' | Cadmium | | 379.18 | 378.80 | At | Sandy Silty Clay | 4/28/2004 | <0.618 |
| SB-443 | G7 | 0" - 2" | Cadmium | 381.02 | 379.18 | 380.85 | Above | Organic Silty Sand | 4/28/2004 | 31.4 |
| | | 0' - 1' | Cadmium | | 379.18 | 380.02 | Above | Silty Sand | 4/28/2004 | 0.962 |
| | | 1' - 2' | Cadmium | | 379.18 | 379.02 | At | Silty Sand | 4/28/2004 | <0.663 |
| | | 2' - 3' | Cadmium | | 379.18 | 378.02 | Below | Organic Silt | 4/28/2004 | <0.871 |
| | | 3' - 4' | Cadmium | | 379.18 | 377.02 | Below | Silty Sandy Clay | 4/28/2004 | <0.624 |
| SB-444 | H8 | 0" - 2" | Cadmium | 381.08 | 377.43 | 380.91 | Above | Topsoil | 4/28/2004 | 84.7 |
| | | 0' - 1' | Cadmium | | 377.43 | 380.08 | Above | Sandy Silt | 4/28/2004 | 71.3 |
| | | 1' - 2' | Cadmium | | 377.43 | 379.08 | Above | Sandy Silt | 4/28/2004 | 6.06 |
| | | 2' - 3' | Cadmium | | 377.43 | 378.08 | Above | Sandy Silt | 4/28/2004 | 28.4 |
| | | 3' - 4' | Cadmium | | 377.43 | 377.08 | At | Sandy Silt | 4/28/2004 | 1.05 |
| | | 4' - 5' | Cadmium | | 377.43 | 376.08 | Below | Sandy Silt | 4/28/2004 | 0.973 |
| SB-445 | G7 | 0" - 2" | Cadmium | 380.95 | 377.57 | 380.78 | Above | Silty Sand | 4/28/2004 | 135 |
| | | 0' - 1' | Cadmium | | 377.57 | 379.95 | Above | Silty Sand | 4/28/2004 | 11.3 |
| | | 1' - 2' | Cadmium | | 377.57 | 378.95 | Above | Silty Clay | 4/28/2004 | 5.31 |
| | | 2' - 3' | Cadmium | | 377.57 | 377.95 | At | Silty Clay | 4/28/2004 | 1.28 |
| | | 3' - 4' | Cadmium | | 377.57 | 376.95 | Below | Organic Silt | 4/28/2004 | 1,910 [2,710] |
| | | 4' - 5' | Cadmium | | 377.57 | 375.95 | Below | Silty Sand | 4/28/2004 | 58.4 |
| SB-446 | H8 | 0" - 2" | Cadmium | 379.08 | 377.33 | 378.91 | Above | Topsoil | 4/29/2004 | 10.9 |
| SB-447 | I8 | 0" - 2" | Cadmium | 380.24 | 377.35 | 380.07 | Above | Topsoil | 4/29/2004 | <0.814 |
| SB-448 | H9 | 0" - 2" | Cadmium | 380.65 | 376.92 | 380.48 | Above | Sandy Silt | 4/28/2004 | 4.15 |
| | | 0' - 1' | Cadmium | | 376.92 | 379.65 | Above | Silty Sand | 4/28/2004 | 1.66 |
| | | 1' - 2' | Cadmium | | 376.92 | 378.65 | Above | Sandy Silt | 4/28/2004 | <0.608 |
| | | 2' - 3' | Cadmium | | 376.92 | 377.65 | Above | Sandy Silt | 4/28/2004 | <0.605 |
| | | 3' - 4' | Cadmium | | 376.92 | 376.65 | At | Sandy Silt | 4/28/2004 | 3,800 |
| | | 4' - 5' | Cadmium | | 376.92 | 375.65 | Below | Sandy Silt | 4/28/2004 | 2,120 |
| | | 5' - 6' | Cadmium | | 376.92 | 374.65 | Below | Sand & Silt | 4/28/2004 | 16.9 |

**Table 1A**
**Summary of Soil Lithology and Analytical Data for Borings Located on Figure 3A**
**Design Soil Investigation Summary Report**
**West Branch of Bloody Brook**
**Bloody Brook Voluntary Cleanup Program**
**Onondaga County, New York**

| Boring ID | Figure Coordinates | Sampling Interval | Analyte | Surface Elevation (ft) | Brook Elevation (ft) | Sample Elevation at Bottom of Interval (ft) | Sample Relation to Brook Level | General Lithology | Collection Date | Result (mg/kg) |
|---|---|---|---|---|---|---|---|---|---|---|
| SB-449 | G9 | 0" - 2" | Cadmium | 383.38 | 375.85 | 383.21 | Above | Organic Silt | 4/29/2004 | 0.909 |
| | | 0' - 1' | Cadmium | | 375.85 | 382.38 | Above | Organic Silt | 4/29/2004 | <0.665 |
| | | 1' - 2' | Cadmium | | 375.85 | 381.38 | Above | Organic Clayey Silt | 4/29/2004 | <0.605 |
| | | 2' - 3' | Cadmium | | 375.85 | 380.38 | Above | Clayey Silt | 4/29/2004 | <0.609 |
| | | 3' - 4' | Cadmium | | 375.85 | 379.38 | Above | Clayey Silt | 4/29/2004 | <0.613 |
| | | 4' - 5' | Cadmium | | 375.85 | 378.38 | Above | Clayey Silt | 4/29/2004 | <0.64 |
| | | 5' - 6' | Cadmium | | 375.85 | 377.38 | Above | Silty Clay | 4/29/2004 | <0.619 |
| | | 6' - 7' | Cadmium | | 375.85 | 376.38 | Above | Clayey Silt | 4/29/2004 | 84.7 |
| | | 7' - 8' | Cadmium | | 375.85 | 375.38 | At | Organic Silt | 4/29/2004 | 2,220 |
| | | 8' - 9' | Cadmium | | 375.85 | 374.38 | Below | Silt | 4/29/2004 | 8.27 |
| | | 9' - 10' | Cadmium | | 375.85 | 372.38 | Below | Sandy Silt | 4/29/2004 | 14.6 |
| | | 10' - 11' | Cadmium | | 375.85 | 371.38 | Below | Organic Silt | 4/29/2004 | 18.3 |
| | | 11' - 11.5' | Cadmium | | 375.85 | 370.88 | Below | Sandy Silt | 4/29/2004 | 8.21 |
| SB-450 | F9 | 0" - 2" | Cadmium | 377.94 | 374.64 | 377.77 | Above | Sandy Silt | 4/29/2004 | 33.5 |
| | | 0' - 1' | Cadmium | | 374.64 | 376.94 | Above | Sandy Silt | 4/29/2004 | 27.3 |
| | | 1' - 2' | Cadmium | | 374.64 | 375.94 | Above | Sand | 4/29/2004 | 26.9 |
| | | 2' - 3' | Cadmium | | 374.64 | 374.94 | At | Organic Clayey Silt | 4/29/2004 | 38.0 |
| | | 3' - 4' | Cadmium | | 374.64 | 373.94 | Below | Silt | 4/29/2004 | 10.4 |
| | | 4' - 4.5' | Cadmium | | 374.64 | 373.44 | Below | Silty Sand | 4/29/2004 | 1.44 |
| SB-451 | F9 | 0" - 2" | Cadmium | 377.97 | 374.64 | 377.80 | Above | Clayey Silt | 4/29/2004 | 10.4 |
| | | 0' - 1' | Cadmium | | 374.64 | 376.97 | Above | Organic Sandy Silt | 4/29/2004 | 9.4 |
| | | 1' - 2' | Cadmium | | 374.64 | 375.97 | Above | Sandy Silt | 4/29/2004 | 3.53 [0.671] |
| | | 2' - 3' | Cadmium | | 374.64 | 374.97 | At | Sandy Silt | 4/29/2004 | 196 |
| | | 3' - 4' | Cadmium | | 374.64 | 373.97 | Below | Silty Sand | 4/29/2004 | 1,390 |
| SB-452 | E10 | 0" - 2" | Cadmium | 381.80 | 372.62 | 381.63 | Above | Topsoil | 4/29/2004 | 1.84 |
| | | 0' - 1' | Cadmium | | 372.62 | 380.80 | Above | Topsoil | 4/29/2004 | <0.654 |
| | | 1' - 2' | Cadmium | | 372.62 | 379.80 | Above | Clayey Silt | 4/29/2004 | <0.623 |
| SB-456 | E10 | 0" - 2" | Cadmium | 384.58 | 373.04 | 384.41 | Above | Topsoil | 4/29/2004 | <0.658 |
| | | 0' - 1' | Cadmium | | 373.04 | 383.58 | Above | Clayey Silt | 4/29/2004 | <0.607 |
| | | 1' - 2' | Cadmium | | 373.04 | 382.58 | Above | Silt | 4/29/2004 | <0.620 |
| | | 2' - 3' | Cadmium | | 373.04 | 381.58 | Above | Sandy Silt | 4/29/2004 | <0.619 |
| | | 3' - 4' | Cadmium | | 373.04 | 380.58 | Above | Clayey Silt | 4/29/2004 | <0.605 |
| | | 4' - 5' | Cadmium | | 373.04 | 379.58 | Above | Clayey Silt | 4/29/2004 | <0.588 |
| | | 5' - 6' | Cadmium | | 373.04 | 378.58 | Above | Sandy Silt | 4/29/2004 | 1.46 |
| SB-457 | C2 | 0" - 2" | Cadmium | 387.53 | 384.10 | 387.36 | Above | Organic Silt | 4/29/2004 | 253 |
| | | 0' - 1' | Cadmium | | 384.10 | 386.53 | Above | Organic Silt | 4/29/2004 | 84.5 |
| | | 1' - 2' | Cadmium | | 384.10 | 385.53 | Above | Sandy Silt | 4/29/2004 | 12.5 |
| | | 2' -2.25' | Cadmium | | 384.10 | 385.28 | Above | Sandy Silt | 4/29/2004 | 3.9 |
| SB-458 | C2 | 0" - 2" | Cadmium | 387.06 | 384.09 | 386.89 | Above | Organic Sandy Silt | 4/29/2004 | 446 |
| | | 0' - 1' | Cadmium | | 384.09 | 386.06 | Above | Organic Sandy Silt | 4/29/2004 | 188 |
| | | 1' - 2' | Cadmium | | 384.09 | 385.06 | Above | Silt | 4/29/2004 | 15.5 |
| SB-459 | C2 | 0" - 2" | Cadmium | 387.63 | 384.09 | 387.46 | Above | Clayey Silt | 4/29/2004 | 27.0 |
| | | 0' - 1' | Cadmium | | 384.09 | 386.63 | Above | Clayey Silt | 4/29/2004 | 21.6 |
| | | 1' - 2' | Cadmium | | 384.09 | 385.63 | Above | Organic Clayey Silt | 4/29/2004 | 1.96 |
| | | 2' - 3' | Cadmium | | 384.09 | 384.63 | Above | Organic Clayey Silt | 4/29/2004 | 30.3 |
| SSSWP-1 | F8 | 0" - 6" | Cadmium | --- | --- | --- | --- | --- | 12/19/2007 | 7.0 [10.8] |
| | | 6" - 24" | Cadmium | | --- | --- | --- | --- | 12/19/2007 | 25.8 |
| SSSWP-1E | F8 | 0" - 6" | Cadmium | 379.79 | 376.73 | 379.29 | Above | Gravelly sand with some silt, organics | 4/27/2011 | 18.4 |
| | | 6" - 12' | Cadmium | | 376.73 | 378.79 | Above | Gravelly sand with some silt, organics | 4/27/2011 | 33.9 |
| | | 1' - 2' | Cadmium | | 376.73 | 377.79 | Above | Silty sand with trace gravel, organics, clay | 4/27/2011 | 26.3 |
| SSSWP-1N | F8 | 0" - 6" | Cadmium | 380.60 | 377.16 | 380.10 | Above | Silt and fine sand, organics | 4/27/2011 | 1.8 |
| | | 6" - 12' | Cadmium | | 377.16 | 379.60 | Above | Fine sand | 4/27/2011 | 0.045 J |
| | | 1' - 2' | Cadmium | | 377.16 | 378.60 | Above | Fine sand, wet | 4/27/2011 | 0.048 J |
| SSSWP-1R | F8 | 0" - 6" | Cadmium | 381.25 | 376.69 | 380.75 | Above | Silt with little fine sand, trace gravel, organics | 4/27/2011 | 8.3 |
| | | 6" - 12' | Cadmium | | 376.69 | 380.25 | Above | Fine sand, trace gravel | 4/27/2011 | 0.72 |
| | | 1' - 2' | Cadmium | | 376.69 | 379.25 | Above | Fine sand, trace gravel | 4/27/2011 | 2.9 |
| SSSWP-1S | F8 | 0" - 6" | Cadmium | 381.03 | 376.35 | 380.53 | Above | Sandy silt with organics | 4/27/2011 | 6.8 |
| | | 6" - 12' | Cadmium | | 376.35 | 380.03 | Above | Sandy silt with organics | 4/27/2011 | 4.3 |
| | | 1' - 2' | Cadmium | | 376.35 | 379.03 | Above | Sandy silt with organics, trace gravel | 4/27/2011 | 3.2 |
| SSSWP-1W | F8 | 0" - 6" | Cadmium | 381.56 | 376.96 | 381.06 | Above | Sandy silt with organics | 4/27/2011 | 2.6 |
| | | 6" - 12' | Cadmium | | 376.96 | 380.56 | Above | Silty sand with organics | 4/27/2011 | 0.40 |
| | | 1' - 2' | Cadmium | | 376.96 | 379.56 | Above | Fine sand | 4/27/2011 | 0.58 J |

**Table 1A**
**Summary of Soil Lithology and Analytical Data for Borings Located on Figure 3A**
**Design Soil Investigation Summary Report**
**West Branch of Bloody Brook**
**Bloody Brook Voluntary Cleanup Program**
**Onondaga County, New York**

| Boring ID | Figure Coordinates | Sampling Interval | Analyte | Surface Elevation (ft) | Brook Elevation (ft) | Sample Elevation at Bottom of Interval (ft) | Sample Relation to Brook Level | General Lithology | Collection Date | Result (mg/kg) |
|---|---|---|---|---|---|---|---|---|---|---|
| SSSWP-2 | F7 | 0" - 6" | Cadmium | --- | --- | --- | --- | --- | 12/19/2007 | 2.2 |
| | | 6" - 15" | Cadmium | | --- | --- | --- | --- | 12/19/2007 | 0.62 |
| SSSWP-3 | F7 | 0" - 6" | Cadmium | --- | --- | --- | --- | --- | 12/19/2007 | 0.77 |
| | | 6" - 24" | Cadmium | | --- | --- | --- | --- | 12/19/2007 | <0.05 |
| SSSWP-4 | F6 | 0" - 6" | Cadmium | --- | --- | --- | --- | --- | 12/19/2007 | 4.7 |
| | | 6" - 24" | Cadmium | | --- | --- | --- | --- | 12/19/2007 | <0.04 |
| SSSWP-5 | E5 | 0" - 6" | Cadmium | --- | --- | --- | --- | --- | 12/19/2007 | 3.2 |
| | | 6" - 24" | Cadmium | | --- | --- | --- | --- | 12/19/2007 | 0.28 |

**Notes:**

1. Table does not include boring locations where samples were collected and not analyzed. Analysis of those samples was contingent on analytical results of samples collected from adjacent locations and was determined to not be necessary. Those locations are identified on Figure 3A as "Design Sampling Location Not Analyzed".
2. mg/kg = milligrams/kilograms (equivalent to ppm = parts per million).
3. The lithologic descriptions identified in the table represent the predominant lithologic classification for the respective intervals.
4. ---: Information not available.
5. Duplicate results are presented in brackets.
6. B - Compound was found in the blank and sample.
7. J - The detected concentration is an estimated value.
8. U - Result edited to reflect non-detect by data validation company due to presence of cadmium in the associated preparation blank at similar concentrations.
9. < - Analyte not detected at the reporting limit shown.
10. NA = Not analyzed.
11. Samples were collected and held at the laboratory. Analysis of held samples were contingent on results from successive samples listed above and from samples at consecutive depth intervals. Samples were analyzed if results were 2.5 ppm or greater for depth intervals in the top two feet and if results were 10 ppm or greater for depth intervals below 2 feet.
12. Samples were inadvertently disposed of prior to analysis and no results are available.
13. After three attempts, the sampling personnel were unable to advance the equipment through the sampling depth, and the soil sample was not collected.

**Table 1B**
**Summary of Soil Lithology and Analytical Data for Borings Located on Figure 3B**
**Design Soil Investigation Summary Report**
**West Branch of Bloody Brook**
**Bloody Brook Voluntary Cleanup Program**
**Onondaga County, New York**

| Boring ID | Figure Coordinates | Sampling Interval | Analyte | Surface Elevation (ft) | Brook Elevation (ft) | Sample Elevation at Bottom of Interval (ft) | Sample Relation to Brook Level | General Lithology | Collection Date | Result (mg/kg) |
|---|---|---|---|---|---|---|---|---|---|---|
| B-6 | E29 | 0.80' - 1.5' | Cadmium | --- | --- | --- | --- | --- | 11/24/2003 | 0.97 |
| | | 1.5' - 7.5' | Cadmium | | --- | --- | --- | --- | 11/24/2003 | <0.59 |
| B-7 | D29 | 0' - 1.5' | Cadmium | --- | --- | --- | --- | --- | 11/24/2003 | 2 |
| | | 1.5' - 10' | Cadmium | | --- | --- | --- | --- | 11/24/2003 | 2.5 |
| B-8 | E28 | 0' - 2.5' | Cadmium | --- | --- | --- | --- | --- | 11/24/2003 | 0.72 |
| | | 2.5' - 10' | Cadmium | | --- | --- | --- | --- | 11/24/2003 | 0.93 |
| B-9 | F27 | 0' - 1' | Cadmium | --- | --- | --- | --- | --- | 11/24/2003 | <0.62 |
| | | 1' - 10' | Cadmium | | --- | --- | --- | --- | 11/24/2003 | <0.57 |
| B-10 | F22 | 0' - 1.5' | Cadmium | --- | --- | --- | --- | --- | 11/25/2003 | 7 |
| | | 1.5' - 10' | Cadmium | | --- | --- | --- | --- | 11/25/2003 | 0.95 |
| DI-04-01 | F17 | 0' - 1' | Cadmium | 377.21 | 369.96 | 376.21 | Above | Silt with little clay & little sand | 4/25/2011 | 1.7 |
| | | 1' - 2' | Cadmium | | 369.96 | 375.21 | Above | Silt with little clay & little sand | 4/25/2011 | Held[11] |
| | | 2' - 3' | Cadmium | | 369.96 | 374.21 | Above | Silty clay with some fine sand | 4/25/2011 | Held[11] |
| | | 3' - 4' | Cadmium | | 369.96 | 373.21 | Above | Silty clay with some fine sand | 4/25/2011 | Held[11] |
| | | 4' - 5' | Cadmium | | 369.96 | 372.21 | Above | Clay with some silt & little fine sand | 4/25/2011 | Held[11] |
| | | 5' - 6' | Cadmium | | 369.96 | 371.21 | Above | Silty clay with some fine sand | 4/25/2011 | 0.29 |
| | | 6' - 7' | Cadmium | | 369.96 | 370.21 | At | Clay with little silt (organics) | 4/25/2011 | 1.4 |
| | | 7' - 8' | Cadmium | | 369.96 | 369.21 | Below | Clay with little silt (organics) | 4/25/2011 | 332 |
| | | 8' - 9' | Cadmium | | 369.96 | 368.21 | Below | Clay with little silt (organics) | 4/25/2011 | 0.98 |
| DI-06-01 | F18 | 0' - 1' | Cadmium | 375.82 | 369.18 | 374.82 | Above | Fine sand with little silt | 4/25/2011 | 1.4 |
| | | 1' - 2' | Cadmium | | 369.18 | 373.82 | Above | Fine sand with little silt | 4/25/2011 | 0.19 J |
| | | 2' - 3' | Cadmium | | 369.18 | 372.82 | Above | Silt with some fine sand & trace clay | 4/25/2011 | 0.24 |
| | | 3' - 4' | Cadmium | | 369.18 | 371.82 | Above | Silt with some fine sand & trace clay | 4/25/2011 | 0.25 |
| | | 4' - 5' | Cadmium | | 369.18 | 370.82 | Above | Silt with some fine sand & trace clay | 4/25/2011 | 0.47 |
| | | 5' - 6' | Cadmium | | 369.18 | 369.82 | Above | Silt with little sand & little clay | 4/25/2011 | 10.5 |
| | | 6' - 7' | Cadmium | | 369.18 | 368.82 | At | Silt with little sand & little clay | 4/25/2011 | 0.48 |
| | | 7' - 8' | Cadmium | | 369.18 | 367.82 | Below | Gray clay at 7'-6" | 4/25/2011 | <0.26 U |
| DI-06-02 | F18 | 0' - 1' | Cadmium | 376.21 | 369.98 | 375.21 | Above | Silty fine sand with organics | 4/25/2011 | Held[11] |
| | | 1' - 2' | Cadmium | | 369.98 | 374.21 | Above | Silty fine sand with organics | 4/25/2011 | Held[11] |
| | | 2' - 3' | Cadmium | | 369.98 | 373.21 | Above | Sandy silt with little clay | 4/25/2011 | Held[11] |
| | | 3' - 4' | Cadmium | | 369.98 | 372.21 | Above | Silt with little clay | 4/25/2011 | Held[11] |
| | | 4' - 5' | Cadmium | | 369.98 | 371.21 | Above | Silt with little clay | 4/25/2011 | 0.20 J |
| | | 5' - 6' | Cadmium | | 369.98 | 370.21 | At | Silt with little clay | 4/25/2011 | 3.2 |
| | | 6' - 7' | Cadmium | | 369.98 | 369.21 | Below | Silt with little clay | 4/25/2011 | 0.26 J |
| | | 7' - 8' | Cadmium | | 369.98 | 368.21 | Below | Clayey silt at 7'-8" | 4/25/2011 | Held[11] |
| DI-07-01 | F20 | 0' - 1' | Cadmium | --- | --- | --- | --- | Silt & sand/gravel & organics | 8/14/2009 | 28.8 J |
| | | 1' - 2' | Cadmium | | --- | --- | --- | Silty clay/gravel | 8/14/2009 | 32.2 J [36.1 J] |
| | | 2' - 3' | Cadmium | | --- | --- | --- | Silt & sand | 8/14/2009 | 20.7 J |
| | | 3' - 4' | Cadmium | | --- | --- | --- | Silt & clay | 8/14/2009 | 1.16 J |
| DI-07-02 | F20 | 0' - 1' | Cadmium | --- | --- | --- | --- | Silty clay/gravel & organics | 8/14/2009 | 32.4 J |
| | | 1' - 2' | Cadmium | | --- | --- | --- | Silt & clay/gravel | 8/14/2009 | 5.98 J |
| | | 2' - 3' | Cadmium | | --- | --- | --- | Silt & clay/gravel | 8/14/2009 | 10.8 J |
| | | 3' - 4' | Cadmium | | --- | --- | --- | Silt & sand/clay | 8/14/2009 | 12.1 J |
| | | 4' - 5' | Cadmium | | --- | --- | --- | Silt & sand/clay | 8/14/2009 | 6.11 J |
| | | 5' - 6' | Cadmium | | --- | --- | --- | Silt & sand/clay | 8/14/2009 | 5.25 J |
| DI-07-03 | F20 | 0' - 1' | Cadmium | --- | --- | --- | --- | Silt & clay/gravel & organics | 8/14/2009 | 0.422 |
| | | 1' - 2' | Cadmium | | --- | --- | --- | Silt & clay | 8/14/2009 | 0.535 |
| | | 2' - 3' | Cadmium | | --- | --- | --- | Silt & clay | 8/14/2009 | 7.38 |
| | | 3' - 4' | Cadmium | | --- | --- | --- | Silty clay | 8/14/2009 | 3.39 |
| | | 4' - 5' | Cadmium | | --- | --- | --- | Silt & sand/clay & gravel | 8/14/2009 | 5.06 |
| | | 5' - 6' | Cadmium | | --- | --- | --- | Silt & clay | 8/14/2009 | 73 |
| | | 6' - 7' | Cadmium | | --- | --- | --- | Silty clay/sand | 8/14/2009 | <0.267 |
| | | 7' -8' | Cadmium | | --- | --- | --- | Silt & sand | 8/14/2009 | <0.261 |
| | | 8' - 9' | Cadmium | | --- | --- | --- | Silty clay/sand | 8/14/2009 | 0.277 J |
| | | 9' -10' | Cadmium | | --- | --- | --- | Silty clay to sand | 8/14/2009 | 1.49 |
| | | 10' - 11' | Cadmium | | --- | --- | --- | Sand/clay to silty clay | 8/14/2009 | <0.243 |
| DI-08-01 | F21 | 0' - 1' | Cadmium | 376.77 | 367.59 | 375.77 | Above | Clayey silt, sand | 4/26/2011 | 0.25 |
| | | 1' - 2' | Cadmium | | 367.59 | 374.77 | Above | Sand, silty clay | 4/26/2011 | 0.24 |
| | | 2' - 3' | Cadmium | | 367.59 | 373.77 | Above | Silty clay | 4/26/2011 | 0.38 |
| | | 3' - 4' | Cadmium | | 367.59 | 372.77 | Above | Silty clay | 4/26/2011 | 0.10 J |
| | | 4' - 5' | Cadmium | | 367.59 | 371.77 | Above | Clayey silt, silty clay | 4/26/2011 | 5.6 |
| | | 5' - 6' | Cadmium | | 367.59 | 370.77 | Above | Silty clay, clayey silt | 4/26/2011 | 1.0 |

**Table 1B**
**Summary of Soil Lithology and Analytical Data for Borings Located on Figure 3B**
**Design Soil Investigation Summary Report**
**West Branch of Bloody Brook**
**Bloody Brook Voluntary Cleanup Program**
**Onondaga County, New York**

| Boring ID | Figure Coordinates | Sampling Interval | Analyte | Surface Elevation (ft) | Brook Elevation (ft) | Sample Elevation at Bottom of Interval (ft) | Sample Relation to Brook Level | General Lithology | Collection Date | Result (mg/kg) |
|---|---|---|---|---|---|---|---|---|---|---|
| DI-09-01 | F21 | 0 - 1' | Cadmium | --- | --- | --- | --- | Sand & Silt, trace organics & gravel | 9/21/2009 | 0.601 |
| | | 1 - 2' | Cadmium | | --- | --- | --- | Sand & silt, trace organics & gravel | 9/21/2009 | 0.270 |
| | | 2 - 3' | Cadmium | | --- | --- | --- | Sand & silt, trace organics & gravel | 9/21/2009 | 5.74 |
| | | 3 - 4' | Cadmium | | --- | --- | --- | Silt & sand, trace gravel | 9/21/2009 | 0.246 |
| | | 4 - 5' | Cadmium | | --- | --- | --- | Sand & silt | 9/21/2009 | 0.254 |
| | | 5 - 6' | Cadmium | | --- | --- | --- | Silt & sand, trace gravel | 9/21/2009 | 4.21 |
| | | 6 - 7' | Cadmium | | --- | --- | --- | Silt | 9/21/2009 | 9.12 |
| DI-09-02 | F21 | 0 - 1' | Cadmium | --- | --- | --- | --- | Sand & silt, organics | 9/21/2009 | 3.45 |
| | | 1 - 2' | Cadmium | | --- | --- | --- | Sand & silt, organics | 9/21/2009 | 10.7 |
| | | 2 - 3' | Cadmium | | --- | --- | --- | Sand & silt, organics & trace clay | 9/21/2009 | 0.982 |
| | | 3 - 4' | Cadmium | | --- | --- | --- | Silt & sand, trace organics | 9/21/2009 | 0.77 |
| | | 4 - 5' | Cadmium | | --- | --- | --- | Silt & sand, trace organics | 9/21/2009 | 9.40 |
| | | 5 - 6' | Cadmium | | --- | --- | --- | Silty clay & fine sand | 9/21/2009 | 5.76 |
| | | 6 - 7' | Cadmium | | --- | --- | --- | Fine sand & silt | 9/21/2009 | 3.55 |
| DI-09-03 | G21 | 0' - 1' | Cadmium | 375.67 | 367.69 | 374.67 | Above | Silt, silty sand, trace gravel | 4/25/2011 | 0.98 |
| | | 1' - 2' | Cadmium | | 367.69 | 373.67 | Above | Silty sand, silt, clay, trace gravel | 4/25/2011 | 6.6 |
| DI-09-04 | G21 | 0' - 1' | Cadmium | 376.02 | 367.29 | 375.02 | Above | Silty clay, clay | 4/25/2011 | 0.72 |
| | | 1' - 2' | Cadmium | | 367.29 | 374.02 | Above | Silty clay | 4/25/2011 | 0.72 |
| DI-10-01 | G22 | 0' - 1' | Cadmium | 373.62 | 366.48 | 372.62 | Above | Silty clay, clayey silt | 4/25/2011 | 5.5 B |
| | | 1' - 2' | Cadmium | | 366.48 | 371.62 | Above | Silty clay, clay | 4/25/2011 | 2.4 B |
| DI-11-01 | F22 | 0' - 1' | Cadmium | --- | --- | --- | --- | Silt & sand/ organics & gravel | 8/14/2009 | 7.21 |
| | | 1' - 2' | Cadmium | | --- | --- | --- | Silt with sand/organics & clay | 8/14/2009 | 6.38 |
| | | 2' - 3' | Cadmium | | --- | --- | --- | Silt with sand/clay & gravel | 8/14/2009 | 3.76 |
| | | 3' - 4' | Cadmium | | --- | --- | --- | Silt with sand/clay & gravel | 8/14/2009 | 49 |
| DI-11-02 | F22 | 0' - 1' | Cadmium | --- | --- | --- | --- | Silt with gravel/organics | 8/14/2009 | 0.431 [0.276] |
| | | 1' - 2' | Cadmium | | --- | --- | --- | Silt with clay/gravel & organics | 8/14/2009 | 0.062 J |
| | | 2' - 3' | Cadmium | | --- | --- | --- | Silt with gravel | 8/14/2009 | 0.266 |
| | | 3' - 4' | Cadmium | | --- | --- | --- | Silt | 8/14/2009 | 0.240 |
| | | 4' - 5' | Cadmium | | --- | --- | --- | Silt with gravel | 8/14/2009 | 0.213 J |
| | | 5' - 6' | Cadmium | | --- | --- | --- | Silt with gravel | 8/14/2009 | 0.074 J |
| DI-11-03 | F22 | 0' - 1' | Cadmium | --- | --- | --- | --- | Silt & clay/organics & gravel | 8/14/2009 | <0.261 |
| | | 1' - 2' | Cadmium | | --- | --- | --- | Silt & clay/organics & gravel | 8/14/2009 | 0.523 |
| | | 2' - 3' | Cadmium | | --- | --- | --- | Silt with gravel/organics | 8/14/2009 | 0.154 J |
| | | 3' - 4' | Cadmium | | --- | --- | --- | Silt with gravel/organics | 8/14/2009 | 0.327 |
| | | 4' - 5' | Cadmium | | --- | --- | --- | Silt with gravel/organics | 8/14/2009 | <0.253 |
| | | 5' - 6' | Cadmium | | --- | --- | --- | Silt with gravel/organics, some sand | 8/14/2009 | 0.061 J |
| | | 6' - 7' | Cadmium | | --- | --- | --- | Silt with gravel/organics, some sand | 8/14/2009 | <0.243 |
| | | 7' -8' | Cadmium | | --- | --- | --- | Silt with gravel/organics, some sand | 8/14/2009 | <0.250 |
| | | 8' - 9' | Cadmium | | --- | --- | --- | Silt/clay | 8/14/2009 | <0.265 |
| | | 9' -10' | Cadmium | | --- | --- | --- | Silty clay/sand | 8/14/2009 | <0.235 |
| | | 10' - 11' | Cadmium | | --- | --- | --- | Silty clay/sand | 8/14/2009 | <0.267 |
| DI-13-01 | F27 | 0' - 1' | Cadmium | 371.26 | 364.09 | 370.26 | Above | Fine sand, some gravel, organics | 8/23/2011 | 1.4 |
| | | 1' - 2' | Cadmium | | 364.09 | 369.26 | Above | Fine sand, some gravel, organics | 8/23/2011 | 2.7 |
| | | 2' - 3' | Cadmium | | 364.09 | 368.26 | Above | Fine sand, little silt, trace gravel | 8/23/2011 | 0.30 |
| | | 3' - 4' | Cadmium | | 364.09 | 367.26 | Above | Silty fine sand - silt increasing with depth | 8/23/2011 | 0.35 |
| | | 4' - 5' | Cadmium | | 364.09 | 366.26 | Above | Sandy silt to 4'-6" then silty clay | 8/23/2011 | 0.19 J [0.14 J] |
| | | 5' - 6' | Cadmium | | 364.09 | 365.26 | Above | Clay, trace silt | 8/23/2011 | 0.22 J |
| | | 6' - 7' | Cadmium | | 364.09 | 364.26 | At | Clay, trace silt | 8/23/2011 | 0.16 J |
| DI-13-02 | F27 | 0' - 1' | Cadmium | 371.67 | 364.09 | 370.67 | Above | Fine sand, little gravel, trace silt (organics) | 8/23/2011 | 4.6 |
| | | 1' - 2' | Cadmium | | 364.09 | 369.67 | Above | Fine sand, some gravel, little silt | 8/23/2011 | 2.3 |
| | | 2' - 3' | Cadmium | | 364.09 | 368.67 | Above | Fine sand, little silt, trace gravel | 8/23/2011 | 0.38 |
| | | 3' - 4' | Cadmium | | 364.09 | 367.67 | Above | Silty sand, trace clay (mottling), trace gravel | 8/23/2011 | 0.30 |
| | | 4' - 5' | Cadmium | | 364.09 | 366.67 | Above | --- | Refusal | Refusal[13] |
| | | 5' - 6' | Cadmium | | 364.09 | 365.67 | Above | --- | Refusal | Refusal[13] |
| | | 6' - 7' | Cadmium | | 364.09 | 364.67 | Above | --- | Refusal | Refusal[13] |
| DI-13-03 | F27 | 0' - 1' | Cadmium | 372.25 | 364.09 | 371.25 | Above | Fine sand, some gravel, organics | 8/23/2011 | 0.91 |
| | | 1' - 2' | Cadmium | | 364.09 | 370.25 | Above | Fine sand, some gravel | 8/23/2011 | 0.072 J |
| | | 2' - 3' | Cadmium | | 364.09 | 369.25 | Above | Fine sand, some gravel, organics | 8/23/2011 | 0.25 |
| | | 3' - 4' | Cadmium | | 364.09 | 368.25 | Above | Fine sand, some gravel, organics | 8/23/2011 | 0.11 J |
| | | 4' - 5' | Cadmium | | 364.09 | 367.25 | Above | Clayey silt, increasing clay with depth | 8/23/2011 | 5.8 |
| | | 5' - 6' | Cadmium | | 364.09 | 366.25 | Above | Silty clay to 5'-8" then silt | 8/23/2011 | 1.1 |
| | | 6' - 7' | Cadmium | | 364.09 | 365.25 | Above | Clayey silt | 8/23/2011 | <0.22 |

**Table 1B**
**Summary of Soil Lithology and Analytical Data for Borings Located on Figure 3B**
**Design Soil Investigation Summary Report**
**West Branch of Bloody Brook**
**Bloody Brook Voluntary Cleanup Program**
**Onondaga County, New York**

| Boring ID | Figure Coordinates | Sampling Interval | Analyte | Surface Elevation (ft) | Brook Elevation (ft) | Sample Elevation at Bottom of Interval (ft) | Sample Relation to Brook Level | General Lithology | Collection Date | Result (mg/kg) |
|---|---|---|---|---|---|---|---|---|---|---|
| DI-14-01 | E27 | 0' - 1' | Cadmium | 373.33 | 364.23 | 372.33 | Above | Sand, some gravel, trace silt | 8/23/2011 | 0.50 |
| | | 1' - 2' | Cadmium | | 364.23 | 371.33 | Above | Sand, some gravel, some silt | 8/23/2011 | 0.14 J [0.40] |
| | | 2' - 3' | Cadmium | | 364.23 | 370.33 | Above | Sand, some gravel, some silt, trace clay | 8/23/2011 | 0.15 J |
| | | 3' - 4' | Cadmium | | 364.23 | 369.33 | Above | Sand, some gravel, trace silt | 8/23/2011 | 0.045 J |
| | | 4' - 5' | Cadmium | | 364.23 | 368.33 | Above | Sand, some gravel, trace silt to 4'-6" then silt, trace clay | 8/23/2011 | 5.3 |
| | | 5' - 6' | Cadmium | | 364.23 | 367.33 | Above | Silt with organics, trace clay | 8/23/2011 | 78.1 |
| | | 6' - 7' | Cadmium | | 364.23 | 366.33 | Above | Silt with less organics, trace clay | 8/23/2011 | 0.42 |
| DI-14-02 | E27 | 0' - 1' | Cadmium | 373.82 | 364.24 | 372.82 | Above | Coarse to fine sand, some gravel, trace silt | 8/23/2011 | Held[12] |
| | | 1' - 2' | Cadmium | | 364.24 | 371.82 | Above | Coarse to fine sand, some gravel, trace silt | 8/23/2011 | Held[12] |
| | | 2' - 3' | Cadmium | | 364.24 | 370.82 | Above | Coarse to fine sand, some gravel, trace silt | 8/23/2011 | Held[12] |
| | | 3' - 4' | Cadmium | | 364.24 | 369.82 | Above | Sandy gravel, trace silt | 8/23/2011 | Held[12] |
| | | 4' - 5' | Cadmium | | 364.24 | 368.82 | Above | Sand, some gravel, trace silt | 8/23/2011 | 0.058 J |
| | | 5' - 6' | Cadmium | | 364.24 | 367.82 | Above | Sand, some gravel, trace silt to 5'-6" then silt, organics, trace clay | 8/23/2011 | 4.9 J |
| | | 6' - 7' | Cadmium | | 364.24 | 366.82 | Above | Silt, organics, trace clay | 8/23/2011 | 4.6 J |
| | | 7' - 8' | Cadmium | | 364.24 | 365.82 | Above | Clayey silt, trace fine sand | 8/23/2011 | 0.52 J |
| DI-15-01 | C30 | 0' - 1' | Cadmium | 372.6 | 364.55 | 371.6 | Above | Silty sand, little gravel, trace clay | 8/22/2011 | 0.62 |
| | | 1' - 2' | Cadmium | | 364.55 | 370.6 | Above | Silty sand, little gravel, trace clay | 8/22/2011 | 15.2 |
| | | 2' - 3' | Cadmium | | 364.55 | 369.6 | Above | Silty sand, little gravel, trace clay | 8/22/2011 | 18 |
| | | 3' - 4' | Cadmium | | 364.55 | 368.6 | Above | Silty sand, little gravel, trace clay | 8/22/2011 | 4.9 |
| | | 4' - 5' | Cadmium | | 364.55 | 367.6 | Above | Silt, trace clay | 8/22/2011 | 0.27 |
| | | 5' - 6' | Cadmium | | 364.55 | 366.6 | Above | Silt, little clay | 8/22/2011 | 0.21 J |
| | | 6' - 7' | Cadmium | | 364.55 | 365.6 | Above | Silt, little clay | 8/22/2011 | 0.19 J |
| DI-15-02 | C30 | 0' - 1' | Cadmium | 372.62 | 364.55 | 371.62 | Above | Silty sand & gravel, trace clay | 8/22/2011 | 2.5 |
| | | 1' - 2' | Cadmium | | 364.55 | 370.62 | Above | Silty sand & gravel, trace clay | 8/22/2011 | 3.7 |
| | | 2' - 3' | Cadmium | | 364.55 | 369.62 | Above | Sandy silt with little gravel, trace clay | 8/22/2011 | 2.3 |
| | | 3' - 4' | Cadmium | | 364.55 | 368.62 | Above | Sandy silt with little gravel, trace clay | 8/22/2011 | 2.9 |
| | | 4' - 5' | Cadmium | | 364.55 | 367.62 | Above | Silt, little clay (green & red mottling) | 8/22/2011 | 1.5 |
| | | 5' - 6' | Cadmium | | 364.55 | 366.62 | Above | Silt, little clay | 8/22/2011 | 0.26 [0.20 J] |
| | | 6' - 7' | Cadmium | | 364.55 | 365.62 | Above | Silt, little clay | 8/22/2011 | 0.14 J |
| DI-32A-01 | F20 | 0 - 1' | Cadmium | --- | --- | --- | --- | Silt, organics and gravel | 9/21/2009 | 0.276 [0.215 J] |
| | | 1 - 2' | Cadmium | | --- | --- | --- | Sand & silt, gravel | 9/21/2009 | 1.72 |
| | | 2 - 3' | Cadmium | | --- | --- | --- | Sand & silt, gravel | 9/21/2009 | 4.71 |
| | | 3 - 4' | Cadmium | | --- | --- | --- | Sand & silt, gravel | 9/21/2009 | 0.591 |
| | | 4 - 5' | Cadmium | | --- | --- | --- | Sand & silt, gravel | 9/21/2009 | 78.6 |
| | | 5 - 6' | Cadmium | | --- | --- | --- | Sand & silt, gravel | 9/21/2009 | 6.53 |
| DI-32C-01 | F21 | 0 - 1' | Cadmium | --- | --- | --- | --- | Sand & silt, organics | 9/21/2009 | 0.444 |
| | | 1 - 2' | Cadmium | | --- | --- | --- | Sand & silt, gravel | 9/21/2009 | 1.19 |
| | | 2 - 3' | Cadmium | | --- | --- | --- | Sand & silt, gravel | 9/21/2009 | 0.238 [0.180 J] |
| | | 9 - 10' | Cadmium | | --- | --- | --- | Silty clay | 9/21/2009 | <0.255 |
| | | 10 - 11' | Cadmium | | --- | --- | --- | Silty clay | 9/21/2009 | <0.235 |
| DI-32C-02 | F21 | 0 - 1' | Cadmium | --- | --- | --- | --- | Sand & silt, organics | 9/21/2009 | 0.460 |
| | | 1 - 2' | Cadmium | | --- | --- | --- | Sand & silt, organics | 9/21/2009 | 1.32 |
| | | 2 - 3' | Cadmium | | --- | --- | --- | Silt & sand, trace clay | 9/21/2009 | 0.164 J |
| DI-33-01 | G23 | 0' - 1' | Cadmium | --- | --- | -- | --- | Gravel/silt and sand | 8/11/2009 | 2.26 |
| | | 1' - 2' | Cadmium | | --- | -- | --- | Silty clay with gravel | 8/11/2009 | 2.48 |
| | | 2' - 3' | Cadmium | | --- | -- | --- | Silty clay with gravel | 8/11/2009 | 2.05 [2.74] |
| | | 3' - 4' | Cadmium | | --- | -- | --- | Silty clay with gravel/organics | 8/11/2009 | 3.95 |
| | | 4' - 5' | Cadmium | | --- | -- | --- | Silty clay with gravel/organics | 8/11/2009 | 2.73 |
| DI-34-01 | G24 | 0' - 1' | Cadmium | 371.98 | 365.46 | 370.98 | Above | Fine sandy silt, trace clay & organics | 8/24/2011 | 22.0 |
| | | 1' - 2' | Cadmium | | 365.46 | 369.98 | Above | Sandy silt, trace clay | 8/24/2011 | 101 |
| | | 2' - 3' | Cadmium | | 365.46 | 368.98 | Above | Sandy silt, trace clay | 8/24/2011 | 5.0 |
| | | 3' - 4' | Cadmium | | 365.46 | 367.98 | Above | Silt | 8/24/2011 | 0.51 |
| DI-34-02 | G24 | 0' - 1' | Cadmium | 372.31 | 365.46 | 371.31 | Above | Silt, some fine sand, little clay | 8/24/2011 | 48.2 J |
| | | 1' - 2' | Cadmium | | 365.46 | 370.31 | Above | Silt, little fine sand, little clay | 8/24/2011 | 8.8 J |
| | | 2' - 3' | Cadmium | | 365.46 | 369.31 | Above | Silt, little to trace clay | 8/24/2011 | 23.2 J |
| | | 3' - 4' | Cadmium | | 365.46 | 368.31 | Above | Silt, little fine sand, little clay | 8/24/2011 | 15.6 J |

**Table 1B**
**Summary of Soil Lithology and Analytical Data for Borings Located on Figure 3B**
**Design Soil Investigation Summary Report**
**West Branch of Bloody Brook**
**Bloody Brook Voluntary Cleanup Program**
**Onondaga County, New York**

| Boring ID | Figure Coordinates | Sampling Interval | Analyte | Surface Elevation (ft) | Brook Elevation (ft) | Sample Elevation at Bottom of Interval (ft) | Sample Relation to Brook Level | General Lithology | Collection Date | Result (mg/kg) |
|---|---|---|---|---|---|---|---|---|---|---|
| DI-45-01 | F19 | 0' - 1' | Cadmium | 375.04 | 369.27 | 374.04 | Above | Clay, silty clay | 4/25/2011 | 3.6 |
| | | 1' - 2' | Cadmium | | 369.27 | 373.04 | Above | Clay, silty clay, fine sand | 4/25/2011 | 0.33 |
| | | 2' - 3' | Cadmium | | 369.27 | 372.04 | Above | Clay, silty clay, silt, trace fine sand | 4/25/2011 | 0.62 |
| | | 3' - 4' | Cadmium | | 369.27 | 371.04 | Above | Clay, silty clay, organics | 4/25/2011 | 530 |
| | | 4' - 5' | Cadmium | | 369.27 | 370.04 | Above | Clay, silty clay, occasional roots | 4/25/2011 | 4.5 |
| | | 5' - 6' | Cadmium | | 369.27 | 369.04 | At | Clay, clayey silt, silt, sandy silt | 4/25/2011 | 2.8 |
| | | 6' - 7' | Cadmium | | 369.27 | 368.04 | Below | Clayey silt, clay, sandy silt | 4/25/2011 | 9.5 |
| | | 7' - 8' | Cadmium | | 369.27 | 367.04 | Below | Clay | 4/25/2011 | 0.58 |
| DI-45-02 | F19 | 0' - 1' | Cadmium | 375.66 | 369.27 | 374.66 | Above | Clay | 4/25/2011 | 4.1 |
| | | 1' - 2' | Cadmium | | 369.27 | 373.66 | Above | Clay, silty clay | 4/25/2011 | 1.9 |
| | | 2' - 3' | Cadmium | | 369.27 | 372.66 | Above | Clay, silty clay | 4/25/2011 | 2.5 |
| | | 3' - 4' | Cadmium | | 369.27 | 371.66 | Above | Clay, silty clay | 4/25/2011 | 2.6 |
| DI-45-03 | F19 | 0' - 1' | Cadmium | 376.01 | 369.27 | 375.01 | Above | Clay, silty clay | 4/25/2011 | 0.50 |
| | | 1' - 2' | Cadmium | | 369.27 | 374.01 | Above | Clay, silty clay | 4/25/2011 | 0.21 J |
| DI-46-01 | F21 | 0' - 1' | Cadmium | 377.47 | 367.00 | 376.47 | Above | Clayey silt, silty clay, trace gravel | 4/27/2011 | 3.6 |
| | | 1' - 2' | Cadmium | | 367.00 | 375.47 | Above | Silty clay, clayey silt, gravel | 4/27/2011 | 0.83 |
| DI-46-02 | F21 | 0' - 1' | Cadmium | 377.39 | 367.00 | 376.39 | Above | Clayey silt, silty clay, fine to coarse gravel | 4/27/2011 | 0.79 |
| | | 1' - 2' | Cadmium | | 367.00 | 375.39 | Above | Fine to coarse gravel, silty clay | 4/27/2011 | 0.70 |
| DI-47-01 | F21 | 0' - 1' | Cadmium | 377.02 | 366.91 | 376.02 | Above | Clayey silt with little fine sand | 4/26/2011 | 2.2 |
| | | 1' - 2' | Cadmium | | 366.91 | 375.02 | Above | Clayey silt with little fine sand | 4/26/2011 | 2.6 |
| | | 2' - 3' | Cadmium | | 366.91 | 374.02 | Above | --- | Refusal | Refusal[13] |
| | | 3' - 4' | Cadmium | | 366.91 | 373.02 | Above | --- | Refusal | Refusal[13] |
| DI-47-02 | F21 | 0' - 1' | Cadmium | 377.87 | 366.91 | 376.87 | Above | --- | Refusal | Refusal[13] |
| | | 1' - 2' | Cadmium | | 366.91 | 375.87 | Above | --- | Refusal | Refusal[13] |
| | | 2' - 3' | Cadmium | | 366.91 | 374.87 | Above | --- | Refusal | Refusal[13] |
| | | 3' - 4' | Cadmium | | 366.91 | 373.87 | Above | --- | Refusal | Refusal[13] |
| DI-47-03 | F21 | 0' - 1' | Cadmium | 377.58 | 366.91 | 376.58 | Above | Clayey silt with little fine sand, trace gravel | 4/26/2011 | 0.60 |
| | | 1' - 2' | Cadmium | | 366.91 | 375.58 | Above | Clayey silt with little fine sand, trace gravel, less clay | 4/26/2011 | 1.4 |
| DI-48-01 | F21 | 0' - 1' | Cadmium | 373.27 | 366.79 | 372.27 | Above | Silty clay, roots | 4/25/2011 | 52.6 B |
| | | 1' - 2' | Cadmium | | 366.79 | 371.27 | Above | Silty clay with clay | 4/25/2011 | 9.6 B |
| | | 2' - 3' | Cadmium | | 366.79 | 370.27 | Above | Silty clay with clay | 4/25/2011 | 6.5 B |
| | | 3' - 4' | Cadmium | | 366.79 | 369.27 | Above | Clay with silty clay | 4/25/2011 | 9.8 B |
| DI-48-02 | G21 | 0' - 1' | Cadmium | 373.67 | 366.79 | 372.67 | Above | Clayey silt, sandy silt, silty sand | 4/25/2011 | 0.31 |
| | | 1' - 2' | Cadmium | | 366.79 | 371.67 | Above | Clayey silt | 4/25/2011 | 0.095 J |
| | | 2' - 3' | Cadmium | | 366.79 | 370.67 | Above | Clayey silt, clay, wood | 4/25/2011 | Held[11] |
| | | 3' - 4' | Cadmium | | 366.79 | 369.67 | Above | Clayey silt, clay, wood | 4/25/2011 | Held[11] |
| DI-49-01 | G23 | 0' - 1' | Cadmium | 372.96 | 366.19 | 371.96 | Above | Clayey silt, clay, sandy silt | 4/25/2011 | 4.3 B |
| | | 1' - 2' | Cadmium | | 366.19 | 370.96 | Above | Silty clay, clay | 4/25/2011 | 1.7 B |
| | | 2' - 3' | Cadmium | | 366.19 | 369.96 | Above | Clay, silty clay, little gravel | 4/25/2011 | 3.3 BJ [0.84 BJ] |
| | | 3' - 4' | Cadmium | | 366.19 | 368.96 | Above | Clay, silty clay | 4/25/2011 | 1.7 B |
| DI-49-02 | G23 | 0' - 1' | Cadmium | 373.23 | 366.18 | 372.23 | Above | Silty clay, clay, roots | 4/25/2011 | 6.4 |
| | | 1' - 2' | Cadmium | | 366.18 | 371.23 | Above | Silty clay, clay, coarse gravel | 4/25/2011 | 6.8 |
| | | 2' - 3' | Cadmium | | 366.18 | 370.23 | Above | Silty clay, clay, gravel, wood & roots | 4/25/2011 | Held[11] |
| | | 3' - 4' | Cadmium | | 366.18 | 369.23 | Above | Clay, silty clay, trace gravel | 4/25/2011 | Held[11] |
| DI-49-03 | G23 | 0' - 1' | Cadmium | 373.62 | 366.18 | 372.62 | Above | Silty clay, clay, trace gravel | 4/25/2011 | 0.78 |
| | | 1' - 2' | Cadmium | | 366.18 | 371.62 | Above | Silty clay, clay, cobble | 4/25/2011 | 10.7 |
| DI-55-01 | G23 | 0' - 1' | Cadmium | 373.13 | 366.19 | 372.13 | Above | Silty clay, clay | 4/25/2011 | 2.6 B |
| | | 1' - 2' | Cadmium | | 366.19 | 371.13 | Above | Clay | 4/25/2011 | 1.5 B |
| | | 2' - 3' | Cadmium | | 366.19 | 370.13 | Above | Clay, silty clay, clayey silt | 4/25/2011 | 30.5 B |
| | | 3' - 4' | Cadmium | | 366.19 | 369.13 | Above | Clayey silt, silt | 4/25/2011 | 12.5 B |
| DI-55-02 | F23 | 0' - 1' | Cadmium | 373.56 | 366.21 | 372.56 | Above | Silty clay, clay, roots | 4/25/2011 | 6.9 |
| | | 1' - 2' | Cadmium | | 366.21 | 371.56 | Above | Clay | 4/25/2011 | 1.5 |
| | | 2' - 3' | Cadmium | | 366.21 | 370.56 | Above | Clay | 4/25/2011 | 0.77 |
| | | 3' - 4' | Cadmium | | 366.21 | 369.56 | Above | Clay | 4/25/2011 | 12.4 |
| DI-55-03 | F23 | 0' - 1' | Cadmium | 374.18 | 366.22 | 373.18 | Above | Clay, silty clay, roots | 4/25/2011 | 0.52 |
| | | 1' - 2' | Cadmium | | 366.22 | 372.18 | Above | Silty clay, silt, trace gravel | 4/25/2011 | 1.0 |
| DI-57-01 | G25 | 0' - 1' | Cadmium | 371.75 | 365.18 | 370.75 | Above | Gravelly silt, little sand, trace clay | 8/24/2011 | 15.6 |
| | | 1' - 2' | Cadmium | | 365.18 | 372.18 | Above | Clayey silt | 8/24/2011 | 0.30 J [1.4 J] |
| | | 2' - 3' | Cadmium | | 365.18 | 372.18 | Above | Clayey silt, clay increases with depth | 8/24/2011 | 1.8 |
| | | 3' - 4' | Cadmium | | 365.18 | 372.18 | Above | Gray clay | 8/24/2011 | 2.8 |

**Table 1B**
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**Bloody Brook Voluntary Cleanup Program**
**Onondaga County, New York**

| Boring ID | Figure Coordinates | Sampling Interval | Analyte | Surface Elevation (ft) | Brook Elevation (ft) | Sample Elevation at Bottom of Interval (ft) | Sample Relation to Brook Level | General Lithology | Collection Date | Result (mg/kg) |
|---|---|---|---|---|---|---|---|---|---|---|
| DI-57-02 | G25 | 0' - 1' | Cadmium | 371.67 | 365.12 | 370.67 | Above | Sandy silt, some gravel, trace clay & organics | 8/24/2011 | 26.3 J |
| | | 1' - 2' | Cadmium | | 365.12 | 372.18 | Above | Clayey silt, trace fine sand, trace organics | 8/24/2011 | 24.1 J [41.0 J] |
| | | 2' - 3' | Cadmium | | 365.12 | 372.18 | Above | Clayey silt, clay increases with depth | 8/24/2011 | 38.4 J |
| | | 3' - 4' | Cadmium | | 365.12 | 372.18 | Above | Clay, trace silt | 8/24/2011 | 61.3 J |
| DI-58-01 | F27 | 0' - 1' | Cadmium | 372.98 | 364.31 | 371.98 | Above | Fine sand | 8/23/2011 | 1.8 |
| | | 1' - 2' | Cadmium | | 364.23 | 372.18 | Above | Fine sand, little silt | 8/23/2011 | 10.1 |
| DI-58-02 | F27 | 0' - 1' | Cadmium | 372 | 364.31 | 371 | Above | Silty sand | 8/23/2011 | 17.9 |
| | | 1' - 2' | Cadmium | | 364.31 | 372.18 | Above | Silty sand | 8/23/2011 | 61.5 |
| | | 2' - 3' | Cadmium | | 364.31 | 372.18 | Above | Silty sand, little clay | 8/23/2011 | 23.1 |
| | | 3' - 4' | Cadmium | | 364.31 | 372.18 | Above | Silty sand, some clay | 8/23/2011 | 11.3 |
| DI-59-01 | G25 | 0' - 1' | Cadmium | 372.12 | 365.22 | 371.12 | Above | Silt, little sand & clay | 8/24/2011 | 31.7 |
| | | 1' - 2' | Cadmium | | 365.22 | 372.18 | Above | Silt, little sand & clay | 8/24/2011 | 3.4 |
| | | 2' - 3' | Cadmium | | 365.22 | 372.18 | Above | Silt, little sand & clay | 8/24/2011 | 3.1 |
| | | 3' - 4' | Cadmium | | 365.22 | 372.18 | Above | Silt, little clay, trace sand, silt increases with depth | 8/24/2011 | 28.6 |
| DI-59-02 | G25 | 0' - 1' | Cadmium | 372.14 | 365.16 | 371.14 | Above | Silty sand, trace clay | 8/24/2011 | 83.7 J |
| | | 1' - 2' | Cadmium | | 365.16 | 372.18 | Above | Silty sand, little clay | 8/24/2011 | 10.4 J |
| | | 2' - 3' | Cadmium | | 365.16 | 372.18 | Above | Silty sand, little clay | 8/24/2011 | 14.3 J |
| | | 3' - 4' | Cadmium | | 365.16 | 372.18 | Above | Fine sand, silt, trace clay | 8/24/2011 | 11.0 J |
| DI-SB-05-05 | F19 | 0' - 1' | Cadmium | 377.51 | 368.32 | 376.51 | Above | Silty sand, trace clay | 4/25/2011 | 0.94 |
| | | 1' - 2' | Cadmium | | 368.32 | 375.51 | Above | Sandy silt | 4/25/2011 | 0.24 [0.23] |
| | | 2' - 3' | Cadmium | | 368.32 | 374.51 | Above | Silty sand | 4/25/2011 | <0.26 U |
| | | 3' - 4' | Cadmium | | 368.32 | 373.51 | Above | Fine sand with some gravel, trace silt | 4/25/2011 | 0.52 B |
| | | 4' - 5' | Cadmium | | 368.32 | 372.51 | Above | Grades to Sandy silt with little gravel | 4/25/2011 | 0.33 B |
| | | 5' - 6' | Cadmium | | 368.32 | 371.51 | Above | Sandy silt, trace gravel, trace clay | 4/25/2011 | 0.54 B |
| | | 6' - 7' | Cadmium | | 368.32 | 370.51 | Above | Sandy silt, trace gravel, trace clay | 4/25/2011 | 0.88 B |
| | | 7' - 8' | Cadmium | | 368.32 | 369.51 | Above | Clay, trace gravel at 7' | 4/25/2011 | 1.0 B |
| DI-SB-07-01 | B30 | 0' - 1' | Cadmium | 372.4 | 364.42 | 371.4 | Above | Course sand, some silt, little gravel, trace clay | 8/22/2011 | 0.93 |
| | | 1' - 2' | Cadmium | | 364.42 | 370.4 | Above | Coarse sand, some silt, little gravel & clay | 8/22/2011 | 1.4 |
| | | 2' - 3' | Cadmium | | 364.42 | 369.4 | Above | Fine sandy silt, little to trace clay | 8/22/2011 | 0.061 J |
| | | 3' - 4' | Cadmium | | 364.42 | 368.4 | Above | Clayey silt, trace fine sand | 8/22/2011 | 0.12 J |
| | | 4' - 5' | Cadmium | | 364.42 | 367.4 | Above | Silty Clay | 8/22/2011 | 0.060 J |
| | | 5' - 6' | Cadmium | | 364.42 | 366.4 | Above | Silty Clay | 8/22/2011 | <0.23 |
| | | 6' - 7' | Cadmium | | 364.42 | 365.4 | Above | Silty Clay, silt lense 6'-2", clay at 6'-8" | 8/22/2011 | <0.22 |
| DI-SB-07-02 | B30 | 0' - 1' | Cadmium | 372.45 | 364.42 | 371.45 | Above | Silty Sand, some gravel | 8/22/2011 | 0.32 |
| | | 1' - 2' | Cadmium | | 364.42 | 370.45 | Above | Silty fine sand, trace clay & gravel | 8/22/2011 | 0.28 |
| | | 2' - 3' | Cadmium | | 364.42 | 369.45 | Above | Silty fine sand, trace clay & gravel | 8/22/2011 | 0.10 J |
| | | 3' - 4' | Cadmium | | 364.42 | 368.45 | Above | Sand, silt, little clay | 8/22/2011 | 0.13 J [0.21 J] |
| | | 4' - 5' | Cadmium | | 364.42 | 367.45 | Above | Clayey silt - increasing clay with depth | 8/22/2011 | 0.064 J |
| | | 5' - 6' | Cadmium | | 364.42 | 366.45 | Above | Silty clay - increasing clay with depth | 8/22/2011 | 0.035 J |
| | | 6' - 7' | Cadmium | | 364.42 | 365.45 | Above | Clay, little to trace silt | 8/22/2011 | 0.059 J |
| EPSOIL-2 | G23 | 0' - 1' | Cadmium | --- | --- | --- | --- | --- | 10/2001 | 29.6 |
| EPSOIL-3 | B30 | 0' - 1' | Cadmium | --- | --- | --- | --- | --- | 10/2001 | 75.6 |
| SA-SB-05-02 | F19 | 0" - 2" | Cadmium | 376.93 | 368.32 | 376.76 | Above | Topsoil | 10/22/2003 | 1.4 |
| | | 0' - 1' | Cadmium | | 368.32 | 375.93 | Above | Silty Sand | 10/22/2003 | 1.4 |
| | | 1' - 2' | Cadmium | | 368.32 | 374.93 | Above | Silty Sand | 10/22/2003 | <0.58 |
| | | 2' - 3' | Cadmium | | 368.32 | 373.93 | Above | Silty Sand | 10/22/2003 | 1.4 |
| | | 3' - 4' | Cadmium | | 368.32 | 372.93 | Above | Silty Sand | 10/22/2003 | <0.60 |
| | | 4' - 5' | Cadmium | | 368.32 | 371.93 | Above | Clayey Silt | 10/22/2003 | <0.60 |
| | | 5' - 6' | Cadmium | | 368.32 | 370.93 | Above | Clayey Silt | 10/22/2003 | 12.5 |
| | | 6' - 7' | Cadmium | | 368.32 | 369.93 | Above | Sandy Silt | 10/22/2003 | <0.58 |
| | | 7' - 8' | Cadmium | | 368.32 | 368.93 | Above | Sandy Silt to Organic Clayey Silt | 10/22/2003 | <0.59 |
| | | 8' - 9' | Cadmium | | 368.32 | 367.93 | At | Organic Clayey Silt | 10/22/2003 | 5.1 |
| | | 9' - 10' | Cadmium | | 368.32 | 366.93 | Below | Organic Clayey Silt | 10/22/2003 | 5.9 |
| | | 10' - 11' | Cadmium | | 368.32 | 365.93 | Below | Organic Clayey Silt | 10/22/2003 | 8.1 |

**Table 1B**
**Summary of Soil Lithology and Analytical Data for Borings Located on Figure 3B**
**Design Soil Investigation Summary Report**
**West Branch of Bloody Brook**
**Bloody Brook Voluntary Cleanup Program**
**Onondaga County, New York**

| Boring ID | Figure Coordinates | Sampling Interval | Analyte | Surface Elevation (ft) | Brook Elevation (ft) | Sample Elevation at Bottom of Interval (ft) | Sample Relation to Brook Level | General Lithology | Collection Date | Result (mg/kg) |
|---|---|---|---|---|---|---|---|---|---|---|
| SA-SB-05-03 | F19 | 0" - 2" | Cadmium | 376.62 | 368.31 | 376.45 | Above | Topsoil | 10/22/2003 | 1.51 |
| | | 0' - 1' | Cadmium | | 368.31 | 375.62 | Above | Silty Sand | 10/22/2003 | <0.607 |
| | | 1' - 2' | Cadmium | | 368.31 | 374.62 | Above | Silty Sand | 10/22/2003 | <0.588 |
| | | 2' - 3' | Cadmium | | 368.31 | 373.62 | Above | Silty Sand | 10/22/2003 | <0.581 |
| | | 3' - 4' | Cadmium | | 368.31 | 372.62 | Above | Silty Sand | 10/22/2003 | <0.579 |
| | | 4' - 5' | Cadmium | | 368.31 | 371.62 | Above | Clayey Silt | 10/22/2003 | <0.607 |
| | | 5' - 6' | Cadmium | | 368.31 | 370.62 | Above | Organic Clayey Silt | 10/22/2003 | 2.5 |
| | | 6' - 7' | Cadmium | | 368.31 | 369.62 | Above | Organic Clayey Silt | 10/22/2003 | 0.587 |
| | | 7' - 8' | Cadmium | | 368.31 | 368.62 | At | Organic Clayey Silt | 10/22/2003 | 20.5 |
| | | 8' - 9' | Cadmium | | 368.31 | 367.62 | Below | Clayey Silt | 10/22/2003 | 21.8 |
| | | 9' - 10' | Cadmium | | 368.31 | 366.62 | Below | Clayey Silt | 10/22/2003 | <0.661 |
| SA-SB-05-04 | F19 | 0" - 2" | Cadmium | 375.98 | 368.27 | 375.81 | Above | Topsoil | 10/22/2003 | 4.3 |
| | | 0' - 1' | Cadmium | | 368.27 | 374.98 | Above | Silty Sand | 10/22/2003 | 3.6 |
| | | 1' - 2' | Cadmium | | 368.27 | 373.98 | Above | Silty Sand | 10/22/2003 | 27.9 |
| | | 2' - 3' | Cadmium | | 368.27 | 372.98 | Above | Silty Sand | 10/22/2003 | <0.57 |
| | | 3' - 4' | Cadmium | | 368.27 | 371.98 | Above | Organic clayey Silt | 10/22/2003 | 11.8 |
| | | 4' - 5' | Cadmium | | 368.27 | 370.98 | Above | Organic Silty Clay | 10/22/2003 | 7.5 |
| | | 5' - 6' | Cadmium | | 368.27 | 369.98 | Above | Organic Silty Clay | 10/22/2003 | 2.4 |
| | | 6' - 7' | Cadmium | | 368.27 | 368.98 | Above | Organic Silty Clay | 10/22/2003 | 12.0 |
| | | 7' - 8' | Cadmium | | 368.27 | 367.98 | At | Organic Clayey Silt | 10/22/2003 | 11.3 |
| | | 8' - 9' | Cadmium | | 368.27 | 366.98 | Below | Organic Clayey Silt | 10/22/2003 | 20.9 |
| | | 9' - 10' | Cadmium | | 368.27 | 365.98 | Below | Organic Sand/Silt | 10/22/2003 | <0.72 |
| | | 10' - 11' | Cadmium | | 368.27 | 364.98 | Below | Organic Sand/Silt | 10/22/2003 | <0.85 |
| | | 11' - 12' | Cadmium | | 368.27 | 363.98 | Below | Silty Sand | 10/22/2003 | <0.63 |
| | | 12' - 13' | Cadmium | | 368.27 | 362.98 | Below | Organic Silt/Sand | 10/22/2003 | <0.68 |
| | | 13' - 14' | Cadmium | | 368.27 | 361.98 | Below | Organic Silt/Sand | 10/22/2003 | <0.68 |
| SA-SB-06-01 | E28 | 0" - 2" | Cadmium | 371.39 | 364.30 | 371.22 | Above | Topsoil | 10/24/2003 | 8.5 |
| | | 0' - 1' | Cadmium | | 364.30 | 370.39 | Above | Silty Sand | 10/24/2003 | 6.5 |
| | | 1' - 2' | Cadmium | | 364.30 | 369.39 | Above | Silty Sand | 10/24/2003 | <0.54 |
| | | 2' - 3' | Cadmium | | 364.30 | 368.39 | Above | Silty Sand | 10/24/2003 | 1.1 |
| | | 3' - 4' | Cadmium | | 364.30 | 367.39 | Above | Silty Sand | 10/24/2003 | 41.7 |
| | | 4' - 5' | Cadmium | | 364.30 | 366.39 | Above | Silty Sand | 10/24/2003 | 2.6 |
| | | 5' - 6' | Cadmium | | 364.30 | 365.39 | Above | Silty Sand | 10/24/2003 | 3.4 |
| | | 6' - 7' | Cadmium | | 364.30 | 364.39 | At | Silty Sand to Organic Clayey Silt | 10/24/2003 | <0.60 |
| | | 7' - 8' | Cadmium | | 364.30 | 363.39 | Below | Organic Clayey Silt | 10/24/2003 | <0.63 |
| | | 8' - 9' | Cadmium | | 364.30 | 362.39 | Below | Silty Clay | 10/24/2003 | <0.65 |
| SA-SB-06-02 | E28 | 0" - 2" | Cadmium | 372.31 | 364.30 | 372.14 | Above | Topsoil | 10/24/2003 | 2.49 |
| | | 0' - 1' | Cadmium | | 364.30 | 371.31 | Above | Silty Sand | 10/24/2003 | 1.09 [1.77] |
| | | 1' - 2' | Cadmium | | 364.30 | 370.31 | Above | Silty Sand | 10/24/2003 | <0.567 |
| | | 2' - 3' | Cadmium | | 364.30 | 369.31 | Above | Silty Sand | 10/24/2003 | <0.522 |
| | | 3' - 4' | Cadmium | | 364.30 | 368.31 | Above | Silty Sand | 10/24/2003 | 0.703 |
| | | 4' - 5' | Cadmium | | 364.30 | 367.31 | Above | Silty Sand to Organic Clayey Silt | 10/24/2003 | 30.3 |
| | | 5' - 6' | Cadmium | | 364.30 | 366.31 | Above | Organic Clayey Silt | 10/24/2003 | 60.1 |
| | | 6' - 7' | Cadmium | | 364.30 | 365.31 | Above | Organic Clayey Silt to Silty Clay | 10/24/2003 | 1.44 |
| | | 7' - 8' | Cadmium | | 364.30 | 364.31 | At | Organic Clayey Silt | 10/24/2003 | 6.18 |
| | | 8' - 9' | Cadmium | | 364.30 | 363.31 | Below | Silty Clay | 10/24/2003 | 7.35 |
| SA-SB-06-03 | E28 | 0" - 2" | Cadmium | 372.74 | 364.30 | 372.57 | Above | Topsoil | 10/24/2003 | 1.22 |
| | | 0' - 1' | Cadmium | | 364.30 | 371.74 | Above | Silty Sand | 10/24/2003 | <0.611 |
| | | 1' - 2' | Cadmium | | 364.30 | 370.74 | Above | Organic Silt/Sand | 10/24/2003 | <0.566 |
| | | 2' - 3' | Cadmium | | 364.30 | 369.74 | Above | Silty Sand | 10/24/2003 | <0.579 |
| | | 3' - 4' | Cadmium | | 364.30 | 368.74 | Above | Silty Sand | 10/24/2003 | <0.585 |
| | | 4' - 5' | Cadmium | | 364.30 | 367.74 | Above | Silty Sand | 10/24/2003 | 7.63 |
| | | 5' - 6' | Cadmium | | 364.30 | 366.74 | Above | Organic Clayey Silt | 10/24/2003 | 64.4 |
| | | 6' - 7' | Cadmium | | 364.30 | 365.74 | Above | Organic Clayey Silt | 10/24/2003 | <0.668 |
| | | 7' - 8' | Cadmium | | 364.30 | 364.74 | At | Clayey Silt to Clay | 10/24/2003 | <0.625 |
| | | 8' - 9' | Cadmium | | 364.30 | 363.74 | Below | Clay | 10/24/2003 | <0.634 |

**Table 1B**
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**West Branch of Bloody Brook**
**Bloody Brook Voluntary Cleanup Program**
**Onondaga County, New York**

| Boring ID | Figure Coordinates | Sampling Interval | Analyte | Surface Elevation (ft) | Brook Elevation (ft) | Sample Elevation at Bottom of Interval (ft) | Sample Relation to Brook Level | General Lithology | Collection Date | Result (mg/kg) |
|---|---|---|---|---|---|---|---|---|---|---|
| SA-SB-06-04 | E28 | 0" - 2" | Cadmium | 372.98 | 364.30 | 372.81 | Above | Topsoil | 10/24/2003 | 1.13 |
| | | 0' - 1' | Cadmium | | 364.30 | 371.98 | Above | Silty Sand | 10/24/2003 | <0.605 |
| | | 1' - 2' | Cadmium | | 364.30 | 370.98 | Above | Silty Sand | 10/24/2003 | <0.561 |
| | | 2' - 3' | Cadmium | | 364.30 | 369.98 | Above | Silty Sand | 10/24/2003 | <0.573 |
| | | 3' - 4' | Cadmium | | 364.30 | 368.98 | Above | Silty Sand | 10/24/2003 | <0.554 |
| | | 4' - 5' | Cadmium | | 364.30 | 367.98 | Above | Fill | 10/24/2003 | 1.78 |
| | | 5' - 6' | Cadmium | | 364.30 | 366.98 | Above | Organic Clayey Silt | 10/24/2003 | 88.1 |
| | | 6' - 7' | Cadmium | | 364.30 | 365.98 | Above | Organic Clayey Silt | 10/24/2003 | <0.693 |
| | | 7' - 8' | Cadmium | | 364.30 | 364.98 | Above | Clay to Silty Clay | 10/24/2003 | <0.678 |
| | | 8' - 9' | Cadmium | | 364.30 | 363.98 | At | Clay | 10/24/2003 | <0.636 |
| SA-SB-07-01 | B30 | 0" - 2" | Cadmium | 372.1 | 364.35 | 371.93 | Above | Topsoil | 10/24/2003 | 4.6 |
| SA-SB-07-02 | B30 | 0" - 2" | Cadmium | 371.71 | 364.35 | 371.54 | Above | Topsoil | 10/24/2003 | 1.0 |
| SA-SB-07-03 | B30 | 0" - 2" | Cadmium | 371.04 | 364.35 | 370.87 | Above | Topsoil | 10/24/2003 | 0.845 |
| SA-SB-07-04 | B30 | 0" - 2" | Cadmium | 370.1 | 364.35 | 369.93 | Above | Topsoil | 10/24/2003 | 0.839 |
| SA-SB-216-01 | F19 | 0" - 2" | Cadmium | 375.03 | 368.96 | 374.86 | Above | Topsoil | 10/22/2003 | 3.3 |
| | | 0' - 1' | Cadmium | | 368.96 | 374.03 | Above | Silty Sand | 10/22/2003 | 3.9 |
| | | 1' - 2' | Cadmium | | 368.96 | 373.03 | Above | Silty Sand | 10/22/2003 | <0.59 |
| | | 2' - 3' | Cadmium | | 368.96 | 372.03 | Above | Silty Sand | 10/22/2003 | <0.56 |
| | | 3' - 4' | Cadmium | | 368.96 | 371.03 | Above | Clayey Silt | 10/22/2003 | 0.65 |
| | | 4' - 5' | Cadmium | | 368.96 | 370.03 | Above | Clayey Silt | 10/22/2003 | 24.9 |
| | | 5' - 6' | Cadmium | | 368.96 | 369.03 | At | Clayey Silt | 10/22/2003 | 0.77 |
| | | 6' - 7' | Cadmium | | 368.96 | 368.03 | Below | Clayey Silt | 10/22/2003 | 4.7 |
| | | 7' - 8' | Cadmium | | 368.96 | 367.03 | Below | Clayey Silt | 10/22/2003 | <0.65 |
| | | 8' - 9' | Cadmium | | 368.96 | 366.03 | Below | Clayey Silt | 10/22/2003 | 20.6 |
| | | 9' - 10' | Cadmium | | 368.96 | 365.03 | Below | Organic Clayey Silt | 10/22/2003 | <0.654 |
| SA-SB-216-02 | E19 | 0" - 2" | Cadmium | 376.08 | 368.88 | 375.91 | Above | Topsoil | 10/22/2003 | 1.26 |
| | | 0' - 1' | Cadmium | | 368.88 | 375.08 | Above | Silty Sand | 10/22/2003 | 0.659 |
| | | 1' - 2' | Cadmium | | 368.88 | 374.08 | Above | Silty Sand | 10/22/2003 | <0.588 |
| | | 2' - 3' | Cadmium | | 368.88 | 373.08 | Above | Silty Sand | 10/22/2003 | <0.617 |
| | | 3' - 4' | Cadmium | | 368.88 | 372.08 | Above | Silty Sand | 10/22/2003 | <0.602 |
| | | 4' - 5' | Cadmium | | 368.88 | 371.08 | Above | Silty Sand | 10/22/2003 | 5.38 |
| | | 5' - 6' | Cadmium | | 368.88 | 370.08 | Above | Organic Clayey Silt | 10/22/2003 | 14.5 |
| | | 6' - 7' | Cadmium | | 368.88 | 369.08 | At | Organic Clayey Silt | 10/22/2003 | 1.57 [0.823] |
| | | 7' - 8' | Cadmium | | 368.88 | 368.08 | Below | Silty Clay | 10/22/2003 | <0.68 |
| | | 8' - 9' | Cadmium | | 368.88 | 367.08 | Below | Silty Clay | 10/22/2003 | 0.903 |
| | | 9' - 10' | Cadmium | | 368.88 | 366.08 | Below | Organic Clayey Silt | 10/22/2003 | <0.756 |
| | | 10' - 11' | Cadmium | | 368.88 | 365.08 | Below | Organic Clayey Silt | 10/22/2003 | <0.719 |
| | | 11' - 12' | Cadmium | | 368.88 | 364.08 | Below | Silty Clay | 10/22/2003 | <0.62 |
| | | 12' - 13' | Cadmium | | 368.88 | 363.08 | Below | Silty Sand | 10/22/2003 | <0.616 |
| | | 13' - 14' | Cadmium | | 368.88 | 362.08 | Below | Silty Sand | 10/22/2003 | <0.60 |
| SA-SB-216-03 | E19 | 0" - 2" | Cadmium | 376.12 | 368.90 | 375.95 | Above | Topsoil | 10/22/2003 | <0.652 |
| | | 0' - 1' | Cadmium | | 368.90 | 375.12 | Above | Silty Sand | 10/22/2003 | <0.60 |
| | | 1' - 2' | Cadmium | | 368.90 | 374.12 | Above | Silty Sand | 10/22/2003 | <0.598 |
| | | 2' - 3' | Cadmium | | 368.90 | 373.12 | Above | Silty Sand | 10/22/2003 | <0.617 |
| | | 3' - 4' | Cadmium | | 368.90 | 372.12 | Above | Silty Clay | 10/22/2003 | <0.624 |
| | | 4' - 5' | Cadmium | | 368.90 | 371.12 | Above | Silty Clay | 10/22/2003 | 1.54 |
| | | 5' - 6' | Cadmium | | 368.90 | 370.12 | Above | Sandy Silt | 10/22/2003 | <0.632 |
| | | 6' - 7' | Cadmium | | 368.90 | 369.12 | At | Sandy Silt | 10/22/2003 | <0.641 |
| | | 7' - 8' | Cadmium | | 368.90 | 368.12 | Below | Sandy Silt | 10/22/2003 | <0.713 |
| | | 8' - 9' | Cadmium | | 368.90 | 367.12 | Below | Sandy Silt | 10/22/2003 | <0.635 |
| | | 9' - 10' | Cadmium | | 368.90 | 366.12 | Below | Organic Silt/Sand | 10/22/2003 | <0.635 |
| SA-SB-216-04 | E19 | 0' - 1' | Cadmium | 376.23 | 368.88 | 375.23 | Above | Silty Sand | 10/22/2003 | <0.59 |
| | | 1' - 2' | Cadmium | | 368.88 | 374.23 | Above | Silty Sand | 10/22/2003 | <0.57 |
| SB-01 | F18 | 0" - 2" | Cadmium | --- | --- | --- | --- | --- | 11/2001 | 10.5 |
| | | 0' - 1' | Cadmium | | --- | --- | --- | --- | 11/2001 | 1.64 |
| SB-02 | F19 | 0' - 1' | Cadmium | --- | --- | --- | --- | --- | 11/2001 | 203 |
| | | 1' - 2' | Cadmium | | --- | --- | --- | --- | 11/2001 | 503 |
| SB-03 | F19 | 0' - 1' | Cadmium | --- | --- | --- | --- | --- | 11/2001 | 37 |
| | | 1' - 2' | Cadmium | | --- | --- | --- | --- | 11/2001 | 30.1 |
| SB-04 | F21 | 0' - 1' | Cadmium | --- | --- | --- | --- | --- | 11/2001 | 30.4 |
| | | 1' - 2' | Cadmium | | --- | --- | --- | --- | 11/2001 | 34.2 |
| SB-05 | G22 | 0' - 1' | Cadmium | --- | --- | --- | --- | --- | 11/2001 | 41.1 |
| | | 1' - 2' | Cadmium | | --- | --- | --- | --- | 11/2001 | 98.2 |

**Table 1B**
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**Bloody Brook Voluntary Cleanup Program**
**Onondaga County, New York**

| Boring ID | Figure Coordinates | Sampling Interval | Analyte | Surface Elevation (ft) | Brook Elevation (ft) | Sample Elevation at Bottom of Interval (ft) | Sample Relation to Brook Level | General Lithology | Collection Date | Result (mg/kg) |
|---|---|---|---|---|---|---|---|---|---|---|
| SB-06 | F22 | 0' - 1' | Cadmium | --- | --- | --- | --- | --- | 11/2001 | 11.3 |
| | | 1' - 2' | Cadmium | | --- | --- | --- | --- | 11/2001 | 8.04 |
| SB-07 | G24 | 0' - 1' | Cadmium | --- | --- | --- | --- | --- | 11/2001 | 42.1 |
| | | 1' - 2' | Cadmium | | --- | --- | --- | --- | 11/2001 | 34.3 |
| SB-08 | G25 | 0' - 1' | Cadmium | --- | --- | --- | --- | --- | 11/2001 | 5.78 |
| SB-09 | E28 | 0' - 1' | Cadmium | --- | --- | --- | --- | --- | 11/2001 | 81.5 |
| | | 1' - 2' | Cadmium | | --- | --- | --- | --- | 11/2001 | 191 |
| SB-10 | D29 | 0' - 1' | Cadmium | --- | --- | --- | --- | --- | 11/2001 | 108 |
| | | 1' - 2' | Cadmium | | --- | --- | --- | --- | 11/2001 | 114 |
| SB-11 | B30 | 0' - 1' | Cadmium | --- | --- | --- | --- | --- | 11/2001 | 9.82 |
| SB-12 | B31 | 0' - 1' | Cadmium | --- | --- | --- | --- | --- | 11/2001 | 2.11 |
| SB-29 | F19 | 0" - 2" | Cadmium | | --- | --- | --- | --- | 06/2002 | 10.5 |
| SB-30 | F19 | 0" - 2" | Cadmium | --- | --- | --- | --- | --- | 06/2002 | 39.3 |
| SB-31 | F19 | 0" - 2" | Cadmium | --- | --- | --- | --- | --- | 06/2002 | 22.9 |
| SB-32 | F21 | 0" - 2" | Cadmium | --- | --- | --- | --- | --- | 06/2002 | 35.2 |
| SB-33 | F21 | 0" - 2" | Cadmium | --- | --- | --- | --- | --- | 06/2002 | 11.3 |
| SB-34 | F21 | 0" - 2" | Cadmium | --- | --- | --- | --- | --- | 06/2002 | 3.79 |
| SB-35 | F21 | 0" - 2" | Cadmium | --- | --- | --- | --- | --- | 06/2002 | 19.0 |
| SB-36 | G22 | 0" - 2" | Cadmium | --- | --- | --- | --- | --- | 06/2002 | 26.6 |
| SB-37 | F22 | 0" - 2" | Cadmium | --- | --- | --- | --- | --- | 06/2002 | 11.3 |
| SB-38 | G23 | 0" - 2" | Cadmium | --- | --- | --- | --- | --- | 06/2002 | 22.4 |
| SB-39 | G24 | 0" - 2" | Cadmium | --- | --- | --- | --- | --- | 06/2002 | 16.8 |
| SB-40 | G24 | 0" - 2" | Cadmium | --- | --- | --- | --- | --- | 06/2002 | 6.52 |
| SB-41 | G24 | 0" - 2" | Cadmium | --- | --- | --- | --- | --- | 06/2002 | 47.3 |
| SB-42 | H25 | 0" - 2" | Cadmium | --- | --- | --- | --- | --- | 06/2002 | 5.65 |
| SB-43 | G25 | 0" - 2" | Cadmium | --- | --- | --- | --- | --- | 06/2002 | 7.77 |
| SB-44 | G27 | 0" - 2" | Cadmium | --- | --- | --- | --- | --- | 06/2002 | 101 |
| SB-45 | G27 | 0" - 2" | Cadmium | --- | --- | --- | --- | --- | 06/2002 | 17.5 |
| SB-46 | E28 | 0" - 2" | Cadmium | --- | --- | --- | --- | --- | 06/2002 | 96.1 |
| SB-47 | D29 | 0" - 2" | Cadmium | --- | --- | --- | --- | --- | 06/2002 | 35.6 |
| SB-48 | C30 | 0" - 2" | Cadmium | --- | --- | --- | --- | --- | 06/2002 | 29.6 |
| SB-49 | B30 | 0" - 2" | Cadmium | --- | --- | --- | --- | --- | 06/2002 | 21.6 |
| SB-50 | B31 | 0" - 2" | Cadmium | --- | --- | --- | --- | --- | 06/2002 | 1.3 |
| SB-61 | F19 | 0' - 1' | Cadmium | --- | --- | --- | --- | Sandy Silt | 11/2002 | 134 |
| | | 1' - 2' | Cadmium | | --- | --- | --- | Sandy Silt | 11/2002 | 22.9 |
| | | 2' - 3' | Cadmium | | --- | --- | --- | Silty Sand | 11/2002 | 26.2 |
| | | 3' - 4' | Cadmium | | --- | --- | --- | Silty Sand/Peat | 11/2002 | 864 |
| SB-62 | F19 | 2' - 3' | Cadmium | --- | --- | --- | --- | Sandy Silt | 11/2002 | 263 |
| | | 3' - 4' | Cadmium | | --- | --- | --- | Silty Sand | 11/2002 | 208 |
| SB-63 | F19 | 0" - 2" | Cadmium | --- | --- | --- | --- | --- | 11/2002 | 22.6 |
| SB-64 | F21 | 0" - 2" | Cadmium | --- | --- | --- | --- | --- | 11/2002 | 1.1 |
| SB-65 | G22 | 2' - 3' | Cadmium | --- | --- | --- | --- | Sandy Silt | 11/2002 | 6.5 |
| | | 3' - 4' | Cadmium | | --- | --- | --- | Sandy Silt | 11/2002 | 23.4 |
| SB-66 | G24 | 0' - 1' | Cadmium | --- | --- | --- | --- | Silty Sand | 11/2002 | 29.7 |
| | | 1' - 2' | Cadmium | | --- | --- | --- | Clayey Silt | 11/2002 | 24.2 |
| | | 2' - 3' | Cadmium | | --- | --- | --- | Clayey Silt | 11/2002 | 1.1 |
| | | 3' - 4' | Cadmium | | --- | --- | --- | Clayey Silt | 11/2002 | <0.60 |
| SB-67 | G24 | 0" - 2" | Cadmium | --- | --- | --- | --- | --- | 11/2002 | 20.9 |
| SB-68 | G27 | 0' - 1' | Cadmium | --- | --- | --- | --- | Silty Sand | 11/2002 | 31.4 |
| | | 1' - 2' | Cadmium | | --- | --- | --- | Silty Sand | 11/2002 | 18.0 |
| | | 2' - 3' | Cadmium | | --- | --- | --- | Sandy Silt | 11/2002 | 3.6 |
| | | 3' - 4' | Cadmium | | --- | --- | --- | Sandy Silt | 11/2002 | 11.6 |
| SB-69 | F27 | 0" - 2" | Cadmium | --- | --- | --- | --- | --- | 11/2002 | 10.3 |
| SB-70 | E28 | 2' - 3' | Cadmium | --- | --- | --- | --- | Silty Sand | 11/2002 | 12.7 |
| | | 3' - 4' | Cadmium | | --- | --- | --- | Sandy Silt | 11/2002 | 4.8 |
| SB-71 | E28 | 0" - 2" | Cadmium | --- | --- | --- | --- | --- | 11/2002 | 23.2 |
| | | 0' - 1' | Cadmium | | --- | --- | --- | Silty Sand | 11/2002 | 18.6 |
| | | 1' - 2' | Cadmium | | --- | --- | --- | Silty Sand | 11/2002 | 1.7 |
| | | 2' - 3' | Cadmium | | --- | --- | --- | Silty Sand | 11/2002 | 17.0 |
| | | 3' - 4' | Cadmium | | --- | --- | --- | Silty Sand | 11/2002 | 48.4 |
| SB-72 | D29 | 2' - 3' | Cadmium | --- | --- | --- | --- | Silty Sand | 11/2002 | 1.7 |
| | | 3' - 4' | Cadmium | | --- | --- | --- | Silty Sand/Clay | 11/2002 | 4.3 |
| SB-73 | D29 | 0" - 2" | Cadmium | --- | --- | --- | --- | --- | 11/2002 | 37.6 |

**Table 1B**
**Summary of Soil Lithology and Analytical Data for Borings Located on Figure 3B**
**Design Soil Investigation Summary Report**
**West Branch of Bloody Brook**
**Bloody Brook Voluntary Cleanup Program**
**Onondaga County, New York**

| Boring ID | Figure Coordinates | Sampling Interval | Analyte | Surface Elevation (ft) | Brook Elevation (ft) | Sample Elevation at Bottom of Interval (ft) | Sample Relation to Brook Level | General Lithology | Collection Date | Result (mg/kg) |
|---|---|---|---|---|---|---|---|---|---|---|
| SB-74 | B30 | 0' - 1' | Cadmium | --- | --- | --- | --- | Silty Sand | 11/2002 | 25.0 |
| | | 1' - 2' | Cadmium | | --- | --- | --- | Silty Sand | 11/2002 | 3.8 |
| | | 2' - 3' | Cadmium | | --- | --- | --- | Fill | 11/2002 | 1.4 |
| | | 3' - 4' | Cadmium | | --- | --- | --- | Fill/Sandy Silt | 11/2002 | <0.62 |
| SB-208 | F19 | 0" - 2" | Cadmium | --- | --- | --- | --- | --- | 11/2002 | 32.7 |
| | | 0' - 1' | Cadmium | | --- | --- | --- | Silty Sand | 11/2002 | 63.7 |
| | | 1' - 2' | Cadmium | | --- | --- | --- | Silty Sand | 11/2002 | 27.3 |
| | | 2' - 3' | Cadmium | | --- | --- | --- | Silty Sand | 11/2002 | 600 |
| | | 3' - 4' | Cadmium | | --- | --- | --- | Sandy Silt | 11/2002 | 41.7 |
| SB-209 | F21 | 0" - 2" | Cadmium | --- | --- | --- | --- | --- | 11/2002 | 14.7 |
| | | 0' - 1' | Cadmium | | --- | --- | --- | Sandy Silt | 11/2002 | 11.8 |
| | | 1' - 2' | Cadmium | | --- | --- | --- | Silty Sand | 11/2002 | 14.3 |
| | | 2' - 3' | Cadmium | | --- | --- | --- | Silty Sand | 11/2002 | 10.0 |
| | | 3' - 4' | Cadmium | | --- | --- | --- | Silty Sand | 11/2002 | 10.7 |
| SB-210 | C30 | 0" - 2" | Cadmium | --- | --- | --- | --- | --- | 11/2002 | 4.9 |
| | | 0' - 1' | Cadmium | | --- | --- | --- | Silty Sand | 11/2002 | 3.8 |
| | | 1' - 2' | Cadmium | | --- | --- | --- | Silty Sand | 11/2002 | 7.6 |
| | | 2' - 3' | Cadmium | | --- | --- | --- | Silty Sand | 11/2002 | 1.9 |
| | | 3' - 4' | Cadmium | | --- | --- | --- | Silty Sand | 11/2002 | <0.54 |
| SB-229 | F17 | 0" - 2" | Cadmium | 376.82 | 369.99 | 376.65 | Above | Topsoil | 10/21/2003 | 1.4 |
| | | 0' - 1' | Cadmium | | 369.99 | 375.82 | Above | Silty Sand | 10/21/2003 | 1.9 |
| | | 1' - 2' | Cadmium | | 369.99 | 374.82 | Above | Silty Sand | 10/21/2003 | 0.67 |
| | | 2' - 3' | Cadmium | | 369.99 | 373.82 | Above | Silty Sand | 10/21/2003 | <0.61 [<0.60] |
| | | 3' - 4' | Cadmium | | 369.99 | 372.82 | Above | Silty Sand | 10/21/2003 | <0.61 |
| | | 4' - 5' | Cadmium | | 369.99 | 371.82 | Above | Silty Sand | 10/21/2003 | 103 |
| | | 5' - 6' | Cadmium | | 369.99 | 370.82 | Above | Organic Silt/Sand | 10/21/2003 | 1,390 |
| | | 6' - 7' | Cadmium | | 369.99 | 369.82 | At | Organic Silt/Sand to Clayey Silt | 10/21/2003 | 247 |
| | | 7' - 8' | Cadmium | | 369.99 | 368.82 | Below | Clayey Silt to Silty Clay | 10/21/2003 | 2.7 |
| SB-230 | F21 | 0" - 2" | Cadmium | 376.54 | 366.99 | 376.37 | Above | Topsoil | 10/23/2003 | 23.5 |
| | | 0' - 1' | Cadmium | | 366.99 | 375.54 | Above | Sandy Silt | 10/23/2003 | 10.1 |
| | | 1' - 2' | Cadmium | | 366.99 | 374.54 | Above | Fill | 10/23/2003 | 5.2 [1.50] |
| | | 2' - 3' | Cadmium | | 366.99 | 373.54 | Above | Fill | 10/23/2003 | <0.57 |
| | | 3' - 4' | Cadmium | | 366.99 | 372.54 | Above | Silty Sand | 10/23/2003 | 0.81 |
| | | 4' - 5' | Cadmium | | 366.99 | 371.54 | Above | Silty Sand | 10/23/2003 | <0.60 |
| | | 5' - 6' | Cadmium | | 366.99 | 370.54 | Above | Silty Sand to Silty Clay | 10/23/2003 | <0.61 |
| | | 6' - 7' | Cadmium | | 366.99 | 369.54 | Above | Organic Silty Clay | 10/23/2003 | 6.0 |
| | | 7' - 8' | Cadmium | | 366.99 | 368.54 | Above | Organic Silty Clay | 10/23/2003 | <0.65 [<0.68] |
| | | 8' - 9' | Cadmium | | 366.99 | 367.54 | Above | Silty Clay | 10/23/2003 | <0.62 |
| | | 9' - 10' | Cadmium | | 366.99 | 366.54 | At | Silty Clay | 10/23/2003 | <0.59 |
| | | 10' - 11' | Cadmium | | 366.99 | 365.54 | Below | Organic Silty Clay | 10/23/2003 | <0.67 |
| | | 11' - 12' | Cadmium | | 366.99 | 364.54 | Below | Silty Clay | 10/23/2003 | <0.62 |
| | | 12' - 13' | Lithology | | 366.99 | 363.54 | Below | Silty Clay | 10/23/2003 | NA |
| | | 13' - 14' | Lithology | | 366.99 | 362.54 | Below | Silty Clay | 10/23/2003 | NA |
| | | 14' - 15' | Lithology | | 366.99 | 361.54 | Below | Silty Clay | 10/23/2003 | NA |
| SB-415 | G23 | 0" - 2" | Cadmium | 373.06 | 365.92 | 372.89 | Above | Topsoil | 10/23/2003 | 1.6 |
| | | 0' - 1' | Cadmium | | 365.92 | 372.06 | Above | Silty Sand | 10/23/2003 | 0.99 |
| | | 1' - 2' | Cadmium | | 365.92 | 371.06 | Above | Silty Sand | 10/23/2003 | 2.3 |
| | | 2' - 3' | Cadmium | | 365.92 | 370.06 | Above | Silty Sand | 10/23/2003 | <0.60 |
| | | 3' - 4' | Cadmium | | 365.92 | 369.06 | Above | Silty Sand to Clayey Silt | 10/23/2003 | <0.59 |
| | | 4' - 5' | Cadmium | | 365.92 | 368.06 | Above | Silty Sand | 10/23/2003 | 2.1 |
| | | 5' - 6' | Cadmium | | 365.92 | 367.06 | Above | Silty Sand | 10/23/2003 | <0.60 |
| | | 6' - 7' | Cadmium | | 365.92 | 366.06 | At | Silty Sand | 10/23/2003 | <0.55 |
| | | 7' - 8' | Cadmium | | 365.92 | 365.06 | Below | Organic Silt/Sand | 10/23/2003 | <0.61 [<0.59] |
| | | 8' - 9' | Cadmium | | 365.92 | 364.06 | Below | Silty Clay | 10/23/2003 | <0.64 |
| | | 9' - 10' | Cadmium | | 365.92 | 363.06 | Below | Silty Clay to Silty Sand | 10/23/2003 | <0.57 |
| | | 10' - 11' | Lithology | | 365.92 | 362.06 | Below | Silty Sand to Silty Clay | 10/23/2003 | NA |
| | | 11' - 12' | Lithology | | 365.92 | 361.06 | Below | Silty Clay | 10/23/2003 | NA |
| | | 12' -13' | Lithology | | 365.92 | 360.06 | Below | Silty Clay | 10/23/2003 | NA |
| | | 13' - 14' | Lithology | | 365.92 | 359.06 | Below | Silty Clay | 10/23/2003 | NA |
| | | 14' - 15' | Lithology | | 365.92 | 358.06 | Below | Silty Clay | 10/23/2003 | NA |
| | | 15' -16' | Lithology | | 365.92 | 357.06 | Below | Silty Clay | 10/23/2003 | NA |

**Table 1B**
**Summary of Soil Lithology and Analytical Data for Borings Located on Figure 3B**
**Design Soil Investigation Summary Report**
**West Branch of Bloody Brook**
**Bloody Brook Voluntary Cleanup Program**
**Onondaga County, New York**

| Boring ID | Figure Coordinates | Sampling Interval | Analyte | Surface Elevation (ft) | Brook Elevation (ft) | Sample Elevation at Bottom of Interval (ft) | Sample Relation to Brook Level | General Lithology | Collection Date | Result (mg/kg) |
|---|---|---|---|---|---|---|---|---|---|---|
| SB-416 | G23 | 0" - 2" | Cadmium | 372.03 | 365.87 | 371.86 | Above | Topsoil | 10/23/2003 | 44.4 |
| | | 0' - 1' | Cadmium | | 365.87 | 371.03 | Above | Silty Sand | 10/23/2003 | 20.2 |
| | | 1' - 2' | Cadmium | | 365.87 | 370.03 | Above | Silty Sand | 10/23/2003 | 6.8 |
| | | 2' - 3' | Cadmium | | 365.87 | 369.03 | Above | Silty Sand | 10/23/2003 | 1.1 |
| | | 3' - 4' | Cadmium | | 365.87 | 368.03 | Above | Organic Silt/Sand | 10/23/2003 | 123 |
| | | 4' - 5' | Cadmium | | 365.87 | 367.03 | Above | Organic Silt/Sand | 10/23/2003 | 16.8 |
| | | 5' - 6' | Cadmium | | 365.87 | 366.03 | At | Organic Silt/Sand | 10/23/2003 | 0.79 |
| | | 6' - 7' | Cadmium | | 365.87 | 365.03 | Below | Silty Clay | 10/23/2003 | <0.62 |
| | | 7' - 8' | Cadmium | | 365.87 | 364.03 | Below | Silty Clay | 10/23/2003 | <0.65 |
| SB-417 | G24 | 0" - 2" | Cadmium | 371.96 | 365.42 | 371.79 | Above | Topsoil | 10/24/2003 | 5.9 |
| | | 0' - 1' | Cadmium | | 365.42 | 370.96 | Above | Topsoil | 10/24/2003 | 16.2 |
| | | 1' - 2' | Cadmium | | 365.42 | 369.96 | Above | Clayey Silt | 10/24/2003 | 3.0 |
| | | 2' - 3' | Cadmium | | 365.42 | 368.96 | Above | Clayey Silt | 10/24/2003 | 0.86 |
| | | 3' - 4' | Cadmium | | 365.42 | 367.96 | Above | Organic Clayey Silt | 10/24/2003 | 109.0 |
| | | 4' - 5' | Cadmium | | 365.42 | 366.96 | Above | Organic Clayey Silt | 10/24/2003 | 18.4 |
| | | 5' - 6' | Cadmium | | 365.42 | 365.96 | Above | Organic Clayey Silt | 10/24/2003 | <0.73 |
| | | 6' - 7' | Cadmium | | 365.42 | 364.96 | At | Organic Clayey Silt to Clay | 10/24/2003 | <0.63 |
| | | 7' - 8' | Cadmium | | 365.42 | 363.96 | Below | Silty Sand | 10/24/2003 | <0.73 |
| SB-453 | F17 | 0" - 2" | Cadmium | 376.77 | 370.01 | 376.60 | Above | Topsoil | 4/29/2004 | 2.26 |
| | | 0' - 1' | Cadmium | | 370.01 | 375.77 | Above | Sandy Silt | 4/29/2004 | 4.03 |
| | | 1' - 2' | Cadmium | | 370.01 | 374.77 | Above | Sandy Silt | 4/29/2004 | <0.590 |
| | | 2' - 3' | Cadmium | | 370.01 | 373.77 | Above | Sandy Silt | 4/29/2004 | <0.612 |
| | | 3' - 4' | Cadmium | | 370.01 | 372.77 | Above | Clayey Silt | 4/29/2004 | <0.623 |
| | | 4' - 5' | Cadmium | | 370.01 | 371.77 | Above | Clayey Silt | 4/29/2004 | 3.29 |
| | | 5' - 6' | Cadmium | | 370.01 | 370.77 | Above | Clayey Silt | 4/29/2004 | 91.9 |
| | | 6' - 7' | Cadmium | | 370.01 | 369.77 | At | Clayey Silt | 4/29/2004 | 130 |
| | | 7' - 8' | Cadmium | | 370.01 | 368.77 | Below | Clayey Silt | 4/29/2004 | <0.734 |
| SB-454 | F21 | 0" - 2" | Cadmium | 376.79 | 367.00 | 376.62 | Above | Topsoil | 4/29/2004 | 4.9 |
| | | 0' - 1' | Cadmium | | 367.00 | 375.79 | Above | Silty Sand | 4/29/2004 | 7.5 |
| SB-455 | G23 | 0" - 2" | Cadmium | 372.43 | 365.91 | 372.26 | Above | Topsoil | 4/29/2004 | 3.8 |
| | | 0' - 1' | Cadmium | | 365.91 | 371.43 | Above | Sandy Silt | 4/29/2004 | 2.31 |
| | | 1' - 2' | Cadmium | | 365.91 | 370.43 | Above | Clayey Silt | 4/29/2004 | <0.615 |
| | | 2' - 3' | Cadmium | | 365.91 | 369.43 | Above | Clayey Silt | 4/29/2004 | <0.602 |
| | | 3' - 4' | Cadmium | | 365.91 | 368.43 | Above | Clayey Silt | 4/29/2004 | 7.04 |
| | | 4' - 5' | Cadmium | | 365.91 | 367.43 | Above | Clayey Silt | 4/29/2004 | <0.681 |

**Notes:**

1. Table does not include boring locations where samples were collected and not analyzed. Analysis of those samples was contingent on analytical results of samples collected from adjacent locations and was determined to not be necessary. Those locations are identified on Figure 3B as "Design Sampling Location Not Analyzed."
2. mg/kg = milligrams/kilograms (equivalent to ppm = parts per million).
3. The lithologic descriptions identified in the table represent the predominant lithologic classification for the respective intervals.
4. ---: Information not available.
5. Duplicate results are presented in brackets.
6. B - Compound was found in the blank and sample.
7. J - The detected concentration is an estimated value.
8. U - Result edited to reflect non-detect by data validation company due to presence of cadmium in the associated preparation blank at similar concentrations.
9. < - Analyte not detected at the reporting limit shown.
10. NA = Not analyzed.
11. Samples were collected and held at the laboratory. Analysis of held samples were contingent on results from successive samples listed above and from samples at consecutive depth intervals. Samples were analyzed if results were 2.5 ppm or greater for depth intervals in the top two feet and if results were 10 ppm or greater for depth intervals below 2 feet.
12. Samples were collected and held at the laboratory. Analysis of held samples were contingent on results from successive samples listed above and from samples at consecutive depth intervals. Samples were analyzed if results were 4.3 ppm or greater for depth intervals in the top two feet and if results were 10 ppm or greater for depth intervals below 2 feet.
13. After three attempts, the sampling personnel were unable to advance the equipment through the sampling depth, and the soil sample was not collected.

**Table 1C**
**Summary of Soil Lithology and Analytical Data for Borings Located on Figure 3C**
**Design Soil Investigation Summary Report**
**West Branch of Bloody Brook**
**Bloody Brook Voluntary Cleanup Program**
**Onondaga County, New York**

| Boring ID | Figure Coordinates | Sampling Interval | Analyte | Surface Elevation (ft) | Brook Elevation (ft) | Sample Elevation at Bottom of Interval (ft) | Sample Relation to Brook Level | General Lithology | Collection Date | Result (mg/kg) |
|---|---|---|---|---|---|---|---|---|---|---|
| B-1 | G44 | 0' - 2.5' | Cadmium | --- | --- | --- | --- | --- | 11/25/2003 | 1.5 |
| | | 2.5' - 12' | Cadmium | | --- | --- | --- | --- | 11/25/2003 | <0.63 |
| B-2 | G44 | 7' -8' | Cadmium | --- | --- | --- | --- | --- | 11/25/2003 | <0.59 |
| B-3 | G44 | 0' - 5' | Cadmium | --- | --- | --- | --- | --- | 11/24/2003 | <0.61 [<0.61] |
| | | 5' - 14' | Cadmium | | --- | --- | --- | --- | 11/24/2003 | <0.64 |
| B-4 | E44 | 0' - 2' | Cadmium | --- | --- | --- | --- | --- | 11/24/2003 | <0.63 |
| | | 2' - 12' | Cadmium | | --- | --- | --- | --- | 11/24/2003 | <0.71 |
| B-5 | D43 | 0' - 1.5' | Cadmium | --- | --- | --- | --- | --- | 11/24/2003 | <0.54 |
| | | 1.5' - 12' | Cadmium | | --- | --- | --- | --- | 11/24/2003 | 7.5 |
| B-11 | C43 | 0' - 4' | Cadmium | --- | --- | --- | --- | --- | 3/5/2004 | 0.74 [0.63] |
| | | 4' - 8' | Cadmium | | --- | --- | --- | -- | 3/5/2004 | 0.87 |
| | | 8' - 12' | Cadmium | | --- | --- | --- | --- | 3/5/2004 | 0.66 |
| B-12 | B43 | 0' - 4' | Cadmium | --- | --- | --- | --- | --- | 3/5/2004 | <0.61 |
| | | 4' - 8' | Cadmium | | --- | --- | --- | -- | 3/5/2004 | 0.69 |
| | | 8' - 12' | Cadmium | | --- | --- | --- | --- | 3/5/2004 | <0.58 |
| DI-16-01 | D35 | 0' - 1' | Cadmium | 371.46 | 363.58 | 370.46 | Above | Gravelly coarse sand with organics | 8/24/2011 | 3.3 |
| | | 1' - 2' | Cadmium | | 363.58 | 369.46 | Above | Gravelly coarse to fine sand with organics | 8/24/2011 | 4.5 |
| | | 2' - 3' | Cadmium | | 363.58 | 368.46 | Above | Gravelly coarse to fine sand with organics | 8/24/2011 | 5.1 |
| | | 3' - 4' | Cadmium | | 363.58 | 367.46 | Above | Coarse to fine sand with trace silt, gravel & organics | 8/24/2011 | 5.7 |
| | | 4' - 5' | Cadmium | | 363.58 | 366.46 | Above | Clayey silt | 8/24/2011 | 0.19 J |
| | | 5' - 6' | Cadmium | | 363.58 | 365.46 | Above | Silty clay to clay at 6' | 8/24/2011 | 0.14 J |
| DI-16-02 | D35 | 0' - 1' | Cadmium | 375.41 | 363.51 | 374.41 | Above | Fine sand, trace gravel | 8/24/2011 | 45.0 |
| | | 1' - 2' | Cadmium | | 363.51 | 373.41 | Above | Fine sand, little silt, some gravel | 8/24/2011 | 59.6 |
| | | 2' - 3' | Cadmium | | 363.51 | 372.41 | Above | Fine sand, trace gravel, organics & silt | 8/24/2011 | 3.2 |
| | | 3' - 4' | Cadmium | | 363.51 | 371.41 | Above | Coarse to fine gravelly sand | 8/24/2011 | 0.81 J |
| | | 4' - 5' | Cadmium | | 363.51 | 370.41 | Above | Silt, little clay, little gravel & pebbles | 8/24/2011 | 0.31 |
| | | 5' - 6' | Cadmium | | 363.51 | 369.41 | Above | Silty clay | 8/24/2011 | 0.17 J |
| DI-16-03 | D36 | 0' - 1' | Cadmium | 369.66 | 363.56 | 368.66 | Above | Organics, silt with pebbles, some sand | 8/24/2011 | 6.2 |
| | | 1' - 2' | Cadmium | | 363.56 | 367.66 | Above | Clayey silt, pebbles, trace fine sand | 8/24/2011 | 0.33 |
| | | 2' - 3' | Cadmium | | 363.56 | 366.66 | Above | Silty clay with organics to 2'-3" then silty sand, | 8/24/2011 | 0.44 [0.17 J] |
| | | 3' - 4' | Cadmium | | 363.56 | 365.66 | Above | Gravelly sand (coarse to fine) | 8/24/2011 | 0.040 J |
| | | 4' - 5' | Cadmium | | 363.56 | 364.66 | Above | Silt | 8/24/2011 | 0.24 |
| | | 5' - 6' | Cadmium | | 363.56 | 363.66 | At | Clayey silt to silty clay with depth | 8/24/2011 | 0.13 J |
| EPSOIL-4 | F44 | 0' - 1' | Cadmium | --- | --- | --- | --- | --- | 10/2001 | 4.5 |
| SB-13 | D37 | 0' - 1' | Cadmium | --- | --- | --- | --- | --- | 11/2001 | 14.4 |
| | | 1' - 2' | Cadmium | | --- | --- | --- | --- | 11/2001 | <0.666 |
| SB-14 | C37 | 0' - 1' | Cadmium | --- | --- | --- | --- | --- | 11/2001 | 52.2 |
| | | 1' - 2' | Cadmium | | --- | --- | --- | --- | 11/2001 | 26.2 [9.8] |
| SB-15 | D42 | 0' - 1' | Cadmium | --- | --- | --- | --- | --- | 11/2001 | 30.2 |
| | | 1' - 2' | Cadmium | | --- | --- | --- | --- | 11/2001 | 44.8 |
| SB-16 | D43 | 0' - 1' | Cadmium | --- | --- | --- | --- | --- | 11/2001 | 28.9 |
| | | 1' - 2' | Cadmium | | --- | --- | --- | --- | 11/2001 | 27.7 |
| SB-17 | G44 | 0' - 1' | Cadmium | --- | --- | --- | --- | --- | 11/2001 | 32.1 |
| SB-18 | G44 | 0' - 1' | Cadmium | --- | --- | --- | --- | --- | 11/2001 | 6.25 |
| SB-75 | D35 | 0" - 6" | Cadmium | --- | --- | --- | --- | --- | 11/2002 | 1.3 |
| | | 6" - 12" | Cadmium | | --- | --- | --- | Sand & Gravel | 11/2002 | 0.67 |
| | | 1' - 2' | Cadmium | | --- | --- | --- | Sand, Silt, Clay | 11/2002 | <0.58 |
| | | 2' - 3' | Cadmium | | --- | --- | --- | Sand, Silt, Clay | 11/2002 | <0.57 |
| | | 3' - 4' | Cadmium | | --- | --- | --- | Clay | 11/2002 | <0.61 |
| SB-76 | D35 | 0" - 6" | Cadmium | --- | --- | --- | --- | --- | 11/2002 | 0.73 |
| | | 6" - 12" | Cadmium | | --- | --- | --- | Clayey Silt | 11/2002 | <0.58 |
| | | 1' - 2' | Cadmium | | --- | --- | --- | Clayey Silt | 11/2002 | <0.61 |
| | | 2' - 3' | Cadmium | | --- | --- | --- | Clayey Silt | 11/2002 | 1.2 |
| | | 3' - 4' | Cadmium | | --- | --- | --- | Silty Sand | 11/2002 | <0.52 |
| SB-77 | E36 | 0" - 6" | Cadmium | --- | --- | --- | --- | Gravelly Sand | 11/2002 | 18.9 |
| | | 6" - 12" | Cadmium | | --- | --- | --- | Gravelly Sand | 11/2002 | 1.1 |
| | | 1' - 2' | Cadmium | | --- | --- | --- | Gravelly Sand/Clayey Silt | 11/2002 | <0.55 |
| | | 2' - 3' | Cadmium | | --- | --- | --- | Clayey Silt/ Sand | 11/2002 | <0.56 |
| | | 3' - 4' | Cadmium | | --- | --- | --- | Silty Sand | 11/2002 | <0.57 |

**Table 1C**
**Summary of Soil Lithology and Analytical Data for Borings Located on Figure 3C**
**Design Soil Investigation Summary Report**
**West Branch of Bloody Brook**
**Bloody Brook Voluntary Cleanup Program**
**Onondaga County, New York**

| Boring ID | Figure Coordinates | Sampling Interval | Analyte | Surface Elevation (ft) | Brook Elevation (ft) | Sample Elevation at Bottom of Interval (ft) | Sample Relation to Brook Level | General Lithology | Collection Date | Result (mg/kg) |
|---|---|---|---|---|---|---|---|---|---|---|
| SB-78 | C37 | 3' - 4' | Cadmium | --- | --- | --- | --- | Clay | 11/2002 | <0.58 |
| SB-79 | C37 | 0" - 6" | Cadmium | --- | --- | --- | --- | --- | 11/2002 | 1.9 |
| | | 6" - 12" | Cadmium | | --- | --- | --- | --- | 11/2002 | 0.96 |
| | | 0' - 1' | Cadmium | | --- | --- | --- | Sandy Silt | 11/2002 | NA |
| | | 1' - 2' | Cadmium | | --- | --- | --- | Sandy Silt | 11/2002 | <0.57 |
| | | 3' - 4' | Cadmium | | --- | --- | --- | Clay | 11/2002 | 1.2 |
| SB-80 | D40 | 0" - 6" | Cadmium | --- | --- | --- | --- | --- | 11/2002 | 11.7 |
| | | 6" - 12" | Cadmium | | --- | --- | --- | --- | 11/2002 | 7.3 |
| | | 0' - 4' | Cadmium | | --- | --- | --- | Fill | 11/2002 | 18.4 |
| | | 4' - 8' | Cadmium | | --- | --- | --- | Fill/Peat | 11/2002 | 22.6 |
| | | 8' - 12' | Cadmium | | --- | | --- | Peat/Sand and Gravel | 11/2002 | <0.87 |
| SB-81 | D40 | 0" - 6" | Cadmium | --- | --- | --- | --- | --- | 11/2002 | 49.9 |
| | | 6" - 12" | Cadmium | | --- | --- | --- | Sandy Silt | 11/2002 | 7.4 |
| | | 1' - 2' | Cadmium | | --- | --- | --- | Sandy Silt | 11/2002 | 8.4 |
| | | 2' - 3' | Cadmium | | --- | --- | --- | Sand | 11/2002 | 1.6 |
| | | 3' - 4' | Cadmium | | --- | --- | --- | Clay | 11/2002 | <0.63 |
| SB-82 | D40 | 0" - 6" | Cadmium | --- | --- | --- | --- | --- | 11/2002 | 1.7 |
| | | 6" - 12" | Cadmium | | --- | --- | --- | --- | 11/2002 | 1.6 |
| | | 0' - 1' | Lithology | | --- | --- | --- | Sandy Silt | 11/2002 | NA |
| | | 1' - 2' | Cadmium | | --- | --- | --- | Clayey Silt | 11/2002 | <0.61 |
| | | 2' - 3' | Cadmium | | --- | --- | --- | Sandy Silt | 11/2002 | 1.6 |
| | | 3' - 4' | Cadmium | | --- | --- | --- | Sandy Silt | 11/2002 | 1.3 |
| SB-83 | C40 | 0" - 6" | Cadmium | --- | --- | --- | --- | --- | 11/2002 | <0.52 |
| | | 6" - 12" | Cadmium | | --- | --- | --- | --- | 11/2002 | <0.51 |
| | | 0' - 4' | Cadmium | | --- | --- | --- | Clay/Fill | 11/2002 | <0.55 |
| | | 4' - 8' | Cadmium | | --- | --- | --- | Clay/Wood/Peat | 11/2002 | <0.65 |
| SB-84 | D42 | 2' - 3' | Cadmium | --- | --- | --- | --- | Peat | 11/2002 | 11.4 |
| | | 3' - 4' | Cadmium | | --- | --- | --- | Sand | 11/2002 | <0.79 |
| SB-85 | G44 | 0' - 1' | Cadmium | --- | --- | --- | --- | --- | 11/2002 | 32.1 |
| SB-211 | D43 | 0" - 6" | Cadmium | --- | --- | --- | --- | --- | 11/2002 | 3.6 |
| | | 6" - 12" | Cadmium | | --- | --- | --- | --- | 11/2002 | 6.8 |
| | | 0' - 1' | Lithology | | --- | --- | --- | Sandy Silt | 11/2002 | NA |
| | | 1' - 2' | Cadmium | | --- | --- | --- | Cobbles, Sand | 11/2002 | <0.60 |
| | | 2' - 3' | Cadmium | | --- | --- | --- | Cobbles, Sand | 11/2002 | <0.56 |
| | | 3' - 4' | Cadmium | | --- | --- | --- | Sandy Silt | 11/2002 | <0.61 |
| SB-212 | G44 | 0" - 6" | Cadmium | --- | --- | --- | --- | --- | 11/2002 | 8.0 |
| | | 6" - 12" | Cadmium | | --- | --- | --- | Silty Sand | 11/2002 | 2.6 |
| | | 1' - 2' | Cadmium | | --- | --- | --- | Sandy Silt | 11/2002 | <0.59 |
| | | 2' - 3' | Cadmium | | --- | --- | --- | Sandy Silt | 11/2002 | <0.62 |
| | | 3' - 4' | Cadmium | | --- | --- | --- | Sandy Silt | 11/2002 | <0.75 |
| SB-231 | G43 | 0" - 6" | Cadmium | 366.68 | 361.56 | 366.18 | Above | Silty Sand | 11/3/2003 | 1.0 |
| | | 6" - 12" | Cadmium | | 361.56 | 365.68 | Above | Silty Sand | 11/3/2003 | 0.82 |
| | | 1' - 2' | Cadmium | | 361.56 | 364.68 | Above | Silty Sand | 11/3/2003 | 0.72 |
| | | 2' - 3' | Cadmium | | 361.56 | 363.68 | Above | Silty Sand | 11/3/2003 | <0.60 |
| | | 3' - 4' | Cadmium | | 361.56 | 362.68 | Above | Silty Sand | 11/3/2003 | <0.64 |
| | | 4' - 5' | Cadmium | | 361.56 | 361.68 | At | Silty Sand to Organic Clayey Silt | 11/3/2003 | <0.63 |
| | | 5' - 6' | Cadmium | | 361.56 | 360.68 | Below | Organic Clayey Silt | 11/3/2003 | <0.68 |
| | | 6' - 7' | Cadmium | | 361.56 | 359.68 | Below | Organic Clayey Silt | 11/3/2003 | <0.59 |
| | | 7' - 8' | Cadmium | | 361.56 | 358.68 | Below | Sand/Gravel/ Shells | 11/3/2003 | <0.74 |
| SB-232 | G42 | 0" - 6" | Cadmium | 365.99 | 361.32 | 365.49 | Above | Silty Sand | 11/3/2003 | 23.9 |
| | | 6" - 12" | Cadmium | | 361.32 | 364.99 | Above | Silty Sand | 11/3/2003 | 21.6 |
| | | 1' - 2' | Cadmium | | 361.32 | 363.99 | Above | Silty Sand | 11/3/2003 | 40.8 |
| | | 2' - 3' | Cadmium | | 361.32 | 362.99 | Above | Silty Sand | 11/3/2003 | 5.3 |
| | | 3' - 4' | Cadmium | | 361.32 | 361.99 | Above | Silty Sand to Organic Clayey Silt | 11/3/2003 | <0.71 |
| | | 4' - 5' | Cadmium | | 361.32 | 360.99 | At | Organic Clayey Silt | 11/3/2003 | <0.70 |
| SB-418 | E36 | 0" - 6" | Cadmium | 369.94 | 363.62 | 369.44 | Above | Fill | 11/3/2003 | 0.96 |
| | | 6" - 12" | Cadmium | | 363.62 | 368.94 | Above | Fill | 11/3/2003 | 0.70 |
| | | 1' - 2' | Cadmium | | 363.62 | 367.94 | Above | Fill | 11/3/2003 | 0.75 |
| | | 2' - 3' | Cadmium | | 363.62 | 366.94 | Above | Silty Sand/ Gravel | 11/3/2003 | <0.55 |
| | | 3' - 4' | Cadmium | | 363.62 | 365.94 | Above | Silty Sand to Organic Clayey Silt | 11/3/2003 | 25.1 |
| | | 4' - 5' | Cadmium | | 363.62 | 364.94 | Above | Organic Clayey Silt | 11/3/2003 | 0.65 |

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**West Branch of Bloody Brook**
**Bloody Brook Voluntary Cleanup Program**
**Onondaga County, New York**

| Boring ID | Figure Coordinates | Sampling Interval | Analyte | Surface Elevation (ft) | Brook Elevation (ft) | Sample Elevation at Bottom of Interval (ft) | Sample Relation to Brook Level | General Lithology | Collection Date | Result (mg/kg) |
|---|---|---|---|---|---|---|---|---|---|---|
| SB-419 | D36 | 0" - 6" | Cadmium | 370.41 | 363.54 | 369.91 | Above | Fill | 11/3/2003 | 1.8 |
| | | 6" - 12" | Cadmium | | 363.54 | 369.41 | Above | Fill | 11/3/2003 | 0.8 |
| | | 1' - 2' | Cadmium | | 363.54 | 368.41 | Above | Fill | 11/3/2003 | 1.7 |
| | | 2' - 3' | Cadmium | | 363.54 | 367.41 | Above | Fill | 11/3/2003 | 0.58 |
| | | 3' - 4' | Cadmium | | 363.54 | 366.41 | Above | Fill | 11/3/2003 | 2.5 |
| | | 4' - 5' | Cadmium | | 363.54 | 365.41 | Above | Organic Clayey Silt | 11/3/2003 | 1.3 |
| SB-420 | D35 | 0" - 6" | Cadmium | 370.42 | 363.54 | 369.92 | Above | Fill | 11/3/2003 | 64.0 |
| | | 6" - 12" | Cadmium | | 363.54 | 369.42 | Above | Fill | 11/3/2003 | 87.1 |
| | | 1' - 2' | Cadmium | | 363.54 | 368.42 | Above | Fill | 11/3/2003 | 63.5 |
| | | 2' - 3' | Cadmium | | 363.54 | 367.42 | Above | Fill | 11/3/2003 | 1.9 |
| | | 3' - 4' | Cadmium | | 363.54 | 366.42 | Above | Fill to Organic Clayey Silt | 11/3/2003 | 2.9 |
| | | 4' - 5' | Cadmium | | 363.54 | 365.42 | Above | Organic Clayey Silt | 11/3/2003 | 1.1 |
| SB-421 | D36 | 0" - 6" | Cadmium | 371.01 | 363.46 | 370.51 | Above | Fill | 11/3/2003 | 1.9 |
| | | 6" - 12" | Cadmium | | 363.46 | 370.01 | Above | Fill | 11/3/2003 | 0.60 |
| | | 1' - 2' | Cadmium | | 363.46 | 369.01 | Above | Fill | 11/3/2003 | 1.3 |
| | | 2' - 3' | Cadmium | | 363.46 | 368.01 | Above | Fill | 11/3/2003 | 3.6 [3.1] |
| | | 3' - 4' | Cadmium | | 363.46 | 367.01 | Above | Fill | 11/3/2003 | <0.54 |
| | | 4' - 5' | Cadmium | | 363.46 | 366.01 | Above | Silty Sand | 11/3/2003 | <0.52 |
| SB-422 | D36 | 0" - 6" | Cadmium | 370.64 | 363.46 | 370.14 | Above | Fill | 11/3/2003 | 53.5 |
| | | 6" - 12" | Cadmium | | 363.46 | 369.64 | Above | Fill | 11/3/2003 | 57.7 |
| | | 1' - 2' | Cadmium | | 363.46 | 368.64 | Above | Fill | 11/3/2003 | 2.5 |
| | | 2' - 3' | Cadmium | | 363.46 | 367.64 | Above | Fill | 11/3/2003 | 0.62 |
| | | 3' - 4' | Cadmium | | 363.46 | 366.64 | Above | Fill to Organic Clayey Silt | 11/3/2003 | 1.2 |
| | | 4' - 5' | Cadmium | | 363.46 | 365.64 | Above | Organic Clayey Silt | 11/3/2003 | 0.62 |
| SB-423 | E36 | 0" - 6" | Cadmium | 371.94 | 363.79 | 371.44 | Above | Asphalt | 10/31/2003 | <0.53 |
| | | 6" - 12" | Cadmium | | 363.79 | 370.94 | Above | Sand/Gravel | 10/31/2003 | <0.52 |
| | | 0' - 2' | Cadmium | | 363.79 | 369.94 | Above | Asphalt/ Sand/ Gravel/ Fill | 10/31/2003 | <0.54 |
| | | 2' - 4' | Cadmium | | 363.79 | 367.94 | Above | Fill | 10/31/2003 | <0.56 |
| | | 4' - 6' | Cadmium | | 363.79 | 365.94 | Above | Fill to Sand | 10/31/2003 | <0.56 [<0.28] |
| | | 6' - 8' | Cadmium | | 363.79 | 363.94 | At | Clay | 10/31/2003 | <0.63 |
| SB-424 | F36 | 0" - 6" | Cadmium | 371.98 | 363.83 | 371.48 | Above | Asphalt | 10/31/2003 | <0.53 |
| | | 6" - 12" | Cadmium | | 363.83 | 370.98 | Above | Fill | 10/31/2003 | <0.57 |
| | | 0' - 2' | Cadmium | | 363.83 | 369.98 | Above | Fill | 10/31/2003 | <0.59 |
| | | 2' - 4' | Cadmium | | 363.83 | 367.98 | Above | Fill to Sand/Gravel/Cobbles | 10/31/2003 | <0.57 |
| | | 4' - 6' | Cadmium | | 363.83 | 365.98 | Above | Sand/Gravel/Cobbles to Silty Sand | 10/31/2003 | <0.58 |
| | | 6' - 8' | Cadmium | | 363.83 | 363.98 | At | Silty Sand to Organic Silty Clay to Organic Clay | 10/31/2003 | <0.62 |
| | | 8' - 10' | Cadmium | | 363.83 | 361.98 | Below | Organic Clay | 10/31/2003 | <0.61 |
| | | 10' - 12' | Cadmium | | 363.83 | 359.98 | Below | Sand to Clay | 10/31/2003 | <0.61 |
| SB-425 | F36 | 0" - 6" | Cadmium | 371.79 | 363.85 | 371.29 | Above | Asphalt | 10/31/2003 | <0.53 |
| | | 6" - 12" | Cadmium | | 363.85 | 370.79 | Above | Silty Sand/ Gravel/Cobbles | 10/31/2003 | <0.55 |
| | | 0' - 2' | Cadmium | | 363.85 | 369.79 | Above | Asphalt/ Silty Sand/ Gravel/Cobbles | 10/31/2003 | <0.54 |
| | | 2' - 4' | Cadmium | | 363.85 | 367.79 | Above | Silty Sand/ Gravel/Cobbles to Sand | 10/31/2003 | <0.55 |
| | | 4' - 6' | Cadmium | | 363.85 | 365.79 | Above | Sand to Organic Clayey Silt | 10/31/2003 | 22.0 |
| | | 6' - 8' | Cadmium | | 363.85 | 363.79 | At | Organic Clayey Silt to Clay | 10/31/2003 | <0.63 |
| | | 8' - 10' | Cadmium | | 363.85 | 361.79 | Below | Silty Clay to Clay to Sand/Gravel to Clay to Sand with Shells | 10/31/2003 | 6.8 |
| | | 10' - 12' | Cadmium | | 363.85 | 359.79 | Below | Sand with shells to Clay | 10/31/2003 | <0.59 |
| SB-426 | F38 | 0" - 6" | Cadmium | 371.98 | 362.55 | 371.48 | Above | Fill | 10/31/2003 | <0.58 |
| | | 6" - 12" | Cadmium | | 362.55 | 370.98 | Above | Fill | 10/31/2003 | <0.58 |
| | | 0' - 2' | Cadmium | | 362.55 | 369.98 | Above | Fill | 10/31/2003 | <0.56 |
| | | 2' - 4' | Cadmium | | 362.55 | 367.98 | Above | Silt/Sand/ Gravel/Cobble | 10/31/2003 | <0.55 [<0.56] |
| | | 4' - 6' | Cadmium | | 362.55 | 365.98 | Above | Organic Clayey Silt | 10/31/2003 | 28.9 |
| | | 6' - 8' | Cadmium | | 362.55 | 363.98 | Above | Organic Clayey Silt | 10/31/2003 | 21.1 |
| | | 8' - 10' | Cadmium | | 362.55 | 361.98 | Below | Organic Clayey Silt to Sand with Shells | 10/31/2003 | 11.7 |
| | | 10' - 12' | Cadmium | | 362.55 | 359.98 | Below | Clay to Organic Silty Clay to Silty Sand with Shells | 10/31/2003 | <0.789 |
| SB-427 | F38 | 0" - 6" | Cadmium | 371.91 | 362.57 | 371.41 | Above | Fill | 10/31/2003 | <0.59 |
| | | 6" - 12" | Cadmium | | 362.57 | 370.91 | Above | Fill | 10/31/2003 | <0.59 |
| | | 0' - 2' | Cadmium | | 362.57 | 369.91 | Above | Fill | 10/31/2003 | <0.58 |
| | | 2' - 4' | Cadmium | | 362.57 | 367.91 | Above | Fill | 10/31/2003 | <0.55 |
| | | 4' - 6' | Cadmium | | 362.57 | 365.91 | Above | Fill to Gravel/Sand/ Ceramic | 10/31/2003 | 0.85 |
| | | 6' - 8' | Cadmium | | 362.57 | 363.91 | Above | Organic Silty Clay | 10/31/2003 | 4.8 |
| | | 8' - 10' | Cadmium | | 362.57 | 361.91 | Below | Sand with shells to Clay | 10/31/2003 | <0.750 |
| | | 10' - 12' | Cadmium | | 362.57 | 359.91 | Below | Silty Clay, Wood at 10' | 10/31/2003 | <0.832 |

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**Onondaga County, New York**

| Boring ID | Figure Coordinates | Sampling Interval | Analyte | Surface Elevation (ft) | Brook Elevation (ft) | Sample Elevation at Bottom of Interval (ft) | Sample Relation to Brook Level | General Lithology | Collection Date | Result (mg/kg) |
|---|---|---|---|---|---|---|---|---|---|---|
| SB-428 | F38 | 0" - 6" | Cadmium | 370.79 | 362.60 | 370.29 | Above | Sand/Gravel/Cobbles | 10/31/2003 | <0.57 |
| | | 6" - 12" | Cadmium | | 362.60 | 369.79 | Above | Sand/Gravel/Cobbles | 10/31/2003 | <0.55 |
| | | 0' - 2' | Cadmium | | 362.60 | 368.79 | Above | Sand/Gravel/Cobbles | 10/31/2003 | <0.54 |
| | | 2' - 4' | Cadmium | | 362.60 | 366.79 | Above | Sand/Gravel/Cobbles | 10/31/2003 | <0.55 |
| | | 4' - 6' | Cadmium | | 362.60 | 364.79 | Above | Sand/Gravel/Cobbles | 10/31/2003 | <0.56 |
| | | 6' - 8' | Cadmium | | 362.60 | 362.79 | At | Organic Silty Clay (ceramics at 6'-6") to Clay | 10/31/2003 | 28.7 |
| | | 8' - 10' | Cadmium | | 362.60 | 360.79 | Below | Clay | 10/31/2003 | <0.693 |
| | | 10' - 12' | Cadmium | | 362.60 | 358.79 | Below | Organic Silty Sand to Sand with Shells | 10/31/2003 | 1.02 |
| SB-429 | F40 | 0" - 6" | Cadmium | 372.73 | 361.16 | 372.23 | Above | Fill | 10/31/2003 | <0.60 |
| | | 6" - 12" | Cadmium | | 361.16 | 371.73 | Above | Fill | 10/31/2003 | 0.58 |
| | | 0' - 2' | Cadmium | | 361.16 | 370.73 | Above | Fill | 10/31/2003 | <0.54 |
| | | 2' - 4' | Cadmium | | 361.16 | 368.73 | Above | Fill | 10/31/2003 | <0.55 |
| | | 4' - 6' | Cadmium | | 361.16 | 366.73 | Above | Clay | 10/31/2003 | 0.67 [0.62] |
| | | 6' - 8' | Cadmium | | 361.16 | 364.73 | Above | Silty Sand/ Gravel, Organic Clay, Ceramics | 10/31/2003 | <0.54 |
| | | 8' - 10' | Cadmium | | 361.16 | 362.73 | Above | Ceramics to Organic Clayey Silt | 10/31/2003 | 5.7 |
| | | 10' - 12' | Cadmium | | 361.16 | 360.73 | At | Organic Clayey Silt | 10/31/2003 | 0.73 |
| | | 12' - 14' | Cadmium | | 361.16 | 358.73 | Below | Organic Clayey Silt | 10/31/2003 | 0.99 |
| | | 14' - 16' | Cadmium | | 361.16 | 356.73 | Below | Clay to Sand/Gravel/ Shells | 10/31/2003 | <0.71 |
| SB-430 | F40 | 0" - 6" | Cadmium | 373.62 | 361.16 | 373.12 | Above | Fill | 10/31/2003 | <0.56 |
| | | 6" - 12" | Cadmium | | 361.16 | 372.62 | Above | Fill | 10/31/2003 | 0.59 |
| | | 0' - 2' | Cadmium | | 361.16 | 371.62 | Above | Fill | 10/31/2003 | <0.57 |
| | | 2' - 4' | Cadmium | | 361.16 | 369.62 | Above | Fill | 10/31/2003 | 0.57 |
| | | 4' - 6' | Cadmium | | 361.16 | 367.62 | Above | Fill | 10/31/2003 | <0.57 |
| | | 6' - 8' | Cadmium | | 361.16 | 365.62 | Above | Concrete to Sand/Gravel to Silty Sand | 10/31/2003 | <0.55 |
| | | 8' - 10' | Cadmium | | 361.16 | 363.62 | Above | Silty Sand | 10/31/2003 | <0.59 |
| | | 10' - 12' | Cadmium | | 361.16 | 361.62 | At | Gravel/Cobbles/Shells to Silty Clay | 10/31/2003 | 2.5 |
| SB-431 | G40 | 0" - 6" | Cadmium | 374.38 | 361.02 | 373.88 | Above | Fill | 10/31/2003 | <0.54 |
| | | 6" - 12" | Cadmium | | 361.02 | 373.38 | Above | Fill | 10/31/2003 | <0.54 |
| | | 0' - 2' | Cadmium | | 361.02 | 372.38 | Above | Fill | 10/31/2003 | <0.54 |
| | | 2' - 4' | Cadmium | | 361.02 | 370.38 | Above | Fill to Sand/Gravel | 10/31/2003 | 3.0 |
| | | 4' - 6' | Cadmium | | 361.02 | 368.38 | Above | Silt/Sand/ Gravel to Fill | 10/31/2003 | 0.78 |
| | | 6' - 8' | Cadmium | | 361.02 | 366.38 | Above | Fill | 10/31/2003 | 0.71 |
| | | 8' - 10' | Cadmium | | 361.02 | 364.38 | Above | Cobbles/Ceramic to Silty Sand to Ceramics | 10/31/2003 | <0.57 |
| | | 10' - 12' | Cadmium | | 361.02 | 362.38 | Above | Organic Silty Clay | 10/31/2003 | 3.3 |
| SB-432 | F42 | 0" - 6" | Cadmium | 364.60 | 361.05 | 364.10 | Above | Organic Silt/Sand | 11/3/2003 | 13.8 |
| | | 6" - 12" | Cadmium | | 361.05 | 363.60 | Above | Organic Silt/Sand | 11/3/2003 | <0.50 |
| | | 1' - 2' | Cadmium | | 361.05 | 362.60 | Above | Silty Sand | 11/3/2003 | 3.0 |
| | | 2' - 3' | Cadmium | | 361.05 | 361.6 | Above | Silty Sand | 11/3/2003 | <0.64 |
| | | 3' - 4' | Cadmium | | 361.05 | 360.6 | At | Silty Sand to Organic Clayey Silt | 11/3/2003 | <0.75 |
| | | 4' - 5' | Cadmium | | 361.05 | 359.6 | Below | Sand/Gravel/ Shells | 11/3/2003 | <0.75 |
| SB-433 | E40 | 0" - 6" | Cadmium | 371.73 | 362.02 | 371.23 | Above | Fill | 10/31/2003 | 0.66 |
| | | 6" - 12" | Cadmium | | 362.02 | 370.73 | Above | Fill | 10/31/2003 | 1.0 |
| | | 0' - 2' | Cadmium | | 362.02 | 369.73 | Above | Fill | 10/31/2003 | 0.99 |
| | | 2' - 4' | Cadmium | | 362.02 | 367.73 | Above | Fill | 10/31/2003 | 0.66 |
| | | 4' - 6' | Cadmium | | 362.02 | 365.73 | Above | Fill | 10/31/2003 | 1.2 |
| | | 6' - 8' | Cadmium | | 362.02 | 363.73 | Above | Fill to Silty Sand/ Ceramics | 10/31/2003 | <0.57 |
| | | 8' - 10' | Cadmium | | 362.02 | 361.73 | At | Organic Clayey Silt | 10/31/2003 | 0.8 |
| | | 10' - 12' | Cadmium | | 362.02 | 359.73 | Below | Organic Clayey Silt | 10/31/2003 | <0.70 |
| SB-434 | E41 | 0" - 6" | Cadmium | 371.77 | 361.89 | 371.27 | Above | Fill | 10/31/2003 | 0.61 |
| | | 6" - 12" | Cadmium | | 361.89 | 370.77 | Above | Fill | 10/31/2003 | 0.68 |
| | | 0' - 2' | Cadmium | | 361.89 | 369.77 | Above | Fill | 10/31/2003 | <0.57 |
| | | 2' - 4' | Cadmium | | 361.89 | 367.77 | Above | Fill | 10/31/2003 | 1.9 |
| | | 4' - 6' | Cadmium | | 361.89 | 365.77 | Above | Fill | 10/31/2003 | 1.3 |
| | | 6' - 8' | Cadmium | | 361.89 | 363.77 | Above | Fill to Silty Sand/ Ceramics | 10/31/2003 | 1.3 [<0.54] |
| | | 8' - 10' | Cadmium | | 361.89 | 361.77 | At | Organic Clayey Silt/ Ceramics to Sand/Gravel/ Shells | 10/31/2003 | <0.78 |
| | | 10' - 12' | Cadmium | | 361.89 | 359.77 | Below | Sand/Gravel/ Shells | 10/31/2003 | <0.79 |

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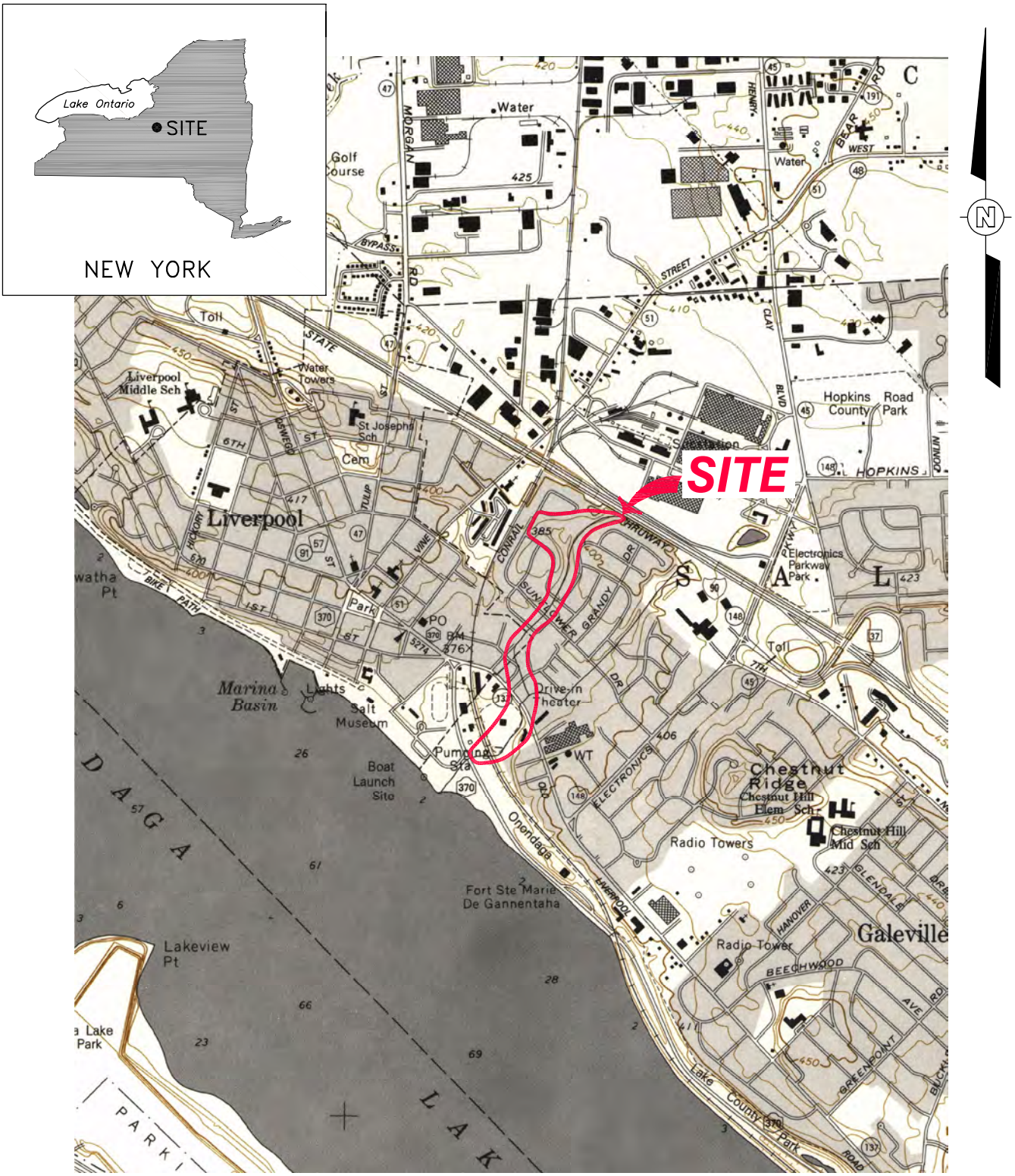
**Bloody Brook Voluntary Cleanup Program**
**Onondaga County, New York**

**Notes:**

1. mg/kg = milligrams/kilograms (equivalent to ppm = parts per million).
2. The lithologic descriptions identified in the table represent the predominant lithologic classification for the respective intervals.
3. ---: Information not available.
4. Duplicate results are presented in brackets.
5. NA = Not analyzed.
6. J - The detected concentration is an estimated value.

# *FIGURES*




APPROXIMATE SCALE

0 2000 4000 FEET

REFERENCE:

NYSDOT 7.5 MIN TOPOGRAPHIC MAP OF SYRACUSE WEST, QUADRANGLE 1990, SCALE: 1" = 2000'.

Shaw Environmental, Inc.

LOCKHEED MARTIN CORPORATION
SYRACUSE, NEW YORK

FIGURE 1
SITE LOCATION MAP

WEST BRANCH OF BLOODY BROOK
ONONDAGA COUNTY, NEW YORK

| OFFICE | DRAWN BY | CHECKED BY | APPROVED BY | DRAWING NUMBER |
|---|---|---|---|---|
| LATHAM, NY | WSS 03/08/11 | NME 03/09/11 | NME 03/09/11 | 129916-A4 |

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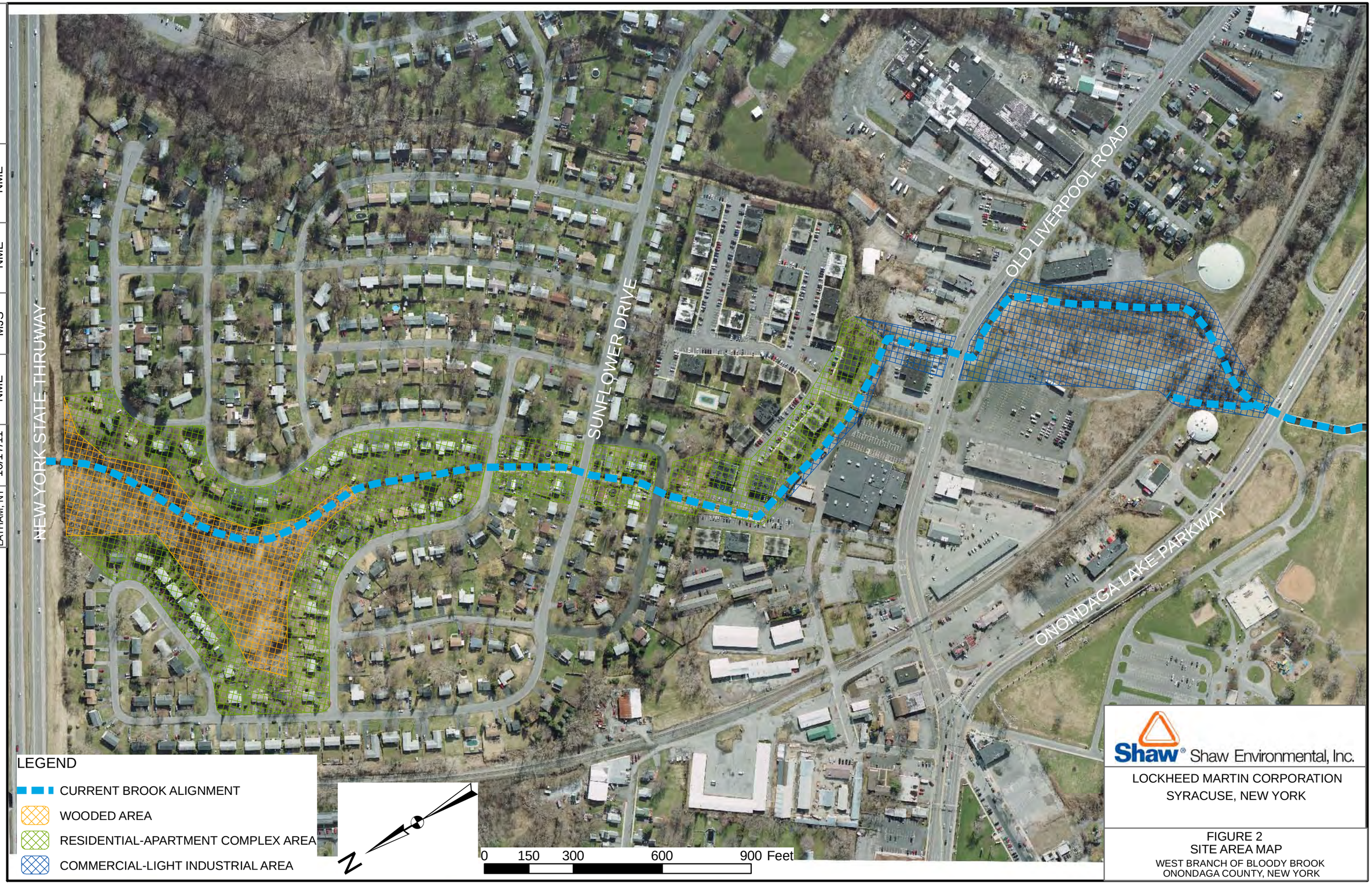
Plot Date/Time: Oct 17, 2011 - 6:33am
Plotted By: arthur.smith
Xref:
Image: BB1.tif

| OFFICE | DATE | DESIGNED BY | DRAWN BY | CHECKED BY | APPROVED BY | DRAWING NUMBER |
|---|---|---|---|---|---|---|
| LATHAM, NY | 10/17/11 | NME | MJS | NME | NME | 129916D2_FIG_2 |




Shaw® Shaw Environmental, Inc.

LOCKHEED MARTIN CORPORATION
SYRACUSE, NEW YORK

FIGURE 2
SITE AREA MAP
WEST BRANCH OF BLOODY BROOK
ONONDAGA COUNTY, NEW YORK

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| DRAWING NUMBER | 129916-D29 |
|---|---|
| APPROVED BY | N. Evans |
| CHECKED BY | M. Sausville |
| DRAWN BY | A. Smith |
| DESIGNED BY | M. Sausville |
| DATE | 10/31/11 |
| OFFICE | LATHAM, NY |

ONTARIO PLACE

MIDWOOD DRIVE

CRANBERRY DRIVE

MIDWOOD DRIVE

MATCHLINE TO SHEET 2 OF 3 — BROOKVIEW LANE

NEW YORK STATE THRUWAY

SUNFLOWER DRIVE

BROOKVIEW LANE

N 1,132,080

N 1,131,500

N 1,132,500

E 924,000

E 923,500

6'x8' WIDE BOX CULVERT INV.=384.4

INV.12"CSP=397.23 DRAINAGE PIPE

INV.12"CPP=376.78 DRAINAGE PIPE

30"CMP INV=377.90 DRAINAGE PIPE

INV.=370.4

INV.=369.5

OCDDS-4

OCDDS-5

OCDDS-6

OCDDS-7

OCDDS-10

CABION-LINED CHANNEL

SSSWP-1

SSSWP-2

SSSWP-3

SSSWP-4

SSSWP-5

SSSWP-1E

SSSWP-1N

SSSWP-1S

SSSWP-1W

SSSWP-1R

PRE-SS-P1

POST-SS-P1

BL-114

SPRUCE TREES

DESTRUCTED

TREES & BRUSH

CHANNEL

DRAINAGE

SHED

DECK

POOL

PATIO

PLANTERS

UMH

DMH

CONC

FP

SB-437, SB-436, SB-401, SB-435, SB-457, SB-458, SB-459, SB-217, SB-402, SB-218, SB-438, SB-227, SB-219, SB-403, SB-220, SB-221, SB-51, SB-222, SB-404, SB-400, SB-439, SB-405, SB-223, SB-224, SB-441, SB-440, SB-228, SB-201, SB-53, SB-408, SB-406, SB-225, SB-52, SB-226, SB-443, SB-442, SB-445, SB-407, SB-444, SB-446, SB-447, SB-20, SB-22, SB-202, SB-203, SB-23/SB-204, SB-24, SB-205, SB-25, SB-26, SB-206, SB-27/SB-207, SB-28, SB-60, SB-228, SB-450, SB-451, SB-452, SB-456, SB-19, SB-56, SB-21/SB-57, SB-58, SB-59, SB-414, SB-409, SB-54, SB-55, SB-449, SB-410, SB-412, SB-448, SB-413

DI-18-01, DI-18-02, DI-18-03, DI-40-01, DI-40-02, DI-40-03, DI-19-01, DI-19-02, DI-19-03, DI-20-01, DI-20-02, DI-20-03, DI-41-01, DI-41-02, DI-41-03, DI-60-01, DI-60-02, DI-60-03, DI-61-01, DI-61-02, DI-61-03, DI-61-04, DI-52-01, DI-52-02, DI-52-03, DI-42-04, DI-53-01, DI-53-02, DI-53-03, DI-53-04, DI-51-01, DI-51-02, DI-51-03, DI-02-01, DI-02-02, DI-02-03, DI-SB-01-05, SA-SB-01-01, SA-SB-01-02, SA-SB-01-03, SA-SB-01-04, DI-23-01, DI-23-02, DI-24-01, DI-24-02, DI-24-03, DI-25-01, DI-25-02, DI-25-03, DI-26-01, DI-26-02, DI-26-03, DI-03-01, DI-03-02, DI-03-03, DI-03-04, DI-03-05, DI-28-01, DI-28-02, DI-28-03, DI-29-01, DI-29-02, DI-29-03, SA-SB-02-01, SA-SB-02-02, SA-SB-02-03, SA-SB-02-04, DI-17-01, DI-17-02, DI-17-03, DI-17-04, DI-27-01, DI-27-02, DI-27-03, SA-SB-03-01, SA-SB-03-02, SA-SB-03-03, SA-SB-03-04, DI-SB-03-05, DI-30-01, DI-30-02, DI-30-03, SA-SB-04-01, SA-SB-04-02, SA-SB-04-03, SA-SB-04-04, DI-43-01, DI-43-02, DI-43-03, DI-44-01, DI-44-02, DI-44-03, DI-05-01, DI-05-02, DI-01-01, DI-01-02, DI-01-03, DI-21-01, DI-21-02, DI-21-03, DI-22-01, DI-22-02, DI-22-03, DI-54-01, DI-54-02, DI-54-03, DI-42-01, DI-42-02, DI-42-03

## LEGEND:

- DI-18-01 — PROPOSED SAMPLING LOCATION
- SB-408 — EXISTING SAMPLING LOCATION
- OCDDS-10 — APPROXIMATE ONONDAGA COUNTY SIDE BANK SAMPLING LOCATION
- DI-26-02 — EXISTING DESIGN SAMPLING LOCATION
- DI-26-03 — DESIGN SAMPLING LOCATION NOT ANALYZED
- HISTORIC BROOK ALIGNMENT

NOTES:

1. SEE FIGURE 3C FOR IDENTIFICATION OF ADDITIONAL MAP SYMBOLS.
2. SOIL SAMPLES COLLECTED FROM "DESIGN SAMPLING LOCATION NOT ANALYZED" WERE COLLECTED AND NOT ANALYZED. ANALYSIS OF THESE SAMPLES WAS CONTINGENT ON ANALYTICAL RESULTS OF SAMPLES COLLECTED FROM ADJACENT LOCATIONS AND WAS DETERMINED TO NOT BE NECESSARY. SAMPLES COLLECTED FROM THOSE LOCATIONS ARE NOT INCLUDED ON THE ANALYTICAL DATA SUMMARY TABLES.

REFERENCES:

1. BASE MAP SOURCE: IANUZI & ROMANS, P.C. AND CT MALE ASSOCIATES P.C.
2. THE VALUES SHOWN ARE BASED ON NEW YORK (CENTRAL ZONE) STATE PLANE COORDINATE SYSTEM NORTH AMERICAN DATUM 1983.

SCALE 0 50 100 150 FEET

Shaw Environmental, Inc.

LOCKHEED MARTIN CORPORATION
SYRACUSE, NEW YORK
DESIGN SOIL INVESTIGATION SUMMARY REPORT

FIGURE 3A
SAMPLING LOCATIONS
SHEET 1 OF 3
WEST BRANCH OF BLOODY BROOK
ONONDAGA COUNTY, NEW YORK

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Plot Date/Time: Oct 31, 2011 - 1:54pm
Plotted By: arthur.smith

| DRAWING NUMBER | APPROVED BY | CHECKED BY | DRAWN BY | DESIGNED BY | DATE | OFFICE |
|---|---|---|---|---|---|---|
| 129916-D29 | N. Evans | M. Sausville | A. Smith | M. Sausville | 10/31/11 | LATHAM, NY |

## LEGEND:

- DI-05-01 — PROPOSED SAMPLING LOCATION
- SB-208 — EXISTING SAMPLING LOCATION
- EPSOIL-2 — APPROXIMATE ONONDAGA COUNTY SIDE BANK SAMPLING LOCATION
- DI-06-02 — EXISTING DESIGN SAMPLING LOCATION
- DI-06-03 — DESIGN SAMPLING LOCATION NOT ANALYZED
- B-7 — OCDWEP LIVERPOOL PUMP STATION UPGRADE SAMPLE LOCATION
- HISTORIC BROOK ALIGNMENT

NOTES:

1. SEE FIGURE 3C FOR IDENTIFICATION OF ADDITIONAL MAP SYMBOLS.
2. SOIL SAMPLES COLLECTED FROM "DESIGN SAMPLING LOCATION NOT ANALYZED" WERE COLLECTED AND NOT ANALYZED. ANALYSIS OF THESE SAMPLES WAS CONTINGENT ON ANALYTICAL RESULTS OF SAMPLES COLLECTED FROM ADJACENT LOCATIONS AND WAS DETERMINED TO NOT BE NECESSARY. SAMPLES COLLECTED FROM THOSE LOCATIONS ARE NOT INCLUDED ON THE ANALYTICAL DATA SUMMARY TABLES.

REFERENCES:

1. BASE MAP SOURCE: IANUZI & ROMANS, P.C. AND CT MALE ASSOCIATES P.C.
2. THE VALUES SHOWN ARE BASED ON NEW YORK (CENTRAL ZONE) STATE PLANE COORDINATE SYSTEM NORTH AMERICAN DATUM 1983.

SCALE 0 50 100 150 FEET

Shaw Environmental, Inc.

LOCKHEED MARTIN CORPORATION
SYRACUSE, NEW YORK
DESIGN SOIL INVESTIGATION SUMMARY REPORT

FIGURE 3B
SAMPLING LOCATIONS
SHEET 2 OF 3
WEST BRANCH OF BLOODY BROOK
ONONDAGA COUNTY, NEW YORK

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Date/Time: Oct 31, 2011 - 1:53pm
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| DRAWING NUMBER | APPROVED BY | CHECKED BY | DRAWN BY | DESIGNED BY | DATE |
|---|---|---|---|---|---|
| 129916-D29 | N. Evans | M. Sausville | A. Smith | M. Sausville | 10/31/11 |

OFFICE: LATHAM, NY

33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48

A B C D E F G H I J

N 1,129,500 N 1,129,000 E 923,000 N 1,128,500 E 922,500

OLD LIVERPOOL ROAD (C.R. No. 137)

MATCHLINE TO SHEET 2 OF 3

ONONDAGA LAKE PARKWAY

SB-79 SB-14/SB-78 SB-13 SB-83 SB-82 SB-81 SB-80 SB-433 SB-434 SB-15/SB-84 SB-211 SB-16 SB-75 SB-420 SB-422 SB-421 SB-76 SB-419 SB-77 SB-418 SB-423 SB-424 SB-425 SB-426 SB-427 SB-428 SB-429 SB-430 SB-431 SB-432 SB-17/SB-85 SB-18 SB-212 SB-231 SB-232

DI-16-02 DI-16-01 DI-16-03

B-12 B-11 B-5 B-4 B-3 B-2 B-1

BL-127 BL-115

CSP 5'x7' WIDE INV.=364.4 INV.=364.0 INV.±=364.0

CONCRETE BOX CULVERT (NO BASE END.)

INV.24"=362.51 INV.±=361.2 INV.±=360.8 INV.±=360.9 34" RCP INV.±=360.8 EPSOIL-4 ARCH BOX CULVERT INV.±=362.0

PARKING CONSTRUCTION AREA OPEN STORAGE BRUSH ASPHALT PARKING LOT BOX CULVERT SHED PATIO CONCRETE CURB DS FP UMH OHW

REFERENCES:

1. BASE MAP SOURCE: IANUZI & ROMANS, P.C. AND CT MALE ASSOCIATES P.C.
2. THE VALUES SHOWN ARE BASED ON NEW YORK (CENTRAL ZONE) STATE PLANE COORDINATE SYSTEM NORTH AMERICAN DATUM 1983.

SCALE 0 50 100 150 FEET

## LEGEND:

- WETLAND
- BLOODY BROOK DRAINAGE DISTRICT EASEMENT
- NYS THRUWAY EASEMENT
- PROPERTY BORDER
- 365 TOPOGRAPHIC CONTOUR LINE
- WEST BRANCH OF BLOODY BROOK CENTERLINE
- TOWN/VILLAGE BORDER
- UNDERGROUND DRAIN LINE
- OHW OVERHEAD WIRES
- RW RETAINING WALL
- GUARD RAIL
- UMH UTILITY MANHOLE
- DMH DRAINAGE MANHOLE
- SMH SANITARY MANHOLE
- RAILROAD TRACKS
- CB CATCH BASIN
- DS DRAINAGE STRUTURES
- FP FLAG POLE
- CULVERT
- E 924,000 NYS PLANE COORDINATE SYSTEM EASTING
- N 1,131,000 NYS PLANE COORDINATE SYSTEM NORTHING
- BL-115 AERIAL SURVEY GROUND CONTROL POINT
- GABIONS (ROCK-FILLED WIRE CAGES)
- 7+50 CHANNEL CENTERLINE SURVEY STATION
- STREAM/WATER EDGE
- 367.4X TOPOGRAPHIC SPOT ELEVATION
- CONIFEROUS TREE
- DECIDUOUS TREE
- LIGHT POLE
- UTILITY POLE / GUY WIRE
- DI-16-02 EXISTING DESIGN SAMPLING LOCATION
- SB-432 EXISTING SAMPLING LOCATION
- EPSOIL-4 APPROXIMATE ONONDAGA COUNTY SIDE BANK SAMPLING LOCATION
- B-4 OCDWEP LIVERPOOL PUMP STATION UPGRADE SAMPLE LOCATION
- HISTORIC BROOK ALIGNMENT

Shaw Environmental, Inc.

LOCKHEED MARTIN CORPORATION
SYRACUSE, NEW YORK
DESIGN SOIL INVESTIGATION SUMMARY REPORT

# FIGURE 3C
## SAMPLING LOCATIONS SHEET 3 OF 3
WEST BRANCH OF BLOODY BROOK
ONONDAGA COUNTY, NEW YORK

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Plotted by: arthur.smith

# *APPENDIX A*

# *DATA VALIDATION REPORTS*

# Data Validation Services

120 Cobble Creek Road P.O. Box 208
North Creek, NY 12853

Phone 518-251-4429
Facsimile 518-251-4428

May 26, 2011; Revised July 2, 2011

Nickcole Evans
Shaw Environmental and Infrastructure Group
6992 Knolls Avenue North
Canastota, NY 13032

RE: **D**ata **U**sability **S**ummary **R**eport for the Bloody Brook Site

TAL-Buffalo SDG Nos. 480-4217-1, 480-4219-1, 480-4257-1, 480-4383-1, 480-4384-1, 480-4385-1, 480-4387-1, 480-4388-1, 480-4480-1, 480-4482-1, 480-4488-1, and 480-4692-1

Dear Ms. Evans:

Review has been completed for the data packages generated by TestAmerica Laboratories that pertain to samples collected between 04/25/11 and 05/03/11 at the Bloody Brook site. Two hundred twenty-four soil samples and eleven field duplicates were processed for total cadmium by USEPA SW846 method 6010B.

The data packages submitted by the laboratory contained full deliverables for validation, but this usability report is generated from review of the summary form information, with review of sample raw data, and limited review of associated QC raw data. Full validation has not been performed. However, the reported summary forms have been reviewed for application of validation qualifiers, per the USEPA Region 2 validation SOPs and the USEPA National Functional Guidelines for Data Review, as affects the usability of the sample data. The following items were reviewed:

* Laboratory Narrative Discussion
* Case Narratives
* Custody Documentation
* Holding Times
* Matrix Spike/Matrix Spike Recoveries and Duplicate Correlations
* Field Duplicate Correlations
* Preparation/Calibration Blanks
* Laboratory Control Samples
* Calibration and Low Level Standards
* ICP Interference Check Standards
* ICP Serial Dilution Correlations
* Sample Result Verification

Those items listed above which show deficiencies are discussed within the text of this narrative. All of the other items were determined to be acceptable for the DUSR review level.

**In summary,** sample results are usable as reported, with edit, and/or with minor qualification. There is no apparent matrix effect on analyte recoveries, but there is evidence of a non-homogenous matrix at some locations.

Copies of the laboratory identification summaries are attached to this text. Included with this report are qualified client results tables.

The following text discusses quality issues of concern.

## Field Duplicates

Blind field duplicate evaluations were performed on DI-SB-05-05(1'-2'), DI-49-01(2'-3'), DI-30-01(3'-4'), DI-43-01(1'-2'), DI-23-01(1'-2'), DI-28-01(3'-4'), DI-53-01(1'-2'), DI-26-01(2'-3'), DI-SB-03-05(4'-5'), DI-01-01(1'-2'), and DI-60-01(1'-2'). Correlations fall within validation guidelines, with the following exceptions: Results for cadmium are qualified as estimated in the indicated parent sample and its field duplicate:

| Parent Sample | Outlying Correlation |
|---|---|
| DI-49-01(2'-3') | >± RL |
| DI-43-01(1'-2') | >± RL |
| DI-53-01(1'-2') | >± RL |
| DI-26-01(2'-3') | 160%RPD |

## Total Cadmium by EPA 6010B

The following sample results are edited to reflect non-detection at the reporting limit, due to presence of cadmium in the associated preparation blank at similar concentrations:

DI-03-02(5'-6'), DI-03-02(6'-7'), DI-03-02(7'-8'), DI-03-02(8'-9'), DI-03-01(1'-2'), DI-03-01(2'-3'), DI-03-01(3'-4'), DI-03-01(4'-5'), DI-03-01(5'-6'), DI-03-01(6'-7'), DI-23-01(2'-3'), DI-51-01(1'-2'), DI-51-01(2'-3'), DI-06-01(7'-8'), DI-SB-05-05(2'-3'), DI-17-01(7'-8'), DI-60-01(0'-1'), DI-60-01(1'-2'), DI-60-01(2'-3'), DI-60-01(3'-4'), Duplicate 30, DI-SB-01-05(3'-4'), and DI-61-01(3'-4').

Matrix spikes were performed in duplicate on the following samples: DI-SB-05-05(1'-2'), DI-49-01(2'-3'), DI-25-01(1'-2'), DI-30-01(1'-2'), DI-03-05(8'-9'), DI-23-01(3'4'), DI-43-01(3'-4'), DI-28-01(3'-4'), DI-03-04(4'-5'), DI-53-01(1'-2'), DI-SB-03-05(8'-9'), DI-01-01(2'-3'), DI-17-01(7'-8'), and DI-60-01(3'-4'). All recoveries and duplicate correlations are within validation guidelines.

The ICP serial dilution evaluations were performed on the same samples that were used for the matrix spike/duplicate evaluation: DI-SB-05-05(1'-2'), DI-49-01(2'-3'), DI-25-01(1'-2'), DI-30-01(1'-2'), DI-03-05(8'-9'), DI-23-01(3'4'), DI-43-01(3'-4'), DI-28-01(3'-4'), DI-03-04(4'-5'), DI-53-01(1'-2'), DI-SB-03-05(8'-9'), DI-01-01(2'-3'), DI-17-01(7'-8'), and DI-60-01(3'-4'). However, all except two of these samples had cadmium at concentrations well below the levels that are applicable for the serial dilution evaluation. The evaluations for DI-48-01(0'-1') and DI-53-01(1'-2') show acceptable correlations. It would have been preferable for the laboratory to have performed that evaluation on samples with sufficiently high concentrations of cadmium (50XMDL). The samples chosen for that evaluation are at the discretion of the laboratory.

Instrument performance was compliant with analytical requirements.

## Chain-of-Custody

The majority of the samples do not include the year on the collection date entries. The year is present on the associated relinquish dates and laboratory receive dates.

No final laboratory receipt entries were present on the custody for samples collected 05/02/11 and reported in 480-4480-1.

The down-arrows were not present for the collection date for some of the custodies associated with samples reported in SDGs 480-4383-1, 480-4385-1, and 480-4488-1

The down-arrow for the client ID prefix was omitted on one of the custody forms associated with SDG 480-4482-1.

Uninitialed write-overs were observed on a custody reported in 480-4482-1. Edits should have been dated and initialed.

## Data Package Completeness

Five of the laboratory data packages did not include all custody forms and/or raw metals data. SDG 480-4692-1 showed incorrect laboratory receive dates for some of the samples. The affected laboratory data packages were revised and resubmitted upon request.

Please do not hesitate to contact me if you have comments or questions regarding this report.

Very truly yours,

Judy Harry

Judy Harry

## VALIDATION DATA QUALIFIER DEFINITIONS

| | |
|---|---|
| **U** | The analyte was analyzed for, but was not detected above the level of the associated reported quantitation limit. |
| **J** | The analyte was positively identified; the associated numerical value is an approximate concentration of the analyte in the sample. |
| **UJ** | The analyte was not detected. The associated reported quantitation limit is an estimate and may be inaccurate or imprecise. |
| **NJ** | The detection is tentative in identification and estimated in value. Although there is presumptive evidence of the analyte, the result should be used with caution as a potential false positive and/or elevated quantitative value. |
| **R** | The data are unusable. The analyte may or may not be present. |
| **EMPC** | The results do not meet all criteria for a confirmed identification. The quantitative value represents the Estimated Maximum Possible Concentration of the analyte in the sample. |

# CLIENT and LABORATORY SAMPLE IDs and CASE NARRATIVES

## SAMPLE SUMMARY

Client: Shaw Environmental & Infrastructure, Inc

Job Number: 480-4217-1

| Lab Sample ID | Client Sample ID | Client Matrix | Date/Time Sampled | Date/Time Received |
|---|---|---|---|---|
| 480-4217-1 | DI-06-01 (4'-5') | Solid | 04/25/2011 1322 | 04/26/2011 1015 |
| 480-4217-2 | DI-06-01 (5'-6') | Solid | 04/25/2011 1325 | 04/26/2011 1015 |
| 480-4217-3 | DI-06-01 (6'-7') | Solid | 04/25/2011 1328 | 04/26/2011 1015 |
| 480-4217-4 | DI-06-01 (7'-8') | Solid | 04/25/2011 1330 | 04/26/2011 1015 |
| 480-4217-5 | DI-45-01 (0'-1') | Solid | 04/25/2011 0950 | 04/26/2011 1015 |
| 480-4217-6 | DI-45-01 (1'-2') | Solid | 04/25/2011 0959 | 04/26/2011 1015 |
| 480-4217-7 | DI-45-01 (2'-3') | Solid | 04/25/2011 1011 | 04/26/2011 1015 |
| 480-4217-8 | DI-45-01 (3'-4') | Solid | 04/25/2011 1017 | 04/26/2011 1015 |
| 480-4217-9 | DI-45-01 (4'-5') | Solid | 04/25/2011 1027 | 04/26/2011 1015 |
| 480-4217-10 | DI-45-01 (5'-6') | Solid | 04/25/2011 1047 | 04/26/2011 1015 |
| 480-4217-11 | DI-45-01 (6'-7') | Solid | 04/25/2011 1050 | 04/26/2011 1015 |
| 480-4217-12 | DI-45-01 (7'-8') | Solid | 04/25/2011 1052 | 04/26/2011 1015 |
| 480-4217-13 | DI-SB-05-05 (0'-1') | Solid | 04/25/2011 1400 | 04/26/2011 1015 |
| 480-4217-14 | DI-SB-05-05 (1'-2') | Solid | 04/25/2011 1408 | 04/26/2011 1015 |
| 480-4217-14MS | DI-SB-05-05 (1'-2') | Solid | 04/25/2011 1408 | 04/26/2011 1015 |
| 480-4217-14MSD | DI-SB-05-05 (1'-2') | Solid | 04/25/2011 1408 | 04/26/2011 1015 |
| 480-4217-15 | DI-SB-05-05 (2'-3') | Solid | 04/25/2011 1412 | 04/26/2011 1015 |
| 480-4217-16 | DI-09-03 (0'-1') | Solid | 04/25/2011 1141 | 04/26/2011 1015 |
| 480-4217-17 | DI-09-03 (1'-2') | Solid | 04/25/2011 1147 | 04/26/2011 1015 |
| 480-4217-18 | DUP 2 | Solid | 04/25/2011 0000 | 04/26/2011 1015 |

## SAMPLE SUMMARY

Client: Shaw Environmental & Infrastructure, Inc

Job Number: 480-4219-1

| Lab Sample ID | Client Sample ID | Client Matrix | Date/Time Sampled | Date/Time Received |
|---|---|---|---|---|
| 480-4219-1 | DI-48-01 (0'-1') | Solid | 04/25/2011 1501 | 04/26/2011 1015 |
| 480-4219-2 | DI-48-01 (1'-2') | Solid | 04/25/2011 1509 | 04/26/2011 1015 |
| 480-4219-3 | DI-48-01 (2'-3') | Solid | 04/25/2011 1511 | 04/26/2011 1015 |
| 480-4219-4 | DI-48-01 (3'-4') | Solid | 04/25/2011 1528 | 04/26/2011 1015 |
| 480-4219-5 | DI-10-01 (0'-1') | Solid | 04/25/2011 1458 | 04/26/2011 1015 |
| 480-4219-6 | DI-10-01 (1'-2') | Solid | 04/25/2011 1504 | 04/26/2011 1015 |
| 480-4219-7 | DI-55-01 (0'-1') | Solid | 04/25/2011 1413 | 04/26/2011 1015 |
| 480-4219-8 | DI-55-01 (1'-2') | Solid | 04/25/2011 1416 | 04/26/2011 1015 |
| 480-4219-9 | DI-55-01 (2'-3') | Solid | 04/25/2011 1428 | 04/26/2011 1015 |
| 480-4219-10 | DI-49-01 (0'-1') | Solid | 04/25/2011 1310 | 04/26/2011 1015 |
| 480-4219-11 | DI-49-01 (1'-2') | Solid | 04/25/2011 1314 | 04/26/2011 1015 |
| 480-4219-12 | DI-49-01 (2'-3) | Solid | 04/25/2011 1327 | 04/26/2011 1015 |
| 480-4219-12MS | DI-49-01 (2'-3) | Solid | 04/25/2011 1327 | 04/26/2011 1015 |
| 480-4219-12MSD | DI-49-01 (2'-3) | Solid | 04/25/2011 1327 | 04/26/2011 1015 |
| 480-4219-13 | DI-49-01 (3'-4') | Solid | 04/25/2011 1333 | 04/26/2011 1015 |
| 480-4219-14 | DUP 10 | Solid | 04/25/2011 0000 | 04/26/2011 1015 |
| 480-4219-15 | DI-55-01 (3'-4') | Solid | 04/25/2011 1430 | 04/26/2011 1015 |
| 480-4219-16 | DI-SB-05-05 (3'-4') | Solid | 04/25/2011 1415 | 04/26/2011 1015 |
| 480-4219-17 | DI-SB-05-05 (4'-5') | Solid | 04/25/2011 1425 | 04/26/2011 1015 |
| 480-4219-18 | DI-SB-05-05 (5'-6') | Solid | 04/25/2011 1440 | 04/26/2011 1015 |
| 480-4219-19 | DI-SB-05-05 (6'-7') | Solid | 04/25/2011 1442 | 04/26/2011 1015 |
| 480-4219-20 | DI-SB-05-05 (7'-8') | Solid | 04/25/2011 1445 | 04/26/2011 1015 |

## SAMPLE SUMMARY

Client: Shaw Environmental & Infrastructure, Inc

Job Number: 480-4257-1

| Lab Sample ID | Client Sample ID | Client Matrix | Date/Time Sampled | Date/Time Received |
|---|---|---|---|---|
| 480-4257-1 | DI-29-01 (0'-1') | Solid | 04/26/2011 0945 | 04/27/2011 1015 |
| 480-4257-2 | DI-29-01 (1'-2') | Solid | 04/26/2011 0950 | 04/27/2011 1015 |
| 480-4257-3 | DI-29-01 (2'-3') | Solid | 04/26/2011 0955 | 04/27/2011 1015 |
| 480-4257-4 | DI-29-01 (3'-4') | Solid | 04/26/2011 1000 | 04/27/2011 1015 |
| 480-4257-5 | DUP 3 | Solid | 04/26/2011 0000 | 04/27/2011 1015 |
| 480-4257-6 | DI-25-01 (0'-1') | Solid | 04/26/2011 1140 | 04/27/2011 1015 |
| 480-4257-7 | DI-25-01 (1'-2') | Solid | 04/26/2011 1145 | 04/27/2011 1015 |
| 480-4257-7MS | DI-25-01 (1'-2') | Solid | 04/26/2011 1145 | 04/27/2011 1015 |
| 480-4257-7MSD | DI-25-01 (1'-2') | Solid | 04/26/2011 1145 | 04/27/2011 1015 |
| 480-4257-8 | DI-24-01 (0'-1') | Solid | 04/26/2011 1005 | 04/27/2011 1015 |
| 480-4257-9 | DI-24-01 (1'-2') | Solid | 04/26/2011 1010 | 04/27/2011 1015 |
| 480-4257-10 | DI-24-01 (2'-3') | Solid | 04/26/2011 1015 | 04/27/2011 1015 |
| 480-4257-11 | DI-24-01 (3'-4') | Solid | 04/26/2011 1020 | 04/27/2011 1015 |
| 480-4257-12 | DI-04-01 (5'-6') | Solid | 04/25/2011 1055 | 04/27/2011 1015 |
| 480-4257-13 | DI-04-01 (6'-7') | Solid | 04/25/2011 1055 | 04/27/2011 1015 |
| 480-4257-14 | DI-04-01 (7'-8') | Solid | 04/25/2011 1055 | 04/27/2011 1015 |
| 480-4257-15 | DI-04-01 (8'-9') | Solid | 04/25/2011 1055 | 04/27/2011 1015 |
| 480-4257-16 | DI-06-01 (0'-1') | Solid | 04/25/2011 1310 | 04/27/2011 1015 |
| 480-4257-17 | DI-06-01 (1'-2') | Solid | 04/25/2011 1314 | 04/27/2011 1015 |
| 480-4257-18 | DI-06-01 (2'-3') | Solid | 04/25/2011 1318 | 04/27/2011 1015 |
| 480-4257-19 | DI-06-01 (3'-4') | Solid | 04/25/2011 1320 | 04/27/2011 1015 |
| 480-4257-20 | DI-04-01 (0'-1') | Solid | 04/25/2011 1000 | 04/27/2011 1015 |

## SAMPLE SUMMARY

Client: Shaw Environmental & Infrastructure, Inc

Job Number: 480-4383-1

| Lab Sample ID | Client Sample ID | Client Matrix | Date/Time Sampled | Date/Time Received |
|---|---|---|---|---|
| 480-4383-1 | DI-30-01 (0'-1') | Solid | 04/28/2011 1150 | 04/29/2011 0930 |
| 480-4383-2 | DI-30-01 (1'-2') | Solid | 04/28/2011 1154 | 04/29/2011 0930 |
| 480-4383-2MS | DI-30-01 (1'-2') | Solid | 04/28/2011 1154 | 04/29/2011 0930 |
| 480-4383-2MSD | DI-30-01 (1'-2') | Solid | 04/28/2011 1154 | 04/29/2011 0930 |
| 480-4383-3 | DI-30-01 (2'-3') | Solid | 04/28/2011 1200 | 04/29/2011 0930 |
| 480-4383-4 | DI-30-01 (3'-4') | Solid | 04/28/2011 1203 | 04/29/2011 0930 |
| 480-4383-5 | DI-44-01 (0'-1') | Solid | 04/28/2011 1125 | 04/29/2011 0930 |
| 480-4383-6 | DI-44-01 (1'-2') | Solid | 04/28/2011 1128 | 04/29/2011 0930 |
| 480-4383-7 | DI-44-01 (2'-3') | Solid | 04/28/2011 1130 | 04/29/2011 0930 |
| 480-4383-8 | DI-44-01 (3'-4') | Solid | 04/28/2011 1133 | 04/29/2011 0930 |
| 480-4383-9 | DUPLICATE 14 | Solid | 04/28/2011 0000 | 04/29/2011 0930 |
| 480-4383-10 | DI-02-01 (0'-1') | Solid | 04/27/2011 1444 | 04/29/2011 0930 |
| 480-4383-11 | DI-02-01 (1'-2') | Solid | 04/27/2011 1445 | 04/29/2011 0930 |
| 480-4383-12 | DI-02-01 (2'-3') | Solid | 04/27/2011 1447 | 04/29/2011 0930 |
| 480-4383-13 | DI-02-01 (3'-4') | Solid | 04/27/2011 1449 | 04/29/2011 0930 |
| 480-4383-14 | DI-02-01 (4'-5') | Solid | 04/27/2011 1450 | 04/29/2011 0930 |
| 480-4383-15 | DI-46-01 (0'-1') | Solid | 04/27/2011 0928 | 04/29/2011 0930 |
| 480-4383-16 | DI-46-01 (1'-2') | Solid | 04/27/2011 0930 | 04/29/2011 0930 |
| 480-4383-17 | DI-26-01 (0'-1') | Solid | 04/28/2011 1440 | 04/29/2011 0930 |
| 480-4383-18 | DI-26-01 (1'-2') | Solid | 04/28/2011 1445 | 04/29/2011 0930 |
| 480-4383-19 | DI-26-01 (2'-3') | Solid | 04/28/2011 1452 | 04/29/2011 0930 |
| 480-4383-20 | DI-26-01 (3'-4') | Solid | 04/28/2011 1453 | 04/29/2011 0930 |

## SAMPLE SUMMARY

Client: Shaw Environmental & Infrastructure, Inc

Job Number: 480-4384-1

| Lab Sample ID | Client Sample ID | Client Matrix | Date/Time Sampled | Date/Time Received |
|---|---|---|---|---|
| 480-4384-1 | DI-03-05 (0'-1') | Solid | 04/27/2011 0845 | 04/29/2011 0930 |
| 480-4384-2 | DI-03-05 (1'-2') | Solid | 04/27/2011 0847 | 04/29/2011 0930 |
| 480-4384-3 | DI-03-05 (2'-3') | Solid | 04/27/2011 0849 | 04/29/2011 0930 |
| 480-4384-4 | DI-03-05 (3'-4') | Solid | 04/27/2011 0851 | 04/29/2011 0930 |
| 480-4384-5 | DI-03-05 (4'-5') | Solid | 04/27/2011 0853 | 04/29/2011 0930 |
| 480-4384-6 | DI-03-05 (5'-6') | Solid | 04/27/2011 0855 | 04/29/2011 0930 |
| 480-4384-7 | DI-03-05 (6'-7') | Solid | 04/27/2011 0857 | 04/29/2011 0930 |
| 480-4384-8 | DI-03-05 (7'-8') | Solid | 04/27/2011 0859 | 04/29/2011 0930 |
| 480-4384-9 | DI-03-05 (8'-9') | Solid | 04/27/2011 0905 | 04/29/2011 0930 |
| 480-4384-9MS | DI-03-05 (8'-9') | Solid | 04/27/2011 0905 | 04/29/2011 0930 |
| 480-4384-9MSD | DI-03-05 (8'-9') | Solid | 04/27/2011 0905 | 04/29/2011 0930 |
| 480-4384-10 | DI-03-05 (9'-10') | Solid | 04/27/2011 0907 | 04/29/2011 0930 |
| 480-4384-11 | DI-03-05 (10'-11') | Solid | 04/27/2011 0909 | 04/29/2011 0930 |
| 480-4384-12 | DI-02-01 (5'-6') | Solid | 04/27/2011 1452 | 04/29/2011 0930 |
| 480-4384-13 | DI-02-01 (6'-7') | Solid | 04/27/2011 1454 | 04/29/2011 0930 |
| 480-4384-14 | DI-02-01 (7'-8') | Solid | 04/27/2011 1455 | 04/29/2011 0930 |
| 480-4384-15 | SSSWP-1E (1'-2') | Solid | 04/27/2011 1559 | 04/29/2011 0930 |
| 480-4384-16 | SSSWP-1S (0"-6") | Solid | 04/27/2011 1601 | 04/29/2011 0930 |
| 480-4384-17 | SSSWP-1S (6"-12") | Solid | 04/27/2011 1603 | 04/29/2011 0930 |
| 480-4384-18 | SSSWP-1S (1'-2') | Solid | 04/27/2011 1605 | 04/29/2011 0930 |
| 480-4384-19 | DI-03-02 (3'-4') | Solid | 04/27/2011 1056 | 04/29/2011 0930 |
| 480-4384-20 | DI-03-02 (4'-5') | Solid | 04/27/2011 1058 | 04/29/2011 0930 |

## SAMPLE SUMMARY

Client: Shaw Environmental & Infrastructure, Inc

Job Number: 480-4385-1

| Lab Sample ID | Client Sample ID | Client Matrix | Date/Time Sampled | Date/Time Received |
|---|---|---|---|---|
| 480-4385-1 | SSSWP-1W (0"-6") | Solid | 04/27/2011 1606 | 04/29/2011 0930 |
| 480-4385-2 | SSSWP-1W (6"-12") | Solid | 04/27/2011 1608 | 04/29/2011 0930 |
| 480-4385-3 | SSSWP-1W (1'-2') | Solid | 04/27/2011 1610 | 04/29/2011 0930 |
| 480-4385-4 | SSSWP-1R (0"-6") | Solid | 04/27/2011 1545 | 04/29/2011 0930 |
| 480-4385-5 | SSSWP-1R (6"-12") | Solid | 04/27/2011 1546 | 04/29/2011 0930 |
| 480-4385-6 | SSSWP-1R (1'-2') | Solid | 04/27/2011 1547 | 04/29/2011 0930 |
| 480-4385-7 | SSSWP-1N (0"-6") | Solid | 04/27/2011 1547 | 04/29/2011 0930 |
| 480-4385-8 | SSSWP-1N (6"-12") | Solid | 04/27/2011 1549 | 04/29/2011 0930 |
| 480-4385-9 | SSSWP-1N (1'-2') | Solid | 04/27/2011 1551 | 04/29/2011 0930 |
| 480-4385-10 | SSSWP-1E (0"-6") | Solid | 04/27/2011 1555 | 04/29/2011 0930 |
| 480-4385-11 | SSSWP-1E (6"-12") | Solid | 04/27/2011 1557 | 04/29/2011 0930 |
| 480-4385-12 | DI-43-01 (0'-1') | Solid | 04/28/2011 0927 | 04/29/2011 0930 |
| 480-4385-13 | DI-43-01 (1'-2') | Solid | 04/28/2011 0929 | 04/29/2011 0930 |
| 480-4385-14 | DI-43-01 (2'-3') | Solid | 04/28/2011 0934 | 04/29/2011 0930 |
| 480-4385-15 | DI-43-01 (3'-4') | Solid | 04/28/2011 0950 | 04/29/2011 0930 |
| 480-4385-15MS | DI-43-01 (3'-4') | Solid | 04/28/2011 0950 | 04/29/2011 0930 |
| 480-4385-15MSD | DI-43-01 (3'-4') | Solid | 04/28/2011 0950 | 04/29/2011 0930 |
| 480-4385-16 | DUPLICATE 13 | Solid | 04/28/2011 0000 | 04/29/2011 0930 |
| 480-4385-17 | DI-31-01 (0'-1') | Solid | 04/28/2011 1027 | 04/29/2011 0930 |
| 480-4385-18 | DI-31-01 (1'-2') | Solid | 04/28/2011 1032 | 04/29/2011 0930 |
| 480-4385-19 | DI-31-01 (2'-3') | Solid | 04/28/2011 1033 | 04/29/2011 0930 |
| 480-4385-20 | DI-31-01 (3'-4') | Solid | 04/28/2011 1037 | 04/29/2011 0930 |

## SAMPLE SUMMARY

Client: Shaw Environmental & Infrastructure, Inc

Job Number: 480-4386-1

| Lab Sample ID | Client Sample ID | Client Matrix | Date/Time Sampled | Date/Time Received |
|---|---|---|---|---|
| 480-4386-1 | DI-03-02 (5'-6') | Solid | 04/27/2011 1100 | 04/29/2011 0930 |
| 480-4386-2 | DI-03-02 (6'-7') | Solid | 04/27/2011 1102 | 04/29/2011 0930 |
| 480-4386-3 | DI-03-02 (7'-8') | Solid | 04/27/2011 1104 | 04/29/2011 0930 |
| 480-4386-4 | DI-03-02 (8'-9) | Solid | 04/27/2011 1106 | 04/29/2011 0930 |
| 480-4386-5 | DI-03-01 (0'-1') | Solid | 04/27/2011 1110 | 04/29/2011 0930 |
| 480-4386-6 | DI-03-01 (1'-2') | Solid | 04/27/2011 1112 | 04/29/2011 0930 |
| 480-4386-7 | DI-03-01 (2'-3') | Solid | 04/27/2011 1114 | 04/29/2011 0930 |
| 480-4386-8 | DI-03-01 (3'-4') | Solid | 04/27/2011 1116 | 04/29/2011 0930 |
| 480-4386-9 | DI-03-01 (4'-5') | Solid | 04/27/2011 1118 | 04/29/2011 0930 |
| 480-4386-10 | DI-03-01 (5'-6') | Solid | 04/27/2011 1120 | 04/29/2011 0930 |
| 480-4386-11 | DI-03-01 (6'-7') | Solid | 04/27/2011 1122 | 04/29/2011 0930 |
| 480-4386-12 | DI-23-01 (0'-1) | Solid | 04/27/2011 1214 | 04/29/2011 0930 |
| 480-4386-13 | DI-23-01 (1'-2') | Solid | 04/27/2011 1219 | 04/29/2011 0930 |
| 480-4386-14 | DI-23-01 (2'-3') | Solid | 04/27/2011 1223 | 04/29/2011 0930 |
| 480-4386-15 | DI-23-01 (3'-4') | Solid | 04/27/2011 1227 | 04/29/2011 0930 |
| 480-4386-15MS | DI-23-01 (3'-4') | Solid | 04/27/2011 1227 | 04/29/2011 0930 |
| 480-4386-15MSD | DI-23-01 (3'-4') | Solid | 04/27/2011 1227 | 04/29/2011 0930 |
| 480-4386-16 | DI-51-01 (0'-1') | Solid | 04/27/2011 1046 | 04/29/2011 0930 |
| 480-4386-17 | DI-51-01 (1'-2') | Solid | 04/27/2011 1049 | 04/29/2011 0930 |
| 480-4386-18 | DI-51-01 (2'-3') | Solid | 04/27/2011 1052 | 04/29/2011 0930 |
| 480-4386-19 | DI-51-01 (3'-4') | Solid | 04/27/2011 1055 | 04/29/2011 0930 |
| 480-4386-20 | DUPLICATE 12 | Solid | 04/27/2011 0000 | 04/29/2011 0930 |

## SAMPLE SUMMARY

Client: Shaw Environmental & Infrastructure, Inc

Job Number: 480-4387-1

| Lab Sample ID | Client Sample ID | Client Matrix | Date/Time Sampled | Date/Time Received |
|---|---|---|---|---|
| 480-4387-1 | DI-28-01 (0'-1') | Solid | 04/26/2011 1054 | 04/29/2011 0930 |
| 480-4387-2 | DI-28-01 (1'-2') | Solid | 04/26/2011 1102 | 04/29/2011 0930 |
| 480-4387-3 | DI-28-01 (2'-3') | Solid | 04/26/2011 1105 | 04/29/2011 0930 |
| 480-4387-4 | DI-28-01 (3'-4') | Solid | 04/26/2011 1112 | 04/29/2011 0930 |
| 480-4387-4MS | DI-28-01 (3'-4') | Solid | 04/26/2011 1112 | 04/29/2011 0930 |
| 480-4387-4MSD | DI-28-01 (3'-4') | Solid | 04/26/2011 1112 | 04/29/2011 0930 |
| 480-4387-5 | DUPLICATE 11 | Solid | 04/26/2011 0000 | 04/29/2011 0930 |
| 480-4387-6 | DI-08-01 (0'-1') | Solid | 04/26/2011 1427 | 04/29/2011 0930 |
| 480-4387-7 | DI-08-01 (1'-2') | Solid | 04/26/2011 1430 | 04/29/2011 0930 |
| 480-4387-8 | DI-08-01 (2'-3') | Solid | 04/26/2011 1431 | 04/29/2011 0930 |
| 480-4387-9 | DI-08-01 (3'-4') | Solid | 04/26/2011 1435 | 04/29/2011 0930 |
| 480-4387-10 | DI-08-01 (4'-5') | Solid | 04/26/2011 1443 | 04/29/2011 0930 |
| 480-4387-11 | DI-08-01 (5'-6') | Solid | 04/26/2011 1448 | 04/29/2011 0930 |
| 480-4387-12 | DI-25-01 (2'-3') | Solid | 04/26/2011 1150 | 04/29/2011 0930 |
| 480-4387-13 | DI-25-01 (3'-4') | Solid | 04/26/2011 1155 | 04/29/2011 0930 |
| 480-4387-14 | DI-47-01 (0'-1') | Solid | 04/26/2011 1440 | 04/29/2011 0930 |
| 480-4387-15 | DI-47-01 (1'-2') | Solid | 04/26/2011 1445 | 04/29/2011 0930 |
| 480-4387-16 | DI-27-01 (0'-1') | Solid | 04/28/2011 1349 | 04/29/2011 0930 |
| 480-4387-17 | DI-27-01 (1'-2') | Solid | 04/28/2011 1351 | 04/29/2011 0930 |
| 480-4387-18 | DI-27-01 (2'-3') | Solid | 04/28/2011 1357 | 04/29/2011 0930 |
| 480-4387-19 | DI-27-01 (3'-4') | Solid | 04/28/2011 1400 | 04/29/2011 0930 |
| 480-4387-20 | DI-03-01 (7'-8') | Solid | 04/27/2011 1124 | 04/29/2011 0930 |

## SAMPLE SUMMARY

Client: Shaw Environmental & Infrastructure, Inc

Job Number: 480-4388-1

| Lab Sample ID | Client Sample ID | Client Matrix | Date/Time Sampled | Date/Time Received |
|---|---|---|---|---|
| 480-4388-1 | DI-03-05 (11'-12') | Solid | 04/27/2011 0911 | 04/29/2011 0930 |
| 480-4388-2 | DI-03-04 (0'-1') | Solid | 04/27/2011 0940 | 04/29/2011 0930 |
| 480-4388-3 | DI-03-04 (1'-2') | Solid | 04/27/2011 0942 | 04/29/2011 0930 |
| 480-4388-4 | DI-03-04 (2'-3') | Solid | 04/27/2011 0944 | 04/29/2011 0930 |
| 480-4388-5 | DI-03-04 (3'-4') | Solid | 04/27/2011 0946 | 04/29/2011 0930 |
| 480-4388-6 | DI-03-04 (4'-5') | Solid | 04/27/2011 0948 | 04/29/2011 0930 |
| 480-4388-6MS | DI-03-04 (4'-5') | Solid | 04/27/2011 0948 | 04/29/2011 0930 |
| 480-4388-6MSD | DI-03-04 (4'-5') | Solid | 04/27/2011 0948 | 04/29/2011 0930 |
| 480-4388-7 | DI-03-04 (5'-6') | Solid | 04/27/2011 0950 | 04/29/2011 0930 |
| 480-4388-8 | DI-03-03 (0'-1') | Solid | 04/27/2011 1010 | 04/29/2011 0930 |
| 480-4388-9 | DI-03-03 (1'-2') | Solid | 04/27/2011 1012 | 04/29/2011 0930 |
| 480-4388-10 | DI-03-03 (2'-3') | Solid | 04/27/2011 1014 | 04/29/2011 0930 |
| 480-4388-11 | DI-03-03 (3'-4') | Solid | 04/27/2011 1016 | 04/29/2011 0930 |
| 480-4388-12 | DI-03-03 (4'-5') | Solid | 04/27/2011 1018 | 04/29/2011 0930 |
| 480-4388-13 | DI-03-03 (5'-6') | Solid | 04/27/2011 1020 | 04/29/2011 0930 |
| 480-4388-14 | DI-03-03 (6'-7') | Solid | 04/27/2011 1022 | 04/29/2011 0930 |
| 480-4388-15 | DI-03-03 (7'-8') | Solid | 04/27/2011 1024 | 04/29/2011 0930 |
| 480-4388-16 | DI-03-03 (8'-9') | Solid | 04/27/2011 1026 | 04/29/2011 0930 |
| 480-4388-17 | DI-03-03 (9'-10') | Solid | 04/27/2011 1028 | 04/29/2011 0930 |
| 480-4388-18 | DI-03-02 (0'-1') | Solid | 04/27/2011 1050 | 04/29/2011 0930 |
| 480-4388-19 | DI-03-02 (1'-2') | Solid | 04/27/2011 1052 | 04/29/2011 0930 |
| 480-4388-20 | DI-03-02 (2'-3') | Solid | 04/27/2011 1054 | 04/29/2011 0930 |

## SAMPLE SUMMARY

Client: Shaw Environmental & Infrastructure, Inc

Job Number: 480-4480-1

| Lab Sample ID | Client Sample ID | Client Matrix | Date/Time Sampled | Date/Time Received |
|---|---|---|---|---|
| 480-4480-1 | DI-22-01 (0-1) | Solid | 04/29/2011 0855 | 05/03/2011 0915 |
| 480-4480-2 | DI-22-01 (1-2) | Solid | 04/29/2011 0857 | 05/03/2011 1100 |
| 480-4480-3 | DI-22-01 (2-3) | Solid | 04/29/2011 0859 | 05/03/2011 1100 |
| 480-4480-4 | DI-22-01 (3-4) | Solid | 04/29/2011 0901 | 05/03/2011 1100 |
| 480-4480-5 | DI-21-01 (0-1) | Solid | 04/29/2011 0930 | 05/03/2011 1100 |
| 480-4480-6 | DI-21-01 (1-2) | Solid | 04/29/2011 0932 | 05/03/2011 1100 |
| 480-4480-7 | DI-21-01 (2-3) | Solid | 04/29/2011 0934 | 05/03/2011 1100 |
| 480-4480-8 | DI-21-01 (3-4) | Solid | 04/29/2011 0932 | 05/03/2011 1100 |
| 480-4480-9 | DI-53-01 (0-1) | Solid | 04/29/2011 1052 | 05/03/2011 1100 |
| 480-4480-10 | DI-53-01 (1-2) | Solid | 04/29/2011 1054 | 05/03/2011 1100 |
| 480-4480-10MS | DI-53-01 (1-2) | Solid | 04/29/2011 1054 | 05/03/2011 1100 |
| 480-4480-10MSD | DI-53-01 (1-2) | Solid | 04/29/2011 1054 | 05/03/2011 1100 |
| 480-4480-11 | DI-53-01 (2-3) | Solid | 04/29/2011 1056 | 05/03/2011 1100 |
| 480-4480-12 | DI-53-01 (3-4) | Solid | 04/29/2011 1058 | 05/03/2011 1100 |
| 480-4480-13FD | DUPLICATE#17 | Solid | 04/29/2011 0000 | 05/03/2011 1100 |
| 480-4480-14FD | DUPLICATE#15 | Solid | 04/28/2011 0000 | 05/03/2011 1100 |
| 480-4480-15 | DI-17-01 (0-1) | Solid | 05/02/2011 0955 | 05/03/2011 1100 |
| 480-4480-16 | DI-17-01 (1-2) | Solid | 05/02/2011 0957 | 05/03/2011 1100 |
| 480-4480-17 | DI-17-01 (2-3) | Solid | 05/02/2011 0959 | 05/03/2011 1100 |
| 480-4480-18 | DI-17-01 (3-4) | Solid | 05/02/2011 1001 | 05/03/2011 1100 |
| 480-4480-19 | DI-17-01 (4-5) | Solid | 05/02/2011 1003 | 05/03/2011 1100 |
| 480-4480-20 | DI-17-01 (5-6) | Solid | 05/02/2011 1005 | 05/03/2011 1100 |

## SAMPLE SUMMARY

Client: Shaw Environmental & Infrastructure, Inc

Job Number: 480-4482-1

| Lab Sample ID | Client Sample ID | Client Matrix | Date/Time Sampled | Date/Time Received |
|---|---|---|---|---|
| 480-4482-1 | DI-SB-03-05 (0-1) | Solid | 05/02/2011 1112 | 05/03/2011 1100 |
| 480-4482-2 | DI-SB-03-05 (1-2) | Solid | 05/02/2011 1114 | 05/03/2011 1100 |
| 480-4482-3 | DI-SB-03-05 (2-3) | Solid | 05/02/2011 1116 | 05/03/2011 1100 |
| 480-4482-4 | DI-SB-03-05 (3-4) | Solid | 05/02/2011 1118 | 05/03/2011 1100 |
| 480-4482-5 | DI-SB-03-05 (4-5) | Solid | 05/02/2011 1120 | 05/03/2011 1100 |
| 480-4482-6 | DI-SB-03-05 (5-6) | Solid | 05/02/2011 1122 | 05/03/2011 1100 |
| 480-4482-7 | DI-SB-03-05 (6-7) | Solid | 05/02/2011 1124 | 05/03/2011 1100 |
| 480-4482-8 | DI-SB-03-05 (7-8) | Solid | 05/02/2011 1126 | 05/03/2011 1100 |
| 480-4482-9 | DI-SB-03-05 (8-9) | Solid | 05/02/2011 1128 | 05/03/2011 1100 |
| 480-4482-9MS | DI-SB-03-05 (8-9) | Solid | 05/02/2011 1128 | 05/03/2011 1100 |
| 480-4482-9MSD | DI-SB-03-05 (8-9) | Solid | 05/02/2011 1128 | 05/03/2011 1100 |
| 480-4482-10 | DI-SB-03-05 (9-10) | Solid | 05/02/2011 1130 | 05/03/2011 1100 |
| 480-4482-11 | DI-01-01 (0-1) | Solid | 05/02/2011 1315 | 05/03/2011 1100 |
| 480-4482-12 | DI-01-01 (1-2) | Solid | 05/02/2011 1317 | 05/03/2011 1100 |
| 480-4482-13 | DI-01-01 (3-4) | Solid | 05/02/2011 1321 | 05/03/2011 1100 |
| 480-4482-14 | DI-01-01 (4-5) | Solid | 05/02/2011 1323 | 05/03/2011 1100 |
| 480-4482-15 | DI-01-01 (5-6) | Solid | 05/02/2011 1325 | 05/03/2011 1100 |
| 480-4482-16 | DI-01-01 (6-7) | Solid | 05/02/2011 1327 | 05/03/2011 1100 |
| 480-4482-17 | DI-01-01 (7-8) | Solid | 05/02/2011 1329 | 05/03/2011 1100 |
| 480-4482-18 | DI-01-01 (8-9) | Solid | 05/02/2011 1331 | 05/03/2011 1100 |
| 480-4482-19 | DI-01-01 (9-10) | Solid | 05/02/2011 1333 | 05/03/2011 1100 |
| 480-4482-20FD | DUPLICATE#9 | Solid | 05/02/2011 0000 | 05/03/2011 1100 |

## SAMPLE SUMMARY

Client: Shaw Environmental & Infrastructure, Inc

Job Number: 480-4488-1

| Lab Sample ID | Client Sample ID | Client Matrix | Date/Time Sampled | Date/Time Received |
|---|---|---|---|---|
| 480-4488-1 | DI-01-01 (2'-3') | Solid | 05/02/2011 1319 | 05/03/2011 1100 |
| 480-4488-1MS | DI-01-01 (2'-3') | Solid | 05/02/2011 1319 | 05/03/2011 1100 |
| 480-4488-1MSD | DI-01-01 (2'-3') | Solid | 05/02/2011 1319 | 05/03/2011 1100 |
| 480-4488-2 | DI-01-01 (10'-11') | Solid | 05/02/2011 1335 | 05/03/2011 1100 |
| 480-4488-3 | DI-SB-01-05 (0'-1') | Solid | 05/02/2011 1438 | 05/03/2011 1100 |
| 480-4488-4 | DI-SB-01-05 (1'-2') | Solid | 05/02/2011 1440 | 05/03/2011 1100 |
| 480-4488-5 | DI-SB-01-05 (2'-3') | Solid | 05/02/2011 1442 | 05/03/2011 1100 |
| 480-4488-6 | DI-SB-01-05 (4'-5') | Solid | 05/02/2011 1446 | 05/03/2011 1100 |
| 480-4488-7 | DI-SB-01-05 (5'-6') | Solid | 05/02/2011 1448 | 05/03/2011 1100 |
| 480-4488-8 | DI-SB-01-05 (6'-7') | Solid | 05/02/2011 1450 | 05/03/2011 1100 |
| 480-4488-9 | DI-SB-01-05 (7'-8') | Solid | 05/02/2011 1452 | 05/03/2011 1100 |
| 480-4488-10 | DI-SB-01-05 (8'-9') | Solid | 05/02/2011 1454 | 05/03/2011 1100 |
| 480-4488-11 | DI-SB-01-05 (9'-10') | Solid | 05/02/2011 1456 | 05/03/2011 1100 |
| 480-4488-12 | DUPLICATE 23 | Solid | 05/02/2011 0000 | 05/03/2011 1100 |
| 480-4488-13 | DI-01-01 (12'-13') | Solid | 05/02/2011 1339 | 05/03/2011 1100 |
| 480-4488-14 | DI-61-01 (0'-1') | Solid | 05/02/2011 1130 | 05/03/2011 1100 |
| 480-4488-15 | DI-61-01 (1'-2') | Solid | 05/02/2011 1133 | 05/03/2011 1100 |
| 480-4488-16 | DI-61-01 (2'-3') | Solid | 05/02/2011 1138 | 05/03/2011 1100 |
| 480-4488-17 | DI-41-01 (1'-2') | Solid | 05/02/2011 1501 | 05/03/2011 1100 |
| 480-4488-18 | DI-41-01 (2'-3') | Solid | 05/02/2011 1503 | 05/03/2011 1100 |
| 480-4488-19 | DI-41-01 (3'-4') | Solid | 05/02/2011 1506 | 05/03/2011 1100 |
| 480-4488-20 | DI-17-01 (7'-8') | Solid | 05/02/2011 1015 | 05/03/2011 1100 |

## SAMPLE SUMMARY

Client: Shaw Environmental & Infrastructure, Inc

Job Number: 480-4692-1

| Lab Sample ID | Client Sample ID | Client Matrix | Date/Time Sampled | Date/Time Received |
|---|---|---|---|---|
| 480-4692-1 | DI-60-01 (0'-1') | Solid | 05/02/2011 1335 | 05/06/2011 1100 |
| 480-4692-2 | DI-60-01 (1'-2') | Solid | 05/02/2011 1339 | 05/06/2011 1100 |
| 480-4692-3 | DI-60-01 (2'-3') | Solid | 05/02/2011 1341 | 05/06/2011 1100 |
| 480-4692-4 | DI-60-01 (3'-4') | Solid | 05/02/2011 1346 | 05/06/2011 1100 |
| 480-4692-4MS | DI-60-01 (3'-4') | Solid | 05/02/2011 1346 | 05/06/2011 1100 |
| 480-4692-4MSD | DI-60-01 (3'-4') | Solid | 05/02/2011 1346 | 05/06/2011 1100 |
| 480-4692-5 | DUPLICATE 30 | Solid | 05/02/2011 0000 | 05/06/2011 1100 |
| 480-4692-6 | DI-02-01 (8'-9') | Solid | 05/02/2011 1525 | 05/03/2011 1100 |
| 480-4692-7 | DI-02-01 (9'-10') | Solid | 05/02/2011 1527 | 05/03/2011 1100 |
| 480-4692-8 | DI-20-01 (0'-1') | Solid | 05/03/2011 0954 | 05/06/2011 1100 |
| 480-4692-9 | DI-20-01 (1'-2') | Solid | 05/03/2011 0955 | 05/06/2011 1100 |
| 480-4692-10 | DI-20-01 (2'-3') | Solid | 05/03/2011 0959 | 05/06/2011 1100 |
| 480-4692-11 | DI-20-01 (3'-4') | Solid | 05/03/2011 1000 | 05/06/2011 1100 |
| 480-4692-12 | DI-19-01 (0'-1') | Solid | 05/03/2011 1102 | 05/06/2011 1100 |
| 480-4692-13 | DI-19-01 (1'-2') | Solid | 05/03/2011 1109 | 05/06/2011 1100 |
| 480-4692-14 | DI-19-01 (2'-3') | Solid | 05/03/2011 1110 | 05/06/2011 1100 |
| 480-4692-15 | DI-19-01 (3'-4') | Solid | 05/03/2011 1118 | 05/06/2011 1100 |
| 480-4692-16 | DI-17-01 (8'-9') | Solid | 05/02/2011 1020 | 05/03/2011 1100 |
| 480-4692-17 | DI-SB-01-05 (3'-4') | Solid | 05/02/2011 1444 | 05/03/2011 1100 |
| 480-4692-18 | DI-01-01 (11'-12') | Solid | 05/02/2011 1337 | 05/03/2011 1100 |
| 480-4692-19 | DI-61-01 (3'-4') | Solid | 05/02/2011 1142 | 05/03/2011 1100 |
| 480-4692-20 | DI-17-01 (6'-7') | Solid | 05/02/2011 1010 | 05/03/2011 1100 |
| 480-4692-21 | DI-41-01 (0'-1') | Solid | 05/02/2011 1459 | 05/03/2011 1100 |

Job Narrative
480-4217-1

**Comments**
No additional comments.

**Receipt**
All samples were received in good condition within temperature requirements.

**Metals**
No analytical or quality issues were noted.

Job Narrative
480-4219-1

**Comments**
No additional comments.

**Receipt**
All samples were received in good condition within temperature requirements.

**Metals**
Method(s) 6010B: The Method Blank for batch 480-14061 contained total cadmium above the method detection limit. This target analyte concentration was less than the reporting limit (RL); therefore, re-extraction and/or re-analysis of samples DI-10-01 (0'-1') (480-4219-5), DI-10-01 (1'-2') (480-4219-6), DI-48-01 (0'-1') (480-4219-1), DI-48-01 (1'-2') (480-4219-2), DI-48-01 (2'-3') (480-4219-3), DI-48-01 (3'-4') (480-4219-4), DI-49-01 (0'-1') (480-4219-10), DI-49-01 (1'-2') (480-4219-11), DI-49-01 (2'-3) (480-4219-12), DI-49-01 (3'-4') (480-4219-13), DI-55-01 (0'-1') (480-4219-7), DI-55-01 (1'-2') (480-4219-8), DI-55-01 (2'-3') (480-4219-9), DI-55-01 (3'-4') (480-4219-15), DI-SB-05-05 (3'-4') (480-4219-16), DI-SB-05-05 (4'-5') (480-4219-17), DI-SB-05-05 (5'-6') (480-4219-18), DI-SB-05-05 (6'-7') (480-4219-19), DI-SB-05-05 (7'-8') (480-4219-20), DUP 10 (480-4219-14) was not performed.

No other analytical or quality issues were noted.

Job Narrative
480-4257-1

**Comments**
No additional comments.

**Receipt**
All samples were received in good condition within temperature requirements

**Metals**
No analytical or quality issues were noted.

Job Narrative
480-4383-1

**Comments**
No additional comments.

**Receipt**
All samples were received in good condition within temperature requirements.

**Metals**
No analytical or quality issues were noted.

Job Narrative
480-4384-1

**Comments**
No additional comments.

**Receipt**
All samples were received in good condition within temperature requirements.

**Metals**
No analytical or quality issues were noted.

Job Narrative
480-4385-1

**Comments**
No additional comments.

**Receipt**
All samples were received in good condition within temperature requirements.

**Metals**
No analytical or quality issues were noted.

**Job Narrative**
**480-4386-1**

**Comments**
No additional comments.

**Receipt**
All samples were received in good condition within temperature requirements.

**Metals**
Method(s) 6010B: The Method Blank for batch 480-14668 contained total cadmium above the method detection limit. This target analyte concentration was less than the reporting limit (RL); therefore, re-extraction and/or re-analysis of samples DI-03-01 (0'-1') (480-4386-5), DI-03-01 (1'-2') (480-4386-6), DI-03-01 (2'-3') (480-4386-7), DI-03-01 (3'-4') (480-4386-8), DI-03-01 (4'-5') (480-4386-9), DI-03-01 (5'-6') (480-4386-10), DI-03-01 (6'-7') (480-4386-11), DI-03-02 (5'-6') (480-4386-1), DI-03-02 (6'-7') (480-4386-2), DI-03-02 (7'-8') (480-4386-3), DI-03-02 (8'-9) (480-4386-4), DI-23-01 (0'-1) (480-4386-12), DI-23-01 (1'-2') (480-4386-13), DI-23-01 (2'-3') (480-4386-14), DI-23-01 (3'-4') (480-4386-15), DI-51-01 (0'-1') (480-4386-16), DI-51-01 (1'-2') (480-4386-17), DI-51-01 (2'-3') (480-4386-18), DI-51-01 (3'-4') (480-4386-19), DUPLICATE 12 (480-4386-20) was not performed.

No other analytical or quality issues were noted.

**Comments**
No additional comments.

**Receipt**
All samples were received in good condition within temperature requirements.

**Metals**
No analytical or quality issues were noted.

Job Narrative
480-4388-1

**Comments**
No additional comments.

**Receipt**
All samples were received in good condition within temperature requirements.

**Metals**
No analytical or quality issues were noted.

**Comments**
No additional comments.

**Receipt**
All samples were received in good condition within temperature requirements.

**Metals**
No analytical or quality issues were noted.

Job Narrative
480-4482-1

**Comments**
No additional comments.

**Receipt**
All samples were received in good condition within temperature requirements.

**Metals**
No analytical or quality issues were noted.

Job Narrative
480-4488-1

**Comments**
No additional comments.

**Receipt**
All samples were received in good condition within temperature requirements.

**Metals**
Method(s) 6010B: The Method Blank for batch 480-15054 contained total cadmium above the method detection limit. This target analyte concentration was less than the reporting limit (RL); therefore, re-extraction and/or re-analysis of sample DI-17-01 (7'-8') (480-4488-20) was not performed.

No other analytical or quality issues were noted.

Job Narrative
480-4692-1

**Comments**
No additional comments.

**Receipt**
All samples were received in good condition within temperature requirements.

**Metals**
Method(s) 6010B: The Method Blank for batch 480-15477 contained total cadmium above the method detection limit. This target analyte concentration was less than the reporting limit (RL); therefore, re-extraction and/or re-analysis of sample DI-01-01 (11'-12') (480-4692-18), DI-02-01 (8'-9') (480-4692-6), DI-02-01 (9'-10') (480-4692-7), DI-17-01 (6'-7') (480-4692-20), DI-17-01 (8'-9') (480-4692-16), DI-19-01 (0'-1') (480-4692-12), DI-19-01 (1'-2') (480-4692-13), DI-19-01 (2'-3') (480-4692-14), DI-19-01 (3'-4') (480-4692-15), DI-20-01 (0'-1') (480-4692-8), DI-20-01 (1'-2') (480-4692-9), DI-20-01 (2'-3') (480-4692-10), DI-20-01 (3'-4') (480-4692-11), DI-60-01 (0'-1') (480-4692-1), DI-60-01 (1'-2') (480-4692-2), DI-60-01 (2'-3') (480-4692-3), DI-60-01 (3'-4') (480-4692-4), DI-61-01 (3'-4') (480-4692-19), DI-SB-01-05 (3'-4') (480-4692-17), DUPLICATE 30 (480-4692-5) was not performed.

No other analytical or quality issues were noted.

# Data Validation Services

120 Cobble Creek Road P.O. Box 208
North Creek, NY 12853

Phone 518-251-4429
Facsimile 518-251-4428

July 1, 2011

Nickcole Evans
Shaw Environmental and Infrastructure Group
6992 Knolls Avenue North
Canastota, NY 13032

RE: **D**ata **U**sability **S**ummary **R**eport for the Bloody Brook Site

TAL-Buffalo SDG Nos. 480-5145-1, 480-5146-1, 480-5147-1, and 480-5687-1

Dear Ms. Evans:

Review has been completed for the data packages generated by TestAmerica Laboratories that pertain to samples collected between 04/25/11 and 05/03/11 at the Bloody Brook site. Fifty-nine soil samples were processed for total cadmium by USEPA SW846 method 6010B.

The data packages submitted by the laboratory contained full deliverables for validation, but this usability report is generated from review of the summary form information, with review of sample raw data, and limited review of associated QC raw data. Full validation has not been performed. However, the reported summary forms have been reviewed for application of validation qualifiers, per the USEPA Region 2 validation SOPs and the USEPA National Functional Guidelines for Data Review, as affects the usability of the sample data. The following items were reviewed:

* Laboratory Narrative Discussion
* Case Narratives
* Custody Documentation
* Holding Times
* Matrix Spike/Matrix Spike Recoveries and Duplicate Correlations
* Field Duplicate Correlations
* Preparation/Calibration Blanks
* Laboratory Control Samples
* Calibration and Low Level Standards
* ICP Interference Check Standards
* ICP Serial Dilution Correlations
* Sample Result Verification

Those items listed above which show deficiencies are discussed within the text of this narrative. All of the other items were determined to be acceptable for the DUSR review level.

**In summary**, sample results are usable as reported.

Copies of the laboratory identification summaries are attached to this text. The following text discusses quality issues of concern.

## Total Cadmium by EPA 6010B

Matrix spikes were performed in duplicate on the following samples: DI-17-02(6'-7'), DI-43-02(0'-1'), DI-20-02(1'-2'), and DI-49-02(1'-2'). All recoveries and duplicate correlations are within validation guidelines.

The ICP serial dilution evaluations were performed on the same samples that were used for the matrix spike/duplicate evaluation: DI-17-02(6'-7'), DI-43-02(0'-1'), DI-20-02(1'-2'), and DI-49-02(1'-2'). However, only DI-49-02(1'-2') had cadmium at concentrations sufficiently high enough for the serial dilution evaluation. That evaluation was acceptable. It would have been preferable for the laboratory to have performed that evaluation on samples with sufficiently high concentrations of cadmium (50XMDL). The samples chosen for that evaluation are at the discretion of the laboratory.

Instrument performance was compliant with analytical requirements. Blanks show no contamination.

## Chain-of-Custody

Many of the sample collection date entries do not include the year. The year is present on the associated relinquish dates and laboratory receive dates.

The final laboratory receipt entries were not present on the custody for samples collected 05/03/11 and reported in 480-5487-1.

The down-arrows were not present for the collection dates for some of the custodies associated with samples reported in SDGs 480-5146-1 and 480-5687-1.

## Data Package Completeness

Upon request, the data package SDG 480-5687-1 was resubmitted to correct the laboratory receive date for the samples collected 05/03/11.

The laboratory data packages SDGs 480-5145-1 and 480-5147-1 did not include the custody forms. They were forwarded by the laboratory upon request.

Please do not hesitate to contact me if you have comments or questions regarding this report.

Very truly yours,

Judy Harry

# CLIENT and LABORATORY SAMPLE IDs and CASE NARRATIVES

## SAMPLE SUMMARY

Client: Shaw Environmental & Infrastructure, Inc

Job Number: 480-5145-1

| Lab Sample ID | Client Sample ID | Client Matrix | Date/Time Sampled | Date/Time Received |
|---|---|---|---|---|
| 480-5145-1 | DI-06-02 (4'-5') | Solid | 04/25/2011 1212 | 04/26/2011 1015 |
| 480-5145-2 | DI-06-02 (5'-6') | Solid | 04/25/2011 1215 | 04/26/2011 1015 |
| 480-5145-3 | DI-06-02 (6'-7') | Solid | 04/25/2011 1217 | 04/26/2011 1015 |
| 480-5145-4 | DI-45-02 (0'-1') | Solid | 04/25/2011 1032 | 04/26/2011 1015 |
| 480-5145-5 | DI-45-02 (1'-2') | Solid | 04/25/2011 1036 | 04/26/2011 1015 |
| 480-5145-6 | DI-45-02 (2'-3') | Solid | 04/25/2011 1057 | 04/26/2011 1015 |
| 480-5145-7 | DI-45-02 (3'-4') | Solid | 04/25/2011 1101 | 04/26/2011 1015 |
| 480-5145-8 | DI-09-04 (0'-1') | Solid | 04/25/2011 1144 | 04/26/2011 1015 |
| 480-5145-9 | DI-09-04 (1'-2') | Solid | 04/25/2011 1151 | 04/26/2011 1015 |
| 480-5145-10 | DI-48-02 (0'-1') | Solid | 04/25/2011 1534 | 04/26/2011 1015 |
| 480-5145-11 | DI-48-02 (1'-2') | Solid | 04/25/2011 1535 | 04/26/2011 1015 |
| 480-5145-12 | DI-55-02 (0'-1') | Solid | 04/25/2011 1410 | 04/26/2011 1015 |
| 480-5145-13 | DI-55-02 (1'-2') | Solid | 04/25/2011 1412 | 04/26/2011 1015 |
| 480-5145-14 | DI-55-02 (2'-3') | Solid | 04/25/2011 1423 | 04/26/2011 1015 |
| 480-5145-15 | DI-55-02 (3'-4') | Solid | 04/25/2011 1424 | 04/26/2011 1015 |
| 480-5145-16 | DI-49-02 (0'-1') | Solid | 04/25/2011 1303 | 04/26/2011 1015 |
| 480-5145-17 | DI-49-02 (1'-2') | Solid | 04/25/2011 1306 | 04/26/2011 1015 |
| 480-5145-18 | DI-17-02 (4'-5') | Solid | 05/02/2011 0934 | 05/03/2011 1100 |
| 480-5145-19 | DI-17-02 (5'-6') | Solid | 05/02/2011 0936 | 05/03/2011 1100 |
| 480-5145-20 | DI-17-02 (6'-7') | Solid | 05/02/2011 0938 | 05/03/2011 1100 |
| 480-5145-20MS | DI-17-02 (6'-7') | Solid | 05/02/2011 0938 | 05/03/2011 1100 |
| 480-5145-20MSD | DI-17-02 (6'-7') | Solid | 05/02/2011 0938 | 05/03/2011 1100 |

## SAMPLE SUMMARY

Client: Shaw Environmental & Infrastructure, Inc

Job Number: 480-5146-1

| Lab Sample ID | Client Sample ID | Client Matrix | Date/Time Sampled | Date/Time Received |
|---|---|---|---|---|
| 480-5146-1 | DI-46-02 (0'-1') | Solid | 04/27/2011 0936 | 04/29/2011 0840 |
| 480-5146-2 | DI-46-02 (1'-2') | Solid | 04/27/2011 0941 | 04/29/2011 0840 |
| 480-5146-3 | DI-23-02 (0'-1') | Solid | 04/27/2011 1152 | 04/29/2011 0840 |
| 480-5146-4 | DI-23-02 (1'-2') | Solid | 04/27/2011 1154 | 04/29/2011 0840 |
| 480-5146-5 | DI-51-02 (0'-1') | Solid | 04/27/2011 1058 | 04/29/2011 0840 |
| 480-5146-6 | DI-51-02 (1'-2') | Solid | 04/27/2011 1101 | 04/29/2011 0840 |
| 480-5146-7 | DI-02-02 (0'-1') | Solid | 04/27/2011 1423 | 04/29/2011 0840 |
| 480-5146-8 | DI-02-02 (1'-2') | Solid | 04/27/2011 1425 | 04/29/2011 0840 |
| 480-5146-9 | DI-01-02 (8'-9') | Solid | 04/27/2011 1423 | 04/29/2011 0840 |
| 480-5146-10 | DI-01-02 (9'-10') | Solid | 04/27/2011 1425 | 04/29/2011 0840 |
| 480-5146-11 | DI-01-02 (10'-11') | Solid | 04/27/2011 1427 | 04/29/2011 0840 |
| 480-5146-12 | DI-01-02 (11'-12') | Solid | 04/27/2011 1429 | 04/29/2011 0840 |
| 480-5146-13 | DI-01-02 (12'-13') | Solid | 04/27/2011 1431 | 04/29/2011 0840 |
| 480-5146-14 | DI-01-02 (13'-14') | Solid | 04/27/2011 1433 | 04/29/2011 0840 |
| 480-5146-15 | DI-01-02 (14'-15') | Solid | 04/27/2011 1435 | 04/29/2011 0840 |
| 480-5146-16 | DI-47-03 (0'-1') | Solid | 04/26/2011 1415 | 04/27/2011 1015 |
| 480-5146-17 | DI-47-03 (1'-2') | Solid | 04/26/2011 1420 | 04/27/2011 1015 |
| 480-5146-18 | DI-53-02 (0'-1') | Solid | 04/29/2011 1051 | 04/30/2011 0915 |
| 480-5146-19 | DI-53-02 (1'-2') | Solid | 04/29/2011 1052 | 04/30/2011 0915 |
| 480-5146-20 | DI-43-02 (0'-1') | Solid | 04/28/2011 0938 | 04/29/2011 0930 |
| 480-5146-20MS | DI-43-02 (0'-1') | Solid | 04/28/2011 0938 | 04/29/2011 0930 |
| 480-5146-20MSD | DI-43-02 (0'-1') | Solid | 04/28/2011 0938 | 04/29/2011 0930 |

## SAMPLE SUMMARY

Client: Shaw Environmental & Infrastructure, Inc

Job Number: 480-5147-1

| Lab Sample ID | Client Sample ID | Client Matrix | Date/Time Sampled | Date/Time Received |
|---|---|---|---|---|
| 480-5147-1 | DI-43-02 (1'-2') | Solid | 04/28/2011 0945 | 04/29/2011 0930 |
| 480-5147-2 | DI-26-02 (0'-1') | Solid | 04/28/2011 1445 | 04/29/2011 0930 |
| 480-5147-3 | DI-26-02 (1'-2') | Solid | 04/28/2011 1447 | 04/29/2011 0930 |
| 480-5147-4 | DI-26-02 (2'-3') | Solid | 04/28/2011 1449 | 04/29/2011 0930 |
| 480-5147-5 | DI-26-02 (3'-4') | Solid | 04/28/2011 1451 | 04/29/2011 0930 |
| 480-5147-6 | DI-19-02 (0'-1') | Solid | 05/03/2011 1044 | 05/06/2011 1100 |
| 480-5147-7 | DI-19-02 (1'-2') | Solid | 05/03/2011 1053 | 05/06/2011 1100 |
| 480-5147-8 | DI-19-02 (2'-3') | Solid | 05/03/2011 1054 | 05/06/2011 1100 |
| 480-5147-9 | DI-19-02 (3'-4') | Solid | 05/03/2011 1059 | 05/06/2011 1100 |
| 480-5147-10 | DI-20-02 (0'-1') | Solid | 05/03/2011 0940 | 05/06/2011 1100 |
| 480-5147-11 | DI-20-02 (1'-2') | Solid | 05/03/2011 0941 | 05/06/2011 1100 |
| 480-5147-11MS | DI-20-02 (1'-2') | Solid | 05/03/2011 0941 | 05/06/2011 1100 |
| 480-5147-11MSD | DI-20-02 (1'-2') | Solid | 05/03/2011 0941 | 05/06/2011 1100 |

## SAMPLE SUMMARY

Client: Shaw Environmental & Infrastructure, Inc

Job Number: 480-5687-1

| Lab Sample ID | Client Sample ID | Client Matrix | Date/Time Sampled | Date/Time Received |
|---|---|---|---|---|
| 480-5687-1 | DI-19-03 (0'-1') | Solid | 05/03/2011 1037 | 05/06/2011 1100 |
| 480-5687-2 | DI-19-03 (1'-2') | Solid | 05/03/2011 1043 | 05/06/2011 1100 |
| 480-5687-3 | DI-45-03 (0'-1') | Solid | 04/25/2011 1002 | 04/26/2011 1015 |
| 480-5687-4 | DI-45-03 (1'-2) | Solid | 04/25/2011 1005 | 04/26/2011 1015 |
| 480-5687-5 | DI-55-03 (0'-1') | Solid | 04/25/2011 1404 | 04/26/2011 1015 |
| 480-5687-6 | DI-55-03 (1'-2') | Solid | 04/25/2011 1406 | 04/26/2011 1015 |
| 480-5687-7 | DI-49-03 (0'-1') | Solid | 04/25/2011 1254 | 04/26/2011 1015 |
| 480-5687-8 | DI-49-03 (1'-2') | Solid | 04/25/2011 1258 | 04/26/2011 1015 |
| 480-5687-8MS | DI-49-03 (1'-2') | Solid | 04/25/2011 1258 | 04/26/2011 1015 |
| 480-5687-8MSD | DI-49-03 (1'-2') | Solid | 04/25/2011 1258 | 04/26/2011 1015 |

**Comments**
No additional comments.

**Receipt**
All samples were received in good condition within temperature requirements.

**Metals**
No analytical or quality issues were noted.

**Comments**
No additional comments.

**Receipt**
All samples were received in good condition within temperature requirements.

**Metals**
No analytical or quality issues were noted.

**Comments**
No additional comments.

**Receipt**
All samples were received in good condition within temperature requirements.

**Metals**
No analytical or quality issues were noted.

**Comments**
No additional comments.

**Receipt**
All samples were received in good condition within temperature requirements.

**Metals**
No analytical or quality issues were noted.

# Data Validation Services

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October 11, 2011

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6992 Knolls Avenue North
Canastota, NY 13032

RE: **D**ata **U**sability **S**ummary **R**eport for the Bloody Brook Site

TAL-Buffalo SDG Nos. 480-8856-01, 480-8905-01, 480-8907-01, 480-8964-01, 480-9023-01, 480-9121-01, and 480-9694-01

Dear Ms. Evans:

Review has been completed for the data packages generated by TestAmerica Laboratories that pertain to samples collected between 08/22/11 and 08/25/11 at the Bloody Brook site. One hundred and twenty-one soil samples and ten field duplicates were processed for total cadmium by USEPA SW846 method 6010B.

The data packages submitted by the laboratory contained full deliverables for validation, but this usability report is generated from review of the summary form information, with review of sample raw data, and limited review of associated QC raw data. Full validation has not been performed. However, the reported summary forms have been reviewed for application of validation qualifiers, per the USEPA Region 2 validation SOPs and the USEPA National Functional Guidelines for Data Review, as affects the usability of the sample data. The following items were reviewed:

* Laboratory Narrative Discussion
* Case Narratives
* Custody Documentation
* Holding Times
* Matrix Spike/Matrix Spike Recoveries and Duplicate Correlations
* Field Duplicate Correlations
* Preparation/Calibration Blanks
* Laboratory Control Samples
* Calibration and Low Level Standards
* ICP Interference Check Standards
* ICP Serial Dilution Correlations
* Sample Result Verification

Those items listed above which show deficiencies are discussed within the text of this narrative. All of the other items were determined to be acceptable for the DUSR review level.

**In summary**, sample results are usable either as reported, or with minor qualification as estimated.

Copies of the laboratory identification summaries are attached to this text. Included with this report are qualified client results tables.

The following text discusses quality issues of concern.

## Blind Field Duplicates

Blind field duplicate evaluations were performed on DI-16-03(2-3), DI-40-01(2-3), DI-54-01(0-1), DI-13-01(4-5), DI-14-01(1-2), DI-15-02(5-6), DI-57-01(1-2), DI-57-02(1-2), DI-42-01(0-1), and DI-SB-07-02(3-4). All show acceptable correlations, with the exceptions of those for DI-57-01(1-2) and DI-57-02(1-2), both of which show variances that exceed ±2XCRDL. The results for those two parent samples and their duplicates have been qualified as estimated in value.

## Total Cadmium by EPA 6010B

Matrix spikes were performed in duplicate on the following samples: DI-SB-07-02(3-4), DI-14-01(2-3), DI-13-01(5-6), DI-15-02(1-2), DI-42-01(1-2), DI-54-01(3-4), DI-16-03(4-5), DI-40-01(3-4), DI-57-01(2-3), and DI-57-02(2-3). All recoveries and duplicate correlations are within validation guidelines, with the exception of one of the two recoveries (57%) for DI-57-02(2-3). Results for the associated samples (those reported in 480-9684) are qualified as estimated in value.

The ICP serial dilution evaluations were performed on most of the same samples that were used for the matrix spike/duplicate evaluation: DI-SB-07-02(3-4), DI-14-01(2-3), DI-13-01(5-6), DI-15-02(1-2), DI-42-01(1-2), DI-16-03(4-5), and DI-57-02(2-3).

However, only two of those samples (DI-15-02(1-2) and DI-57-02(2-3)) had cadmium at concentrations sufficiently high enough for the serial dilution evaluation. The evaluation of the former was acceptable. The evaluation for DI-57-02(2-3) shows an elevated correlation of 15%D. The associated samples (SDG 480-9694) are also qualified as estimated due to outlying matrix spike recovery of that parent sample.

It would have been preferable for the laboratory to have performed that evaluation on samples with sufficiently high concentrations of cadmium (50XMDL). The samples chosen for that evaluation are at the discretion of the laboratory.

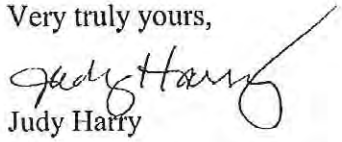
Holding times were met and instrument performance was compliant. Blanks show no contamination. The QC Summary Forms 3 for the preparation blank should show the reporting limit concentration.

## Chain-of-Custody

The collection date entry was not present for the samples collected at the "DI-15-02" locations, reported in the SDG No. 480-8907.

Please do not hesitate to contact me if you have comments or questions regarding this report.

Very truly yours,



Judy Harry

## VALIDATION DATA QUALIFIER DEFINITIONS

| | |
|---|---|
| **U** | The analyte was analyzed for, but was not detected above the level of the associated reported quantitation limit. |
| **J** | The analyte was positively identified; the associated numerical value is an approximate concentration of the analyte in the sample. |
| **UJ** | The analyte was not detected. The associated reported quantitation limit is an estimate and may be inaccurate or imprecise. |
| **NJ** | The detection is tentative in identification and estimated in value. Although there is presumptive evidence of the analyte, the result should be used with caution as a potential false positive and/or elevated quantitative value. |
| **R** | The data are unusable. The analyte may or may not be present. |
| **EMPC** | The results do not meet all criteria for a confirmed identification. The quantitative value represents the Estimated Maximum Possible Concentration of the analyte in the sample. |

# CLIENT and LABORATORY SAMPLE IDs

## SAMPLE SUMMARY

Client: Shaw Environmental & Infrastructure, Inc

Job Number: 480-8856-1

| Lab Sample ID | Client Sample ID | Client Matrix | Date/Time Sampled | Date/Time Received |
|---|---|---|---|---|
| 480-8856-1 | DI-SB-07-01 (0-1) | Solid | 08/22/2011 0922 | 08/23/2011 1000 |
| 480-8856-2 | DI-SB-07-01 (1-2) | Solid | 08/22/2011 0924 | 08/23/2011 1000 |
| 480-8856-3 | DI-SB-07-01 (2-3) | Solid | 08/22/2011 0926 | 08/23/2011 1000 |
| 480-8856-4 | DI-SB-07-01 (3-4) | Solid | 08/22/2011 0928 | 08/23/2011 1000 |
| 480-8856-5 | DI-SB-07-01 (4-5) | Solid | 08/22/2011 1102 | 08/23/2011 1000 |
| 480-8856-6 | DI-SB-07-01 (5-6) | Solid | 08/22/2011 1104 | 08/23/2011 1000 |
| 480-8856-7 | DI-SB-07-01 (6-7) | Solid | 08/22/2011 1106 | 08/23/2011 1000 |
| 480-8856-8 | DI-SB-07-02 (0-1) | Solid | 08/22/2011 1034 | 08/23/2011 1000 |
| 480-8856-9 | DI-SB-07-02 (1-2) | Solid | 08/22/2011 1036 | 08/23/2011 1000 |
| 480-8856-10 | DI-SB-07-02 (2-3) | Solid | 08/22/2011 1038 | 08/23/2011 1000 |
| 480-8856-11 | DI-SB-07-02 (3-4) | Solid | 08/22/2011 1040 | 08/23/2011 1000 |
| 480-8856-11MS | DI-SB-07-02 (3-4) | Solid | 08/22/2011 1040 | 08/23/2011 1000 |
| 480-8856-11MSD | DI-SB-07-02 (3-4) | Solid | 08/22/2011 1040 | 08/23/2011 1000 |
| 480-8856-12 | DI-SB-07-02 (4-5) | Solid | 08/22/2011 1054 | 08/23/2011 1000 |
| 480-8856-13 | DI-SB-07-02 (5-6) | Solid | 08/22/2011 1056 | 08/23/2011 1000 |
| 480-8856-14 | DI-SB-07-02 (6-7) | Solid | 08/22/2011 1058 | 08/23/2011 1000 |
| 480-8856-15 | DI-15-01 (0-1) | Solid | 08/22/2011 1152 | 08/23/2011 1000 |
| 480-8856-16 | DI-15-01 (1-2) | Solid | 08/22/2011 1154 | 08/23/2011 1000 |
| 480-8856-17 | DI-15-01 (2-3) | Solid | 08/22/2011 1156 | 08/23/2011 1000 |
| 480-8856-18 | DI-15-01 (3-4) | Solid | 08/22/2011 1158 | 08/23/2011 1000 |
| 480-8856-19 | DI-15-01 (4-5) | Solid | 08/22/2011 1326 | 08/23/2011 1000 |
| 480-8856-20 | DI-15-01 (5-6) | Solid | 08/22/2011 1328 | 08/23/2011 1000 |
| 480-8856-21 | DUP 200 | Solid | 08/22/2011 1040 | 08/23/2011 1000 |

## SAMPLE SUMMARY

Client: Shaw Environmental & Infrastructure, Inc

Job Number: 480-8905-1

| Lab Sample ID | Client Sample ID | Client Matrix | Date/Time Sampled | Date/Time Received |
|---|---|---|---|---|
| 480-8905-1 | DI-13-03 (0-1) | Solid | 08/23/2011 1013 | 08/24/2011 1015 |
| 480-8905-2 | DI-13-03 (1-2) | Solid | 08/23/2011 1015 | 08/24/2011 1015 |
| 480-8905-3 | DI-13-03 (2-3) | Solid | 08/23/2011 1017 | 08/24/2011 1015 |
| 480-8905-4 | D-13-03 (3-4) | Solid | 08/23/2011 1019 | 08/24/2011 1015 |
| 480-8905-5 | DI-13-03 (4-5) | Solid | 08/23/2011 1138 | 08/24/2011 1015 |
| 480-8905-6 | DI-13-03 (5-6) | Solid | 08/23/2011 1140 | 08/24/2011 1015 |
| 480-8905-7 | DI-13-03 (6-7) | Solid | 08/23/2011 1142 | 08/24/2011 1015 |
| 480-8905-8 | DI-58-01 (0-1) | Solid | 08/23/2011 1332 | 08/24/2011 1015 |
| 480-8905-9 | DI-58-01 (1-2) | Solid | 08/23/2011 1330 | 08/24/2011 1015 |
| 480-8905-10 | DI-58-02 (0-1) | Solid | 08/23/2011 1340 | 08/24/2011 1015 |
| 480-8905-11 | DI-58-02 (1-2) | Solid | 08/23/2011 1342 | 08/24/2011 1015 |
| 480-8905-12 | DI-58-02 (2-3) | Solid | 08/23/2011 1344 | 08/24/2011 1015 |
| 480-8905-13 | DI-58-02 (3-4) | Solid | 08/23/2011 1348 | 08/24/2011 1015 |
| 480-8905-14 | DI-14-01 (0-1) | Solid | 08/23/2011 1440 | 08/24/2011 1015 |
| 480-8905-15 | DI-14-01 (1-2) | Solid | 08/23/2011 1442 | 08/24/2011 1015 |
| 480-8905-16 | DI-14-01 (2-3) | Solid | 08/23/2011 1444 | 08/24/2011 1015 |
| 480-8905-16MS | DI-14-01 (2-3) | Solid | 08/23/2011 1444 | 08/24/2011 1015 |
| 480-8905-16MSD | DI-14-01 (2-3) | Solid | 08/23/2011 1444 | 08/24/2011 1015 |
| 480-8905-17 | DI-14-01 (3-4) | Solid | 08/23/2011 1446 | 08/24/2011 1015 |
| 480-8905-18 | DI-14-01 (4-5) | Solid | 08/23/2011 1445 | 08/24/2011 1015 |
| 480-8905-19 | DI-14-01 (5-6) | Solid | 08/23/2011 1447 | 08/24/2011 1015 |
| 480-8905-20 | DI-14-01 (6-7) | Solid | 08/23/2011 1449 | 08/24/2011 1015 |
| 480-8905-21 | DUP 103 | Solid | 08/23/2011 1444 | 08/24/2011 1015 |

## SAMPLE SUMMARY

Client: Shaw Environmental & Infrastructure, Inc

Job Number: 480-8907-1

| Lab Sample ID | Client Sample ID | Client Matrix | Date/Time Sampled | Date/Time Received |
|---|---|---|---|---|
| 480-8907-1 | DI-13-01 (0-1) | Solid | 08/23/2011 0936 | 08/24/2011 1015 |
| 480-8907-2 | DI-13-01 (1-2) | Solid | 08/23/2011 0938 | 08/24/2011 1015 |
| 480-8907-3 | DI-13-01 (2-3) | Solid | 08/23/2011 0940 | 08/24/2011 1015 |
| 480-8907-4 | DI-13-01 (3-4) | Solid | 08/23/2011 0942 | 08/24/2011 1015 |
| 480-8907-5 | DI-13-01 (4-5) | Solid | 08/23/2011 1051 | 08/24/2011 1015 |
| 480-8907-6 | DI-13-01 (5-6) | Solid | 08/23/2011 1053 | 08/24/2011 1015 |
| 480-8907-6MS | DI-13-01 (5-6) | Solid | 08/23/2011 1053 | 08/24/2011 1015 |
| 480-8907-6MSD | DI-13-01 (5-6) | Solid | 08/23/2011 1053 | 08/24/2011 1015 |
| 480-8907-7 | DUP 101 | Solid | 08/23/2011 1053 | 08/24/2011 1015 |
| 480-8907-8 | DI-13-01 (6-7) | Solid | 08/23/2011 1055 | 08/24/2011 1015 |
| 480-8907-9 | DI-13-02 (0-1) | Solid | 08/23/2011 0955 | 08/24/2011 1015 |
| 480-8907-10 | DI-13-02 (1-2) | Solid | 08/23/2011 0957 | 08/24/2011 1015 |
| 480-8907-11 | DI-13-02 (2-3) | Solid | 08/23/2011 0959 | 08/24/2011 1015 |
| 480-8907-12 | DI-13-02 (3-4) | Solid | 08/23/2011 1001 | 08/24/2011 1015 |
| 480-8907-13 | DI-15-01 (6-7) | Solid | 08/22/2011 1330 | 08/23/2011 1000 |
| 480-8907-14 | DI-15-02 (0-1) | Solid | 08/22/2011 1356 | 08/23/2011 1000 |
| 480-8907-15 | DI-15-02 (2-3) | Solid | 08/22/2011 1400 | 08/23/2011 1000 |
| 480-8907-16 | DI-15-02 (3-4) | Solid | 08/22/2011 1402 | 08/23/2011 1000 |
| 480-8907-17 | DI-15-02 (4-5) | Solid | 08/22/2011 1342 | 08/23/2011 1000 |
| 480-8907-18 | DI-15-02 (5-6) | Solid | 08/22/2011 1344 | 08/23/2011 1000 |
| 480-8907-19 | DI-15-02 (6-7) | Solid | 08/22/2011 1346 | 08/23/2011 1000 |

## SAMPLE SUMMARY

Client: Shaw Environmental & Infrastructure, Inc

Job Number: 480-8964-1

| Lab Sample ID | Client Sample ID | Client Matrix | Date/Time Sampled | Date/Time Received |
|---|---|---|---|---|
| 480-8964-1 | DI-15-02 (1-2) | Solid | 08/22/2011 1358 | 08/23/2011 1000 |
| 480-8964-1MS | DI-15-02 (1-2) | Solid | 08/22/2011 1358 | 08/23/2011 1000 |
| 480-8964-1MSD | DI-15-02 (1-2) | Solid | 08/22/2011 1358 | 08/23/2011 1000 |
| 480-8964-2 | DI-16-01 (0-1) | Solid | 08/24/2011 1000 | 08/25/2011 0945 |
| 480-8964-3 | DI-16-01 (1-2) | Solid | 08/24/2011 1002 | 08/25/2011 0945 |
| 480-8964-4 | DI-16-01 (2-3) | Solid | 08/24/2011 1004 | 08/25/2011 0945 |
| 480-8964-5 | DI-16-01 (3-4) | Solid | 08/24/2011 1006 | 08/25/2011 0945 |
| 480-8964-6 | DI-16-01 (4-5) | Solid | 08/24/2011 1008 | 08/25/2011 0945 |
| 480-8964-7 | DI-16-01 (5-6) | Solid | 08/24/2011 1010 | 08/25/2011 0945 |
| 480-8964-8 | DI-16-02 (0-1) | Solid | 08/24/2011 0916 | 08/25/2011 0945 |
| 480-8964-9 | DI-16-02 (1-2) | Solid | 08/24/2011 0918 | 08/25/2011 0945 |
| 480-8964-10 | DI-16-02 (2-3) | Solid | 08/24/2011 0920 | 08/25/2011 0945 |
| 480-8964-11 | DI-16-02 (3-4) | Solid | 08/24/2011 0922 | 08/25/2011 0945 |
| 480-8964-12 | DI-16-02 (4-5) | Solid | 08/24/2011 0926 | 08/25/2011 0945 |
| 480-8964-13 | DI-16-02 (5-6) | Solid | 08/24/2011 0928 | 08/25/2011 0945 |
| 480-8964-14 | DI-16-03 (0-1) | Solid | 08/24/2011 0936 | 08/25/2011 0945 |
| 480-8964-15 | DI-16-03 (1-2) | Solid | 08/24/2011 0938 | 08/25/2011 0945 |
| 480-8964-16 | DI-16-03 (2-3) | Solid | 08/24/2011 0940 | 08/25/2011 0945 |
| 480-8964-17 | DI-16-03 (3-4) | Solid | 08/24/2011 0942 | 08/25/2011 0945 |
| 480-8964-18 | DI-16-03 (5-6) | Solid | 08/24/2011 0946 | 08/25/2011 0945 |
| 480-8964-19 | DI-42-01 (0-1) | Solid | 08/24/2011 1440 | 08/25/2011 0945 |
| 480-8964-20 | DI-42-01 (2-3) | Solid | 08/24/2011 1444 | 08/25/2011 0945 |
| 480-8964-21 | DUP 100 | Solid | 08/22/2011 1358 | 08/23/2011 1000 |

## SAMPLE SUMMARY

Client: Shaw Environmental & Infrastructure, Inc

Job Number: 480-9023-1

| Lab Sample ID | Client Sample ID | Client Matrix | Date/Time Sampled | Date/Time Received |
|---|---|---|---|---|
| 480-9023-1 | DI-34-01 (0-1) | Solid | 08/24/2011 1226 | 08/25/2011 0945 |
| 480-9023-2 | DI-34-01 (1-2) | Solid | 08/24/2011 1228 | 08/25/2011 0945 |
| 480-9023-3 | DI-34-01 (2-3) | Solid | 08/24/2011 1230 | 08/25/2011 0945 |
| 480-9023-4 | DI-34-01 (3-4) | Solid | 08/24/2011 1232 | 08/25/2011 0945 |
| 480-9023-5 | DI-59-01 (0-1) | Solid | 08/24/2011 1216 | 08/25/2011 0945 |
| 480-9023-6 | DI-59-01 (1-2) | Solid | 08/24/2011 1218 | 08/25/2011 0945 |
| 480-9023-7 | DI-59-01 (2-3) | Solid | 08/24/2011 1220 | 08/25/2011 0945 |
| 480-9023-8 | DI-42-01 (1-2) | Solid | 08/24/2011 1442 | 08/25/2011 0945 |
| 480-9023-8MS | DI-42-01 (1-2) | Solid | 08/24/2011 1442 | 08/25/2011 0945 |
| 480-9023-8MSD | DI-42-01 (1-2) | Solid | 08/24/2011 1442 | 08/25/2011 0945 |
| 480-9023-9 | DUP 107 | Solid | 08/24/2011 1442 | 08/25/2011 0945 |
| 480-9023-10 | DI-42-01 (3-4) | Solid | 08/24/2011 1446 | 08/25/2011 0945 |
| 480-9023-11 | DI-52-01 (0-1) | Solid | 08/25/2011 1100 | 08/26/2011 1030 |
| 480-9023-12 | DI-52-01 (1-2) | Solid | 08/25/2011 1102 | 08/26/2011 1030 |
| 480-9023-13 | DI-52-01 (2-3) | Solid | 08/25/2011 1104 | 08/26/2011 1030 |
| 480-9023-14 | DI-52-01 (3-4) | Solid | 08/25/2011 1106 | 08/26/2011 1030 |
| 480-9023-15 | DI-40-01 (0-1) | Solid | 08/25/2011 1208 | 08/26/2011 1030 |
| 480-9023-16 | DI-40-01 (1-2) | Solid | 08/25/2011 1210 | 08/26/2011 1030 |
| 480-9023-17 | DI-40-01 (2-3) | Solid | 08/25/2011 1212 | 08/26/2011 1030 |
| 480-9023-18 | DI-59-01 (3-4) | Solid | 08/24/2011 1222 | 08/25/2011 0945 |
| 480-9023-19 | DI-57-01 (0-1) | Solid | 08/24/2011 1140 | 08/25/2011 0945 |
| 480-9023-20 | DI-57-01 (1-2) | Solid | 08/24/2011 1142 | 08/25/2011 0945 |
| 480-9023-21 | DI-57-01 (3-4) | Solid | 08/24/2011 1146 | 08/25/2011 0945 |

## SAMPLE SUMMARY

Client: Shaw Environmental & Infrastructure, Inc

Job Number: 480-9121-1

| Lab Sample ID | Client Sample ID | Client Matrix | Date/Time Sampled | Date/Time Received |
|---|---|---|---|---|
| 480-9121-1 | DI-16-03 (4-5) | Solid | 08/24/2011 0944 | 08/25/2011 0945 |
| 480-9121-1MS | DI-16-03 (4-5) | Solid | 08/24/2011 0944 | 08/25/2011 0945 |
| 480-9121-1MSD | DI-16-03 (4-5) | Solid | 08/24/2011 0944 | 08/25/2011 0945 |
| 480-9121-2 | DUP 104 | Solid | 08/24/2011 0944 | 08/25/2011 0945 |
| 480-9121-3 | DI-40-01 (3-4) | Solid | 08/25/2011 1214 | 08/26/2011 1030 |
| 480-9121-3MS | DI-40-01 (3-4) | Solid | 08/25/2011 1214 | 08/26/2011 1030 |
| 480-9121-3MSD | DI-40-01 (3-4) | Solid | 08/25/2011 1214 | 08/26/2011 1030 |
| 480-9121-4 | DUP 109 | Solid | 08/25/2011 1214 | 08/26/2011 1030 |
| 480-9121-5 | DI-57-01 (2-3) | Solid | 08/24/2011 1144 | 08/25/2011 0945 |
| 480-9121-5MS | DI-57-01 (2-3) | Solid | 08/24/2011 1144 | 08/25/2011 0945 |
| 480-9121-5MSD | DI-57-01 (2-3) | Solid | 08/24/2011 1144 | 08/25/2011 0945 |
| 480-9121-6 | DUP 106 | Solid | 08/24/2011 1144 | 08/25/2011 0945 |
| 480-9121-7 | DI-54-01 (3-4) | Solid | 08/25/2011 0956 | 08/26/2011 1030 |
| 480-9121-7MS | DI-54-01 (3-4) | Solid | 08/25/2011 0956 | 08/26/2011 1030 |
| 480-9121-7MSD | DI-54-01 (3-4) | Solid | 08/25/2011 0956 | 08/26/2011 1030 |
| 480-9121-8 | DUP 108 | Solid | 08/25/2011 0956 | 08/26/2011 1030 |
| 480-9121-9 | DI-54-01 (0-1) | Solid | 08/25/2011 0950 | 08/26/2011 1030 |
| 480-9121-10 | DI-54-01 (1-2) | Solid | 08/25/2011 0952 | 08/26/2011 1030 |
| 480-9121-11 | DI-54-01 (2-3) | Solid | 08/25/2011 0954 | 08/26/2011 1030 |

## SAMPLE SUMMARY

Client: Shaw Environmental & Infrastructure, Inc

Job Number: 480-9694-1

| Lab Sample ID | Client Sample ID | Client Matrix | Date/Time Sampled | Date/Time Received |
|---|---|---|---|---|
| 480-9694-1 | DI-14-02 (4-5) | Solid | 08/23/2011 1425 | 08/24/2011 1015 |
| 480-9694-2 | DI-14-02 (5-6) | Solid | 08/23/2011 1427 | 08/24/2011 1015 |
| 480-9694-3 | DI-14-02 (6-7) | Solid | 08/23/2011 1429 | 08/24/2011 1015 |
| 480-9694-4 | DI-14-02 (7-8) | Solid | 08/23/2011 1431 | 08/24/2011 1015 |
| 480-9694-5 | DI-34-02 (0-1) | Solid | 08/24/2011 1234 | 08/25/2011 0945 |
| 480-9694-6 | DI-34-02 (1-2) | Solid | 08/24/2011 1236 | 08/25/2011 0945 |
| 480-9694-7 | DI-34-02 (2-3) | Solid | 08/24/2011 1238 | 08/25/2011 0945 |
| 480-9694-8 | DI-34-02 (3-4) | Solid | 08/24/2011 1240 | 08/25/2011 0945 |
| 480-9694-9 | DI-59-02 (0-1) | Solid | 08/24/2011 1206 | 08/25/2011 0945 |
| 480-9694-10 | DI-59-02 (1-2) | Solid | 08/24/2011 1208 | 08/25/2011 0945 |
| 480-9694-11 | DI-59-02 (2-3) | Solid | 08/24/2011 1210 | 08/25/2011 0945 |
| 480-9694-12 | DI-59-02 (3-4) | Solid | 08/24/2011 1212 | 08/25/2011 0945 |
| 480-9694-13 | DI-57-02 (0-1) | Solid | 08/24/2011 1130 | 08/25/2011 0945 |
| 480-9694-14 | DI-57-02 (1-2) | Solid | 08/24/2011 1132 | 08/25/2011 0945 |
| 480-9694-15 | DI-57-02 (2-3) | Solid | 08/24/2011 1134 | 08/25/2011 0945 |
| 480-9694-15MS | DI-57-02 (2-3) | Solid | 08/24/2011 1134 | 08/25/2011 0945 |
| 480-9694-15MSD | DI-57-02 (2-3) | Solid | 08/24/2011 1134 | 08/25/2011 0945 |
| 480-9694-16 | DUP 105 | Solid | 08/24/2011 1134 | 08/25/2011 0945 |
| 480-9694-17 | DI-57-02 (3-4) | Solid | 08/24/2011 1136 | 08/25/2011 0945 |