

U.S. Department of  
Homeland Security

United States  
Coast Guard



**U.S. Coast Guard**

## **Engineering Evaluation/ Cost Analysis**

**Coast Guard Auxiliary Operations Detachment  
527 River Street  
Rochester, New York**

October 2015



U.S. Department of  
Homeland Security

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### **Engineering Evaluation/ Cost Analysis**

Coast Guard Auxiliary  
Operations Detachment  
527 River Street  
Rochester, New York

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## Table of Contents

<b>Executive Summary</b>	<b>1</b>
<b>1. Introduction</b>	<b>1</b>
1.1 Site Description and Background	3
1.1.1 Site Description	3
1.1.2 Site Background	4
1.1.2.1 Summary of Historical Site Characterizations	4
1.2 Site Characterization Activities and Results	4
1.2.1.1 Removal Action Objectives (RAOs)	4
1.2.1.2 Soil Results	5
1.2.1.3 Groundwater Results	7
1.3 Streamlined Risk Evaluation	9
1.4 Regulatory Requirements	9
1.4.1 Agency Roles	9
1.4.2 Identification of Applicable or Relevant and Appropriate Requirements and To Be Considered Guidance	9
1.4.3 Compliance with National Historic Preservation Act	10
1.4.4 Compliance with Endangered Species Protection Requirements	10
<b>2. Identification of Removal Action Objectives</b>	<b>11</b>
<b>3. Removal Action Alternative Analysis and Selection</b>	<b>11</b>
3.1 Identification and Analysis of Alternatives	11
3.2 Removal Action Work Plan	12
3.2.1 Description	12
3.2.1.1 Soil Removal Action	12
3.2.1.2 Groundwater Response Action	13
3.2.2 Effectiveness	13
3.2.3 Cost	13
3.2.4 Implementability	14
3.3 Removal Verification Sampling	14
3.4 Removal Action Schedule	14
<b>4. Plan for Public Participation</b>	<b>15</b>
<b>5. References</b>	<b>16</b>

## Table of Contents

### Tables

Table 1	Soil Analytical Results
Table 2	Groundwater Analytical Results
Table 3	Identification and Analysis of Removal Action Alternatives
Table 4a	Cost Estimate for Soil Removal
Table 4b	Itemized Cost Estimate for Soil Removal
Table 5	Project Schedule

### Figures

Figure 1	Site Location
Figure 2	Site Layout
Figure 3	Soil Sample Locations and Soil Analytical Results, U.S. Coast Guard 527 River Street, Rochester NY
Figure 4	Groundwater Sample Locations and Groundwater Analytical Results, U.S. Coast Guard 527 River Street, Rochester NY
Figure 5	Proposed Extent of Excavations, U.S. Coast Guard 527 River Street, Rochester NY
Figure 6	Conceptual River Street Alignment

### Appendices

A	Site Survey Map
B	Phase I Environmental Site Assessment
C	Analytical Laboratory Reports and Data Usability Summary Reports
D	Field Logs
E	<i>Howard Coble Coast Guard and Maritime Transportation Act of 2014</i>

## **Executive Summary**

As provided in Executive Order 12580 and the National Oil and Hazardous Substances Pollution Contingency Plan (NCP), the U.S. Coast Guard (USCG) is acting as the lead agency in performing a site investigation and soil removal action, under the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA), at a portion of the Coast Guard Auxiliary Operations Detachment property located at 527 River Street located at Rochester, New York (Site).

The acquisition parcel, herein after referred to as “the Site” consists of an approximately 0.22-acre portion of a 0.342-acre Coast Guard property addressed as 527 River Street. The Site location is presented on Figure 1, and the Site layout in relation to surrounding parcels is presented in Figure 2. Note that the Site is vacant land and does not contain any buildings, structures, or other site improvements other than a catch basin, and is adjacent to railroad tracks that have been in operation for over a century. The Site is an undeveloped parcel over which the City is proposing to relocate a portion of the River Street right-of-way.

As a result of the proposed divesture of the parcel, the United States Coast Guard had a Phase I Environmental Site Assessment (ESA) completed for the Site.

The Phase I ESA was completed by TriTech entitled *Phase I Environmental Site Assessment, Coast Guard Auxiliary Operations Detachment Rochester Land, 527 River Street, Rochester, New York 14612*, dated October 2009, and a complete copy of this report is attached as Appendix B. The Phase I ESA identified Recognized Environmental Conditions (RECs) in connection with the Site, including the following:

- On December 23, 2001, a CSXT train derailed approximately 300 feet south of the Site and approximately 400 feet northwest of the Site. The derailment that occurred south of the Site resulted in the release of approximately 16,000-17,000 gallons of methylene chloride and 21,000-22,000 gallons of acetone and the derailment that occurred northwest of the Site resulted in the release of approximately 4,000 gallons of diesel fuel. After the release, CSXT conducted an Interim Remedial Measure (IRM) in 2002 that resulted in the removal of approximately 4,000 cubic yards of contaminated soil from the diesel spill area and approximately 19,700 tons of soil and 1,030,000 gallons of water impacted by acetone and methylene chloride from the spill that occurred south of the Site.

**Engineering  
Evaluation/Cost  
Analysis**

Coast Guard Auxiliary  
Operations Detachment  
527 River Street  
Rochester, New York

The City retained LaBella Associates, D.P.C (“LaBella”) to conduct an investigation to delineate (vertically and horizontally) any soil and groundwater contamination present at the Site. The investigation was conducted from August 2014 through January 2015 in accordance with a USCG- approved Field Sampling Plan (FSP) dated January 2014. The investigation included advancement of twelve overburden soil borings to equipment refusal and installation of four overburden groundwater monitoring wells. Soils were continuously screened with a photoionization detector (PID) and observed for visual and olfactory evidence of impacts (e.g., staining, odors), collectively referred to as “evidence of impairment”. Evidence of impairment was not identified in any locations. Three soil samples were collected from each location at varying depths ranging from the surface to 11.5-feet below ground surface (bgs), and two rounds of groundwater samples were collected from each of the four wells. A total of thirty-six soil and eight groundwater samples were submitted for laboratory analysis of full suite parameters which included the following:

- Target compound list (TCL) volatile organic compounds (VOCs) including tentatively identified compounds (TICs)
- TCL semi volatile organic compounds (SVOCs) including TICs
- Target analyte list (TAL) Metals
- Polychlorinated biphenyls (PCBs)
- Pesticides

**Soil Results:**

Based on the anticipated future use of the Site as a road and associated right-of-way, this EE/CA assumes that the Site will require remediation consistent with New York State Department of Environmental Conservation (NYSDEC) Part 375-6.8(b) Commercial Use Soil Cleanup Objectives (SCOs).

Four (4) metals including arsenic, barium, copper, and lead were detected in surface soil samples collected from 0 to 0.5-feet bgs at levels that exceeded NYSDEC Part 375-6.8(b) SCOs for Commercial Use. In addition, mercury, arsenic, and lead were detected in soil samples collected from 0.5 to 2.0-feet bgs at levels that exceed NYSDEC Part 375-6.8(b) Commercial Use SCOs.

Four SVOCs including benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, and dibenz(a,h)anthracene were detected in surface soil samples collected from 0 to 0.5-feet bgs and/or in soil samples collected from 0.5 to 2.0-feet bgs at levels that exceed NYSDEC Part 375-6.8(b) Commercial Use SCOs.

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Evaluation/Cost  
Analysis**

Coast Guard Auxiliary  
Operations Detachment  
527 River Street  
Rochester, New York

VOCs, pesticides, and PCBs were not detected in soil samples at levels above NYSDEC Part 375-6.8(b) Commercial Use SCOs. Samples collected from depths greater than 2-feet bgs did not result in detections of any constituents above NYSDEC Part 375-6.8(b) Commercial Use SCOs.

**Groundwater Results:**

VOCs, SVOCs and PCBs were not detected in groundwater samples above the laboratory method detection limits. Since the VOCs Acetone and Methylene Chloride and petroleum hydrocarbons were not detected in soil or groundwater, it does not appear that the 2001 CSXT train derailment has impacted the Site, and, as a result, the CSXT train derailment is no longer considered to be a Recognized Environmental Condition at the Site.

Several metals assumed to be naturally occurring were detected in groundwater samples at levels above NYSDEC Technical Operational Guidance Series (TOGS) 1.1.1 Water Quality Standards and Guidance Values (class GA). One pesticide (alpha-BHC) was detected in groundwater samples above TOGS 1.1.1 standards; however, the constituent was also detected in the equipment and method blank samples and the Data Usability Summary Report (DUSR) determined that the detection of alpha-BHC is "assumed to represent laboratory artifacts".

**Proposed Removal Action:**

Due to the relatively shallow subsurface soil impacts and the proposed future use of the Site as a road and associated right-of-way, the USCG has determined that the most cost-effective and technically feasible remedy for the Site is removal and off-Site disposal of soils at depths of 0 to 2-feet bgs with contaminants at concentrations above the NYSDEC Part 375-6.8(b) Commercial Use SCOs followed by confirmatory soil sampling.

The removal action objective (RAO) identified as applicable to the Site by the USCG is the NYSDEC Part 375-6.8(b) Commercial Use SCOs. Therefore, this criterion was identified as the site-specific RAO. Removal and off-site disposal of impacted soil above the RAO is consistent with the requirements of Section 300.415 of the NCP and state requirements, and eliminates unacceptable risks to human health, welfare, and the environment for current and anticipated future land uses.

Because the ultimate goal is divestiture of the Site from the federal inventory and its transfer to the City of Rochester for use as a road and associated right-of-way, soil

**Engineering  
Evaluation/Cost  
Analysis**

Coast Guard Auxiliary  
Operations Detachment  
527 River Street  
Rochester, New York

removal is the most practical remedy. The proposed soil removal is anticipated to be the final on-Site remedial action to address SVOC and metals impacts in soil prior to divestment of the property. Low level detections of metals in groundwater are anticipated to be naturally occurring and do not warrant remediation; as such, soil removal is the only proposed remediation at the Site and is anticipated to be the final remedy.

The federal government currently owns the Site, and the USCG is acting as the lead agency as authorized under Executive Order 12580. As the lead agency, USCG is voluntarily seeking concurrence<sup>1</sup> from the United States Environmental Protection Agency (USEPA) Region 2 that the Site characterization and proposed soil removal are consistent with the provisions of the NCP and CERCLA Section 120(h).

<sup>1</sup> Such concurrence is not legally required under CERCLA but is being sought by the USCG to obtain, in essence, EPA's advisory opinion relating to the provisions of the NCP and CERCLA Section 120 (h).

**Engineering  
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Analysis**

Coast Guard Auxiliary  
Operations Detachment  
527 River Street  
Rochester, New York

## **1. Introduction**

This Engineering Evaluation/Cost Analysis (EE/CA) was prepared by LaBella Associates, D.P.C. ("LaBella") on behalf of the U.S. Coast Guard (USCG) for the Coast Guard Auxiliary Operations Detachment located at 527 River Street, Rochester, New York (Site). This EE/CA presents a summary of previous Site characterization activities, a streamlined risk evaluation, analysis of the cost, implementability and effectiveness of removal action alternatives, selection and objectives of the proposed soil removal, and a conceptual plan for public involvement.

This EE/CA was developed in accordance with United States Environmental Protection Agency (USEPA) *Guidance for Conducting Non-Time-Critical Removal Actions Under CERCLA*, OSWER 9360.0-32FS, USEPA/540/R-93/057 (United States Environmental Protection Agency 1993). The Site location is illustrated on Figure 1, and the Site layout is presented on Figure 2.

Previous Site characterization by LaBella in 2014 has identified concentrations of metals and SVOCs in shallow subsurface soils to maximum depths of 2-feet bgs at concentrations above NYSDEC Part 375-6.8(b) Commercial Use SCOs. The metals and SVOC impacts are near the surface and are anticipated to be naturally occurring and/or a result of surrounding property uses (i.e., railroad). Pesticide residuals in soil and groundwater are anticipated to be a result of run-off from other parcels, are near the ground surface and below soil RAOs. Groundwater impacts are anticipated to be a result of naturally occurring metals in this geographic location.

According to the Phase I ESA completed by TriTech, there are no records indicating the Site has ever been developed or actively used in the past. A railroad line and associated right-of-way are located adjacent to the west of the Site. It is anticipated that surface soil and shallow subsurface soil impacts are attributed to the adjacent railroad. Site features and the surrounding areas are included on Figure 2.

The federal government intends to divest the property to the City of Rochester for use as a road (River Street). The *Howard Coble Coast Guard and Maritime Transportation Act of 2014* was enacted on December 18, 2014 to authorize the conveyance of the property and to give the City of Rochester the right of first refusal with respect to the purchase of the property. The act is included as Appendix E. River Street is currently located to the east and north of the Site and the City of Rochester plans to relocate the road to intersect the Site. The Conceptual River Street Alignment is included as Figure 6.

**Engineering  
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Coast Guard Auxiliary  
Operations Detachment  
527 River Street  
Rochester, New York

The USCG has selected Site-specific removal action objectives (RAOs) (NYSDEC Part 375-6.8(b) Commercial Use SCOs) and intends to implement a removal for the soil impacted by metals and SVOCs above the RAO in accordance with Code of Federal Regulations (CFR) Sections 40 CFR 300.410 and 300.415 prior to the property divestiture.

DRAFT

## Site Characterization

### 1.1 Site Description and Background

#### 1.1.1 Site Description

The Site is located at 527 River Street in the County of Monroe, New York (refer to Appendix A for a Site Survey Map). The federal government currently owns the Site, which encompasses approximately 0.22 acres of a 0.342-acre parcel addressed as 527 River Street, and is vacant. One catch basin structure is present within the boundaries of the Site.

The Site is bordered by a railroad to the west, USCG property improved with one structure to the east across River Street, City of Rochester-owned parking lot and vacant commercial land to the north, and a parking lot to the south. The Genesee River is located approximately 150-feet east of the Site which empties into Lake Ontario located approximately 0.5 miles north of the Site.

The Site is vegetated with grass; trees and brush are present along the west and north property lines extending onto the Site. Vegetation is apparent on the aerial image included in Figure 2.

A Phase I ESA was completed by TriTech in 2009 which included a cultural resources survey. According to the Phase II ESA, the Advocacy Coordinator at the Landmark Society of Western New York, Inc. indicated that the Site is not listed in the State and National Registers of Historic Places and is not a locally designated landmark or in a locally designated preservation district. In addition, the Advocacy Coordinator indicated that the Site is not listed on the local City of Rochester Preservation Registry because it has never been developed.

In addition, as part of the Phase I ESA, an Ecological Resources and Endangered Species survey was completed. According to the Phase I ESA, the NYSDEC Natural Heritage Program indicated there are no records of known occurrences of significant natural communities or other significant habitats on or in the immediate vicinity of the Site. However, the Site is located near a designated Significant Coastal Fish and Wildlife Habitat (i.e., Genesee River), which is part of New York State's Coastal Management Program. Further, there are no records of known occurrences of rare or state-listed animals or plants on or in the immediate vicinity of the Site.

**Engineering  
Evaluation/Cost  
Analysis**

Coast Guard Auxiliary  
Operations Detachment  
527 River Street  
Rochester, New York

### 1.1.2 Site Background

According to the Phase I ESA conducted by TriTech, there are no records indicating the Site has ever been developed or actively used in the past. The Site is currently zoned as vacant commercial land.

#### 1.1.2.1 Summary of Historical Site Characterizations

The following is a brief summary of historical characterizations performed at the Site. Each document where referenced is included as an appendix of this EE/CA.

- Phase I Environmental Site Assessment, Coast Guard Auxiliary Operations Detachment Rochester Land, 527 River Street, Rochester, New York 14612, dated October 2009 – One Recognized Environmental Condition (REC) was identified associated with a CSXT train derailment that occurred in 2001 approximately 300 feet south of the Site and approximately 400 feet northwest of the Site. The incident resulted in the release of approximately 16,000-17,000 gallons of methylene chloride and 21,000-22,000 gallons of acetone to the south of the Site, and the release of approximately 4,000 gallons of diesel fuel to the northwest of the Site. Following the derailment, CSXT conducted an Interim Remedial Measure (IRM) consisting of the removal of approximately 4,000 cubic yards of impacted material associated with the diesel spill and 19,700 tons of soil and 1,030,000 gallons of water associated with the acetone and methylene chloride spill (refer to Appendix [B]).

## 1.2 Site Characterization Activities and Results

As required for the divestiture, LaBella conducted a Site Characterization from August 2014 to January 2015 consisting of the advancement of soil borings, installation of groundwater monitoring wells, and soil and groundwater sampling and laboratory analysis. The procedures and results are detailed in this section.

### 1.2.1.1 Removal Action Objectives (RAOs)

Due to the proposed future use as a road and associated right-of-way, soil removal actions will remove soils at levels exceeding standards consistent with future Site use (i.e., commercial use), consistent with the Field Sampling Plan (FSP). The USCG has selected a RAO for metals and SVOCs in soil at the Site consistent with NYSDEC Part 375-6.8(b) Commercial Use SCOs. The following table indicates the standards for each constituent detected at levels above RAOs during the Site Characterization:

**Engineering  
Evaluation/Cost  
Analysis**

Coast Guard Auxiliary  
Operations Detachment  
527 River Street  
Rochester, New York

**Table A: Removal Action Objectives**

<b>Constituent</b>	<b>Removal Action Objectives (mg/Kg)</b>
<b>METALS</b>	
Arsenic	16
Barium	400
Copper	270
Lead	1,000
<b>SVOCs</b>	
Benzo(a)anthracene	5.6
Benzo(a)pyrene	1.0
Benzo(b)fluoranthene	5.6
Dibenz(a,h)anthracene	0.56

Soil RAOs will be utilized to remediate the Site. Refer to Table 3 for a comprehensive list of NYSDEC Part 375-6.8(b) Commercial Use SCOs.

1.2.1.2 Soil Results

A total of twelve soil borings were advanced at the Site in August 2014. Eleven of the borings (SB-01 through SB-11) were advanced at the Site using a CME 8500 rotary drill rig using direct push methods to equipment refusal, expected to be bedrock, which ranged from depths of 9.5-feet to 15.5 feet bgs. Due to the grade change associated with the railroad to the west of the Site, a smaller machine was required to access the location of SB-12. A Geoprobe 54LT was used to advance SB-12 to 7.5-feet bgs. Refer to Figure 3 for soil boring locations.

Surface soil samples were collected using a hand shovel from depths of 0 to 0.5-feet bgs prior to soil boring advancement. Subsurface soils below 0.5-feet bgs were retrieved using split spoons in 2-foot sections or 4-foot macrocores. Soils generally consisted of sand with some silt and gravel. Field logs are included in Appendix D.

Three soil samples were collected from three separate intervals in each soil boring location as follows:

- First interval: 0 to 0.5-feet bgs
- Second interval: 0.5 to 2.0-feet bgs

**Engineering  
Evaluation/Cost  
Analysis**

Coast Guard Auxiliary  
Operations Detachment  
527 River Street  
Rochester, New York

- Third interval: based on evidence of impairment; if none, then at an arbitrary depth greater than 2.0-feet bgs

Soils were continuously screened with a photoionization detector (PID) and observed for visual and olfactory evidence of impacts (e.g., staining, odors), collectively referred to as “evidence of impairment”. Evidence of impairment was not identified in any locations.

Sampling procedures were conducted in accordance with the Quality Assurance Project Plan/Field Sampling Plan (QAPP/FSP). A total of 36 soil samples were submitted for laboratory analysis at Test America Laboratories, Inc. in Buffalo, New York for the following analyses:

- Target Compound List (TCL) VOCs including tentatively identified compounds (TICs) using United States Environmental Protection Agency (USEPA) Method 8260;
- TCL SVOCs including TICs using USEPA Method 8270;
- Target analyte list (TAL) metals using USEPA Methods 6010/7470/7471;
- PCBs using USEPA Method 8082; and
- Pesticides using USEPA Method 8081.

Soil samples were compared to the RAOs; NYSDEC Part 375-6.8(b) Commercial Use SCOs. The following indicates the number of exceedances above RAOs in each sample interval:

- First interval (0 to 0.5-feet): Four exceedances (SS-2, SS-5, SS-8, SS-12)
- Second interval (0.5 to 2.0- feet): Five exceedances (SS-3, SS-6, SS-8, SS-10, SS-11)
- Third interval (greater than 2.0-feet): No exceedances

Four (4) metals including arsenic, barium, copper, and lead were detected in surface soil samples collected from 0 to 0.5-feet bgs and/or in soil samples collected from 0.5 to 2.0-feet bgs at levels that exceeded RAOs (New York State Department of Environmental Conservation (NYSDEC) Part 375-6.8(b) Soil Cleanup Objectives (SCOs) Use for Commercial Use).

Four (4) SVOCs including benzo(a) anthracene, benzo(a)pyrene, benzo(b)fluoranthene, and dibenz(a,h)anthracene were detected in surface soil samples collected from 0 to 0.5-feet bgs and/or in soil samples collected from 0.5 to 2.0-feet bgs at levels that exceed RAOs.

**Engineering  
Evaluation/Cost  
Analysis**

Coast Guard Auxiliary  
Operations Detachment  
527 River Street  
Rochester, New York

Pesticides and PCBs were not detected in soil samples at levels above RAOs. VOCs were not detected above laboratory method detection limits (MDLs).

Samples collected from depths greater than 2-feet bgs did not result in detections of any constituents above RAOs. Results of this Site characterization indicate that surface soils in the locations of SS-02, SS-05, SS-08, and SS-12 and shallow subsurface soils in the locations of SB-03, SB-06, SB-08, SB-10, and SB-11 are impacted with metals and/or SVOCs above RAOs.

Refer to Table 1 for soil a summary of detected compounds in soil. Refer to Figure 3 for soil sample results and sample locations. Analytical laboratory reports are included in Appendix C.

#### 1.2.1.3 Groundwater Results

Four soil borings (SB-02, SB-08, SB-04, and SB-11) were converted to groundwater monitoring wells. Wells consisted of 5 to 10-feet of 2-inch diameter screen completed with 2-inch diameter riser piping. The annulus was filled with quartz sand to a nominal depth of 1-foot above the screened section, and completed with bentonite. Protective metal casings were installed flush with the ground surface.

Prior to sampling, wells were developed by purging a minimum of three well volumes. Wells were allowed to recharge for a minimum of 48 hours. Each of the four groundwater monitoring wells were sampled in October 2014 and in January 2015. Sampling procedures were conducted in accordance with the QAPP/FSP. A total of eight groundwater samples were submitted for laboratory analysis at Test America Laboratories, Inc. in Buffalo, New York for the following analyses:

- TCL VOCs including TICs using USEPA Method 8260;
- TCL SVOCs including TICs using USEPA Method 8270;
- TAL metals using USEPA Methods 6010/7470/7471;
- PCBs using USEPA Method 8082; and
- Pesticides using USEPA Method 8081.

Only metals were detected above TOGS 1.1.1 Groundwater Quality Standards in groundwater samples analyzed at the Site. A summary of the two groundwater sampling events is included below:

**Engineering  
Evaluation/Cost  
Analysis**

Coast Guard Auxiliary  
Operations Detachment  
527 River Street  
Rochester, New York

October 2014 Sampling Event:

Several metals including iron, magnesium, manganese, selenium, and sodium were detected in at least one groundwater sample above TOGS 1.1.1 Groundwater Quality Standards.

One pesticide (alpha-BHC) was detected in all four groundwater samples at levels above TOGS 1.1.1 standards; however, the constituent was also detected in the equipment and method blank samples and the Data Usability Summary Report (DUSR) determined that the detection of alpha-BHC is “assumed to represent laboratory artifacts”.

VOCs, SVOCs, and PCBs were not detected above laboratory MDLs.

January 2015 Sampling Event:

The same metals detected during the October 2014 sampling event (iron, magnesium, manganese, selenium, and sodium) were detected.

One pesticide (alpha-BHC) was detected in all four groundwater samples, and the blanks, as it was in the October 2014 sampling event and the same determination was made in the DUSR.

Three VOCs were detected in the equipment blank sample and the DUSR indicates “the presence of these artifacts, however, warrants no concern”. VOCs were not detected in any remaining samples.

SVOCs were detected in three locations (MWSB-2, MWSB-8 and MWSB-11) at levels below TOGS 1.1.1 Groundwater Quality Standards.

PCBs were not detected above laboratory MDLs.

All investigation derived waste was containerized on-Site in 55-gallon drums, characterized, and disposed of at a permitted facility in accordance with the QAPP/FSP.

Refer to Table 2 for summary of detected compounds in groundwater. Refer to Figure 4 for groundwater sample results and sample locations. Analytical laboratory reports are included in Appendix C.

**Engineering  
Evaluation/Cost  
Analysis**

Coast Guard Auxiliary  
Operations Detachment  
527 River Street  
Rochester, New York

The relatively low concentrations and types of metals detected in groundwater at the Site are anticipated to be naturally occurring and not warranting remediation; as such, it is anticipated that the soil removal proposed herein will be the final remedy for the Site.

**1.3 Streamlined Risk Evaluation**

According to the Phase I ESA conducted by TriTech, the Site has never been developed. No aboveground or underground storage tanks have been identified and activities at the Site are not known to have included chemical use. Chemical spills have occurred to the north and south of the Site when a train derailment resulted in the release of methylene chloride, acetone, and diesel fuel (refer to Section 1.1.2.1).

The current and future use of the Site is expected to be a road and associated right-of-way. Due to the anticipated property divestiture, the USCG acting as the lead agency has established a cleanup goal (RAO) for metals and SVOCs in soil based on a restricted land use consistent with commercial use.

**1.4 Regulatory Requirements**

1.4.1 Agency Roles

Executive Order 12580 of January 23, 1987 titled *Superfund Implementation* delegates to federal agencies the authority and responsibility to implement provisions under CERCLA including, but not limited to, conducting hazardous substance response activities such as removal Site characterization and removal action. As provided in Executive Order 12580 and the NCP, the USCG is acting as the lead agency for implementing the removal actions proposed at the Site.

1.4.2 Identification of Applicable or Relevant and Appropriate Requirements and To Be Considered Guidance

Section 121(d) of CERCLA as amended by the 1986 Superfund Amendments and Reauthorization Act (SARA) and Section 300.415(i) of the NCP require that removal actions attain applicable or relevant and appropriate requirements (ARAR's) to the extent practical considering the exigencies of the situation. Federal ARARs are to be considered in formulating a removal action. Where state requirements are promulgated, more stringent than federal requirements, and identified by the State; they are also to be considered to the extent practical given the exigencies of the situation. RAOs applicable to this EE/CA are New York State requirements, specifically NYSDEC Remedial Program Soil Cleanup Objectives (Subpart 375-6).

**Engineering  
Evaluation/Cost  
Analysis**

Coast Guard Auxiliary  
Operations Detachment  
527 River Street  
Rochester, New York

1.4.3 Compliance with National Historic Preservation Act

A Phase I ESA was completed by TriTech in 2009 which included a cultural resources survey. According to the Phase I ESA, the Advocacy Coordinator at the Landmark Society of Western New York, Inc. indicated that the Site is not listed in the State and National Registers of Historic Places and is not a locally designated landmark or in a locally designated preservation district. In addition, the Advocacy Coordinator indicated that the Site is not listed on the local City of Rochester Preservation Registry because it has never been developed.

1.4.4 Compliance with Endangered Species Protection Requirements

In addition, as part of the Phase I ESA, an Ecological Resources and Endangered Species survey was completed. According to the Phase I ESA, the NYSDEC Natural Heritage Program indicated there are no records of known occurrences of significant natural communities or other significant habitats on or in the immediate vicinity of the Site. However, the Site is located near a designated Significant Coastal Fish and Wildlife Habitat (i.e., Genesee River), which is part of New York State's Coastal Management Program. Further, there are no records of known occurrences of rare or state-listed animals or plants on or in the immediate vicinity of the Site.

**Engineering  
Evaluation/Cost  
Analysis**

Coast Guard Auxiliary  
Operations Detachment  
527 River Street  
Rochester, New York

## **2. Identification of Removal Action Objectives**

The primary objective of the proposed removal action is to protect the public health, welfare and the environment, thereby facilitating the transfer of the property from the federal inventory to the City of Rochester to build a road and associated infrastructure. As indicated in Section 2.3, COCs at the Site include several metals and SVOCs.

Based on the anticipated future use of the Site as a road, the RAOs selected for remediation of the Site are the NYSDEC Part 375-6.8(b) Commercial Use SCOs.

The residual metals and SVOCs in soil above the RAOs have been defined horizontally and vertically as detailed in Section 2.2 and appears confined to 2-feet of near-surface soil in locations of SB-2, SB-3, SB-5, SB-6, SB-8, SB-10, SB-11, and SB-12.

## **3. Removal Action Alternative Analysis and Selection**

In accordance with the USEPA guidance on conducting non-time critical removal actions under CERCLA (USEPA 1993) three potential alternatives to achieve the Site RAOs have been identified and assessed.

### **3.1 Identification and Analysis of Alternatives**

Potential alternatives to achieve the Site RAOs include no further action, capping, and soil removal. Each of these potential alternatives was initially evaluated with respect to the extent of impacts, the Site-specific RAOs, and current and anticipated future land use.

#### **No Action**

Under this alternative, the impacted soil would remain in place with no effort to reduce concentrations or address potential exposure or migration pathways. The no action alternative would require a 5-year review into perpetuity, but is technically feasible, and the cost of implementing this alternative is low; however, this alternative is not effective or administratively feasible and would not comply with RAOs. Because current soil conditions at the Site are not protective of human health and the environment, this option was not considered for further evaluation for this Site.

**Engineering  
Evaluation/Cost  
Analysis**

Coast Guard Auxiliary  
Operations Detachment  
527 River Street  
Rochester, New York

- **Capping**

This alternative involves constructing an exposure barrier or “cap” to eliminate the soil direct contact exposure pathway. This alternative is both effective and technically feasible for reducing the risk of human exposure to impacted soils; however, this alternative does not comply with RAOs. Long-term annual inspections and monitoring and continual 5-year reviews would be required into perpetuity to verify the integrity of the exposure barrier; therefore, the total cost of this alternative is relatively high. This alternative was not retained for further evaluation for this Site.

- **Soil Removal**

Soil removal includes excavation and off-site disposal of soils impacted by metals and SVOCs above the RAOs and restoration of the land surface and vegetation similar to pre-excavation conditions. The removal of impacted soil effectively eliminates the direct contact exposure pathway and removes impacted soil. In addition, soil removal is both technically and administratively feasible. Soil removal eliminates the need for long-term inspection and/or 5-year reviews. This alternative is cost effective, provides effective protection for human health and the environment, complies with RAOs, and would facilitate property divestment.

The first two alternatives to address the soil impacts (i.e., no further action and capping,) were eliminated from further evaluation because they do not effectively remove soil impacts above RAOs. Soil removal represents the most effective, and implementable action for the Site and is recommended as the protective and cost-effective alternative consistent with the requirements of the NCP. Refer to Tables 4a and 4b for estimated costs of soil removal at the Site.

### **3.2 Removal Action Work Plan**

#### 3.2.1 Description

The following sections describe the soil removal proposed for the Site.

##### 3.2.1.1 Soil Removal Action

The recommended remedy for soil includes excavation and off-site disposal of soils across the Site as shown on Figure 5 to 2-feet bgs. Although not all locations sampled exceed the RAO, due to the proposed development of the Site as a road, construction activities will require that a portion of the Site be removed and regarded to

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Evaluation/Cost  
Analysis**

Coast Guard Auxiliary  
Operations Detachment  
527 River Street  
Rochester, New York

accommodate the new construction. As such, and due to the relatively small area with no RAO exceedances, the proposed removal action will include the entire Site to a depth of 2-feet bgs. Details of the proposed soil removal action are as follows.

Soil across the entire area of the Site (9,583 square feet) to 2-feet bgs will be excavated and transported to appropriately licensed landfills for disposal. Soils exceeding RAOs are located up to 2-feet bgs in several locations across the Site.

Based on the Site characterization sampling described in Section 1.2, approximately 710 cubic yards of non-hazardous soil will be excavated and removed from the Site. Soils from the excavation will be transported to a NYSDEC Part 360 Permitted Facility, Mill Seat Landfill. Based on generator knowledge and the Site characterization soil sampling analytical results, the soil will be disposed of as non-hazardous regulated solid waste at a permitted disposal facility

Based on the estimated volume of soil to be removed from the Site, approximately 710 cubic yards of clean fill will be used to regrade the areas of excavation. Backfill material will consist of bank run material compacted to 90%.

Air monitoring will be conducted consistent with the FSP/QAPP.

#### 3.2.1.2 Groundwater Response Action

Soil RAOs have been selected for the Site consistent with the proposed commercial use as a road and associated right-of-way. Metals detected above NYSDEC TOGS 1.1.1 Water Quality Standards are anticipated to be naturally occurring and do not warrant further investigation or remediation.

#### 3.2.2 Effectiveness

The removal of impacted soil above the RAOs effectively eliminates the soil direct contact exposure pathway. Soil removal also provides effective protection for human health and the environment and facilitates property divestiture.

#### 3.2.3 Cost

A cost estimate for the proposed removal action, including soil excavation and verification sampling, soil disposal and Site restoration costs are presented in Tables 4a and 4b and were based on the unit rates and estimated quantities provided by LaBella Environmental LLC. Based on the rates and estimated quantities, the total present worth of the proposed removal/response action is estimated to be \$139,000.

**Engineering  
Evaluation/Cost  
Analysis**

Coast Guard Auxiliary  
Operations Detachment  
527 River Street  
Rochester, New York

### 3.2.4 Implementability

Appropriate contractors, equipment, and disposal facilities have been identified to complete the proposed soil removal action in a timely and efficient manner. The depth and extent of the proposed excavations are limited, which will further facilitate the cost-effective and efficient removal and subsequent regrading and surface restoration activities.

### 3.3 Removal Verification Sampling

Samples were collected from three depth intervals from each soil boring advanced during the Site investigation. Only samples from the first two depth intervals exceeded soil RAOs. Samples collected from the greatest depth at each soil boring did not exceed soil RAOs. The lateral extent of excavation will extend to the limits of the Site investigation. As such, confirmatory sampling will only be conducted on the bottom of the excavation during the removal action. Bottom soil samples will be collected in accordance with Section 2.3 – Soil Removal Confirmation Sampling of the US Coast Guard-approved Field Sampling Plan, dated March 2014. Two (2) bottom samples will be collected based on a biased sampling approach per 1,000 square feet of excavation footprint. The proposed removal area is ~10,000 square feet (0.22-acres) so twenty (20) bottom confirmatory soil samples will be collected and analyzed for the Metals and SVOCs that exceeded the soil RAOs including:

- Metals: Arsenic, Barium, Copper, Mercury, and Lead
- SVOCs: Benzo(a)anthracene, Benzo(a)pyrene, Benzo(b)fluoranthene, and Dibenz(a,h)anthracene.

### 3.4 Removal Action Schedule

The proposed project schedule is provided as Table 5. Preparation of the final EE/CA will occur after the USEPA review and comment on the draft documents. Work on the Site, including review of all documents, and completion of the proposed soil removal activities is anticipated to be completed within six months of USEPA and USCG approval of this EE/CA. A Final Engineering Report (FER) will be prepared, documenting the removal action.

**Engineering  
Evaluation/Cost  
Analysis**

Coast Guard Auxiliary  
Operations Detachment  
527 River Street  
Rochester, New York

#### **4. Plan for Public Participation**

Pursuant to public participation provisions described in Section 300.415(m), of the NCP, the USCG has prepared the following plan for facilitating public involvement in the Site soil removal action under CERCLA.

A public notice regarding the proposed soil removal action will be posted in the local newspaper, the Democrat and Chronicle. Documents generated during the CERCLA process for the Site including this EE/CA will be made available for public viewing at the following public libraries:

- Charlotte Branch Library: 3557 Lake Avenue, Rochester, New York
- Maplewood Community Library: 1111 Dewey Avenue, Rochester, New York

A written notification of the availability of the documents will be provided to each of the property owners immediately adjacent to the Site. The documents will be posted electronically on the City of Rochester website. Each of the final documents will also be reproduced in full hardcopy and provided to the libraries above for public viewing. Consistent with requirements of the NCP, the USCG will consider appropriate relevant comments received within the 30-day review period.

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Evaluation/Cost  
Analysis**

Coast Guard Auxiliary  
Operations Detachment  
527 River Street  
Rochester, New York

**5. References**

Comprehensive Environmental Response, Compensation, and Liability Act, December 11, 1980 as amended by Superfund Amendments and Reauthorization Act of October 17, 1986.

Executive Order 12580. 1987. Superfund Implementation. January 23, 1987.

National Historic Preservation Act of 1966, as Amended.

Natural Resources and Environmental Protection Act, Public Act 451 of 1994, as Amended.

National Oil and Hazardous Substances Pollution Contingency Plan; Final Rule. 40 Code of Federal Regulations, Part 300. March 8, 1990.

United States Environmental Protection Agency 1993. *Guidance on Conducting Non-Time-Critical Removal Actions Under CERCLA*, EPA540-R-93-057. August 1993.

United States Environmental Protection Agency 1993. *Guidance on Conducting Non-Time-Critical Removal Actions Under CERCLA*, EPA540-R-93-057. August 1999.

United States Environmental Protection Agency, Office of Solid Waste and Emergency Response. 1994. *Memorandum: Revised Interim Soil Lead Guidance for CERCLA Sites and RCRA Corrective Action Facilities*. From Elliott . Laws, Assistant Administrator. To: Regional Administrators I-X. EPA/540/F-94/043. August 1994.

United States Environmental Protection Agency 1992. *Supplemental Guidance to RAGS: Calculating the Concentration Term*. May 1992.

United States Environmental Protection Agency 1994. Office of Solid Waste and Emergency Response. *Memorandum: Revised Interim Soil Lead Guidance for CERCLA Sites and RCRA Corrective Action Facilities*. From Elliott Laws, Assistant Administrator. To: Regional Administrators I-X. EPA/540/F-94/043. August 1994.

Examples:

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Coast Guard Auxiliary  
Operations Detachment  
527 River Street  
Rochester, New York

*Quality Assurance Project Plan Coast Guard Auxiliary Operations Detachment, 527 River Street, Rochester NY* by LaBella Associates, D.P.C. dated January 2014

*Field Sampling Plan, Coast Guard Auxiliary Operations Detachment, 527 River Street, Rochester NY* by LaBella Associates, D.P.C. dated January 2014

*Phase I Environmental Site Assessment, Coast Guard Auxiliary Operations Detachment Rochester Land, 527 River Street, Rochester, New York 14612*, by TriTech dated October 2009.

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Tables

Table 1

Coast Guard Auxiliary Operations Detachment  
527 River Street  
Rochester, New York

Detected Compounds in Soil  
August 2014

Sample ID Sample Date Sample Time	527 RIVER SS01-I 8/18/2014 9:00 AM	527 RIVER SS02-I 8/18/2014 11:00 AM	527 RIVER SS03-I 8/18/2014 1:30 PM	527 River SS04-I 8/19/2014 7:20 AM	527 River SS05-I 8/19/2014 9:00 AM	527 River SS06-I 8/19/2014 12:00 PM	NYSDEC Part 375-6.8(a) SCOs Unrestricted Use	NYSDEC Part 375- 6.8(b) SCOs Restricted Use Commercial
<b>Metals (ppm)</b>								
Mercury	0.33	0.35	0.24	0.99	0.37	0.38	0.18	2.8
Aluminum	5380	7230	3960	4570	20200	5860	NA	NA
Antimony	1.3 J	0.61 J	1.7 J	ND	5.2 J	ND	NA	NA
Arsenic	15.4	12.1	9.3	9.3	21.8	5.5	13	16
Barium	104	167	82	62.1	1340	73.1	350	400
Beryllium	0.57	0.49 J	0.51 J	0.37	1.1	0.56	7.2	590
Cadmium	0.91	1.1	0.61	0.82	6	0.39	2.5	9.3
Calcium	10600	12500	17900	45200 B	18300 B	18800 B	NA	NA
Chromium	12.6	15.5	8.4	8.2	44	7.8	NA	NA
Cobalt	5.4	5.8	4.5	4.8	45.9	4.5	NA	NA
Copper	178	511	117	60.9	1550	42.9	50	270
Iron	19300	16300	25800	12500	105000	12200	NA	NA
Lead	261	220	355	141	7950	75.7	63	1000
Magnesium	3490	2830	4610	21200	5230	4840	NA	NA
Manganese	336	378	374	383	523	384	1600	10000
Nickel	25.2	73.2	18.1	12.8	45.5	10.6	30	310
Potassium	706	1090	597	831	1430	948	NA	NA
Selenium	1.5 J	1.3 J	0.85 J	ND	1.4 J	ND	3.9	1500
Silver	0.83 J	1.2	1.1 J	0.88	11.7	ND	2	1500
Sodium	108 J	91.4 J	ND	114 J	472	72.2 J	NA	NA
Thallium	ND	ND	ND	ND	ND	ND	NA	NA
Vanadium	12.2	16	10.4	9.3	12.3	11	NA	NA
Zinc	238	482	167	267 B	2320 B	102 B	109	10000
<b>PCBs (ppm)</b>								
PCB-1254	0.85	ND	ND	ND	0.26 J	ND	NA	NA
PCB-1260	ND	ND	ND	ND	0.13 J	ND	NA	NA
<b>Pesticides (ppb)</b>								
4,4'-DDD	ND	ND	ND	3.2 J	ND	ND	3.3	92000
4,4'-DDE	44	ND	ND	3.4 J	ND	8.2 J	3.3	62000
4,4'-DDT	94	31 J	ND	5.5 J	16 J	17 J	3.3	47000
alpha-BHC	ND	ND	ND	ND	10 J B	ND	20	3400
beta-BHC	ND	ND	ND	4.8 J	ND	12 J	36	3000
delta-BHC	ND	ND	ND	3.1 J	11 J	ND	40	500000
Dieldrin	89	ND	ND	ND	ND	ND	5	1400
Endosulfan sulfate	ND	ND	ND	4.2 J	ND	ND	2400	200000
Endrin aldehyde	14 J	ND	ND	ND	ND	ND	NA	NA
Endrin ketone	ND	ND	ND	5.0 J	ND	ND	NA	NA
gamma-BHC (Lindane)	14 J	ND	ND	ND	ND	13 J	100	9200
gamma-Chlordane	36 J	ND	ND	5.3 J	ND	ND	NA	NA
Methoxychlor	ND	ND	ND	ND	ND	ND	NA	NA

Notes:

Results compared to New York State Department of Environmental Conservation (NYSDEC) Part 375-6.8 Soil Cleanup Objectives for Unrestricted Use, Commercial Use, and Protection of Groundwater

Metals and PCBs units in milligram per kilogram (mg/Kg) or parts per million (ppm)

Pesticides, SVOCs, and VOCs units in microgram per kilogram (ug/Kg) or parts per billion (ppb)

T- Result is a tentatively identified compounds (TIC) and an estimated value

J- Results is less than the reporting limit but greater than or equal to the method detection limit and the concentration is an approximate value

N- Presumptive evidence of material

B- Compounds was found in the blank sample

**Bold** exceeds NYSDEC Part 375-6.8(a) Unrestricted Use Soil Cleanup Objectives

**Bold and Underlined** exceeds NYSDEC Part 375-6.8(b) Restricted Use Soil Cleanup Objectives for Commercial Use

Table 1

Coast Guard Auxiliary Operations Detachment  
527 River Street  
Rochester, New York

Detected Compounds in Soil  
August 2014

Sample ID	527 RIVER SS01-I	527 RIVER SS02-I	527 RIVER SS03-I	527 River SS04-I	527 River SS05-I	527 River SS06-I	NYSDEC Part 375-6.8(a) SCOs Unrestricted Use	NYSDEC Part 375- 6.8(b) SCOs Restricted Use Commercial
Sample Date Sample Time	8/18/2014 9:00 AM	8/18/2014 11:00 AM	8/18/2014 1:30 PM	8/19/2014 7:20 AM	8/19/2014 9:00 AM	8/19/2014 12:00 PM		
<b>SVOCs (ppb)</b>								
Biphenyl	220	27 J	26 J	9.2 J	48 J	9.7 J	NA	NA
2-Methylnaphthalene	2400	210	230	77	480	81	NA	NA
2-Methylphenol	ND	ND	ND	ND	29 J	ND	330	500000
Acenaphthene	ND	17	ND	15	38	7.0 J	20000	500000
Acenaphthylene	410	120	120	80	120	63	100000	500000
Acetophenone	ND	ND	30 J	ND	110 J	ND	NA	NA
Anthracene	390	96	91	76	170	40	100000	500000
Benzaldehyde	ND	ND	60 J	42 J	250	33 J	NA	NA
Benzo[a]anthracene	990	400	310	260	670	180	1000	5600
3 & 4 Methylphenol	56 J	ND	ND	ND	29 J	ND	NA	NA
Benzo[a]pyrene	890	420	360	310	660	250	1000	1000
Benzo[b]fluoranthene	<b>1700</b>	670	650	450	<b>1100</b>	380	1000	5600
Benzo[g,h,i]perylene	490	330	230	170	570	210	100000	500000
Benzo[k]fluoranthene	600	220	230	180	340	130	800	56000
Bis(2-ethylhexyl) phthalate	100 J	34 J	92	47 J	95 J	ND	NA	NA
Carbazole	160	53 J	44 J	ND	100	ND	NA	NA
Chrysene	<b>1300</b>	520	460	310	840	230	1000	56000
Dibenz(a,h)anthracene	180	100	72	51	140	51	330	560
Dibenzofuran	630	81	88	37 J	260	35 J	7000	350000
Di-n-butyl phthalate	ND	190	28 J	21 J	48 J	ND	NA	NA
Di-n-octyl phthalate	ND	ND	ND	ND	ND	ND	NA	NA
Fluoranthene	1900	780	570	480	1400	280	100000	500000
Fluorene	ND	ND	ND	22	79	12	30000	500000
Hexachlorobenzene	ND	ND	ND	ND	ND	ND	330	6000
Indeno[1,2,3-cd]pyrene	<b>500</b>	290	210	160	490	190	500	5600
Naphthalene	1600	170	160	64	350	68	12000	500000
Pentachlorophenol	ND	ND	ND	ND	ND	ND	800	6700
Phenanthrene	1800	430	350	230	1000	120	100000	500000
Phenol	ND	ND	ND	ND	ND	ND	330	500000
Pyrene	1500	700	510	420	1200	290	100000	500000
Tentatively Identified Compound	15050 T J N	10160 T J N	11930 T J N	11990 T J N	37240 T J	24494 T H J N	NA	NA
<b>VOCs (ppb)</b>								
Tentatively Identified Compound	3.3 J	None	15	1.6 J	10 J	5.8 J	NA	NA

Notes:

Results compared to New York State Department of Environmental Conservation (NYSDEC) Part 375-6.8 Soil Cleanup Objectives for Unrestricted Use, Commercial Use, and Protection of Groundwater

Metals and PCBs units in milligram per kilogram (mg/Kg) or parts per million (ppm)

Pesticides, SVOCs, and VOCs units in microgram per kilogram (ug/Kg) or parts per billion (ppb)

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N'- Presumptive evidence of material

B'- Compounds was found in the blank sample

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Table 1

Coast Guard Auxiliary Operations Detachment  
527 River Street  
Rochester, New York

Detected Compounds in Soil  
August 2014

Sample ID Sample Date Sample Time	527 River SS07-I 8/20/2014 7:15 AM	527 River SS08-I 8/20/2014 8:10 AM	527 River SS09-I 8/20/2014 1:10 PM	527 River-SS10-I 8/21/2014 8:00 AM	527 River-SS11-I 8/21/2014 9:30 AM	527 RIVER-SS12-I 9/16/2014 10:00 AM	NYSDEC Part 375-6.8(a) SCOs Unrestricted Use	NYSDEC Part 375- 6.8(b) SCOs Restricted Use Commercial
<b>Metals (ppm)</b>								
Mercury	0.31	0.65	0.3	0.14	0.065	0.66	0.18	2.8
Aluminum	4260	5020	4660	5120	4870	7000	NA	NA
Antimony	0.69 J	2.6 J	0.94 J	0.71 J	ND	1.2 J	NA	NA
Arsenic	5.7	13	10.8	6.2	3.6	11.1	13	16
Barium	55.5	222	126	60.5	34.8	87.2	350	400
Beryllium	0.27	0.45	0.4	0.38	0.27	0.5	7.2	590
Cadmium	0.75	1.2	0.77	3.9	0.33	1	2.5	9.3
Calcium	40800 B	11900 B	22600 B	45000 B	31400 B	16900 B	NA	NA
Chromium	6.9	11.7	12.1	8.2	7	12.1	NA	NA
Cobalt	4.2	5.5	4.7	5.2	5.1	7.1	NA	NA
Copper	33.1	211	171	43.4	21.9	89	50	270
Iron	13400	13900	13400	12800	10100	18100 B	NA	NA
Lead	83.5	911	309	156	31.6	140	63	1000
Magnesium	8260	4010	9200	22800	7440	4740	NA	NA
Manganese	350 B	290 B	312 B	449 B	451 B	379 B	1600	10000
Nickel	10.3	15.5	12.8	13.1	11.5	19.6 B	30	310
Potassium	535	742	883	857	634	1440	NA	NA
Selenium	ND	0.94 J	ND	1.0 J	0.53 J	0.99 J	3.9	1500
Silver	0.77	1	1	0.52 J	0.40 J	1.1	2	1500
Sodium	67.6 J	126 J	101 J	108 J	74.7 J	80.3 J	NA	NA
Thallium	ND	ND	ND	ND	0.52 J B	ND	NA	NA
Vanadium	9.2	11.6	12.1	11.3	9.6	15.7	NA	NA
Zinc	191 B	401 B	209 B	101 B	70.7 B	208 B	109	10000
<b>PCBs (ppm)</b>								
PCB-1254	ND	0.30 J	0.21 J	ND	ND	ND	NA	NA
PCB-1260	ND	ND	ND	ND	ND	ND	NA	NA
<b>Pesticides (ppb)</b>								
4,4'-DDD	ND	ND	25 J	ND	ND	ND	3.3	92000
4,4'-DDE	ND	25 J	ND	ND	ND	7.5 J	3.3	62000
4,4'-DDT	ND	30 J	26 J	ND	ND	16 J	3.3	47000
alpha-BHC	ND	ND	ND	ND	ND	ND	20	3400
beta-BHC	ND	ND	ND	ND	ND	ND	36	3000
delta-BHC	ND	ND	ND	ND	ND	ND	40	500000
Dieldrin	ND	ND	ND	ND	ND	ND	5	1400
Endosulfan sulfate	ND	ND	ND	ND	ND	ND	2400	200000
Endrin aldehyde	ND	ND	ND	ND	ND	ND	NA	NA
Endrin ketone	ND	ND	ND	ND	ND	ND	NA	NA
gamma-BHC (Lindane)	ND	ND	12 J	ND	ND	ND	100	9200
gamma-Chlordane	ND	ND	ND	ND	ND	ND	NA	NA
Methoxychlor	ND	ND	ND	ND	ND	13 J	NA	NA

Notes:

Results compared to New York State Department of Environmental Conservation (NYSDEC) Part 375-6.8 Soil Cleanup Objectives for Unrestricted Use, Commercial Use, and Protection of Groundwater

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Table 1

Coast Guard Auxiliary Operations Detachment  
527 River Street  
Rochester, New York

Detected Compounds in Soil  
August 2014

Sample ID	527 River SS07-I	527 River SS08-I	527 River SS09-I	527 River-SS10-I	527 River-SS11-I	527 RIVER-SS12-I	NYSDEC Part 375-6.8(a) SCOs Unrestricted Use	NYSDEC Part 375- 6.8(b) SCOs Restricted Use Commercial
Sample Date Sample Time	8/20/2014 7:15 AM	8/20/2014 8:10 AM	8/20/2014 1:10 PM	8/21/2014 8:00 AM	8/21/2014 9:30 AM	9/16/2014 10:00 AM		
<b>SVOCs (ppb)</b>								
Biphenyl	18 J	110 J	43 J	9.1 J	ND	27 J	NA	NA
2-Methylnaphthalene	130	1100	380	75	25	300	NA	NA
2-Methylphenol	ND	35 J	ND	ND	ND	ND	330	500000
Acenaphthene	16	66	17	13	ND	ND	20000	500000
Acenaphthylene	240	560	260	220	54	150	100000	500000
Acetophenone	17 J	140 J	51 J	14 J	ND	51 J	NA	NA
Anthracene	150	380	140	120	41	220	100000	500000
Benzaldehyde	41 J	160 J	64 J	ND	17 J	150 J	NA	NA
Benzo[a]anthracene	650	<b>1900</b>	600	420	140	910	1000	5600
3 & 4 Methylphenol	23 J	63 J	ND	ND	ND	ND	NA	NA
Benzo[a]pyrene	830	<b>2400</b>	700	580	170	<b>1000</b>	1000	1000
Benzo[b]fluoranthene	<b>1200</b>	<b>3900</b>	<b>1200</b>	790	250	<b>2100</b>	1000	5600
Benzo[g,h,i]perylene	420	1100	430	330	110	900	100000	500000
Benzo[k]fluoranthene	450	<b>1200</b>	400	310	110	630	800	56000
Bis(2-ethylhexyl) phthalate	1000 B	680 B	190 B	29 J	27 J	160 J B	NA	NA
Carbazole	64	210	61 J	30 J	ND	81 J	NA	NA
Chrysene	750	<b>2400</b>	730	460	160	<b>1300</b>	1000	56000
Dibenz(a,h)anthracene	110	<b>390</b>	120	100	30	220	330	560
Dibenzofuran	50 J	310	110	28 J	15 J	110 J	7000	350000
Di-n-butyl phthalate	24 J	220	57 J	ND	ND	ND	NA	NA
Di-n-octyl phthalate	ND	100 J	ND	ND	ND	ND	NA	NA
Fluoranthene	990	2700	810	630	250	950	100000	500000
Fluorene	36	120	52	24	14	27	30000	500000
Hexachlorobenzene	ND	ND	ND	ND	ND	ND	330	6000
Indeno[1,2,3-cd]pyrene	400	<b>1100</b>	410	330	100	<b>760</b>	500	5600
Naphthalene	150	820	310	92	26	250	12000	500000
Pentachlorophenol	ND	ND	ND	ND	ND	ND	800	6700
Phenanthrene	420	1400	390	210	110	370	100000	500000
Phenol	47 J	140	40 J	ND	ND	28 J	330	500000
Pyrene	930	2500	830	630	230	970	100000	500000
Tentatively Identified Compound	20380 T J N	39590 T J	23630 T J	9920 T J N	8370 T J	35800 T J	NA	NA
<b>VOCs (ppb)</b>								
Tentatively Identified Compound	None	None	1300	17327.4 J	None	None	NA	NA

Notes:

Results compared to New York State Department of Environmental Conservation (NYSDEC) Part 375-6.8 Soil Cleanup Objectives for Unrestricted Use, Commercial Use, and Protection of Groundwater

Metals and PCBs units in milligram per kilogram (mg/Kg) or parts per million (ppm)

Pesticides, SVOCs, and VOCs units in microgram per kilogram (ug/Kg) or parts per billion (ppb)

T- Result is a tentatively identified compounds (TIC) and an estimated value

J- Results is less than the reporting limit but greater than or equal to the method detection limit and the concentration is an approximate value

N- Presumptive evidence of material

B- Compounds was found in the blank sample

**Bold** exceeds NYSDEC Part 375-6.8(a) Unrestricted Use Soil Cleanup Objectives

**Bold and Underlined** exceeds NYSDEC Part 375-6.8(b) Restricted Use Soil Cleanup Objectives for Commercial Use

Table 1

**Coast Guard Auxiliary Operations Detachment  
527 River Street  
Rochester, New York**

Detected Compounds in Soil  
August 2014

Sample ID Sample Date Sample Time	527 RIVER SB01-0.5-2'-I 8/18/2014 9:20 AM	527 RIVER SB02-0.5-2'-I 8/18/2014 12:05 PM	527 RIVER SB03-0.5-2'-I 8/18/2014 2:45 PM	527 River SB04-0.5-2'-I 8/19/2014 8:00 AM	527 River SB05-0.5-2'-I 8/19/2014 10:20 AM	527 River SB06-0.5-2'-I 8/19/2014 12:50 PM	NYSDEC Part 375-6.8(a) SCOs Unrestricted Use	NYSDEC Part 375- 6.8(b) SCOs Restricted Use Commercial
<b>Metals (ppm)</b>								
Mercury	<b>0.19</b>	0.12 J	<b>0.51</b>	<b>0.23</b>	<b>0.43</b>	<b>0.41</b>	0.18	2.8
Aluminum	5610	7160	5620	5980	6600	6150	NA	NA
Antimony	ND	ND	0.74 J	ND	0.68 J	1.5 J	NA	NA
Arsenic	9	7.2	11.1	4.6	8.8	12.9	13	16
Barium	159	125	141	31.5	86.8	139	350	400
Beryllium	0.50 J	0.38 J	0.56	0.36	0.4	0.51	7.2	590
Cadmium	0.46 J	0.56	1.2	0.21 J	0.44	1.2	2.5	9.3
Calcium	4790	12300	6360	3600 B	3360 B	11000 B	NA	NA
Chromium	8.1	12.2	10	9.9	11.6	9.9	NA	NA
Cobalt	4.6	5.2	6	5.3	6.2	5.5	NA	NA
Copper	<b>132</b>	<b>114</b>	<b>706</b>	17.7	<b>80.6</b>	<b>595</b>	50	270
Iron	14100	14900	20100	11100	15400 B	17800	NA	NA
Lead	<b>202</b>	<b>181</b>	<b>356</b>	19.1	<b>176</b>	<b>286</b>	63	1000
Magnesium	2210	2740	2000	2800	1610 B	2950	NA	NA
Manganese	309	353	381	366	367 B	345	1600	10000
Nickel	20.9	21.1	<b>99.6</b>	13.5	13.9	16.9	30	310
Potassium	524 J	1120	609	594	665 B	669	NA	NA
Selenium	0.78 J	0.62 J	1.0 J	ND	1.1 J B	1.0 J	3.9	1500
Silver	0.21 J	0.40 J	1.7	ND	0.57 J	1.4	2	1500
Sodium	ND	103 J	ND	36.5 J	55.6 J B	73.0 J	NA	NA
Thallium	ND	ND	ND	ND	ND	ND	NA	NA
Vanadium	9.8	12.9	10.8	10	12.5	12.4	NA	NA
Zinc	<b>164</b>	<b>514</b>	<b>436</b>	91.4 B	<b>352 B</b>	<b>443 B</b>	109	10000
<b>PCBs (ppm)</b>								
PCB-1254	ND	ND	ND	ND	ND	ND	NA	NA
PCB-1260	ND	ND	ND	ND	ND	ND	NA	NA
<b>Pesticides (ppb)</b>								
4,4'-DDD	ND	ND	ND	ND	ND	ND	3.3	92000
4,4'-DDE	ND	ND	ND	ND	ND	<b>13 J</b>	3.3	62000
4,4'-DDT	0.64 J	ND	ND	2.3 J	2.4 J	<b>32 J</b>	3.3	47000
alpha-BHC	ND	ND	ND	ND	ND	ND	20	3400
beta-BHC	ND	ND	ND	2.2 J	ND	ND	36	3000
delta-BHC	ND	ND	ND	2.4 J	2.8 J	ND	40	500000
Dieldrin	ND	ND	ND	ND	ND	ND	5	1400
Endosulfan sulfate	ND	ND	ND	ND	2.0 J	ND	2400	200000
Endrin aldehyde	ND	ND	ND	ND	ND	ND	NA	NA
Endrin ketone	ND	ND	ND	ND	ND	ND	NA	NA
gamma-BHC (Lindane)	0.55 J	ND	ND	ND	ND	ND	100	9200
gamma-Chlordane	0.94 J	ND	ND	ND	ND	ND	NA	NA
Methoxychlor	ND	ND	ND	ND	ND	ND	NA	NA

**Notes:**

Results compared to New York State Department of Environmental Conservation (NYSDEC) Part 375-6.8 Soil Cleanup Objectives for Unrestricted Use, Commercial Use, and Protection of Groundwater

Metals and PCBs units in milligram per kilogram (mg/Kg) or parts per million (ppm)

Pesticides, SVOCs, and VOCs units in microgram per kilogram (ug/Kg) or parts per billion (ppb)

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Table 1

Coast Guard Auxiliary Operations Detachment  
527 River Street  
Rochester, New York

Detected Compounds in Soil  
August 2014

Sample ID	527 RIVER SB01-0.5-2'-I	527 RIVER SB02-0.5-2'-I	527 RIVER SB03-0.5-2'-I	527 River SB04-0.5-2'-I	527 River SB05-0.5-2'-I	527 River SB06-0.5-2'-I	NYSDEC Part 375-6.8(a) SCOs Unrestricted Use	NYSDEC Part 375-6.8(b) SCOs Restricted Use Commercial
Sample Date Sample Time	8/18/2014 9:20 AM	8/18/2014 12:05 PM	8/18/2014 2:45 PM	8/19/2014 8:00 AM	8/19/2014 10:20 AM	8/19/2014 12:50 PM		
<b>SVOCs (ppb)</b>								
Biphenyl	14 J	24 J	93	ND	7.4 J	ND	NA	NA
2-Methylnaphthalene	120	93	970	8.5	58	20	NA	NA
2-Methylphenol	ND	ND	ND	ND	ND	ND	330	500000
Acenaphthene	ND	ND	ND	ND	ND	6.5 J	20000	500000
Acenaphthylene	29	66	66	13	25	45	100000	500000
Acetophenone	ND	32 J	ND	ND	ND	ND	NA	NA
Anthracene	30	55	84	7.8	24	43	100000	500000
Benzaldehyde	ND	35 J	ND	ND	25 J	ND	NA	NA
Benzo[a]anthracene	190	280	280	34	150	370	1000	5600
3 & 4 Methylphenol	ND	ND	ND	ND	ND	ND	NA	NA
Benzo[a]pyrene	130	320	260	39	130	340	1000	1000
Benzo[b]fluoranthene	260	470	490	57	220	490	1000	5600
Benzo[g,h,i]perylene	110	250	160	23	67	200	100000	500000
Benzo[k]fluoranthene	82	170	160	22	82	180	800	56000
Bis(2-ethylhexyl) phthalate	ND	24 J	420	33 J	26 J	130 B	NA	NA
Carbazole	ND	32 J	63	ND	ND	ND	NA	NA
Chrysene	260	350	470	35	190	390	1000	56000
Dibenz(a,h)anthracene	37	63	59	ND	25	51	330	560
Dibenzofuran	42 J	56 J	220	ND	19 J	11 J	7000	350000
Di-n-butyl phthalate	18 J	39 J	31 J	ND	ND	ND	NA	NA
Di-n-octyl phthalate	ND	ND	ND	ND	ND	ND	NA	NA
Fluoranthene	360	650	540	50	310	650	100000	500000
Fluorene	ND	ND	ND	ND	ND	13	30000	500000
Hexachlorobenzene	ND	ND	ND	ND	ND	ND	330	6000
Indeno[1,2,3-cd]pyrene	97	220	150	21	70	190	500	5600
Naphthalene	76	100	720	8	34	25	12000	500000
Pentachlorophenol	ND	ND	ND	ND	ND	ND	800	6700
Phenanthrene	190	420	600	25	140	190	100000	500000
Phenol	ND	ND	ND	120	120	ND	330	500000
Pyrene	290	540	430	47	220	660	100000	500000
Tentatively Identified Compound	8190 T J N	7790 T J N	6930 T J N	6983 T J	3310 T J	6286.9	NA	NA
<b>VOCs (ppb)</b>								
Tentatively Identified Compound	6.6	6.2	None	4.09 J	3.9 J	None	NA	NA

Notes:

Results compared to New York State Department of Environmental Conservation (NYSDEC) Part 375-6.8 Soil Cleanup Objectives for Unrestricted Use, Commercial Use, and Protection of Groundwater

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Table 1

Coast Guard Auxiliary Operations Detachment  
527 River Street  
Rochester, New York

Detected Compounds in Soil  
August 2014

Sample ID Sample Date Sample Time	527 River SB07-0.5-2'-I 8/20/2014 7:20 AM	527 River SB08-0.5-2'-I 8/20/2014 10:05 AM	527 River SB09-0.5-2'-I 8/20/2014 1:20 PM	527 River-SB10-0.5'-2'-I 8/21/2014 8:25 AM	527 River-SB11-0.5'-2'-I 8/21/2014 11:00 AM	527 RIVER-SB12-0.5'-2'-I 9/16/2014 10:15 AM	NYSDEC Part 375-6.8(a) SCOs Unrestricted Use	NYSDEC Part 375- 6.8(b) SCOs Restricted Use Commercial
<b>Metals (ppm)</b>								
Mercury	0.41	2.5	0.033	0.33	0.053	0.091	0.18	2.8
Aluminum	6720	6350	9340	6180	5010	8660	NA	NA
Antimony	ND	1.3 J	ND	0.74 J	0.51 J	ND	NA	NA
Arsenic	12.2	16.4	6.3	7.2	5.9	5.3	13	16
Barium	66	171	97.5	81.3	62.3	57.2	350	400
Beryllium	0.55	0.57	0.48	0.46	0.42	0.4	7.2	590
Cadmium	0.23 J	1.4	0.078 J	0.22 J	0.18 J	0.22	2.5	9.3
Calcium	5680 B	20100 B	6050 B	16100 B	48800 B	65900 B	NA	NA
Chromium	8.6	14.1	11.7	9	6.6	11.8	NA	NA
Cobalt	6.2	6.4	8.7	5.8	4.7	7.9	NA	NA
Copper	27.5	555	18	31.4	19.1	22.6	50	270
Iron	13800	20300	18600	12400	11500	15600 B	NA	NA
Lead	50.4	755	25.7	94.9	40	19.9	63	1000
Magnesium	2850	5860	3310	5910	19100	31300	NA	NA
Manganese	270 B	492 B	608 B	294 B	398 B	341 B	1600	10000
Nickel	13.2	19.4	19.1	12.2	10.5	19.2 B	30	310
Potassium	636	831	841	666	919	1520	NA	NA
Selenium	ND	ND	ND	ND	0.78 J	0.61 J	3.9	1500
Silver	0.25 J	0.69 J	ND	ND	0.29 J	ND	2	1500
Sodium	57.5 J	182	52.4 J	79.4 J	153 J	145 J	NA	NA
Thallium	ND	ND	ND	ND	ND	ND	NA	NA
Vanadium	13	14.7	16.1	11.7	11.2	16.2	NA	NA
Zinc	83.9 B	508 B	50.0 B	102 B	60.9 B	59.1 B	109	10000
<b>PCBs (ppm)</b>								
PCB-1254	ND	ND	ND	ND	ND	ND	NA	NA
PCB-1260	ND	ND	ND	ND	ND	ND	NA	NA
<b>Pesticides (ppb)</b>								
4,4'-DDD	ND	ND	0.44 J	ND	ND	ND	3.3	92000
4,4'-DDE	ND	ND	0.49 J	ND	0.65 J	0.79 J	3.3	62000
4,4'-DDT	2.5 J	11 J	0.52 J	ND	0.98 J	1.5 J	3.3	47000
alpha-BHC	ND	ND	ND	ND	ND	ND	20	3400
beta-BHC	ND	ND	ND	ND	ND	ND	36	3000
delta-BHC	ND	ND	ND	ND	0.43 J	ND	40	500000
Dieldrin	ND	ND	ND	ND	ND	ND	5	1400
Endosulfan sulfate	ND	ND	0.44 J	ND	ND	ND	2400	200000
Endrin aldehyde	ND	ND	ND	ND	ND	ND	NA	NA
Endrin ketone	ND	ND	ND	ND	ND	0.59 J	NA	NA
gamma-BHC (Lindane)	ND	ND	ND	ND	ND	ND	100	9200
gamma-Chlordane	ND	ND	ND	ND	ND	1.8 J	NA	NA
Methoxychlor	ND	ND	ND	ND	ND	1.1 J	NA	NA

Notes:

Results compared to New York State Department of Environmental Conservation (NYSDEC) Part 375-6.8 Soil Cleanup Objectives for Unrestricted Use, Commercial Use, and Protection of Groundwater

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Table 1

Coast Guard Auxiliary Operations Detachment  
527 River Street  
Rochester, New York

Detected Compounds in Soil  
August 2014

Sample ID	527 River SB07-0.5-2'-I	527 River SB08-0.5-2'-I	527 River SB09-0.5-2'-I	527 River-SB10-0.5'-2'-I	527 River-SB11-0.5'-2'-I	527 RIVER-SB12-0.5'-2'-I	NYSDEC Part 375-6.8(a) SCOs Unrestricted Use	NYSDEC Part 375-6.8(b) SCOs Restricted Use Commercial
Sample Date Sample Time	8/20/2014 7:20 AM	8/20/2014 10:05 AM	8/20/2014 1:20 PM	8/21/2014 8:25 AM	8/21/2014 11:00 AM	9/16/2014 10:15 AM		
<b>SVOCs (ppb)</b>								
Biphenyl	10 J	37 J	8.3 J	55 J	15 J	ND	NA	NA
2-Methylnaphthalene	77	270	52	350	72	ND	NA	NA
2-Methylphenol	ND	ND	ND	ND	ND	ND	330	500000
Acenaphthene	ND	56	7.0 J	120	52	ND	20000	500000
Acenaphthylene	20	660	65	2600	300	ND	100000	500000
Acetophenone	15 J	ND	ND	ND	11 J	ND	NA	NA
Anthracene	20	400	43	1400	220	ND	100000	500000
Benzaldehyde	32 J	ND	18 J	ND	17 J	ND	NA	NA
Benzo[a]anthracene	100	<b>1900</b>	240	<b>5600</b>	740	5.4 J	1000	5600
3 & 4 Methylphenol	ND	ND	ND	ND	30 J	ND	NA	NA
Benzo[a]pyrene	94	<b>2100</b>	260	<b>6600</b>	<b>1100</b>	6.3 J	1000	1000
Benzo[b]fluoranthene	180	<b>2800</b>	420	<b>7800</b>	<b>1400</b>	7.2 J	1000	5600
Benzo[g,h,i]perylene	75	700	180	4800	770	ND	100000	500000
Benzo[k]fluoranthene	58	<b>1200</b>	150	3200	470	ND	800	56000
Bis(2-ethylhexyl) phthalate	100 B	ND	27 J B	ND	ND	130 B	NA	NA
Carbazole	ND	150 J	38 J	ND	89	ND	NA	NA
Chrysene	190	<b>2200</b>	320	<b>6100</b>	780	8.9	1000	56000
Dibenz(a,h)anthracene	20	250	48	<b>1400</b>	240	ND	330	560
Dibenzofuran	29 J	100 J	29 J	150 J	70	ND	7000	350000
Di-n-butyl phthalate	24 J	ND	ND	ND	ND	ND	NA	NA
Di-n-octyl phthalate	ND	ND	ND	ND	ND	ND	NA	NA
Fluoranthene	190	2900	490	7500	1200	7.9	100000	500000
Fluorene	6.5 J	150	16	190	82	ND	30000	500000
Hexachlorobenzene	ND	ND	ND	ND	ND	ND	330	6000
Indeno[1,2,3-cd]pyrene	65	<b>800</b>	170	<b>4200</b>	730	ND	500	5600
Naphthalene	44	280	55	540	85	ND	12000	500000
Pentachlorophenol	ND	ND	ND	ND	ND	ND	800	6700
Phenanthrene	160	1500	230	3000	720	6.0 J	100000	500000
Phenol	17 J	58 J	ND	ND	20 J	ND	330	500000
Pyrene	160	3200	400	10000	1200	7.2 J	100000	500000
Tentatively Identified Compound	8330 T J	20320 T J	12332 T J	47340 T J	4800 T J	11834 T J	NA	NA
<b>VOCs (ppb)</b>								
Tentatively Identified Compound	None	None	5.6 T J	None	2.8 J	None	NA	NA

Notes:

Results compared to New York State Department of Environmental Conservation (NYSDEC) Part 375-6.8 Soil Cleanup Objectives for Unrestricted Use, Commercial Use, and Protection of Groundwater  
Metals and PCBs units in milligram per kilogram (mg/Kg) or parts per million (ppm)

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Table 1

Coast Guard Auxiliary Operations Detachment  
527 River Street  
Rochester, New York

Detected Compounds in Soil  
August 2014

Sample ID Sample Date Sample Time	527 RIVER SB01-6-8'-I 8/18/2014 9:40 AM	527 RIVER SB02-6-8'-I 8/18/2014 12:30 PM	527 RIVER SB03-7-8'-I 8/18/2014 3:10 PM	527 River SB04-6-7'-I 8/19/2014 8:30 AM	527 River SB05-10.5-11.5'-I 8/19/2014 10:55 AM	527 River SB06-5-6'-I 8/19/2014 1:15 PM	NYSDEC Part 375-6.8(a) SCOs Unrestricted Use	NYSDEC Part 375- 6.8(b) SCOs Restricted Use Commercial
<b>Metals (ppm)</b>								
Mercury	ND	ND	ND	0.16	0.011 J	0.032	0.18	2.8
Aluminum	6670	5420	5080	6190	4950	9900	NA	NA
Antimony	ND	ND	ND	ND	ND	ND	NA	NA
Arsenic	3.3	3.3	3.3	5.5	4.6	5.8	13	16
Barium	25.2	17.4 J	16.5 J	35.3	41.1	33.5	350	400
Beryllium	0.26 J	0.24 J	0.22 J	0.34	0.28	0.44	7.2	590
Cadmium	ND	0.041 J	0.051 J	0.22 J	0.13 J	0.25 J	2.5	9.3
Calcium	1030	1020	1070	4070 B	46400 B	65700 B	NA	NA
Chromium	7.9	7.6	7.1	7.2	13.2	11	NA	NA
Cobalt	6.2	5.7	4.9	5.8	5.2	8.1	NA	NA
Copper	14	12.5	11	26.2	22.6	20.9	50	270
Iron	13800	11500	11300	12600	11700	16500	NA	NA
Lead	3.8	4.1	4.3	35.9	15.4	16.6	63	1000
Magnesium	2790	1870	1980	2590	13700	3920	NA	NA
Manganese	529	484	351	196	435	697	1600	10000
Nickel	13.1	11.7	11.2	12.9	11.7	17.1	30	310
Potassium	960	626	581	556	865	1040	NA	NA
Selenium	ND	ND	ND	ND	ND	ND	3.9	1500
Silver	ND	ND	ND	ND	ND	ND	2	1500
Sodium	ND	ND	ND	44.4 J	146 J	74.7 J	NA	NA
Thallium	ND	ND	ND	ND	ND	ND	NA	NA
Vanadium	11.6	10.8	10.7	10.8	11.4	15	NA	NA
Zinc	38.8	36.2	28.7	71.1 B	37.8 B	62.1 B	109	10000
<b>PCBs (ppm)</b>								
PCB-1254	ND	ND	ND	ND	ND	ND	NA	NA
PCB-1260	ND	ND	ND	ND	ND	ND	NA	NA
<b>Pesticides (ppb)</b>								
4,4'-DDD	ND	ND	ND	2.1 J	ND	ND	3.3	92000
4,4'-DDE	ND	ND	ND	2.2 J	ND	ND	3.3	62000
4,4'-DDT	ND	ND	ND	<b>3.6 J</b>	ND	ND	3.3	47000
alpha-BHC	ND	ND	ND	ND	ND	ND	20	3400
beta-BHC	ND	ND	ND	ND	ND	ND	36	3000
delta-BHC	0.44 J	ND	ND	ND	ND	0.38 J	40	500000
Dieldrin	ND	ND	ND	ND	ND	ND	5	1400
Endosulfan sulfate	ND	ND	ND	ND	ND	ND	2400	200000
Endrin aldehyde	ND	ND	ND	ND	ND	ND	NA	NA
Endrin ketone	ND	ND	ND	ND	ND	ND	NA	NA
gamma-BHC (Lindane)	ND	ND	ND	ND	ND	ND	100	9200
gamma-Chlordane	ND	ND	ND	ND	ND	ND	NA	NA
Methoxychlor	ND	ND	ND	ND	ND	ND	NA	NA

Notes:

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Table 1

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527 River Street  
Rochester, New York

Detected Compounds in Soil  
August 2014

Sample ID	527 RIVER SB01-6-8'-I	527 RIVER SB02-6-8'-I	527 RIVER SB03-7-8'-I	527 River SB04-6-7'-I	527 River SB05-10.5-11.5'-I	527 River SB06-5-6'-I	NYSDEC Part 375-6.8(a) SCOs Unrestricted Use	NYSDEC Part 375- 6.8(b) SCOs Restricted Use Commercial
Sample Date Sample Time	8/18/2014 9:40 AM	8/18/2014 12:30 PM	8/18/2014 3:10 PM	8/19/2014 8:30 AM	8/19/2014 10:55 AM	8/19/2014 1:15 PM		
<b>SVOCs (ppb)</b>								
Biphenyl	ND	ND	ND	ND	ND	ND	NA	NA
2-Methylnaphthalene	ND	ND	ND	12	ND	13	NA	NA
2-Methylphenol	ND	ND	ND	ND	ND	ND	330	500000
Acenaphthene	ND	ND	ND	ND	ND	ND	20000	500000
Acenaphthylene	ND	ND	ND	11	ND	10	100000	500000
Acetophenone	ND	ND	ND	ND	ND	ND	NA	NA
Anthracene	ND	ND	ND	8.0 J	ND	7.0 J	100000	500000
Benzaldehyde	ND	ND	ND	ND	ND	ND	NA	NA
Benzo[a]anthracene	ND	ND	ND	32	ND	29	1000	5600
3 & 4 Methylphenol	ND	ND	ND	ND	ND	ND	NA	NA
Benzo[a]pyrene	ND	ND	ND	34	ND	33	1000	1000
Benzo[b]fluoranthene	ND	ND	ND	62	ND	51	1000	5600
Benzo[g,h,i]perylene	ND	ND	ND	21	ND	31	100000	500000
Benzo[k]fluoranthene	ND	ND	ND	16	ND	17	800	56000
Bis(2-ethylhexyl) phthalate	26 J	26 J	32 J	39 J	ND	ND	NA	NA
Carbazole	ND	ND	ND	ND	ND	ND	NA	NA
Chrysene	ND	ND	ND	39	ND	30	1000	56000
Dibenz(a,h)anthracene	ND	ND	ND	ND	ND	ND	330	560
Dibenzofuran	ND	ND	ND	ND	ND	ND	7000	350000
Di-n-butyl phthalate	26 J	23 J	ND	ND	ND	ND	NA	NA
Di-n-octyl phthalate	ND	ND	ND	ND	ND	ND	NA	NA
Fluoranthene	ND	ND	ND	54	ND	44	100000	500000
Fluorene	ND	ND	ND	ND	ND	ND	30000	500000
Hexachlorobenzene	ND	ND	ND	ND	ND	ND	330	6000
Indeno[1,2,3-cd]pyrene	ND	ND	ND	21	ND	21	500	5600
Naphthalene	ND	ND	ND	10	ND	11	12000	500000
Pentachlorophenol	ND	ND	ND	ND	ND	ND	800	6700
Phenanthrene	ND	ND	ND	25	ND	19	100000	500000
Phenol	ND	ND	ND	ND	ND	ND	330	500000
Pyrene	ND	ND	ND	52	ND	44	100000	500000
Tentatively Identified Compound	6122 T J N	7845 T J N	7149 T J N	8115 T J N	8211 T J	7172 T J	NA	NA
<b>VOCs (ppb)</b>								
Tentatively Identified Compound	None	2.6 J	None	10.7 J	22	5.5	NA	NA

Notes:

Results compared to New York State Department of Environmental Conservation (NYSDEC) Part 375-6.8 Soil Cleanup Objectives for Unrestricted Use, Commercial Use, and Protection of Groundwater  
Metals and PCBs units in milligram per kilogram (mg/Kg) or parts per million (ppm)

Pesticides, SVOCs, and VOCs units in microgram per kilogram (ug/Kg) or parts per billion (ppb)

T- Result is a tentatively identified compounds (TIC) and an estimated value

J- Results is less than the reporting limit but greater than or equal to the method detection limit and the concentration is an approximate value

N'- Presumptive evidence of material

B'- Compounds was found in the blank sample

**Bold** exceeds NYSDEC Part 375-6.8(a) Unrestricted Use Soil Cleanup Objectives

**Bold and Underlined** exceeds NYSDEC Part 375-6.8(b) Restricted Use Soil Cleanup Objectives for Commercial Use

Table 1

**Coast Guard Auxiliary Operations Detachment  
527 River Street  
Rochester, New York**

Detected Compounds in Soil  
August 2014

Sample ID Sample Date Sample Time	527 River SB07-5-6'-I 8/20/2014 7:40 AM	527 River SB08-3-4'-I 8/20/2014 10:15 AM	527 River SB09-3.5'-4'-I 8/20/2014 1:30 PM	527 River-SB10-6'-7'-I 8/21/2014 9:00 AM	527 River-SB11-5'-6'-I 8/21/2014 11:40 AM	527 RIVER-SB12-6'-7'-I 9/16/2014 11:00 AM	NYSDEC Part 375-6.8(a) SCOs Unrestricted Use	NYSDEC Part 375- 6.8(b) SCOs Restricted Use Commercial
<b>Metals (ppm)</b>								
Mercury	ND	0.018 J	0.025	ND	0.013 J	ND	0.18	2.8
Aluminum	3970	8660	7730	3800	6660	8570	NA	NA
Antimony	ND	ND	ND	ND	ND	ND	NA	NA
Arsenic	3.2	2.7	2.5	3.8	6.1	3.9	13	16
Barium	20.4	16.8	143	26.1	36.5	50.4	350	400
Beryllium	0.23 J	0.34	0.42	0.20 J	0.44	0.38	7.2	590
Cadmium	0.047 J	0.052 J	0.12 J	0.10 J	0.091 J	0.10 J	2.5	9.3
Calcium	1080 B	1250 B	2690 B	54400 B	2050 B	34300 B	NA	NA
Chromium	4.9	11.2	8.3	5.2	8.7	12.5	NA	NA
Cobalt	3.6	9.1	6	4.3	7.5	7.6	NA	NA
Copper	10.4	8.1	11.3	13.4	20.9	16	50	270
Iron	9140	14500	11100	9300	14800	15800 B	NA	NA
Lead	3.6	5.5	9.8	6.7	11.4	6.9	63	1000
Magnesium	1670	3560	1970	11700	2430	10300	NA	NA
Manganese	272 B	363 B	488 B	629 B	785 B	283 B	1600	10000
Nickel	8.2	17.7	12.6	10.2	17	18.4 B	30	310
Potassium	509	852	572	567	855	1240	NA	NA
Selenium	ND	ND	ND	ND	ND	ND	3.9	1500
Silver	ND	ND	ND	ND	ND	ND	2	1500
Sodium	64.6 J	33.0 J	41.6 J	79.1 J	41.1 J	112 J	NA	NA
Thallium	ND	ND	0.37 J	ND	ND	ND	NA	NA
Vanadium	8.4	13.6	11.3	8.5	12.3	15.8	NA	NA
Zinc	25.6 B	36.3 B	38.3 B	39.5 B	39.4 B	48.4 B	109	10000
<b>PCBs (ppm)</b>								
PCB-1254	ND	ND	ND	ND	ND	ND	NA	NA
PCB-1260	ND	ND	ND	ND	ND	ND	NA	NA
<b>Pesticides (ppb)</b>								
4,4'-DDD	ND	ND	ND	ND	ND	ND	3.3	92000
4,4'-DDE	ND	ND	ND	ND	ND	ND	3.3	62000
4,4'-DDT	ND	ND	ND	ND	0.45 J	ND	3.3	47000
alpha-BHC	ND	ND	ND	ND	ND	ND	20	3400
beta-BHC	ND	ND	ND	ND	0.53 J	ND	36	3000
delta-BHC	ND	ND	ND	0.40 J	0.43 J	ND	40	500000
Dieldrin	ND	ND	ND	ND	ND	ND	5	1400
Endosulfan sulfate	ND	ND	ND	ND	ND	ND	2400	200000
Endrin aldehyde	ND	ND	ND	ND	ND	ND	NA	NA
Endrin ketone	ND	ND	ND	ND	ND	ND	NA	NA
gamma-BHC (Lindane)	ND	ND	ND	ND	ND	ND	100	9200
gamma-Chlordane	ND	ND	ND	ND	ND	ND	NA	NA
Methoxychlor	ND	ND	ND	ND	ND	ND	NA	NA

**Notes:**

Results compared to New York State Department of Environmental Conservation (NYSDEC) Part 375-6.8 Soil Cleanup Objectives for Unrestricted Use, Commercial Use, and Protection of Groundwater

Metals and PCBs units in milligram per kilogram (mg/Kg) or parts per million (ppm)

Pesticides, SVOCs, and VOCs units in microgram per kilogram (ug/Kg) or parts per billion (ppb)

T- Result is a tentatively identified compounds (TIC) and an estimated value

J- Results is less than the reporting limit but greater than or equal to the method detection limit and the concentration is an approximate value

N- Presumptive evidence of material

B'- Compounds was found in the blank sample

**Bold** exceeds NYSDEC Part 375-6.8(a) Unrestricted Use Soil Cleanup Objectives

**Bold and Underlined** exceeds NYSDEC Part 375-6.8(b) Restricted Use Soil Cleanup Objectives for Commercial Use

Table 1

Coast Guard Auxiliary Operations Detachment  
527 River Street  
Rochester, New York

Detected Compounds in Soil  
August 2014

Sample ID	527 River SB07-5-6'-I	527 River SB08-3-4'-I	527 River SB09-3.5'-4'-I	527 River-SB10-6'-7'-I	527 River-SB11-5'-6'-I	527 RIVER-SB12-6'-7'-I	NYSDEC Part 375-6.8(a) SCOs Unrestricted Use	NYSDEC Part 375- 6.8(b) SCOs Restricted Use Commercial
Sample Date Sample Time	8/20/2014 7:40 AM	8/20/2014 10:15 AM	8/20/2014 1:30 PM	8/21/2014 9:00 AM	8/21/2014 11:40 AM	9/16/2014 11:00 AM		
<b>SVOCs (ppb)</b>								
Biphenyl	ND	ND	ND	ND	ND	ND	NA	NA
2-Methylnaphthalene	ND	5.4 J	ND	ND	ND	ND	NA	NA
2-Methylphenol	ND	ND	ND	ND	ND	ND	330	500000
Acenaphthene	ND	ND	ND	ND	ND	ND	20000	500000
Acenaphthylene	ND	6.2 J	4.3 J	4.7 J	ND	ND	100000	500000
Acetophenone	ND	ND	ND	ND	ND	ND	NA	NA
Anthracene	ND	ND	ND	ND	ND	ND	100000	500000
Benzaldehyde	ND	ND	ND	ND	ND	ND	NA	NA
Benzo[a]anthracene	ND	19	14	ND	ND	ND	1000	5600
3 & 4 Methylphenol	ND	ND	ND	ND	ND	ND	NA	NA
Benzo[a]pyrene	ND	18	14	11	ND	ND	1000	1000
Benzo[b]fluoranthene	ND	32	20	13	5.8 J	ND	1000	5600
Benzo[g,h,i]perylene	ND	14	10	13	ND	ND	100000	500000
Benzo[k]fluoranthene	ND	8.3	11	ND	ND	ND	800	56000
Bis(2-ethylhexyl) phthalate	36 J B	ND	28 J B	ND	ND	180 B	NA	NA
Carbazole	ND	ND	ND	ND	ND	ND	NA	NA
Chrysene	ND	20	17	7.2 J	ND	ND	1000	56000
Dibenz(a,h)anthracene	ND	ND	ND	ND	ND	ND	330	560
Dibenzofuran	ND	ND	ND	ND	ND	ND	7000	350000
Di-n-butyl phthalate	19 J	25 J	19 J	ND	ND	ND	NA	NA
Di-n-octyl phthalate	ND	ND	ND	ND	ND	ND	NA	NA
Fluoranthene	4.5 J	29	23	9.5	6.0 J	ND	100000	500000
Fluorene	ND	ND	ND	ND	ND	ND	30000	500000
Hexachlorobenzene	ND	ND	ND	ND	ND	ND	330	6000
Indeno[1,2,3-cd]pyrene	ND	12	10	ND	ND	ND	500	5600
Naphthalene	ND	5.1 J	ND	ND	ND	ND	12000	500000
Pentachlorophenol	ND	ND	ND	ND	ND	ND	800	6700
Phenanthrene	ND	12	14	4.3 J	ND	ND	100000	500000
Phenol	ND	ND	ND	ND	ND	ND	330	500000
Pyrene	4.5 J	27	23	9.8	5.5 J	ND	100000	500000
Tentatively Identified Compound	6841 T J	6635 T J	7024 T J	5328 T J	8068 T J	10656 T J	NA	NA
<b>VOCs (ppb)</b>								
Tentatively Identified Compound	None	None	None	None	None	None	NA	NA

Notes:

Results compared to New York State Department of Environmental Conservation (NYSDEC) Part 375-6.8 Soil Cleanup Objectives for Unrestricted Use, Commercial Use, and Protection of Groundwater

Metals and PCBs units in milligram per kilogram (mg/Kg) or parts per million (ppm)

Pesticides, SVOCs, and VOCs units in microgram per kilogram (ug/Kg) or parts per billion (ppb)

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J'- Results is less than the reporting limit but greater than or equal to the method detection limit and the concentration is an approximate value

N'- Presumptive evidence of material

B'- Compounds was found in the blank sample

**Bold** exceeds NYSDEC Part 375-6.8(a) Unrestricted Use Soil Cleanup Objectives

**Bold and Underlined** exceeds NYSDEC Part 375-6.8(b) Restricted Use Soil Cleanup Objectives for Commercial Use

Table 1

Coast Guard Auxiliary Operations Detachment  
527 River Street  
Rochester, New York

Detected Compounds in Soil  
August 2014

Sample ID Sample Date Sample Time	527 RIVER BLIND DUP1-I 8/18/2014 -	527 River Blind Dup-2-I 8/19/2014 -	527 River Blind Dup-3-I 8/20/2014 -	527 River-BlindDup-4-I 8/21/2014 -	527 RIVER-BLIND DUP5-I 9/16/2014 -	NYSDEC Part 375-6.8(a) SCOs Unrestricted Use	NYSDEC Part 375- 6.8(b) SCOs Restricted Use Commercial
<b>Metals (ppm)</b>							
Mercury	0.22	0.25	1.8	0.2	ND	0.18	2.8
Aluminum	3610	6490	4970	6530	6880	NA	NA
Antimony	0.70 J	ND	ND	0.61 J	ND	NA	NA
Arsenic	7.2	11	7	8	4.5	13	16
Barium	59.4	148	67.8	75.9	35.1	350	400
Beryllium	0.35 J	0.48	0.32	0.43	0.3	7.2	590
Cadmium	0.69	1.3	0.19 J	0.21 J	0.10 J	2.5	9.3
Calcium	18400	13800 B	3880 B	15700 B	30300 B	NA	NA
Chromium	12.3	12.9	8.4	9	9.4	NA	NA
Cobalt	3.9	5.6	4.8	5.4	7	NA	NA
Copper	123	150	27	26.3	13.3	50	270
Iron	13700	17600	9040	12600	14200 B	NA	NA
Lead	127	217	185	86.9	6.3	63	1000
Magnesium	5860	3690	1840	5580	9150	NA	NA
Manganese	296	329	233 B	323 B	433 B	1600	10000
Nickel	18.3	16.5	9.5	11.9	17.2 B	30	310
Potassium	637 J	710	541	648	1110	NA	NA
Selenium	1.0 J	0.72 J	ND	0.80 J	0.92 J	3.9	1500
Silver	0.98 J	0.88	0.27 J	ND	ND	2	1500
Sodium	ND	62.8 J	55.6 J	70.4 J	112 J	NA	NA
Thallium	ND	ND	ND	ND	ND	NA	NA
Vanadium	9.7	12.3	10	12.1	14.1	NA	NA
Zinc	159	347 B	97.4 B	93.3 B	36.4 B	109	10000
<b>PCBs (ppm)</b>							
PCB-1254	ND	ND	ND	ND	ND	NA	NA
PCB-1260	ND	ND	ND	ND	ND	NA	NA
<b>Pesticides (ppb)</b>							
4,4'-DDD	ND	ND	ND	7.7 J	ND	3.3	92000
4,4'-DDE	ND	ND	ND	ND	ND	3.3	62000
4,4'-DDT	14 J	25 J	ND	14 J	ND	3.3	47000
alpha-BHC	ND	ND	ND	ND	ND	20	3400
beta-BHC	ND	24 J	ND	ND	ND	36	3000
delta-BHC	ND	10 J	ND	ND	ND	40	500000
Dieldrin	ND	ND	ND	ND	ND	5	1400
Endosulfan sulfate	ND	ND	ND	ND	ND	2400	200000
Endrin aldehyde	ND	ND	ND	ND	ND	NA	NA
Endrin ketone	ND	ND	ND	ND	ND	NA	NA
gamma-BHC (Lindane)	ND	16 J	ND	ND	ND	100	9200
gamma-Chlordane	ND	ND	ND	ND	ND	NA	NA
Methoxychlor	ND	ND	ND	ND	ND	NA	NA

Notes:

Results compared to New York State Department of Environmental Conservation (NYSDEC) Part 375-6.8 Soil Cleanup Objectives for Unrestricted Use, Commercial Use, and Protection of Groundwater

Metals and PCBs units in milligram per kilogram (mg/Kg) or parts per million (ppm)

Pesticides, SVOCs, and VOCs units in microgram per kilogram (ug/Kg) or parts per billion (ppb)

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**Bold and Underlined** exceeds NYSDEC Part 375-6.8(b) Restricted Use Soil Cleanup Objectives for Commercial Use

Table 1

Coast Guard Auxiliary Operations Detachment  
527 River Street  
Rochester, New York

Detected Compounds in Soil  
August 2014

Sample ID	527 RIVER BLIND DUP1-I	527 River Blind Dup-2-I	527 River Blind Dup-3-I	527 River-BlindDup-4-I	527 RIVER-BLIND DUP5-I	NYSDEC Part 375-6.8(a) SCOs Unrestricted Use	NYSDEC Part 375- 6.8(b) SCOs Restricted Use Commercial
Sample Date Sample Time	8/18/2014	8/19/2014	8/20/2014	8/21/2014	9/16/2014		
<b>SVOCs (ppb)</b>							
Biphenyl	20 J	11 J	10 J	8.5 J	ND	NA	NA
2-Methylnaphthalene	190	59	80	50	32	NA	NA
2-Methylphenol	ND	ND	ND	ND	ND	330	500000
Acenaphthene	ND	29	7.3 J	ND	11	20000	500000
Acenaphthylene	93	190	41	69	8.8	100000	500000
Acetophenone	ND	ND	11 J	ND	ND	NA	NA
Anthracene	73	240	32	46	21	100000	500000
Benzaldehyde	ND	ND	20 J	20 J	34 J	NA	NA
Benzo[a]anthracene	280	<b>1700</b>	140	180	50	1000	5600
3 & 4 Methylphenol	ND	ND	ND	ND	ND	NA	NA
Benzo[a]pyrene	300	<b>2000</b>	150	190	41	1000	1000
Benzo[b]fluoranthene	490	<b>2500</b>	250	320	65	1000	5600
Benzo[g,h,i]perylene	180	1400	120	110	37	100000	500000
Benzo[k]fluoranthene	210	560	81	120	28	800	56000
Bis(2-ethylhexyl) phthalate	45 J	160 J B	59 J B	ND	130 B	NA	NA
Carbazole	ND	ND	ND	ND	ND	NA	NA
Chrysene	380	<b>1700</b>	180	240	73	1000	56000
Dibenz(a,h)anthracene	57	<b>350</b>	26	39	ND	330	560
Dibenzofuran	64 J	38 J	28 J	23 J	16 J	7000	350000
Di-n-butyl phthalate	24 J	ND	ND	17 J	ND	NA	NA
Di-n-octyl phthalate	ND	ND	ND	ND	ND	NA	NA
Fluoranthene	520	2400	270	310	100	100000	500000
Fluorene	ND	36	14	ND	12	30000	500000
Hexachlorobenzene	ND	ND	ND	ND	ND	330	6000
Indeno[1,2,3-cd]pyrene	170	<b>1200</b>	120	110	29	500	5600
Naphthalene	150	130	65	50	22	12000	500000
Pentachlorophenol	ND	ND	ND	ND	ND	800	6700
Phenanthrene	290	700	150	160	120	100000	500000
Phenol	ND	ND	ND	ND	ND	330	500000
Pyrene	460	2300	240	280	83	100000	500000
Tentatively Identified Compound	14170 T J N	10254 T J	7838 T J	7664 T J N	9684 T J	NA	NA
<b>VOCs (ppb)</b>							
Tentatively Identified Compound	7.5 J	None	None	5	1.8 J	NA	NA

Notes:

Results compared to New York State Department of Environmental Conservation (NYSDEC) Part 375-6.8 Soil Cleanup Objectives for Unrestricted Use, Commercial Use, and Protection of Groundwater

Metals and PCBs units in milligram per kilogram (mg/Kg) or parts per million (ppm)

Pesticides, SVOCs, and VOCs units in microgram per kilogram (ug/Kg) or parts per billion (ppb)

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J- Results is less than the reporting limit but greater than or equal to the method detection limit and the concentration is an approximate value

N'- Presumptive evidence of material

B'- Compounds was found in the blank sample

**Bold** exceeds NYSDEC Part 375-6.8(a) Unrestricted Use Soil Cleanup Objectives

**Bold and Underlined** exceeds NYSDEC Part 375-6.8(b) Restricted Use Soil Cleanup Objectives for Commercial Use

Table 2

Coast Guard Auxiliary Operations Detachment  
527 River Street  
Rochester, New York

Detected Compounds in Groundwater  
October 2014

Sample ID	527RIVER- MWSB2-I	527RIVER- MWSB4-I	527RIVER- MWSB8-I	527RIVER- MWSB11-I	527RIVER- MWBLINDDUP-I	527RIVER- MWEQBLANK-I	NYSDEC TOGS 1.1.1
Sample Date	10/10/2014	10/9/2014	10/10/2014	10/10/2014	10/10/2014	10/10/2014	
Sample Time	3:45 PM	3:00 PM	4:45 PM	2:20 PM	12:00 AM	5:10 PM	
<b>Metals (ppm)</b>							
Aluminum	ND	0.079 J	0.84	3.3	3.6	ND	NA
Barium	0.087	0.084	0.074	0.086	0.088	0.0019 J	1
Calcium	140 B	132 B	120 B	141 B	140 B	4.0 B	NA
Chromium	ND	ND	0.0024 J	0.0042	0.0047	ND	0.05
Cobalt	ND	ND	ND	0.0020 J	0.0022 J	ND	NA
Copper	0.0017 J	ND	0.0033 J	0.0073 J	0.0079 J	ND	0.2
Iron	0.051 B	0.029 J B	<b>1.0 B</b>	<b>4.6 B</b>	<b>5.1 B</b>	ND	0.3
Lead	ND	0.0033 J	0.0041 J	0.0062 J	0.0065 J	ND	0.025
Magnesium	<b>50.9</b>	<b>44.9</b>	31.8	<b>35.7</b>	<b>35.8</b>	0.91	35
Manganese	0.019	0.033	<b>0.48</b>	<b>0.38</b>	<b>0.4</b>	0.0017 J	0.3
Nickel	ND	0.018 J B	0.0035 J B	0.0060 J B	0.0075 J B	ND	0.1
Potassium	3.3	3.6	10.3	7.3	7.3	0.75	NA
Selenium	ND	ND	ND	<b>0.016 J</b>	ND	ND	0.01
Sodium	<b>49.2</b>	<b>23.8</b>	<b>62.9</b>	<b>46.1</b>	<b>45.6</b>	8	20
Vanadium	ND	ND	0.0017 J	0.0064	0.0072	ND	NA
Zinc	0.0032 J	0.0029 J ^	0.0038 J	0.014	0.019	ND	2
<b>SVOCs (ppb)</b>							
Tentatively Identified Compound	249.7 T J B	215.9 T J B	238.2 T J B	233 T J B	259.5 T J B	231.2 T J B	NA
<b>Pesticides (ppb)</b>							
alpha-BHC	<b>0.035 J B</b>	<b>0.021 J B</b>	<b>0.034 J B</b>	<b>0.018 J B</b>	<b>0.036 J B</b>	<b>0.034 J B</b>	0.01
beta-BHC	ND	ND	0.038 J	ND	ND	ND	0.04

**Notes:**

Results compared to New York State Department of Environmental Conservation (NYSDEC) Technical Operational Guidance Series (TOGS) 1.1.1 Water Quality Standards and Guidance Values: GA Water Class Updated June 2004

Metals units in milligram per kilogram (mg/Kg) or parts per million (ppm)

SVOCs and pesticide units in microgram per kilogram (ug/Kg) or parts per billion (ppb)

T- Result is a tentatively identified compounds (TIC) and an estimated value

J- Result is less than the reporting limit but greater than or equal to the method detection limit

N- Presumptive evidence of material

B- Compound was found in the blank sample

^ - ICV, CCV, ICB, CCB, ISA, ISB, CRI, CRA, DLCK, or MRL standard: Instrument related QC exceeds the control limits

**Bold** exceeds NYSDEC TOGS 1.1.1 Guidance Values

Table 2 (continued)

Coast Guard Auxiliary Operations Detachment  
527 River Street  
Rochester, New York

Detected Compounds in Groundwater  
January 2015

Sample ID Sample Date Sample Time	527RIVER- MWSB2-I 1/18/2015 11:35 AM	527RIVER- MWSB4-I 1/18/2015 1:30 PM	527RIVER-MWSB8 I 1/19/2015 10:45 AM	527RIVER- MWSBII-I 1/19/2015 12:50 PM	527RIVER- MWBLINDDUP-I 1/18/2015 -	527RIVER- MWEQBLANK-I 1/18/2015 2:00 PM	NYSDEC TOGS 1.1.1
<b>Metals (ppm)</b>							
Aluminum	3.2	1.1	2.2	6.6	1.1	0.25	NA
Barium	0.097	0.11	0.075	0.1	0.11	0.0028	1
Beryllium	ND	ND	ND	0.00033 J	ND	ND	NA
Calcium	150 B	150 B	126 B	146 B	149 B	0.81 B	NA
Chromium	0.0043 B	0.0013 J B	0.0041 B	0.0076 B	0.0011 J B	ND	0.05
Cobalt	0.0018 J	0.00068 J	0.0015 J	0.0039 J	0.00073 J	ND	NA
Copper	0.0067 J	0.0025 J	0.0071 J	0.013	0.0023 J	ND	0.2
Iron	<b>3.3</b>	<b>1.3</b>	<b>2.7</b>	<b>9</b>	<b>1.4</b>	0.27	0.3
Lead	0.0045 J	ND	0.0056 J	0.0080 J	0.0031 J	ND	0.025
Magnesium	<b>52.7 B</b>	<b>47.2 B</b>	31.3 B	<b>36.4 B</b>	<b>47 B</b>	0.19 J B	35
Manganese	0.19	<b>0.45</b>	<b>0.71</b>	<b>0.5</b>	<b>0.44</b>	0.022	0.3
Nickel	0.0045 J	0.0021 J	0.0037 J	0.0088 J	0.0019 J	ND	0.1
Potassium	3.6	2.7	8.2	7.3	2.7	ND	NA
Selenium	ND	ND	ND	ND	ND	ND	0.01
Sodium	<b>56.1</b>	<b>25.6</b>	<b>65.9</b>	<b>46.7</b>	<b>25.2</b>	1.7	20
Vanadium	0.0061	0.0025 J	0.0037 J	0.011	0.0024 J	ND	NA
Zinc	0.012 B	0.12 B	0.011 B	0.026 B	0.0047 J B	0.0037 J B	2
<b>SVOCs (ppb)</b>							
Caprolactam	4.1 J	ND	ND	ND	ND	ND	NA
Di-n-butyl phthalate	0.32 J	ND	0.50 J	0.32 J	ND	ND	50
Di-n-octyl phthalate	0.43 J	ND	ND	0.99 J	ND	ND	NA
Tentatively Identified Compound	302.8 T J B N	448.4 T J B N	532.3 T J B N	470.2 T J B N	550.7 T J B N	360.2 T J B N	NA
<b>VOCs (ppb)</b>							
Dibromochloromethane	ND	ND	ND	ND	ND	1.7	NA
Chloroform	ND	ND	ND	ND	ND	4.4	7
Bromodichloromethane	ND	ND	ND	ND	ND	3.5	5
<b>Pesticides (ppb)</b>							
4,4'-DDD	ND	ND	ND	ND	0.0095 J B	ND	0.3
4,4'-DDT	0.019 J	ND	ND	ND	ND	ND	0.2
alpha-BHC	<b>0.015 J B</b>	<b>0.015 J B</b>	<b>0.014 J B</b>	<b>0.013 J B</b>	<b>0.016 J B</b>	<b>0.017 J B</b>	0.01
delta-BHC	0.019 J B	0.020 J B	0.018 J B	0.018 J B	0.018 J B	0.024 J B	0.04
gamma-BHC (lindane)	ND	ND	ND	ND	0.010 J	ND	0.05
gamma-chlordane	ND	ND	ND	0.021 J	ND	<b>0.055</b>	0.05
Heptachlor epoxide	ND	ND	ND	ND	ND	0.011 J	0.03

**Notes:**

Results compared to New York State Department of Environmental Conservation (NYSDEC) Technical Operational Guidance Series (TOGS) 1.1.1 Water Quality Standards and Guidance Values: GA Water Class Updated June 2004

Metals units in milligram per kilogram (mg/Kg) or parts per million (ppm)

SVOCs and pesticide units in microgram per kilogram (ug/Kg) or parts per billion (ppb)

T- Result is a tentatively identified compounds (TIC) and an estimated value

J- Result is less than the reporting limit but greater than or equal to the method detection limit

N- Presumptive evidence of material

B- Compound was found in the blank sample

^ - ICV, CCV, ICB, CCB, ISA, ISB, CRI, CRA, DLCK, or MRL standard: Instrument related QC exceeds the control limits

**Bold** exceeds NYSDEC TOGS 1.1.1 Guidance Values

Table 3

Coast Guard Auxiliary Operations Detachment  
527 River Street  
Rochester, New York

Applicable or Relevant and Appropriate Requirements

**NYSDEC Part 375-6.8(b) Restricted Commercial Use Soil Cleanup Objectives**

Contaminant	CAS Number	Protection of Public Health
		Commercial
<b>Metals</b>		
Arsenic	7440-38-2	16 <sup>f</sup>
Barium	7440-39-3	400
Beryllium	7440-41-7	590
Cadmium	7440-43-9	9.3
Chromium, hexavalent <sup>h</sup>	18540-29-9	400
Chromium, trivalent <sup>h</sup>	16065-83-1	1,500
Copper	7440-50-8	270
Total Cyanide <sup>h</sup>		27
Lead	7439-92-1	1,000
Manganese	7439-96-5	10,000 <sup>d</sup>
Total Mercury		2.8 <sup>l</sup>
Nickel	7440-02-0	310
Selenium	7782-49-2	1,500
Silver	7440-22-4	1,500
Zinc	7440-66-6	10,000 <sup>d</sup>

Contaminant	CAS Number	Protection of Public Health
		Commercial
<b>PCBs/Pesticides</b>		
2,4,5-TP Acid (Silvex)	93-72-1	500 <sup>b</sup>
4,4'-DDE	72-55-9	62
4,4'-DDT	50-29-3	47
4,4'-DDD	72-54-8	92
Aldrin	309-00-2	0.68
alpha-BHC	319-84-6	3.4
beta-BHC	319-85-7	3
Chlordane (alpha)	5103-71-9	24
delta-BHC	319-86-8	500 <sup>b</sup>
Dibenzofuran	132-64-9	350
Dieldrin	60-57-1	1.4
Endosulfan I	959-98-8	200 <sup>i</sup>
Endosulfan II	33213-65-9	200 <sup>i</sup>
Endosulfan sulfate	1031-07-8	200 <sup>i</sup>
Endrin	72-20-8	89
Heptachlor	76-44-8	15
Lindane	58-89-9	9.2
Polychlorinated biphenyls	1336-36-3	1

Contaminant	CAS Number	Protection of Public Health
		Commercial
<b>Semivolatiles</b>		
Acenaphthene	83-32-9	500 <sup>b</sup>
Acenaphthylene	208-96-8	500 <sup>b</sup>
Anthracene	120-12-7	500 <sup>b</sup>
Benz(a)anthracene	56-55-3	5.6
Benzo(a)pyrene	50-32-8	1 <sup>f</sup>
Benzo(b)fluoranthene	205-99-2	5.6
Benzo(g,h,i)perylene	191-24-2	500 <sup>b</sup>
Benzo(k)fluoranthene	207-08-9	56
Chrysene	218-01-9	56
Dibenz(a,h)anthracene	53-70-3	0.56
Fluoranthene	206-44-0	500 <sup>b</sup>
Fluorene	86-73-7	500 <sup>b</sup>
Indeno(1,2,3-cd)pyrene	193-39-5	5.6
m-Cresol	108-39-4	500 <sup>b</sup>
Naphthalene	91-20-3	500 <sup>b</sup>
o-Cresol	95-48-7	500 <sup>b</sup>
p-Cresol	106-44-5	500 <sup>b</sup>
Pentachlorophenol	87-86-5	6.7
Phenanthrene	85-01-8	500 <sup>b</sup>
Phenol	108-95-2	500 <sup>b</sup>
Pyrene	129-00-0	500 <sup>b</sup>

Contaminant	CAS Number	Protection of Public Health
		Commercial
<b>Volatiles</b>		
1,1,1-Trichloroethane	71-55-6	500 <sup>b</sup>
1,1-Dichloroethane	75-34-3	240
1,1-Dichloroethene	75-35-4	500 <sup>b</sup>
1,2-Dichlorobenzene	95-50-1	500 <sup>b</sup>
1,2-Dichloroethane	107-06-2	30
cis-1,2-Dichloroethene	156-59-2	500 <sup>b</sup>
trans-1,2-Dichloroethene	156-60-5	500 <sup>b</sup>
1,3-Dichlorobenzene	541-73-1	280
1,4-Dichlorobenzene	106-46-7	130
1,4-Dioxane	123-91-1	130
Acetone	67-64-1	500 <sup>b</sup>
Benzene	71-43-2	44
Butylbenzene	104-51-8	500 <sup>b</sup>
Carbon tetrachloride	56-23-5	22
Chlorobenzene	108-90-7	500 <sup>b</sup>
Chloroform	67-66-3	350
Ethylbenzene	100-41-4	390
Hexachlorobenzene	118-74-1	6
Methyl ethyl ketone	78-93-3	500 <sup>b</sup>
Methyl tert-butyl ether	1634-04-4	500 <sup>b</sup>
Methylene chloride	75-09-2	500 <sup>b</sup>
n-Propylbenzene	103-65-1	500 <sup>b</sup>
sec-Butylbenzene	135-98-8	500 <sup>b</sup>
tert-Butylbenzene	98-06-6	500 <sup>b</sup>
Tetrachloroethene	127-18-4	150
Toluene	108-88-3	500 <sup>b</sup>
Trichloroethene	79-01-6	200
1,2,4-Trimethylbenzene	95-63-6	190
1,3,5-Trimethylbenzene	108-67-8	190
Vinyl chloride	75-01-4	13
Xylene (mixed)	1330-20-7	500 <sup>b</sup>

All soil cleanup objectives (SCOs) are in parts per million (ppm). NS=Not specified. See Technical Support Document (TSD). Footnotes

<sup>a</sup> The SCOs for residential, restricted-residential and ecological resources use were capped at a maximum value of 100 ppm. See TSD section 9.3.

<sup>b</sup> The SCOs for commercial use were capped at a maximum value of 500 ppm. See TSD section 9.3.

<sup>c</sup> The SCOs for industrial use and the protection of groundwater were capped at a maximum value of 1000 ppm. See TSD section 9.3.

<sup>d</sup> The SCOs for metals were capped at a maximum value of 10,000 ppm. See TSD section 9.3.

<sup>e</sup> For constituents where the calculated SCO was lower than the contract required quantitation limit (CRQL), the CRQL is used as the SCO value.

<sup>f</sup> For constituents where the calculated SCO was lower than the rural soil background concentration as determined by the Department and Department of Health rural soil survey, the rural soil background concentration is used as the Track 2 SCO value for this use of the site.

<sup>g</sup> This SCO is derived from data on mixed isomers of BHC.

<sup>h</sup> The SCO for this specific compound (or family of compounds) is considered to be met if the analysis for the total species of this contaminant is below the specific SCO.

<sup>i</sup> This SCO is for the sum of endosulfan I, endosulfan II, and endosulfan sulfate.

<sup>j</sup> This SCO is the lower of the values for mercury (elemental) or mercury (inorganic salts).

Table 4a

Coast Guard Auxiliary Operations Detachment  
527 River Street  
Rochester, New York

Remedial Cost Estimate - Soil Removal Alternative  
August 2015

Disposal and Backfill	\$ 55,000
Waste Characterization	\$ 1,500
Confirmation Sampling	\$ 9,000
Contractor	\$ 35,000
Project Management	\$ 7,000
Meetings/USEPA Coordination	\$ 2,400
EECA Development	\$ 4,500
Field Technician	\$ 5,200
Surveyor*	\$ 2,400
Proctor/Compaction Testing	\$ 1,600
DUSR Preparation	\$ 960
Air Monitoring Equipment	\$ 1,600
<b>TOTAL</b>	<b>\$ 126,160</b>
<b>With 10% Contingency</b>	<b>\$ 138,776</b>

Table 4b

Coast Guard Auxiliary Operations Detachment  
527 River Street  
Rochester, New York

Itemized Remedial Cost Estimate - Soil Removal Alternative  
August 2015

**Soil Disposal and Backfill**

Area (square feet)	Proposed Cut Depth	Cubic Feet	Cubic Yards	Tons (1.75 tons/CY)	# Trucks (21 tons/truck)	Disposal Cost (assumes 1.75 tons/CY and \$35/ton)	Backfill Cost (\$16.25/CY)
9583	2	19,166	710	1,242	59	\$43,478	\$11,535
						<b>Subtotal</b>	<b>\$55,014</b>

**Confirmation Soil Sample Analytical**

Parameter	# Required (based on 2/1,000 sq. feet)	Trip Blanks	MS	MSD	Equipment Blanks	Blind Dups	Total #	Cost Each	Total
SVOCs	20	0	2	2	2	2	28	\$175	\$4,900
Metals	20	0	2	2	2	2	28	\$130	\$3,640
								<b>Subtotal:</b>	<b>\$8,540</b>

**Waste Characterization**

TCLP VOCs	4	0	0	0	0	0	4	\$100	\$400
TCLP SVOCs	4	0	0	0	0	0	4	\$175	\$700
TCLP Metals	4	0	0	0	0	0	4	\$85	\$340
								<b>Subtotal:</b>	<b>\$1,440</b>

**Equipment and Data Validation**

Item	Unit	Price	Amount	Total
Air Monitoring Equipment	Day	\$160	10	\$1,600
DUSR Preparation	Sample	\$24	40	\$960
			<b>Subtotal:</b>	<b>\$2,560</b>

**Other Costs**

Item	Unit	Price	Amount	Total
Contractor	Day	\$3,500	10	\$35,000
Project Management	Hourly	\$115	60	\$6,900
Meetings/USEPA Coordination	Hourly	\$75	32	\$2,400
EECA Development	Hourly	\$75	60	\$4,500
Field Technician	Hourly	\$65	80	\$5,200
Waste Char. Sampling	Hourly	\$65	8	\$520
Surveyor*	Day	\$1,200	2	\$2,400
Proctor/Compaction Testing	Each	\$1,600	1	\$1,600
			<b>Subtotal:</b>	<b>\$58,520</b>

"Contractor" includes excavator, roller, skid steer, and operators

\*includes staking prior to removal and surveying final cut elevations

TOTAL ESTIMATED COSTS	\$126,074
With 10% contingency	<b>\$138,681</b>

Table 5

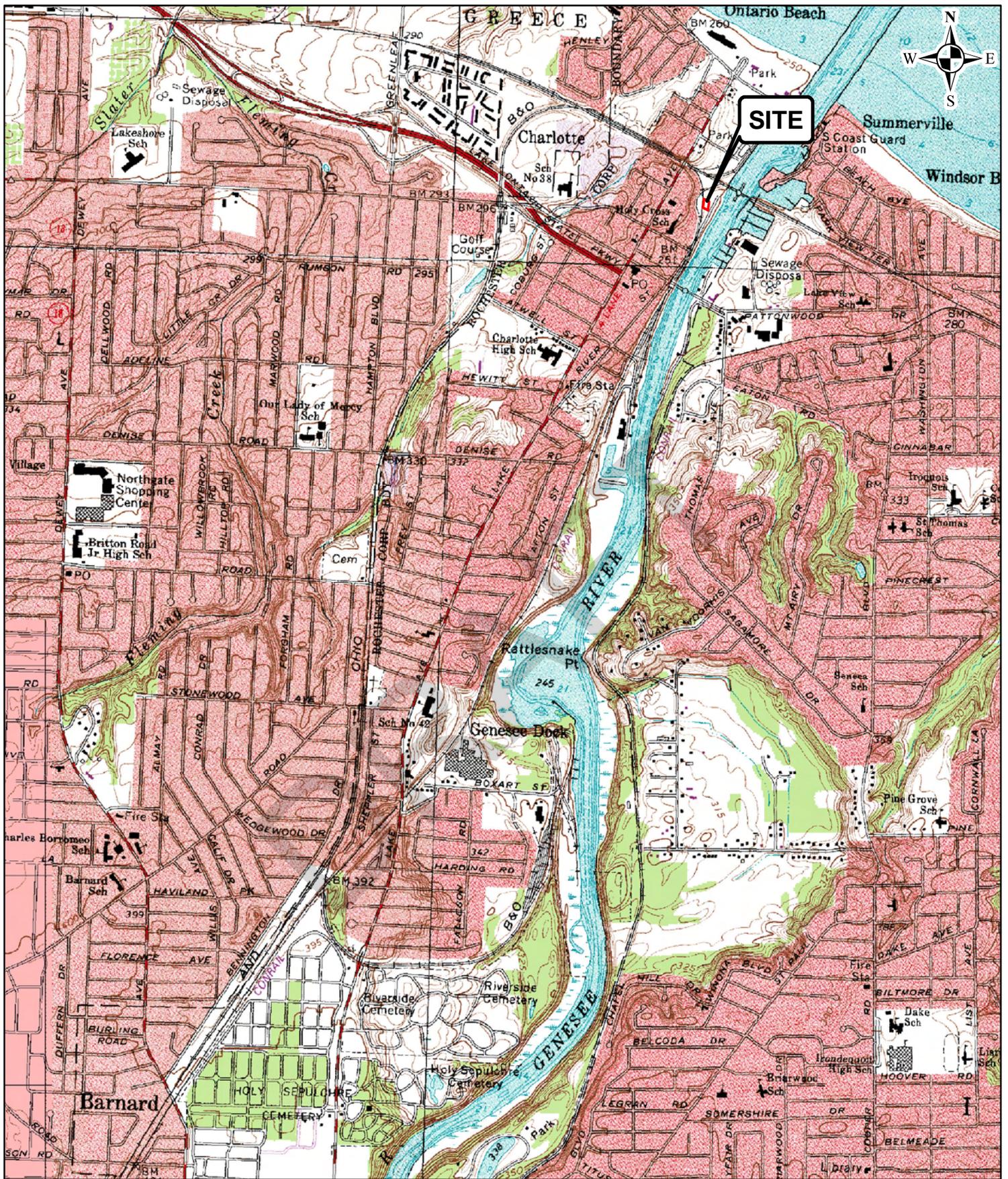
Coast Guard Auxiliary Operations Detachment  
 527 River Street  
 Rochester, New York

## Estimated Schedule

<b>Activity</b>	<b>Responsible party</b>	<b>Planned start date</b>	<b>Planned completion date</b>	<b>Deliverable(s)</b>
Final Approval by US Coast Guard and USEPA of EECA	US Coast Guard	10/22/2015	11/2/2015	Approval
Public Comment Period	LaBella	11/9/2015	12/9/2015	Public Notice
Implementation of Remedial Actions (assuming no public comments)	LaBella	1/4/2016	1/15/2016	
Draft Final Engineering Report to City for review	LaBella	1/16/2016	2/16/2016	Draft FER
Receive Comments from City on Draft FER	City	2/17/2016	3/1/2016	Comments
Final FER Distribution	LaBella	3/2/2016	3/3/2016	Final FER

DRAFT

Figures



PROJECT/DRAWING NUMBER  
 [ 214016 ]  
 [ FIGURE 1 ]

ISSUED FOR  
 DRAFT  
 DATE: 4/23/2015

ISSUED BY: AA  
 DRAWN BY: JA  
 REVIEWED BY: SRD

**SITE LOCATION WITH USGS  
 7.5 MINUTE TOPO MAP  
 ROCHESTER EAST QUAD**

PROJECT/CLIENT  
 ENGINEERING EVALUATION/  
 COST ANALYSIS

COAST GUARD AUXILIARY  
 OPERATIONS DETACHMENT  
 527 RIVER STREET  
 ROCHESTER, NEW YORK

**LABELLA**  
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0 1,000 2,000 4,000  
 Feet  
 1 inch = 2,000 feet

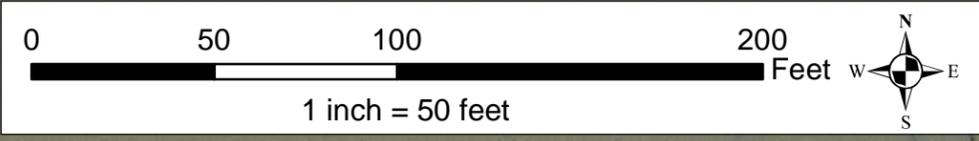


**Legend**

- Investigated Land/ Acquisition Parcel
- Monroe County Parcels 2011

**General area of train derailment**

**Note:**  
 1) The aerial photo basemap is dated November 17, 2012, and was downloaded via Pictometry Intelligent Images (<http://www.pictometry.com/>).



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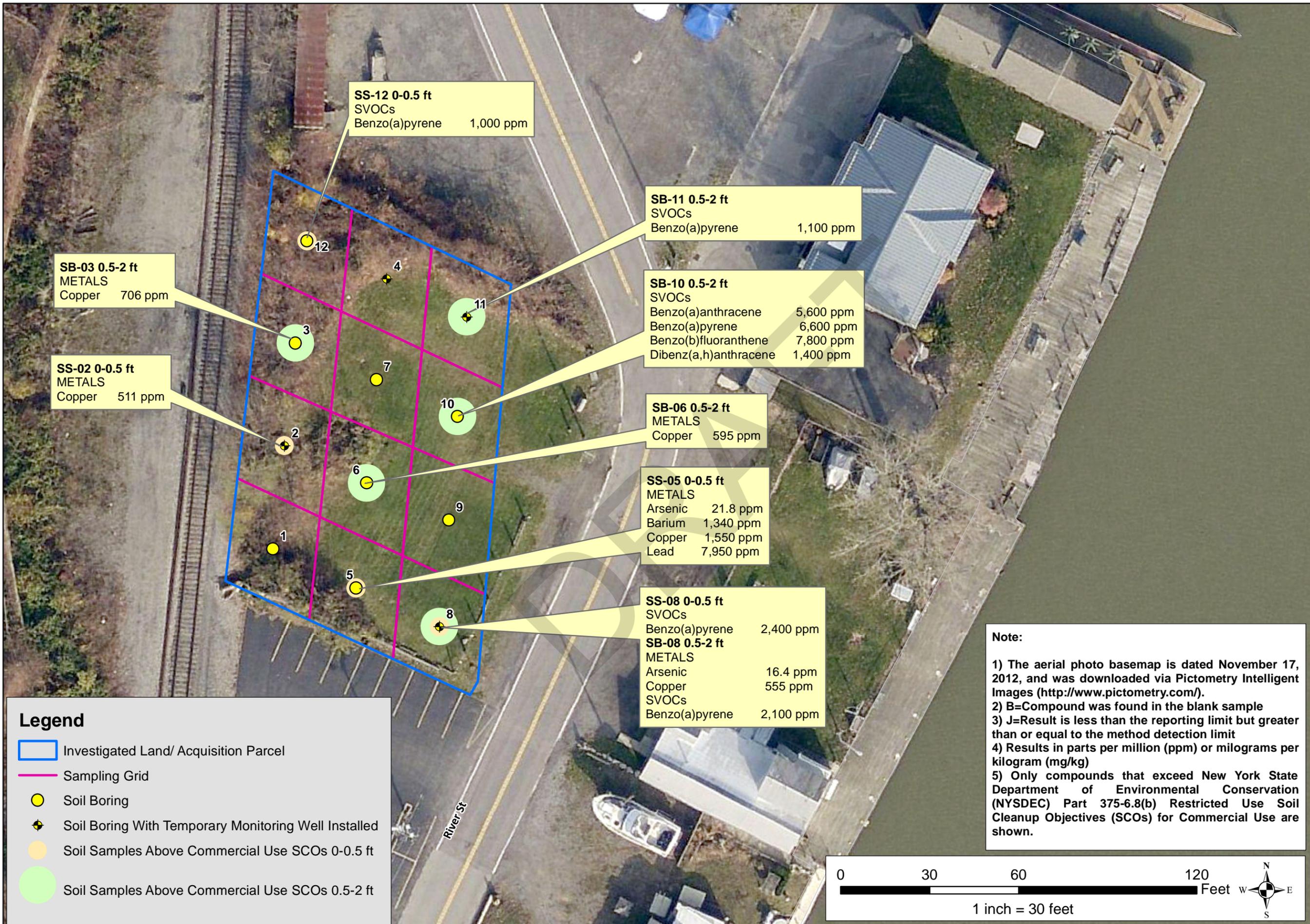
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 Associates, D.P.C.

PROJECT/CLIENT  
 ENGINEERING EVALUATION/  
 COST ANALYSIS  
 COAST GUARD AUXILIARY  
 OPERATIONS DETACHMENT  
 527 RIVER STREET  
 ROCHESTER, NEW YORK

DRAWING TITLE  
**SITE LAYOUT**

DESIGNED FOR	DESIGNED BY	DRAWN BY	REVIEWED BY
DRAFT	AA	AA	SRD
DATE: 08/20/2014			

PROJECT/DRAWING NUMBER  
 [ 214016 ]  
 [ FIGURE 2 ]



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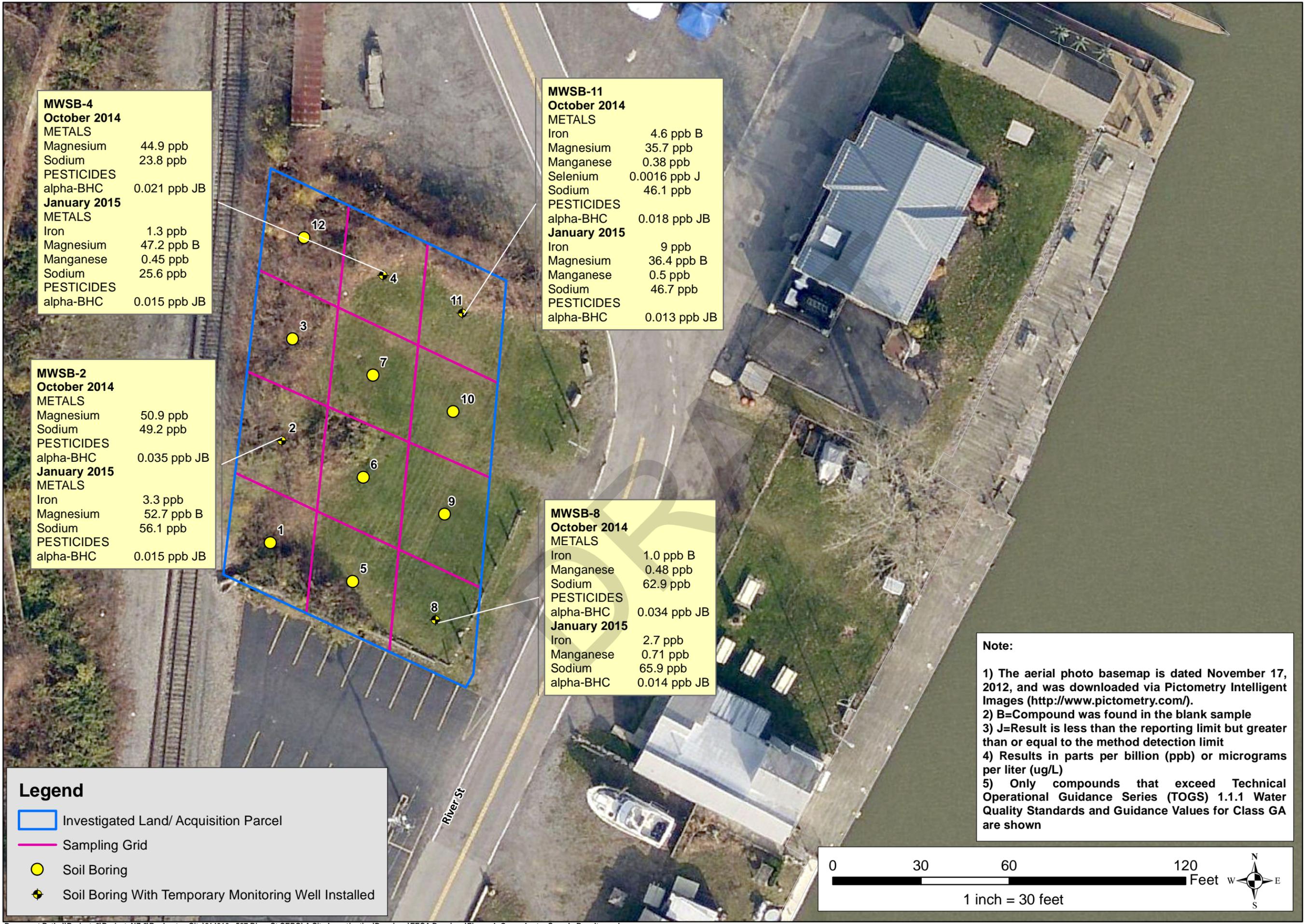
**LABELLA**  
Associates, D.P.C.

PROJECT/CLIENT  
ENGINEERING EVALUATION/  
COST ANALYSIS  
COAST GUARD AUXILIARY  
OPERATIONS DETACHMENT  
527 RIVER STREET  
ROCHESTER, NEW YORK

DRAWING TITLE  
SOIL SAMPLE LOCATIONS  
AND RESULTS

DESIGNED FOR	AA
DRAFT	AA
DATE: 08/20/2014	SRD

PROJECT/DRAWING NUMBER  
214016  
FIGURE 3



**MWSB-4**  
**October 2014**

METALS	
Magnesium	44.9 ppb
Sodium	23.8 ppb
PESTICIDES	
alpha-BHC	0.021 ppb JB
<b>January 2015</b>	
METALS	
Iron	1.3 ppb
Magnesium	47.2 ppb B
Manganese	0.45 ppb
Sodium	25.6 ppb
PESTICIDES	
alpha-BHC	0.015 ppb JB

**MWSB-2**  
**October 2014**

METALS	
Magnesium	50.9 ppb
Sodium	49.2 ppb
PESTICIDES	
alpha-BHC	0.035 ppb JB
<b>January 2015</b>	
METALS	
Iron	3.3 ppb
Magnesium	52.7 ppb B
Sodium	56.1 ppb
PESTICIDES	
alpha-BHC	0.015 ppb JB

**MWSB-11**  
**October 2014**

METALS	
Iron	4.6 ppb B
Magnesium	35.7 ppb
Manganese	0.38 ppb
Selenium	0.0016 ppb J
Sodium	46.1 ppb
PESTICIDES	
alpha-BHC	0.018 ppb JB
<b>January 2015</b>	
METALS	
Iron	9 ppb
Magnesium	36.4 ppb B
Manganese	0.5 ppb
Sodium	46.7 ppb
PESTICIDES	
alpha-BHC	0.013 ppb JB

**MWSB-8**  
**October 2014**

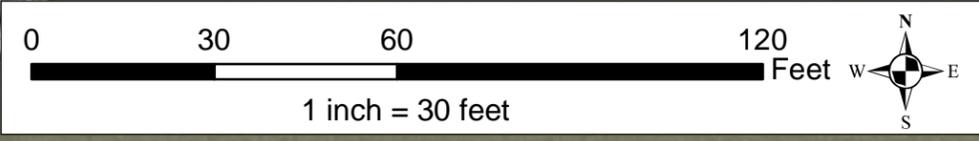
METALS	
Iron	1.0 ppb B
Manganese	0.48 ppb
Sodium	62.9 ppb
PESTICIDES	
alpha-BHC	0.034 ppb JB
<b>January 2015</b>	
METALS	
Iron	2.7 ppb
Manganese	0.71 ppb
Sodium	65.9 ppb
alpha-BHC	0.014 ppb JB

**Legend**

- Investigated Land/ Acquisition Parcel
- Sampling Grid
- Soil Boring
- Soil Boring With Temporary Monitoring Well Installed

**Note:**

- 1) The aerial photo basemap is dated November 17, 2012, and was downloaded via Pictometry Intelligent Images (<http://www.pictometry.com/>).
- 2) B=Compound was found in the blank sample
- 3) J=Result is less than the reporting limit but greater than or equal to the method detection limit
- 4) Results in parts per billion (ppb) or micrograms per liter (ug/L)
- 5) Only compounds that exceed Technical Operational Guidance Series (TOGS) 1.1.1 Water Quality Standards and Guidance Values for Class GA are shown



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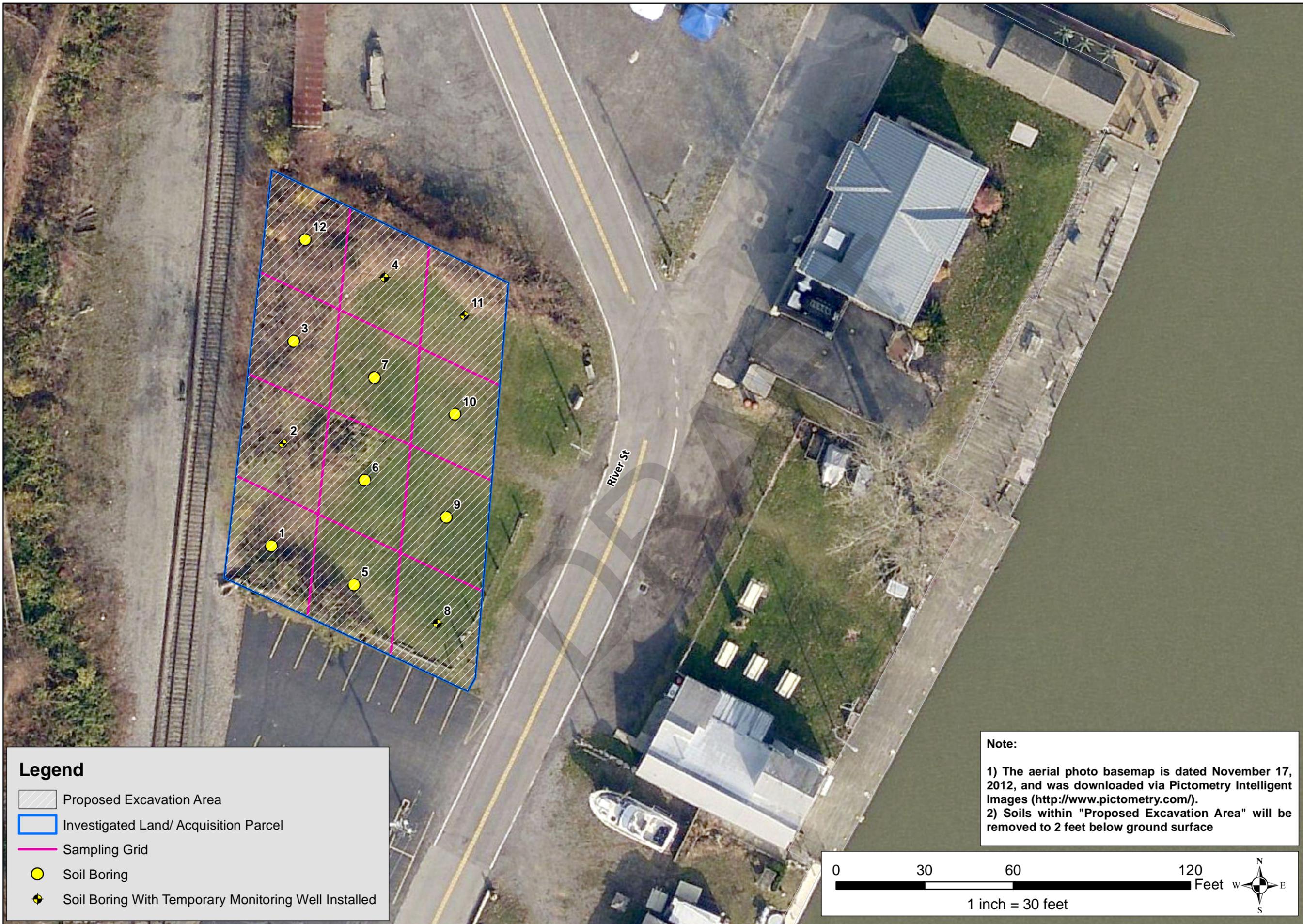
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PROJECT/CLIENT  
ENGINEERING EVALUATION/  
COST ANALYSIS  
COAST GUARD AUXILIARY  
OPERATIONS DETACHMENT  
527 RIVER STREET  
ROCHESTER, NEW YORK

DRAWING TITLE  
**GROUNDWATER SAMPLE  
LOCATIONS  
AND RESULTS**

DESIGNED FOR	DESIGNED BY	DATE
DRAFT	AA	4/23/2015
DRAWN BY	REVIEWED BY	
AA	SRD	

PROJECT/DRAWING NUMBER  
214016  
FIGURE 4

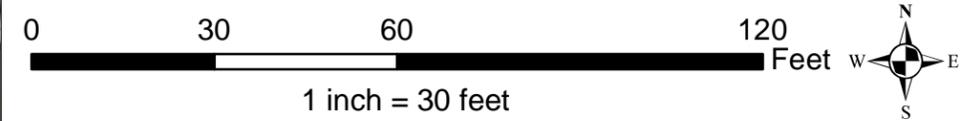


**Legend**

- Proposed Excavation Area
- Investigated Land/ Acquisition Parcel
- Sampling Grid
- Soil Boring
- Soil Boring With Temporary Monitoring Well Installed

**Note:**

- 1) The aerial photo basemap is dated November 17, 2012, and was downloaded via Pictometry Intelligent Images (<http://www.pictometry.com/>).
- 2) Soils within "Proposed Excavation Area" will be removed to 2 feet below ground surface



PROJECT/CLIENT

ENGINEERING EVALUATION/  
 COST ANALYSIS  
 COAST GUARD AUXILIARY  
 OPERATIONS DETACHMENT  
 527 RIVER STREET  
 ROCHESTER, NEW YORK

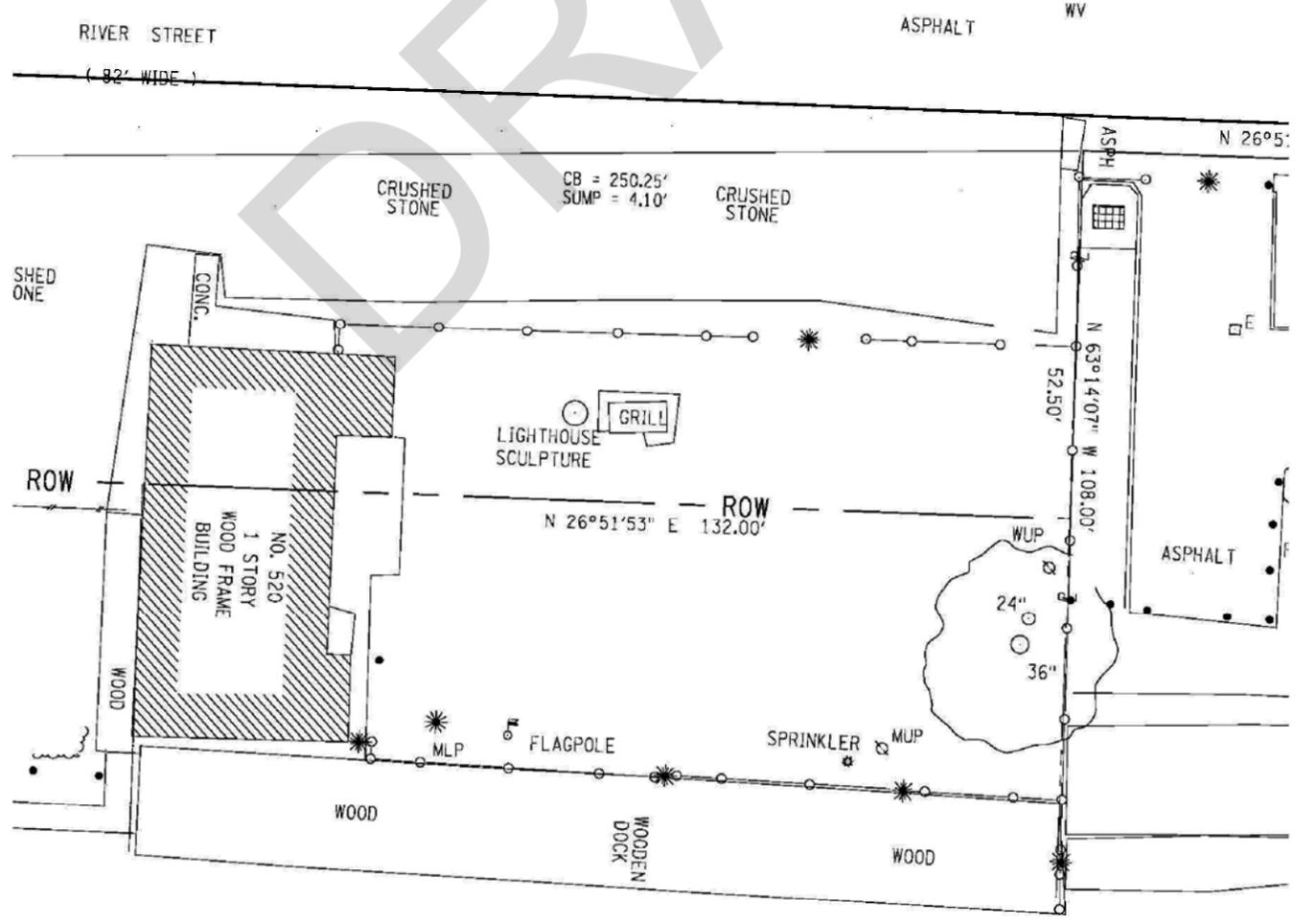
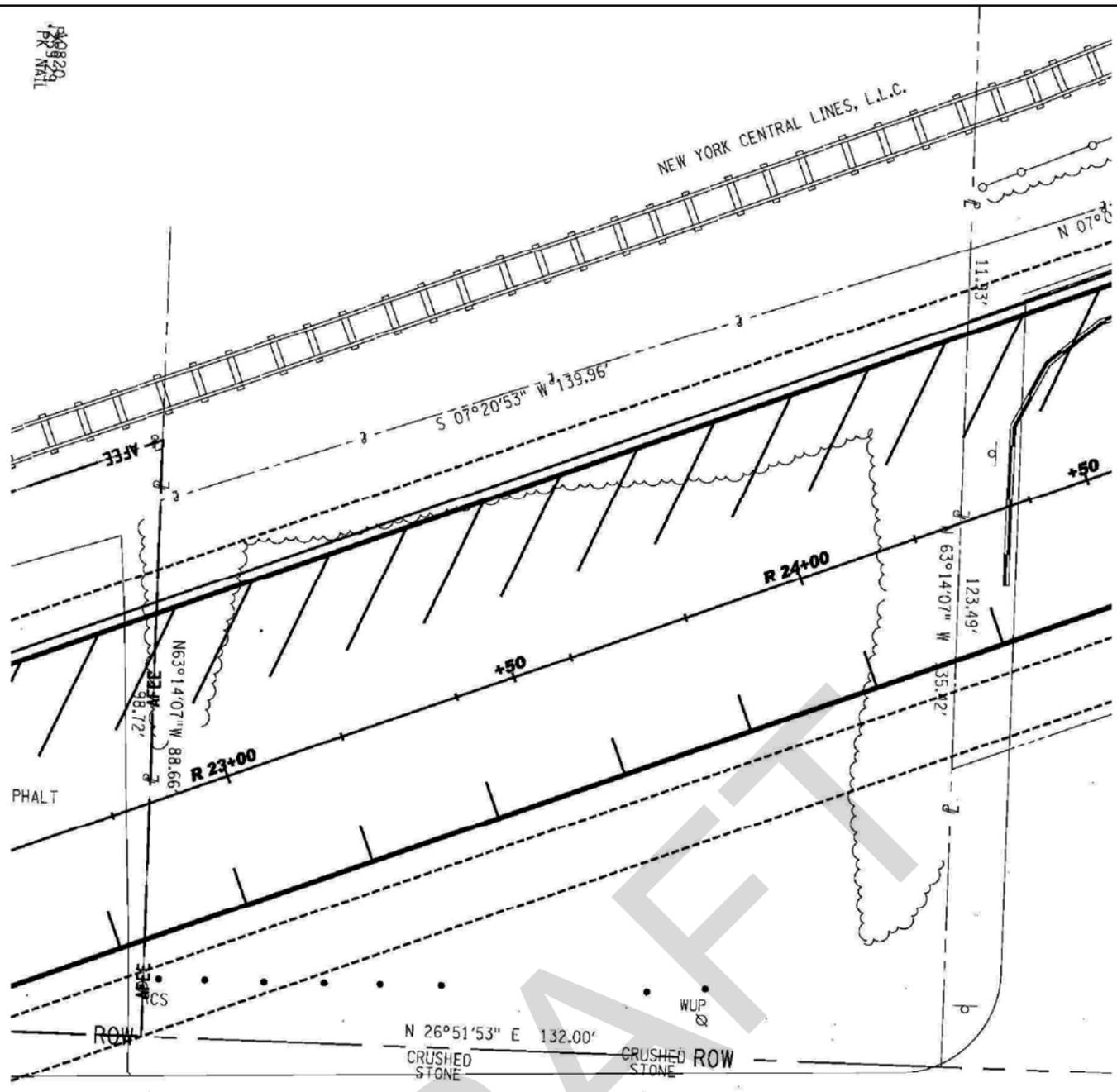
DRAWING TITLE

PROPOSED EXCAVATION  
 AREA

DESIGNED FOR	AA
DRAWN BY	AA
DATE	4/23/2015
REVIEWED BY	SRD

PROJECT/DRAWING NUMBER

[ 214016 ]  
 [ FIGURE 5 ]



PROJECT DRAWING NUMBER  
 214016  
 FIGURE 6

DRAWING TITLE  
**CONCEPTUAL RIVER STREET ALIGNMENT**  
 ISSUED FOR  
 FINAL  
 DATE: 5/28/2015

PROJECT/CLIENT  
**ENGINEERING EVALUATION/  
 COST ANALYSIS**  
 COAST GUARD AUXILIARY  
 OPERATIONS DETACHMENT  
 527 RIVER STREET  
 ROCHESTER, NEW YORK

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