

**U.S. Army Corps  
of Engineers**

Omaha District  
Offutt AFB, Nebraska

**SENECA ARMY DEPOT ACTIVITY  
TIME CRITICAL REMOVAL ACTION  
METAL SITES – SEAD 24  
SENECA COUNTY  
ROMULUS, NEW YORK**

**Contract No. DACA45-98-D-0004  
Task Order No. 0035**

**FINAL  
COMPLETION REMOVAL REPORT**

**March 2006**

**FINAL**

**COMPLETION REMOVAL REPORT  
TIME-CRITICAL REMOVAL ACTION  
METALS SITE – SEAD 24  
SENECA COUNTY  
ROMULUS, NEW YORK**

Contract No. DACA45-98-D-0004  
Task Order No. 035

Prepared for

**U.S. ARMY CORPS OF ENGINEERS,  
OMAHA DISTRICT**  
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March 2006

W.O. No. 20074.515.035



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## LIST OF ACRONYMS

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|         |   |
|---------|---|
| AOC     | Areas of Concern  |
| bgs     | below ground surface  |
| CERCLA  | Comprehensive Environmental Response Compensation and Liability Act |
| cPAHs   | carcinogenic PAHs   |
| cy      | cubic yards   |
| EPA     | U.S. Environmental Protection Agency                                |
| ESI     | Expanded Site Inspection  |
| ft      | feet/foot   |
| GPS     | Global Positioning System   |
| mg/kg   | milligrams per kilogram   |
| MW      | monitoring well   |
| MS/MSD  | matrix spike/matrix spike duplicates                                |
| NYSDEC  | New York State Department of Environmental Conservation             |
| PAHs    | polynuclear aromatic hydrocarbons                                   |
| Parsons | Parsons Engineering   |
| PCB     | polychlorinated biphenyls   |
| PPE     | Personal Protective Equipment                                       |
| QC      | Quality Control   |
| ROD     | Record of Decision  |
| RTK     | Real Time Kinematic   |
| SB      | Site Background   |
| SEDA    | Seneca Army Depot Activity  |
| sf      | square feet   |
| SVOC    | semi-volatile organic compounds                                     |
| SWMU    | Solid Waste Management Units  |
| T&D     | transportation and disposal   |
| TAGM    | Technical Administrative Guidance Memorandum                        |
| TAL     | Target Analyte List   |
| TCL     | target compound list  |
| TCRA    | Time Critical Removal Action  |
| TEQ     | Toxicity Equivalent   |
| µg/kg   | micrograms per kilogram   |
| USACE   | U.S. Army Corps of Engineers  |



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## LIST OF ACRONYMS (continued)

---

|         |                            |
|---------|----------------------------|
| VOC     | volatile organic compounds |
| vs      | versus                     |
| WESTON® | Weston Solutions, Inc.     |

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## EXECUTIVE SUMMARY

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## EXECUTIVE SUMMARY

The Seneca Army Depot Activity (SEDA) has been closed since 1992 under the Department of Defense Base Realignment and Closure process. The land encompassing and surrounding the Solid Waste Management Units (SWMU) is in the process of being transferred over to the public for beneficial reuse purposes. As part of the Federal Facilities Agreement, SEDA has identified removal actions that are necessary prior to completion of the final remedial action. As part of this objective, an Expanded Site Inspection (ESI) was performed in 1993 at the Abandoned Powder Burning Pit located within the SEAD 24 SWMU.

Intrusive investigations performed as part of the ESI at SEAD 24 included: soil borings, installation of monitoring wells, and collection of surface water, surface soil, and sediment samples. Based on 27 soil samples (15 from test pits and 12 from soil borings) collected during the ESI, it was determined that surface soils within SEAD 24 contained elevated levels of the metals (arsenic, lead, and zinc) and polynuclear aromatic hydrocarbons (PAHs). Arsenic, zinc, and lead are considered the target compounds for the site. Elevated concentrations were also reported during the ESI for the following non-target metals: aluminum; beryllium; cadmium; chromium; copper; iron; manganese; mercury; nickel; and potassium. Based on three groundwater samples and two surface water samples collected during the ESI, it was determined that neither groundwater nor surface water had been significantly impacted by historic operations at the site. The locations and concentrations of analytes exceeding the Cleanup Goals in soil samples (based on ESI data), and potential source release locations (i.e., Areas 1 through 3) are shown in Figure 1-3.

Based on the ESI, it was suggested that releases of hazardous constituents consisting primarily of the metals arsenic, lead, zinc, and PAHs, had occurred. In August 2002, Parsons issued a Final Action Memorandum and Decision Document to justify and to describe the requirements of the Time Critical Removal Action (TCRA) associated with the potential release. In order to address the release, SEDA tasked the U. S. Army Corps of Engineers (USACE) to perform the TCRA at the site to reduce and/or eliminate the identified source locations for these chemical constituents in soil. On 4 November 2002, USACE scoped Weston Solutions, Inc. (WESTON®) with

performing the TCRA. In December 2002, WESTON mobilized the site, cleared 7 acres of vegetation, and excavated the impacted soils to a minimum depth of 6 inches in all three areas of concern in accordance with the ESI. Following the initial excavation, investigative soil borings were conducted to further delineate the extent of contamination within SEAD 24. Based on the soil boring data and additional interim sample data, soils were further excavated to a maximum depth of 2 feet and the U-shaped berm was removed. A total of 5,376 cubic yards (cy) (9,623.02 tons) of impacted soils were excavated and transported off-site for disposal at the Seneca Meadows Landfill in Waterloo, New York. The quantity of soil removed from the site exceeded the ESI projected removal quantity of 1,990 cy (2,985 tons). The lateral and vertical limits of excavation for Areas 1, 2, and 3 are shown in Figure 3-1.

Soil sampling was conducted throughout removal activities to provide guidance in delineating both the lateral and vertical limits of excavation required. At a minimum, samples were analyzed for the target analytes (arsenic, lead, and zinc). In addition, approximately 20% of samples were analyzed for the full suite of 23 Target Analyte List (TAL) metals (aluminum, antimony, arsenic, barium, beryllium, cadmium, calcium, chromium, cobalt, copper, iron, lead, magnesium, manganese, mercury, nickel, potassium, selenium, silver, sodium, thallium, vanadium, and zinc) and 17 PAHs (2-methylnaphthalene, acenaphthene, acenaphthylene, anthracene, benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, benzo(ghi)perylene, benzo(k)fluoranthene, chrysene, dibenzo(a,h)anthracene, fluoranthene, fluorene, indeno(1,2,3-cd)pyrene, naphthalene, phenanthrene, and pyrene). A summary of the final confirmation soil results for Areas 1, 2, and 3 is presented in Appendix B. Average final results and maximum final results are also presented in Appendix B. Sampling and excavation data are shown in Figure 3-1.

With the exception of lead, data was compared with the Cleanup Goals for the site, which are based on the New York Technical Administrative Guidance Memorandum (TAGM) No. 4046 Cleanup Objective Values. Where no cleanup value exists (denoted as Site Background (SB) in the TAGM), SB has been replaced with the 95<sup>th</sup> Percentile of SEDA Soil Background Data (13 May 1998). The Cleanup Goal for lead is based on the U.S. Environmental Protection Agency Risk Based Residential Cleanup Goal. A total of 259 final confirmation samples were

collected during the TCRA, which included 143 floor samples and 116 perimeter samples. A summary of all initial boring and final confirmatory floor and perimeter samples referenced to the appropriate area of concern is presented in Table 3-1. Of the 23 TAL metals analyzed in the final round of sampling, a total of 9 metals were reported at levels below the Cleanup Goals and 14 metals were reported at levels exceeding the Cleanup Goals. For the three target metals, maximum concentrations were reported as follows: 69.2 milligrams per kilogram (mg/kg) for arsenic; 394 mg/kg for lead; and 1,216 mg/kg for zinc. For the remaining 14 non-target metals, maximum concentrations were reported as follows: 22,600 mg/kg for aluminum; 18.9 mg/kg for antimony; 148 mg/kg for barium; 2.3 mg/kg for beryllium; 3.6 mg/kg for cadmium; 92,900 mg/kg for calcium; 34 mg/kg for chromium; 27 mg/kg for cobalt; 1,848.6 mg/kg for copper; 43,000 mg/kg for iron; 61,900 mg/kg for magnesium; 52.7 mg/kg for nickel; 2,590 mg/kg for potassium; 19 mg/kg for selenium; 3.6 mg/kg for silver; 238 mg/kg for sodium; 26.3 mg/kg for thallium; and 32 mg/kg for vanadium. Of the 17 PAHs analyzed, a total of 13 were reported at concentrations below the Cleanup Goals and a total of 4 were reported at concentrations above the Cleanup Goals. For the four PAHs reported above the Cleanup Goals, maximum concentrations were reported as 360 micrograms per kilogram ( $\mu\text{g}/\text{kg}$ ) for benzo(a)pyrene; 90  $\mu\text{g}/\text{kg}$  for dibenzo(a,h)anthracene; 380  $\mu\text{g}/\text{kg}$  for benzo(a)anthracene; and 420  $\mu\text{g}/\text{kg}$  for chrysene. When comparing the sum of the maximum concentrations reported for the seven carcinogenic PAHs (cPAHs) analyzed at SEAD 24 (benzo(a)pyrene, dibenzo(a,h)anthracene, benzo(a,h)anthracene, benzo(b)fluoranthene, indeno(1,2,3-cd)pyrene, benzo(k)fluoranthene, and chrysene) to the Benzo(a)pyrene Toxicity Equivalent (TEQ) limit of 10,000  $\mu\text{g}/\text{kg}$  for total cPAHs, the maximum TEQ result of 468  $\mu\text{g}/\text{kg}$  is significantly less than the TEQ limit of 10,000  $\mu\text{g}/\text{kg}$ .

Based on a comparison between the Cleanup Goals and the average final results for all floor and perimeter confirmation samples collected at SEAD 24, elevated concentrations were reported for only one of the target metals, zinc (average concentration of 133.5 mg/kg). The remaining two target metals, arsenic (average concentration of 7.96 mg/kg) and lead (average concentration of 40 mg/kg) were reported at concentrations below the Cleanup Goals. All 17 PAHs were reported at concentrations below the applicable Cleanup Goals.



The potential threat to human health and the environment from SEAD 24, as identified in the ESI, has been substantially reduced and/or eliminated based on a reduction in levels of metals and PAHs following the TCRA conducted by WESTON. In addition to the reduction in contaminant levels, no apparent Comprehensive Environmental Response, Compensation, and Liability Act releases were identified. It is intended that this completion report, in conjunction with the *Proposed Remedial Action Plan* (to be submitted under separate cover by USACE) serve as the basis for the Record of Decision for site closure and transfer of the SEDA property. The total project cost associated with completion of the SEAD TCRA is \$721,575. A breakout of total project costs by task is included in Appendix F.

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**SECTION 1**

**INTRODUCTION**

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## 1. INTRODUCTION

### 1.1 PROJECT DESCRIPTION

This Final Completion Removal Report documents the completion of the Time Critical Removal Action (TCRA) performed at the SEAD 24 Solid Waste Management Units (SWMU) located at the Seneca Army Depot Activity (SEDA) in Romulus, Seneca County, New York. This Task Order was performed for the U.S. Army Corps of Engineers (USACE), Omaha District under the Rapid Response, Immediate Response Contract Number DACA-45-98-D0004 for the Control/Remediation of Hazardous, Toxic, and Radioactive Waste (Task Order No. 0035). Direct oversight was provided by USACE (New York District Seneca Area Office).

The SEDA was placed on the Superfund list in 1992 in accordance with the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) and has been undergoing investigation and remediation since that time. The facility was designated for closure in 1992 under the Department of Defense Base Realignment and Closure process.

The TCRA was performed in accordance with the *Final Work Plan* (WESTON, 2002a) and the *Final Action Memorandum and Decision Document* [Parsons Engineering (Parsons), 2002], which were both drafted as part of the CERCLA process for this SWMU. The removal action was initiated in compliance with Section 11 of the SEDA Federal Facilities Agreement that describes removal actions as viable options for eliminating potential threats to human health or the environment.

The goal of a TCRA is to abate, prevent, minimize, stabilize, mitigate, and/or eliminate the threat to public health or the environment. It is intended that this completion report, in conjunction with the *Proposed Remedial Action Plan* (to be submitted under separate cover by USACE) serve as the basis for the Record of Decision (ROD) for site closure and transfer of the SEDA property.

## 1.2 SITE DESCRIPTION

The SEDA is located in Romulus, Seneca County, New York (see Figure 1-1). The facility property occupies approximately 10,600 acres, and is bounded to the west by State Route 96A and to the east by State Route 96.

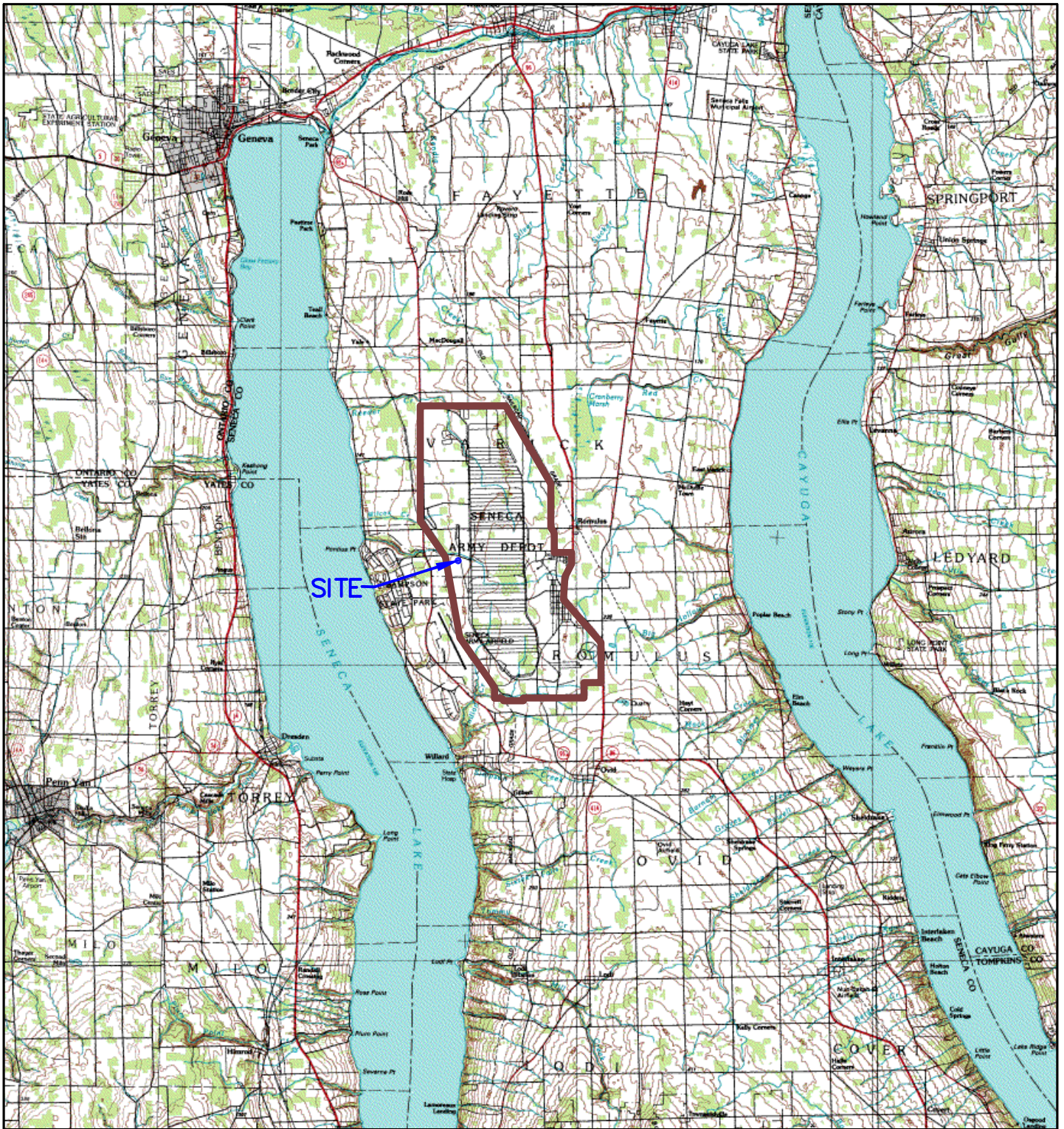
Geneva and Rochester are located to the northwest (14 and 50 miles, respectively); Syracuse is 50 miles to the northeast and Ithaca is 31 miles to the south. The surrounding area is generally used for agriculture.

The SEAD 24 site (shown in Figure 1-2) comprises an area of approximately 2.3 acres and is located in the west-central portion of SEDA. The site is the location of an abandoned powder burning pit used during the 1940s and 1950s. The site is bounded to the immediate north by West Kendaia Road (running east to west), to the east by a set of abandoned railroad tracks and an unnamed road, and to the west by a drainage ditch. Located in the center of SEAD 24 is a U-shaped berm approximately 4 feet (ft) high. The berm is bordered by open grasslands and brush. A shale-covered area adjacent to the bermed area was also likely impacted by historical uses at the site. Topographically, the site slopes to the northwest with drainage swales located west of SEAD 24 and along West Kendaia Road draining toward Kendaia Creek. The differential in grade is approximately 6 ft (east to west) from elevation 634.0 to elevation 628.0. Two survey monuments (SEAD 24 and SEAD 24A), and three monitoring wells (MW24-1, MW24-2, and MW24-3) are located on-site and also shown in Figures 1-2 and 1-3.

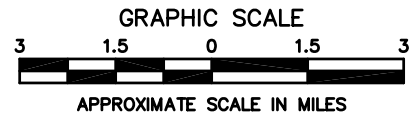
## 1.3 SITE BACKGROUND

While no specific operating practices are documented for this site, it is presumed through historical evidence that black powder, M10 and M16 solid propellants, and explosive trash were burned here. Petroleum hydrocarbon fuels may have been used to start the fires. The shale-covered area adjacent to the bermed area may also have been used to burn the propellants and explosive trash.





**SOURCE:**  
 USGS TOPOGRAPHY MAPS; GENEVA SOUTH, DRESDEN, OVD, &  
 ROMULUS - NEW YORK QUADS



TIME CRITICAL REMOVAL ACTION  
 METALS SITES - SEAD 24  
 SENECA ARMY DEPOT ACTIVITY (SEDA)  
 ROMULUS, NEW YORK

DEPARTMENT OF THE ARMY  
 OMAHA DISTRICT  
 CORPS OF ENGINEERS  
 OFFUTT AFB, NEBRASKA



SITE LOCATION MAP



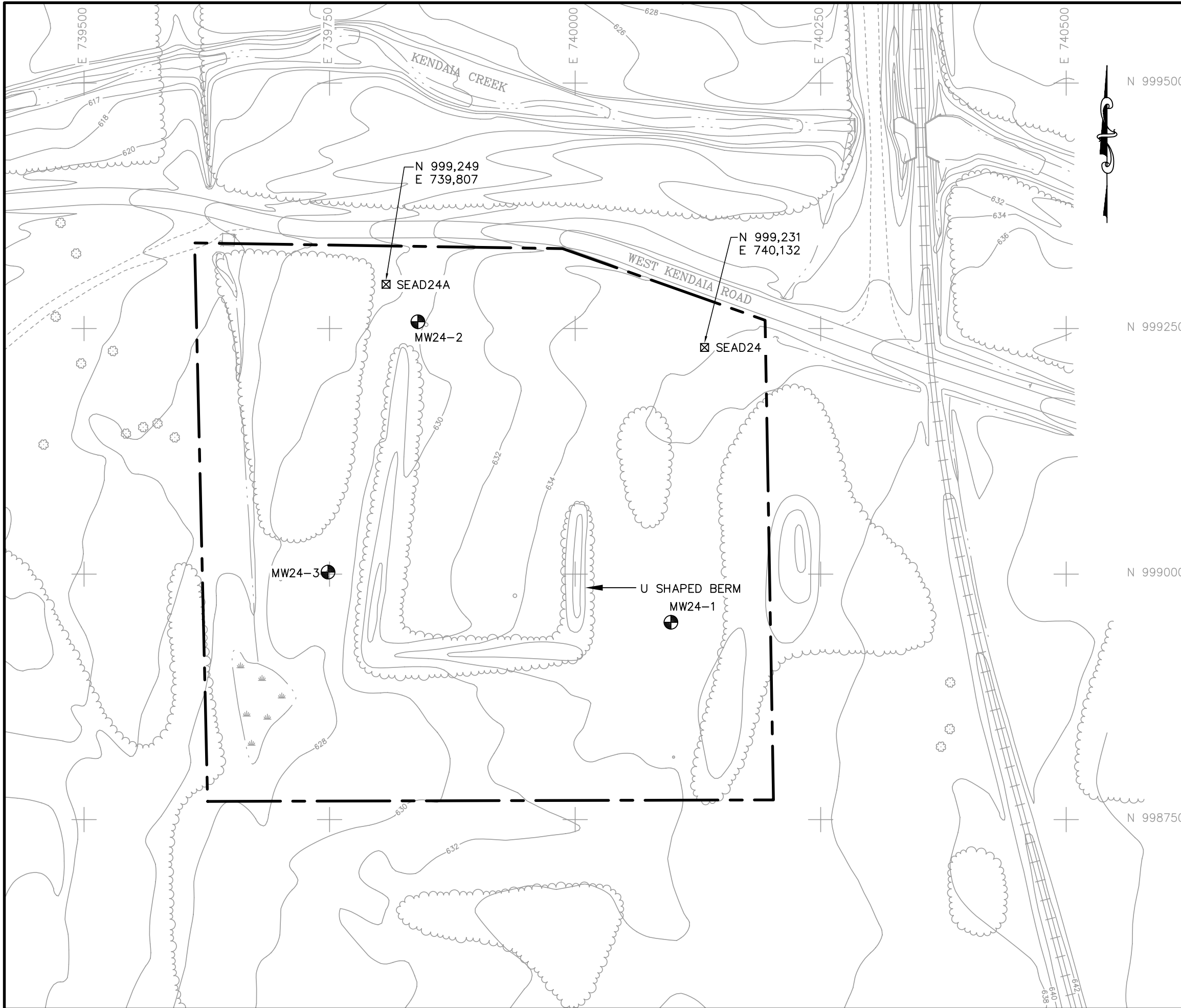
MANCHESTER

NEW HAMPSHIRE

|            |          |
|------------|----------|
| DRAWN      | BEG      |
| DATE       | MAR 2006 |
| FIGURE NO. | 1-1      |



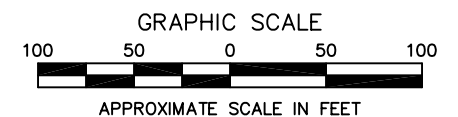
M:\Design\ACOE\SENECA\SEAD 24\FIG 1-2 and 1-3.dwg, 1-2, 3/6/2006 2:46:17 PM, GIRARDEB, 1:1



**LEGEND**

- GROUND CONTOUR AND ELEVATION
- PAVED ROAD
- RAILROAD
- STREAM
- WETLAND
- BRUSH
- SITE PERIMETER (LIMIT OF CLEARING)
- SURVEY MONUMENT
- MONITOR WELL LOCATION

N 999500  
N 999250  
N 999000  
N 998750



DEPARTMENT OF THE ARMY  
OMAHA DISTRICT  
CORPS OF ENGINEERS  
OFFUTT AFB, NEBRASKA

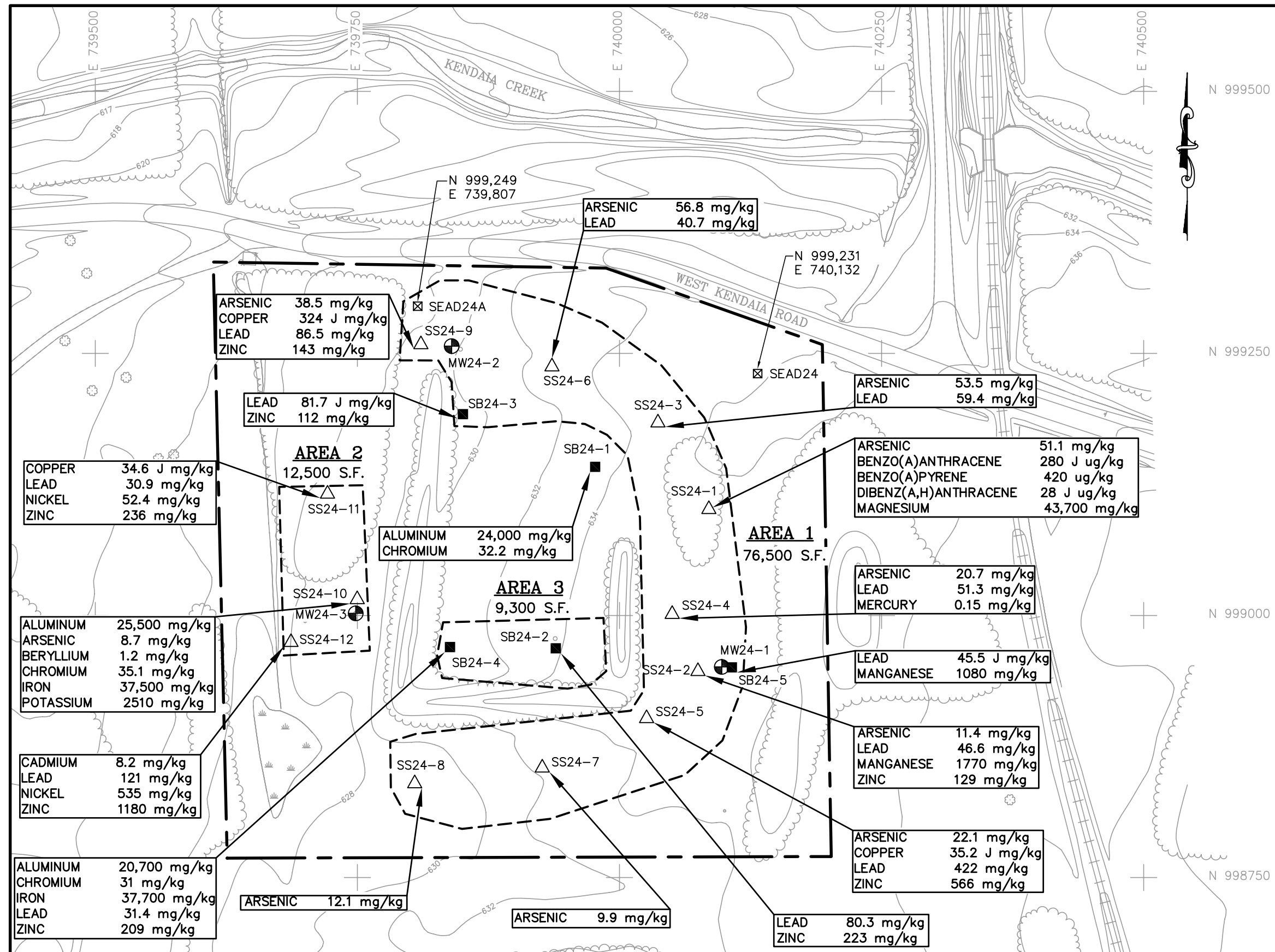


SENECA ARMY DEPOT ACTIVITY  
ABANDONED POWDER BURNING PIT  
SEAD 24

**SITE MAP**

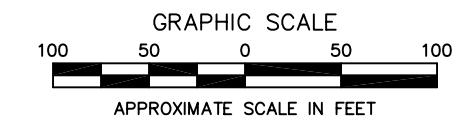
|         |     |          |               |                          |
|---------|-----|----------|---------------|--------------------------|
| DRAWN   | BEG | DATE     | MAR 2006      | FIGURE NO.<br><b>1-2</b> |
| CHECKED | CGK | W.O. NO. | 20074-515-035 |                          |

M:\Design\WACO\SENECA\SEAD 24\FIG 1-2 and 1-3.dwg, 1-3, 3/6/2006 2:48:13 PM, GIRARDEB, 1:1



**LEGEND**

- GROUND CONTOUR AND ELEVATION
- PAVED ROAD
- RAILROAD
- STREAM
- WETLAND
- BRUSH
- SITE PERIMETER (LIMIT OF CLEARING)
- SURVEY MONUMENT
- MONITOR WELL LOCATION
- SB24-1 SOIL BORING SAMPLE
- SS24-3 SURFACE SOIL SAMPLE
- AREA TO BE REMEDIATED



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SENECA ARMY DEPOT ACTIVITY  
ABANDONED POWDER BURNING PIT  
SEAD 24

**ANALYTES EXCEEDING  
TAGM RECOMMENDED  
SOIL CLEANUP OBJECTIVES**

| AREA 1      |             |             |             | AREA 2      |             |             |             | AREA 3      |             |             |             |
|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| N           | E           | N           | E           | N           | E           | N           | E           | N           | E           | N           | E           |
| 999299.5858 | 739793.8571 | 999188.8868 | 740080.8133 | 998805.8587 | 739933.4332 | 998909.1083 | 740010.7625 | 999185.3542 | 739940.0481 | 999122.6840 | 739675.3678 |
| 999319.7008 | 739828.6978 | 999140.3110 | 740101.7407 | 998796.3942 | 739849.8358 | 998928.6722 | 740023.3129 | 999179.5952 | 739874.4351 | 999124.2489 | 739755.1047 |
| 999319.7008 | 739856.1833 | 998988.9720 | 740120.6724 | 998810.7967 | 739795.4768 | 999093.8128 | 740019.4405 | 999180.7343 | 739842.5496 | 998966.4665 | 739761.8009 |
| 999298.0385 | 739939.8009 | 998932.6002 | 740117.5122 | 998835.8981 | 739781.8871 | 999152.5725 | 740007.6561 | 999222.7870 | 739839.8345 | 998961.8375 | 739679.7342 |
| 999279.4040 | 739983.2594 | 998880.7514 | 740098.1572 | 998879.5118 | 739781.3407 | 999172.2858 | 739988.1495 | 999243.3047 | 739827.1073 | 998930.2290 | 739950.5075 |
| 999238.4005 | 740040.1658 | 998847.8315 | 740062.3297 | 998887.0363 | 739805.9395 | 999182.6962 | 739967.0913 | 999243.3756 | 739790.2515 | 998940.3063 | 739830.7962 |
|             |             |             |             |             |             |             |             |             |             | 998961.6367 | 739826.0611 |

|         |     |          |               |            |     |
|---------|-----|----------|---------------|------------|-----|
| DRAWN   | BEG | DATE     | MAR 2006      | FIGURE NO. | 1-3 |
| CHECKED | CGK | W.O. NO. | 20074-515-035 |            |     |

An Expanded Site Inspection (ESI) was performed at SEAD 24 during 1993 and 1994. Intrusive investigations performed as part of the ESI to characterize the nature and extent of contaminants present on-site included soil borings, installation of monitoring wells, and collection of surface water, surface soil, and sediment samples. All samples were analyzed for Target Compound List (TCL) volatile organic compounds (VOC), semi-volatile organic compounds (SVOC), pesticides/polychlorinated biphenyls (PCBs), explosives, herbicides, Target Analyte List (TAL) metals, cyanide, nitrates, and total recoverable petroleum aromatic hydrocarbons (PAHs).

Based on investigation data from 15 soil samples (analyzed from 5 soil boring locations) and 12 additional surface samples, it was determined that soils within and adjacent to the former powder burning pit contained elevated concentrations of three SVOCs and 14 metals. The SVOC compounds and maximum detected values included the following PAHs: benzo(a)anthracene (280 micrograms per kilogram ( $\mu\text{g}/\text{kg}$ )); benzo(a)pyrene (420  $\mu\text{g}/\text{kg}$ ); and dibenz(a,h)anthracene (28  $\mu\text{g}/\text{kg}$ ). For the three target metals, 3 of the 14 reported parameters included: arsenic (56.8 milligrams per kilogram ( $\text{mg}/\text{kg}$ )); lead (422  $\text{mg}/\text{kg}$ ); and zinc (1,180  $\text{mg}/\text{kg}$ ), and 11 of the non-target metals (aluminum; beryllium; cadmium; chromium; copper; iron; magnesium; manganese; mercury; nickel; and potassium). Based on frequency of detection and distribution, the remaining 11 non-target metals were considered to be less pervasive than the 3 target metals detected. Based on three groundwater samples collected during the ESI, it was determined that the groundwater was not adversely impacted by any of the constituents found in the soil or by those materials presumed to have been burned in the area. In addition, no organic compounds were detected in the groundwater samples.

Following the ESI, it was determined that three source areas exist (Areas 1, 2, and 3) where hazardous constituents may have been released to the environment (refer to Figure 1-3). Results of the ESI indicated that the primary target compounds released from these source areas include: arsenic; lead; zinc; and PAHs. A summary of the analytes exceeding the Technical Administrative Guidance Memorandum (TAGM) Recommended Cleanup Objective Values is shown in Figure 1-3.



In August 2002, Parsons issued a Final Action Memorandum and Decision Document to justify and to describe the requirements of the Time Critical Removal Action (TCRA) associated with the potential release. In order to address the apparent release, SEDA tasked USACE with performing a TCRA at SEAD 24 to reduce and/or eliminate the identified sources of residual chemical materials. This report presents a summary of the TCRA along with results and conclusions.

---

**SECTION 2**

**SITE MANAGEMENT**

---



## 2. SITE MANAGEMENT

### 2.1 PROJECT ORGANIZATION

Weston Solutions, Inc. (WESTON®) coordinated all work activities with USACE (Omaha District), USACE (New York District Seneca Area Office), and SEDA. A list of primary representatives from each firm is listed below:

#### FIRM/REPRESENTATIVE

#### ROLE

#### SEDA

Mr. Steven Absolom

Base Environmental Coordinator

#### USACE

Mr. Thomas Westenburg:  
Mr. Thomas Battaglia:

Project Manager  
Contracting Officers Representative and On-site Representative

#### WESTON

Mr. Christopher Kane:  
Mr. Edwin Benton<sup>1</sup>/Mr. Miles Gelatt<sup>1</sup>:  
Mr. Steven Kirejczyk<sup>1</sup>:

Project Manager  
Site Manager  
Site Safety and Health Officer/Quality Control (QC) Officer

Mr. William Morrison<sup>1</sup>:  
Ms. Angela Vautour<sup>1</sup>:

Sample Technician  
Sample Technician

#### SUBCONTRACTORS

Sessler Wrecking<sup>1</sup>:  
Seyvern Trent Laboratories  
SJB Drilling<sup>1</sup>:

Sitework Services  
Laboratory Analytical Services  
Drilling Services

Note: <sup>1</sup> On-site

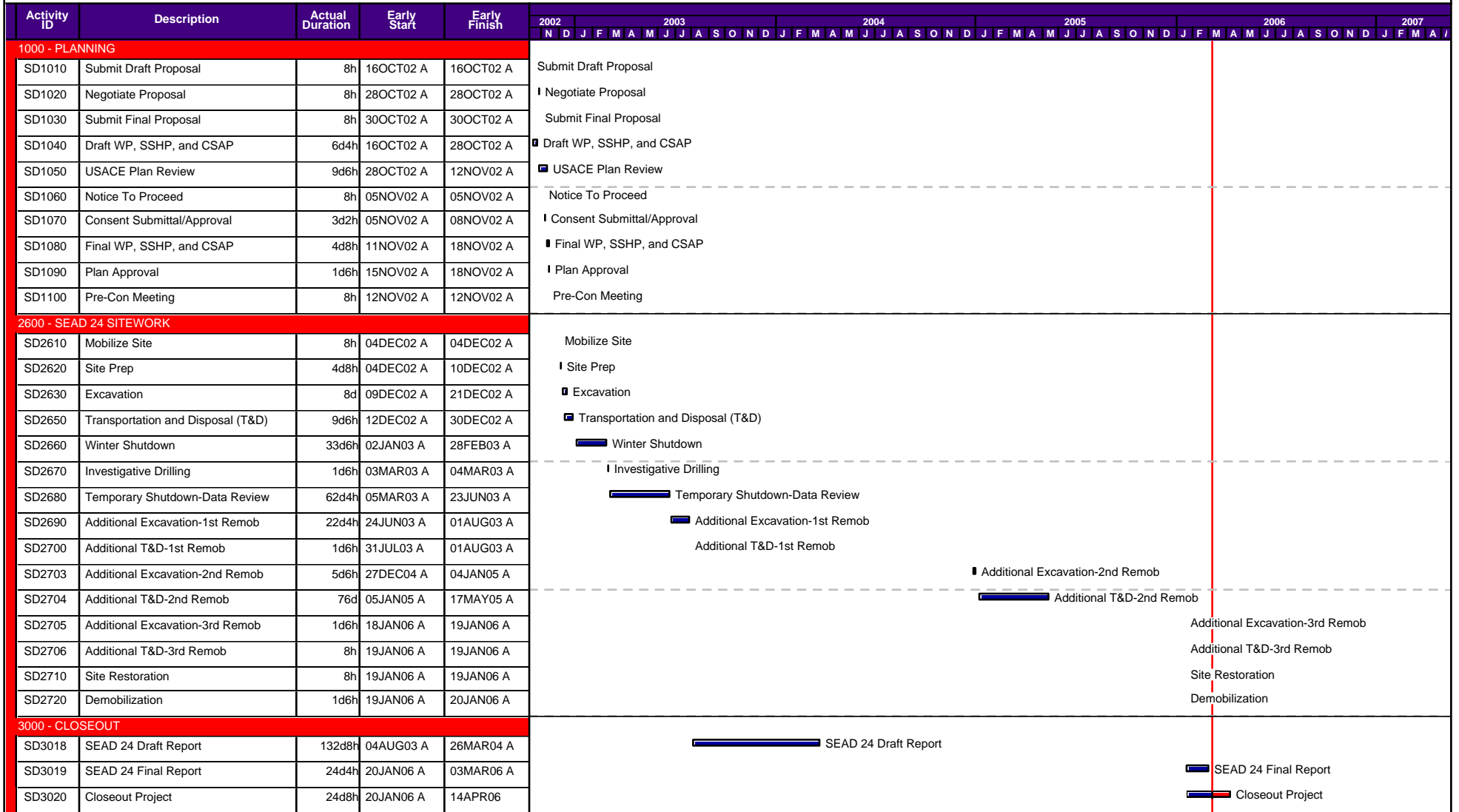
## 2.2 PROJECT SCHEDULE

The project schedule shown in Figure 2-1 outlines the start and finish dates for all major tasks. The TCRA site activities began on 4 December 2002 (mobilization) and ended on 20 January 2006 (demobilization).

## 2.3 MEETINGS

On 9 September 2002, personnel from the USACE Omaha District, USACE New York District Seneca Area Office, and WESTON, conducted a site visit and project kick-off meeting to discuss project objectives and the *Final Scope of Work* (USACE, 2002). A pre-construction meeting was held on 12 November 2002, with USACE to discuss logistics, safety, sampling, submittals, QC and Quality Assurance. This meeting was followed by a site walk on 13 November 2002. Additional meetings were held periodically throughout execution of the TCRA to review progress and status.

**FIGURE 2-1  
TIME CRITICAL REMOVAL ACTION  
SEAD 24  
SENECA ARMY DEPOT  
ROMULUS, NY**



Start date **16OCT02**  
 Finish date **14APR06**  
 Data date **06MAR06**  
 Run date **06MAR06**  
 Page number **1A**  
 © Primavera Systems, Inc.

**U.S. ARMY CORPS OF ENGINEERS  
 OMAHA DISTRICT  
 CONTRACT NO.: DACA45-98-D-0004**

Prepared by:  
**WESTON SOLUTIONS, INC.**

■ Early bar  
■ Progress bar  
■ Critical bar  
■ Summary bar  
◆ Start milestone point  
◆ Finish milestone point



---

**SECTION 3**

**SITE ACTIVITIES**

---

### 3. SITE ACTIVITIES

The primary objective of this project was to perform a TCRA to reduce or eliminate any potential threat to human health or the environment that exists at SEAD 24 due to elevated levels of the contaminants of concern (arsenic, lead, zinc, and PAHs) based on ESI and resulting *Final Action Memorandum and Decision Document* (Parsons 2002). To accomplish this objective, WESTON performed the following tasks.

- **Task 1 - Mobilization:** This task included procurement and mobilization of all equipment and personnel necessary to perform site activities.
- **Task 2 - Site Preparation:** This task included laying out work areas, installing and maintaining erosion and sedimentation controls (as applicable), clearing the site of vegetation, establishing work zones and staging areas, and installing construction fencing.
- **Task 3 - Soil Removal:** This task consisted of removing surface soils from the three Areas of Concern (AOC) to an initial depth of 6 inches to eliminate any immediate threats associated with the presence of site contaminants. Additional soil was removed to a maximum depth of 2 ft from the three AOCs and the U-shaped berm to reduce residual contaminants remaining in the soil.
- **Task 4 - Sampling and Analysis:** This task included the collection and analysis of post excavation confirmatory samples from the three AOCs and the U-shaped berm. Samples were analyzed for TAL metals and PAHs to verify the vertical and horizontal limits of soil removal necessary to achieve site closure. Waste characterization samples were also collected for Task 5, Transportation and Disposal (T&D).
- **Task 5 - Transportation and Disposal:** This task included the preparation of waste manifests, processing and review of transporter and disposal facility permits, and off-site T&D of non-hazardous soil.
- **Task 6 - Site Restoration:** This task included removal of erosion and sedimentation controls.
- **Task 7 - Demobilization:** This task included the removal of equipment and supplies from the site following completion of project objectives.

A photo log of site activities is contained in Appendix A for the tasks listed above.

### 3.1 TASK 1 – MOBILIZATION

WESTON mobilized the site on 4 December 2002. This task included moving into office space provided by SEDA, mobilizing construction equipment and project personnel to the site, and familiarizing project personnel with the site and project requirements.

In June/July 2003, WESTON remobilized to the site to excavate, stage, and dispose of additional soil from 13 grids that exceeded Site Cleanup Goals. Additional remobilization efforts were performed in December 2004, May 2005, and in January 2006 to remove additional soil to complete the TCRA. The follow-on work performed is summarized in more detail in Subsection 3.3.

A list of equipment and supplies that were used during the course of the project are summarized below:

#### Heavy Equipment

- Track excavators with bucket and/or shear attachments
- Loader
- Off road dump truck (2)
- Bulldozer
- Tractor
- Brush Hog
- Triaxial dump trucks

#### Support Equipment

- Communication equipment including portable cellular phones, range radio, and computers (lap-tops)
- Trimble Global Positioning System (GPS) survey unit
- Stockpile liner/poly sheeting
- Hay bales and silt fence
- Sample bottles, coolers, etc. as specified in the *Quality Assurance Project Plan*
- Miscellaneous tools, sampling equipment, flashlights, etc.

- Portable sanitary facilities
- Site pickup trucks

### **Health and Safety Equipment**

- Personal Protective Equipment (PPE)
- Emergency eyewash station
- First Aid kit(s)
- Fire extinguishers
- Orange safety vests

## **3.2 TASK 2 - SITE PREPARATION**

In order to prepare the site for intrusive operations, the site was surveyed, air monitoring was performed, erosion and sedimentation controls were installed, the site was cleared of all vegetation, a central staging area was identified, and both SEDA installation staff and Dig-Safe were contacted (No. 11122-065-055) to verify utility locations. A summary of these tasks is included below.

### **3.2.1 Survey**

A Trimble 5700 Real Time Kinematics (RTK) GPS was used to establish horizontal and vertical control. The SEAD 24A survey monument was utilized to set the control point using the RTK GPS base station. Once the RTK's position was acquired and confirmed, the perimeter coordinates for the SEAD 24 area were established and staked at 30-foot (ft) intervals. Stakes were placed every 30 ft along the perimeter of each proposed excavation area, and a 30-ft by 30-ft grid system was established within each area. The shaded areas and perimeter coordinates shown in Figure 1-3 represent the initial excavation limits for Areas 1, 2, and 3. These limits were generated based on the results of the ESI and *Final Action Memorandum and Decision Document* (Parsons 2002). Pre-excavation grade data was collected at each grid intersection point as a baseline in establishing control points for the excavation. Additional surveying was performed throughout the duration of the project to monitor and maintain both the vertical and horizontal extent of soil removal.

### **3.2.2 Air Monitoring**

Prior to commencement of site work, air monitoring was performed within the work zone in accordance with the U.S. Environmental Protection Agency (EPA), New York State Department of Health Community Air Monitoring Program, and the New York State Department of Environmental Conservation (NYSDEC) Fugitive Dust Suppression and Particulate Monitoring guidelines. No elevated particulate levels were noted prior to excavation.

Based on historical data, background particulate concentrations, and heavy precipitation during the initial removal action, additional air monitoring was not performed during follow-on-site work activities. Additional dust suppression was not required, and all work activities were conducted in Level D modified PPE.

### **3.2.3 Erosion and Sedimentation Control**

Erosion and sedimentation controls consisting of hay bales and/or silt fences, and stakes were installed to manage stormwater runoff within the work areas, at drainage outlet points, and at the materials stockpile area. Additional erosion controls were placed along the drainage swale adjacent to West Kendaia Road.

During the course of the project, it was not necessary to collect or to store stormwater since all of the soil piles and berms were located above existing ground surface. In addition, because the site drains east to west and the drainage swale provides stormwater relief, minimal ponding of water was encountered during the limited soil excavation period. Stormwater run-on was prevented by diverting the top of slope grade away from the open excavation areas along the perimeter limits while any stormwater run-off was contained within the excavation limits.

### **3.2.4 Clearing**

Clearing limits were established and staked out using West Kendaia Road as the north boundary. The remaining perimeter limits for clearing were delineated a distance of 50 ft outside Areas 1, 2, and 3 to the south, east, and west with exception to the U-shaped bermed area. The

U-shaped berm area was cleared of vegetation after the initial removal effort in Areas 1, 2, and 3 based on additional confirmatory data.

A Case 5230 tractor with a brush hog attachment was utilized to clear and remove light brush, tall grass, and trees less than 3 inches in diameter within the proposed removal limits to allow access for the heavy equipment during excavation. Larger trees (3 to 6 inches in diameter) were removed using an excavator or a chain saw, and placed outside the limits of excavation. Clearing activities began on 4 December 2002, and were completed on an as needed basis through May 2005 to support additional drilling, sampling, and excavation efforts at the site. A total of approximately 6 to 7 acres of vegetation were cleared during site work activities.

### **3.2.5 Staging Area**

In order to contain and control soil removed from the site, a soil staging area was established in the northeast corner of the site within the excavation limits of Area 1 just south of West Kendaia Road. The staging area was lined with 6-mil polyethylene sheeting. The stockpiled materials were covered on a daily basis with 6-mil polyethylene sheeting, and weighted down to prevent erosion of the pile by wind, rain, snow, and/or stormwater. Soil from within Areas 1, 2, and 3 was either stockpiled in Area 1 within the designated staging area or live loaded for T&D.

### **3.3 TASK 3 - SOIL REMOVAL**

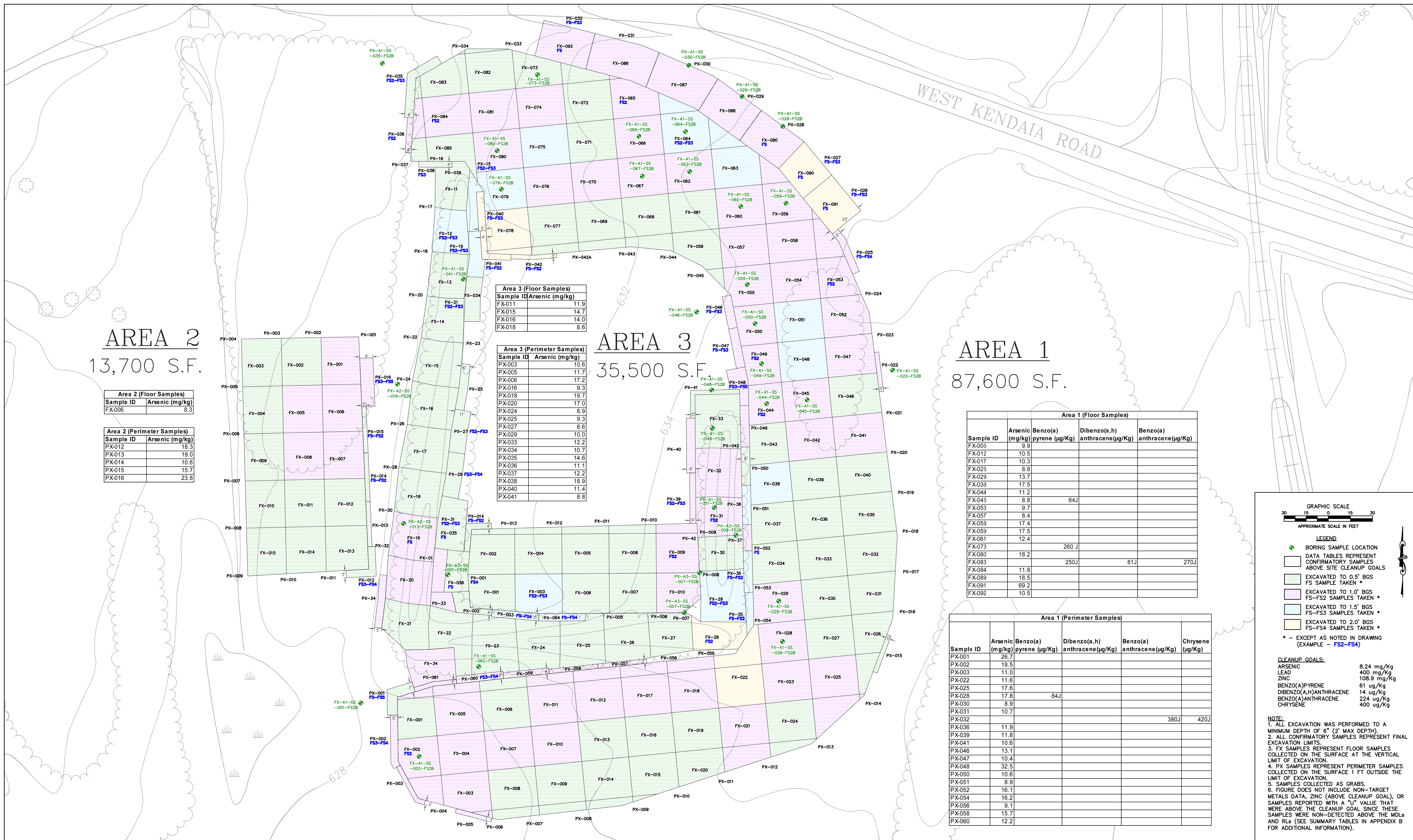
A total of three areas (Areas 1, 2, and 3), which encompass a total area of 98,300 square feet (sf) [2.3 acres] were identified in the *Final Action Memorandum and Decision Document* (Parsons 2002) as containing elevated levels of metals and PAHs in soil. As previously shown in Figure 1-3, all three areas were impacted by the metals arsenic, lead, and zinc, and PAHs. Under this TCRA, all three areas including the U-shaped berm were excavated in order to reduce or eliminate any potential threat to human health or the environment that could exist due to the presence of these constituents in SEAD 24 surface soils. The U-shaped berm was added to the scope of the TCRA as a result of elevated metals concentrations.

The SEAD 24 excavation was performed continuously within Areas 1, 2, and 3 between 9 December 2002 and 21 December 2002, to remove soil to the scoped depth of 6 inches based on the ESI data. Approximately 1,820 cubic yards (cy) of contaminated soil was excavated; however, post-excavation sample results indicated that elevated levels of the target metals arsenic, lead, and zinc, and PAHs were reported at concentrations above the Site Cleanup Goals. As a result, investigative borings were performed and the data reviewed to identify locations where target compounds were highest, and additional removal activities were conducted to address the elevated metals and PAHs that remained in both floor and perimeter samples. An additional 3,556 cy of soil was excavated from the site between 24 June 2003 and 20 January 2006, within Areas 1, 2, and 3 for a total of 5,376 cy. This volume of soil represents a 250% increase when compared with the projected volume of soil to be removed (1,990 cy) as stated in the ESI. Soil was removed from a total area of 3.14 acres (136,800 sf) represented by Areas 1 (87,600 sf), 2 (13,700 sf), and 3 (35,500 sf). In addition, no items were identified that were indicative of explosive trash or propellants. The excavation limits and sample locations are shown in Figure 3-1. The following paragraphs summarize the excavation activities in detail for Areas 1, 2 and 3. Photos of the excavations are included in Appendix A.

### **3.3.1 Excavation Area 1**

As shown in Figure 3-1, Area 1 encompasses a total of 76,500 sf (1.8 acres). This area was subdivided into a total of eighty five (85) 30-ft by 30-ft grids. The entire area was initially excavated to a maximum depth of 6 inches between 9 December 2002 and 21 December 2002, for a total quantity of 1,420 cy of soil removed. Following initial post excavation sampling, elevated concentrations of both metals and PAHs were reported in samples collected at floor and perimeter locations. During the first round of sampling, 54% (46 out of 85) of the floor samples and 60% (37 out of 61) of the perimeter samples resulted in concentrations above the Site Cleanup Goals. As a result, further investigative borings were conducted, but only at locations where elevated levels of the arsenic, lead, and PAHs were reported. No additional borings were performed at locations where elevated zinc levels were reported. Boring samples were collected in 1-ft intervals to a maximum depth of 4 ft at 17 floor locations and 12 perimeter locations (refer to Figure 3-1).





**AREA 2**  
13,700 S.F.

| Area 2 (Floor Samples) |                 |
|------------------------|-----------------|
| Sample ID              | Arsenic (mg/kg) |
| FX-006                 | 8.3             |

| Area 2 (Perimeter Samples) |                 |
|----------------------------|-----------------|
| Sample ID                  | Arsenic (mg/kg) |
| PX-012                     | 18.3            |
| PX-013                     | 19.0            |
| PX-014                     | 10.6            |
| PX-015                     | 15.7            |
| PX-016                     | 23.8            |

| Area 3 (Floor Samples) |                 |
|------------------------|-----------------|
| Sample ID              | Arsenic (mg/kg) |
| FX-011                 | 11.9            |
| FX-015                 | 14.7            |
| FX-016                 | 14.0            |
| FX-018                 | 8.6             |

| Area 3 (Perimeter Samples) |                 |
|----------------------------|-----------------|
| Sample ID                  | Arsenic (mg/kg) |
| PX-003                     | 10.6            |
| PX-005                     | 11.7            |
| PX-006                     | 17.2            |
| PX-016                     | 9.3             |
| PX-018                     | 19.7            |
| PX-020                     | 17.0            |
| PX-024                     | 8.9             |
| PX-025                     | 9.3             |
| PX-027                     | 8.6             |
| PX-029                     | 10.0            |
| PX-033                     | 12.2            |
| PX-034                     | 10.7            |
| PX-035                     | 14.6            |
| PX-036                     | 11.1            |
| PX-037                     | 12.2            |
| PX-038                     | 18.9            |
| PX-040                     | 11.4            |
| PX-041                     | 8.8             |

**AREA 3**  
35,500 S.F.

**AREA 1**  
87,600 S.F.

| Area 1 (Floor Samples) |                 |                         |                                 |                             |
|------------------------|-----------------|-------------------------|---------------------------------|-----------------------------|
| Sample ID              | Arsenic (mg/kg) | Benzo(a) pyrene (µg/Kg) | Dibenzo(a,h) anthracene (µg/Kg) | Benzo(a) anthracene (µg/Kg) |
| FX-005                 | 9.9             |                         |                                 |                             |
| FX-012                 | 10.5            |                         |                                 |                             |
| FX-017                 | 10.3            |                         |                                 |                             |
| FX-025                 | 8.8             |                         |                                 |                             |
| FX-029                 | 13.7            |                         |                                 |                             |
| FX-033                 | 17.5            |                         |                                 |                             |
| FX-044                 | 11.2            |                         |                                 |                             |
| FX-045                 | 8.8             | 64J                     |                                 |                             |
| FX-053                 | 9.7             |                         |                                 |                             |
| FX-057                 | 8.4             |                         |                                 |                             |
| FX-058                 | 17.4            |                         |                                 |                             |
| FX-059                 | 17.5            |                         |                                 |                             |
| FX-061                 | 12.4            |                         |                                 |                             |
| FX-073                 |                 |                         | 260J                            |                             |
| FX-080                 | 18.2            |                         |                                 |                             |
| FX-083                 |                 |                         | 250J                            | 81J                         |
| FX-084                 | 11.8            |                         |                                 |                             |
| FX-089                 | 18.5            |                         |                                 |                             |
| FX-091                 | 69.2            |                         |                                 |                             |
| FX-092                 | 10.5            |                         |                                 |                             |

| Area 1 (Perimeter Samples) |                 |                         |                                 |                             |                  |
|----------------------------|-----------------|-------------------------|---------------------------------|-----------------------------|------------------|
| Sample ID                  | Arsenic (mg/kg) | Benzo(a) pyrene (µg/Kg) | Dibenzo(a,h) anthracene (µg/Kg) | Benzo(a) anthracene (µg/Kg) | Chrysene (µg/Kg) |
| PX-001                     | 26.7            |                         |                                 |                             |                  |
| PX-002                     | 18.5            |                         |                                 |                             |                  |
| PX-003                     | 11.0            |                         |                                 |                             |                  |
| PX-022                     | 11.6            |                         |                                 |                             |                  |
| PX-025                     | 17.6            |                         |                                 |                             |                  |
| PX-028                     | 17.8            |                         | 84J                             |                             |                  |
| PX-030                     | 8.9             |                         |                                 |                             |                  |
| PX-031                     | 10.7            |                         |                                 |                             |                  |
| PX-032                     |                 |                         |                                 |                             | 380J 420J        |
| PX-036                     | 11.9            |                         |                                 |                             |                  |
| PX-039                     | 11.8            |                         |                                 |                             |                  |
| PX-041                     | 10.6            |                         |                                 |                             |                  |
| PX-046                     | 13.1            |                         |                                 |                             |                  |
| PX-047                     | 10.4            |                         |                                 |                             |                  |
| PX-048                     | 32.5            |                         |                                 |                             |                  |
| PX-050                     | 10.6            |                         |                                 |                             |                  |
| PX-051                     | 8.9             |                         |                                 |                             |                  |
| PX-052                     | 16.1            |                         |                                 |                             |                  |
| PX-054                     | 16.2            |                         |                                 |                             |                  |
| PX-056                     | 9.1             |                         |                                 |                             |                  |
| PX-058                     | 15.7            |                         |                                 |                             |                  |
| PX-060                     | 12.2            |                         |                                 |                             |                  |

**GRAPHIC SCALE**  
0 15 30  
APPROXIMATE SCALE IN FEET

**LEGEND**

- BORING SAMPLE LOCATION
- DATA TABLES REPRESENT CONFIRMATORY SAMPLES ABOVE SITE CLEANUP GOALS
- EXCAVATED TO 0.5' BGS FS SAMPLE TAKEN \*
- EXCAVATED TO 1.0' BGS FS-FS2 SAMPLES TAKEN \*
- EXCAVATED TO 1.5' BGS FS-FS3 SAMPLES TAKEN \*
- EXCAVATED TO 2.0' BGS FS-FS4 SAMPLES TAKEN \*

\* - EXCEPT AS NOTED IN DRAWING (EXAMPLE - FS2-FS4)

**CLEANUP GOALS:**

|                        |             |
|------------------------|-------------|
| ARSENIC                | 8.24 mg/Kg  |
| LEAD                   | 400 mg/Kg   |
| ZINC                   | 108.9 mg/Kg |
| BENZO(A)PYRENE         | 61 ug/Kg    |
| DIBENZO(A,H)ANTHRACENE | 14 ug/Kg    |
| BENZO(A)ANTHRACENE     | 224 ug/Kg   |
| CHRYSENE               | 400 ug/Kg   |

**NOTE:**

- ALL EXCAVATION WAS PERFORMED TO A MINIMUM DEPTH OF 6" (2' MAX DEPTH).
- ALL CONFIRMATORY SAMPLES REPRESENT FINAL EXCAVATION LIMITS.
- FX SAMPLES REPRESENT FLOOR SAMPLES COLLECTED ON THE SURFACE AT THE VERTICAL LIMIT OF EXCAVATION.
- PX SAMPLES REPRESENT PERIMETER SAMPLES COLLECTED ON THE SURFACE 1 FT OUTSIDE THE LIMIT OF EXCAVATION.
- SAMPLES COLLECTED AS GRABS.
- FIGURE DOES NOT INCLUDE NON-TARGET METALS DATA, ZINC (ABOVE CLEANUP GOAL), OR SAMPLES REPORTED WITH A "U" VALUE THAT WERE ABOVE THE CLEANUP GOAL SINCE THESE SAMPLES WERE NON-DETECTED ABOVE THE MDLs AND RLs (SEE SUMMARY TABLES IN APPENDIX B FOR ADDITIONAL INFORMATION).

| NO. | DATE | APPR. | REVISION |
|-----|------|-------|----------|
|     |      |       |          |
|     |      |       |          |
|     |      |       |          |

SENECA ARMY DEPOT ACTIVITY  
METALS SITE  
SEAD 24

**WESTON SOLUTIONS**

MANCHESTER NEW HAMPSHIRE

|            |      |                  |      |
|------------|------|------------------|------|
| CHECKED    | DATE | CLIENT APPROVALS | DATE |
| DES. ENG.  |      |                  |      |
| PROJ. ENG. |      |                  |      |
| PROJ. MGR. |      |                  |      |
| APPROVED   |      |                  |      |
| APPROVED   |      | ISSUED FOR       | DATE |

**EXCAVATION AND CONFIRMATORY SAMPLING SUMMARY AREAS 1, 2, & 3**

DEPARTMENT OF THE ARMY  
OMAHA DISTRICT  
CORPS OF ENGINEERS  
OFFUTT AFB, NEBRASKA

|       |          |          |               |            |     |          |
|-------|----------|----------|---------------|------------|-----|----------|
| DRAWN | BEG      | DATE     | MAR 2006      | FIGURE NO. | 3-1 | REV. NO. |
| SCALE | AS SHOWN | W.O. NO. | 20074.515.035 | SHT.       |     | OF       |

M:\projects\SEAD\SEAD\SUMMARY\SEAD 24\FINAL CONFIRMATION SAMPLE SUMMARY.dwg, Layout 1, 3/6/2006, 7:42:25 PM, gbradee, 1:1



Based on the investigative boring data, additional excavation was performed at 28 out of the 29 boring locations. This included 16 floor boring locations (representing grids FX-002, FX-028, FX-029, FX-044, FX-045, FX-049, FX-050, FX-055, FX-059, FX-060, and FX-062, FX-064, FX-066, FX-067, FX-079, and FX-080) and 12 perimeter locations (representing PX-001, PX-022, PX-028, PX-029, PX-030, PX-035, PX-041, PX-046, PX-048, PX-049, PX-051, and PX-060) where concentrations were reported highest for arsenic, lead, and PAHs. Floor boring locations were excavated from an initial depth of 6 inches below ground surface (bgs) to a maximum depth of 1.5 ft. Perimeter boring locations were excavated out a lateral distance of between 3 and 25 ft to a maximum depth of 1.5 ft bgs.

Although the follow-on excavations resulting from boring investigations reduced the target metals and PAHs, additional excavation was performed in three separate iterations between 24 June 2003 and 18 January 2006, to complete excavation in Area 1 to reduce target arsenic and lead concentrations remaining in surface soils. An additional 320 cy of soil was excavated and removed from Area 1 based on the iterative excavation activities for a total removal quantity of 1,740 cy. The TCRA performed in Area 1 resulted in a total of 42% (36 out of 85 grids) being excavated to a depth of 6 inches, 48% (41 out of 85 grids) being excavated to a depth of 12 inches, 7% (6 out of 85 grids) being excavated to a depth of 18 inches, and 3% (2 out of 85 grids) being excavated to a depth of 24 inches. In addition, 47% or 29 out of 61 perimeter locations resulted in excavations being performed out laterally a distance of between 3 and 25 ft to a maximum depth of 2 ft. The majority of grids requiring additional soil removal occurred in the northeast and south sections of Area 1 and in general, the concentrations of target metals and PAH parameters decreased with depth. In addition, specific to Area 1 only, the areas requiring excavation (northeast and south sections) appeared to follow the original surface soil grade contours.

Excavation limits and sampling locations for Area 1 are shown in Figure 3-1. Additional information on confirmatory sampling results is presented in Subsection 3.4 and Appendix B. Investigative soil boring data is presented in Appendix C.

### 3.3.2 Excavation Area 2

As shown in Figure 3-1, Area 2 encompasses an area of 12,500 sf (0.3 acres). This area was subdivided into a total of 15 30-ft by 30-ft grids. The entire area was initially excavated to a maximum depth of 6 inches between 9 December 2002 and 21 December 2002, for a total quantity of 230 cy of soil removed. Following initial post excavation sampling, elevated concentrations of both metals and PAHs were reported in samples collected at floor and perimeter locations. During the first round of sampling, 40% (6 out of 15) of the floor samples and 50% (8 out of 16) of the perimeter samples resulted in concentrations above the Site Cleanup Goals. As a result, further investigative borings were conducted, but only at locations where elevated levels of arsenic and lead were reported. No additional borings were performed at locations where elevated zinc levels were reported. Boring samples were collected in 1-ft intervals to a maximum depth of 4 ft at two perimeter locations (refer to Figure 3-1).

Based on the investigative boring data, additional excavations were performed at both boring locations. This included perimeter boring locations (representing PX-012 and PX-16) where concentrations were reported highest for arsenic and lead. Perimeter boring locations were excavated out a lateral distance of between 5 and 9 ft to a maximum depth of 1 ft bgs.

Although the follow-on excavations resulting from boring investigations reduced the target metals arsenic and lead, additional excavation was performed in three separate iterations between 24 June 2003 and 18 January 2006, to complete excavation in Area 2 to reduce arsenic and lead concentrations remaining in surface soils. An additional 105 cy of soil was excavated and removed from Area 2 based on the iterative excavation activities for a total removal quantity of 335 cy. The TCRA performed in Area 2 resulted in a total of 73% (11 out of 15 grids) being excavated to a depth of 6 inches, and 26 % (4 out of 15 grids) being excavated to a depth of 12 inches. In addition, 25% or 4 out of 16 perimeter locations resulted in excavations being performed out laterally a distance of between 3 and 9 ft to a maximum depth of 1 ft. The majority of grids requiring additional soil removal occurred in the northeast section of Area 2 and in general, the concentrations of target metals and PAH parameters decreased with depth.

Excavation limits and sampling locations for Area 2 are shown in Figure 3-1. Additional information on confirmatory sampling is presented in Subsection 3.4 and in Appendix B. Investigative soil boring data is presented in Appendix C.

### 3.3.3 Excavation Area 3

As shown in Figure 3-1, Area 3 encompasses an area of 9,300 sf (0.2 acres). This area was subdivided into a total of 10 30-ft by 30-ft grids. The entire area was initially excavated to a maximum depth of 6 inches between 9 December 2002 and 21 December 2002, for a total quantity of 170 cy of soil removed. Following initial post excavation sampling, elevated concentrations of both metals and PAHs were reported in samples collected at floor and perimeter locations. During the first round of sampling, 90% (9 out of 10) of the floor samples and 86% (12 out of 14) of the perimeter samples resulted in concentrations above the Site Cleanup Goals. As a result, further investigative borings were conducted, but only at locations where elevated concentrations were reported for arsenic and lead. No additional borings were performed at locations where elevated zinc levels were reported. No action was taken based on post excavation results for zinc or PAH concentrations. Boring samples were collected in 1-ft intervals to a maximum depth of 4 ft at four perimeter locations (See Figure 3-1).

Based on the investigative boring data, additional excavations were performed at all four boring locations. This included perimeter boring locations (representing PX-001, PX-007, PX-008, and PX-009). Perimeter boring locations were excavated out a lateral distance of between 2 and 5 ft to a maximum depth of 1.5 ft bgs. The lateral constraints for soil excavation were initially limited to approximately 5 ft due to the presence of the 4 ft U-shaped berm sidewalls located to the south, east, and west; however, the berm was subsequently removed due to elevated levels of arsenic and lead. This allowed for successive excavations of surface soils adjacent to and below the footprint of the U-shaped berm.

Although the follow-on excavations resulting from boring investigations reduced the target metals arsenic and lead, additional excavation was performed in two separate iterations between

27 December 2004 and 18 January 2006, to complete excavation in Area 3 to reduce arsenic and lead concentrations remaining in surface soils. An additional 3,131 cy of soil was excavated and removed from Area 3 based on the iterative excavation activities for a total removal quantity of 3,301 cy. This quantity increased significantly from the initial planned removal quantity of 170 cy since the entire 4-ft high U-shaped berm, surface soils within the perimeter of the berm, and the perimeter of the berm proper contained elevated levels of arsenic and lead which required removal. As a result, the quantity of soil requiring removal increased both laterally and vertically until reductions in arsenic and lead resulted based on the revised footprint of excavation. The TCRA performed in Area 3 (inclusive of the U-Shaped Berm area) resulted in a total of 70% (23 out of 33 grids) being excavated to a depth of 6 inches, 12 % (4 out of 33 grids) being excavated to a depth of 12 inches, 6% (2 out of 33 grids) being excavated to a depth of 18 inches, and 3% (1 out of 33 grids) being excavated to a depth of 24 inches. In addition, 45% or 19 out of 42 perimeter locations resulted in excavations being performed out laterally a distance of between 3 and 11 ft to a maximum depth of 1.5 ft. The majority of grids requiring additional soil removal occurred in the east and west sections of Area 3 and in general, the concentrations of target metals and PAH parameters decreases with depth.

Excavation limits and sampling locations for Area 3 are shown in Figure 3-1. Additional information on confirmatory sampling is presented in Subsection 3.4 and in Appendix B. Investigative soil boring data is presented in Appendix C.

### **3.4 TASK 4 – CONFIRMATORY SAMPLING AND ANALYSIS**

The sampling and analytical procedures used during the TCRA in Areas 1 through 3 were based upon the results of the ESI as presented in the *Final Action Memorandum and Decision Document* (Parsons, 2002). For illustrative purposes, the location and concentration of the analytes exceeding soil Cleanup Goals in surface soils for the metals arsenic, lead, and zinc and PAHs as identified during the ESI are shown in Figure 1-3. The location and concentration of analytes exceeding soil Cleanup Goals for the metals, arsenic, lead, and PAHs following completion of this TCRA are shown in Figure 3-1. All confirmatory data, including average final results and maximum final results are also presented in Appendix B.

Confirmatory sampling was performed in Areas 1 through 3 upon removal of the top 6 inches of surface soils. Floor samples were initially collected as 5-point composite samples (four corners and center of each grid section) at a rate of approximately one composite sample per 900 sf. At each floor sample location material was collected from depths ranging between 0 and 6 inches. Typically, the top 2 inches of soil was discarded to allow for more accurate reporting of the sample concentration. Composite samples were collected from the floor locations in all three areas following the first round of excavation. All subsequent confirmatory samples, i.e., samples collected following additional rounds of excavation, were collected as grabs (discrete samples) using the same procedure noted above in accordance with the Final Action Memorandum and Decision Document (Parsons 2002). All Perimeter samples were collected as discrete samples along the exterior limits of each excavation area at a rate of approximately one sample per 30 linear ft. For excavations between 6 and 24 inches in depth, perimeter samples were collected a distance of 1 ft in from the outside limit of excavation. All boring samples were collected as discrete samples. Boring data was only used for investigatory purposes to assist in defining the vertical and horizontal limits of excavation. Boring data is included in Appendix C.

A total of 293 total soil samples were collected from within the excavation limits of Areas 1 through 3. This includes 201 initial scoped samples, 34 investigative boring samples and 24 additional confirmatory samples. A total of 259 out of the 293 samples were final confirmatory samples. This total does not include 123 additional interim samples used to evaluate the lateral and vertical extent of contamination. All samples were analyzed by Severn Trent Laboratories in Connecticut (a USACE and NY certified laboratory). Using EPA Method SW-846/6010B, all initial samples were analyzed for arsenic, lead, and zinc compounds at a minimum, and approximately 20% of the samples were analyzed for the full suite of TAL metals (23 metals). The full suite of target metals includes: aluminum; antimony; arsenic; barium; beryllium; cadmium; calcium; chromium; cobalt; copper; iron; lead; magnesium; manganese; mercury; nickel; potassium; selenium; silver; sodium; thallium; vanadium; and zinc. Using EPA Method SW-846/3541/3540B/8270C, approximately 20% of the samples were also analyzed for the 17 TCL PAHs. This includes; 2-methylnaphthalene; acenaphthene; acenaphthylene; anthracene; benzo(a)anthracene; benzo(a)pyrene; benzo(b)fluoranthene;



benzo(ghi)perylene; benzo(k)fluoranthene; chrysene; dibenzo(ah)anthracene; fluoranthene; fluorine; indeno(123-cd)pyrene; naphthalene; phenanthrene; and pyrene. All successive confirmatory sampling was performed on a select analyte basis depending on the particular parameter driving the soil removal effort. All data was analyzed in accordance with USEPA Data Validation Functional Guidelines for Evaluating Environmental Analysis (December 1996) and the quality control limits established in the Quality Analysis Project Plan.

A summary of the sampling performed during the TCRA is presented in Table 3-1. Sample locations are shown in Figure 3-1 for each Excavation Area.

**Table 3-1**  
**Summary of Confirmation Soil Samples Collected**

| SEAD 24 Area | Number of Initial Samples |       |            | Number of Boring Samples |       |           | Number of Confirmatory Samples |       |            | Number of Total Samples |       |            |
|--------------|---------------------------|-------|------------|--------------------------|-------|-----------|--------------------------------|-------|------------|-------------------------|-------|------------|
|              | Floor                     | Perim | Subtotal   | Floor                    | Perim | Subtotal  | Floor                          | Perim | Subtotal   | Floor                   | Perim | Total      |
| 1            | 85                        | 61    | <b>146</b> | 17                       | 12    | <b>29</b> | 93                             | 61    | <b>154</b> | 110                     | 73    | <b>183</b> |
| 2            | 15                        | 16    | <b>31</b>  | 0                        | 2     | <b>2</b>  | 15                             | 16    | <b>31</b>  | 15                      | 18    | <b>33</b>  |
| 3            | 10                        | 14    | <b>24</b>  | 0                        | 3     | <b>3</b>  | 35                             | 39    | <b>74</b>  | 35                      | 42    | <b>77</b>  |
| <b>Total</b> | 110                       | 91    | <b>201</b> | 17                       | 17    | <b>34</b> | 143                            | 116   | <b>259</b> | 160                     | 133   | <b>293</b> |

Note: The totals above do not include duplicate or QC samples

Quality Control samples were collected, and included field duplicates and matrix spike/matrix spike duplicates (MS/MSD). One duplicate sample was collected for every 10 field samples (10%). One MS/MSD sample was collected for every 20 field samples (5%).

The data summarized in this report references Cleanup Goals in evaluating the horizontal and vertical limits of excavation. With the exception of lead, the site-specific target compounds identified in the 1993 ESI (zinc and the 17 PAHs) were compared to the published TAGM No. 4046 values as the Cleanup Goals for SEAD 24. The Cleanup Goal for lead (400 mg/kg) is based on the EPA guidance value for acceptable lead content in residential soil. Non-target metal compounds at SEAD 24 that were also reviewed in accordance with the TAGM No. 4046 values included: barium; cobalt; mercury; selenium; and vanadium. The target

metal arsenic and all other non-target metals were compared with the 95<sup>th</sup> Percentile Background Numbers for SEDA where no TAGM value exists (denoted as “Site Background (SB)” in the TAGM), or where comparisons to “SB” are allowed in lieu of the TAGM 4046 values. The 95<sup>th</sup> Percentile Background Numbers have been used by SEDA at other SEADs in evaluating closure status. Final results for carcinogenic PAHs (cPAHs) were also compared to a Benzo(a)pyrene TEQ limit of 10,000 µg/kg. The Benzo(a)pyrene TEQ is calculated by multiplying the concentration of each cPAH in a given sample by the appropriate TEQ multiplier (listed below), and then summing the results to obtain the corresponding TEQ for the cPAHs. The cPAHs and associated TEQ multipliers include the following:

- Benzo(a)pyrene = 1.0
- Dibenzo(a,h)anthracene = 1.0
- Benzo(a)anthracene = 0.1
- Benzo(b)fluoranthene = 0.1
- Indeno(1,2,3-cd)pyrene = 0.1
- Benzo(k)fluoranthene = 0.01
- Chrysene = 0.01

With exception of Benzo(a)pyrene (MDL of 18 µg/Kg), all PAHs were reported at levels below the Cleanup Goals. Benzo(a)pyrene data was adjusted based on the appropriate MDL if a sample was reported as non-detect (see Appendix B for STL memo and MDL list for all PAHs).

### 3.4.1 Area 1 Sampling and Analysis

A total of 154 final confirmation samples were collected following the excavation activities performed in Area 1. This includes 93 floor samples and 61 discrete perimeter samples. These samples were analyzed for the TAL metals arsenic, lead, and zinc (at a minimum). A total of 29 (19%) of the final confirmation samples were analyzed for the full suite of TAL metals (23 metals) and the 17 TCL PAHs. The analytical results, including a summary of maximum and average results for each compound, for all confirmation samples collected in Area 1 are included in Appendix B.

Based on a review of the Area 1 confirmatory data in comparison to the Site Cleanup Goals shown in Appendix B, exceedances were reported for two of the target metals (arsenic and zinc), 14 of the 20 non-target metal compounds, and 4 of the 17 target PAH compounds. Maximum



concentrations for the three target metals were reported as follows: 69.2 mg/kg for arsenic [versus (vs.) a Cleanup Goal of 8.24 mg/kg]; 382 mg/kg for lead (vs. a Cleanup Goal of 400 mg/kg); and 570 mg/kg for zinc (vs. a Cleanup Goal of 108.9 mg/kg). Minor exceedances were reported for 14 of the non-target metals with maximum concentrations reported as follows: aluminum (22,600 mg/kg); antimony (18.9 mg/kg); beryllium (2.3 mg/kg); cadmium (3.6 mg/kg); chromium (34 mg/kg); copper (48.6 mg/kg); iron (43,000 mg/kg); magnesium (61,900 mg/kg); nickel (52.7 mg/kg); potassium (2,590 mg/kg); selenium (19 mg/kg); silver (3.6 mg/kg); sodium (238 mg/kg); and thallium (26.3 mg/kg). The remaining six non-target metals: barium, calcium, cobalt, manganese, mercury, and vanadium were reported at levels below the Cleanup Goals. Maximum reported concentrations for the four PAHs that exceeded the Cleanup Goals included: benzo(a)pyrene (260 µg/kg vs. a Cleanup Goal of 61 µg/kg); dibenzo(a,h)anthracene (90 µg/kg vs. a Cleanup Goal of 14 µg/kg); benzo(b)fluoranthene (380 µg/kg vs. a cleanup goal of 224 µg/kg); and chrysene (420 µg/kg vs. a Cleanup Goal of 400 µg/kg). These elevated concentrations located at sample locations FX-073, PX-032, and PX-061 appeared to be randomly located and isolated from the location identified in the ESI at SS24-1 as containing elevated PAHs. No elevated concentrations were reported in the WESTON sample ID FX-055 for the TCL PAH's when correlated to the ESI sample SS24-1. The remaining 13 PAHs were reported at concentrations below the Cleanup Goals.

WESTON computed the average floor and perimeter results for each parameter and compared the results against the Site Cleanup Goals (refer to Appendix B). Based on a review of average results for the three target metals detected in Area 1, concentrations were reported as follows: 7.73 mg/kg for arsenic floor samples, 9.06 mg/kg for arsenic perimeter samples, 21 mg/kg for lead floor samples, 65 mg/kg for lead perimeter samples, 87.5 mg/kg for zinc floor samples, and 134.1 mg/kg for zinc perimeter samples. The Area 1 average for floor and bottom samples for arsenic, lead, and zinc is 8.4 mg/kg, 43 mg/kg, and 110.8 mg/kg respectively. Average results for all PAH's analyzed except for the parameter dibenzo(a,h)anthracene were reported at levels below the Site Cleanup Goals. The average concentration of dibenzo(a,h)anthracene was 26 µg/kg vs. a Cleanup Goal of 14 µg/kg. Total cPAHs were below the benzo(a)pyrene TEQ limit of 10,000 µg/kg limit based on the Area 1 average of 102 µg/kg.



### 3.4.2 Area 2 Sampling and Analysis

A total of 31 final confirmation samples were collected following the excavation activities performed in Area 2. This includes 15 floor samples and 16 discrete perimeter samples. These samples were analyzed for the target metals arsenic, lead, and zinc (at a minimum). A total of 6 (20%) of the final confirmation samples were analyzed for the full suite of TAL metals (23 metals) and the 17 TCL PAHs. The analytical results, including a summary of maximum and average results for each compound, for all confirmation samples collected in Area 2 are included in Appendix B.

Based on a review of the Area 2 confirmatory data in comparison to the Site Cleanup Goals shown in Appendix B, exceedances were reported for 2 of the target metals (arsenic and zinc), and for 11 of the 20 non-target metal compounds. No exceedances were reported for PAH compounds. Maximum concentrations for the three target metals were reported as follows: 6.12 mg/kg for arsenic (vs. a Cleanup Goal of 8.24 mg/kg); 49.8 mg/kg for lead (vs. a Cleanup Goal of 400 mg/kg); and 1216 mg/kg for zinc (vs. a Cleanup Goal of 108.9 mg/kg). Minor exceedances were reported for the 11 of the non-target metals with maximum concentrations reported as follows: aluminum (21,700 mg/kg); antimony (14 mg/kg); cadmium (3.6 mg/kg); chromium (34 mg/kg); copper (46.4 mg/kg); iron (39,200 mg/kg); nickel (52.5 mg/kg); potassium (2,550 mg/kg); selenium (19 mg/kg); silver (3.6 mg/kg); and thallium (26.3 mg/kg). The remaining nine non-target metals: barium, beryllium, calcium, cobalt, magnesium, manganese, mercury, sodium, and vanadium were reported at levels below the Cleanup Goals.

WESTON computed the average floor and perimeter results for each parameter and compared the results against the Site Cleanup Goals (refer to Appendix B). Based on a review of average results for the three target metals in Area 2, concentrations were reported as follows: 6.12 mg/kg for arsenic floor samples, 9.53 mg/kg for arsenic perimeter samples, 16 mg/kg for lead floor samples, 22 mg/kg for lead perimeter samples, 87.4 mg/kg for zinc floor samples, and 170.6 mg/kg for zinc perimeter samples. Average results for all PAHs were reported at levels below the Site Cleanup Goals. Total cPAHs were below the benzo(a)pyrene TEQ limit of 10,000 µg/kg limit based on the Area 1 average of 50 µg/kg.

### 3.4.3 Area 3 Sampling and Analyses

A total of 74 final confirmation samples were collected following excavation activities performed in Area 3. This includes 35 floor samples and 39 discrete perimeter samples. These samples were analyzed for the target metals arsenic, lead, and zinc (at a minimum). A total of 4 (6%) of the final confirmation samples were analyzed for the full suite of TAL metals (23 metals) and the 17 TCL PAHs. The quantity of samples analyzed for the complete suite of TAL metals and TCL PAHs was based on the original number of samples within the footprint of Area 3 (a total of 24 samples). While the four confirmation samples analyzed for the full suite of TAL metals and TCL PAHs represents only 17% of the initial samples, additional samples were not analyzed for the full TCL PAH suite (based on removal of the U-shaped berm) since the ESI and the initial/confirmatory data contained in this report for Area 3 did not indicate any elevated levels PAHs in and adjacent to the original footprint. The analytical results, including a summary of maximum and average results for each compound, for all confirmation samples collected in Area 3 are included in Appendix B.

Based on a review of the Area 3 confirmatory data in comparison to the Site Cleanup Goals shown in Appendix B, exceedances were reported for two of the target metals (arsenic and zinc), and for 5 of the 20 non-target metal compounds. No exceedances were reported for PAH compounds. Maximum concentrations for the three target metals were reported as follows: 19.7 mg/kg for arsenic (vs. a Cleanup Goal of 8.24 mg/kg); 394 mg/kg for lead (vs. a Cleanup Goal of 400 mg/kg); and 739 mg/kg for zinc (vs. a Cleanup Goal of 108.9 mg/kg). Minor exceedances were reported for five of the non-target metals with maximum concentrations reported as follows: antimony (12.7 mg/kg); cadmium (3.3 mg/kg); selenium (17 mg/kg); silver (3.3 mg/kg); and thallium (23.9 mg/kg). The remaining 15 non-target metals: aluminum, barium, beryllium, calcium, chromium, cobalt, copper, iron, magnesium, manganese, mercury, nickel, potassium, sodium, and vanadium were reported at levels below the Cleanup Goals.

WESTON computed the average floor and perimeter results for each parameter and compared the results against the Site Cleanup Goals (refer to Appendix B). Based on a review of the average results for the three target metals in Area 3, concentrations were reported as follows:

8.3 mg/kg for arsenic floor samples, 8.9 mg/kg for arsenic perimeter samples, 25 mg/kg for lead floor samples, 93 mg/kg for lead perimeter samples, 102.8 mg/kg for zinc floor samples, and 218.6 for zinc perimeter samples. Average results for all PAHs were reported at levels below the Site Cleanup Goals. Total cPAHs were below the benzo(a)pyrene TEQ limit of 10,000  $\mu\text{g}/\text{kg}$  limit based on the Area 1 average of 52  $\mu\text{g}/\text{kg}$ .

### **3.4.4 Waste Characterization Sampling**

Waste Disposal samples were utilized as the basis for characterizing excavated soil for off-site landfill disposal. All excavated material was stockpiled prior to transportation and off-site disposal. Representative waste disposal characterization samples were collected from each stockpile as 5-point composites.

A total of five samples (Sample ID No.'s SP-SS-019-FS through SP-SS-024-SS) were collected and analyzed for waste characterization. Each waste characterization sample was analyzed for toxicity characteristic leaching procedure metals analysis using EPA Method SW-846/1311/6010B, VOCs using EPA Method SW-846/1311/6010B, VOCs using EPA Method SW-846-3541/3540B/8270C, PCBs using EPA Method SW-846-3541/3540B/8082, and pesticides using EPA Method SW-846-3541/3540B/8081A. Waste characterization samples were also analyzed for reactivity-cyanide using EPA Method 7.3.3.2/9014, reactivity-sulfide using EPA Method 7.3.4.2/9034, corrosivity using EPA Method 9045C, and hydrogen ion concentration. No QC samples were collected from the waste characterizations samples.

The waste characterization analytical results from SEAD 24 did not exhibit any hazardous waste characteristics; therefore, the material was classified and profiled as a non-hazardous metals contaminated soil. A summary of waste characterization data is included in Appendix D.

## **3.5 TASK 5 - TRANSPORTATION AND DISPOSAL**

A total of 9,623.02 tons of non-hazardous metals and PAH contaminated soil was removed from the site between 12 December 2002 and 19 January 2006, as a result of the TCRA performed in Areas 1-3. Soil was shipped to the Seneca Meadows Landfill located in Waterloo, New York and

disposed of as cell material. A summary containing the destination, hauler name, truck identification number, landfill tare weight, landfill gross weight, load weight, manifest number, and material type is included in Appendix E. Manifests are on file with SEDA and can be submitted under separate cover upon request.

### **3.6 TASK 6 - SITE RESTORATION**

The SEAD 24 site is located in a remote area and the surrounding vegetation consists of heavily overgrown shrubs and trees. Based on the limited removal depth (6 inches in most areas to a maximum of 2 ft) and no planned future use for this area, site restoration was limited to removal of temporary erosion control barriers. As a result, neither backfilling nor seeding were performed.

### **3.7 TASK 7 - DEMOBILIZATION**

Final demobilization was performed on 20 January 2006, following completion of T&D activities. Upon completion of soil removal activities, USACE inspected the excavation areas within SEAD 24 to ensure that the TCRA project objectives were satisfactorily completed based on the sitework performed.

### **3.8 TASK 8 – TCRA COST SUMMARY**

The total project cost associated with completion of the SEAD TCRA is \$721,575. This total includes all effort to complete the TCRA including the following major items: work plans, mobilization/demobilization, site preparation, excavation, drilling, sampling and analytical, T&D, site restoration, site and home office management, final reporting, and project closeout. A complete breakout of total project costs by task is included in Appendix F.

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**SECTION 4**

**SUMMARY OF RESULTS**

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#### 4. SUMMARY OF RESULTS

During the TCRA conducted at SEAD 24, WESTON removed a total of 5,376 cy (9,623.02 tons) of soil from a total area of 3.14 acres (136,800 sf) represented by Areas 1 (87,600 sf), 2 (13,700 sf), and 3 (35,500 sf) vs. the projected *Final Action Memorandum and Decision Document* (Parsons, 2002) volume of 1,990 cy and planned area of 2.3 acres (98,300 sf). Soils were excavated to the minimum required depth of 6 inches in accordance with the *Final Action Memorandum and Decision Document* (Parsons, 2002), and exceeded this depth at over 47% of the site (based on 63 out of 133 grids exceeding the 6 inch depth requirement). In addition, the U-Shaped Berm (not previously characterized in the ESI) was found to contain elevated levels of arsenic and lead and was removed to a minimum depth of 6 inches bgs. Based on the review of data from 259 confirmatory soil samples collected as part of this TCRA, Areas 1, 2, and 3 have been sufficiently delineated, and residual concentrations of metals and PAHs in the soil previously identified in the ESI as containing elevated levels in surface soils has been removed to eliminate any potential threat to human health and the environment. Figure 3-1 references all confirmatory sample IDs, sample locations, excavation limits, and removal depths.

Based on the confirmatory data, the average concentration of arsenic in floor samples within Areas 1, 2, and 3 is below the Cleanup Goal of 8.24 mg/kg while the average concentration of arsenic in perimeter samples is just slightly above the Cleanup Goal in all three areas (8.88 mg/kg to 9.06 mg/kg). The same pattern is noted for floor and perimeter samples analyzed for zinc. The average concentration of zinc in floor samples within Areas 1, 2, and 3 is below the Cleanup Goal of 108.9 while the average concentration of zinc in perimeter samples is above the Cleanup Goal in all three areas (134.1 mg/kg to 218.6 mg/kg). No exceedances were reported for lead or for PAHs in reviewing sitewide averages vs. Cleanup Goals.

Limited soil removal was performed in Area 2 while extensive sampling, investigative borings, and excavations were required to complete soil removal activities in Areas 1 and 3. Within Areas 1 and 3, elevated metals concentrations were predominately found in the northeast section of each area which resulted in multiple rounds of excavations and sampling efforts. A detailed summary of the site-wide data collected during this TCRA (including a summary of maximum



and average results) is presented in Appendix B. All sample locations (including boring locations) where exceedances were reported for the target metals and PAHs and excavation limits are shown in Figure 3-1. A comparison summary between average target metal results obtained from the ESI, TCRA, and boring data is presented in Table 4-1.

**Table 4-1**

**Summary Comparison of Average Results from ESI/TCRA/Boring Data**

| Metals  | Cleanup Goal (mg/Kg) | Area 1 |                   |                 | Area 2 |                   |                 | Area 3 |                   |                 |
|---------|----------------------|--------|-------------------|-----------------|--------|-------------------|-----------------|--------|-------------------|-----------------|
|         |                      | ESI    | TCRA <sup>2</sup> | Borings         | ESI    | TCRA <sup>2</sup> | Borings         | ESI    | TCRA <sup>2</sup> | Borings         |
| Arsenic | 8.24                 | 19.95  | 8.4               | 6.5             | 7.73   | 7.82              | 14.4            | 22.5   | 7.66              | 5.35            |
| Lead    | 400                  | 63.5   | 43                | 155.85          | 58.8   | 19                | NA <sup>1</sup> | 23.25  | 59                | 106.9           |
| Zinc    | 108.9                | 112.9  | 110.8             | NA <sup>1</sup> | 508    | 129               | NA <sup>1</sup> | 105.4  | 160.7             | NA <sup>1</sup> |

**Notes:**

<sup>1</sup> Data not available for parameter identified

<sup>2</sup> Shaded areas represent existing confirmatory data based on completion of the TCRA  
 NA = Not Applicable

It is recommended that this site be evaluated for closure and/or transfer status as the TCRA has been performed in accordance with the ESI and *Final Action Memorandum and Decision Document* (Parsons 2002), and the potential threat to human health and the environment posed by the formerly impacted site surface soils has been eliminated.

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**SECTION 5**

**CONCLUSION**

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## 5. CONCLUSION

This Final Completion Report documents completion of the TCRA conducted at the SEAD 24 SWMU in accordance with the *Final Action Memorandum and Decision Document* (Parsons, 2002). During this TCRA, WESTON excavated soil from Areas 1, 2 and 3 to a minimum depth of 6 inches, and reduced residual contaminant concentrations of the target metals (arsenic, lead, and zinc) and PAHs in accordance with ESI and *Final Action Memorandum and Decision Document* (Parsons, 2002) objectives. The soil removed during excavation was transported off-site and disposed of as non-hazardous metals and PAH contaminated soil at the Seneca Meadows Landfill in Waterloo, New York.

The three AOCs (Excavation Areas 1, 2, and 3) identified in the ESI and *Final Action Memorandum and Decision Document* (Parsons, 2002) have been properly delineated through confirmatory sampling to the vertical and horizontal extents required, the surface soils have been removed to the 6 inch minimum depth required (a maximum depth of 2 ft achieved in some areas), the U-Shaped berm has been completely removed, and the elevated levels of target constituents have been reduced in the SEAD 24 soils as a result of this TCRA. Consequently, the potential threat to human health and the environment posed by the formerly impacted site surface soils has been reduced and/or eliminated through the source reduction and removal efforts completed as part of this TCRA. In addition, no apparent CERCLA releases were identified. Based on completion of the TCRA and the results contained herein, it is recommended that the site be evaluated for no further action. In addition, it is intended that this Completion Report, in conjunction with the *Proposed Remedial Action Plan* (to be submitted under separate cover by USACE) serve as the basis for the ROD, and the site be considered by USACE, SEDA, NYSDEC, and EPA for closure and/or transfer status.

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**SECTION 6**

**REFERENCES**

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## 6. REFERENCES

New York State Department of Environmental Conservation (NYSDEC) *Technical and Administrative Guidance Memorandum No. 4046, Determination of Soil Cleanup Objectives and Cleanup Levels*, January 1994.

Parsons, *Final Action Memorandum and Decision Document, Time-Critical Removal Actions, Four Metals Sites (SWMU's SEAD-24, 50/54, and 67)*, August 2002.

United States Army Corps of Engineers (USACE), *USACE Requirements for the Preparation of Sampling and Analysis Plans*, EM-200-1-3, (1994).

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United States Army Corps of Engineers (USACE), Omaha District, *Final Scope of Work for Rapid Response Action – Metal Sites – SEADS 24, 50/54, & 67, Seneca Army Depot, Romulus, NY*, 30 September 2002.

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United States Environmental Protection Agency (EPA), Office of Solid Waste and Emergency Response, *Directive #9200.4-27, Clarification to the 1994 Revised Interim Soil Lead Guidance for CERCLA Sites and RCRA Corrective Action Facilities*, EPA/540/F-98/030, August 1998 PB98-963244.

Weston Solutions Inc. (WESTON), *Final Work Plan, Metals Sites – SEADS 50/54, 24, & 67*, November 2002a.

Weston Solutions, Inc. (WESTON), *Chemical Sampling and Analysis Plan, Metals Sites – SEADS 50/54, 24, & 67*, November 2002b.

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**APPENDIX A**

**PHOTO LOG SUMMARY**

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Final Completion Removal Report  
Time Critical Removal Action  
Metals Site - SEAD 24

**PHOTO DOCUMENTATION**

| <b>Photo ID</b> | <b>Photo Description</b>  |
|-----------------|---|
| 120502(10)a-24  | Area 1 - Pre-excavation, viewing south from West Kendaia Rd.                                      |
| 120502(11)a-24  | Area 1 - Pre-excavation, viewing south from West Kendaia Rd.                                      |
| 120502(13)a-24  | Area 1 - Pre-excavation, viewing southwest from West Kendaia Rd (berm in background)              |
| MVC-014S        | Area 1 - Northeast corner, example of root depth  |
| MVC-015S        | Area 1 - Example of root depth and flagged location for floor sample                              |
| MVC-018S        | Area 1 - Example of clayey/silty soil following removal of 6-inch surface soil                    |
| MVC-021S        | Area 1 - Excavated soils stockpiled in northwest corner following removal of 6-inch surface soils |
| MVC-024S        | Area 1 - View from southwest corner of area (backside of berm) following removal of surface soils |
| MVC-025S        | Area 1 - View from southwest corner of area (backside of berm) during excavation of surface soils |
| MVC-028S        | Area 1 - Example of clayey/silty soil   |
| MVC-029S        | Area 1 - Northeastern corner of excavation limit  |
| 121002(8)a-24   | Area 1 - Limit of excavation along perimeter  |
| 121202(13)a-24  | Area 1 - Northwest excavation limit (ongoing soil removal)  |
| 121202(14)a-24  | Area 1 - Example of clayey/silty soil, breaking away in clumps                                    |
| 121202(2)a-24   | Area 1 - Excavation underway in northwest corner of area  |
| 121202(3)a-24   | Area 1 - Excavation underway in northwest corner of area  |
| 121202(4)a-24   | Area 1 - Example of root depth following 6-inch surface soil removal                              |
| 121202(6)a-24   | Area 1 - Stockpiled soils in northwest corner   |
| 121202(7)a-24   | Area 1 - View from northeast corner, looking south of completed excavation                        |
| 121202(1)a-24   | Area 1 - Loading soils from northwest corner of excavation, south of Kendaia Road                 |
| 121202(8)a-24   | Area 1 - Loadout of soils in northwest corner of area   |
| 121202(9)a-24   | Area 1 - Ponding due to snow melt   |
| 121202(10)a-24  | Area 1 - Ponding due to snow melt, Monitoring Well in background                                  |
| 121202(5)a-24   | Area 1 - Ponding due to snow melt   |
| MVC-026S        | Area 2 - Pre-excavation view from southern limit following vegetative clearing effort             |
| MVC-022S        | Area 2 - RTK GPS survey of excavation limits  |
| MVC-020S        | Area 3 - Excavated material stockpiled within limits of excavation, cleared area to north         |

## PHOTO DOCUMENTATION SEAD 24



1.) 120502(10)a-24



2.) 120502(11)a-24



3.) 120502(13)a-24



4.) MVC-014S



## PHOTO DOCUMENTATION SEAD 24



5.) MVC-015S



6.) MVC-018S



7.) MVC-021S



8.) MVC-024S



## PHOTO DOCUMENTATION SEAD 24



9.) MVC-025S



10.) MVC-028S



11.) MVC-029S



12.) 121002(8)a-24



## PHOTO DOCUMENTATION SEAD 24



13.) 121202(13)a-24

14.) 121202(14)a-24



15.) 121202(2)a-24

16.) 121202(3)a-24



## PHOTO DOCUMENTATION SEAD 24



17.) 121202(4)a-24



18.) 121202(6)a-24



19.) 121202(7)a-24



20.) 121202(1)a-24

## PHOTO DOCUMENTATION SEAD 24



21.) 121202(8)a-24



22.) 121202(9)a-24



23.) 121202(10)a-24



24.) 121202(5)a-24



## PHOTO DOCUMENTATION SEAD 24



25.) MVC-026S



26.) MVC-022S



27.) MVC-020S

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**APPENDIX B**

**ANALYTICAL RESULTS  
(AREAS 1, 2, AND 3)**

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## TABLE NOTES

1. The Cleanup goal is based on the New York Technical Administrative Guidance Memorandum (TAGM) No. 4046 Recommended Soil Cleanup Objectives. Values denoted as Site Background ("SB") in TAGM 4046 were compared with the highlighted values (95th percentile of Seneca Army Depot (SEDA) Site Background) in lieu of the TAGM "SB" since no background cleanup objectives exist for certain parameters.
2. U.S. Environmental Protection Agency Risk Based Residential Cleanup Goal for lead
3. Where exceedances for individual PAHs exist, evaluation of the Benzo(a)pyrene Toxicity Equivalent (TEQ) for total carcinogenic PAHs (cPAHs) would not exceed the 10,000 µg/kg limit for total cPAHs for any sample.
4. Benzo(a)pyrene TEQ = for carcinogenic PAHs calculated by multiplying the concentration of the individual cPAHs by the following factors:
  - Benzo(a)pyrene = 1.0
  - Dibenzo(a,h)anthracene = 1.0
  - Benzo(a)anthracene = 0.1
  - Benzo(b)fluoranthene = 0.1
  - Indeno(1,2,3-cd)pyrene = 0.1
  - Benzo(k)fluoranthene = 0.01
  - Chrysene = 0.01

**mg/kg**= milligram per kilogram

**µg/kg**= microgram per kilogram

**B**= Result is less than the Contract Data Requirements List/Reporting Limit (RL), but  $\geq$  to the Instrument Detection Limit/method detection limit (MDL).


**H**= Alternate peak selection upon analytical review


**J**= Result is less than the RL, but greater than or equal to the MDL.

**M**= Manually integrated compound.

**N**= Matrix spike/matrix spike duplicate (MS/MSD): Spike recovery exceeds the upper or lower control limits.

**U**= Analyte was not detected at or above the MDLs and RLs (see STL Memo for MDL's)

 95th percentile of SEDA Site Background

 Result Exceeds Cleanup Criteria

**Memorandum**

Date: February 23, 2004

To: Diane Quigley

From: Johanna Dubauskas

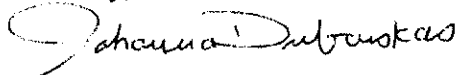
Subject: Semi-volatiles Detection Limits

Dear Ms. Quigley,

This memo is to provide information regarding the presence of semi-volatile compounds in samples from Weston Solutions' Seneca SEAD 54 and 24 projects. After review of the mass spectrometric data, the laboratory is confident that they can report results for the specific PAH compounds down from the originally reported "Reporting Limit", i.e. PQL, to its Method Detection Limit (MDL). The MDL's for all semi-volatile compounds reported out for this project are listed on the attached Method Blank Report. The MDL's on this Method Blank Report should be adjusted for each sample, for analytical dilutions and it's percent solids corrected.

I hope this serves as adequate information for your purposes. If you require any further information or have any questions, please feel free to contact me directly at 203-944-1305.

Sincerely,

  
Johanna Dubauskas

Job Number.: 203100

QUALITY CONTROL RESULTS

Report Date.: 02/23/2004

CUSTOMER: Weston Solutions, Inc.

PROJECT: SENECA ARMY DEPOT 50

ATTN:

| QC Type | Description | Reag. Code | Lab ID | Dilution Factor | Date | Time |
|---------|-------------|------------|--------|-----------------|------|------|
|---------|-------------|------------|--------|-----------------|------|------|

Test Method.....: 8270C

Equipment Code....: MSP

Analyst...: jdW

Method Description.: Semivolatile Organics

Batch.....: 14772

|    |              |  |            |  |            |      |
|----|--------------|--|------------|--|------------|------|
| MB | Method Blank |  | 14733 -001 |  | 02/25/2003 | 1934 |
|----|--------------|--|------------|--|------------|------|

| Parameter/Test Description          | Units | QC Result | QC Result | True Value | Orig. Value | QC Calc. | * Limits | F |
|-------------------------------------|-------|-----------|-----------|------------|-------------|----------|----------|---|
| Pyridine, Solid                     | ug/Kg | 56.00     | U         |            |             |          |          |   |
| Aniline, Solid                      | ug/Kg | 42.00     | U         |            |             |          |          |   |
| Phenol, Solid                       | ug/Kg | 24.00     | U         |            |             |          |          |   |
| Bis(2-chloroethyl)ether, Solid      | ug/Kg | 103.00    | U         |            |             |          |          |   |
| 1,3-Dichlorobenzene, Solid          | ug/Kg | 16.00     | U         |            |             |          |          |   |
| 1,4-Dichlorobenzene, Solid          | ug/Kg | 19.00     | U         |            |             |          |          |   |
| 1,2-Dichlorobenzene, Solid          | ug/Kg | 18.00     | U         |            |             |          |          |   |
| Benzyl alcohol, Solid               | ug/Kg | 23.00     | U         |            |             |          |          |   |
| 2-Methylphenol, Solid               | ug/Kg | 16.00     | U         |            |             |          |          |   |
| 2,2-oxybis (1-chloropropane), Solid | ug/Kg | 18.00     | U         |            |             |          |          |   |
| n-Nitroso-di-n-propylamine, Solid   | ug/Kg | 14.00     | U         |            |             |          |          |   |
| Hexachloroethane, Solid             | ug/Kg | 21.00     | U         |            |             |          |          |   |
| 4-Methylphenol, Solid               | ug/Kg | 18.00     | U         |            |             |          |          |   |
| 2-Chlorophenol, Solid               | ug/Kg | 24.00     | U         |            |             |          |          |   |
| Nitrobenzene, Solid                 | ug/Kg | 25.00     | U         |            |             |          |          |   |
| Bis(2-chloroethoxy)methane, Solid   | ug/Kg | 14.00     | U         |            |             |          |          |   |
| 1,2,4-Trichlorobenzene, Solid       | ug/Kg | 25.00     | U         |            |             |          |          |   |
| Benzoic acid, Solid                 | ug/Kg | 662.00    | U         |            |             |          |          |   |
| Isophorone, Solid                   | ug/Kg | 23.00     | U         |            |             |          |          |   |
| 2,4-Dimethylphenol, Solid           | ug/Kg | 32.00     | U         |            |             |          |          |   |
| Hexachlorobutadiene, Solid          | ug/Kg | 33.00     | U         |            |             |          |          |   |
| Naphthalene, Solid                  | ug/Kg | 32.00     | U         |            |             |          |          |   |
| 2,4-Dichlorophenol, Solid           | ug/Kg | 30.00     | U         |            |             |          |          |   |
| 4-Chloroaniline, Solid              | ug/Kg | 25.00     | U         |            |             |          |          |   |
| 2,4,6-Trichlorophenol, Solid        | ug/Kg | 18.00     | U         |            |             |          |          |   |
| 2,4,5-Trichlorophenol, Solid        | ug/Kg | 10.00     | U         |            |             |          |          |   |
| Hexachlorocyclopentadiene, Solid    | ug/Kg | 45.00     | U         |            |             |          |          |   |
| 2-Methylnaphthalene, Solid          | ug/Kg | 28.00     | U         |            |             |          |          |   |
| 2-Nitroaniline, Solid               | ug/Kg | 22.00     | U         |            |             |          |          |   |
| 2-Chloronaphthalene, Solid          | ug/Kg | 19.00     | U         |            |             |          |          |   |
| 4-Chloro-3-methylphenol, Solid      | ug/Kg | 31.00     | U         |            |             |          |          |   |
| 2,6-Dinitrotoluene, Solid           | ug/Kg | 14.00     | U         |            |             |          |          |   |
| 2-Nitrophenol, Solid                | ug/Kg | 28.00     | U         |            |             |          |          |   |
| 3-Nitroaniline, Solid               | ug/Kg | 18.00     | U         |            |             |          |          |   |
| Dimethyl phthalate, Solid           | ug/Kg | 15.00     | U         |            |             |          |          |   |
| 2,4-Dinitrophenol, Solid            | ug/Kg | 51.00     | U         |            |             |          |          |   |
| Acenaphthylene, Solid               | ug/Kg | 11.00     | U         |            |             |          |          |   |
| 2,4-Dinitrotoluene, Solid           | ug/Kg | 19.00     | U         |            |             |          |          |   |
| Acenaphthene, Solid                 | ug/Kg | 15.00     | U         |            |             |          |          |   |
| Dibenzofuran, Solid                 | ug/Kg | 15.00     | U         |            |             |          |          |   |
| 4-Nitrophenol, Solid                | ug/Kg | 85.00     | U         |            |             |          |          |   |
| Fluorene, Solid                     | ug/Kg | 20.00     | U         |            |             |          |          |   |
| 4-Nitroaniline, Solid               | ug/Kg | 24.00     | U         |            |             |          |          |   |
| 4-Bromophenyl phenyl ether, Solid   | ug/Kg | 13.00     | U         |            |             |          |          |   |
| Hexachlorobenzene, Solid            | ug/Kg | 19.00     | U         |            |             |          |          |   |
| Diethyl phthalate, Solid            | ug/Kg | 17.00     | U         |            |             |          |          |   |
| 4-Chlorophenyl phenyl ether, Solid  | ug/Kg | 16.00     | U         |            |             |          |          |   |
| Pentachlorophenol, Solid            | ug/Kg | 43.00     | U         |            |             |          |          |   |
| n-Nitrosodiphenylamine, Solid       | ug/Kg | 16.00     | U         |            |             |          |          |   |
| 4,6-Dinitro-2-methylphenol, Solid   | ug/Kg | 28.00     | U         |            |             |          |          |   |

MRL Values



|                     |                         |                          |
|---------------------|-------------------------|--------------------------|
| Job Number.: 203100 | QUALITY CONTROL RESULTS | Report Date.: 02/23/2004 |
|---------------------|-------------------------|--------------------------|

|                                  |                               |       |
|----------------------------------|-------------------------------|-------|
| CUSTOMER: Weston Solutions, Inc. | PROJECT: SENECA ARMY DEPOT 50 | ATTN: |
|----------------------------------|-------------------------------|-------|

| QC Type | Description | Reag. Code | Lab ID | Dilution Factor | Date | Time |
|---------|-------------|------------|--------|-----------------|------|------|
|---------|-------------|------------|--------|-----------------|------|------|

|    |              |  |            |  |            |      |
|----|--------------|--|------------|--|------------|------|
| MB | Method Blank |  | 14733 -001 |  | 02/25/2003 | 1934 |
|----|--------------|--|------------|--|------------|------|

| Parameter/Test Description        | Units | QC Result         | QC Result | True Value | Orig. Value | QC Calc. | * Limits | F |
|-----------------------------------|-------|-------------------|-----------|------------|-------------|----------|----------|---|
| Phenanthrene, Solid               | ug/Kg | 24.00             | U         |            |             |          |          |   |
| Anthracene, Solid                 | ug/Kg | 12.00             | U         |            |             |          |          |   |
| Di-n-butyl phthalate, Solid       | ug/Kg | <del>35.22</del>  | U         |            |             |          |          |   |
| Fluoranthene, Solid               | ug/Kg | 22.00             | U         |            |             |          |          |   |
| Pyrene, Solid                     | ug/Kg | 19.00             | U         |            |             |          |          |   |
| Butyl benzyl phthalate, Solid     | ug/Kg | <del>21.88</del>  | U         |            |             |          |          |   |
| Benzo(a)anthracene, Solid         | ug/Kg | 15.00             | U         |            |             |          |          |   |
| Chrysene, Solid                   | ug/Kg | 17.00             | U         |            |             |          |          |   |
| 3,3-Dichlorobenzidine, Solid      | ug/Kg | 34.00             | U         |            |             |          |          |   |
| Bis(2-ethylhexyl)phthalate, Solid | ug/Kg | <del>105.19</del> | U         |            |             |          |          |   |
| Di-n-octyl phthalate, Solid       | ug/Kg | 12.00             | U         |            |             |          |          |   |
| Benzo(b)fluoranthene, Solid       | ug/Kg | 38.00             | U         |            |             |          |          |   |
| Benzo(k)fluoranthene, Solid       | ug/Kg | 39.00             | U         |            |             |          |          |   |
| Benzo(a)pyrene, Solid             | ug/Kg | 16.00             | U         |            |             |          |          |   |
| Indeno(1,2,3-cd)pyrene, Solid     | ug/Kg | 18.00             | U         |            |             |          |          |   |
| Dibenzo(a,h)anthracene, Solid     | ug/Kg | 18.00             | U         |            |             |          |          |   |
| Benzo(ghi)perylene, Solid         | ug/Kg | 17.00             | U         |            |             |          |          |   |

*MDL Values*

*JB  
2/23/04*

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**MAXIMUM FINAL RESULTS FOR SOIL**

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**Maximum Final Results for SEAD 24 Soil**  
 Time Critical Removal Action  
 SENECA Army Depot

**AREA 1**

| Compound                        | Cleanup Goal <sup>1</sup> | Total No. of Samples Collected | Floor Samples            |                    |            | Perimeter Samples        |                    |            |
|---------------------------------|---------------------------|--------------------------------|--------------------------|--------------------|------------|--------------------------|--------------------|------------|
|                                 |                           |                                | No. of Samples Collected | No. of Exceedences | Max Result | No. of Samples Collected | No. of Exceedences | Max Result |
| <b>Metals (mg/kg)</b>           |                           |                                |                          |                    |            |                          |                    |            |
| Aluminum                        | 19,200                    | 27                             | 15                       | 1                  | 22,600     | 12                       | 0                  | 17,200     |
| Antimony                        | 5.9                       | 27                             | 15                       | 9                  | 11.8       | 12                       | 7                  | 18.9       |
| <b>Arsenic</b>                  | 8.24                      | 153                            | 92                       | 18                 | 69.2       | 61                       | 21                 | 32.5       |
| Barium                          | 300                       | 27                             | 15                       | 0                  | 116        | 12                       | 0                  | 148        |
| Beryllium                       | 1.1                       | 27                             | 15                       | 0                  | 1.2        | 12                       | 1                  | 2.3        |
| Cadmium                         | 2.3                       | 27                             | 15                       | 11                 | 3.0        | 12                       | 8                  | 3.6        |
| Calcium                         | 120,500                   | 27                             | 15                       | 0                  | 13,700     | 12                       | 0                  | 92,900     |
| Chromium                        | 29                        | 27                             | 15                       | 2                  | 34         | 12                       | 0                  | 29         |
| Cobalt                          | 30                        | 27                             | 15                       | 0                  | 18         | 12                       | 0                  | 15         |
| Copper                          | 29.6                      | 27                             | 14                       | 2                  | 37.1       | 12                       | 5                  | 48.6       |
| Iron                            | 35,550                    | 27                             | 14                       | 1                  | 43,000     | 12                       | 0                  | 32,300     |
| <sup>2</sup> Lead               | 400                       | 153                            | 92                       | 0                  | 107        | 61                       | 0                  | 382        |
| Magnesium                       | 21,500                    | 27                             | 15                       | 0                  | 6,390      | 12                       | 1                  | 61,900     |
| Manganese                       | 1,056                     | 27                             | 15                       | 0                  | 805        | 12                       | 0                  | 893        |
| Mercury                         | 0.1                       | 27                             | 15                       | 0                  | 0.08       | 12                       | 0                  | 0.07       |
| Nickel                          | 48.9                      | 27                             | 15                       | 1                  | 52.7       | 12                       | 2                  | 50.7       |
| Potassium                       | 2,343                     | 27                             | 15                       | 1                  | 2,430      | 12                       | 2                  | 2,590      |
| Selenium                        | 2                         | 27                             | 15                       | 10                 | 16         | 12                       | 10                 | 19         |
| Silver                          | 0.763                     | 27                             | 15                       | 5                  | 2.90       | 12                       | 10                 | 3.60       |
| Sodium                          | 170.3                     | 27                             | 15                       | 0                  | 93.8       | 12                       | 1                  | 238.0      |
| Thallium                        | 0.67                      | 27                             | 15                       | 15                 | 22.1       | 12                       | 12                 | 26.3       |
| Vanadium                        | 150                       | 27                             | 15                       | 0                  | 32         | 12                       | 0                  | 28         |
| <b>Zinc</b>                     | 108.9                     | 154                            | 93                       | 12                 | 267.0      | 61                       | 22                 | 570.0      |
| <b><sup>3</sup>PAHs (ug/Kg)</b> |                           |                                |                          |                    |            |                          |                    |            |
| 2-Methylnaphthalene             | 36,400                    | 29                             | 16                       | 0                  | 62 U       | 13                       | 0                  | 140        |
| Acenaphthene                    | 50,000                    | 29                             | 16                       | 0                  | 64 U       | 13                       | 0                  | 75         |
| Acenaphthylene                  | 41,000                    | 29                             | 16                       | 0                  | 66 J       | 13                       | 0                  | 55         |
| Anthracene                      | 50,000                    | 29                             | 16                       | 0                  | 64 J       | 13                       | 0                  | 120 J      |
| Benzo(ghi)perylene              | 50,000                    | 29                             | 16                       | 0                  | 170 J      | 13                       | 0                  | 85         |
| Fluoranthene                    | 50,000                    | 29                             | 16                       | 0                  | 480        | 13                       | 0                  | 790        |
| Fluorene                        | 50,000                    | 29                             | 16                       | 0                  | 50 U       | 13                       | 0                  | 100        |
| Naphthalene                     | 13,000                    | 29                             | 16                       | 0                  | 66 U       | 13                       | 0                  | 160        |
| Phenanthrene                    | 50,000                    | 29                             | 16                       | 0                  | 230 J      | 13                       | 0                  | 550        |
| Pyrene                          | 50,000                    | 29                             | 16                       | 0                  | 500        | 13                       | 0                  | 760        |
| Benzo(a)pyrene                  | 61                        | 29                             | 16                       | 3                  | 260 J      | 13                       | 2                  | 84 J       |
| Dibenzo(a,h)anthracene          | 14                        | 29                             | 16                       | 15                 | 81 J       | 13                       | 12                 | 90         |
| Benzo(a)anthracene              | 224                       | 29                             | 16                       | 1                  | 270 J      | 13                       | 1                  | 380 J      |
| Benzo(b)fluoranthene            | 1,100                     | 29                             | 16                       | 0                  | 220 JH     | 13                       | 0                  | 280 JH     |
| Indeno(1,2,3-cd)pyrene          | 3,200                     | 29                             | 16                       | 0                  | 160 J      | 13                       | 0                  | 90         |
| Benzo(k)fluoranthene            | 1,100                     | 29                             | 16                       | 0                  | 230 J      | 13                       | 0                  | 430 J      |
| Chrysene                        | 400                       | 29                             | 16                       | 0                  | 310 J      | 13                       | 1                  | 420 J      |
| <sup>4</sup> Benzo(a)pyrene TEQ | 10,000                    | 28                             | 15                       | 0                  | 401        | 13                       | 0                  | 468        |

**Maximum Final Results for SEAD 24 Soil**  
 Time Critical Removal Action  
 SENECA Army Depot

**AREA 2**

| Compound                        | Cleanup Goal <sup>1</sup> | Total No. of Samples Collected | Floor Samples            |                    |            | Perimeter Samples        |                    |            |
|---------------------------------|---------------------------|--------------------------------|--------------------------|--------------------|------------|--------------------------|--------------------|------------|
|                                 |                           |                                | No. of Samples Collected | No. of Exceedences | Max Result | No. of Samples Collected | No. of Exceedences | Max Result |
| <b>Metals (mg/kg)</b>           |                           |                                |                          |                    |            |                          |                    |            |
| Aluminum                        | 19,200                    | 6                              | 3                        | 1                  | 21,700     | 3                        | 0                  | 19,000     |
| Antimony                        | 5.9                       | 6                              | 3                        | 3                  | 14.0       | 3                        | 3                  | 13.9       |
| <b>Arsenic</b>                  | 8.24                      | 31                             | 15                       | 1                  | 8.3        | 16                       | 5                  | 24         |
| Barium                          | 300                       | 6                              | 3                        | 0                  | 114        | 3                        | 0                  | 119        |
| Beryllium                       | 1.1                       | 6                              | 3                        | 0                  | 1.1        | 3                        | 0                  | 1.0        |
| Cadmium                         | 2.3                       | 6                              | 3                        | 3                  | 3.6        | 3                        | 3                  | 3.6        |
| Calcium                         | 120,500                   | 6                              | 3                        | 0                  | 71,700     | 3                        | 0                  | 10,800     |
| Chromium                        | 29                        | 6                              | 3                        | 1                  | 34         | 3                        | 0                  | 25         |
| Cobalt                          | 30                        | 6                              | 3                        | 0                  | 19         | 3                        | 0                  | 14         |
| Copper                          | 29.6                      | 6                              | 3                        | 0                  | 24.8       | 3                        | 1                  | 46.4       |
| Iron                            | 35,550                    | 6                              | 3                        | 1                  | 39,200     | 3                        | 0                  | 30,500     |
| <sup>2</sup> Lead               | 400                       | 31                             | 15                       | 0                  | 25.1       | 16                       | 0                  | 49.8       |
| Magnesium                       | 21,500                    | 6                              | 3                        | 0                  | 7,110      | 3                        | 0                  | 6,410      |
| Manganese                       | 1,056                     | 6                              | 3                        | 0                  | 677        | 3                        | 0                  | 624        |
| Mercury                         | 0.1                       | 6                              | 3                        | 0                  | 0.06       | 3                        | 0                  | 0.10       |
| Nickel                          | 48.9                      | 6                              | 3                        | 1                  | 52.5       | 3                        | 1                  | 52.5       |
| Potassium                       | 2,343                     | 6                              | 3                        | 0                  | 2,270      | 3                        | 1                  | 2,550      |
| Selenium                        | 2                         | 6                              | 3                        | 3                  | 19         | 3                        | 2                  | 19         |
| Silver                          | 0.763                     | 6                              | 3                        | 3                  | 3.60       | 3                        | 3                  | 3.60       |
| Sodium                          | 170.3                     | 6                              | 3                        | 0                  | 128.0      | 3                        | 0                  | 96.4       |
| Thallium                        | 0.67                      | 6                              | 3                        | 3                  | 26.3       | 3                        | 3                  | 26.1       |
| Vanadium                        | 150                       | 6                              | 3                        | 0                  | 28         | 3                        | 0                  | 30         |
| <b>Zinc</b>                     | 108.9                     | 31                             | 15                       | 3                  | 154.0      | 16                       | 4                  | 1,216.0    |
| <b><sup>3</sup>PAHs (µg/kg)</b> |                           |                                |                          |                    |            |                          |                    |            |
| 2-Methylnaphthalene             | 36,400                    | 6                              | 3                        | 0                  | 34 U       | 3                        | 0                  | 36 U       |
| Acenaphthene                    | 50,000                    | 6                              | 3                        | 0                  | 18 U       | 3                        | 0                  | 19 U       |
| Acenaphthylene                  | 41,000                    | 6                              | 3                        | 0                  | 13 U       | 3                        | 0                  | 14 U       |
| Anthracene                      | 50,000                    | 6                              | 3                        | 0                  | 15 U       | 3                        | 0                  | 15 U       |
| Benzo(ghi)perylene              | 50,000                    | 6                              | 3                        | 0                  | 21 U       | 3                        | 0                  | 22 U       |
| Fluoranthene                    | 50,000                    | 6                              | 3                        | 0                  | 27 U       | 3                        | 0                  | 28 U       |
| Fluorene                        | 50,000                    | 6                              | 3                        | 0                  | 24 U       | 3                        | 0                  | 25 U       |
| Naphthalene                     | 13,000                    | 6                              | 3                        | 0                  | 39 U       | 3                        | 0                  | 41 U       |
| Phenanthrene                    | 50,000                    | 6                              | 3                        | 0                  | 29 U       | 3                        | 0                  | 31 U       |
| Pyrene                          | 50,000                    | 6                              | 3                        | 0                  | 23 U       | 3                        | 0                  | 24 U       |
| Benzo(a)pyrene                  | 61                        | 6                              | 3                        | 0                  | 19 U       | 3                        | 0                  | 20 U       |
| Dibenzo(a,h)anthracene          | 14                        | 6                              | 3                        | 3                  | 22 U       | 3                        | 3                  | 23 U       |
| Benzo(a)anthracene              | 224                       | 6                              | 3                        | 0                  | 18 U       | 3                        | 0                  | 19 U       |
| Benzo(b)fluoranthene            | 1,100                     | 6                              | 3                        | 0                  | 46 U       | 3                        | 0                  | 48 U       |
| Indeno(1,2,3-cd)pyrene          | 3,200                     | 6                              | 3                        | 0                  | 22 U       | 3                        | 0                  | 23 U       |
| Benzo(k)fluoranthene            | 1,100                     | 6                              | 3                        | 0                  | 48 U       | 3                        | 0                  | 50 U       |
| Chrysene                        | 400                       | 6                              | 3                        | 0                  | 21 U       | 3                        | 0                  | 22 U       |
| <sup>4</sup> Benzo(a)pyrene TEQ | 10,000                    | 5                              | 2                        | 0                  | 50         | 3                        | 0                  | 53         |

**Maximum Final Results for SEAD 24 Soil**  
 Time Critical Removal Action  
 SENECA Army Depot

**AREA 3**

| Compound                        | <sup>1</sup> Cleanup Goal | Total No. of Samples Collected | Floor Samples            |                    |            | Perimeter Samples        |                    |            |
|---------------------------------|---------------------------|--------------------------------|--------------------------|--------------------|------------|--------------------------|--------------------|------------|
|                                 |                           |                                | No. of Samples Collected | No. of Exceedences | Max Result | No. of Samples Collected | No. of Exceedences | Max Result |
| <b>Metals (mg/kg)</b>           |                           |                                |                          |                    |            |                          |                    |            |
| Aluminum                        | 19,200                    | 4                              | 2                        | 0                  | 19,100     | 2                        | 0                  | 12,700     |
| Antimony                        | 5.9                       | 4                              | 2                        | 1                  | 12.7       | 2                        | 2                  | 11.6       |
| <b>Arsenic</b>                  | 8.24                      | 74                             | 35                       | 4                  | 14.7       | 39                       | 18                 | 19.7       |
| Barium                          | 300                       | 4                              | 2                        | 0                  | 138        | 2                        | 0                  | 101        |
| Beryllium                       | 1.1                       | 4                              | 2                        | 0                  | 0.9        | 2                        | 0                  | 0.6        |
| Cadmium                         | 2.3                       | 4                              | 2                        | 2                  | 3.3        | 2                        | 2                  | 3.3        |
| Calcium                         | 120,500                   | 4                              | 2                        | 0                  | 3,600      | 2                        | 0                  | 3,560      |
| Chromium                        | 29                        | 4                              | 2                        | 0                  | 27         | 2                        | 0                  | 18         |
| Cobalt                          | 30                        | 4                              | 2                        | 0                  | 8          | 2                        | 0                  | 12         |
| Copper                          | 29.6                      | 4                              | 2                        | 0                  | 28.6       | 2                        | 0                  | 28.4       |
| Iron                            | 35,550                    | 4                              | 2                        | 0                  | 27,600     | 2                        | 0                  | 22,400     |
| <sup>2</sup> Lead               | 400                       | 74                             | 35                       | 0                  | 98         | 39                       | 0                  | 394        |
| Magnesium                       | 21,500                    | 4                              | 2                        | 0                  | 5,010      | 2                        | 0                  | 3,270      |
| Manganese                       | 1,056                     | 4                              | 2                        | 0                  | 332        | 2                        | 0                  | 648        |
| Mercury                         | 0.1                       | 4                              | 2                        | 0                  | 0.05       | 2                        | 0                  | 0.08       |
| Nickel                          | 48.9                      | 4                              | 2                        | 0                  | 34.0       | 2                        | 0                  | 21.9       |
| Potassium                       | 2,343                     | 4                              | 2                        | 0                  | 1,940      | 2                        | 0                  | 1,600      |
| Selenium                        | 2                         | 4                              | 2                        | 2                  | 17         | 2                        | 2                  | 17         |
| Silver                          | 0.763                     | 4                              | 2                        | 2                  | 3.30       | 2                        | 2                  | 3.30       |
| Sodium                          | 170.3                     | 4                              | 2                        | 0                  | 94.3       | 2                        | 0                  | 75.4       |
| Thallium                        | 0.67                      | 4                              | 2                        | 2                  | 23.9       | 2                        | 2                  | 23.8       |
| Vanadium                        | 150                       | 4                              | 2                        | 0                  | 30         | 2                        | 0                  | 22         |
| <b>Zinc</b>                     | 108.9                     | 74                             | 35                       | 10                 | 584.0      | 39                       | 23                 | 739.0      |
| <b><sup>3</sup>PAHs (µg/kg)</b> |                           |                                |                          |                    |            |                          |                    |            |
| 2-Methylnaphthalene             | 36,400                    | 4                              | 2                        | 0                  | 36 U       | 2                        | 0                  | 35 U       |
| Acenaphthene                    | 50,000                    | 4                              | 2                        | 0                  | 19 U       | 2                        | 0                  | 19 U       |
| Acenaphthylene                  | 41,000                    | 4                              | 2                        | 0                  | 14 U       | 2                        | 0                  | 14 U       |
| Anthracene                      | 50,000                    | 4                              | 2                        | 0                  | 15 U       | 2                        | 0                  | 15 U       |
| Benzo(ghi)perylene              | 50,000                    | 4                              | 2                        | 0                  | 22 U       | 2                        | 0                  | 21 U       |
| Fluoranthene                    | 50,000                    | 4                              | 2                        | 0                  | 28 U       | 2                        | 0                  | 28 U       |
| Fluorene                        | 50,000                    | 4                              | 2                        | 0                  | 25 U       | 2                        | 0                  | 25 U       |
| Naphthalene                     | 13,000                    | 4                              | 2                        | 0                  | 41 U       | 2                        | 0                  | 40 U       |
| Phenanthrene                    | 50,000                    | 4                              | 2                        | 0                  | 30 U       | 2                        | 0                  | 30 U       |
| Pyrene                          | 50,000                    | 4                              | 2                        | 0                  | 24 U       | 2                        | 0                  | 28 J       |
| Benzo(a)pyrene                  | 61                        | 4                              | 2                        | 0                  | 20 U       | 2                        | 0                  | 20 U       |
| Dibenzo(a,h)anthracene          | 14                        | 4                              | 2                        | 2                  | 23 U       | 2                        | 2                  | 23 U       |
| Benzo(a)anthracene              | 224                       | 4                              | 2                        | 0                  | 19 U       | 2                        | 0                  | 19 U       |
| Benzo(b)fluoranthene            | 1,100                     | 4                              | 2                        | 0                  | 48 U       | 2                        | 0                  | 48 U       |
| Indeno(1,2,3-cd)pyrene          | 3,200                     | 4                              | 2                        | 0                  | 23 U       | 2                        | 0                  | 23 U       |
| Benzo(k)fluoranthene            | 1,100                     | 4                              | 2                        | 0                  | 50 U       | 2                        | 0                  | 49 U       |
| Chrysene                        | 400                       | 4                              | 2                        | 0                  | 22 U       | 2                        | 0                  | 23 J       |
| <sup>4</sup> Benzo(a)pyrene TEQ | 10,000                    | 4                              | 2                        | 0                  | 53         | 2                        | 0                  | 53         |

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**AVERAGE FINAL RESULTS FOR SOIL**

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**Average Final Results for SEAD 24 Soil**  
Time Critical Removal Action  
SENECA Army Depot

| Compound                        | <sup>1</sup> CleanUp Goal | Area 1 |           |        | Area 2 |           |        | Area 3 |           |        | All Areas |           |        |
|---------------------------------|---------------------------|--------|-----------|--------|--------|-----------|--------|--------|-----------|--------|-----------|-----------|--------|
|                                 |                           | Floor  | Perimeter | All    | Floor  | Perimeter | All    | Floor  | Perimeter | All    | Floor     | Perimeter | All    |
| <b>Metals (mg/kg)</b>           |                           |        |           |        |        |           |        |        |           |        |           |           |        |
| Aluminum                        | 19,200                    | 16,293 | 14,413    | 15,353 | 17,633 | 15,467    | 16,550 | 18,850 | 12,450    | 15,650 | 17,592    | 14,110    | 15,851 |
| Antimony                        | 5.9                       | 7.2    | 9.3       | 8.3    | 12.8   | 13.3      | 13.1   | 8.3    | 8.9       | 8.6    | 9.4       | 10.5      | 10.0   |
| Arsenic                         | 8.24                      | 7.73   | 9.06      | 8.40   | 6.12   | 9.53      | 7.82   | 6.44   | 8.88      | 7.66   | 6.76      | 9.16      | 7.96   |
| Barium                          | 300                       | 92     | 90        | 91     | 96     | 74        | 85     | 132    | 85        | 108    | 106       | 83        | 95     |
| Beryllium                       | 1.1                       | 0.8    | 0.9       | 0.8    | 0.9    | 0.7       | 0.8    | 0.9    | 0.6       | 0.8    | 0.9       | 0.7       | 0.8    |
| Cadmium                         | 2.3                       | 2.3    | 2.5       | 2.4    | 3.3    | 3.4       | 3.4    | 3.2    | 3.2       | 3.2    | 2.9       | 3.0       | 3.0    |
| Calcium                         | 120,500                   | 4,775  | 16,609    | 10,692 | 26,890 | 5,927     | 16,408 | 3,210  | 2,660     | 2,935  | 11,625    | 8,399     | 10,012 |
| Chromium                        | 29                        | 23     | 22        | 23     | 26     | 23        | 25     | 25     | 17        | 21     | 25        | 21        | 23     |
| Cobalt                          | 30                        | 12     | 11        | 12     | 15     | 12        | 14     | 8      | 11        | 10     | 12        | 11        | 12     |
| Copper                          | 29.6                      | 21.9   | 28.7      | 25.3   | 24.0   | 30.9      | 27.4   | 26.0   | 20.5      | 23.2   | 24.0      | 26.7      | 25.3   |
| Iron                            | 35,550                    | 27,493 | 25,075    | 26,284 | 31,167 | 28,567    | 29,867 | 26,400 | 22,250    | 24,325 | 28,353    | 25,297    | 26,825 |
| <sup>2</sup> Lead               | 400                       | 21     | 65        | 43     | 16     | 22        | 19     | 25     | 93        | 59     | 21        | 60        | 40     |
| Magnesium                       | 21,500                    | 4,317  | 9,706     | 7,011  | 5,727  | 5,517     | 5,622  | 4,435  | 3,135     | 3,785  | 4,826     | 6,119     | 5,473  |
| Manganese                       | 1,056                     | 541    | 522       | 531    | 639    | 441       | 540    | 287    | 623       | 455    | 489       | 528       | 509    |
| Mercury                         | 0.1                       | 0.0    | 0.1       | 0.1    | 0.0    | 0.1       | 0.1    | 0.0    | 0.1       | 0.1    | 0.0       | 0.1       | 0.1    |
| Nickel                          | 48.9                      | 30.4   | 31.9      | 31.1   | 39.4   | 37.5      | 38.4   | 29.3   | 20.2      | 24.7   | 33.0      | 29.8      | 31.4   |
| Potassium                       | 2,343                     | 1,705  | 1,931     | 1,818  | 2,083  | 2,047     | 2,065  | 1,810  | 1,315     | 1,563  | 1,866     | 1,764     | 1,815  |
| Selenium                        | 2                         | 10     | 13        | 12     | 17     | 13        | 15     | 17     | 17        | 17     | 15        | 14        | 15     |
| Silver                          | 0.763                     | 1.196  | 2.611     | 1.903  | 3.300  | 3.433     | 3.367  | 3.200  | 3.150     | 3.175  | 2.565     | 3.065     | 2.815  |
| Sodium                          | 170.3                     | 76.3   | 105.4     | 90.8   | 94.3   | 84.3      | 89.3   | 91.8   | 67.1      | 79.4   | 87.4      | 85.6      | 86.5   |
| Thallium                        | 0.67                      | 15.86  | 19.28     | 17.57  | 24.03  | 25.03     | 24.53  | 23.30  | 22.80     | 23.05  | 21.06     | 22.37     | 21.72  |
| Vanadium                        | 150                       | 26     | 23        | 24     | 25     | 24        | 24     | 28     | 21        | 25     | 26        | 23        | 24     |
| Zinc                            | 108.9                     | 87.5   | 134.1     | 110.8  | 87.4   | 170.6     | 129.0  | 102.8  | 218.6     | 160.7  | 92.6      | 174.4     | 133.5  |
| <b><sup>3</sup>PAHs (µg/kg)</b> |                           |        |           |        |        |           |        |        |           |        |           |           |        |
| 2-Methylnaphthalene             | 36,400                    | 35     | 43        | 39     | 34     | 33        | 34     | 36     | 34        | 35     | 35        | 37        | 36     |
| Acenaphthene                    | 50,000                    | 21     | 24        | 22     | 18     | 18        | 18     | 19     | 19        | 19     | 19        | 20        | 20     |
| Acenaphthylene                  | 41,000                    | 20     | 20        | 20     | 13     | 13        | 13     | 14     | 14        | 14     | 16        | 15        | 15     |
| Anthracene                      | 50,000                    | 22     | 27        | 24     | 15     | 14        | 14     | 15     | 15        | 15     | 17        | 18        | 18     |
| Benzo(ghi)perylene              | 50,000                    | 43     | 32        | 37     | 21     | 20        | 21     | 22     | 21        | 21     | 28        | 24        | 26     |
| Fluoranthene                    | 50,000                    | 82     | 106       | 94     | 27     | 26        | 27     | 28     | 27        | 27     | 45        | 53        | 49     |
| Fluorene                        | 50,000                    | 26     | 32        | 29     | 24     | 23        | 24     | 25     | 24        | 25     | 25        | 26        | 26     |
| Naphthalene                     | 13,000                    | 40     | 49        | 45     | 39     | 38        | 38     | 41     | 39        | 40     | 40        | 42        | 41     |
| Phenanthrene                    | 50,000                    | 53     | 81        | 67     | 29     | 28        | 29     | 30     | 29        | 30     | 37        | 46        | 42     |
| Pyrene                          | 50,000                    | 86     | 104       | 95     | 23     | 22        | 23     | 24     | 25        | 25     | 44        | 51        | 48     |
| Benzo(a)pyrene                  | 61                        | 55     | 32        | 44     | 19     | 19        | 19     | 20     | 20        | 20     | 31        | 23        | 27     |
| Dibenzo(a,h)anthracene          | 14                        | 27     | 26        | 26     | 11     | 11        | 11     | 23     | 22        | 11     | 13        | 12        | 12     |
| Benzo(a)anthracene              | 224                       | 52     | 59        | 55     | 18     | 18        | 18     | 19     | 19        | 19     | 30        | 32        | 31     |
| Benzo(b)fluoranthene            | 1,100                     | 68     | 77        | 73     | 46     | 44        | 45     | 48     | 47        | 47     | 54        | 56        | 55     |
| Indeno(1,2,3-cd)pyrene          | 3,200                     | 40     | 34        | 37     | 22     | 21        | 22     | 23     | 22        | 22     | 28        | 26        | 27     |
| Benzo(k)fluoranthene            | 1,100                     | 67     | 91        | 79     | 47     | 46        | 47     | 50     | 48        | 49     | 55        | 61        | 58     |
| Chrysene                        | 400                       | 63     | 67        | 65     | 21     | 20        | 21     | 22     | 22        | 22     | 35        | 36        | 36     |
| <sup>4</sup> Benzo(a)pyrene TEQ | 10,000                    | 98     | 105       | 102    | 50     | 49        | 50     | 52     | 51        | 52     | 67        | 68        | 68     |



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## CONFIRMATORY DATA

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**Analytical Results for Area 1 - Floor**  
**SEAD 24**  
**Time Critical Removal Action**  
**SENECA Army Depot**

| Compound                        | <sup>1</sup> CleanUp Goal | SEAD24-FX-A1-SS-001-FS | SEAD24-FX-A1-SS-002-FS2 | SEAD24-FX-A1-SS-003-FS | SEAD24-FX-A1-SS-003-FS2 | SEAD24-FX-A1-SS-004-FS | SEAD24-FX-A1-SS-004-FS2 | SEAD24-FX-A1-SS-005-FS | SEAD24-FX-A1-SS-005-FS2 | SEAD24-FX-A1-SS-006-FS | SEAD24-FX-A1-SS-007-FS | SEAD24-FX-A1-SS-007-FS2 | SEAD24-FX-A1-SS-008-FS | SEAD24-FX-A1-SS-009-FS | SEAD24-FX-A1-SS-010-FS | SEAD24-FX-A1-SS-010-FS2 |         |
|---------------------------------|---------------------------|------------------------|-------------------------|------------------------|-------------------------|------------------------|-------------------------|------------------------|-------------------------|------------------------|------------------------|-------------------------|------------------------|------------------------|------------------------|-------------------------|---------|
|                                 |                           | 6-12                   | 12-18                   | 6-12                   | 12-18                   | 6-12                   | 12-18                   | 6-12                   | 12-18                   | 6-12                   | 6-12                   | 12-18                   | 6-12                   | 6-12                   | 6-12                   | 6-12                    | 12-18   |
| Depth BOG(inches)               |                           | (mg/kg)                | (mg/kg)                 | (mg/kg)                | (mg/kg)                 | (mg/kg)                | (mg/kg)                 | (mg/kg)                | (mg/kg)                 | (mg/kg)                | (mg/kg)                | (mg/kg)                 | (mg/kg)                | (mg/kg)                | (mg/kg)                | (mg/kg)                 | (mg/kg) |
| <b>Metals</b>                   |                           |                        |                         |                        |                         |                        |                         |                        |                         |                        |                        |                         |                        |                        |                        |                         |         |
| Aluminum                        | 19,200                    |                        |                         |                        |                         |                        |                         | 13900                  |                         |                        |                        |                         |                        |                        |                        |                         | 17700   |
| Antimony                        | 5.9                       |                        |                         |                        |                         |                        |                         | 1.4 J                  |                         |                        |                        |                         |                        |                        |                        |                         | 11.2 U  |
| <b>Arsenic</b>                  | 8.24                      | 7.6                    | 4.5 j                   |                        | 6.3                     |                        |                         | 5.3                    | 9.9                     | 8                      |                        | 5                       | 7.5                    | 5.2                    |                        |                         | 4.3 j   |
| Barium                          | 300                       |                        |                         |                        |                         |                        |                         | 102                    |                         |                        |                        |                         |                        |                        |                        |                         | 102     |
| Beryllium                       | 1.1                       |                        |                         |                        |                         |                        |                         | 0.8 J                  |                         |                        |                        |                         |                        |                        |                        |                         | 0.95 J  |
| Cadmium                         | 2.3                       |                        |                         |                        |                         |                        |                         | 2.8 U                  |                         |                        |                        |                         |                        |                        |                        |                         | 2.9 U   |
| Calcium                         | 120,500                   |                        |                         |                        |                         |                        |                         | 5460                   |                         |                        |                        |                         |                        |                        |                        |                         | 6070    |
| Chromium                        | 29                        |                        |                         |                        |                         |                        |                         | 22.4                   |                         |                        |                        |                         |                        |                        |                        |                         | 27.5    |
| Cobalt                          | 30                        |                        |                         |                        |                         |                        |                         | 11.9                   |                         |                        |                        |                         |                        |                        |                        |                         | 14.8    |
| Copper                          | 29.6                      |                        |                         |                        |                         |                        |                         | 22                     |                         |                        |                        |                         |                        |                        |                        |                         | 28.3    |
| Iron                            | 35,550                    |                        |                         |                        |                         |                        |                         | 27300                  |                         |                        |                        |                         |                        |                        |                        |                         | 33300   |
| <sup>2</sup> Lead               | 400                       | 14.1                   | 10.7                    | 17.1                   |                         |                        | 13                      | 31.6                   |                         | 14.5                   | 18.2                   |                         | 16.3                   | 15                     |                        |                         | 16.4    |
| Magnesium                       | 21,500                    |                        |                         |                        |                         |                        |                         | 5190                   |                         |                        |                        |                         |                        |                        |                        |                         | 6170    |
| Manganese                       | 1,056                     |                        |                         |                        |                         |                        |                         | 518                    |                         |                        |                        |                         |                        |                        |                        |                         | 675     |
| Mercury                         | 0.1                       |                        |                         |                        |                         |                        |                         | 0.049 J                |                         |                        |                        |                         |                        |                        |                        |                         | 0.037 J |
| Nickel                          | 48.9                      |                        |                         |                        |                         |                        |                         | 32.8                   |                         |                        |                        |                         |                        |                        |                        |                         | 42.1    |
| Potassium                       | 2,343                     |                        |                         |                        |                         |                        |                         | 1690                   |                         |                        |                        |                         |                        |                        |                        |                         | 1880    |
| Selenium                        | 2                         |                        |                         |                        |                         |                        |                         | 14.7 U                 |                         |                        |                        |                         |                        |                        |                        |                         | 15.3 U  |
| Silver                          | 0.763                     |                        |                         |                        |                         |                        |                         | 0.5 J                  |                         |                        |                        |                         |                        |                        |                        |                         | 0.48 J  |
| Sodium                          | 170.3                     |                        |                         |                        |                         |                        |                         | 81.3 J                 |                         |                        |                        |                         |                        |                        |                        |                         | 92.4    |
| Thallium                        | 0.67                      |                        |                         |                        |                         |                        |                         | 20.2 U                 |                         |                        |                        |                         |                        |                        |                        |                         | 21 U    |
| Vanadium                        | 150                       |                        |                         |                        |                         |                        |                         | 23.7                   |                         |                        |                        |                         |                        |                        |                        |                         | 26      |
| <b>Zinc</b>                     | 108.9                     | 84.3                   | 123                     |                        | 122                     | 84.9                   |                         | 107                    |                         | 116                    | 92.2                   |                         | 94                     | 79.3                   |                        |                         | 103     |
| <b><sup>3</sup>PAHs</b>         |                           | (µg/kg)                |                         | (µg/kg)                |                         | (µg/kg)                |                         | (µg/kg)                |                         | (µg/kg)                | (µg/kg)                |                         | (µg/kg)                | (µg/kg)                | (µg/kg)                |                         | (µg/kg) |
| 2-Methylnaphthalene             | 36,400                    |                        |                         |                        |                         |                        |                         | 31 U                   |                         |                        |                        |                         |                        |                        |                        |                         | 31 U    |
| Acenaphthene                    | 50,000                    |                        |                         |                        |                         |                        |                         | 17 U                   |                         |                        |                        |                         |                        |                        |                        |                         | 17 U    |
| Acenaphthylene                  | 41,000                    |                        |                         |                        |                         |                        |                         | 12 U                   |                         |                        |                        |                         |                        |                        |                        |                         | 12 U    |
| Anthracene                      | 50,000                    |                        |                         |                        |                         |                        |                         | 13 U                   |                         |                        |                        |                         |                        |                        |                        |                         | 13 U    |
| Benzo(ghi)perylene              | 50,000                    |                        |                         |                        |                         |                        |                         | 19 U                   |                         |                        |                        |                         |                        |                        |                        |                         | 19 U    |
| Fluoranthene                    | 50,000                    |                        |                         |                        |                         |                        |                         | 24 U                   |                         |                        |                        |                         |                        |                        |                        |                         | 25 U    |
| Fluorene                        | 50,000                    |                        |                         |                        |                         |                        |                         | 22 U                   |                         |                        |                        |                         |                        |                        |                        |                         | 22 U    |
| Naphthalene                     | 13,000                    |                        |                         |                        |                         |                        |                         | 36 U                   |                         |                        |                        |                         |                        |                        |                        |                         | 36 U    |
| Phenanthrene                    | 50,000                    |                        |                         |                        |                         |                        |                         | 27 U                   |                         |                        |                        |                         |                        |                        |                        |                         | 27 U    |
| Pyrene                          | 50,000                    |                        |                         |                        |                         |                        |                         | 21 U                   |                         |                        |                        |                         |                        |                        |                        |                         | 21 U    |
| Benzo(a)pyrene                  | 61                        |                        |                         |                        |                         |                        |                         | 18 U                   |                         |                        |                        |                         |                        |                        |                        |                         | 18 U    |
| Dibenzo(a,h)anthracene          | 14                        |                        |                         |                        |                         |                        |                         | 20 U                   |                         |                        |                        |                         |                        |                        |                        |                         | 20 U    |
| Benzo(a)anthracene              | 224                       |                        |                         |                        |                         |                        |                         | 17 U                   |                         |                        |                        |                         |                        |                        |                        |                         | 17 U    |
| Benzo(b)fluoranthene            | 1,100                     |                        |                         |                        |                         |                        |                         | 42 U                   |                         |                        |                        |                         |                        |                        |                        |                         | 43 U    |
| Indeno(1,2,3-cd)pyrene          | 3,200                     |                        |                         |                        |                         |                        |                         | 20 U                   |                         |                        |                        |                         |                        |                        |                        |                         | 20 U    |
| Benzo(k)fluoranthene            | 1,100                     |                        |                         |                        |                         |                        |                         | 43 U                   |                         |                        |                        |                         |                        |                        |                        |                         | 44 U    |
| Chrysene                        | 400                       |                        |                         |                        |                         |                        |                         | 19 U                   |                         |                        |                        |                         |                        |                        |                        |                         | 19 U    |
| <sup>4</sup> Benzo(a)pyrene TEQ | 10,000                    |                        |                         |                        |                         |                        |                         | 47                     |                         |                        |                        |                         |                        |                        |                        |                         | 47      |

**Analytical Results for Area 1 - Floor**  
**SEAD 24**  
**Time Critical Removal Action**  
**SENECA Army Depot**

| Compound                        | <sup>1</sup> CleanUp Goal | SEAD24-FX-A1-SS-011-FS | SEAD24-FX-A1-SS-011-FS2 | SEAD24-FX-A1-SS-012-FS | SEAD24-FX-A1-SS-012-FS2 | SEAD24-FX-A1-SS-013-FS | SEAD24-FX-A1-SS-014-FS | SEAD24-FX-A1-SS-015-FS | SEAD24-FX-A1-SS-016-FS | SEAD24-FX-A1-SS-017-FS | SEAD24-FX-A1-SS-017-FS2 | SEAD24-FX-A1-SS-018-FS | SEAD24-FX-A1-SS-018-FS2 | SEAD24-FX-A1-SS-019-FS | SEAD24-FX-A1-SS-020-FS |
|---------------------------------|---------------------------|------------------------|-------------------------|------------------------|-------------------------|------------------------|------------------------|------------------------|------------------------|------------------------|-------------------------|------------------------|-------------------------|------------------------|------------------------|
|                                 |                           | 6-12                   | 12-18                   | 6-12                   | 12-18                   | 6-12                   | 6-12                   | 6-12                   | 6-12                   | 6-12                   | 6-12                    | 12-18                  | 6-12                    | 12-18                  | 6-12                   |
| Depth BOG(inches)               |                           | 6-12                   | 12-18                   | 6-12                   | 12-18                   | 6-12                   | 6-12                   | 6-12                   | 6-12                   | 6-12                   | 6-12                    | 6-12                   | 6-12                    | 6-12                   | 6-12                   |
| Metals                          |                           | (mg/kg)                | (mg/kg)                 | (mg/kg)                | (mg/kg)                 | (mg/kg)                | (mg/kg)                | (mg/kg)                | (mg/kg)                | (mg/kg)                | (mg/kg)                 | (mg/kg)                | (mg/kg)                 | (mg/kg)                | (mg/kg)                |
| Aluminum                        | 19,200                    |                        |                         |                        |                         |                        |                        | 18300                  |                        |                        |                         |                        |                         |                        | 17100                  |
| Antimony                        | 5.9                       |                        |                         |                        |                         |                        |                        | 11.3 U                 |                        |                        |                         |                        |                         |                        | 11.8 U                 |
| <b>Arsenic</b>                  | 8.24                      |                        | 6.4                     |                        | 10.5                    | 6                      | 5.1                    | 6.6 J                  | 7.1                    |                        | 10.3                    |                        | 8.2                     | 6.1                    | 6.8 J                  |
| Barium                          | 300                       |                        |                         |                        |                         |                        |                        | 114                    |                        |                        |                         |                        |                         |                        | 99.7                   |
| Beryllium                       | 1.1                       |                        |                         |                        |                         |                        |                        | 0.96 J                 |                        |                        |                         |                        |                         |                        | 1 J                    |
| Cadmium                         | 2.3                       |                        |                         |                        |                         |                        |                        | 2.9 U                  |                        |                        |                         |                        |                         |                        | 3 U                    |
| Calcium                         | 120,500                   |                        |                         |                        |                         |                        |                        | 4870                   |                        |                        |                         |                        |                         |                        | 2920                   |
| Chromium                        | 29                        |                        |                         |                        |                         |                        |                        | 29.7                   |                        |                        |                         |                        |                         |                        | 24.8                   |
| Cobalt                          | 30                        |                        |                         |                        |                         |                        |                        | 17                     |                        |                        |                         |                        |                         |                        | 15.9                   |
| Copper                          | 29.6                      |                        |                         |                        |                         |                        |                        | 33.2                   |                        |                        |                         |                        |                         |                        | 28.1                   |
| Iron                            | 35,550                    |                        |                         |                        |                         |                        |                        | 35400                  |                        |                        |                         |                        |                         |                        | 30400                  |
| <sup>2</sup> Lead               | 400                       | 11.4                   |                         | 12.1                   |                         | 11.6                   | 13.8                   | 15.6                   | 14.6                   | 15.3                   |                         |                        | 15.9                    | 12.4                   | 14                     |
| Magnesium                       | 21,500                    |                        |                         |                        |                         |                        |                        | 6330                   |                        |                        |                         |                        |                         |                        | 5110                   |
| Manganese                       | 1,056                     |                        |                         |                        |                         |                        |                        | 766                    |                        |                        |                         |                        |                         |                        | 805                    |
| Mercury                         | 0.1                       |                        |                         |                        |                         |                        |                        | 0.041 J                |                        |                        |                         |                        |                         |                        | 0.075 U                |
| Nickel                          | 48.9                      |                        |                         |                        |                         |                        |                        | 52.7                   |                        |                        |                         |                        |                         |                        | 35.3                   |
| Potassium                       | 2,343                     |                        |                         |                        |                         |                        |                        | 1700                   |                        |                        |                         |                        |                         |                        | 1820                   |
| Selenium                        | 2                         |                        |                         |                        |                         |                        |                        | 1.6 J                  |                        |                        |                         |                        |                         |                        | 16.1 U                 |
| Silver                          | 0.763                     |                        |                         |                        |                         |                        |                        | 0.48 J                 |                        |                        |                         |                        |                         |                        | 0.45 J                 |
| Sodium                          | 170.3                     |                        |                         |                        |                         |                        |                        | 85 J                   |                        |                        |                         |                        |                         |                        | 83 J                   |
| Thallium                        | 0.67                      |                        |                         |                        |                         |                        |                        | 21.2 U                 |                        |                        |                         |                        |                         |                        | 22.1 U                 |
| Vanadium                        | 150                       |                        |                         |                        |                         |                        |                        | 26.6                   |                        |                        |                         |                        |                         |                        | 27                     |
| <b>Zinc</b>                     | 108.9                     | 75.5                   |                         | 76.9                   |                         | 57.9                   | 78.1                   | 103                    | 83.9                   | 63.9                   |                         | 101                    |                         | 69.1                   | 73.9                   |
| <sup>3</sup> PAHs               |                           | (µg/kg)                |                         | (µg/kg)                |                         | (µg/kg)                | (µg/kg)                | (µg/kg)                | (µg/kg)                | (µg/kg)                |                         | (µg/kg)                |                         | (µg/kg)                | (µg/kg)                |
| 2-Methylnaphthalene             | 36,400                    |                        |                         |                        |                         |                        |                        | 33 U                   |                        |                        |                         |                        |                         |                        | 34 U                   |
| Acenaphthene                    | 50,000                    |                        |                         |                        |                         |                        |                        | 18 U                   |                        |                        |                         |                        |                         |                        | 18 U                   |
| Acenaphthylene                  | 41,000                    |                        |                         |                        |                         |                        |                        | 13 U                   |                        |                        |                         |                        |                         |                        | 13 U                   |
| Anthracene                      | 50,000                    |                        |                         |                        |                         |                        |                        | 14 U                   |                        |                        |                         |                        |                         |                        | 15 U                   |
| Benzo(ghi)perylene              | 50,000                    |                        |                         |                        |                         |                        |                        | 20 U                   |                        |                        |                         |                        |                         |                        | 21 U                   |
| Fluoranthene                    | 50,000                    |                        |                         |                        |                         |                        |                        | 26 U                   |                        |                        |                         |                        |                         |                        | 27 U                   |
| Fluorene                        | 50,000                    |                        |                         |                        |                         |                        |                        | 23 U                   |                        |                        |                         |                        |                         |                        | 24 U                   |
| Naphthalene                     | 13,000                    |                        |                         |                        |                         |                        |                        | 38 U                   |                        |                        |                         |                        |                         |                        | 39 U                   |
| Phenanthrene                    | 50,000                    |                        |                         |                        |                         |                        |                        | 28 U                   |                        |                        |                         |                        |                         |                        | 29 U                   |
| Pyrene                          | 50,000                    |                        |                         |                        |                         |                        |                        | 22 U                   |                        |                        |                         |                        |                         |                        | 23 U                   |
| Benzo(a)pyrene                  | 61                        |                        |                         |                        |                         |                        |                        | 19 U                   |                        |                        |                         |                        |                         |                        | 19 U                   |
| Dibenzo(a,h)anthracene          | 14                        |                        |                         |                        |                         |                        |                        | 21 U                   |                        |                        |                         |                        |                         |                        | 22 U                   |
| Benzo(a)anthracene              | 224                       |                        |                         |                        |                         |                        |                        | 18 U                   |                        |                        |                         |                        |                         |                        | 18 U                   |
| Benzo(b)fluoranthene            | 1,100                     |                        |                         |                        |                         |                        |                        | 45 U                   |                        |                        |                         |                        |                         |                        | 46 U                   |
| Indeno(1,2,3-cd)pyrene          | 3,200                     |                        |                         |                        |                         |                        |                        | 21 U                   |                        |                        |                         |                        |                         |                        | 22 U                   |
| Benzo(k)fluoranthene            | 1,100                     |                        |                         |                        |                         |                        |                        | 46 U                   |                        |                        |                         |                        |                         |                        | 47 U                   |
| Chrysene                        | 400                       |                        |                         |                        |                         |                        |                        | 20 U                   |                        |                        |                         |                        |                         |                        | 21 U                   |
| <sup>4</sup> Benzo(a)pyrene TEQ | 10,000                    |                        |                         |                        |                         |                        |                        | 49                     |                        |                        |                         |                        |                         |                        | 50                     |

**Analytical Results for Area 1 - Floor**  
 SEAD 24  
 Time Critical Removal Action  
 SENECA Army Depot

| Compound                        | <sup>1</sup> CleanUp Goal | SEAD24-FX-A1-SS-021-FS | SEAD24-FX-A1-SS-021-FS2 | SEAD24-FX-A1-SS-022-FS | SEAD24-FX-A1-SS-022-FS4 | SEAD24-FX-A1-SS-023-FS | SEAD24-FX-A1-SS-023-FS2 | SEAD24-FX-A1-SS-024-FS | SEAD24-FX-A1-SS-025-FS | SEAD24-FX-A1-SS-025-FS2 | SEAD24-FX-A1-SS-026-FS | SEAD24-FX-A1-SS-027-FS | SEAD24-FX-A1-SS-028-FS | SEAD24-FX-A1-SS-028-FS2 | SEAD24-FX-A1-SS-029-FS | SEAD24-FX-A1-SS-029-FS2 |
|---------------------------------|---------------------------|------------------------|-------------------------|------------------------|-------------------------|------------------------|-------------------------|------------------------|------------------------|-------------------------|------------------------|------------------------|------------------------|-------------------------|------------------------|-------------------------|
|                                 |                           | 6-12                   | 12-18                   | 6-12                   | 24-30                   | 6-12                   | 12-18                   | 6-12                   | 6-12                   | 12-18                   | 6-12                   | 6-12                   | 6-12                   | 12-18                   | 6-12                   | 12-18                   |
| Depth BOG(inches)               |                           | 6-12                   | 12-18                   | 6-12                   | 24-30                   | 6-12                   | 12-18                   | 6-12                   | 6-12                   | 12-18                   | 6-12                   | 6-12                   | 6-12                   | 12-18                   | 6-12                   | 12-18                   |
| Metals                          |                           | (mg/kg)                | (mg/kg)                 | (mg/kg)                | (mg/kg)                 | (mg/kg)                | (mg/kg)                 | (mg/kg)                | (mg/kg)                | (mg/kg)                 | (mg/kg)                | (mg/kg)                | (mg/kg)                | (mg/kg)                 | (mg/kg)                | (mg/kg)                 |
| Aluminum                        | 19,200                    |                        |                         |                        |                         |                        |                         |                        | 16200                  |                         |                        |                        |                        |                         |                        |                         |
| Antimony                        | 5.9                       |                        |                         |                        |                         |                        |                         |                        | 10.5 U                 |                         |                        |                        |                        |                         |                        |                         |
| <b>Arsenic</b>                  | <b>8.24</b>               |                        | 4.4 j                   |                        | 4.4 j                   |                        | 7.3                     | 5.1                    |                        | <b>8.8</b>              | 6.7                    | 6.4                    |                        | 4.9                     |                        | <b>13.7</b>             |
| Barium                          | 300                       |                        |                         |                        |                         |                        |                         |                        | 102                    |                         |                        |                        |                        |                         |                        |                         |
| Beryllium                       | 1.1                       |                        |                         |                        |                         |                        |                         |                        | 0.87 J                 |                         |                        |                        |                        |                         |                        |                         |
| Cadmium                         | 2.3                       |                        |                         |                        |                         |                        |                         |                        | 2.7 U                  |                         |                        |                        |                        |                         |                        |                         |
| Calcium                         | 120,500                   |                        |                         |                        |                         |                        |                         |                        | 3070                   |                         |                        |                        |                        |                         |                        |                         |
| Chromium                        | 29                        |                        |                         |                        |                         |                        |                         |                        | 23.4                   |                         |                        |                        |                        |                         |                        |                         |
| Cobalt                          | 30                        |                        |                         |                        |                         |                        |                         |                        | 13.2                   |                         |                        |                        |                        |                         |                        |                         |
| Copper                          | 29.6                      |                        |                         |                        |                         |                        |                         |                        | 20                     |                         |                        |                        |                        |                         |                        |                         |
| Iron                            | 35,550                    |                        |                         |                        |                         |                        |                         |                        | 27500                  |                         |                        |                        |                        |                         |                        |                         |
| <sup>2</sup> Lead               | 400                       | 26.3                   |                         | 65.7                   |                         | 21.2                   |                         | 13.6                   | 20.5                   |                         | 25.4                   | 14.6                   | 107                    |                         | 66                     |                         |
| Magnesium                       | 21,500                    |                        |                         |                        |                         |                        |                         |                        | 4360                   |                         |                        |                        |                        |                         |                        |                         |
| Manganese                       | 1,056                     |                        |                         |                        |                         |                        |                         |                        | 598                    |                         |                        |                        |                        |                         |                        |                         |
| Mercury                         | 0.1                       |                        |                         |                        |                         |                        |                         |                        | 0.046 J                |                         |                        |                        |                        |                         |                        |                         |
| Nickel                          | 48.9                      |                        |                         |                        |                         |                        |                         |                        | 28.4                   |                         |                        |                        |                        |                         |                        |                         |
| Potassium                       | 2,343                     |                        |                         |                        |                         |                        |                         |                        | 1600                   |                         |                        |                        |                        |                         |                        |                         |
| Selenium                        | 2                         |                        |                         |                        |                         |                        |                         |                        | 14.4 U                 |                         |                        |                        |                        |                         |                        |                         |
| Silver                          | 0.763                     |                        |                         |                        |                         |                        |                         |                        | 2.7 U                  |                         |                        |                        |                        |                         |                        |                         |
| Sodium                          | 170.3                     |                        |                         |                        |                         |                        |                         |                        | 73.4 J                 |                         |                        |                        |                        |                         |                        |                         |
| Thallium                        | 0.67                      |                        |                         |                        |                         |                        |                         |                        | 19.8 U                 |                         |                        |                        |                        |                         |                        |                         |
| Vanadium                        | 150                       |                        |                         |                        |                         |                        |                         |                        | 25.2                   |                         |                        |                        |                        |                         |                        |                         |
| <b>Zinc</b>                     | <b>108.9</b>              | 96.4                   |                         |                        | 81.6                    | 104                    |                         | 84.6                   | 92.3                   |                         | 102                    | 93.1                   |                        | 72.7                    |                        | 81.7                    |
| <sup>3</sup> PAHs               |                           | (µg/kg)                |                         | (µg/kg)                |                         | (µg/kg)                |                         | (µg/kg)                | (µg/kg)                |                         | (µg/kg)                | (µg/kg)                | (µg/kg)                |                         | (µg/kg)                |                         |
| 2-Methylnaphthalene             | 36,400                    |                        |                         |                        |                         |                        |                         |                        | 33 U                   |                         |                        |                        |                        |                         |                        |                         |
| Acenaphthene                    | 50,000                    |                        |                         |                        |                         |                        |                         |                        | 18 U                   |                         |                        |                        |                        |                         |                        |                         |
| Acenaphthylene                  | 41,000                    |                        |                         |                        |                         |                        |                         |                        | 13 U                   |                         |                        |                        |                        |                         |                        |                         |
| Anthracene                      | 50,000                    |                        |                         |                        |                         |                        |                         |                        | 14 U                   |                         |                        |                        |                        |                         |                        |                         |
| Benzo(ghi)perylene              | 50,000                    |                        |                         |                        |                         |                        |                         |                        | 20 U                   |                         |                        |                        |                        |                         |                        |                         |
| Fluoranthene                    | 50,000                    |                        |                         |                        |                         |                        |                         |                        | 26 U                   |                         |                        |                        |                        |                         |                        |                         |
| Fluorene                        | 50,000                    |                        |                         |                        |                         |                        |                         |                        | 24 U                   |                         |                        |                        |                        |                         |                        |                         |
| Naphthalene                     | 13,000                    |                        |                         |                        |                         |                        |                         |                        | 38 U                   |                         |                        |                        |                        |                         |                        |                         |
| Phenanthrene                    | 50,000                    |                        |                         |                        |                         |                        |                         |                        | 29 U                   |                         |                        |                        |                        |                         |                        |                         |
| Pyrene                          | 50,000                    |                        |                         |                        |                         |                        |                         |                        | 23 U                   |                         |                        |                        |                        |                         |                        |                         |
| Benzo(a)pyrene                  | 61                        |                        |                         |                        |                         |                        |                         |                        | 19 U                   |                         |                        |                        |                        |                         |                        |                         |
| Dibenzo(a,h)anthracene          | 14                        |                        |                         |                        |                         |                        |                         |                        | <b>21 U</b>            |                         |                        |                        |                        |                         |                        |                         |
| Benzo(a)anthracene              | 224                       |                        |                         |                        |                         |                        |                         |                        | 18 U                   |                         |                        |                        |                        |                         |                        |                         |
| Benzo(b)fluoranthene            | 1,100                     |                        |                         |                        |                         |                        |                         |                        | 45 U                   |                         |                        |                        |                        |                         |                        |                         |
| Indeno(1,2,3-cd)pyrene          | 3,200                     |                        |                         |                        |                         |                        |                         |                        | 21 U                   |                         |                        |                        |                        |                         |                        |                         |
| Benzo(k)fluoranthene            | 1,100                     |                        |                         |                        |                         |                        |                         |                        | 46 U                   |                         |                        |                        |                        |                         |                        |                         |
| Chrysene                        | 400                       |                        |                         |                        |                         |                        |                         |                        | 20 U                   |                         |                        |                        |                        |                         |                        |                         |
| <sup>4</sup> Benzo(a)pyrene TEQ | 10,000                    |                        |                         |                        |                         |                        |                         |                        | 49                     |                         |                        |                        |                        |                         |                        |                         |

**Analytical Results for Area 1 - Floor**  
**SEAD 24**  
Time Critical Removal Action  
SENECA Army Depot

| Compound                        | <sup>1</sup> CleanUp Goal | SEAD24-FX-A1-SS-030-FS | SEAD24-FX-A1-SS-031-FS | SEAD24-FX-A1-SS-032-FS | SEAD24-FX-A1-SS-033-FS | SEAD24-FX-A1-SS-034-FS | SEAD24-FX-A1-SS-035-FS | SEAD24-FX-A1-SS-036-FS | SEAD24-FX-A1-SS-037-FS | SEAD24-FX-A1-SS-038-FS | SEAD24-FX-A1-SS-038-FS3 | SEAD24-FX-A1-SS-039-FS | SEAD24-FX-A1-SS-040-FS | SEAD24-FX-A1-SS-041-FS | SEAD24-FX-A1-SS-041-FS2 |         |
|---------------------------------|---------------------------|------------------------|------------------------|------------------------|------------------------|------------------------|------------------------|------------------------|------------------------|------------------------|-------------------------|------------------------|------------------------|------------------------|-------------------------|---------|
|                                 |                           | 6-12                   | 6-12                   | 6-12                   | 6-12                   | 6-12                   | 6-12                   | 6-12                   | 6-12                   | 6-12                   | 6-12                    | 18-24                  | 6-12                   | 6-12                   | 6-12                    | 12-18   |
| Depth BOG(inches)               |                           | (mg/kg)                | (mg/kg)                | (mg/kg)                | (mg/kg)                | (mg/kg)                | (mg/kg)                | (mg/kg)                | (mg/kg)                | (mg/kg)                | (mg/kg)                 | (mg/kg)                | (mg/kg)                | (mg/kg)                | (mg/kg)                 | (mg/kg) |
| <b>Metals</b>                   |                           | (mg/kg)                | (mg/kg)                | (mg/kg)                | (mg/kg)                | (mg/kg)                | (mg/kg)                | (mg/kg)                | (mg/kg)                | (mg/kg)                | (mg/kg)                 | (mg/kg)                | (mg/kg)                | (mg/kg)                | (mg/kg)                 | (mg/kg) |
| Aluminum                        | 19,200                    | 17700                  |                        |                        |                        |                        | 11400                  |                        |                        |                        |                         |                        | 13100                  |                        |                         |         |
| Antimony                        | 5.9                       | 11.1 U                 |                        |                        |                        |                        | 10.6 U                 |                        |                        |                        |                         |                        | 11.1 U                 |                        |                         |         |
| <b>Arsenic</b>                  | 8.24                      | 6.4 J                  | 5.4                    | 5.4                    | 6.1                    | 6.3                    | 3.8 J                  | 5.7                    | 6.3                    |                        | 17.5                    | 5.5                    | 3.6 J                  |                        | 6.3                     |         |
| Barium                          | 300                       | 116                    |                        |                        |                        |                        | 71.5                   |                        |                        |                        |                         |                        | 62.7                   |                        |                         |         |
| Beryllium                       | 1.1                       | 1 J                    |                        |                        |                        |                        | 0.52 J                 |                        |                        |                        |                         |                        | 0.53 J                 |                        |                         |         |
| Cadmium                         | 2.3                       | 2.9 U                  |                        |                        |                        |                        | 2.7 U                  |                        |                        |                        |                         |                        | 2.8 U                  |                        |                         |         |
| Calcium                         | 120,500                   | 2880                   |                        |                        |                        |                        | 1720                   |                        |                        |                        |                         |                        | 1810                   |                        |                         |         |
| Chromium                        | 29                        | 26.6                   |                        |                        |                        |                        | 16                     |                        |                        |                        |                         |                        | 17                     |                        |                         |         |
| Cobalt                          | 30                        | 16.4                   |                        |                        |                        |                        | 6.6                    |                        |                        |                        |                         |                        | 6                      |                        |                         |         |
| Copper                          | 29.6                      | 25.8                   |                        |                        |                        |                        | 12.7                   |                        |                        |                        |                         |                        | 11.1                   |                        |                         |         |
| Iron                            | 35,550                    | 31200                  |                        |                        |                        |                        | 17900                  |                        |                        |                        |                         |                        | 19100                  |                        |                         |         |
| <sup>2</sup> Lead               | 400                       | 16.8                   | 17                     | 14.2                   | 13.9                   | 12.8                   | 12.1                   | 41.8                   | 11.4                   | 8                      |                         | 9.5                    | 10.2                   | 16.9                   |                         |         |
| Magnesium                       | 21,500                    | 5380                   |                        |                        |                        |                        | 2510                   |                        |                        |                        |                         |                        | 2580                   |                        |                         |         |
| Manganese                       | 1,056                     | 685                    |                        |                        |                        |                        | 306                    |                        |                        |                        |                         |                        | 259                    |                        |                         |         |
| Mercury                         | 0.1                       | 0.06 J                 |                        |                        |                        |                        | 0.04 J                 |                        |                        |                        |                         |                        | 0.047 J                |                        |                         |         |
| Nickel                          | 48.9                      | 40.3                   |                        |                        |                        |                        | 16.7                   |                        |                        |                        |                         |                        | 15.5                   |                        |                         |         |
| Potassium                       | 2,343                     | 1690                   |                        |                        |                        |                        | 1160                   |                        |                        |                        |                         |                        | 1050                   |                        |                         |         |
| Selenium                        | 2                         | 15.2 U                 |                        |                        |                        |                        | 14.5 U                 |                        |                        |                        |                         |                        | 15.1 U                 |                        |                         |         |
| Silver                          | 0.763                     | 2.9 U                  |                        |                        |                        |                        | 0.57 J                 |                        |                        |                        |                         |                        | 0.53 J                 |                        |                         |         |
| Sodium                          | 170.3                     | 69.2 J                 |                        |                        |                        |                        | 69.8 J                 |                        |                        |                        |                         |                        | 68.3 J                 |                        |                         |         |
| Thallium                        | 0.67                      | 20.9 U                 |                        |                        |                        |                        | 20 U                   |                        |                        |                        |                         |                        | 20.8 U                 |                        |                         |         |
| Vanadium                        | 150                       | 25.6                   |                        |                        |                        |                        | 19.3                   |                        |                        |                        |                         |                        | 23                     |                        |                         |         |
| <b>Zinc</b>                     | 108.9                     | 78.8                   | 76.1                   | 61.7                   | 59.4                   | 85.7                   | 54                     | 99                     | 69.9                   |                        | 104                     | 53.6                   | 48.9                   | 91.9                   |                         |         |
| <b><sup>3</sup>PAHs</b>         |                           | (µg/kg)                | (µg/kg)                | (µg/kg)                | (µg/kg)                | (µg/kg)                | (µg/kg)                | (µg/kg)                | (µg/kg)                | (µg/kg)                | (µg/kg)                 | (µg/kg)                | (µg/kg)                | (µg/kg)                | (µg/kg)                 | (µg/kg) |
| 2-Methylnaphthalene             | 36,400                    | 35 U                   |                        |                        |                        |                        | 29 U                   |                        |                        |                        |                         |                        | 39 U                   |                        |                         |         |
| Acenaphthene                    | 50,000                    | 19 U                   |                        |                        |                        |                        | 15 U                   |                        |                        |                        |                         |                        | 21 U                   |                        |                         |         |
| Acenaphthylene                  | 41,000                    | 14 U                   |                        |                        |                        |                        | 11 U                   |                        |                        |                        |                         |                        | 15 U                   |                        |                         |         |
| Anthracene                      | 50,000                    | 15 U                   |                        |                        |                        |                        | 12 U                   |                        |                        |                        |                         |                        | 17 U                   |                        |                         |         |
| Benzo(ghi)perylene              | 50,000                    | 21 U                   |                        |                        |                        |                        | 18 U                   |                        |                        |                        |                         |                        | 24 U                   |                        |                         |         |
| Fluoranthene                    | 50,000                    | 27 U                   |                        |                        |                        |                        | 23 U                   |                        |                        |                        |                         |                        | 31 U                   |                        |                         |         |
| Fluorene                        | 50,000                    | 25 U                   |                        |                        |                        |                        | 21 U                   |                        |                        |                        |                         |                        | 28 U                   |                        |                         |         |
| Naphthalene                     | 13,000                    | 40 U                   |                        |                        |                        |                        | 33 U                   |                        |                        |                        |                         |                        | 45 U                   |                        |                         |         |
| Phenanthrene                    | 50,000                    | 30 U                   |                        |                        |                        |                        | 25 U                   |                        |                        |                        |                         |                        | 34 U                   |                        |                         |         |
| Pyrene                          | 50,000                    | 24 U                   |                        |                        |                        |                        | 20 U                   |                        |                        |                        |                         |                        | 27 U                   |                        |                         |         |
| Benzo(a)pyrene                  | 61                        | 20 U                   |                        |                        |                        |                        | 16 U                   |                        |                        |                        |                         |                        | 22 U                   |                        |                         |         |
| Dibenzo(a,h)anthracene          | 14                        | 22 U                   |                        |                        |                        |                        | 19 U                   |                        |                        |                        |                         |                        | 25 U                   |                        |                         |         |
| Benzo(a)anthracene              | 224                       | 19 U                   |                        |                        |                        |                        | 15 U                   |                        |                        |                        |                         |                        | 21 U                   |                        |                         |         |
| Benzo(b)fluoranthene            | 1,100                     | 47 U                   |                        |                        |                        |                        | 39 U                   |                        |                        |                        |                         |                        | 53 U                   |                        |                         |         |
| Indeno(1,2,3-cd)pyrene          | 3,200                     | 22 U                   |                        |                        |                        |                        | 19 U                   |                        |                        |                        |                         |                        | 25 U                   |                        |                         |         |
| Benzo(k)fluoranthene            | 1,100                     | 49 U                   |                        |                        |                        |                        | 40 U                   |                        |                        |                        |                         |                        | 55 U                   |                        |                         |         |
| Chrysene                        | 400                       | 21 U                   |                        |                        |                        |                        | 18 U                   |                        |                        |                        |                         |                        | 24 U                   |                        |                         |         |
| <sup>4</sup> Benzo(a)pyrene TEQ | 10,000                    | 52                     |                        |                        |                        |                        | 43                     |                        |                        |                        |                         |                        | 58                     |                        |                         |         |

**Analytical Results for Area 1 - Floor**  
**SEAD 24**  
**Time Critical Removal Action**  
**SENECA Army Depot**

| Compound                        | <sup>1</sup> CleanUp Goal | SEAD24-FX-A1-SS-042-FS | SEAD24-FX-A1-SS-042-FS2 | SEAD24-FX-A1-SS-043-FS | SEAD24-FX-A1-SS-044-FS2 | SEAD24-FX-A1-SS-045-FS | SEAD24-FX-A1-SS-045-FS2 | SEAD24-FX-A1-SS-046-FS | SEAD24-FX-A1-SS-047-FS | SEAD24-FX-A1-SS-047-FS2 | SEAD24-FX-A1-SS-048-FS | SEAD24-FX-A1-SS-048-FS3 | SEAD24-FX-A1-SS-049-FS2 | SEAD24-FX-A1-SS-050-FS | SEAD24-FX-A1-SS-050-FS2 |         |
|---------------------------------|---------------------------|------------------------|-------------------------|------------------------|-------------------------|------------------------|-------------------------|------------------------|------------------------|-------------------------|------------------------|-------------------------|-------------------------|------------------------|-------------------------|---------|
|                                 |                           | 6-12                   | 12-18                   | 6-12                   | 12-18                   | 6-12                   | 12-18                   | 6-12                   | 6-12                   | 6-12                    | 12-18                  | 6-12                    | 18-24                   | 12-18                  | 6-12                    | 12-18   |
| Depth BOG(inches)               |                           | 6-12                   | 12-18                   | 6-12                   | 12-18                   | 6-12                   | 12-18                   | 6-12                   | 6-12                   | 6-12                    | 12-18                  | 6-12                    | 18-24                   | 12-18                  | 6-12                    | 12-18   |
| Metals                          |                           | (mg/kg)                | (mg/kg)                 | (mg/kg)                | (mg/kg)                 | (mg/kg)                | (mg/kg)                 | (mg/kg)                | (mg/kg)                | (mg/kg)                 | (mg/kg)                | (mg/kg)                 | (mg/kg)                 | (mg/kg)                | (mg/kg)                 | (mg/kg) |
| Aluminum                        | 19,200                    |                        |                         |                        |                         | 16200                  |                         |                        |                        |                         |                        |                         |                         |                        | 13300                   |         |
| Antimony                        | 5.9                       |                        |                         |                        |                         | 10.1 U                 |                         |                        |                        |                         |                        |                         |                         |                        | 2.8 J                   |         |
| <b>Arsenic</b>                  | 8.24                      |                        | 3.9                     | 5.4                    | 11.2                    |                        | 8.8                     | 5.7                    |                        | 5.8                     |                        | 4.2 J                   | 7.6                     |                        |                         | 6.8     |
| Barium                          | 300                       |                        |                         |                        |                         | 97.4                   |                         |                        |                        |                         |                        |                         |                         |                        | 114                     |         |
| Beryllium                       | 1.1                       |                        |                         |                        |                         | 0.8 J                  |                         |                        |                        |                         |                        |                         |                         |                        | 0.55 J                  |         |
| Cadmium                         | 2.3                       |                        |                         |                        |                         | 2.6 U                  |                         |                        |                        |                         |                        |                         |                         |                        | 2.5 U                   |         |
| Calcium                         | 120,500                   |                        |                         |                        |                         | 6670                   |                         |                        |                        |                         |                        |                         |                         |                        | 9230                    |         |
| Chromium                        | 29                        |                        |                         |                        |                         | 21.4                   |                         |                        |                        |                         |                        |                         |                         |                        | 16.5                    |         |
| Cobalt                          | 30                        |                        |                         |                        |                         | 12.5                   |                         |                        |                        |                         |                        |                         |                         |                        | 8.3                     |         |
| Copper                          | 29.6                      |                        |                         |                        |                         | 20.6                   |                         |                        |                        |                         |                        |                         |                         |                        | 16.2                    |         |
| Iron                            | 35,550                    |                        |                         |                        |                         | 25600                  |                         |                        |                        |                         |                        |                         |                         |                        | 20200                   |         |
| <sup>2</sup> Lead               | 400                       | 9.4                    |                         | 16                     | 48.9                    | 37.1                   |                         | 12.6                   | 18.7                   |                         | 23                     |                         | 17.8                    |                        |                         | 16.1    |
| Magnesium                       | 21,500                    |                        |                         |                        |                         |                        | 16.2                    |                        |                        |                         |                        |                         |                         |                        | 3770                    |         |
| Manganese                       | 1,056                     |                        |                         |                        |                         | 530                    |                         |                        |                        |                         |                        |                         |                         |                        | 433                     |         |
| Mercury                         | 0.1                       |                        |                         |                        |                         | 0.051 J                |                         |                        |                        |                         |                        |                         |                         |                        | 0.035 J                 |         |
| Nickel                          | 48.9                      |                        |                         |                        |                         | 24.1                   |                         |                        |                        |                         |                        |                         |                         |                        | 17.7                    |         |
| Potassium                       | 2,343                     |                        |                         |                        |                         | 1610                   |                         |                        |                        |                         |                        |                         |                         |                        | 1170                    |         |
| Selenium                        | 2                         |                        |                         |                        |                         | 13.8 U                 |                         |                        |                        |                         |                        |                         |                         |                        | 13.3 U                  |         |
| Silver                          | 0.763                     |                        |                         |                        |                         | 2.6 U                  |                         |                        |                        |                         |                        |                         |                         |                        | 2.5 U                   |         |
| Sodium                          | 170.3                     |                        |                         |                        |                         | 63.3 J                 |                         |                        |                        |                         |                        |                         |                         |                        | 73 J                    |         |
| Thallium                        | 0.67                      |                        |                         |                        |                         | 18.9 U                 |                         |                        |                        |                         |                        |                         |                         |                        | 18.3 U                  |         |
| Vanadium                        | 150                       |                        |                         |                        |                         | 27.2                   |                         |                        |                        |                         |                        |                         |                         |                        | 23                      |         |
| <b>Zinc</b>                     | 108.9                     | 53.9                   |                         | 71.9                   | 131                     |                        | 81.9                    | 64.7                   | 67.3                   |                         | 74.1                   |                         | 93.9                    |                        |                         | 94.3    |
| <sup>3</sup> PAHs               |                           | (µg/kg)                |                         | (µg/kg)                |                         | (µg/kg)                |                         | (µg/kg)                | (µg/kg)                |                         | (µg/kg)                | (µg/kg)                 |                         | (µg/kg)                |                         | (µg/kg) |
| 2-Methylnaphthalene             | 36,400                    |                        |                         |                        |                         | 32 U                   |                         |                        |                        |                         |                        |                         |                         |                        | 32 U                    |         |
| Acenaphthene                    | 50,000                    |                        |                         |                        |                         | 17 U                   |                         |                        |                        |                         |                        |                         |                         |                        | 17 U                    |         |
| Acenaphthylene                  | 41,000                    |                        |                         |                        |                         | 13 U                   |                         |                        |                        |                         |                        |                         |                         |                        | 13 U                    |         |
| Anthracene                      | 50,000                    |                        |                         |                        |                         | 14 U                   |                         |                        |                        |                         |                        |                         |                         |                        | 14 U                    |         |
| Benzo(ghi)perylene              | 50,000                    |                        |                         |                        |                         | 45 J                   |                         |                        |                        |                         |                        |                         |                         |                        | 32 J                    |         |
| Fluoranthene                    | 50,000                    |                        |                         |                        |                         | 69 J                   |                         |                        |                        |                         |                        |                         |                         |                        | 59 J                    |         |
| Fluorene                        | 50,000                    |                        |                         |                        |                         | 23 U                   |                         |                        |                        |                         |                        |                         |                         |                        | 23 U                    |         |
| Naphthalene                     | 13,000                    |                        |                         |                        |                         | 37 U                   |                         |                        |                        |                         |                        |                         |                         |                        | 37 U                    |         |
| Phenanthrene                    | 50,000                    |                        |                         |                        |                         | 27 U                   |                         |                        |                        |                         |                        |                         |                         |                        | 28 U                    |         |
| Pyrene                          | 50,000                    |                        |                         |                        |                         | 96 J                   |                         |                        |                        |                         |                        |                         |                         |                        | 56 J                    |         |
| Benzo(a)pyrene                  | 61                        |                        |                         |                        |                         | 64 J                   |                         |                        |                        |                         |                        |                         |                         |                        | 45 J                    |         |
| Dibenzo(a,h)anthracene          | 14                        |                        |                         |                        |                         | 21 U                   |                         |                        |                        |                         |                        |                         |                         |                        | 21 U                    |         |
| Benzo(a)anthracene              | 224                       |                        |                         |                        |                         | 65 J                   |                         |                        |                        |                         |                        |                         |                         |                        | 40 J                    |         |
| Benzo(b)fluoranthene            | 1,100                     |                        |                         |                        |                         | 45 J                   |                         |                        |                        |                         |                        |                         |                         |                        | 47 J                    |         |
| Indeno(1,2,3-cd)pyrene          | 3,200                     |                        |                         |                        |                         | 36 J                   |                         |                        |                        |                         |                        |                         |                         |                        | 29 J                    |         |
| Benzo(k)fluoranthene            | 1,100                     |                        |                         |                        |                         | 63 J                   |                         |                        |                        |                         |                        |                         |                         |                        | 45 U                    |         |
| Chrysene                        | 400                       |                        |                         |                        |                         | 89 J                   |                         |                        |                        |                         |                        |                         |                         |                        | 59 J                    |         |
| <sup>4</sup> Benzo(a)pyrene TEQ | 10,000                    |                        |                         |                        |                         | 101                    |                         |                        |                        |                         |                        |                         |                         |                        | 79                      |         |



**Analytical Results for Area 1 - Floor**  
 SEAD 24  
 Time Critical Removal Action  
 SENECA Army Depot

| Compound                        | <sup>1</sup> CleanUp Goal | SEAD24-FX-A1-SS-051-FS | SEAD24-FX-A1-SS-051-FS3 | SEAD24-FX-A1-SS-052-FS | SEAD24-FX-A1-SS-052-FS2 | SEAD24-FX-A1-SS-053-FS2 | SEAD24-FX-A1-SS-054-FS | SEAD24-FX-A1-SS-054-FS2 | SEAD24-FX-A1-SS-055-FS | SEAD24-FX-A1-SS-055-FS2 | SEAD24-FX-A1-SS-056-FS | SEAD24-FX-A1-SS-057-FS | SEAD24-FX-A1-SS-057-FS2 | SEAD24-FX-A1-SS-058-FS | SEAD24-FX-A1-SS-058-FS2 |
|---------------------------------|---------------------------|------------------------|-------------------------|------------------------|-------------------------|-------------------------|------------------------|-------------------------|------------------------|-------------------------|------------------------|------------------------|-------------------------|------------------------|-------------------------|
|                                 |                           | 6-12                   | 18-24                   | 6-12                   | 12-18                   | 12-18                   | 6-12                   | 6-12                    | 6-12                   | 12-18                   | 6-12                   | 6-12                   | 12-18                   | 6-12                   | 12-18                   |
| Depth BOG(inches)               |                           | 6-12                   | 18-24                   | 6-12                   | 12-18                   | 12-18                   | 6-12                   | 6-12                    | 6-12                   | 12-18                   | 6-12                   | 6-12                   | 12-18                   | 6-12                   | 12-18                   |
| Metals                          |                           | (mg/kg)                | (mg/kg)                 | (mg/kg)                | (mg/kg)                 | (mg/kg)                 | (mg/kg)                | (mg/kg)                 | (mg/kg)                | (mg/kg)                 | (mg/kg)                | (mg/kg)                | (mg/kg)                 | (mg/kg)                | (mg/kg)                 |
| Aluminum                        | 19,200                    |                        |                         |                        |                         |                         |                        |                         | 13800                  |                         |                        |                        |                         |                        |                         |
| Antimony                        | 5.9                       |                        |                         |                        |                         |                         |                        |                         | 11.4 U                 |                         |                        |                        |                         |                        |                         |
| <b>Arsenic</b>                  | 8.24                      |                        | 1.7 j                   |                        | 2.4 j                   | 9.7                     |                        | 4.8                     |                        | 5.4                     | 5.2                    |                        | 8.4                     |                        | 17.4                    |
| Barium                          | 300                       |                        |                         |                        |                         |                         |                        |                         | 74.9                   |                         |                        |                        |                         |                        |                         |
| Beryllium                       | 1.1                       |                        |                         |                        |                         |                         |                        |                         | 0.57 J                 |                         |                        |                        |                         |                        |                         |
| Cadmium                         | 2.3                       |                        |                         |                        |                         |                         |                        |                         | 2.9 U                  |                         |                        |                        |                         |                        |                         |
| Calcium                         | 120,500                   |                        |                         |                        |                         |                         |                        |                         | 13700                  |                         |                        |                        |                         |                        |                         |
| Chromium                        | 29                        |                        |                         |                        |                         |                         |                        |                         | 17.8                   |                         |                        |                        |                         |                        |                         |
| Cobalt                          | 30                        |                        |                         |                        |                         |                         |                        |                         | 9.1                    |                         |                        |                        |                         |                        |                         |
| Copper                          | 29.6                      |                        |                         |                        |                         |                         |                        |                         | 15.6                   |                         |                        |                        |                         |                        |                         |
| Iron                            | 35,550                    |                        |                         |                        |                         |                         |                        |                         | 22400                  |                         |                        |                        |                         |                        |                         |
| <sup>2</sup> Lead               | 400                       |                        | 14.7                    | 16.1                   |                         | 13.8                    | 15.2                   |                         | 21.7                   |                         | 14.7                   | 21                     |                         | 23                     |                         |
| Magnesium                       | 21,500                    |                        |                         |                        |                         |                         |                        |                         | 4220                   |                         |                        |                        |                         |                        |                         |
| Manganese                       | 1,056                     |                        |                         |                        |                         |                         |                        |                         | 362                    |                         |                        |                        |                         |                        |                         |
| Mercury                         | 0.1                       |                        |                         |                        |                         |                         |                        |                         | 0.071 U                |                         |                        |                        |                         |                        |                         |
| Nickel                          | 48.9                      |                        |                         |                        |                         |                         |                        |                         | 20.3                   |                         |                        |                        |                         |                        |                         |
| Potassium                       | 2,343                     |                        |                         |                        |                         |                         |                        |                         | 1200                   |                         |                        |                        |                         |                        |                         |
| Selenium                        | 2                         |                        |                         |                        |                         |                         |                        |                         | 15.5 U                 |                         |                        |                        |                         |                        |                         |
| Silver                          | 0.763                     |                        |                         |                        |                         |                         |                        |                         | 2.9 U                  |                         |                        |                        |                         |                        |                         |
| Sodium                          | 170.3                     |                        |                         |                        |                         |                         |                        |                         | 93.8                   |                         |                        |                        |                         |                        |                         |
| Thallium                        | 0.67                      |                        |                         |                        |                         |                         |                        |                         | 21.4 U                 |                         |                        |                        |                         |                        |                         |
| Vanadium                        | 150                       |                        |                         |                        |                         |                         |                        |                         | 25.4                   |                         |                        |                        |                         |                        |                         |
| <b>Zinc</b>                     | 108.9                     | 67.1                   |                         | 74.7                   |                         | 57.1                    | 64                     |                         | 80.3                   |                         | 65.6                   | 74.9                   |                         | 79.3                   |                         |
| <sup>3</sup> PAHs               |                           | (µg/kg)                |                         | (µg/kg)                |                         |                         | (µg/kg)                |                         | (µg/kg)                |                         | (µg/kg)                | (µg/kg)                |                         | (µg/kg)                |                         |
| 2-Methylnaphthalene             | 36,400                    |                        |                         |                        |                         |                         |                        |                         | 31 U                   |                         |                        |                        |                         |                        |                         |
| Acenaphthene                    | 50,000                    |                        |                         |                        |                         |                         |                        |                         | 17 U                   |                         |                        |                        |                         |                        |                         |
| Acenaphthylene                  | 41,000                    |                        |                         |                        |                         |                         |                        |                         | 12 U                   |                         |                        |                        |                         |                        |                         |
| Anthracene                      | 50,000                    |                        |                         |                        |                         |                         |                        |                         | 13 U                   |                         |                        |                        |                         |                        |                         |
| Benzo(ghi)perylene              | 50,000                    |                        |                         |                        |                         |                         |                        |                         | 19 JM                  |                         |                        |                        |                         |                        |                         |
| Fluoranthene                    | 50,000                    |                        |                         |                        |                         |                         |                        |                         | 47 J                   |                         |                        |                        |                         |                        |                         |
| Fluorene                        | 50,000                    |                        |                         |                        |                         |                         |                        |                         | 22 U                   |                         |                        |                        |                         |                        |                         |
| Naphthalene                     | 13,000                    |                        |                         |                        |                         |                         |                        |                         | 35 U                   |                         |                        |                        |                         |                        |                         |
| Phenanthrene                    | 50,000                    |                        |                         |                        |                         |                         |                        |                         | 27 U                   |                         |                        |                        |                         |                        |                         |
| Pyrene                          | 50,000                    |                        |                         |                        |                         |                         |                        |                         | 48 J                   |                         |                        |                        |                         |                        |                         |
| Benzo(a)pyrene                  | 61                        |                        |                         |                        |                         |                         |                        |                         | 28 J                   |                         |                        |                        |                         |                        |                         |
| Dibenzo(a,h)anthracene          | 14                        |                        |                         |                        |                         |                         |                        |                         | 20 U                   |                         |                        |                        |                         |                        |                         |
| Benzo(a)anthracene              | 224                       |                        |                         |                        |                         |                         |                        |                         | 27 J                   |                         |                        |                        |                         |                        |                         |
| Benzo(b)fluoranthene            | 1,100                     |                        |                         |                        |                         |                         |                        |                         | 42 U                   |                         |                        |                        |                         |                        |                         |
| Indeno(1,2,3-cd)pyrene          | 3,200                     |                        |                         |                        |                         |                         |                        |                         | 20 UM                  |                         |                        |                        |                         |                        |                         |
| Benzo(k)fluoranthene            | 1,100                     |                        |                         |                        |                         |                         |                        |                         | 43 U                   |                         |                        |                        |                         |                        |                         |
| Chrysene                        | 400                       |                        |                         |                        |                         |                         |                        |                         | 41 J                   |                         |                        |                        |                         |                        |                         |
| <sup>4</sup> Benzo(a)pyrene TEQ | 10,000                    |                        |                         |                        |                         |                         |                        |                         | 58                     |                         |                        |                        |                         |                        |                         |

**Analytical Results for Area 1 - Floor**  
 SEAD 24  
 Time Critical Removal Action  
 SENECA Army Depot

| Compound                        | <sup>1</sup> CleanUp Goal | SEAD24-FX-A1-SS-059-FS | SEAD24-FX-A1-SS-059-FS2 | SEAD24-FX-A1-SS-060-FS | SEAD24-FX-A1-SS-060-FS2 | SEAD-24-FX-A1-SS-061-FS | SEAD-24-FX-A1-SS-062-FS | SEAD24-FX-A1-SS-062-FS2 | SEAD-24-FX-A1-SS-063-FS | SEAD24-FX-A1-SS-063-FS3 | SEAD24-FX-A1-SS-064-FS2 | SEAD24-FX-A1-SS-064-FS3 | SEAD24-FX-A1-SS-065-FS2 | SEAD-24-FX-A1-SS-066-FS | SEAD24-FX-A1-SS-066-FS2 |
|---------------------------------|---------------------------|------------------------|-------------------------|------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|
|                                 |                           | 6-12                   | 12-18                   | 6-12                   | 12-18                   | 6-12                    | 6-12                    | 12-18                   | 6-12                    | 18-24                   | 12-18                   | 18-24                   | 12-18                   | 6-12                    | 12-18                   |
| Depth BOG(inches)               |                           | (mg/kg)                | (mg/kg)                 | (mg/kg)                | (mg/kg)                 | (mg/kg)                 | (mg/kg)                 | (mg/kg)                 | (mg/kg)                 | (mg/kg)                 | (mg/kg)                 | (mg/kg)                 | (mg/kg)                 | (mg/kg)                 | (mg/kg)                 |
| <b>Metals</b>                   |                           | (mg/kg)                | (mg/kg)                 | (mg/kg)                | (mg/kg)                 | (mg/kg)                 | (mg/kg)                 | (mg/kg)                 | (mg/kg)                 | (mg/kg)                 | (mg/kg)                 | (mg/kg)                 | (mg/kg)                 | (mg/kg)                 | (mg/kg)                 |
| Aluminum                        | 19,200                    |                        |                         |                        |                         |                         |                         |                         |                         |                         |                         |                         |                         |                         |                         |
| Antimony                        | 5.9                       |                        |                         |                        |                         |                         |                         |                         |                         |                         |                         |                         |                         |                         |                         |
| <b>Arsenic</b>                  | 8.24                      |                        | 17.5                    |                        | 6.7                     | 12.4                    |                         | 5.2                     |                         | 5.1                     |                         | 5.1                     | 7.8                     |                         | 5.4                     |
| Barium                          | 300                       |                        |                         |                        |                         |                         |                         |                         |                         |                         |                         |                         |                         |                         |                         |
| Beryllium                       | 1.1                       |                        |                         |                        |                         |                         |                         |                         |                         |                         |                         |                         |                         |                         |                         |
| Cadmium                         | 2.3                       |                        |                         |                        |                         |                         |                         |                         |                         |                         |                         |                         |                         |                         |                         |
| Calcium                         | 120,500                   |                        |                         |                        |                         |                         |                         |                         |                         |                         |                         |                         |                         |                         |                         |
| Chromium                        | 29                        |                        |                         |                        |                         |                         |                         |                         |                         |                         |                         |                         |                         |                         |                         |
| Cobalt                          | 30                        |                        |                         |                        |                         |                         |                         |                         |                         |                         |                         |                         |                         |                         |                         |
| Copper                          | 29.6                      |                        |                         |                        |                         |                         |                         |                         |                         |                         |                         |                         |                         |                         |                         |
| Iron                            | 35,550                    |                        |                         |                        |                         |                         |                         |                         |                         |                         |                         |                         |                         |                         |                         |
| <sup>2</sup> Lead               | 400                       |                        | 20.9                    | 21                     |                         | 23.8                    | 19.3                    |                         | 12.6                    |                         | 18.1                    |                         | 16.6                    |                         | 14                      |
| Magnesium                       | 21,500                    |                        |                         |                        |                         |                         |                         |                         |                         |                         |                         |                         |                         |                         |                         |
| Manganese                       | 1,056                     |                        |                         |                        |                         |                         |                         |                         |                         |                         |                         |                         |                         |                         |                         |
| Mercury                         | 0.1                       |                        |                         |                        |                         |                         |                         |                         |                         |                         |                         |                         |                         |                         |                         |
| Nickel                          | 48.9                      |                        |                         |                        |                         |                         |                         |                         |                         |                         |                         |                         |                         |                         |                         |
| Potassium                       | 2,343                     |                        |                         |                        |                         |                         |                         |                         |                         |                         |                         |                         |                         |                         |                         |
| Selenium                        | 2                         |                        |                         |                        |                         |                         |                         |                         |                         |                         |                         |                         |                         |                         |                         |
| Silver                          | 0.763                     |                        |                         |                        |                         |                         |                         |                         |                         |                         |                         |                         |                         |                         |                         |
| Sodium                          | 170.3                     |                        |                         |                        |                         |                         |                         |                         |                         |                         |                         |                         |                         |                         |                         |
| Thallium                        | 0.67                      |                        |                         |                        |                         |                         |                         |                         |                         |                         |                         |                         |                         |                         |                         |
| Vanadium                        | 150                       |                        |                         |                        |                         |                         |                         |                         |                         |                         |                         |                         |                         |                         |                         |
| <b>Zinc</b>                     | 108.9                     | 99.5                   |                         | 109                    | 46.5                    | 90                      | 96.6                    |                         |                         | 267                     |                         | 80.6                    | 91.4                    | 97.7                    |                         |
| <b><sup>3</sup>PAHs</b>         |                           | (µg/kg)                |                         | (µg/kg)                |                         | (µg/kg)                 | (µg/kg)                 |                         | (µg/kg)                 |                         | (µg/kg)                 |                         |                         | (µg/kg)                 |                         |
| 2-Methylnaphthalene             | 36,400                    |                        |                         |                        |                         |                         |                         |                         |                         |                         |                         |                         |                         |                         |                         |
| Acenaphthene                    | 50,000                    |                        |                         |                        |                         |                         |                         |                         |                         |                         |                         |                         |                         |                         |                         |
| Acenaphthylene                  | 41,000                    |                        |                         |                        |                         |                         |                         |                         |                         |                         |                         |                         |                         |                         |                         |
| Anthracene                      | 50,000                    |                        |                         |                        |                         |                         |                         |                         |                         |                         |                         |                         |                         |                         |                         |
| Benzo(ghi)perylene              | 50,000                    |                        |                         |                        |                         |                         |                         |                         |                         |                         |                         |                         |                         |                         |                         |
| Fluoranthene                    | 50,000                    |                        |                         |                        |                         |                         |                         |                         |                         |                         |                         |                         |                         |                         |                         |
| Fluorene                        | 50,000                    |                        |                         |                        |                         |                         |                         |                         |                         |                         |                         |                         |                         |                         |                         |
| Naphthalene                     | 13,000                    |                        |                         |                        |                         |                         |                         |                         |                         |                         |                         |                         |                         |                         |                         |
| Phenanthrene                    | 50,000                    |                        |                         |                        |                         |                         |                         |                         |                         |                         |                         |                         |                         |                         |                         |
| Pyrene                          | 50,000                    |                        |                         |                        |                         |                         |                         |                         |                         |                         |                         |                         |                         |                         |                         |
| Benzo(a)pyrene                  | 61                        |                        |                         |                        |                         |                         |                         |                         |                         |                         |                         |                         |                         |                         |                         |
| Dibenzo(a,h)anthracene          | 14                        |                        |                         |                        |                         |                         |                         |                         |                         |                         |                         |                         |                         |                         |                         |
| Benzo(a)anthracene              | 224                       |                        |                         |                        |                         |                         |                         |                         |                         |                         |                         |                         |                         |                         |                         |
| Benzo(b)fluoranthene            | 1,100                     |                        |                         |                        |                         |                         |                         |                         |                         |                         |                         |                         |                         |                         |                         |
| Indeno(1,2,3-cd)pyrene          | 3,200                     |                        |                         |                        |                         |                         |                         |                         |                         |                         |                         |                         |                         |                         |                         |
| Benzo(k)fluoranthene            | 1,100                     |                        |                         |                        |                         |                         |                         |                         |                         |                         |                         |                         |                         |                         |                         |
| Chrysene                        | 400                       |                        |                         |                        |                         |                         |                         |                         |                         |                         |                         |                         |                         |                         |                         |
| <sup>4</sup> Benzo(a)pyrene TEQ | 10,000                    |                        |                         |                        |                         |                         |                         |                         |                         |                         |                         |                         |                         |                         |                         |

**Analytical Results for Area 1 - Floor**  
**SEAD 24**  
**Time Critical Removal Action**  
**SENECA Army Depot**

| Compound                        | <sup>1</sup> CleanUp Goal | SEAD-24-FX-A1-SS-067-FS | SEAD24-FX-A1-SS-067-FS2 | SEAD-24-FX-A1-SS-068-FS | SEAD-24-FX-A1-SS-069-FS | SEAD-24-FX-A1-SS-070-FS | SEAD24-FX-A1-SS-070-FS2 | SEAD-24-FX-A1-SS-071-FS | SEAD-24-FX-A1-SS-072-FS | SEAD-24-FX-A1-SS-073-FS | SEAD-24-FX-A1-SS-074-FS | SEAD24-FX-A1-SS-074-FS2 | SEAD-24-FX-A1-SS-075-FS | SEAD24-FX-A1-SS-075-FS3 | SEAD-24-FX-A1-SS-076-FS | SEAD24-FX-A1-SS-076-FS2 | SEAD-24-FX-A1-SS-077-FS |         |
|---------------------------------|---------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|---------|
|                                 |                           | 6-12                    | 12-18                   | 6-12                    | 6-12                    | 6-12                    | 12-18                   | 6-12                    | 6-12                    | 6-12                    | 6-12                    | 6-12                    | 12-18                   | 6-12                    | 18-24                   | 6-12                    | 12-18                   | 6-12    |
| Depth BOG(inches)               |                           | (mg/kg)                 | (mg/kg)                 | (mg/kg)                 | (mg/kg)                 | (mg/kg)                 | (mg/kg)                 | (mg/kg)                 | (mg/kg)                 | (mg/kg)                 | (mg/kg)                 | (mg/kg)                 | (mg/kg)                 | (mg/kg)                 | (mg/kg)                 | (mg/kg)                 | (mg/kg)                 | (mg/kg) |
| <b>Metals</b>                   |                           | (mg/kg)                 | (mg/kg)                 | (mg/kg)                 | (mg/kg)                 | (mg/kg)                 | (mg/kg)                 | (mg/kg)                 | (mg/kg)                 | (mg/kg)                 | (mg/kg)                 | (mg/kg)                 | (mg/kg)                 | (mg/kg)                 | (mg/kg)                 | (mg/kg)                 | (mg/kg)                 | (mg/kg) |
| Aluminum                        | 19,200                    |                         |                         | 18300                   |                         |                         |                         |                         |                         | 17500 U                 |                         |                         |                         |                         |                         |                         |                         |         |
| Antimony                        | 5.9                       |                         |                         | 1.5 U                   |                         |                         |                         |                         |                         | 1.3 B                   |                         |                         |                         |                         |                         |                         |                         |         |
| <b>Arsenic</b>                  | 8.24                      |                         | 5.7                     | 5.1 B                   | 6.8                     |                         | 7.1                     | 3.9 J                   | 7.7                     | 8.2                     |                         | 7.3                     |                         | 5.2                     |                         | 4.9                     | 6.6                     |         |
| Barium                          | 300                       |                         |                         | 69.2                    |                         |                         |                         |                         |                         | 81.8 B                  |                         |                         |                         |                         |                         |                         |                         |         |
| Beryllium                       | 1.1                       |                         |                         | 0.78 B                  |                         |                         |                         |                         |                         | 0.73 U                  |                         |                         |                         |                         |                         |                         |                         |         |
| Cadmium                         | 2.3                       |                         |                         | 1.3 U                   |                         |                         |                         |                         |                         | 1                       |                         |                         |                         |                         |                         |                         |                         |         |
| Calcium                         | 120,500                   |                         |                         | 1680                    |                         |                         |                         |                         |                         | 3560                    |                         |                         |                         |                         |                         |                         |                         |         |
| Chromium                        | 29                        |                         |                         | 25.3                    |                         |                         |                         |                         |                         | 24                      |                         |                         |                         |                         |                         |                         |                         |         |
| Cobalt                          | 30                        |                         |                         | 12.9                    |                         |                         |                         |                         |                         | 11.8                    |                         |                         |                         |                         |                         |                         |                         |         |
| Copper                          | 29.6                      |                         |                         | 19.4                    |                         |                         |                         |                         |                         | 20.9                    |                         |                         |                         |                         |                         |                         |                         |         |
| Iron                            | 35,550                    |                         |                         | 29000                   |                         |                         |                         |                         |                         | 25700                   |                         |                         |                         |                         |                         |                         |                         |         |
| <sup>2</sup> Lead               | 400                       | 13.9                    |                         | 16.6                    | 27.6                    | 16.3                    |                         | 17.9                    | 16.2                    | 22.2                    | 17.7                    |                         | 97.4                    |                         | 17.4                    |                         | 19.8                    |         |
| Magnesium                       | 21,500                    |                         |                         | 4280                    |                         |                         |                         |                         |                         | 4350                    |                         |                         |                         |                         |                         |                         |                         |         |
| Manganese                       | 1,056                     |                         |                         | 531                     |                         |                         |                         |                         |                         | 463 B                   |                         |                         |                         |                         |                         |                         |                         |         |
| Mercury                         | 0.1                       |                         |                         | 0.048 U                 |                         |                         |                         |                         |                         | 0.048                   |                         |                         |                         |                         |                         |                         |                         |         |
| Nickel                          | 48.9                      |                         |                         | 28.4                    |                         |                         |                         |                         |                         | 28                      |                         |                         |                         |                         |                         |                         |                         |         |
| Potassium                       | 2,343                     |                         |                         | 2200                    |                         |                         |                         |                         |                         | 2200 U                  |                         |                         |                         |                         |                         |                         |                         |         |
| Selenium                        | 2                         |                         |                         | 2 U                     |                         |                         |                         |                         |                         | 1.7 U                   |                         |                         |                         |                         |                         |                         |                         |         |
| Silver                          | 0.763                     |                         |                         | 0.38 U                  |                         |                         |                         |                         |                         | 0.31 B                  |                         |                         |                         |                         |                         |                         |                         |         |
| Sodium                          | 170.3                     |                         |                         | 68 B                    |                         |                         |                         |                         |                         | 72.9 U                  |                         |                         |                         |                         |                         |                         |                         |         |
| Thallium                        | 0.67                      |                         |                         | 3.8 U                   |                         |                         |                         |                         |                         | 3.1                     |                         |                         |                         |                         |                         |                         |                         |         |
| Vanadium                        | 150                       |                         |                         | 30.5                    |                         |                         |                         |                         |                         | 28.6                    |                         |                         |                         |                         |                         |                         |                         |         |
| <b>Zinc</b>                     | 108.9                     | 80                      |                         | 72.8                    | 111                     |                         | 97.7                    | 71.5                    | 89.6                    | 95.8                    | 90.3                    |                         | 166                     |                         | 103                     |                         | 112                     |         |
| <b><sup>3</sup>PAHs</b>         |                           | (µg/kg)                 |                         | (µg/kg)                 | (µg/kg)                 | (µg/kg)                 |                         | (µg/kg)                 | (µg/kg)                 | (µg/kg)                 | (µg/kg)                 |                         | (µg/kg)                 | (µg/kg)                 | (µg/kg)                 |                         | (µg/kg)                 |         |
| 2-Methylnaphthalene             | 36,400                    |                         |                         | 35 U                    |                         |                         |                         |                         |                         | 37 U                    |                         |                         |                         |                         |                         |                         |                         |         |
| Acenaphthene                    | 50,000                    |                         |                         | 19 U                    |                         |                         |                         |                         |                         | 20 U                    |                         |                         |                         |                         |                         |                         |                         |         |
| Acenaphthylene                  | 41,000                    |                         |                         | 14 U                    |                         |                         |                         |                         |                         | 66 J                    |                         |                         |                         |                         |                         |                         |                         |         |
| Anthracene                      | 50,000                    |                         |                         | 15 U                    |                         |                         |                         |                         |                         | 60 J                    |                         |                         |                         |                         |                         |                         |                         |         |
| Benzo(ghi)perylene              | 50,000                    |                         |                         | 21 U                    |                         |                         |                         |                         |                         | 170 J                   |                         |                         |                         |                         |                         |                         |                         |         |
| Fluoranthene                    | 50,000                    |                         |                         | 28 UM                   |                         |                         |                         |                         |                         | 340 J                   |                         |                         |                         |                         |                         |                         |                         |         |
| Fluorene                        | 50,000                    |                         |                         | 25 U                    |                         |                         |                         |                         |                         | 27 U                    |                         |                         |                         |                         |                         |                         |                         |         |
| Naphthalene                     | 13,000                    |                         |                         | 40 U                    |                         |                         |                         |                         |                         | 42 UM                   |                         |                         |                         |                         |                         |                         |                         |         |
| Phenanthrene                    | 50,000                    |                         |                         | 30 UM                   |                         |                         |                         |                         |                         | 230 J                   |                         |                         |                         |                         |                         |                         |                         |         |
| Pyrene                          | 50,000                    |                         |                         | 24 UM                   |                         |                         |                         |                         |                         | 400 J                   |                         |                         |                         |                         |                         |                         |                         |         |
| Benzo(a)pyrene                  | 61                        |                         |                         | 20 U                    |                         |                         |                         |                         |                         | 260 J                   |                         |                         |                         |                         |                         |                         |                         |         |
| Dibenzo(a,h)anthracene          | 14                        |                         |                         | 23 U                    |                         |                         |                         |                         |                         | 24 U                    |                         |                         |                         |                         |                         |                         |                         |         |
| Benzo(a)anthracene              | 224                       |                         |                         | 19 U                    |                         |                         |                         |                         |                         | 200 J                   |                         |                         |                         |                         |                         |                         |                         |         |
| Benzo(b)fluoranthene            | 1,100                     |                         |                         | 48 U                    |                         |                         |                         |                         |                         | 170 JH                  |                         |                         |                         |                         |                         |                         |                         |         |
| Indeno(1,2,3-cd)pyrene          | 3,200                     |                         |                         | 23 U                    |                         |                         |                         |                         |                         | 140 J                   |                         |                         |                         |                         |                         |                         |                         |         |
| Benzo(k)fluoranthene            | 1,100                     |                         |                         | 49 U                    |                         |                         |                         |                         |                         | 180 J                   |                         |                         |                         |                         |                         |                         |                         |         |
| Chrysene                        | 400                       |                         |                         | 21 U                    |                         |                         |                         |                         |                         | 250 J                   |                         |                         |                         |                         |                         |                         |                         |         |
| <sup>4</sup> Benzo(a)pyrene TEQ | 10,000                    |                         |                         | 53                      |                         |                         |                         |                         |                         | 339                     |                         |                         |                         |                         |                         |                         |                         |         |

Analytical Results for Area 1 - Floor

SEAD 24

Time Critical Removal Action

SENECA Army Depot

| Compound                        | <sup>1</sup> CleanUp Goal | SEAD-24-FX-A1-SS-078-FS | SEAD24-FX-A1-SS-078-FS3 | SEAD24-FX-A1-SS-078-FS4 | SEAD-24-FX-A1-SS-079-FS | SEAD24-FX-A1-SS-079-FS3 | SEAD-24-FX-A1-SS-080-FS | SEAD24-FX-A1-SS-080-FS2 | SEAD-24-FX-A1-SS-081-FS | SEAD24-FX-A1-SS-081-FS2 | SEAD-24-FX-A1-SS-082-FS | SEAD-24-FX-A1-SS-083-FS | SEAD24-FX-A1-SS-084-FS2 | SEAD-24-FX-A1-SS-085-FS |
|---------------------------------|---------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|
| Depth BOG(inches)               |                           | 6-12                    | 18-24                   | 24-30                   | 6-12                    | 18-24                   | 6-12                    | 12-18                   | 6-12                    | 12-18                   | 6-12                    | 6-12                    | 12-18                   | 6-12                    |
| <b>Metals</b>                   |                           | (mg/kg)                 | (mg/kg)                 | (mg/kg)                 | (mg/kg)                 | (mg/kg)                 | (mg/kg)                 | (mg/kg)                 | (mg/kg)                 | (mg/kg)                 | (mg/kg)                 | (mg/kg)                 | (mg/kg)                 | (mg/kg)                 |
| Aluminum                        | 19,200                    | 22600                   |                         |                         |                         |                         |                         |                         |                         |                         |                         | 17300                   |                         |                         |
| Antimony                        | 5.9                       | 1.1 U                   |                         |                         |                         |                         |                         |                         |                         |                         |                         | 1.4 U                   |                         |                         |
| <b>Arsenic</b>                  | 8.24                      |                         |                         | 6.3                     |                         | 5.9                     |                         | 18.2                    |                         | 7.5                     | 5.5                     | 5.1 B                   | 11.8                    | 5.8                     |
| Barium                          | 300                       | 89.7                    |                         |                         |                         |                         |                         |                         |                         |                         |                         | 87.8                    |                         |                         |
| Beryllium                       | 1.1                       | 1.2 B                   |                         |                         |                         |                         |                         |                         |                         |                         |                         | 0.76 B                  |                         |                         |
| Cadmium                         | 2.3                       | 0.94 U                  |                         |                         |                         |                         |                         |                         |                         |                         |                         | 1.2 U                   |                         |                         |
| Calcium                         | 120,500                   | 2200                    |                         |                         |                         |                         |                         |                         |                         |                         |                         | 5790                    |                         |                         |
| Chromium                        | 29                        | 33.8                    |                         |                         |                         |                         |                         |                         |                         |                         |                         | 23.1                    |                         |                         |
| Cobalt                          | 30                        | 17.7                    |                         |                         |                         |                         |                         |                         |                         |                         |                         | 11.7                    |                         |                         |
| Copper                          | 29.6                      | 37.1                    |                         |                         |                         |                         |                         |                         |                         |                         |                         | 17.2                    |                         |                         |
| Iron                            | 35,550                    | 43000                   |                         |                         |                         |                         |                         |                         |                         |                         |                         | 24400                   |                         |                         |
| <sup>2</sup> Lead               | 400                       |                         |                         | 20.6                    | 13.9                    |                         |                         | 20.7                    | 20.2                    |                         | 16.6                    | 18                      | 16.1                    | 80.5                    |
| Magnesium                       | 21,500                    | 6390                    |                         |                         |                         |                         |                         |                         |                         |                         |                         | 4100                    |                         |                         |
| Manganese                       | 1,056                     | 737                     |                         |                         |                         |                         |                         |                         |                         |                         |                         | 442                     |                         |                         |
| Mercury                         | 0.1                       | 0.043 B                 |                         |                         |                         |                         |                         |                         |                         |                         |                         | 0.048 B                 |                         |                         |
| Nickel                          | 48.9                      | 47.6                    |                         |                         |                         |                         |                         |                         |                         |                         |                         | 26.8                    |                         |                         |
| Potassium                       | 2,343                     | 2430                    |                         |                         |                         |                         |                         |                         |                         |                         |                         | 2170                    |                         |                         |
| Selenium                        | 2                         | 1.6 B                   |                         |                         |                         |                         |                         |                         |                         |                         |                         | 1.9 U                   |                         |                         |
| Silver                          | 0.763                     | 0.28 U                  |                         |                         |                         |                         |                         |                         |                         |                         |                         | 0.36 U                  |                         |                         |
| Sodium                          | 170.3                     | 73.6 B                  |                         |                         |                         |                         |                         |                         |                         |                         |                         | 77.2 B                  |                         |                         |
| Thallium                        | 0.67                      | 2.8 U                   |                         |                         |                         |                         |                         |                         |                         |                         |                         | 3.6 U                   |                         |                         |
| Vanadium                        | 150                       | 32.3                    |                         |                         |                         |                         |                         |                         |                         |                         |                         | 27.9                    |                         |                         |
| <b>Zinc</b>                     | 108.9                     |                         | 67                      |                         |                         | 91.9                    | 84.3                    |                         | 108                     |                         | 87                      | 81.9                    | 62.9                    | 148                     |
| <b><sup>3</sup>PAHs</b>         |                           | (µg/kg)                 |                         |                         | (µg/kg)                 |                         | (µg/kg)                 |                         | (µg/kg)                 |                         | (µg/kg)                 | (µg/kg)                 |                         | (µg/kg)                 |
| 2-Methylnaphthalene             | 36,400                    | 34 U                    |                         |                         |                         |                         |                         |                         |                         |                         |                         | 35 U                    |                         |                         |
| Acenaphthene                    | 50,000                    | 18 U                    |                         |                         |                         |                         |                         |                         |                         |                         |                         | 19 U                    |                         |                         |
| Acenaphthylene                  | 41,000                    | 13 U                    |                         |                         |                         |                         |                         |                         |                         |                         |                         | 34 J                    |                         |                         |
| Anthracene                      | 50,000                    | 15 U                    |                         |                         |                         |                         |                         |                         |                         |                         |                         | 41 J                    |                         |                         |
| Benzo(ghi)perylene              | 50,000                    | 21 U                    |                         |                         |                         |                         |                         |                         |                         |                         |                         | 170 J                   |                         |                         |
| Fluoranthene                    | 50,000                    | 27 U                    |                         |                         |                         |                         |                         |                         |                         |                         |                         | 480                     |                         |                         |
| Fluorene                        | 50,000                    | 24 U                    |                         |                         |                         |                         |                         |                         |                         |                         |                         | 25 UM                   |                         |                         |
| Naphthalene                     | 13,000                    | 39 U                    |                         |                         |                         |                         |                         |                         |                         |                         |                         | 40 UM                   |                         |                         |
| Phenanthrene                    | 50,000                    | 29 U                    |                         |                         |                         |                         |                         |                         |                         |                         |                         | 200 J                   |                         |                         |
| Pyrene                          | 50,000                    | 23 U                    |                         |                         |                         |                         |                         |                         |                         |                         |                         | 500                     |                         |                         |
| Benzo(a)pyrene                  | 61                        | 20 U                    |                         |                         |                         |                         |                         |                         |                         |                         |                         | 250 J                   |                         |                         |
| Dibenzo(a,h)anthracene          | 14                        | 22 U                    |                         |                         |                         |                         |                         |                         |                         |                         |                         | 81 J                    |                         |                         |
| Benzo(a)anthracene              | 224                       | 18 U                    |                         |                         |                         |                         |                         |                         |                         |                         |                         | 270 J                   |                         |                         |
| Benzo(b)fluoranthene            | 1,100                     | 46 U                    |                         |                         |                         |                         |                         |                         |                         |                         |                         | 220 JH                  |                         |                         |
| Indeno(1,2,3-cd)pyrene          | 3,200                     | 22 U                    |                         |                         |                         |                         |                         |                         |                         |                         |                         | 160 J                   |                         |                         |
| Benzo(k)fluoranthene            | 1,100                     | 48 U                    |                         |                         |                         |                         |                         |                         |                         |                         |                         | 230 J                   |                         |                         |
| Chrysene                        | 400                       | 21 U                    |                         |                         |                         |                         |                         |                         |                         |                         |                         | 310 J                   |                         |                         |
| <sup>4</sup> Benzo(a)pyrene TEQ | 10,000                    | 51                      |                         |                         |                         |                         |                         |                         |                         |                         |                         | 401                     |                         |                         |

**Analytical Results for Area 1 - Floor**

SEAD 24

Time Critical Removal Action

SENECA Army Depot

| Compound                        | <sup>1</sup> CleanUp Goal | SEAD24-FX-A1-SS-086-FS | SEAD24-FX-A1-SS-086-FS2 | SEAD24-FX-A1-SS-087-FS | SEAD24-PX-A1-SS-087-FS2 | SEAD24-FX-A1-SS-088-FS | SEAD24-PX-A1-SS-088-FS2 | SEAD-24-FX-A1-SS-089-FS | SEAD-24-FX-A1-SS-090-FS | SEAD-24-FX-A1-SS-091-FS | SEAD-24-FX-A1-SS-092-FS |
|---------------------------------|---------------------------|------------------------|-------------------------|------------------------|-------------------------|------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|
|                                 |                           | 6-12                   | 12-18                   | 6-12                   | 12-18                   | 6-12                   | 12-18                   | 12-18                   | 24-30                   | 24-30                   | 12-18                   |
| Depth BOG(inches)               |                           | (mg/kg)                | (mg/kg)                 | (mg/kg)                | (mg/kg)                 | (mg/kg)                | (mg/kg)                 | (mg/kg)                 | (mg/kg)                 | (mg/kg)                 | (mg/kg)                 |
| <b>Metals</b>                   |                           |                        |                         |                        |                         |                        |                         |                         |                         |                         |                         |
| Aluminum                        | 19,200                    |                        |                         |                        |                         |                        |                         |                         |                         |                         |                         |
| Antimony                        | 5.9                       |                        |                         |                        |                         |                        |                         |                         |                         |                         |                         |
| <b>Arsenic</b>                  | 8.24                      | 4.3                    |                         | 7.1                    |                         | 5.9                    |                         | 18.5                    | 4.9                     | 69.2                    | 10.5                    |
| Barium                          | 300                       |                        |                         |                        |                         |                        |                         |                         |                         |                         |                         |
| Beryllium                       | 1.1                       |                        |                         |                        |                         |                        |                         |                         |                         |                         |                         |
| Cadmium                         | 2.3                       |                        |                         |                        |                         |                        |                         |                         |                         |                         |                         |
| Calcium                         | 120,500                   |                        |                         |                        |                         |                        |                         |                         |                         |                         |                         |
| Chromium                        | 29                        |                        |                         |                        |                         |                        |                         |                         |                         |                         |                         |
| Cobalt                          | 30                        |                        |                         |                        |                         |                        |                         |                         |                         |                         |                         |
| Copper                          | 29.6                      |                        |                         |                        |                         |                        |                         |                         |                         |                         |                         |
| Iron                            | 35,550                    |                        |                         |                        |                         |                        |                         |                         |                         |                         |                         |
| <sup>2</sup> Lead               | 400                       | 9.3                    |                         |                        | 16.5                    |                        | 19.1                    | 18.7                    | 8.9                     | 10.7                    | 28.8                    |
| Magnesium                       | 21,500                    |                        |                         |                        |                         |                        |                         |                         |                         |                         |                         |
| Manganese                       | 1,056                     |                        |                         |                        |                         |                        |                         |                         |                         |                         |                         |
| Mercury                         | 0.1                       |                        |                         |                        |                         |                        |                         |                         |                         |                         |                         |
| Nickel                          | 48.9                      |                        |                         |                        |                         |                        |                         |                         |                         |                         |                         |
| Potassium                       | 2,343                     |                        |                         |                        |                         |                        |                         |                         |                         |                         |                         |
| Selenium                        | 2                         |                        |                         |                        |                         |                        |                         |                         |                         |                         |                         |
| Silver                          | 0.763                     |                        |                         |                        |                         |                        |                         |                         |                         |                         |                         |
| Sodium                          | 170.3                     |                        |                         |                        |                         |                        |                         |                         |                         |                         |                         |
| Thallium                        | 0.67                      |                        |                         |                        |                         |                        |                         |                         |                         |                         |                         |
| Vanadium                        | 150                       |                        |                         |                        |                         |                        |                         |                         |                         |                         |                         |
| <b>Zinc</b>                     | 108.9                     |                        | 71.9                    |                        | 52.4                    |                        | 122.0                   | 85                      | 48.6                    | 60.7                    | 122                     |
| <b><sup>3</sup>PAHs</b>         |                           |                        |                         |                        |                         |                        |                         | (µg/kg)                 | (µg/kg)                 | (µg/kg)                 | (µg/kg)                 |
| 2-Methylnaphthalene             | 36,400                    |                        |                         |                        |                         |                        |                         | 62 U                    |                         |                         |                         |
| Acenaphthene                    | 50,000                    |                        |                         |                        |                         |                        |                         | 64 U                    |                         |                         |                         |
| Acenaphthylene                  | 41,000                    |                        |                         |                        |                         |                        |                         | 48 U                    |                         |                         |                         |
| Anthracene                      | 50,000                    |                        |                         |                        |                         |                        |                         | 64 U                    |                         |                         |                         |
| Benzo(ghi)perylene              | 50,000                    |                        |                         |                        |                         |                        |                         | 43 U                    |                         |                         |                         |
| Fluoranthene                    | 50,000                    |                        |                         |                        |                         |                        |                         | 49 U                    |                         |                         |                         |
| Fluorene                        | 50,000                    |                        |                         |                        |                         |                        |                         | 50 U                    |                         |                         |                         |
| Naphthalene                     | 13,000                    |                        |                         |                        |                         |                        |                         | 66 U                    |                         |                         |                         |
| Phenanthrene                    | 50,000                    |                        |                         |                        |                         |                        |                         | 45 U                    |                         |                         |                         |
| Pyrene                          | 50,000                    |                        |                         |                        |                         |                        |                         | 53 U                    |                         |                         |                         |
| Benzo(a)pyrene                  | 61                        |                        |                         |                        |                         |                        |                         | 48 U                    |                         |                         |                         |
| Dibenzo(a,h)anthracene          | 14                        |                        |                         |                        |                         |                        |                         | 43 U                    |                         |                         |                         |
| Benzo(a)anthracene              | 224                       |                        |                         |                        |                         |                        |                         | 52 U                    |                         |                         |                         |
| Benzo(b)fluoranthene            | 1,100                     |                        |                         |                        |                         |                        |                         | 110 U                   |                         |                         |                         |
| Indeno(1,2,3-cd)pyrene          | 3,200                     |                        |                         |                        |                         |                        |                         | 39 U                    |                         |                         |                         |
| Benzo(k)fluoranthene            | 1,100                     |                        |                         |                        |                         |                        |                         | 43 U                    |                         |                         |                         |
| Chrysene                        | 400                       |                        |                         |                        |                         |                        |                         | 49 U                    |                         |                         |                         |
| <sup>4</sup> Benzo(a)pyrene TEQ | 10,000                    |                        |                         |                        |                         |                        |                         |                         |                         |                         |                         |

Analytical Results for Area 1 - Perimeter

SEAD 24

Time Critical Removal Action

SENECA Army Depot

| Compound                        | <sup>1</sup> CleanUp Goal | SEAD24-PX-A1-SS-001-FS                            | SEAD24-PX-A1-SS-001-FS4 | SEAD24-PX-A1-SS-001-FS5 | SEAD24-PX-A1-SS-002-FS3 | SEAD24-PX-A1-SS-002-FS4 | SEAD24-PX-A1-SS-003-FS | SEAD24-PX-A1-SS-003-FS2 | SEAD24-PX-A1-SS-004-FS | SEAD24-PX-A1-SS-005-FS | SEAD24-PX-A1-SS-005-FS2 | SEAD24-PX-A1-SS-006-FS | SEAD24-PX-A1-SS-007-FS | SEAD24-PX-A1-SS-008-FS |
|---------------------------------|---------------------------|---|-------------------------|-------------------------|-------------------------|-------------------------|------------------------|-------------------------|------------------------|------------------------|-------------------------|------------------------|------------------------|------------------------|
|                                 |                           | Sample Depth BOG (inches) / Offset Distance(feet) | 2-6 / 1                 | 2-6 / 6                 | 2-6 / 8                 | 2-6 / 5                 | 2-6 / 6                | 2-6 / 1                 | 2-6 / 4                | 2-6 / 1                | 2-6 / 1                 | 2-6 / 4                | 2-6 / 1                | 2-6 / 1                |
| Metals                          |                           | (mg/kg)   | (mg/kg)                 | (mg/kg)                 | (mg/kg)                 | (mg/kg)                 | (mg/kg)                | (mg/kg)                 | (mg/kg)                | (mg/kg)                | (mg/kg)                 | (mg/kg)                | (mg/kg)                | (mg/kg)                |
| Aluminum                        | 19,200                    | 12400   |                         |                         |                         |                         |                        |                         |                        |                        |                         | 16100                  |                        |                        |
| Antimony                        | 5.9                       | 5.1 J   |                         |                         |                         |                         |                        |                         |                        |                        |                         | 13.3 U                 |                        |                        |
| <b>Arsenic</b>                  | <b>8.24</b>               |   |                         | <b>26.7</b>             |                         | <b>18.5</b>             |                        | <b>11.2</b>             | 7.5                    |                        | 6 j                     | 6.8 J                  | 7.2                    | 7.3                    |
| Barium                          | 300                       | 98.4  |                         |                         |                         |                         |                        |                         |                        |                        |                         | 132                    |                        |                        |
| Beryllium                       | 1.1                       | 0.71 J  |                         |                         |                         |                         |                        |                         |                        |                        |                         | 0.95 J                 |                        |                        |
| Cadmium                         | 2.3                       | 2.7 U   |                         |                         |                         |                         |                        |                         |                        |                        |                         | 3.4 U                  |                        |                        |
| Calcium                         | 120,500                   | 10900   |                         |                         |                         |                         |                        |                         |                        |                        |                         | 5470                   |                        |                        |
| Chromium                        | 29                        | 21.2  |                         |                         |                         |                         |                        |                         |                        |                        |                         | 23.8                   |                        |                        |
| Cobalt                          | 30                        | 13.2  |                         |                         |                         |                         |                        |                         |                        |                        |                         | 11.7                   |                        |                        |
| Copper                          | 29.6                      | 25.8  |                         |                         |                         |                         |                        |                         |                        |                        |                         | 22                     |                        |                        |
| Iron                            | 35,550                    | 26300   |                         |                         |                         |                         |                        |                         |                        |                        |                         | 27800                  |                        |                        |
| <sup>2</sup> Lead               | 400                       |   | 89.4                    |                         |                         | 36.1                    | 23.4                   |                         | 21.9                   | 29.8                   |                         | 19.2                   | 22.1                   | 17.7                   |
| Magnesium                       | 21,500                    | 4600  |                         |                         |                         |                         |                        |                         |                        |                        |                         | 4580                   |                        |                        |
| Manganese                       | 1,056                     | 893   |                         |                         |                         |                         |                        |                         |                        |                        |                         | 682                    |                        |                        |
| Mercury                         | 0.1                       | 0.051 J   |                         |                         |                         |                         |                        |                         |                        |                        |                         | 0.06 J                 |                        |                        |
| Nickel                          | 48.9                      | 36.4  |                         |                         |                         |                         |                        |                         |                        |                        |                         | 32.3                   |                        |                        |
| Potassium                       | 2,343                     | 1520  |                         |                         |                         |                         |                        |                         |                        |                        |                         | 2100                   |                        |                        |
| Selenium                        | 2                         | 14.6 U  |                         |                         |                         |                         |                        |                         |                        |                        |                         | 2.1 J                  |                        |                        |
| Silver                          | 0.763                     | 2.7 U   |                         |                         |                         |                         |                        |                         |                        |                        |                         | 3.4 U                  |                        |                        |
| Sodium                          | 170.3                     | 78.7 J  |                         |                         |                         |                         |                        |                         |                        |                        |                         | 94.7 J                 |                        |                        |
| Thallium                        | 0.67                      | 20 U  |                         |                         |                         |                         |                        |                         |                        |                        |                         | 25 U                   |                        |                        |
| Vanadium                        | 150                       | 19.3  |                         |                         |                         |                         |                        |                         |                        |                        |                         | 25.1                   |                        |                        |
| <b>Zinc</b>                     | <b>108.9</b>              |   |                         | <b>188</b>              | <b>132</b>              |                         |                        | <b>126</b>              | <b>119</b>             |                        | <b>129</b>              | <b>115</b>             | 108                    | 91.1                   |
| <sup>3</sup> PAHs               |                           | (ug/kg)   |                         |                         | (ug/kg)                 |                         | (ug/kg)                |                         | (ug/kg)                | (ug/kg)                |                         | (ug/kg)                | (ug/kg)                | (ug/kg)                |
| 2-Methylnaphthalene             | 36,400                    | 33 U  |                         |                         |                         |                         |                        |                         |                        |                        |                         | 39 U                   |                        |                        |
| Acenaphthene                    | 50,000                    | 18 U  |                         |                         |                         |                         |                        |                         |                        |                        |                         | 21 U                   |                        |                        |
| Acenaphthylene                  | 41,000                    | 13 U  |                         |                         |                         |                         |                        |                         |                        |                        |                         | 15 U                   |                        |                        |
| Anthracene                      | 50,000                    | 14 U  |                         |                         |                         |                         |                        |                         |                        |                        |                         | 17 U                   |                        |                        |
| Benzo(ghi)perylene              | 50,000                    | 20 U  |                         |                         |                         |                         |                        |                         |                        |                        |                         | 24 U                   |                        |                        |
| Fluoranthene                    | 50,000                    | 26 U  |                         |                         |                         |                         |                        |                         |                        |                        |                         | 31 U                   |                        |                        |
| Fluorene                        | 50,000                    | 23 U  |                         |                         |                         |                         |                        |                         |                        |                        |                         | 28 U                   |                        |                        |
| Naphthalene                     | 13,000                    | 38 U  |                         |                         |                         |                         |                        |                         |                        |                        |                         | 45 U                   |                        |                        |
| Phenanthrene                    | 50,000                    | 28 U  |                         |                         |                         |                         |                        |                         |                        |                        |                         | 33 U                   |                        |                        |
| Pyrene                          | 50,000                    | 22 U  |                         |                         |                         |                         |                        |                         |                        |                        |                         | 26 U                   |                        |                        |
| Benzo(a)pyrene                  | 61                        | 19 J  |                         |                         |                         |                         |                        |                         |                        |                        |                         | 22 U                   |                        |                        |
| Dibenzo(a,h)anthracene          | 14                        | <b>21 U</b>                                       |                         |                         |                         |                         |                        |                         |                        |                        |                         | <b>25 U</b>            |                        |                        |
| Benzo(a)anthracene              | 224                       | 18 U  |                         |                         |                         |                         |                        |                         |                        |                        |                         | 21 U                   |                        |                        |
| Benzo(b)fluoranthene            | 1,100                     | 45 UM   |                         |                         |                         |                         |                        |                         |                        |                        |                         | 53 U                   |                        |                        |
| Indeno(1,2,3-cd)pyrene          | 3,200                     | 21 U  |                         |                         |                         |                         |                        |                         |                        |                        |                         | 25 U                   |                        |                        |
| Benzo(k)fluoranthene            | 1,100                     | 46 UM   |                         |                         |                         |                         |                        |                         |                        |                        |                         | 54 U                   |                        |                        |
| Chrysene                        | 400                       | 20 U  |                         |                         |                         |                         |                        |                         |                        |                        |                         | 24 U                   |                        |                        |
| <sup>4</sup> Benzo(a)pyrene TEQ | 10,000                    | 49  |                         |                         |                         |                         |                        |                         |                        |                        |                         | 58                     |                        |                        |



Analytical Results for Area 1 - Perimeter

SEAD 24

Time Critical Removal Action

SENECA Army Depot

| Compound  | <sup>1</sup> CleanUp Goal | SEAD24-PX-A1-SS-009-FS | SEAD24-PX-A1-SS-010-FS | SEAD24-PX-A1-SS-011-FS | SEAD24-PX-A1-SS-012-FS | SEAD24-PX-A1-SS-013-FS | SEAD24-PX-A1-SS-014-FS | SEAD24-PX-A1-SS-015-FS | SEAD24-PX-A1-SS-015-FS2 | SEAD24-PX-A1-SS-016-FS | SEAD24-PX-A1-SS-017-FS | SEAD24-PX-A1-SS-018-FS | SEAD24-PX-A1-SS-019-FS | SEAD24-PX-A1-SS-020-FS |
|---|---------------------------|------------------------|------------------------|------------------------|------------------------|------------------------|------------------------|------------------------|-------------------------|------------------------|------------------------|------------------------|------------------------|------------------------|
| Sample Depth BOG (inches) / Offset Distance(feet) |                           | 2-6 / 1                | 2-6 / 1                | 2-6 / 1                | 2-6 / 1                | 2-6 / 1                | 2-6 / 1                | 2-6 / 1                | 2-6 / 4                 | 2-6 / 1                | 2-6 / 1                | 2-6 / 1                | 2-6 / 1                | 2-6 / 1                |
| Metals  |                           | (mg/kg)                | (mg/kg)                | (mg/kg)                | (mg/kg)                | (mg/kg)                | (mg/kg)                | (mg/kg)                | (mg/kg)                 | (mg/kg)                | (mg/kg)                | (mg/kg)                | (mg/kg)                | (mg/kg)                |
| Aluminum  | 19,200                    |                        |                        | 17200                  |                        |                        |                        |                        |                         | 13500                  |                        |                        |                        |                        |
| Antimony  | 5.9                       |                        |                        | 13 U                   |                        |                        |                        |                        |                         | 14 U                   |                        |                        |                        |                        |
| Arsenic   | 8.24                      | 7                      | 4.4                    | 7.9 J                  | 6.4                    | 5.7                    | 6.6                    |                        | 4.7                     | 5.8 J                  | 4.4                    | 4.9                    | 6.8                    | 7.8                    |
| Barium  | 300                       |                        |                        | 90.1                   |                        |                        |                        |                        |                         | 98.9                   |                        |                        |                        |                        |
| Beryllium   | 1.1                       |                        |                        | 0.93 J                 |                        |                        |                        |                        |                         | 0.65 J                 |                        |                        |                        |                        |
| Cadmium   | 2.3                       |                        |                        | 3.3 U                  |                        |                        |                        |                        |                         | 3.6 U                  |                        |                        |                        |                        |
| Calcium   | 120,500                   |                        |                        | 2660                   |                        |                        |                        |                        |                         | 5890                   |                        |                        |                        |                        |
| Chromium  | 29                        |                        |                        | 24.8                   |                        |                        |                        |                        |                         | 18.2                   |                        |                        |                        |                        |
| Cobalt  | 30                        |                        |                        | 10.8                   |                        |                        |                        |                        |                         | 8.5                    |                        |                        |                        |                        |
| Copper  | 29.6                      |                        |                        | 21.6                   |                        |                        |                        |                        |                         | 41.8                   |                        |                        |                        |                        |
| Iron  | 35,550                    |                        |                        | 32300                  |                        |                        |                        |                        |                         | 20700                  |                        |                        |                        |                        |
| <sup>2</sup> Lead                                 | 400                       | 19.7                   | 14.4                   | 27.9                   | 12.5                   | 15.6                   | 21.4                   | 22.7                   |                         | 19.4                   | 11                     | 18.7                   | 19.2                   | 22.3                   |
| Magnesium   | 21,500                    |                        |                        | 4390                   |                        |                        |                        |                        |                         | 3770                   |                        |                        |                        |                        |
| Manganese   | 1,056                     |                        |                        | 417                    |                        |                        |                        |                        |                         | 456                    |                        |                        |                        |                        |
| Mercury   | 0.1                       |                        |                        | 0.049 J                |                        |                        |                        |                        |                         | 0.05 J                 |                        |                        |                        |                        |
| Nickel  | 48.9                      |                        |                        | 31.1                   |                        |                        |                        |                        |                         | 21                     |                        |                        |                        |                        |
| Potassium   | 2,343                     |                        |                        | 1410                   |                        |                        |                        |                        |                         | 1580                   |                        |                        |                        |                        |
| Selenium  | 2                         |                        |                        | 17.8 U                 |                        |                        |                        |                        |                         | 19.2 U                 |                        |                        |                        |                        |
| Silver  | 0.763                     |                        |                        | 3.3 U                  |                        |                        |                        |                        |                         | 3.6 U                  |                        |                        |                        |                        |
| Sodium  | 170.3                     |                        |                        | 78.9 J                 |                        |                        |                        |                        |                         | 80.1 J                 |                        |                        |                        |                        |
| Thallium  | 0.67                      |                        |                        | 24.5 U                 |                        |                        |                        |                        |                         | 26.3 U                 |                        |                        |                        |                        |
| Vanadium  | 150                       |                        |                        | 27.9                   |                        |                        |                        |                        |                         | 22.8                   |                        |                        |                        |                        |
| Zinc  | 108.9                     | 104                    | 68.7                   | 97                     | 91.1                   | 69.4                   | 93.7                   | 93.7                   |                         | 69.9                   | 53.7                   | 69                     | 84.7                   | 59.4                   |
| <sup>3</sup> PAHs                                 |                           | (ug/kg)                | (ug/kg)                | (ug/kg)                | (ug/kg)                | (ug/kg)                | (ug/kg)                | (ug/kg)                |                         | (ug/kg)                | (ug/kg)                | (ug/kg)                | (ug/kg)                | (ug/kg)                |
| 2-Methylnaphthalene                               | 36,400                    |                        |                        | 35 U                   |                        |                        |                        |                        |                         | 39 U                   |                        |                        |                        |                        |
| Acenaphthene                                      | 50,000                    |                        |                        | 19 U                   |                        |                        |                        |                        |                         | 21 U                   |                        |                        |                        |                        |
| Acenaphthylene                                    | 41,000                    |                        |                        | 14 U                   |                        |                        |                        |                        |                         | 15 U                   |                        |                        |                        |                        |
| Anthracene  | 50,000                    |                        |                        | 15 U                   |                        |                        |                        |                        |                         | 21 J                   |                        |                        |                        |                        |
| Benzo(ghi)perylene                                | 50,000                    |                        |                        | 21 U                   |                        |                        |                        |                        |                         | 24 U                   |                        |                        |                        |                        |
| Fluoranthene                                      | 50,000                    |                        |                        | 27 U                   |                        |                        |                        |                        |                         | 74 J                   |                        |                        |                        |                        |
| Fluorene  | 50,000                    |                        |                        | 25 U                   |                        |                        |                        |                        |                         | 28 U                   |                        |                        |                        |                        |
| Naphthalene                                       | 13,000                    |                        |                        | 40 U                   |                        |                        |                        |                        |                         | 45 U                   |                        |                        |                        |                        |
| Phenanthrene                                      | 50,000                    |                        |                        | 30 U                   |                        |                        |                        |                        |                         | 55 J                   |                        |                        |                        |                        |
| Pyrene  | 50,000                    |                        |                        | 24 U                   |                        |                        |                        |                        |                         | 96 J                   |                        |                        |                        |                        |
| Benzo(a)pyrene                                    | 61                        |                        |                        | 20 U                   |                        |                        |                        |                        |                         | 54 J                   |                        |                        |                        |                        |
| Dibenzo(a,h)anthracene                            | 14                        |                        |                        | 22 U                   |                        |                        |                        |                        |                         | 25 U                   |                        |                        |                        |                        |
| Benzo(a)anthracene                                | 224                       |                        |                        | 19 U                   |                        |                        |                        |                        |                         | 56 J                   |                        |                        |                        |                        |
| Benzo(b)fluoranthene                              | 1,100                     |                        |                        | 47 U                   |                        |                        |                        |                        |                         | 54 U                   |                        |                        |                        |                        |
| Indeno(1,2,3-cd)pyrene                            | 3,200                     |                        |                        | 22 U                   |                        |                        |                        |                        |                         | 33 J                   |                        |                        |                        |                        |
| Benzo(k)fluoranthene                              | 1,100                     |                        |                        | 48 U                   |                        |                        |                        |                        |                         | 55 U                   |                        |                        |                        |                        |
| Chrysene  | 400                       |                        |                        | 21 U                   |                        |                        |                        |                        |                         | 62 J                   |                        |                        |                        |                        |
| <sup>4</sup> Benzo(a)pyrene TEQ                   | 10,000                    |                        |                        | 51                     |                        |                        |                        |                        |                         | 94                     |                        |                        |                        |                        |

Analytical Results for Area 1 - Perimeter

SEAD 24

Time Critical Removal Action

SENECA Army Depot

| Compound  | <sup>1</sup> CleanUp Goal | SEAD24-PX-A1-SS-021-FS | SEAD24-PX-A1-SS-022-FS | SEAD24-PX-A1-SS-022-FS2 | SEAD24-PX-A1-SS-023-FS | SEAD24-PX-A1-SS-024-FS | SEAD24-PX-A1-SS-025-FS | SEAD24-PX-A1-SS-025-FS4 | SEAD24-PX-A1-SS-026-FS | SEAD24-PX-A1-SS-026-FS3 | SEAD24-PX-A1-SS-027-FS | SEAD24-PX-A1-SS-027-FS3 | SEAD24-PX-A1-SS-028-FS | SEAD24-PX-A1-SS-028-FS2 |
|---|---------------------------|------------------------|------------------------|-------------------------|------------------------|------------------------|------------------------|-------------------------|------------------------|-------------------------|------------------------|-------------------------|------------------------|-------------------------|
| Sample Depth BOG (inches) / Offset Distance(feet) |                           | 2-6 / 1                | 2-6 / 1                | 2-6 / 4                 | 2-6 / 1                | 2-6 / 1                | 2-6 / 1                | 2-6 / 6                 | 2-6 / 1                | 2-6 / 26                | 2-6 / 1                | 2-6 / 26                | 2-6 / 1                | 2-6 / 26                |
| Metals  |                           | (mg/kg)                | (mg/kg)                | (mg/kg)                 | (mg/kg)                | (mg/kg)                | (mg/kg)                | (mg/kg)                 | (mg/kg)                | (mg/kg)                 | (mg/kg)                | (mg/kg)                 | (mg/kg)                | (mg/kg)                 |
| Aluminum  | 19,200                    | 16400                  |                        |                         |                        |                        |                        |                         |                        |                         |                        |                         |                        | 13800                   |
| Antimony  | 5.9                       | 10.4 U                 |                        |                         |                        |                        |                        |                         |                        |                         |                        |                         |                        | 12.8 U                  |
| Arsenic   | 8.24                      | 8                      |                        | 11.6                    | 4.5                    | 7.5                    |                        | 17.6                    |                        | 3.9 J                   |                        | 5.2                     |                        | 17.8                    |
| Barium  | 300                       | 103                    |                        |                         |                        |                        |                        |                         |                        |                         |                        |                         |                        | 95.1                    |
| Beryllium   | 1.1                       | 0.75 J                 |                        |                         |                        |                        |                        |                         |                        |                         |                        |                         |                        | 0.61 J                  |
| Cadmium   | 2.3                       | 2.7 U                  |                        |                         |                        |                        |                        |                         |                        |                         |                        |                         |                        | 3.3 U                   |
| Calcium   | 120,500                   | 4380                   |                        |                         |                        |                        |                        |                         |                        |                         |                        |                         |                        | 4720                    |
| Chromium  | 29                        | 19.9                   |                        |                         |                        |                        |                        |                         |                        |                         |                        |                         |                        | 17.6                    |
| Cobalt  | 30                        | 10.2                   |                        |                         |                        |                        |                        |                         |                        |                         |                        |                         |                        | 8.8                     |
| Copper  | 29.6                      | 22.1                   |                        |                         |                        |                        |                        |                         |                        |                         |                        |                         |                        | 20.5                    |
| Iron  | 35,550                    | 23300                  |                        |                         |                        |                        |                        |                         |                        |                         |                        |                         |                        | 20400                   |
| <sup>2</sup> Lead                                 | 400                       | 16                     |                        | 21.4                    | 11.8                   | 19.7                   | 33.5                   |                         | 95.3                   |                         | 60.2                   |                         |                        | 28.3                    |
| Magnesium   | 21,500                    | 4850                   |                        |                         |                        |                        |                        |                         |                        |                         |                        |                         |                        | 3290                    |
| Manganese   | 1,056                     | 581                    |                        |                         |                        |                        |                        |                         |                        |                         |                        |                         |                        | 502                     |
| Mercury   | 0.1                       | 0.045 J                |                        |                         |                        |                        |                        |                         |                        |                         |                        |                         |                        | 0.05 J                  |
| Nickel  | 48.9                      | 22.5                   |                        |                         |                        |                        |                        |                         |                        |                         |                        |                         |                        | 20.5                    |
| Potassium   | 2,343                     | 1910                   |                        |                         |                        |                        |                        |                         |                        |                         |                        |                         |                        | 1720                    |
| Selenium  | 2                         | 14.2 U                 |                        |                         |                        |                        |                        |                         |                        |                         |                        |                         |                        | 17.5 U                  |
| Silver  | 0.763                     | 2.7 U                  |                        |                         |                        |                        |                        |                         |                        |                         |                        |                         |                        | 3.3 U                   |
| Sodium  | 170.3                     | 72.9 J                 |                        |                         |                        |                        |                        |                         |                        |                         |                        |                         |                        | 76.2 J                  |
| Thallium  | 0.67                      | 19.5 U                 |                        |                         |                        |                        |                        |                         |                        |                         |                        |                         |                        | 24 U                    |
| Vanadium  | 150                       | 26.5                   |                        |                         |                        |                        |                        |                         |                        |                         |                        |                         |                        | 22.8                    |
| Zinc  | 108.9                     | 67.2                   | 64.1                   |                         | 47                     | 77.3                   |                        | 138                     | 256                    |                         | 134                    |                         |                        | 98.6                    |
| <sup>3</sup> PAHs                                 |                           | (µg/kg)                | (µg/kg)                |                         | (µg/kg)                | (µg/kg)                | (µg/kg)                |                         | (µg/kg)                | (µg/kg)                 | (µg/kg)                | (µg/kg)                 | (µg/kg)                | (µg/kg)                 |
| 2-Methylnaphthalene                               | 36,400                    | 33 U                   |                        |                         |                        |                        |                        |                         |                        |                         |                        |                         |                        | 39 U                    |
| Acenaphthene                                      | 50,000                    | 18 U                   |                        |                         |                        |                        |                        |                         |                        |                         |                        |                         |                        | 21 U                    |
| Acenaphthylene                                    | 41,000                    | 13 U                   |                        |                         |                        |                        |                        |                         |                        |                         |                        |                         |                        | 15 U                    |
| Anthracene  | 50,000                    | 14 U                   |                        |                         |                        |                        |                        |                         |                        |                         |                        |                         |                        | 22 J                    |
| Benzo(ghi)perylene                                | 50,000                    | 20 U                   |                        |                         |                        |                        |                        |                         |                        |                         |                        |                         |                        | 65 J                    |
| Fluoranthene                                      | 50,000                    | 26 U                   |                        |                         |                        |                        |                        |                         |                        |                         |                        |                         |                        | 130 J                   |
| Fluorene  | 50,000                    | 24 U                   |                        |                         |                        |                        |                        |                         |                        |                         |                        |                         |                        | 28 U                    |
| Naphthalene                                       | 13,000                    | 38 U                   |                        |                         |                        |                        |                        |                         |                        |                         |                        |                         |                        | 45 U                    |
| Phenanthrene                                      | 50,000                    | 28 U                   |                        |                         |                        |                        |                        |                         |                        |                         |                        |                         |                        | 56 J                    |
| Pyrene  | 50,000                    | 29 JM                  |                        |                         |                        |                        |                        |                         |                        |                         |                        |                         |                        | 140 J                   |
| Benzo(a)pyrene                                    | 61                        | 19 U                   |                        |                         |                        |                        |                        |                         |                        |                         |                        |                         |                        | 84 J                    |
| Dibenzo(a,h)anthracene                            | 14                        | 21 U                   |                        |                         |                        |                        |                        |                         |                        |                         |                        |                         |                        | 25 U                    |
| Benzo(a)anthracene                                | 224                       | 18 U                   |                        |                         |                        |                        |                        |                         |                        |                         |                        |                         |                        | 78 J                    |
| Benzo(b)fluoranthene                              | 1,100                     | 45 U                   |                        |                         |                        |                        |                        |                         |                        |                         |                        |                         |                        | 70 J                    |
| Indeno(1,2,3-cd)pyrene                            | 3,200                     | 21 U                   |                        |                         |                        |                        |                        |                         |                        |                         |                        |                         |                        | 56 J                    |
| Benzo(k)fluoranthene                              | 1,100                     | 46 U                   |                        |                         |                        |                        |                        |                         |                        |                         |                        |                         |                        | 84 J                    |
| Chrysene  | 400                       | 20 U                   |                        |                         |                        |                        |                        |                         |                        |                         |                        |                         |                        | 97 J                    |
| <sup>4</sup> Benzo(a)pyrene TEQ                   | 10,000                    | 49                     |                        |                         |                        |                        |                        |                         |                        |                         |                        |                         |                        | 131                     |

Analytical Results for Area 1 - Perimeter

SEAD 24  
Time Critical Removal Action  
SENECA Army Depot

| Compound  | <sup>1</sup> CleanUp Goal | SEAD24-PX-A1-SS-029-FS | SEAD24-PX-A1-SS-029-FS2 | SEAD-24-PX-A1-SS-030-FS | SEAD24-PX-A1-SS-030-FS2 | SEAD-24-PX-A1-SS-031-FS | SEAD24-PX-A1-SS-031-FS2 | SEAD24-PX-A1-SS-032-FS | SEAD24-PX-A1-SS-032-FS2 | SEAD24-PX-A1-SS-032-FS3 | SEAD-24-PX-A1-SS-033-FS | SEAD-24-PX-A1-SS-034-FS | SEAD24-PX-A1-SS-035-FS2 | SEAD24-PX-A1-SS-035-FS3 |
|---|---------------------------|------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|
| Sample Depth BOG (inches) / Offset Distance(feet) |                           | 2-6 / 1                | 2-6 / 26                | 2-6 / 1                 | 2-6 / 26                | 2-6 / 4                 | 2-6 / 26                | 2-6 / 1                | 2-6 / 4                 | 2-6 / 26                | 2-6 / 1                 | 2-6 / 1                 | 2-6 / 4                 | 2-6 / 7                 |
| Metals  |                           | (mg/kg)                | (mg/kg)                 | (mg/kg)                 | (mg/kg)                 | (mg/kg)                 | (mg/kg)                 | (mg/kg)                | (mg/kg)                 | (mg/kg)                 | (mg/kg)                 | (mg/kg)                 | (mg/kg)                 | (mg/kg)                 |
| Aluminum  | 19,200                    |                        |                         |                         |                         |                         |                         | 16200                  |                         |                         |                         |                         |                         |                         |
| Antimony  | 5.9                       |                        |                         |                         |                         |                         |                         | 1.4 U                  |                         |                         |                         |                         |                         |                         |
| <b>Arsenic</b>                                    | 8.24                      |                        | 7.2                     |                         | 8.9                     |                         | 10.7                    |                        | 6.4                     |                         | 6.9                     | 5.9                     |                         | 7.7                     |
| Barium  | 300                       |                        |                         |                         |                         |                         |                         | 81.3                   |                         |                         |                         |                         |                         |                         |
| Beryllium   | 1.1                       |                        |                         |                         |                         |                         |                         | 0.72 J                 |                         |                         |                         |                         |                         |                         |
| Cadmium   | 2.3                       |                        |                         |                         |                         |                         |                         | 1.2 U                  |                         |                         |                         |                         |                         |                         |
| Calcium   | 120,500                   |                        |                         |                         |                         |                         |                         | 4420                   |                         |                         |                         |                         |                         |                         |
| Chromium  | 29                        |                        |                         |                         |                         |                         |                         | 22.6                   |                         |                         |                         |                         |                         |                         |
| Cobalt  | 30                        |                        |                         |                         |                         |                         |                         | 10.8                   |                         |                         |                         |                         |                         |                         |
| Copper  | 29.6                      |                        |                         |                         |                         |                         |                         | 24.5                   |                         |                         |                         |                         |                         |                         |
| Iron  | 35,550                    |                        |                         |                         |                         |                         |                         | 25000                  |                         |                         |                         |                         |                         |                         |
| <sup>2</sup> Lead                                 | 400                       | 21.6                   |                         | 23.6                    |                         |                         | 33.2                    | 41.8                   |                         |                         | 19.1                    | 26.7                    | 123                     |                         |
| Magnesium   | 21,500                    |                        |                         |                         |                         |                         |                         | 4510                   |                         |                         |                         |                         |                         |                         |
| Manganese   | 1,056                     |                        |                         |                         |                         |                         |                         | 544                    |                         |                         |                         |                         |                         |                         |
| Mercury   | 0.1                       |                        |                         |                         |                         |                         |                         | 0.051 J                |                         |                         |                         |                         |                         |                         |
| Nickel  | 48.9                      |                        |                         |                         |                         |                         |                         | 28.9                   |                         |                         |                         |                         |                         |                         |
| Potassium   | 2,343                     |                        |                         |                         |                         |                         |                         | 2480                   |                         |                         |                         |                         |                         |                         |
| Selenium  | 2                         |                        |                         |                         |                         |                         |                         | 1.9 U                  |                         |                         |                         |                         |                         |                         |
| Silver  | 0.763                     |                        |                         |                         |                         |                         |                         | 0.35 U                 |                         |                         |                         |                         |                         |                         |
| Sodium  | 170.3                     |                        |                         |                         |                         |                         |                         | 78.2 J                 |                         |                         |                         |                         |                         |                         |
| Thallium  | 0.67                      |                        |                         |                         |                         |                         |                         | 3.5 U                  |                         |                         |                         |                         |                         |                         |
| Vanadium  | 150                       |                        |                         |                         |                         |                         |                         | 26                     |                         |                         |                         |                         |                         |                         |
| <b>Zinc</b>                                       | 108.9                     | 69.4                   |                         | 86.6                    |                         | 100                     |                         | 120                    |                         |                         | 90.9                    | 72                      |                         | 67.4                    |
| <sup>3</sup> PAHs                                 |                           | (µg/kg)                |                         | (µg/kg)                 |                         | (µg/kg)                 |                         | (µg/kg)                | (µg/kg)                 | (µg/kg)                 | (µg/kg)                 | (µg/kg)                 |                         |                         |
| 2-Methylnaphthalene                               | 36,400                    |                        |                         |                         |                         |                         |                         | 40 U                   |                         |                         |                         |                         |                         |                         |
| Acenaphthene                                      | 50,000                    |                        |                         |                         |                         |                         |                         | 27 J                   |                         |                         |                         |                         |                         |                         |
| Acenaphthylene                                    | 41,000                    |                        |                         |                         |                         |                         |                         | 50 J                   |                         |                         |                         |                         |                         |                         |
| Anthracene  | 50,000                    |                        |                         |                         |                         |                         |                         | 120 J                  |                         |                         |                         |                         |                         |                         |
| Benzo(ghi)perylene                                | 50,000                    |                        |                         |                         |                         |                         |                         | 53 J                   |                         |                         |                         |                         |                         |                         |
| Fluoranthene                                      | 50,000                    |                        |                         |                         |                         |                         |                         | 790                    |                         |                         |                         |                         |                         |                         |
| Fluorene  | 50,000                    |                        |                         |                         |                         |                         |                         | 40 JH                  |                         |                         |                         |                         |                         |                         |
| Naphthalene                                       | 13,000                    |                        |                         |                         |                         |                         |                         | 46 UM                  |                         |                         |                         |                         |                         |                         |
| Phenanthrene                                      | 50,000                    |                        |                         |                         |                         |                         |                         | 550                    |                         |                         |                         |                         |                         |                         |
| Pyrene  | 50,000                    |                        |                         |                         |                         |                         |                         | 760                    |                         |                         |                         |                         |                         |                         |
| Benzo(a)pyrene                                    | 61                        |                        |                         |                         |                         |                         |                         |                        |                         | 10 U                    |                         |                         |                         |                         |
| Dibenzo(a,h)anthracene                            | 14                        |                        |                         |                         |                         |                         |                         |                        |                         | 10 U                    |                         |                         |                         |                         |
| Benzo(a)anthracene                                | 224                       |                        |                         |                         |                         |                         |                         | 380 J                  |                         |                         |                         |                         |                         |                         |
| Benzo(b)fluoranthene                              | 1,100                     |                        |                         |                         |                         |                         |                         | 280 JH                 |                         |                         |                         |                         |                         |                         |
| Indeno(1,2,3-cd)pyrene                            | 3,200                     |                        |                         |                         |                         |                         |                         | 68 J                   |                         |                         |                         |                         |                         |                         |
| Benzo(k)fluoranthene                              | 1,100                     |                        |                         |                         |                         |                         |                         | 430 J                  |                         |                         |                         |                         |                         |                         |
| Chrysene  | 400                       |                        |                         |                         |                         |                         |                         | 420 J                  |                         |                         |                         |                         |                         |                         |
| <sup>4</sup> Benzo(a)pyrene TEQ                   | 10,000                    |                        |                         |                         |                         |                         |                         | 468                    |                         |                         |                         |                         |                         |                         |

Analytical Results for Area 1 - Perimeter

SEAD 24

Time Critical Removal Action

SENECA Army Depot

| Compound                        | <sup>1</sup> CleanUp Goal | SEAD24-PX-A1-SS-036-FS2                           | SEAD-24-PX-A1-SS-037-FS | SEAD24-PX-A1-SS-038-FS3 | SEAD-24-PX-A1-SS-039-FS | SEAD-24-PX-A1-SS-040-FS | SEAD24-PX-A1-SS-040-FS3 | SEAD-24-PX-A1-SS-041-FS | SEAD-24-PX-A1-SS-041-FS2 | SEAD-24-PX-A1-SS-042a-FS | SEAD-24-PX-A1-SS-042-FS | SEAD-24-PX-A1-SS-042-FS2 | SEAD-24-PX-A1-SS-043-FS | SEAD-24-PX-A1-SS-044-FS |
|---------------------------------|---------------------------|---|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|--------------------------|--------------------------|-------------------------|--------------------------|-------------------------|-------------------------|
|                                 |                           | Sample Depth BOG (inches) / Offset Distance(feet) | 2-6 / 5                 | 2-6 / 1                 | 2-6 / 5                 | 2-6 / 1                 | 2-6 / 1                 | 2-6 / 6                 | 2-6 / 1                  | 2-6 / 5                  | 2-6 / 1                 | 2-6 / 1                  | 2-6 / 4                 | 2-6 / 1                 |
| Metals                          |                           | (mg/kg)   | (mg/kg)                 | (mg/kg)                 | (mg/kg)                 | (mg/kg)                 | (mg/kg)                 | (mg/kg)                 | (mg/kg)                  | (mg/kg)                  | (mg/kg)                 | (mg/kg)                  | (mg/kg)                 | (mg/kg)                 |
| Aluminum                        | 19,200                    |   | 14500                   |                         |                         |                         |                         |                         |                          |                          |                         |                          |                         |                         |
| Antimony                        | 5.9                       |   | 1.1 U                   |                         |                         |                         |                         |                         |                          |                          |                         |                          |                         |                         |
| Arsenic                         | 8.24                      | 11.9  | 6.5 B                   | 5.9                     | 11.8                    |                         | 8.1                     | 10.6                    |                          | 6.6                      |                         | 5.0                      | 4.4                     | 4.9                     |
| Barium                          | 300                       |   | 67.3                    |                         |                         |                         |                         |                         |                          |                          |                         |                          |                         |                         |
| Beryllium                       | 1.1                       |   | 0.69 B                  |                         |                         |                         |                         |                         |                          |                          |                         |                          |                         |                         |
| Cadmium                         | 2.3                       |   | 0.94 U                  |                         |                         |                         |                         |                         |                          |                          |                         |                          |                         |                         |
| Calcium                         | 120,500                   |   | 20400                   |                         |                         |                         |                         |                         |                          |                          |                         |                          |                         |                         |
| Chromium                        | 29                        |   | 28.9                    |                         |                         |                         |                         |                         |                          |                          |                         |                          |                         |                         |
| Cobalt                          | 30                        |   | 13.4                    |                         |                         |                         |                         |                         |                          |                          |                         |                          |                         |                         |
| Copper                          | 29.6                      |   | 48.6                    |                         |                         |                         |                         |                         |                          |                          |                         |                          |                         |                         |
| Iron                            | 35,550                    |   | 29800                   |                         |                         |                         |                         |                         |                          |                          |                         |                          |                         |                         |
| <sup>2</sup> Lead               | 400                       | 107   | 82.2                    | 86.2                    | 177                     |                         | 9.7                     |                         | 21                       | 24.8                     |                         | 43.5                     | 19.5                    | 22.2                    |
| Magnesium                       | 21,500                    |   | 6840                    |                         |                         |                         |                         |                         |                          |                          |                         |                          |                         |                         |
| Manganese                       | 1,056                     |   | 418                     |                         |                         |                         |                         |                         |                          |                          |                         |                          |                         |                         |
| Mercury                         | 0.1                       |   | 0.051 U                 |                         |                         |                         |                         |                         |                          |                          |                         |                          |                         |                         |
| Nickel                          | 48.9                      |   | 50.7                    |                         |                         |                         |                         |                         |                          |                          |                         |                          |                         |                         |
| Potassium                       | 2,343                     |   | 2590                    |                         |                         |                         |                         |                         |                          |                          |                         |                          |                         |                         |
| Selenium                        | 2                         |   | 1.5 U                   |                         |                         |                         |                         |                         |                          |                          |                         |                          |                         |                         |
| Silver                          | 0.763                     |   | 0.28 U                  |                         |                         |                         |                         |                         |                          |                          |                         |                          |                         |                         |
| Sodium                          | 170.3                     |   | 123                     |                         |                         |                         |                         |                         |                          |                          |                         |                          |                         |                         |
| Thallium                        | 0.67                      |   | 2.8 U                   |                         |                         |                         |                         |                         |                          |                          |                         |                          |                         |                         |
| Vanadium                        | 150                       |   | 22                      |                         |                         |                         |                         |                         |                          |                          |                         |                          |                         |                         |
| Zinc                            | 108.9                     | 145   | 105                     | 106                     | 276                     | 397                     |                         |                         | 71.9                     | 115                      |                         | 78.7                     | 70.6                    | 77.2                    |
| <sup>3</sup> PAHs               |                           |   | (µg/kg)                 |                         | (µg/kg)                 | (µg/kg)                 | (µg/kg)                 | (µg/kg)                 |                          | (µg/kg)                  | (µg/kg)                 |                          | (µg/kg)                 | (µg/kg)                 |
| 2-Methylnaphthalene             | 36,400                    |   | 33 U                    |                         |                         |                         |                         |                         |                          |                          |                         |                          | 34 U                    |                         |
| Acenaphthene                    | 50,000                    |   | 18 UM                   |                         |                         |                         |                         |                         |                          |                          |                         |                          | 18 U                    |                         |
| Acenaphthylene                  | 41,000                    |   | 13 UM                   |                         |                         |                         |                         |                         |                          |                          |                         |                          | 13 U                    |                         |
| Anthracene                      | 50,000                    |   | 14 UH                   |                         |                         |                         |                         |                         |                          |                          |                         |                          | 15 U                    |                         |
| Benzo(ghi)perylene              | 50,000                    |   | 20 U                    |                         |                         |                         |                         |                         |                          |                          |                         |                          | 21 U                    |                         |
| Fluoranthene                    | 50,000                    |   | 55 J                    |                         |                         |                         |                         |                         |                          |                          |                         |                          | 27 U                    |                         |
| Fluorene                        | 50,000                    |   | 23 UM                   |                         |                         |                         |                         |                         |                          |                          |                         |                          | 25 U                    |                         |
| Naphthalene                     | 13,000                    |   | 37 UM                   |                         |                         |                         |                         |                         |                          |                          |                         |                          | 39 U                    |                         |
| Phenanthrene                    | 50,000                    |   | 42 J                    |                         |                         |                         |                         |                         |                          |                          |                         |                          | 29 UM                   |                         |
| Pyrene                          | 50,000                    |   | 60 J                    |                         |                         |                         |                         |                         |                          |                          |                         |                          | 23 U                    |                         |
| Benzo(a)pyrene                  | 61                        |   | 29 J                    |                         |                         |                         |                         |                         |                          |                          |                         |                          | 20 UM                   |                         |
| Dibenzo(a,h)anthracene          | 14                        |   | 21 U                    |                         |                         |                         |                         |                         |                          |                          |                         |                          | 22 U                    |                         |
| Benzo(a)anthracene              | 224                       |   | 30 J                    |                         |                         |                         |                         |                         |                          |                          |                         |                          | 18 U                    |                         |
| Benzo(b)fluoranthene            | 1,100                     |   | 44 UM                   |                         |                         |                         |                         |                         |                          |                          |                         |                          | 47 UM                   |                         |
| Indeno(1,2,3-cd)pyrene          | 3,200                     |   | 21 U                    |                         |                         |                         |                         |                         |                          |                          |                         |                          | 22 U                    |                         |
| Benzo(k)fluoranthene            | 1,100                     |   | 46 U                    |                         |                         |                         |                         |                         |                          |                          |                         |                          | 48 UM                   |                         |
| Chrysene                        | 400                       |   | 42 J                    |                         |                         |                         |                         |                         |                          |                          |                         |                          | 21 U                    |                         |
| <sup>4</sup> Benzo(a)pyrene TEQ | 10,000                    |   | 60                      |                         |                         |                         |                         |                         |                          |                          |                         |                          | 51                      |                         |

Analytical Results for Area 1 - Perimeter

SEAD 24

Time Critical Removal Action

SENECA Army Depot

| Compound  | <sup>1</sup> CleanUp Goal | SEAD-24-PX-A1-SS-045-FS | SEAD24-PX-A1-SS-046-FS | SEAD24-PX-A1-SS-046-FS3 | SEAD24-PX-A1-SS-047-FS2 | SEAD24-PX-A1-SS-047-FS3 | SEAD24-PX-A1-SS-048-FS3 | SEAD24-PX-A1-SS-048-FS4 | SEAD24-PX-A1-SS-049-FS | SEAD24-PX-A1-SS-048-FS5 | SEAD-24-PX-A1-SS-050-FS | SEAD24-PX-A1-SS-051-FS | SEAD24-PX-A1-SS-051-FS3 | SEAD-24-PX-A1-SS-052-FS |
|---|---------------------------|-------------------------|------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|------------------------|-------------------------|-------------------------|------------------------|-------------------------|-------------------------|
| Sample Depth BOG (inches) / Offset Distance(feet) |                           | 2-6 / 1                 | 2-6 / 1                | 2-6 / 7                 | 2-6 / 4                 | 2-6 / 7                 | 2-6 / 7                 | 2-6 / 10                | No Sidewall            | 2-6 / 15                | 2-6 / 1                 | 2-6 / 1                | 2-6 / 7                 | 2-6 / 1                 |
| Metals  |                           | (mg/kg)                 | (mg/kg)                | (mg/kg)                 | (mg/kg)                 | (mg/kg)                 | (mg/kg)                 | (mg/kg)                 | (mg/kg)                | (mg/kg)                 | (mg/kg)                 | (mg/kg)                | (mg/kg)                 | (mg/kg)                 |
| Aluminum  | 19,200                    |                         | 8160                   |                         |                         |                         |                         |                         |                        |                         |                         |                        |                         | 14600                   |
| Antimony  | 5.9                       |                         | 13.6 U                 |                         |                         |                         |                         |                         |                        |                         |                         |                        |                         | 5.3 J                   |
| <b>Arsenic</b>                                    | 8.24                      | 6                       |                        | 13.1                    |                         | 10.4                    |                         |                         |                        | 32.5                    | 10.6                    |                        | 8.9                     | 16.1                    |
| Barium  | 300                       |                         | 48.1                   |                         |                         |                         |                         |                         |                        |                         |                         |                        |                         | 77.7                    |
| Beryllium   | 1.1                       |                         | 2.3 U                  |                         |                         |                         |                         |                         |                        |                         |                         |                        |                         | 0.72 J                  |
| Cadmium   | 2.3                       |                         | 3.5 U                  |                         |                         |                         |                         |                         |                        |                         |                         |                        |                         | 3 U                     |
| Calcium   | 120,500                   |                         | 92900                  |                         |                         |                         |                         |                         |                        |                         |                         |                        |                         | 15700                   |
| Chromium  | 29                        |                         | 9.6                    |                         |                         |                         |                         |                         |                        |                         |                         |                        |                         | 26.4                    |
| Cobalt  | 30                        |                         | 4.7                    |                         |                         |                         |                         |                         |                        |                         |                         |                        |                         | 13                      |
| Copper  | 29.6                      |                         | 10.3                   |                         |                         |                         |                         |                         |                        |                         |                         |                        |                         | 37.8                    |
| Iron  | 35,550                    |                         | 11300                  |                         |                         |                         |                         |                         |                        |                         |                         |                        |                         | 30300                   |
| <sup>2</sup> Lead                                 | 400                       | 94.1                    | 9.2 J                  |                         | 12.7                    |                         |                         | 75                      |                        |                         | 234                     |                        |                         | 323                     |
| Magnesium   | 21,500                    |                         | 61900                  |                         |                         |                         |                         |                         |                        |                         |                         |                        |                         | 6760                    |
| Manganese   | 1,056                     |                         | 374                    |                         |                         |                         |                         |                         |                        |                         |                         |                        |                         | 431                     |
| Mercury   | 0.1                       |                         | 0.073 U                |                         |                         |                         |                         |                         |                        |                         |                         |                        |                         | 0.066 U                 |
| Nickel  | 48.9                      |                         | 10.2                   |                         |                         |                         |                         |                         |                        |                         |                         |                        |                         | 46.7                    |
| Potassium   | 2,343                     |                         | 1270                   |                         |                         |                         |                         |                         |                        |                         |                         |                        |                         | 2190                    |
| Selenium  | 2                         |                         | 18.6 U                 |                         |                         |                         |                         |                         |                        |                         |                         |                        |                         | 15.8 U                  |
| Silver  | 0.763                     |                         | 3.5 U                  |                         |                         |                         |                         |                         |                        |                         |                         |                        |                         | 3 U                     |
| Sodium  | 170.3                     |                         | 238                    |                         |                         |                         |                         |                         |                        |                         |                         |                        |                         | 116                     |
| Thallium  | 0.67                      |                         | 25.6 U                 |                         |                         |                         |                         |                         |                        |                         |                         |                        |                         | 21.7 U                  |
| Vanadium  | 150                       |                         | 13.5                   |                         |                         |                         |                         |                         |                        |                         |                         |                        |                         | 19.9                    |
| <b>Zinc</b>                                       | 108.9                     | 73.8                    |                        | 48.5                    |                         | 63                      | 49.3                    |                         |                        |                         | 245                     |                        | 92.8                    | 508                     |
| <sup>3</sup> PAHs                                 |                           | (µg/kg)                 | (µg/kg)                |                         | (µg/kg)                 |                         |                         |                         |                        |                         | (µg/kg)                 | (µg/kg)                |                         | (µg/kg)                 |
| 2-Methylnaphthalene                               | 36,400                    |                         | 32 U                   |                         |                         |                         |                         |                         |                        |                         |                         |                        |                         | 31 U                    |
| Acenaphthene                                      | 50,000                    |                         | 17 U                   |                         |                         |                         |                         |                         |                        |                         |                         |                        |                         | 17 U                    |
| Acenaphthylene                                    | 41,000                    |                         | 13 U                   |                         |                         |                         |                         |                         |                        |                         |                         |                        |                         | 12 U                    |
| Anthracene  | 50,000                    |                         | 14 U                   |                         |                         |                         |                         |                         |                        |                         |                         |                        |                         | 13 U                    |
| Benzo(ghi)perylene                                | 50,000                    |                         | 19 U                   |                         |                         |                         |                         |                         |                        |                         |                         |                        |                         | 19 U                    |
| Fluoranthene                                      | 50,000                    |                         | 31 J                   |                         |                         |                         |                         |                         |                        |                         |                         |                        |                         | 28 J                    |
| Fluorene  | 50,000                    |                         | 23 U                   |                         |                         |                         |                         |                         |                        |                         |                         |                        |                         | 22 U                    |
| Naphthalene                                       | 13,000                    |                         | 36 U                   |                         |                         |                         |                         |                         |                        |                         |                         |                        |                         | 36 U                    |
| Phenanthrene                                      | 50,000                    |                         | 27 U                   |                         |                         |                         |                         |                         |                        |                         |                         |                        |                         | 27 U                    |
| Pyrene  | 50,000                    |                         | 33 J                   |                         |                         |                         |                         |                         |                        |                         |                         |                        |                         | 28 J                    |
| Benzo(a)pyrene                                    | 61                        |                         | 18 U                   |                         |                         |                         |                         |                         |                        |                         |                         |                        |                         | 18 U                    |
| Dibenzo(a,h)anthracene                            | 14                        |                         | 20 U                   |                         |                         |                         |                         |                         |                        |                         |                         |                        |                         | 20 U                    |
| Benzo(a)anthracene                                | 224                       |                         | 17 U                   |                         |                         |                         |                         |                         |                        |                         |                         |                        |                         | 17 U                    |
| Benzo(b)fluoranthene                              | 1,100                     |                         | 43 UM                  |                         |                         |                         |                         |                         |                        |                         |                         |                        |                         | 43 UM                   |
| Indeno(1,2,3-cd)pyrene                            | 3,200                     |                         | 20 U                   |                         |                         |                         |                         |                         |                        |                         |                         |                        |                         | 20 U                    |
| Benzo(k)fluoranthene                              | 1,100                     |                         | 44 UM                  |                         |                         |                         |                         |                         |                        |                         |                         |                        |                         | 44 UM                   |
| Chrysene  | 400                       |                         | 19 J                   |                         |                         |                         |                         |                         |                        |                         |                         |                        |                         | 23 J                    |
| <sup>4</sup> Benzo(a)pyrene TEQ                   | 10,000                    |                         | 47                     |                         |                         |                         |                         |                         |                        |                         |                         |                        |                         | 47                      |

Analytical Results for Area 1 - Perimeter

SEAD 24  
Time Critical Removal Action  
SENECA Army Depot

| Compound  | <sup>1</sup> CleanUp Goal | SEAD-24-PX-A1-SS-053-FS | SEAD-24-PX-A1-SS-054-FS | SEAD-24-PX-A1-SS-055-FS | SEAD-24-PX-A1-SS-056-FS | SEAD-24-PX-A1-SS-057-FS | SEAD-24-PX-A1-SS-057-FS2 | SEAD-24-PX-A1-SS-058-FS | SEAD-24-PX-A1-SS-058-FS2 | SEAD-24-PX-A1-SS-059-FS | SEAD-24-PX-A1-SS-059-FS3 | SEAD-24-PX-A1-SS-060-FS3 | SEAD-24-PX-A1-SS-060-FS4 | SEAD-24-PX-A1-SS-061-FS | SEAD-24-FX-A1-SS-061-FS2 |
|---|---------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|--------------------------|-------------------------|--------------------------|-------------------------|--------------------------|--------------------------|--------------------------|-------------------------|--------------------------|
| Sample Depth BOG (inches) / Offset Distance(feet) |                           | 2-6 / 1                 | 2-6 / 1                 | 2-6 / 1                 | 2-6 / 1                 | 2-6 / 1                 | 2-6 / 4                  | 2-6 / 1                 | 2-6 / 4                  | 2-6 / 1                 | 2-6 / 5                  | 2-6 / 5                  | 2-6 / 6                  | 2-6 / 1                 | 2-6 / 4                  |
| Metals  |                           | (mg/kg)                 | (mg/kg)                 | (mg/kg)                 | (mg/kg)                 | (mg/kg)                 | (mg/kg)                  | (mg/kg)                 | (mg/kg)                  | (mg/kg)                 | (mg/kg)                  | (mg/kg)                  | (mg/kg)                  | (mg/kg)                 | (mg/kg)                  |
| Aluminum  | 19,200                    |                         |                         |                         | 13800                   |                         |                          |                         |                          |                         |                          |                          |                          | 16300                   |                          |
| Antimony  | 5.9                       |                         |                         |                         | 2.9 J                   |                         |                          |                         |                          |                         |                          |                          |                          | 18.9                    |                          |
| <b>Arsenic</b>                                    | 8.24                      | 6.6                     | 16.2                    | 7.7                     | 9.1                     |                         | 8                        |                         | 15.7                     |                         | 4.3                      |                          | 12.2                     |                         | 6.1                      |
| Barium  | 300                       |                         |                         |                         | 38                      |                         |                          |                         |                          |                         |                          |                          |                          | 148                     |                          |
| Beryllium   | 1.1                       |                         |                         |                         | 0.63 J                  |                         |                          |                         |                          |                         |                          |                          |                          | 0.87 J                  |                          |
| Cadmium   | 2.3                       |                         |                         |                         | 0.93 J                  |                         |                          |                         |                          |                         |                          |                          |                          | 1.1 J                   |                          |
| Calcium   | 120,500                   |                         |                         |                         | 26500                   |                         |                          |                         |                          |                         |                          |                          |                          | 5370                    |                          |
| Chromium  | 29                        |                         |                         |                         | 25.1                    |                         |                          |                         |                          |                         |                          |                          |                          | 23.8                    |                          |
| Cobalt  | 30                        |                         |                         |                         | 14.5                    |                         |                          |                         |                          |                         |                          |                          |                          | 11.8                    |                          |
| Copper  | 29.6                      |                         |                         |                         | 37.1                    |                         |                          |                         |                          |                         |                          |                          |                          | 32.7                    |                          |
| Iron  | 35,550                    |                         |                         |                         | 27400                   |                         |                          |                         |                          |                         |                          |                          |                          | 26300                   |                          |
| <sup>2</sup> Lead                                 | 400                       | 130                     | 382                     | 28.3                    | 106                     |                         | 27                       |                         | 115                      | 54.1                    |                          |                          | 45.7                     | 315                     |                          |
| Magnesium   | 21,500                    |                         |                         |                         | 6770                    |                         |                          |                         |                          |                         |                          |                          |                          | 4210                    |                          |
| Manganese   | 1,056                     |                         |                         |                         | 401                     |                         |                          |                         |                          |                         |                          |                          |                          | 566                     |                          |
| Mercury   | 0.1                       |                         |                         |                         | 0.073 U                 |                         |                          |                         |                          |                         |                          |                          |                          | 0.064 J                 |                          |
| Nickel  | 48.9                      |                         |                         |                         | 49.8                    |                         |                          |                         |                          |                         |                          |                          |                          | 32.1                    |                          |
| Potassium   | 2,343                     |                         |                         |                         | 2180                    |                         |                          |                         |                          |                         |                          |                          |                          | 2220                    |                          |
| Selenium  | 2                         |                         |                         |                         | 14.1 U                  |                         |                          |                         |                          |                         |                          |                          |                          | 13.8 U                  |                          |
| Silver  | 0.763                     |                         |                         |                         | 2.6 U                   |                         |                          |                         |                          |                         |                          |                          |                          | 2.6 U                   |                          |
| Sodium  | 170.3                     |                         |                         |                         | 146                     |                         |                          |                         |                          |                         |                          |                          |                          | 81.7                    |                          |
| Thallium  | 0.67                      |                         |                         |                         | 19.4 U                  |                         |                          |                         |                          |                         |                          |                          |                          | 19 U                    |                          |
| Vanadium  | 150                       |                         |                         |                         | 17.6                    |                         |                          |                         |                          |                         |                          |                          |                          | 26.7                    |                          |
| <b>Zinc</b>                                       | 108.9                     | 176                     | 552                     | 86.6                    | 210                     | 96                      |                          | 86.6                    |                          | 117                     |                          | 315                      |                          | 570                     |                          |
| <sup>3</sup> PAHs                                 |                           | (µg/kg)                 | (µg/kg)                 | (µg/kg)                 | (µg/kg)                 | (µg/kg)                 |                          | (µg/kg)                 |                          | (µg/kg)                 | (µg/kg)                  | (µg/kg)                  |                          | (µg/kg)                 |                          |
| 2-Methylnaphthalene                               | 36,400                    |                         |                         |                         | 33 U                    |                         |                          |                         |                          |                         |                          |                          |                          | 140 U                   |                          |
| Acenaphthene                                      | 50,000                    |                         |                         |                         | 18 U                    |                         |                          |                         |                          |                         |                          |                          |                          | 75 U                    |                          |
| Acenaphthylene                                    | 41,000                    |                         |                         |                         | 13 U                    |                         |                          |                         |                          |                         |                          |                          |                          | 55 U                    |                          |
| Anthracene  | 50,000                    |                         |                         |                         | 14 U                    |                         |                          |                         |                          |                         |                          |                          |                          | 60 U                    |                          |
| Benzo(ghi)perylene                                | 50,000                    |                         |                         |                         | 20 U                    |                         |                          |                         |                          |                         |                          |                          |                          | 85 U                    |                          |
| Fluoranthene                                      | 50,000                    |                         |                         |                         | 26 U                    |                         |                          |                         |                          |                         |                          |                          |                          | 110 U                   |                          |
| Fluorene  | 50,000                    |                         |                         |                         | 24 U                    |                         |                          |                         |                          |                         |                          |                          |                          | 100 U                   |                          |
| Naphthalene                                       | 13,000                    |                         |                         |                         | 38 U                    |                         |                          |                         |                          |                         |                          |                          |                          | 160 U                   |                          |
| Phenanthrene                                      | 50,000                    |                         |                         |                         | 28 U                    |                         |                          |                         |                          |                         |                          |                          |                          | 120 U                   |                          |
| Pyrene  | 50,000                    |                         |                         |                         | 22 UM                   |                         |                          |                         |                          |                         |                          |                          |                          | 95 U                    |                          |
| Benzo(a)pyrene                                    | 61                        |                         |                         |                         | 19 U                    |                         |                          |                         |                          |                         |                          |                          |                          | 80 U                    |                          |
| Dibenzo(a,h)anthracene                            | 14                        |                         |                         |                         | 21 U                    |                         |                          |                         |                          |                         |                          |                          |                          | 90 U                    |                          |
| Benzo(a)anthracene                                | 224                       |                         |                         |                         | 18 U                    |                         |                          |                         |                          |                         |                          |                          |                          | 75 U                    |                          |
| Benzo(b)fluoranthene                              | 1,100                     |                         |                         |                         | 45 U                    |                         |                          |                         |                          |                         |                          |                          |                          | 190 U                   |                          |
| Indeno(1,2,3-cd)pyrene                            | 3,200                     |                         |                         |                         | 21 U                    |                         |                          |                         |                          |                         |                          |                          |                          | 90 U                    |                          |
| Benzo(k)fluoranthene                              | 1,100                     |                         |                         |                         | 46 U                    |                         |                          |                         |                          |                         |                          |                          |                          | 190 U                   |                          |
| Chrysene  | 400                       |                         |                         |                         | 20 U                    |                         |                          |                         |                          |                         |                          |                          |                          | 85 U                    |                          |
| <sup>4</sup> Benzo(a)pyrene TEQ                   | 10,000                    |                         |                         |                         | 49                      |                         |                          |                         |                          |                         |                          |                          |                          | 208                     |                          |



Analytical Results for Area 2 - Floor  
SEAD 24  
Time Critical Removal Action  
SENECA Army Depot

| Compound                   | 1 CleanUp Goal | SEAD24-FX-A2-SS-001-FS | SEAD24-FX-A2-SS-001-FS2 | SEAD24-FX-A2-SS-002-FS | SEAD24-FX-A2-SS-003-FS | SEAD24-FX-A2-SS-004-FS | SEAD24-FX-A2-SS-005-FS | SEAD24-FX-A2-SS-005-FS2 | SEAD24-FX-A2-SS-006-FS | SEAD24-FX-A2-SS-006-FS2 | SEAD24-FX-A2-SS-007-FS | SEAD24-FX-A2-SS-008-FS | SEAD24-FX-A2-SS-008-FS2 | SEAD24-FX-A2-SS-009-FS | SEAD24-FX-A2-SS-010-FS | SEAD24-FX-A2-SS-011-FS | SEAD24-FX-A2-SS-012-FS | SEAD24-FX-A2-SS-013-FS | SEAD24-FX-A2-SS-014-FS | SEAD24-FX-A2-SS-015-FS |             |
|----------------------------|----------------|------------------------|-------------------------|------------------------|------------------------|------------------------|------------------------|-------------------------|------------------------|-------------------------|------------------------|------------------------|-------------------------|------------------------|------------------------|------------------------|------------------------|------------------------|------------------------|------------------------|-------------|
|                            |                | 6-12                   | 12-18                   | 6-12                   | 6-12                   | 6-12                   | 6-12                   | 12-18                   | 6-12                   | 12-18                   | 6-12                   | 6-12                   | 12-18                   | 6-12                   | 6-12                   | 6-12                   | 6-12                   | 6-12                   | 6-12                   | 6-12                   | 6-12        |
| <b>Depth BOG(inches)</b>   |                | (mg/kg)                | (mg/kg)                 | (mg/kg)                | (mg/kg)                | (mg/kg)                | (mg/kg)                | (mg/kg)                 | (mg/kg)                | (mg/kg)                 | (mg/kg)                | (mg/kg)                | (mg/kg)                 | (mg/kg)                | (mg/kg)                | (mg/kg)                | (mg/kg)                | (mg/kg)                | (mg/kg)                | (mg/kg)                | (mg/kg)     |
| <b>Metals</b>              |                | (mg/kg)                | (mg/kg)                 | (mg/kg)                | (mg/kg)                | (mg/kg)                | (mg/kg)                | (mg/kg)                 | (mg/kg)                | (mg/kg)                 | (mg/kg)                | (mg/kg)                | (mg/kg)                 | (mg/kg)                | (mg/kg)                | (mg/kg)                | (mg/kg)                | (mg/kg)                | (mg/kg)                | (mg/kg)                | (mg/kg)     |
| Aluminum                   | 19,200         |                        |                         |                        |                        |                        | 13600                  |                         |                        |                         |                        |                        |                         |                        | 21700                  |                        |                        |                        |                        |                        | 17600       |
| Antimony                   | 5.9            |                        |                         |                        |                        |                        | 12.3 U                 |                         |                        |                         |                        |                        |                         |                        | 12.1 U                 |                        |                        |                        |                        |                        | 14 U        |
| <b>Arsenic</b>             | <b>8.24</b>    |                        | 4.7                     | 6.5                    | 6.3                    | 6.1                    |                        | 7.9                     |                        | <b>8.3</b>              | 4.4                    |                        | 4.9                     | 6.5                    | 6.4 J                  | 5.7                    | 6.3                    | 7.7                    | 4                      |                        | 6.1 J       |
| Barium                     | 300            |                        |                         |                        |                        |                        | 114                    |                         |                        |                         |                        |                        |                         |                        | 86.9                   |                        |                        |                        |                        |                        | 86          |
| Beryllium                  | 1.1            |                        |                         |                        |                        |                        | 0.65 J                 |                         |                        |                         |                        |                        |                         |                        | 1.1 J                  |                        |                        |                        |                        |                        | 0.86 J      |
| Cadmium                    | 2.3            |                        |                         |                        |                        |                        | 3.2 U                  |                         |                        |                         |                        |                        |                         |                        | 3.1 U                  |                        |                        |                        |                        |                        | 3.6 U       |
| Calcium                    | 120,500        |                        |                         |                        |                        |                        | 71700                  |                         |                        |                         |                        |                        |                         |                        | 2570                   |                        |                        |                        |                        |                        | 6400        |
| Chromium                   | 29             |                        |                         |                        |                        |                        | 20.1                   |                         |                        |                         |                        |                        |                         |                        | 33.5                   |                        |                        |                        |                        |                        | 25          |
| Cobalt                     | 30             |                        |                         |                        |                        |                        | 12.3                   |                         |                        |                         |                        |                        |                         |                        | 18.5                   |                        |                        |                        |                        |                        | 15          |
| Copper                     | 29.6           |                        |                         |                        |                        |                        | 24                     |                         |                        |                         |                        |                        |                         |                        | 24.8                   |                        |                        |                        |                        |                        | 23.2        |
| Iron                       | 35,550         |                        |                         |                        |                        |                        | 25100                  |                         |                        |                         |                        |                        |                         |                        | 39200                  |                        |                        |                        |                        |                        | 29200       |
| <b>2Lead</b>               | <b>400</b>     | 22.5                   |                         | 23.3                   | 25.1                   | 15.9                   | 20.5                   |                         | 17.8                   | 9.2                     | 12.6                   |                        | 17.4                    | 9.8                    | 13.2                   | 12.1                   | 13.6                   | 13.3                   |                        |                        | 18.8        |
| Magnesium                  | 21,500         |                        |                         |                        |                        |                        | 4870                   |                         |                        |                         |                        |                        |                         |                        | 7110                   |                        |                        |                        |                        |                        | 5200        |
| Manganese                  | 1,056          |                        |                         |                        |                        |                        | 606                    |                         |                        |                         |                        |                        |                         |                        | 635                    |                        |                        |                        |                        |                        | 677         |
| Mercury                    | 0.1            |                        |                         |                        |                        |                        | 0.047 J                |                         |                        |                         |                        |                        |                         |                        | 0.04 J                 |                        |                        |                        |                        |                        | 0.058 J     |
| Nickel                     | 48.9           |                        |                         |                        |                        |                        | 33                     |                         |                        |                         |                        |                        |                         |                        | 52.5                   |                        |                        |                        |                        |                        | 32.7        |
| Potassium                  | 2,343          |                        |                         |                        |                        |                        | 2070                   |                         |                        |                         |                        |                        |                         |                        | 1910                   |                        |                        |                        |                        |                        | 2270        |
| Selenium                   | 2              |                        |                         |                        |                        |                        | 16.8 U                 |                         |                        |                         |                        |                        |                         |                        | 16.5 U                 |                        |                        |                        |                        |                        | 19.1 U      |
| Silver                     | 0.763          |                        |                         |                        |                        |                        | 3.2 U                  |                         |                        |                         |                        |                        |                         |                        | 3.1 U                  |                        |                        |                        |                        |                        | 3.6 U       |
| Sodium                     | 170.3          |                        |                         |                        |                        |                        | 128                    |                         |                        |                         |                        |                        |                         |                        | 70.4 J                 |                        |                        |                        |                        |                        | 84.5 J      |
| Thallium                   | 0.67           |                        |                         |                        |                        |                        | 23.1 U                 |                         |                        |                         |                        |                        |                         |                        | 22.7 U                 |                        |                        |                        |                        |                        | 26.3 U      |
| Vanadium                   | 150            |                        |                         |                        |                        |                        | 20.3                   |                         |                        |                         |                        |                        |                         |                        | 27.6                   |                        |                        |                        |                        |                        | 26.5        |
| <b>Zinc</b>                | <b>108.9</b>   |                        | 49.1                    | <b>124</b>             | <b>134</b>             | 84.7                   |                        | <b>154</b>              | 92.4                   | 65                      | 71.4                   |                        | 89.7                    | 81.1                   | 75.8                   | 78                     | 72.6                   | 55.7                   |                        |                        | 84.1        |
| <b>3PAHs</b>               |                | (µg/kg)                |                         | (µg/kg)                | (µg/kg)                | (µg/kg)                | (µg/kg)                |                         | (µg/kg)                | (µg/kg)                 | (µg/kg)                |                        | (µg/kg)                 | (µg/kg)                | (µg/kg)                | (µg/kg)                | (µg/kg)                | (µg/kg)                | (µg/kg)                | (µg/kg)                | (µg/kg)     |
| 2-Methylnaphthalene        | 36,400         |                        |                         |                        |                        |                        | 34 U                   |                         |                        |                         |                        |                        |                         |                        | 34 U                   |                        |                        |                        |                        |                        | 34 U        |
| Acenaphthene               | 50,000         |                        |                         |                        |                        |                        | 18 U                   |                         |                        |                         |                        |                        |                         |                        | 18 U                   |                        |                        |                        |                        |                        | 18 U        |
| Acenaphthylene             | 41,000         |                        |                         |                        |                        |                        | 13 U                   |                         |                        |                         |                        |                        |                         |                        | 13 U                   |                        |                        |                        |                        |                        | 13 U        |
| Anthracene                 | 50,000         |                        |                         |                        |                        |                        | 15 U                   |                         |                        |                         |                        |                        |                         |                        | 14 U                   |                        |                        |                        |                        |                        | 15 U        |
| Benzo(ghi)perylene         | 50,000         |                        |                         |                        |                        |                        | 21 U                   |                         |                        |                         |                        |                        |                         |                        | 21 U                   |                        |                        |                        |                        |                        | 21 U        |
| Fluoranthene               | 50,000         |                        |                         |                        |                        |                        | 27 U                   |                         |                        |                         |                        |                        |                         |                        | 27 U                   |                        |                        |                        |                        |                        | 27 U        |
| Fluorene                   | 50,000         |                        |                         |                        |                        |                        | 24 U                   |                         |                        |                         |                        |                        |                         |                        | 24 U                   |                        |                        |                        |                        |                        | 24 U        |
| Naphthalene                | 13,000         |                        |                         |                        |                        |                        | 39 U                   |                         |                        |                         |                        |                        |                         |                        | 39 U                   |                        |                        |                        |                        |                        | 39 U        |
| Phenanthrene               | 50,000         |                        |                         |                        |                        |                        | 29 U                   |                         |                        |                         |                        |                        |                         |                        | 29 U                   |                        |                        |                        |                        |                        | 29 U        |
| Pyrene                     | 50,000         |                        |                         |                        |                        |                        | 23 U                   |                         |                        |                         |                        |                        |                         |                        | 23 U                   |                        |                        |                        |                        |                        | 23 U        |
| Benzo(a)pyrene             | 61             |                        |                         |                        |                        |                        | 19 U                   |                         |                        |                         |                        |                        |                         |                        | 19 U                   |                        |                        |                        |                        |                        | 19 U        |
| Dibenzo(a,h)anthracene     | 14             |                        |                         |                        |                        |                        | <b>22 U</b>            |                         |                        |                         |                        |                        |                         |                        | <b>22 U</b>            |                        |                        |                        |                        |                        | <b>22 U</b> |
| Benzo(a)anthracene         | 224            |                        |                         |                        |                        |                        | 18 U                   |                         |                        |                         |                        |                        |                         |                        | 18 U                   |                        |                        |                        |                        |                        | 18 U        |
| Benzo(b)fluoranthene       | 1,100          |                        |                         |                        |                        |                        | 46 U                   |                         |                        |                         |                        |                        |                         |                        | 46 UM                  |                        |                        |                        |                        |                        | 46 U        |
| Indeno(1,2,3-cd)pyrene     | 3,200          |                        |                         |                        |                        |                        | 22 U                   |                         |                        |                         |                        |                        |                         |                        | 22 U                   |                        |                        |                        |                        |                        | 22 U        |
| Benzo(k)fluoranthene       | 1,100          |                        |                         |                        |                        |                        | 47 U                   |                         |                        |                         |                        |                        |                         |                        | 47 UM                  |                        |                        |                        |                        |                        | 48 U        |
| Chrysene                   | 400            |                        |                         |                        |                        |                        | 21 U                   |                         |                        |                         |                        |                        |                         |                        | 21 U                   |                        |                        |                        |                        |                        | 21 U        |
| <b>6Benzo(a)pyrene TEQ</b> | <b>10,000</b>  |                        |                         |                        |                        |                        | 50                     |                         |                        |                         |                        |                        |                         |                        | 50                     |                        |                        |                        |                        |                        |             |

Analytical Results for Area 2 -Perimeter

SEAD 24

Time Critical Removal Action

SENECA Army Depot

| Compound                        | <sup>1</sup> CleanUp Goal | SEAD24-PX-A2-SS-001-FS                            | SEAD24-PX-A2-SS-002-FS | SEAD24-PX-A2-SS-003-FS | SEAD24-PX-A2-SS-004-FS | SEAD24-PX-A2-SS-005-FS | SEAD24-PX-A2-SS-006-FS | SEAD24-PX-A2-SS-007-FS | SEAD24-PX-A2-SS-008-FS | SEAD24-PX-A2-SS-009-FS | SEAD24-PX-A2-SS-010-FS | SEAD24-PX-A2-SS-011-FS | SEAD24-PX-A2-SS-012-FS3 | SEAD24-PX-A2-SS-012-FS4 |
|---------------------------------|---------------------------|---|------------------------|------------------------|------------------------|------------------------|------------------------|------------------------|------------------------|------------------------|------------------------|------------------------|-------------------------|-------------------------|
|                                 |                           | Sample Depth BOG (inches) / Offset Distance(feet) | 2-6 / 1                | 2-6 / 1                | 2-6 / 1                | 2-6 / 1                | 2-6 / 1                | 2-6 / 1                | 2-6 / 1                | 2-6 / 1                | 2-6 / 1                | 2-6 / 1                | 2-6 / 1                 | 2-6 / 5                 |
| Metals                          |                           | (mg/kg)   | (mg/kg)                | (mg/kg)                | (mg/kg)                | (mg/kg)                | (mg/kg)                | (mg/kg)                | (mg/kg)                | (mg/kg)                | (mg/kg)                | (mg/kg)                | (mg/kg)                 | (mg/kg)                 |
| Aluminum                        | 19,200                    |   |                        |                        |                        | 11900                  |                        |                        |                        |                        |                        | 15500                  |                         |                         |
| Antimony                        | 5.9                       |   |                        |                        |                        | 12.4 U                 |                        |                        |                        |                        |                        | 13.9 U                 |                         |                         |
| <b>Arsenic</b>                  | <b>8.24</b>               | 7.9   | 3                      | 4.5                    | 6.3                    | 7.1 J                  | 5.6                    | 5.8                    | 6.8                    | 4.4                    | 6.9 J                  | 6.7                    |                         | <b>18.3</b>             |
| Barium                          | 300                       |   |                        |                        |                        | 36.3                   |                        |                        |                        |                        | 67.4                   |                        |                         |                         |
| Beryllium                       | 1.1                       |   |                        |                        |                        | 0.58 J                 |                        |                        |                        |                        | 0.68 J                 |                        |                         |                         |
| Cadmium                         | 2.3                       |   |                        |                        |                        | 3.2 U                  |                        |                        |                        |                        | 3.6 U                  |                        |                         |                         |
| Calcium                         | 120,500                   |   |                        |                        |                        | 10800                  |                        |                        |                        |                        | 1680                   |                        |                         |                         |
| Chromium                        | 29                        |   |                        |                        |                        | 23.2                   |                        |                        |                        |                        | 22.2                   |                        |                         |                         |
| Cobalt                          | 30                        |   |                        |                        |                        | 13.7                   |                        |                        |                        |                        | 10.5                   |                        |                         |                         |
| Copper                          | 29.6                      |   |                        |                        |                        | 46.4                   |                        |                        |                        |                        | 20.3                   |                        |                         |                         |
| Iron                            | 35,550                    |   |                        |                        |                        | 29800                  |                        |                        |                        |                        | 25400                  |                        |                         |                         |
| <sup>2</sup> Lead               | 400                       | 23.6  | 17.4                   | 24                     | 26.5                   | 33                     | 17.4                   | 18.7                   | 16.2                   | 14.9                   | 16.6                   | 13.4                   | 16.4                    |                         |
| Magnesium                       | 21,500                    |   |                        |                        |                        | 6020                   |                        |                        |                        |                        | 4120                   |                        |                         |                         |
| Manganese                       | 1,056                     |   |                        |                        |                        | 281                    |                        |                        |                        |                        | 417                    |                        |                         |                         |
| Mercury                         | 0.1                       |   |                        |                        |                        | 0.065 U                |                        |                        |                        |                        | 0.048 J                |                        |                         |                         |
| Nickel                          | 48.9                      |   |                        |                        |                        | 52.5                   |                        |                        |                        |                        | 27                     |                        |                         |                         |
| Potassium                       | 2,343                     |   |                        |                        |                        | 1670                   |                        |                        |                        |                        | 1920                   |                        |                         |                         |
| Selenium                        | 2                         |   |                        |                        |                        | 1.8 J                  |                        |                        |                        |                        | 19 U                   |                        |                         |                         |
| Silver                          | 0.763                     |   |                        |                        |                        | 3.2 U                  |                        |                        |                        |                        | 3.6 U                  |                        |                         |                         |
| Sodium                          | 170.3                     |   |                        |                        |                        | 96.4 J                 |                        |                        |                        |                        | 65.1 J                 |                        |                         |                         |
| Thallium                        | 0.67                      |   |                        |                        |                        | 23.3 U                 |                        |                        |                        |                        | 26.1 U                 |                        |                         |                         |
| Vanadium                        | 150                       |   |                        |                        |                        | 16.4                   |                        |                        |                        |                        | 25.3                   |                        |                         |                         |
| <b>Zinc</b>                     | <b>108.9</b>              | <b>172</b>  | <b>123</b>             | 104                    | <b>241</b>             | 107                    | 77.7                   | 73.8                   | 71.2                   | 72.2                   | <b>1215.985</b>        | 69.9                   |                         | 83                      |
| <sup>3</sup> PAHs               |                           | (µg/kg)   | (µg/kg)                | (µg/kg)                | (µg/kg)                | (µg/kg)                | (µg/kg)                | (µg/kg)                | (µg/kg)                | (µg/kg)                | (µg/kg)                | (µg/kg)                | (µg/kg)                 | (µg/kg)                 |
| 2-Methylnaphthalene             | 36,400                    |   |                        |                        |                        | 29 U                   |                        |                        |                        |                        | 34 U                   |                        |                         |                         |
| Acenaphthene                    | 50,000                    |   |                        |                        |                        | 16 U                   |                        |                        |                        |                        | 18 U                   |                        |                         |                         |
| Acenaphthylene                  | 41,000                    |   |                        |                        |                        | 11 U                   |                        |                        |                        |                        | 13 U                   |                        |                         |                         |
| Anthracene                      | 50,000                    |   |                        |                        |                        | 12 U                   |                        |                        |                        |                        | 14 U                   |                        |                         |                         |
| Benzo(ghi)perylene              | 50,000                    |   |                        |                        |                        | 18 U                   |                        |                        |                        |                        | 21 U                   |                        |                         |                         |
| Fluoranthene                    | 50,000                    |   |                        |                        |                        | 23 U                   |                        |                        |                        |                        | 27 U                   |                        |                         |                         |
| Fluorene                        | 50,000                    |   |                        |                        |                        | 21 U                   |                        |                        |                        |                        | 24 U                   |                        |                         |                         |
| Naphthalene                     | 13,000                    |   |                        |                        |                        | 33 U                   |                        |                        |                        |                        | 39 U                   |                        |                         |                         |
| Phenanthrene                    | 50,000                    |   |                        |                        |                        | 25 U                   |                        |                        |                        |                        | 29 U                   |                        |                         |                         |
| Pyrene                          | 50,000                    |   |                        |                        |                        | 20 U                   |                        |                        |                        |                        | 23 U                   |                        |                         |                         |
| Benzo(a)pyrene                  | 61                        |   |                        |                        |                        | 17 U                   |                        |                        |                        |                        | 19 U                   |                        |                         |                         |
| Dibenzo(a,h)anthracene          | 14                        |   |                        |                        |                        | <b>19 U</b>            |                        |                        |                        |                        | <b>22 U</b>            |                        |                         |                         |
| Benzo(a)anthracene              | 224                       |   |                        |                        |                        | 16 U                   |                        |                        |                        |                        | 18 U                   |                        |                         |                         |
| Benzo(b)fluoranthene            | 1,100                     |   |                        |                        |                        | 39 U                   |                        |                        |                        |                        | 46 U                   |                        |                         |                         |
| Indeno(1,2,3-cd)pyrene          | 3,200                     |   |                        |                        |                        | 19 U                   |                        |                        |                        |                        | 22 U                   |                        |                         |                         |
| Benzo(k)fluoranthene            | 1,100                     |   |                        |                        |                        | 40 U                   |                        |                        |                        |                        | 47 U                   |                        |                         |                         |
| Chrysene                        | 400                       |   |                        |                        |                        | 18 U                   |                        |                        |                        |                        | 21 U                   |                        |                         |                         |
| <sup>4</sup> Benzo(a)pyrene TEQ | 10,000                    |   |                        |                        |                        | 44                     |                        |                        |                        |                        | 50                     |                        |                         |                         |

Analytical Results for Area 2 -Perimeter

SEAD 24

Time Critical Removal Action

SENECA Army Depot

| Compound  | <sup>1</sup> CleanUp Goal | SEAD24-PX-A2-SS-013-FS | SEAD24-PX-A2-SS-013-FS2 | SEAD24-PX-A2-SS-014-FS | SEAD24-PX-A2-SS-014-FS2 | SEAD24-PX-A2-SS-015-FS | SEAD24-PX-A2-SS-015-FS2 | SEAD24-PX-A2-SS-016-FS3 | SEAD24-PX-A2-SS-016-FS4 | SEAD24-PX-A2-SS-016-FS5 |
|---|---------------------------|------------------------|-------------------------|------------------------|-------------------------|------------------------|-------------------------|-------------------------|-------------------------|-------------------------|
| Sample Depth BOG (inches) / Offset Distance(feet) |                           | 2-6 / 1                | 2-6 / 4                 | 2-6 / 1                | 2-6 / 4                 | 2-6 / 1                | 2-6 / 4                 | 2-6 / 5                 | 2-6 / 6                 | 2-6 / 10                |
| Metals  |                           | (mg/kg)                | (mg/kg)                 | (mg/kg)                | (mg/kg)                 | (mg/kg)                | (mg/kg)                 | (mg/kg)                 | (mg/kg)                 | (mg/kg)                 |
| Aluminum  | 19,200                    |                        |                         |                        |                         | 19000                  |                         |                         |                         |                         |
| Antimony  | 5.9                       |                        |                         |                        |                         | 13.7 U                 |                         |                         |                         |                         |
| <b>Arsenic</b>                                    | 8.24                      |                        | 19                      |                        | 10.6                    |                        | 15.7                    |                         |                         | 23.8                    |
| Barium  | 300                       |                        |                         |                        |                         | 119                    |                         |                         |                         |                         |
| Beryllium   | 1.1                       |                        |                         |                        |                         | 0.95 J                 |                         |                         |                         |                         |
| Cadmium   | 2.3                       |                        |                         |                        |                         | 3.5 U                  |                         |                         |                         |                         |
| Calcium   | 120,500                   |                        |                         |                        |                         | 5300                   |                         |                         |                         |                         |
| Chromium  | 29                        |                        |                         |                        |                         | 25                     |                         |                         |                         |                         |
| Cobalt  | 30                        |                        |                         |                        |                         | 12.8                   |                         |                         |                         |                         |
| Copper  | 29.6                      |                        |                         |                        |                         | 25.9                   |                         |                         |                         |                         |
| Iron  | 35,550                    |                        |                         |                        |                         | 30500                  |                         |                         |                         |                         |
| <sup>2</sup> Lead                                 | 400                       |                        | 35.2                    | 9.4                    |                         | 20                     |                         |                         | 49.8                    |                         |
| Magnesium   | 21,500                    |                        |                         |                        |                         | 6410                   |                         |                         |                         |                         |
| Manganese   | 1,056                     |                        |                         |                        |                         | 624                    |                         |                         |                         |                         |
| Mercury   | 0.1                       |                        |                         |                        |                         | 0.1                    |                         |                         |                         |                         |
| Nickel  | 48.9                      |                        |                         |                        |                         | 32.9                   |                         |                         |                         |                         |
| Potassium   | 2,343                     |                        |                         |                        |                         | 2550                   |                         |                         |                         |                         |
| Selenium  | 2                         |                        |                         |                        |                         | 18.7 U                 |                         |                         |                         |                         |
| Silver  | 0.763                     |                        |                         |                        |                         | 3.5 U                  |                         |                         |                         |                         |
| Sodium  | 170.3                     |                        |                         |                        |                         | 91.5 J                 |                         |                         |                         |                         |
| Thallium  | 0.67                      |                        |                         |                        |                         | 25.7 U                 |                         |                         |                         |                         |
| Vanadium  | 150                       |                        |                         |                        |                         | 30                     |                         |                         |                         |                         |
| <b>Zinc</b>                                       | 108.9                     | 86.9                   |                         | 63.1                   |                         | 86.3                   |                         | 82.1                    |                         |                         |
| <sup>3</sup> PAHs                                 |                           | (µg/kg)                |                         | (µg/kg)                |                         | (µg/kg)                |                         | (µg/kg)                 |                         |                         |
| 2-Methylnaphthalene                               | 36,400                    |                        |                         |                        |                         | 36 U                   |                         |                         |                         |                         |
| Acenaphthene                                      | 50,000                    |                        |                         |                        |                         | 19 U                   |                         |                         |                         |                         |
| Acenaphthylene                                    | 41,000                    |                        |                         |                        |                         | 14 U                   |                         |                         |                         |                         |
| Anthracene  | 50,000                    |                        |                         |                        |                         | 15 U                   |                         |                         |                         |                         |
| Benzo(ghi)perylene                                | 50,000                    |                        |                         |                        |                         | 22 U                   |                         |                         |                         |                         |
| Fluoranthene                                      | 50,000                    |                        |                         |                        |                         | 28 U                   |                         |                         |                         |                         |
| Fluorene  | 50,000                    |                        |                         |                        |                         | 25 U                   |                         |                         |                         |                         |
| Naphthalene                                       | 13,000                    |                        |                         |                        |                         | 41 U                   |                         |                         |                         |                         |
| Phenanthrene                                      | 50,000                    |                        |                         |                        |                         | 31 U                   |                         |                         |                         |                         |
| Pyrene  | 50,000                    |                        |                         |                        |                         | 24 U                   |                         |                         |                         |                         |
| Benzo(a)pyrene                                    | 61                        |                        |                         |                        |                         | 20 U                   |                         |                         |                         |                         |
| Dibenzo(a,h)anthracene                            | 14                        |                        |                         |                        |                         | 23 U                   |                         |                         |                         |                         |
| Benzo(a)anthracene                                | 224                       |                        |                         |                        |                         | 19 U                   |                         |                         |                         |                         |
| Benzo(b)fluoranthene                              | 1,100                     |                        |                         |                        |                         | 48 U                   |                         |                         |                         |                         |
| Indeno(1,2,3-cd)pyrene                            | 3,200                     |                        |                         |                        |                         | 23 U                   |                         |                         |                         |                         |
| Benzo(k)fluoranthene                              | 1,100                     |                        |                         |                        |                         | 50 U                   |                         |                         |                         |                         |
| Chrysene  | 400                       |                        |                         |                        |                         | 22 U                   |                         |                         |                         |                         |
| <sup>4</sup> Benzo(a)pyrene TEQ                   | 10,000                    |                        |                         |                        |                         | 53                     |                         |                         |                         |                         |

**Analytical Results for Area 3 -Floor**

SEAD 24

Time Critical Removal Action

SENECA Army Depot

| Compound                        | <sup>1</sup> CleanUp Goal | SEAD24-FX-A3-SS-001-FS | SEAD24-FX-A3-SS-002-FS | SEAD24-FX-A3-SS-003-FS2 | SEAD24-FX-A3-SS-003-FS3 | SEAD24-FX-A3-SS-004-FS | SEAD24-FX-A3-SS-005-FS | SEAD24-FX-A3-SS-006-FS | SEAD24-FX-A3-SS-007-FS | SEAD24-FX-A3-SS-008-FS | SEAD24-FX-A3-SS-009-FS2 | SEAD24-FX-A3-SS-010-FS | SEAD24-FX-A3-SS-010-FS2 | SEAD24-FX-A3-SS-011-FS | SEAD24-FX-A3-SS-012-FS2 | SEAD24-FX-A3-SS-012-FS3 | SEAD24-FX-A3-SS-013-FS |         |
|---------------------------------|---------------------------|------------------------|------------------------|-------------------------|-------------------------|------------------------|------------------------|------------------------|------------------------|------------------------|-------------------------|------------------------|-------------------------|------------------------|-------------------------|-------------------------|------------------------|---------|
|                                 |                           | 6-12                   | 6-12                   | 12-18                   | 18-24                   | 6-12                   | 6-12                   | 6-12                   | 6-12                   | 6-12                   | 6-12                    | 12-18                  | 6-12                    | 12-18                  | 6-12                    | 12-18                   | 18-24                  | 6-12    |
| Depth BOG (inches)              |                           | (mg/kg)                | (mg/kg)                | (mg/kg)                 | (mg/kg)                 | (mg/kg)                | (mg/kg)                | (mg/kg)                | (mg/kg)                | (mg/kg)                | (mg/kg)                 | (mg/kg)                | (mg/kg)                 | (mg/kg)                | (mg/kg)                 | (mg/kg)                 | (mg/kg)                | (mg/kg) |
| <b>Metals</b>                   |                           |                        |                        |                         |                         |                        |                        |                        |                        |                        |                         |                        |                         |                        |                         |                         |                        |         |
| Aluminum                        | 19,200                    |                        |                        |                         |                         |                        | 19100                  |                        |                        |                        |                         | 18600                  |                         |                        |                         |                         |                        |         |
| Antimony                        | 5.9                       |                        |                        |                         |                         |                        | 12.7 U                 |                        |                        |                        |                         | 3.9 J                  |                         |                        |                         |                         |                        |         |
| <b>Arsenic</b>                  | 8.24                      | 5.8                    | 6.2                    |                         | 5.1                     | 4.1                    | 5 J                    | 4.3                    | 5.3                    | 4.7                    | 5.3                     |                        | 7.3                     | 11.9                   |                         | 7                       |                        | 5.6     |
| Barium                          | 300                       |                        |                        |                         |                         |                        | 125                    |                        |                        |                        |                         | 138                    |                         |                        |                         |                         |                        |         |
| Beryllium                       | 1.1                       |                        |                        |                         |                         |                        | 0.91 J                 |                        |                        |                        |                         | 0.93 J                 |                         |                        |                         |                         |                        |         |
| Cadmium                         | 2.3                       |                        |                        |                         |                         |                        | 3.3 U                  |                        |                        |                        |                         | 3.1 U                  |                         |                        |                         |                         |                        |         |
| Calcium                         | 120,500                   |                        |                        |                         |                         |                        | 2820                   |                        |                        |                        |                         | 3600                   |                         |                        |                         |                         |                        |         |
| Chromium                        | 29                        |                        |                        |                         |                         |                        | 26.8                   |                        |                        |                        |                         | 22.5                   |                         |                        |                         |                         |                        |         |
| Cobalt                          | 30                        |                        |                        |                         |                         |                        | 7.8                    |                        |                        |                        |                         | 8.4                    |                         |                        |                         |                         |                        |         |
| Copper                          | 29.6                      |                        |                        |                         |                         |                        | 23.4                   |                        |                        |                        |                         | 28.6                   |                         |                        |                         |                         |                        |         |
| Iron                            | 35,550                    |                        |                        |                         |                         |                        | 27600                  |                        |                        |                        |                         | 25200                  |                         |                        |                         |                         |                        |         |
| <sup>2</sup> Lead               | 400                       | 63                     | 25.8                   | 10.5                    |                         | 18.3                   | 13.4                   | 43.7                   | 61.2                   | 19.4                   | 28                      |                        | 23.7                    | 98.3                   |                         | 25.9                    |                        | 17.1    |
| Magnesium                       | 21,500                    |                        |                        |                         |                         |                        | 5010                   |                        |                        |                        |                         | 3860                   |                         |                        |                         |                         |                        |         |
| Manganese                       | 1,056                     |                        |                        |                         |                         |                        | 242                    |                        |                        |                        |                         | 332                    |                         |                        |                         |                         |                        |         |
| Mercury                         | 0.1                       |                        |                        |                         |                         |                        | 0.047 J                |                        |                        |                        |                         | 0.042 J                |                         |                        |                         |                         |                        |         |
| Nickel                          | 48.9                      |                        |                        |                         |                         |                        | 34                     |                        |                        |                        |                         | 24.6                   |                         |                        |                         |                         |                        |         |
| Potassium                       | 2,343                     |                        |                        |                         |                         |                        | 1940                   |                        |                        |                        |                         | 1680                   |                         |                        |                         |                         |                        |         |
| Selenium                        | 2                         |                        |                        |                         |                         |                        | 17.4 U                 |                        |                        |                        |                         | 16.5 U                 |                         |                        |                         |                         |                        |         |
| Silver                          | 0.763                     |                        |                        |                         |                         |                        | 3.3 U                  |                        |                        |                        |                         | 3.1 U                  |                         |                        |                         |                         |                        |         |
| Sodium                          | 170.3                     |                        |                        |                         |                         |                        | 89.2 J                 |                        |                        |                        |                         | 94.3 J                 |                         |                        |                         |                         |                        |         |
| Thallium                        | 0.67                      |                        |                        |                         |                         |                        | 23.9 U                 |                        |                        |                        |                         | 22.7 U                 |                         |                        |                         |                         |                        |         |
| Vanadium                        | 150                       |                        |                        |                         |                         |                        | 27                     |                        |                        |                        |                         | 29.6                   |                         |                        |                         |                         |                        |         |
| <b>Zinc</b>                     | 108.9                     | 137                    | 108                    |                         | 86.2                    | 120                    | 127                    | 197                    | 164                    | 146                    | 112                     |                        | 98.1                    | 177                    | 83.8                    |                         |                        | 62      |
| <b><sup>3</sup>PAHs</b>         |                           | (µg/kg)                | (µg/kg)                | (µg/kg)                 |                         | (µg/kg)                | (µg/kg)                | (µg/kg)                | (µg/kg)                | (µg/kg)                |                         | (µg/kg)                |                         |                        |                         |                         |                        |         |
| 2-Methylnaphthalene             | 36,400                    |                        |                        |                         |                         |                        | 36 U                   |                        |                        |                        |                         | 35 U                   |                         |                        |                         |                         |                        |         |
| Acenaphthene                    | 50,000                    |                        |                        |                         |                         |                        | 19 U                   |                        |                        |                        |                         | 19 U                   |                         |                        |                         |                         |                        |         |
| Acenaphthylene                  | 41,000                    |                        |                        |                         |                         |                        | 14 U                   |                        |                        |                        |                         | 14 U                   |                         |                        |                         |                         |                        |         |
| Anthracene                      | 50,000                    |                        |                        |                         |                         |                        | 15 U                   |                        |                        |                        |                         | 15 U                   |                         |                        |                         |                         |                        |         |
| Benzo(ghi)perylene              | 50,000                    |                        |                        |                         |                         |                        | 22 U                   |                        |                        |                        |                         | 21 U                   |                         |                        |                         |                         |                        |         |
| Fluoranthene                    | 50,000                    |                        |                        |                         |                         |                        | 28 U                   |                        |                        |                        |                         | 27 U                   |                         |                        |                         |                         |                        |         |
| Fluorene                        | 50,000                    |                        |                        |                         |                         |                        | 25 U                   |                        |                        |                        |                         | 25 U                   |                         |                        |                         |                         |                        |         |
| Naphthalene                     | 13,000                    |                        |                        |                         |                         |                        | 41 U                   |                        |                        |                        |                         | 40 U                   |                         |                        |                         |                         |                        |         |
| Phenanthrene                    | 50,000                    |                        |                        |                         |                         |                        | 30 U                   |                        |                        |                        |                         | 30 U                   |                         |                        |                         |                         |                        |         |
| Pyrene                          | 50,000                    |                        |                        |                         |                         |                        | 24 U                   |                        |                        |                        |                         | 24 U                   |                         |                        |                         |                         |                        |         |
| Benzo(a)pyrene                  | 61                        |                        |                        |                         |                         |                        | 20 U                   |                        |                        |                        |                         | 20 U                   |                         |                        |                         |                         |                        |         |
| Dibenzo(a,h)anthracene          | 14                        |                        |                        |                         |                         |                        | 23 U                   |                        |                        |                        |                         | 22 U                   |                         |                        |                         |                         |                        |         |
| Benzo(a)anthracene              | 224                       |                        |                        |                         |                         |                        | 19 U                   |                        |                        |                        |                         | 19 U                   |                         |                        |                         |                         |                        |         |
| Benzo(b)fluoranthene            | 1,100                     |                        |                        |                         |                         |                        | 48 U                   |                        |                        |                        |                         | 47 U                   |                         |                        |                         |                         |                        |         |
| Indeno(1,2,3-cd)pyrene          | 3,200                     |                        |                        |                         |                         |                        | 23 U                   |                        |                        |                        |                         | 22 U                   |                         |                        |                         |                         |                        |         |
| Benzo(k)fluoranthene            | 1,100                     |                        |                        |                         |                         |                        | 50 U                   |                        |                        |                        |                         | 49 U                   |                         |                        |                         |                         |                        |         |
| Chrysene                        | 400                       |                        |                        |                         |                         |                        | 22 U                   |                        |                        |                        |                         | 21 U                   |                         |                        |                         |                         |                        |         |
| <sup>4</sup> Benzo(a)pyrene TEQ | 10,000                    |                        |                        |                         |                         |                        | 53                     |                        |                        |                        |                         | 52                     |                         |                        |                         |                         |                        |         |

**Analytical Results for Area 3 -Floor**

SEAD 24

Time Critical Removal Action

SENECA Army Depot

| Compound                        | <sup>1</sup> CleanUp Goal | SEAD24-FX-A3-SS-014-FS | SEAD24-FX-A3-SS-015-FS | SEAD24-FX-A3-SS-016-FS | SEAD24-FX-A3-SS-017-FS | SEAD24-FX-A3-SS-018-FS | SEAD24-FX-A3-SS-019-FS | SEAD24-FX-A3-SS-020-FS | SEAD24-FX-A3-SS-020-FS2 | SEAD24-FX-A3-SS-021-FS | SEAD24-FX-A3-SS-022-FS | SEAD24-FX-A3-SS-023-FS | SEAD24-FX-A3-SS-024-FS | SEAD24-FX-A3-SS-025-FS | SEAD24-FX-A3-SS-026-FS | SEAD24-FX-A3-SS-027-FS | SEAD24-FX-A3-SS-028-FS2 |         |
|---------------------------------|---------------------------|------------------------|------------------------|------------------------|------------------------|------------------------|------------------------|------------------------|-------------------------|------------------------|------------------------|------------------------|------------------------|------------------------|------------------------|------------------------|-------------------------|---------|
|                                 |                           | 6-12                   | 6-12                   | 6-12                   | 6-12                   | 6-12                   | 12-18                  | 6-12                   | 12-18                   | 6-12                   | 6-12                   | 6-12                   | 6-12                   | 6-12                   | 6-12                   | 6-12                   | 6-12                    | 24-30   |
| Metals                          |                           | (mg/kg)                | (mg/kg)                | (mg/kg)                | (mg/kg)                | (mg/kg)                | (mg/kg)                | (mg/kg)                | (mg/kg)                 | (mg/kg)                | (mg/kg)                | (mg/kg)                | (mg/kg)                | (mg/kg)                | (mg/kg)                | (mg/kg)                | (mg/kg)                 | (mg/kg) |
| Aluminum                        | 19,200                    |                        |                        |                        |                        |                        |                        |                        |                         |                        |                        |                        |                        |                        |                        |                        |                         |         |
| Antimony                        | 5.9                       |                        |                        |                        |                        |                        |                        |                        |                         |                        |                        |                        |                        |                        |                        |                        |                         |         |
| Arsenic                         | 8.24                      | 5.4                    | 14.7                   | 14                     | 4.5                    | 8.6                    | 5.3                    |                        | 6.4                     | 5.8                    | 6.8                    | 5.7                    | 7.4                    | 7.3                    | 7.4                    | 5.8                    | 7.4                     |         |
| Barium                          | 300                       |                        |                        |                        |                        |                        |                        |                        |                         |                        |                        |                        |                        |                        |                        |                        |                         |         |
| Beryllium                       | 1.1                       |                        |                        |                        |                        |                        |                        |                        |                         |                        |                        |                        |                        |                        |                        |                        |                         |         |
| Cadmium                         | 2.3                       |                        |                        |                        |                        |                        |                        |                        |                         |                        |                        |                        |                        |                        |                        |                        |                         |         |
| Calcium                         | 120,500                   |                        |                        |                        |                        |                        |                        |                        |                         |                        |                        |                        |                        |                        |                        |                        |                         |         |
| Chromium                        | 29                        |                        |                        |                        |                        |                        |                        |                        |                         |                        |                        |                        |                        |                        |                        |                        |                         |         |
| Cobalt                          | 30                        |                        |                        |                        |                        |                        |                        |                        |                         |                        |                        |                        |                        |                        |                        |                        |                         |         |
| Copper                          | 29.6                      |                        |                        |                        |                        |                        |                        |                        |                         |                        |                        |                        |                        |                        |                        |                        |                         |         |
| Iron                            | 35,550                    |                        |                        |                        |                        |                        |                        |                        |                         |                        |                        |                        |                        |                        |                        |                        |                         |         |
| <sup>2</sup> Lead               | 400                       | 16                     | 20.6                   | 17.6                   | 16.6                   | 17.7                   | 16.9                   | 15.5                   |                         | 18.3                   | 19.8                   | 17                     | 32                     | 20.7                   | 16.8                   | 18.1                   | 11.7                    |         |
| Magnesium                       | 21,500                    |                        |                        |                        |                        |                        |                        |                        |                         |                        |                        |                        |                        |                        |                        |                        |                         |         |
| Manganese                       | 1,056                     |                        |                        |                        |                        |                        |                        |                        |                         |                        |                        |                        |                        |                        |                        |                        |                         |         |
| Mercury                         | 0.1                       |                        |                        |                        |                        |                        |                        |                        |                         |                        |                        |                        |                        |                        |                        |                        |                         |         |
| Nickel                          | 48.9                      |                        |                        |                        |                        |                        |                        |                        |                         |                        |                        |                        |                        |                        |                        |                        |                         |         |
| Potassium                       | 2,343                     |                        |                        |                        |                        |                        |                        |                        |                         |                        |                        |                        |                        |                        |                        |                        |                         |         |
| Selenium                        | 2                         |                        |                        |                        |                        |                        |                        |                        |                         |                        |                        |                        |                        |                        |                        |                        |                         |         |
| Silver                          | 0.763                     |                        |                        |                        |                        |                        |                        |                        |                         |                        |                        |                        |                        |                        |                        |                        |                         |         |
| Sodium                          | 170.3                     |                        |                        |                        |                        |                        |                        |                        |                         |                        |                        |                        |                        |                        |                        |                        |                         |         |
| Thallium                        | 0.67                      |                        |                        |                        |                        |                        |                        |                        |                         |                        |                        |                        |                        |                        |                        |                        |                         |         |
| Vanadium                        | 150                       |                        |                        |                        |                        |                        |                        |                        |                         |                        |                        |                        |                        |                        |                        |                        |                         |         |
| Zinc                            | 108.9                     | 59.1                   | 68.8                   | 65.8                   | 57.9                   | 62.7                   | 60.5                   |                        | 50.7                    | 57.9                   | 79.8                   | 73.2                   | 102                    | 67.1                   | 48.8                   | 51.1                   | 54.2                    |         |
| <sup>3</sup> PAHs               |                           |                        |                        |                        |                        |                        |                        |                        |                         |                        |                        |                        |                        |                        |                        |                        |                         |         |
| 2-Methylnaphthalene             | 36,400                    |                        |                        |                        |                        |                        |                        |                        |                         |                        |                        |                        |                        |                        |                        |                        |                         |         |
| Acenaphthene                    | 50,000                    |                        |                        |                        |                        |                        |                        |                        |                         |                        |                        |                        |                        |                        |                        |                        |                         |         |
| Acenaphthylene                  | 41,000                    |                        |                        |                        |                        |                        |                        |                        |                         |                        |                        |                        |                        |                        |                        |                        |                         |         |
| Anthracene                      | 50,000                    |                        |                        |                        |                        |                        |                        |                        |                         |                        |                        |                        |                        |                        |                        |                        |                         |         |
| Benzo(ghi)perylene              | 50,000                    |                        |                        |                        |                        |                        |                        |                        |                         |                        |                        |                        |                        |                        |                        |                        |                         |         |
| Fluoranthene                    | 50,000                    |                        |                        |                        |                        |                        |                        |                        |                         |                        |                        |                        |                        |                        |                        |                        |                         |         |
| Fluorene                        | 50,000                    |                        |                        |                        |                        |                        |                        |                        |                         |                        |                        |                        |                        |                        |                        |                        |                         |         |
| Naphthalene                     | 13,000                    |                        |                        |                        |                        |                        |                        |                        |                         |                        |                        |                        |                        |                        |                        |                        |                         |         |
| Phenanthrene                    | 50,000                    |                        |                        |                        |                        |                        |                        |                        |                         |                        |                        |                        |                        |                        |                        |                        |                         |         |
| Pyrene                          | 50,000                    |                        |                        |                        |                        |                        |                        |                        |                         |                        |                        |                        |                        |                        |                        |                        |                         |         |
| Benzo(a)pyrene                  | 61                        |                        |                        |                        |                        |                        |                        |                        |                         |                        |                        |                        |                        |                        |                        |                        |                         |         |
| Dibenzo(a,h)anthracene          | 14                        |                        |                        |                        |                        |                        |                        |                        |                         |                        |                        |                        |                        |                        |                        |                        |                         |         |
| Benzo(a)anthracene              | 224                       |                        |                        |                        |                        |                        |                        |                        |                         |                        |                        |                        |                        |                        |                        |                        |                         |         |
| Benzo(b)fluoranthene            | 1,100                     |                        |                        |                        |                        |                        |                        |                        |                         |                        |                        |                        |                        |                        |                        |                        |                         |         |
| Indeno(1,2,3-cd)pyrene          | 3,200                     |                        |                        |                        |                        |                        |                        |                        |                         |                        |                        |                        |                        |                        |                        |                        |                         |         |
| Benzo(k)fluoranthene            | 1,100                     |                        |                        |                        |                        |                        |                        |                        |                         |                        |                        |                        |                        |                        |                        |                        |                         |         |
| Chrysene                        | 400                       |                        |                        |                        |                        |                        |                        |                        |                         |                        |                        |                        |                        |                        |                        |                        |                         |         |
| <sup>4</sup> Benzo(a)pyrene TEQ | 10,000                    |                        |                        |                        |                        |                        |                        |                        |                         |                        |                        |                        |                        |                        |                        |                        |                         |         |

**Analytical Results for Area 3 -Floor**

SEAD 24

Time Critical Removal Action

SENECA Army Depot

| Compound                        | <sup>1</sup> CleanUp Goal | SEAD24-FX-A3-SS-029-FS2 | SEAD24-FX-A3-SS-029-FS3 | SEAD24-FX-A3-SS-030-FS | SEAD24-FX-A3-SS-031-FS2 | SEAD24-FX-A3-SS-032-FS | SEAD24-FX-A3-SS-032-FS2 | SEAD24-FX-A3-SS-033-FS | SEAD24-FX-A3-SS-034-FS | SEAD24-FX-A3-SS-035-FS | SEAD24-FX-A3-SS-036-FS |
|---------------------------------|---------------------------|-------------------------|-------------------------|------------------------|-------------------------|------------------------|-------------------------|------------------------|------------------------|------------------------|------------------------|
|                                 |                           | 12-18                   | 18-24                   | 6-12                   | 12-18                   | 6-12                   | 12-18                   | 6-12                   | 6-12                   | 6-12                   | 6-12                   |
| Depth BOG (inches)              |                           | (mg/kg)                 | (mg/kg)                 | (mg/kg)                | (mg/kg)                 | (mg/kg)                | (mg/kg)                 | (mg/kg)                | (mg/kg)                | (mg/kg)                | (mg/kg)                |
| <b>Metals</b>                   |                           |                         |                         |                        |                         |                        |                         |                        |                        |                        |                        |
| Aluminum                        | 19,200                    |                         |                         |                        |                         |                        |                         |                        |                        |                        |                        |
| Antimony                        | 5.9                       |                         |                         |                        |                         |                        |                         |                        |                        |                        |                        |
| <b>Arsenic</b>                  | 8.24                      |                         | 6.9                     | 4.7                    | 3.4                     |                        | 3.8                     | 4.3                    | 4.7                    | 6.9                    | 6.5                    |
| Barium                          | 300                       |                         |                         |                        |                         |                        |                         |                        |                        |                        |                        |
| Beryllium                       | 1.1                       |                         |                         |                        |                         |                        |                         |                        |                        |                        |                        |
| Cadmium                         | 2.3                       |                         |                         |                        |                         |                        |                         |                        |                        |                        |                        |
| Calcium                         | 120,500                   |                         |                         |                        |                         |                        |                         |                        |                        |                        |                        |
| Chromium                        | 29                        |                         |                         |                        |                         |                        |                         |                        |                        |                        |                        |
| Cobalt                          | 30                        |                         |                         |                        |                         |                        |                         |                        |                        |                        |                        |
| Copper                          | 29.6                      |                         |                         |                        |                         |                        |                         |                        |                        |                        |                        |
| Iron                            | 35,550                    |                         |                         |                        |                         |                        |                         |                        |                        |                        |                        |
| <sup>2</sup> Lead               | 400                       |                         | 20.6                    | 13.1                   | 12                      | 12.3                   |                         | 15.6                   | 64.9                   | 40.2                   | 23.6                   |
| Magnesium                       | 21,500                    |                         |                         |                        |                         |                        |                         |                        |                        |                        |                        |
| Manganese                       | 1,056                     |                         |                         |                        |                         |                        |                         |                        |                        |                        |                        |
| Mercury                         | 0.1                       |                         |                         |                        |                         |                        |                         |                        |                        |                        |                        |
| Nickel                          | 48.9                      |                         |                         |                        |                         |                        |                         |                        |                        |                        |                        |
| Potassium                       | 2,343                     |                         |                         |                        |                         |                        |                         |                        |                        |                        |                        |
| Selenium                        | 2                         |                         |                         |                        |                         |                        |                         |                        |                        |                        |                        |
| Silver                          | 0.763                     |                         |                         |                        |                         |                        |                         |                        |                        |                        |                        |
| Sodium                          | 170.3                     |                         |                         |                        |                         |                        |                         |                        |                        |                        |                        |
| Thallium                        | 0.67                      |                         |                         |                        |                         |                        |                         |                        |                        |                        |                        |
| Vanadium                        | 150                       |                         |                         |                        |                         |                        |                         |                        |                        |                        |                        |
| <b>Zinc</b>                     | 108.9                     | 584                     |                         | 56.8                   | 47                      |                        | 44.1                    | 62.6                   | 121                    | 138                    | 105                    |
| <b><sup>3</sup>PAHs</b>         |                           |                         |                         |                        |                         |                        |                         |                        |                        |                        |                        |
| 2-Methylnaphthalene             | 36,400                    |                         |                         |                        |                         |                        |                         |                        |                        |                        |                        |
| Acenaphthene                    | 50,000                    |                         |                         |                        |                         |                        |                         |                        |                        |                        |                        |
| Acenaphthylene                  | 41,000                    |                         |                         |                        |                         |                        |                         |                        |                        |                        |                        |
| Anthracene                      | 50,000                    |                         |                         |                        |                         |                        |                         |                        |                        |                        |                        |
| Benzo(ghi)perylene              | 50,000                    |                         |                         |                        |                         |                        |                         |                        |                        |                        |                        |
| Fluoranthene                    | 50,000                    |                         |                         |                        |                         |                        |                         |                        |                        |                        |                        |
| Fluorene                        | 50,000                    |                         |                         |                        |                         |                        |                         |                        |                        |                        |                        |
| Naphthalene                     | 13,000                    |                         |                         |                        |                         |                        |                         |                        |                        |                        |                        |
| Phenanthrene                    | 50,000                    |                         |                         |                        |                         |                        |                         |                        |                        |                        |                        |
| Pyrene                          | 50,000                    |                         |                         |                        |                         |                        |                         |                        |                        |                        |                        |
| Benzo(a)pyrene                  | 61                        |                         |                         |                        |                         |                        |                         |                        |                        |                        |                        |
| Dibenzo(a,h)anthracene          | 14                        |                         |                         |                        |                         |                        |                         |                        |                        |                        |                        |
| Benzo(a)anthracene              | 224                       |                         |                         |                        |                         |                        |                         |                        |                        |                        |                        |
| Benzo(b)fluoranthene            | 1,100                     |                         |                         |                        |                         |                        |                         |                        |                        |                        |                        |
| Indeno(1,2,3-cd)pyrene          | 3,200                     |                         |                         |                        |                         |                        |                         |                        |                        |                        |                        |
| Benzo(k)fluoranthene            | 1,100                     |                         |                         |                        |                         |                        |                         |                        |                        |                        |                        |
| Chrysene                        | 400                       |                         |                         |                        |                         |                        |                         |                        |                        |                        |                        |
| <sup>4</sup> Benzo(a)pyrene TEQ | 10,000                    |                         |                         |                        |                         |                        |                         |                        |                        |                        |                        |



**Analytical Results for Area 3 - Perimeter**

SEAD 24

Time Critical Removal Action

SENECA Army Depot

| Compound  | <sup>1</sup> CleanUp Goal | SEAD24-PX-A3-SS-001-FS4 | SEAD24-PX-A3-SS-002-FS | SEAD24-PX-A3-SS-002-FS3 | SEAD24-PX-A3-SS-003-FS | SEAD24-PX-A3-SS-003-FS4 | SEAD24-PX-A3-SS-004-FS | SEAD24-PX-A3-SS-004-FS4 | SEAD24-PX-A3-SS-005-FS | SEAD24-PX-A3-SS-006-FS | SEAD24-PX-A3-SS-007-FS | SEAD24-PX-A3-SS-008-FS | SEAD24-PX-A3-SS-009-FS | SEAD24-PX-A3-SS-010-FS | SEAD24-PX-A3-SS-011-FS | SEAD24-PX-A3-SS-012-FS |
|---|---------------------------|-------------------------|------------------------|-------------------------|------------------------|-------------------------|------------------------|-------------------------|------------------------|------------------------|------------------------|------------------------|------------------------|------------------------|------------------------|------------------------|
| Sample Depth BOG (inches) / Offset Distance(feet) |                           | 2-6 / 18                | 2-6 / 1                | 2-6 / 5                 | 2-6 / 1                | 2-6 / 6                 | 2-6 / 1                | 2-6 / 6                 | 2-6 / 1                | 2-6 / 1                | No Sidewall            | No Sidewall            | No Sidewall            | 2-6 / 1                | 2-6 / 1                | 2-6 / 1                |
| <b>Metals</b>                                     |                           |                         | (mg/kg)                | (mg/kg)                 | (mg/kg)                | (mg/kg)                 | (mg/kg)                | (mg/kg)                 | (mg/kg)                | (mg/kg)                | (mg/kg)                | (mg/kg)                | (mg/kg)                | (mg/kg)                | (mg/kg)                | (mg/kg)                |
| Aluminum  | 19,200                    |                         |                        |                         |                        |                         |                        |                         | 12700                  |                        |                        |                        |                        | 12200                  |                        |                        |
| Antimony  | 5.9                       |                         |                        |                         |                        |                         |                        |                         | 6.2 J                  |                        |                        |                        |                        | 11.6 U                 |                        |                        |
| <b>Arsenic</b>                                    | 8.24                      | 6.4                     | 7.5                    |                         | 10.6                   |                         | 6.1                    |                         | 11.7                   | 17.2                   |                        |                        |                        | 4.3 J                  | 6.5                    | 2.6                    |
| Barium  | 300                       |                         |                        |                         |                        |                         |                        |                         | 101                    |                        |                        |                        |                        | 68                     |                        |                        |
| Beryllium   | 1.1                       |                         |                        |                         |                        |                         |                        |                         | 0.62 J                 |                        |                        |                        |                        | 0.58 J                 |                        |                        |
| Cadmium   | 2.3                       |                         |                        |                         |                        |                         |                        |                         | 3.3 U                  |                        |                        |                        |                        | 3 U                    |                        |                        |
| Calcium   | 120,500                   |                         |                        |                         |                        |                         |                        |                         | 3560                   |                        |                        |                        |                        | 1760                   |                        |                        |
| Chromium  | 29                        |                         |                        |                         |                        |                         |                        |                         | 18.1                   |                        |                        |                        |                        | 16.4                   |                        |                        |
| Cobalt  | 30                        |                         |                        |                         |                        |                         |                        |                         | 11.5                   |                        |                        |                        |                        | 10.4                   |                        |                        |
| Copper  | 29.6                      |                         |                        |                         |                        |                         |                        |                         | 28.4                   |                        |                        |                        |                        | 12.5                   |                        |                        |
| Iron  | 35,550                    |                         |                        |                         |                        |                         |                        |                         | 22400                  |                        |                        |                        |                        | 22100                  |                        |                        |
| <sup>2</sup> Lead                                 | 400                       | 14.5                    |                        | 338                     |                        | 13.3                    |                        | 17.2                    | 362                    | 394                    |                        |                        |                        | 30.4                   | 147                    | 72.3                   |
| Magnesium   | 21,500                    |                         |                        |                         |                        |                         |                        |                         | 3270                   |                        |                        |                        |                        | 3000                   |                        |                        |
| Manganese   | 1,056                     |                         |                        |                         |                        |                         |                        |                         | 597                    |                        |                        |                        |                        | 648                    |                        |                        |
| Mercury   | 0.1                       |                         |                        |                         |                        |                         |                        |                         | 0.045 J                |                        |                        |                        |                        | 0.077 U                |                        |                        |
| Nickel  | 48.9                      |                         |                        |                         |                        |                         |                        |                         | 21.9                   |                        |                        |                        |                        | 18.4                   |                        |                        |
| Potassium   | 2,343                     |                         |                        |                         |                        |                         |                        |                         | 1600                   |                        |                        |                        |                        | 1030                   |                        |                        |
| Selenium  | 2                         |                         |                        |                         |                        |                         |                        |                         | 17.3 U                 |                        |                        |                        |                        | 15.9 U                 |                        |                        |
| Silver  | 0.763                     |                         |                        |                         |                        |                         |                        |                         | 3.3 U                  |                        |                        |                        |                        | 3 U                    |                        |                        |
| Sodium  | 170.3                     |                         |                        |                         |                        |                         |                        |                         | 75.4 J                 |                        |                        |                        |                        | 58.8 J                 |                        |                        |
| Thallium  | 0.67                      |                         |                        |                         |                        |                         |                        |                         | 23.8 U                 |                        |                        |                        |                        | 21.8 U                 |                        |                        |
| Vanadium  | 150                       |                         |                        |                         |                        |                         |                        |                         | 21.7                   |                        |                        |                        |                        | 20.6                   |                        |                        |
| <b>Zinc</b>                                       | 108.9                     | 69                      | 728.0                  |                         | 728                    |                         | 494                    |                         | 378                    | 534                    |                        |                        |                        | 66.6                   | 245                    | 237                    |
| <b><sup>3</sup>PAHs</b>                           |                           |                         | (µg/kg)                | (µg/kg)                 | (µg/kg)                | (µg/kg)                 | (µg/kg)                | (µg/kg)                 | (µg/kg)                | (µg/kg)                | (µg/kg)                | (µg/kg)                | (µg/kg)                | (µg/kg)                | (µg/kg)                | (µg/kg)                |
| 2-Methylnaphthalene                               | 36,400                    |                         |                        |                         |                        |                         |                        |                         | 35 U                   |                        |                        |                        |                        | 33 U                   |                        |                        |
| Acenaphthene                                      | 50,000                    |                         |                        |                         |                        |                         |                        |                         | 19 U                   |                        |                        |                        |                        | 18 U                   |                        |                        |
| Acenaphthylene                                    | 41,000                    |                         |                        |                         |                        |                         |                        |                         | 14 U                   |                        |                        |                        |                        | 13 U                   |                        |                        |
| Anthracene  | 50,000                    |                         |                        |                         |                        |                         |                        |                         | 15 U                   |                        |                        |                        |                        | 14 U                   |                        |                        |
| Benzo(ghi)perylene                                | 50,000                    |                         |                        |                         |                        |                         |                        |                         | 21 U                   |                        |                        |                        |                        | 20 U                   |                        |                        |
| Fluoranthene                                      | 50,000                    |                         |                        |                         |                        |                         |                        |                         | 28 U                   |                        |                        |                        |                        | 26 U                   |                        |                        |
| Fluorene  | 50,000                    |                         |                        |                         |                        |                         |                        |                         | 25 U                   |                        |                        |                        |                        | 23 U                   |                        |                        |
| Naphthalene                                       | 13,000                    |                         |                        |                         |                        |                         |                        |                         | 40 U                   |                        |                        |                        |                        | 38 U                   |                        |                        |
| Phenanthrene                                      | 50,000                    |                         |                        |                         |                        |                         |                        |                         | 30 U                   |                        |                        |                        |                        | 28 U                   |                        |                        |
| Pyrene  | 50,000                    |                         |                        |                         |                        |                         |                        |                         | 28 J                   |                        |                        |                        |                        | 22 U                   |                        |                        |
| Benzo(a)pyrene                                    | 61                        |                         |                        |                         |                        |                         |                        |                         | 20 U                   |                        |                        |                        |                        | 19 U                   |                        |                        |
| Dibenzo(a,h)anthracene                            | 14                        |                         |                        |                         |                        |                         |                        |                         | 23 U                   |                        |                        |                        |                        | 21 U                   |                        |                        |
| Benzo(a)anthracene                                | 224                       |                         |                        |                         |                        |                         |                        |                         | 19 U                   |                        |                        |                        |                        | 18 U                   |                        |                        |
| Benzo(b)fluoranthene                              | 1,100                     |                         |                        |                         |                        |                         |                        |                         | 48 U                   |                        |                        |                        |                        | 45 U                   |                        |                        |
| Indeno(1,2,3-cd)pyrene                            | 3,200                     |                         |                        |                         |                        |                         |                        |                         | 23 U                   |                        |                        |                        |                        | 21 U                   |                        |                        |
| Benzo(k)fluoranthene                              | 1,100                     |                         |                        |                         |                        |                         |                        |                         | 49 U                   |                        |                        |                        |                        | 46 U                   |                        |                        |
| Chrysene  | 400                       |                         |                        |                         |                        |                         |                        |                         | 23 J                   |                        |                        |                        |                        | 20 U                   |                        |                        |
| <sup>4</sup> Benzo(a)pyrene TEQ                   | 10,000                    |                         |                        |                         |                        |                         |                        |                         | 53                     |                        |                        |                        |                        | 49                     |                        |                        |

Analytical Results for Area 3 - Perimeter

SEAD 24

Time Critical Removal Action

SENECA Army Depot

| Compound  | <sup>1</sup> CleanUp Goal | SEAD24-PX-A3-SS-013-FS | SEAD24-PX-A3-SS-014-FS | SEAD24-FX-A3-SS-014-FS2 | SEAD24-PX-A3-SS-015-FS2 | SEAD24-PX-A3-SS-015-FS3 | SEAD24-PX-A3-SS-016-FS | SEAD24-PX-A3-SS-017-FS | SEAD24-PX-A3-SS-018-FS | SEAD24-PX-A3-SS-019-FS2 | SEAD24-PX-A3-SS-019-FS3 | SEAD24-PX-A3-SS-020-FS | SEAD24-PX-A3-SS-021-FS2 | SEAD24-PX-A3-SS-021-FS3 | SEAD24-PX-A3-SS-022-FS | SEAD24-PX-A3-SS-023-FS |
|---|---------------------------|------------------------|------------------------|-------------------------|-------------------------|-------------------------|------------------------|------------------------|------------------------|-------------------------|-------------------------|------------------------|-------------------------|-------------------------|------------------------|------------------------|
| Sample Depth BOG (inches) / Offset Distance(feet) |                           | 2-6 / 1                | 2-6 / 1                | 2-6 / 5                 | 2-6 / 5                 | 2-6 / 4                 | 2-6 / 1                | 2-6 / 1                | 2-6 / 1                | 2-6 / 4                 | 2-6 / 12                | 2-6 / 1                | 2-6 / 4                 | 2-6 / 12                | 2-6 / 1                | 2-6 / 1                |
| <b>Metals</b>                                     |                           | (mg/kg)                | (mg/kg)                | (mg/kg)                 | (mg/kg)                 | (mg/kg)                 | (mg/kg)                | (mg/kg)                | (mg/kg)                | (mg/kg)                 | (mg/kg)                 | (mg/kg)                | (mg/kg)                 | (mg/kg)                 | (mg/kg)                | (mg/kg)                |
| Aluminum  | 19,200                    |                        |                        |                         |                         |                         |                        |                        |                        |                         |                         |                        |                         |                         |                        |                        |
| Antimony  | 5.9                       |                        |                        |                         |                         |                         |                        |                        |                        |                         |                         |                        |                         |                         |                        |                        |
| <b>Arsenic</b>                                    | 8.24                      | 4.5                    |                        | 6                       |                         | 5.0                     | 9.3                    | 7.4                    | 19.7                   |                         | 7.3                     | 17.0                   |                         | 6.5                     | 5.9                    | 5.9                    |
| Barium  | 300                       |                        |                        |                         |                         |                         |                        |                        |                        |                         |                         |                        |                         |                         |                        |                        |
| Beryllium   | 1.1                       |                        |                        |                         |                         |                         |                        |                        |                        |                         |                         |                        |                         |                         |                        |                        |
| Cadmium   | 2.3                       |                        |                        |                         |                         |                         |                        |                        |                        |                         |                         |                        |                         |                         |                        |                        |
| Calcium   | 120,500                   |                        |                        |                         |                         |                         |                        |                        |                        |                         |                         |                        |                         |                         |                        |                        |
| Chromium  | 29                        |                        |                        |                         |                         |                         |                        |                        |                        |                         |                         |                        |                         |                         |                        |                        |
| Cobalt  | 30                        |                        |                        |                         |                         |                         |                        |                        |                        |                         |                         |                        |                         |                         |                        |                        |
| Copper  | 29.6                      |                        |                        |                         |                         |                         |                        |                        |                        |                         |                         |                        |                         |                         |                        |                        |
| Iron  | 35,550                    |                        |                        |                         |                         |                         |                        |                        |                        |                         |                         |                        |                         |                         |                        |                        |
| <sup>2</sup> Lead                                 | 400                       | 28.7                   | 134                    |                         |                         | 20                      | 53.5                   | 26.7                   | 39.1                   |                         | 183                     | 62.1                   |                         | 35.6                    | 34.4                   | 79.8                   |
| Magnesium   | 21,500                    |                        |                        |                         |                         |                         |                        |                        |                        |                         |                         |                        |                         |                         |                        |                        |
| Manganese   | 1,056                     |                        |                        |                         |                         |                         |                        |                        |                        |                         |                         |                        |                         |                         |                        |                        |
| Mercury   | 0.1                       |                        |                        |                         |                         |                         |                        |                        |                        |                         |                         |                        |                         |                         |                        |                        |
| Nickel  | 48.9                      |                        |                        |                         |                         |                         |                        |                        |                        |                         |                         |                        |                         |                         |                        |                        |
| Potassium   | 2,343                     |                        |                        |                         |                         |                         |                        |                        |                        |                         |                         |                        |                         |                         |                        |                        |
| Selenium  | 2                         |                        |                        |                         |                         |                         |                        |                        |                        |                         |                         |                        |                         |                         |                        |                        |
| Silver  | 0.763                     |                        |                        |                         |                         |                         |                        |                        |                        |                         |                         |                        |                         |                         |                        |                        |
| Sodium  | 170.3                     |                        |                        |                         |                         |                         |                        |                        |                        |                         |                         |                        |                         |                         |                        |                        |
| Thallium  | 0.67                      |                        |                        |                         |                         |                         |                        |                        |                        |                         |                         |                        |                         |                         |                        |                        |
| Vanadium  | 150                       |                        |                        |                         |                         |                         |                        |                        |                        |                         |                         |                        |                         |                         |                        |                        |
| <b>Zinc</b>                                       | 108.9                     | 234                    |                        | 110                     | 112                     |                         | 92.8                   | 43.4                   | 88.5                   | 611                     |                         | 122                    | 104                     |                         | 68.4                   | 92.7                   |
| <b><sup>3</sup>PAHs</b>                           |                           | (µg/kg)                | (µg/kg)                |                         |                         |                         |                        |                        |                        |                         |                         |                        |                         |                         |                        |                        |
| 2-Methylnaphthalene                               | 36,400                    |                        |                        |                         |                         |                         |                        |                        |                        |                         |                         |                        |                         |                         |                        |                        |
| Acenaphthene                                      | 50,000                    |                        |                        |                         |                         |                         |                        |                        |                        |                         |                         |                        |                         |                         |                        |                        |
| Acenaphthylene                                    | 41,000                    |                        |                        |                         |                         |                         |                        |                        |                        |                         |                         |                        |                         |                         |                        |                        |
| Anthracene  | 50,000                    |                        |                        |                         |                         |                         |                        |                        |                        |                         |                         |                        |                         |                         |                        |                        |
| Benzo(ghi)perylene                                | 50,000                    |                        |                        |                         |                         |                         |                        |                        |                        |                         |                         |                        |                         |                         |                        |                        |
| Fluoranthene                                      | 50,000                    |                        |                        |                         |                         |                         |                        |                        |                        |                         |                         |                        |                         |                         |                        |                        |
| Fluorene  | 50,000                    |                        |                        |                         |                         |                         |                        |                        |                        |                         |                         |                        |                         |                         |                        |                        |
| Naphthalene                                       | 13,000                    |                        |                        |                         |                         |                         |                        |                        |                        |                         |                         |                        |                         |                         |                        |                        |
| Phenanthrene                                      | 50,000                    |                        |                        |                         |                         |                         |                        |                        |                        |                         |                         |                        |                         |                         |                        |                        |
| Pyrene  | 50,000                    |                        |                        |                         |                         |                         |                        |                        |                        |                         |                         |                        |                         |                         |                        |                        |
| Benzo(a)pyrene                                    | 61                        |                        |                        |                         |                         |                         |                        |                        |                        |                         |                         |                        |                         |                         |                        |                        |
| Dibenzo(a,h)anthracene                            | 14                        |                        |                        |                         |                         |                         |                        |                        |                        |                         |                         |                        |                         |                         |                        |                        |
| Benzo(a)anthracene                                | 224                       |                        |                        |                         |                         |                         |                        |                        |                        |                         |                         |                        |                         |                         |                        |                        |
| Benzo(b)fluoranthene                              | 1,100                     |                        |                        |                         |                         |                         |                        |                        |                        |                         |                         |                        |                         |                         |                        |                        |
| Indeno(1,2,3-cd)pyrene                            | 3,200                     |                        |                        |                         |                         |                         |                        |                        |                        |                         |                         |                        |                         |                         |                        |                        |
| Benzo(k)fluoranthene                              | 1,100                     |                        |                        |                         |                         |                         |                        |                        |                        |                         |                         |                        |                         |                         |                        |                        |
| Chrysene  | 400                       |                        |                        |                         |                         |                         |                        |                        |                        |                         |                         |                        |                         |                         |                        |                        |
| <sup>4</sup> Benzo(a)pyrene TEQ                   | 10,000                    |                        |                        |                         |                         |                         |                        |                        |                        |                         |                         |                        |                         |                         |                        |                        |

Analytical Results for Area 3 - Perimeter

SEAD 24

Time Critical Removal Action

SENECA Army Depot

| Compound  | <sup>1</sup> CleanUp Goal | SEAD24-PX-A3-SS-024-FS | SEAD24-PX-A3-SS-025-FS | SEAD24-PX-A3-SS-025-FS2 | SEAD24-PX-A3-SS-026-FS | SEAD24-PX-A3-SS-027-FS2 | SEAD24-PX-A3-SS-027-FS3 | SEAD24-PX-A3-SS-028-FS | SEAD24-PX-A3-SS-029-FS3 | SEAD24-PX-A3-SS-029-FS4 | SEAD24-PX-A3-SS-030-FS | SEAD24-PX-A3-SS-031-FS2 | SEAD24-PX-A3-SS-031-FS3 | SEAD24-PX-A3-SS-032-FS | SEAD24-PX-A3-SS-033-FS | SEAD24-PX-A3-SS-033-FS2 |
|---|---------------------------|------------------------|------------------------|-------------------------|------------------------|-------------------------|-------------------------|------------------------|-------------------------|-------------------------|------------------------|-------------------------|-------------------------|------------------------|------------------------|-------------------------|
| Sample Depth BOG (inches) / Offset Distance(feet) |                           | 2-6 / 1                | 2-6 / 1                | 2-6 / 7                 | 2-6 / 1                | 2-6 / 4                 | 2-6 / 12                | 2-6 / 1                | 2-6 / 4                 | 2-6 / 12                | 2-6 / 1                | 2-6 / 4                 | 2-6 / 18                | 2-6 / 1                | 2-6 / 1                | 2-6 / 12                |
| Metals  |                           | (mg/kg)                | (mg/kg)                | (mg/kg)                 | (mg/kg)                | (mg/kg)                 | (mg/kg)                 | (mg/kg)                | (mg/kg)                 | (mg/kg)                 | (mg/kg)                | (mg/kg)                 | (mg/kg)                 | (mg/kg)                | (mg/kg)                | (mg/kg)                 |
| Aluminum  | 19,200                    |                        |                        |                         |                        |                         |                         |                        |                         |                         |                        |                         |                         |                        |                        |                         |
| Antimony  | 5.9                       |                        |                        |                         |                        |                         |                         |                        |                         |                         |                        |                         |                         |                        |                        |                         |
| <b>Arsenic</b>                                    | 8.24                      | 8.9                    | 9.3                    |                         | 5.5                    |                         | 8.6                     | 7.7                    | 10                      |                         | 6.6                    |                         | 5.3                     | 6.4                    | 12.2                   |                         |
| Barium  | 300                       |                        |                        |                         |                        |                         |                         |                        |                         |                         |                        |                         |                         |                        |                        |                         |
| Beryllium   | 1.1                       |                        |                        |                         |                        |                         |                         |                        |                         |                         |                        |                         |                         |                        |                        |                         |
| Cadmium   | 2.3                       |                        |                        |                         |                        |                         |                         |                        |                         |                         |                        |                         |                         |                        |                        |                         |
| Calcium   | 120,500                   |                        |                        |                         |                        |                         |                         |                        |                         |                         |                        |                         |                         |                        |                        |                         |
| Chromium  | 29                        |                        |                        |                         |                        |                         |                         |                        |                         |                         |                        |                         |                         |                        |                        |                         |
| Cobalt  | 30                        |                        |                        |                         |                        |                         |                         |                        |                         |                         |                        |                         |                         |                        |                        |                         |
| Copper  | 29.6                      |                        |                        |                         |                        |                         |                         |                        |                         |                         |                        |                         |                         |                        |                        |                         |
| Iron  | 35,550                    |                        |                        |                         |                        |                         |                         |                        |                         |                         |                        |                         |                         |                        |                        |                         |
| <sup>2</sup> Lead                                 | 400                       | 29.6                   |                        | 281                     | 24.5                   |                         | 106                     | 28.6                   |                         | 43.4                    | 33.1                   |                         | 45                      | 26.2                   |                        | 104                     |
| Magnesium   | 21,500                    |                        |                        |                         |                        |                         |                         |                        |                         |                         |                        |                         |                         |                        |                        |                         |
| Manganese   | 1,056                     |                        |                        |                         |                        |                         |                         |                        |                         |                         |                        |                         |                         |                        |                        |                         |
| Mercury   | 0.1                       |                        |                        |                         |                        |                         |                         |                        |                         |                         |                        |                         |                         |                        |                        |                         |
| Nickel  | 48.9                      |                        |                        |                         |                        |                         |                         |                        |                         |                         |                        |                         |                         |                        |                        |                         |
| Potassium   | 2,343                     |                        |                        |                         |                        |                         |                         |                        |                         |                         |                        |                         |                         |                        |                        |                         |
| Selenium  | 2                         |                        |                        |                         |                        |                         |                         |                        |                         |                         |                        |                         |                         |                        |                        |                         |
| Silver  | 0.763                     |                        |                        |                         |                        |                         |                         |                        |                         |                         |                        |                         |                         |                        |                        |                         |
| Sodium  | 170.3                     |                        |                        |                         |                        |                         |                         |                        |                         |                         |                        |                         |                         |                        |                        |                         |
| Thallium  | 0.67                      |                        |                        |                         |                        |                         |                         |                        |                         |                         |                        |                         |                         |                        |                        |                         |
| Vanadium  | 150                       |                        |                        |                         |                        |                         |                         |                        |                         |                         |                        |                         |                         |                        |                        |                         |
| <b>Zinc</b>                                       | 108.9                     | 77.7                   |                        | 163                     | 67.4                   | 355                     |                         | 62.8                   |                         | 116                     | 86.9                   | 455                     |                         | 56.1                   |                        | 294                     |
| <sup>3</sup> PAHs                                 |                           |                        |                        |                         |                        |                         |                         |                        |                         |                         |                        |                         |                         |                        |                        |                         |
| 2-Methylnaphthalene                               | 36,400                    |                        |                        |                         |                        |                         |                         |                        |                         |                         |                        |                         |                         |                        |                        |                         |
| Acenaphthene                                      | 50,000                    |                        |                        |                         |                        |                         |                         |                        |                         |                         |                        |                         |                         |                        |                        |                         |
| Acenaphthylene                                    | 41,000                    |                        |                        |                         |                        |                         |                         |                        |                         |                         |                        |                         |                         |                        |                        |                         |
| Anthracene  | 50,000                    |                        |                        |                         |                        |                         |                         |                        |                         |                         |                        |                         |                         |                        |                        |                         |
| Benzo(ghi)perylene                                | 50,000                    |                        |                        |                         |                        |                         |                         |                        |                         |                         |                        |                         |                         |                        |                        |                         |
| Fluoranthene                                      | 50,000                    |                        |                        |                         |                        |                         |                         |                        |                         |                         |                        |                         |                         |                        |                        |                         |
| Fluorene  | 50,000                    |                        |                        |                         |                        |                         |                         |                        |                         |                         |                        |                         |                         |                        |                        |                         |
| Naphthalene                                       | 13,000                    |                        |                        |                         |                        |                         |                         |                        |                         |                         |                        |                         |                         |                        |                        |                         |
| Phenanthrene                                      | 50,000                    |                        |                        |                         |                        |                         |                         |                        |                         |                         |                        |                         |                         |                        |                        |                         |
| Pyrene  | 50,000                    |                        |                        |                         |                        |                         |                         |                        |                         |                         |                        |                         |                         |                        |                        |                         |
| Benzo(a)pyrene                                    | 61                        |                        |                        |                         |                        |                         |                         |                        |                         |                         |                        |                         |                         |                        |                        |                         |
| Dibenzo(a,h)anthracene                            | 14                        |                        |                        |                         |                        |                         |                         |                        |                         |                         |                        |                         |                         |                        |                        |                         |
| Benzo(a)anthracene                                | 224                       |                        |                        |                         |                        |                         |                         |                        |                         |                         |                        |                         |                         |                        |                        |                         |
| Benzo(b)fluoranthene                              | 1,100                     |                        |                        |                         |                        |                         |                         |                        |                         |                         |                        |                         |                         |                        |                        |                         |
| Indeno(1,2,3-cd)pyrene                            | 3,200                     |                        |                        |                         |                        |                         |                         |                        |                         |                         |                        |                         |                         |                        |                        |                         |
| Benzo(k)fluoranthene                              | 1,100                     |                        |                        |                         |                        |                         |                         |                        |                         |                         |                        |                         |                         |                        |                        |                         |
| Chrysene  | 400                       |                        |                        |                         |                        |                         |                         |                        |                         |                         |                        |                         |                         |                        |                        |                         |
| <sup>4</sup> Benzo(a)pyrene TEQ                   | 10,000                    |                        |                        |                         |                        |                         |                         |                        |                         |                         |                        |                         |                         |                        |                        |                         |

**Analytical Results for Area 3 - Perimeter**

SEAD 24

Time Critical Removal Action

SENECA Army Depot

| Compound  | <sup>1</sup> CleanUp Goal | SEAD24-PX-A3-SS-034-FS | SEAD24-PX-A3-SS-034-FS2 | SEAD24-PX-A3-SS-035-FS | SEAD24-PX-A3-SS-035-FS2 | SEAD24-PX-A3-SS-036-FS | SEAD24-PX-A3-SS-036-FS2 | SEAD24-PX-A3-SS-037-FS | SEAD24-PX-A3-SS-038-FS | SEAD24-PX-A3-SS-039-FS2 | SEAD24-PX-A3-SS-039-FS3 | SEAD24-PX-A3-SS-040-FS | SEAD24-PX-A3-SS-040-FS2 | SEAD24-PX-A3-SS-041-FS | SEAD24-PX-A3-SS-042-FS | SEAD24-PX-A3-SS-042-FS2 |
|---|---------------------------|------------------------|-------------------------|------------------------|-------------------------|------------------------|-------------------------|------------------------|------------------------|-------------------------|-------------------------|------------------------|-------------------------|------------------------|------------------------|-------------------------|
| Sample Depth BOG (inches) / Offset Distance(feet) |                           | 2-6 / 1                | 2-6 / 6                 | 2-6 / 1                | 2-6 / 6                 | 2-6 / 1                | 2-6 / 7                 | 2-6 / 1                | 2-6 / 1                | 2-6 / 4                 | 2-6 / 5                 | 2-6 / 1                | 2-6 / 7                 | 2-6 / 1                | 2-6 / 1                | 2-6 / 7                 |
|   | Metals                    | (mg/kg)                | (mg/kg)                 | (mg/kg)                | (mg/kg)                 | (mg/kg)                | (mg/kg)                 | (mg/kg)                | (mg/kg)                | (mg/kg)                 | (mg/kg)                 | (mg/kg)                | (mg/kg)                 | (mg/kg)                | (mg/kg)                | (mg/kg)                 |
| Aluminum  | 19,200                    |                        |                         |                        |                         |                        |                         |                        |                        |                         |                         |                        |                         |                        |                        |                         |
| Antimony  | 5.9                       |                        |                         |                        |                         |                        |                         |                        |                        |                         |                         |                        |                         |                        |                        |                         |
| <b>Arsenic</b>                                    | 8.24                      | 10.7                   |                         | 14.6                   |                         | 11.1                   |                         | 12.2                   | 18.9                   |                         | 4 j                     | 11.4                   |                         | 8.8                    |                        | 6.8                     |
| Barium  | 300                       |                        |                         |                        |                         |                        |                         |                        |                        |                         |                         |                        |                         |                        |                        |                         |
| Beryllium   | 1.1                       |                        |                         |                        |                         |                        |                         |                        |                        |                         |                         |                        |                         |                        |                        |                         |
| Cadmium   | 2.3                       |                        |                         |                        |                         |                        |                         |                        |                        |                         |                         |                        |                         |                        |                        |                         |
| Calcium   | 120,500                   |                        |                         |                        |                         |                        |                         |                        |                        |                         |                         |                        |                         |                        |                        |                         |
| Chromium  | 29                        |                        |                         |                        |                         |                        |                         |                        |                        |                         |                         |                        |                         |                        |                        |                         |
| Cobalt  | 30                        |                        |                         |                        |                         |                        |                         |                        |                        |                         |                         |                        |                         |                        |                        |                         |
| Copper  | 29.6                      |                        |                         |                        |                         |                        |                         |                        |                        |                         |                         |                        |                         |                        |                        |                         |
| Iron  | 35,550                    |                        |                         |                        |                         |                        |                         |                        |                        |                         |                         |                        |                         |                        |                        |                         |
| <sup>2</sup> Lead                                 | 400                       | 26.9                   |                         | 95.4                   |                         | 57.7                   |                         | 131                    | 100                    |                         | 54.7                    |                        | 237                     | 16.2                   |                        | 87                      |
| Magnesium   | 21,500                    |                        |                         |                        |                         |                        |                         |                        |                        |                         |                         |                        |                         |                        |                        |                         |
| Manganese   | 1,056                     |                        |                         |                        |                         |                        |                         |                        |                        |                         |                         |                        |                         |                        |                        |                         |
| Mercury   | 0.1                       |                        |                         |                        |                         |                        |                         |                        |                        |                         |                         |                        |                         |                        |                        |                         |
| Nickel  | 48.9                      |                        |                         |                        |                         |                        |                         |                        |                        |                         |                         |                        |                         |                        |                        |                         |
| Potassium   | 2,343                     |                        |                         |                        |                         |                        |                         |                        |                        |                         |                         |                        |                         |                        |                        |                         |
| Selenium  | 2                         |                        |                         |                        |                         |                        |                         |                        |                        |                         |                         |                        |                         |                        |                        |                         |
| Silver  | 0.763                     |                        |                         |                        |                         |                        |                         |                        |                        |                         |                         |                        |                         |                        |                        |                         |
| Sodium  | 170.3                     |                        |                         |                        |                         |                        |                         |                        |                        |                         |                         |                        |                         |                        |                        |                         |
| Thallium  | 0.67                      |                        |                         |                        |                         |                        |                         |                        |                        |                         |                         |                        |                         |                        |                        |                         |
| Vanadium  | 150                       |                        |                         |                        |                         |                        |                         |                        |                        |                         |                         |                        |                         |                        |                        |                         |
| <b>Zinc</b>                                       | 108.9                     |                        | 121                     |                        | 138                     |                        | 105                     | 149                    | 148                    | 55.8                    |                         |                        | 117                     | 59.5                   | 739                    |                         |
|   | <sup>3</sup> PAHs         |                        |                         |                        |                         |                        |                         |                        |                        |                         |                         |                        |                         |                        |                        |                         |
| 2-Methylnaphthalene                               | 36,400                    |                        |                         |                        |                         |                        |                         |                        |                        |                         |                         |                        |                         |                        |                        |                         |
| Acenaphthene                                      | 50,000                    |                        |                         |                        |                         |                        |                         |                        |                        |                         |                         |                        |                         |                        |                        |                         |
| Acenaphthylene                                    | 41,000                    |                        |                         |                        |                         |                        |                         |                        |                        |                         |                         |                        |                         |                        |                        |                         |
| Anthracene  | 50,000                    |                        |                         |                        |                         |                        |                         |                        |                        |                         |                         |                        |                         |                        |                        |                         |
| Benzo(ghi)perylene                                | 50,000                    |                        |                         |                        |                         |                        |                         |                        |                        |                         |                         |                        |                         |                        |                        |                         |
| Fluoranthene                                      | 50,000                    |                        |                         |                        |                         |                        |                         |                        |                        |                         |                         |                        |                         |                        |                        |                         |
| Fluorene  | 50,000                    |                        |                         |                        |                         |                        |                         |                        |                        |                         |                         |                        |                         |                        |                        |                         |
| Naphthalene                                       | 13,000                    |                        |                         |                        |                         |                        |                         |                        |                        |                         |                         |                        |                         |                        |                        |                         |
| Phenanthrene                                      | 50,000                    |                        |                         |                        |                         |                        |                         |                        |                        |                         |                         |                        |                         |                        |                        |                         |
| Pyrene  | 50,000                    |                        |                         |                        |                         |                        |                         |                        |                        |                         |                         |                        |                         |                        |                        |                         |
| Benzo(a)pyrene                                    | 61                        |                        |                         |                        |                         |                        |                         |                        |                        |                         |                         |                        |                         |                        |                        |                         |
| Dibenzo(a,h)anthracene                            | 14                        |                        |                         |                        |                         |                        |                         |                        |                        |                         |                         |                        |                         |                        |                        |                         |
| Benzo(a)anthracene                                | 224                       |                        |                         |                        |                         |                        |                         |                        |                        |                         |                         |                        |                         |                        |                        |                         |
| Benzo(b)fluoranthene                              | 1,100                     |                        |                         |                        |                         |                        |                         |                        |                        |                         |                         |                        |                         |                        |                        |                         |
| Indeno(1,2,3-cd)pyrene                            | 3,200                     |                        |                         |                        |                         |                        |                         |                        |                        |                         |                         |                        |                         |                        |                        |                         |
| Benzo(k)fluoranthene                              | 1,100                     |                        |                         |                        |                         |                        |                         |                        |                        |                         |                         |                        |                         |                        |                        |                         |
| Chrysene  | 400                       |                        |                         |                        |                         |                        |                         |                        |                        |                         |                         |                        |                         |                        |                        |                         |
| <sup>4</sup> Benzo(a)pyrene TEQ                   | 10,000                    |                        |                         |                        |                         |                        |                         |                        |                        |                         |                         |                        |                         |                        |                        |                         |

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**APPENDIX C**

**INVESTIGATIVE BORING DATA**

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SEAD 24  
Investigative Boring Data  
Seneca Army Depot Activity

|                                 |                           | Area 1                        |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |  |
|---------------------------------|---------------------------|-------------------------------|-------------------------------|-------------------------------|-------------------------------|-------------------------------|-------------------------------|-------------------------------|-------------------------------|-------------------------------|-------------------------------|-------------------------------|-------------------------------|-------------------------------|-------------------------------|-------------------------------|-------------------------------|--|
| Compound                        | <sup>1</sup> CleanUp Goal | SEAD24-FX-A1-SS-002-FS2B(0-1) | SEAD24-FX-A1-SS-028-FS2B(0-1) | SEAD24-FX-A1-SS-029-FS2B(0-1) | SEAD24-FX-A1-SS-044-FS2B(0-1) | SEAD24-FX-A1-SS-045-FS2B(0-1) | SEAD24-FX-A1-SS-049-FS3B(1-2) | SEAD24-FX-A1-SS-050-FS2B(0-1) | SEAD24-FX-A1-SS-055-FS2B(0-1) | SEAD24-FX-A1-SS-059-FS2B(0-1) | SEAD24-FX-A1-SS-060-FS2B(0-1) | SEAD24-FX-A1-SS-062-FS2B(0-1) | SEAD24-FX-A1-SS-064-FS2B(0-1) | SEAD24-FX-A1-SS-066-FS2B(0-1) | SEAD24-FX-A1-SS-067-FS2B(0-1) | SEAD24-FX-A1-SS-073-FS2B(0-1) | SEAD24-FX-A1-SS-079-FS2B(0-1) |  |
| Metals (mg/kg)                  |                           |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |  |
| Aluminum                        | 19,200                    |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |  |
| Antimony                        | 5.9                       |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |  |
| Arsenic                         | 8.24                      | 4.3 J                         | 6.1                           | 7.3                           | 8.5                           | 6.1                           | 7.2                           | 4.5 J                         | 4.3 J                         | 8.7                           | 3.0 J                         | 5.8                           | 5.4                           | 6.6                           | 6.7                           |                               | 5.2                           |  |
| Barium                          | 300                       |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |  |
| Beryllium                       | 1.1                       |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |  |
| Cadmium                         | 2.3                       |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |  |
| Calcium                         | 120,500                   |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |  |
| Chromium                        | 29                        |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |  |
| Cobalt                          | 30                        |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |  |
| Copper                          | 29.6                      |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |  |
| Iron                            | 35,550                    |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |  |
| <sup>2</sup> Lead               | 400                       |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |  |
| Magnesium                       | 21,500                    |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |  |
| Manganese                       | 1,056                     |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |  |
| Mercury                         | 0.1                       |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |  |
| Nickel                          | 48.9                      |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |  |
| Potassium                       | 2,343                     |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |  |
| Selenium                        | 2                         |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |  |
| Silver                          | 0.763                     |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |  |
| Sodium                          | 170.3                     |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |  |
| Thallium                        | 0.67                      |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |  |
| Vanadium                        | 150                       |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |  |
| Zinc                            | 108.9                     |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |  |
| <sup>3</sup> PAHs (µg/kg)       |                           |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |  |
| 2-Methylnaphthalene             | 36,400                    |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |  |
| Acenaphthene                    | 50,000                    |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |  |
| Acenaphthylene                  | 41,000                    |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |  |
| Anthracene                      | 50,000                    |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |  |
| Benzo(ghi)perylene              | 50,000                    |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |  |
| Fluoranthene                    | 50,000                    |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |  |
| Fluorene                        | 50,000                    |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |  |
| Naphthalene                     | 13,000                    |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |  |
| Phenanthrene                    | 50,000                    |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |  |
| Pyrene                          | 50,000                    |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |  |
| Benzo(a)pyrene                  | 61                        |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               | 10 U                          |  |
| Dibenzo(a,h)anthracene          | 14                        |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               | 10 U                          |  |
| Benzo(a)anthracene              | 224                       |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |  |
| Benzo(b)fluoranthene            | 1,100                     |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |  |
| Indeno(1,2,3-cd)pyrene          | 3,200                     |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |  |
| Benzo(k)fluoranthene            | 1,100                     |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |  |
| Chrysene                        | 400                       |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |  |
| <sup>4</sup> Benzo(a)pyrene TEQ | 10,000                    |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |  |

**SEAD 24**  
**Investigative Boring Data**  
**Seneca Army Depot Activity**

|                                 |                           | Area 1                        |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |  |
|---------------------------------|---------------------------|-------------------------------|-------------------------------|-------------------------------|-------------------------------|-------------------------------|-------------------------------|-------------------------------|-------------------------------|-------------------------------|-------------------------------|-------------------------------|-------------------------------|-------------------------------|--|
| Compound                        | <sup>1</sup> CleanUp Goal | SEAD24-FX-A1-SS-080-FS2B(0-1) | SEAD24-PX-A1-SS-001-FS2B(0-1) | SEAD24-PX-A1-SS-022-FS2B(0-1) | SEAD24-PX-A1-SS-028-FS3B(1-2) | SEAD24-PX-A1-SS-029-FS2B(0-1) | SEAD24-PX-A1-SS-030-FS2B(0-1) | SEAD24-PX-A1-SS-035-FS2B(0-1) | SEAD24-PX-A1-SS-041-FS2B(0-1) | SEAD24-PX-A1-SS-046-FS2B(0-1) | SEAD24-PX-A1-SS-048-FS2B(0-1) | SEAD24-PX-A1-SS-049-FS2B(0-1) | SEAD24-PX-A1-SS-051-FS2B(0-1) | SEAD24-PX-A1-SS-060-FS2B(0-1) |  |
| Metals (mg/kg)                  |                           |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |  |
| Aluminum                        | 19,200                    |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |  |
| Antimony                        | 5.9                       |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |  |
| <b>Arsenic</b>                  | <b>8.24</b>               | 14.7                          | 5.9                           | 3.7 J                         | 7.5                           | 7.1                           | 5.4                           | 8.4                           |                               | 5.7                           | 6.2                           | 14.9                          | 7.8                           | 18.5                          |  |
| Barium                          | 300                       |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |  |
| Beryllium                       | 1.1                       |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |  |
| Cadmium                         | 2.3                       |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |  |
| Calcium                         | 120,500                   |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |  |
| Chromium                        | 29                        |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |  |
| Cobalt                          | 30                        |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |  |
| Copper                          | 29.6                      |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |  |
| Iron                            | 35,550                    |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |  |
| <sup>2</sup> Lead               | 400                       | 23.7                          |                               |                               |                               |                               |                               |                               | 288                           |                               |                               |                               |                               |                               |  |
| Magnesium                       | 21,500                    |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |  |
| Manganese                       | 1,056                     |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |  |
| Mercury                         | 0.1                       |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |  |
| Nickel                          | 48.9                      |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |  |
| Potassium                       | 2,343                     |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |  |
| Selenium                        | 2                         |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |  |
| Silver                          | 0.763                     |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |  |
| Sodium                          | 170.3                     |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |  |
| Thallium                        | 0.67                      |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |  |
| Vanadium                        | 150                       |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |  |
| <b>Zinc</b>                     | <b>108.9</b>              |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |  |
| <sup>3</sup> PAHs (µg/kg)       |                           |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |  |
| 2-Methylnaphthalene             | 36,400                    |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |  |
| Acenaphthene                    | 50,000                    |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |  |
| Acenaphthylene                  | 41,000                    |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |  |
| Anthracene                      | 50,000                    |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |  |
| Benzo(ghi)perylene              | 50,000                    |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |  |
| Fluoranthene                    | 50,000                    |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |  |
| Fluorene                        | 50,000                    |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |  |
| Naphthalene                     | 13,000                    |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |  |
| Phenanthrene                    | 50,000                    |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |  |
| Pyrene                          | 50,000                    |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |  |
| Benzo(a)pyrene                  | 61                        |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |  |
| Dibenzo(a,h)anthracene          | 14                        |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |  |
| Benzo(a)anthracene              | 224                       |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |  |
| Benzo(b)fluoranthene            | 1,100                     |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |  |
| Indeno(1,2,3-cd)pyrene          | 3,200                     |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |  |
| Benzo(k)fluoranthene            | 1,100                     |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |  |
| Chrysene                        | 400                       |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |  |
| <sup>4</sup> Benzo(a)pyrene TEQ | 10,000                    |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |                               |  |



**SEAD 24**  
**Investigative Boring Data**  
**Seneca Army Depot Activity**

| Compound                        | <sup>1</sup> CleanUp Goal | Area 2                        |                               | Area 3                        |                               |                               |                               |
|---------------------------------|---------------------------|-------------------------------|-------------------------------|-------------------------------|-------------------------------|-------------------------------|-------------------------------|
|                                 |                           | SEAD24-PX-A2-SS-013-FS2B(0-1) | SEAD24-PX-A2-SS-016-FS2B(0-1) | SEAD24-PX-A3-SS-001-FS2B(0-1) | SEAD24-PX-A3-SS-007-FS2B(0-1) | SEAD24-PX-A3-SS-008-FS2B(0-1) | SEAD24-PX-A3-SS-009-FS2B(0-1) |
| <b>Metals (mg/kg)</b>           |                           |                               |                               |                               |                               |                               |                               |
| Aluminum                        | 19,200                    |                               |                               |                               |                               |                               |                               |
| Antimony                        | 5.9                       |                               |                               |                               |                               |                               |                               |
| <b>Arsenic</b>                  | 8.24                      | 17.8                          | 11.0                          |                               | 5.0                           | 5.7                           |                               |
| Barium                          | 300                       |                               |                               |                               |                               |                               |                               |
| Beryllium                       | 1.1                       |                               |                               |                               |                               |                               |                               |
| Cadmium                         | 2.3                       |                               |                               |                               |                               |                               |                               |
| Calcium                         | 120,500                   |                               |                               |                               |                               |                               |                               |
| Chromium                        | 29                        |                               |                               |                               |                               |                               |                               |
| Cobalt                          | 30                        |                               |                               |                               |                               |                               |                               |
| Copper                          | 29.6                      |                               |                               |                               |                               |                               |                               |
| Iron                            | 35,550                    |                               |                               |                               |                               |                               |                               |
| <sup>2</sup> Lead               | 400                       |                               |                               | 19.6                          | 14.2                          |                               | 287                           |
| Magnesium                       | 21,500                    |                               |                               |                               |                               |                               |                               |
| Manganese                       | 1,056                     |                               |                               |                               |                               |                               |                               |
| Mercury                         | 0.1                       |                               |                               |                               |                               |                               |                               |
| Nickel                          | 48.9                      |                               |                               |                               |                               |                               |                               |
| Potassium                       | 2,343                     |                               |                               |                               |                               |                               |                               |
| Selenium                        | 2                         |                               |                               |                               |                               |                               |                               |
| Silver                          | 0.763                     |                               |                               |                               |                               |                               |                               |
| Sodium                          | 170.3                     |                               |                               |                               |                               |                               |                               |
| Thallium                        | 0.67                      |                               |                               |                               |                               |                               |                               |
| Vanadium                        | 150                       |                               |                               |                               |                               |                               |                               |
| Zinc                            | 108.9                     |                               |                               |                               |                               |                               |                               |
| <b><sup>3</sup>PAHs (µg/kg)</b> |                           |                               |                               |                               |                               |                               |                               |
| 2-Methylnaphthalene             | 36,400                    |                               |                               |                               |                               |                               |                               |
| Acenaphthene                    | 50,000                    |                               |                               |                               |                               |                               |                               |
| Acenaphthylene                  | 41,000                    |                               |                               |                               |                               |                               |                               |
| Anthracene                      | 50,000                    |                               |                               |                               |                               |                               |                               |
| Benzo(ghi)perylene              | 50,000                    |                               |                               |                               |                               |                               |                               |
| Fluoranthene                    | 50,000                    |                               |                               |                               |                               |                               |                               |
| Fluorene                        | 50,000                    |                               |                               |                               |                               |                               |                               |
| Naphthalene                     | 13,000                    |                               |                               |                               |                               |                               |                               |
| Phenanthrene                    | 50,000                    |                               |                               |                               |                               |                               |                               |
| Pyrene                          | 50,000                    |                               |                               |                               |                               |                               |                               |
| Benzo(a)pyrene                  | 61                        |                               |                               |                               |                               |                               |                               |
| Dibenzo(a,h)anthracene          | 14                        |                               |                               |                               |                               |                               |                               |
| Benzo(a)anthracene              | 224                       |                               |                               |                               |                               |                               |                               |
| Benzo(b)fluoranthene            | 1,100                     |                               |                               |                               |                               |                               |                               |
| Indeno(1,2,3-cd)pyrene          | 3,200                     |                               |                               |                               |                               |                               |                               |
| Benzo(k)fluoranthene            | 1,100                     |                               |                               |                               |                               |                               |                               |
| Chrysene                        | 400                       |                               |                               |                               |                               |                               |                               |
| <sup>4</sup> Benzo(a)pyrene TEQ | 10,000                    |                               |                               |                               |                               |                               |                               |

## Table Notes

1. The Cleanup goal is based on the New York Technical Administrative Guidance Memorandum (TAGM) No. 4046 Recommended Soil Cleanup Objectives. Values denoted as Site Background ("SB") in TAGM 4046 were compared with the highlighted values (95th percentile of Seneca Army Depot (SEDA) Site Background) in lieu of the TAGM "SB" since no background cleanup objectives exist for certain parameters.
2. U.S. Environmental Protection Agency Risk Based Residential Cleanup Goal for lead
3. Where exceedances for individual PAHs exist, evaluation of the Benzo(a)pyrene Toxicity Equivalent (TEQ) for total carcinogenic PAHs (cPAHs) would not exceed the 10,000 µg/kg limit for total cPAHs for any sample.
4. Benzo(a)pyrene TEQ = for carcinogenic PAHs calculated by multiplying the concentration of the individual cPAHs by the following factors:
  - Benzo(a)pyrene = 1.0
  - Dibenzo(a,h)anthracene = 1.0
  - Benzo(a)anthracene = 0.1
  - Benzo(b)fluoranthene = 0.1
  - Indeno(1,2,3-cd)pyrene = 0.1
  - Benzo(k)fluoranthene = 0.01
  - Chrysene = 0.01

**mg/kg**= milligram per kilogram

**µg/kg**= microgram per kilogram

**B**= Result is less than the Contract Data Requirements List/Reporting Limit (RL), but  $\geq$  to the Instrument Detection Limit/method detection limit (MDL).

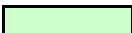
**H**= Alternate peak selection upon analytical review


**J**= Result is less than the RL, but greater than or equal to the MDL.

**M**= Manually integrated compound.

**N**= Matrix spike/matrix spike duplicate (MS/MSD): Spike recovery exceeds the upper or lower control limits.

**U**= Analyte was not detected at or above the MDLs and RLs (see STL Memo for MDL's)

 95th percentile of SEDA Site Background

 Result Exceeds Cleanup Criteria

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**APPENDIX D**

**WASTE CHARACTERIZATION DATA**

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**SEAD 24 Waste Characterization Data**  
**Time Critical Removal Action**  
**Seneca Army Depot**

| Parameter              | Regulatory Limit | Units    | SP-SS-019-FS | SP-SS-020-FS | SP-SS-021-FS | SP-SS-022-FS | SP-SS-023-FS | SP-SS-024-FS |
|------------------------|------------------|----------|--------------|--------------|--------------|--------------|--------------|--------------|
| <b>Inorganics</b>      |                  |          |              |              |              |              |              |              |
| Corrosivity (pH Solid) | Yes              | yes/no   | No           | No           | No           | No           | No           | No           |
| Ignitability           | Positive         | Pos/Neg  | Neg.         | Neg.         | Neg.         | Neg.         | Neg.         | Neg.         |
| pH                     | 2 to 12.5        | pH Units | 7.75         | 7.92         | 7.57         | 7.66         | 7.94         | 8.14         |
| Reactivity Cyanide     | 250,000          | µg/kg    | ND U         | ND U         | ND U         | ND U         | ND U         | ND U         |
| Reactivity Sulfide     | 500,000          | mg/kg    | ND U         | ND U         | ND U         | ND U         | ND U         | ND U         |
| % Moisture             |                  | %        | 15.3         | 21.7         | 20.9         | 20.9         | 16.7         | 14.5         |
| % Solids               | >20              | %        | 84.7         | 78.3         | 79.1         | 79.1         | 83.3         | 85.5         |
| <b>Metals (TCLP)</b>   |                  |          |              |              |              |              |              |              |
| Aluminum               |                  | mg/L     | ND U         | ND U         | 1.19 B       | 0.603 B      | ND U         | ND U         |
| Antimony               |                  | mg/L     | ND U         | 0.0429 B     | ND U         | ND U         | ND U         | ND U         |
| Arsenic                | 5                | mg/L     | 0.0318 B     | 0.051 B      | 0.0356 B     | 0.0461 B     | 0.0257 B     | ND U         |
| Barium                 | 100              | mg/L     | 0.627        | 0.746        | 0.419        | 0.685        | 0.543        | ND U         |
| Beryllium              |                  | mg/L     | ND U         | ND U         | ND U         | ND U         | ND U         | 0.556        |
| Cadmium                | 1                | mg/L     | ND U         | ND U         | ND U         | ND U         | ND U         | ND U         |
| Calcium                |                  | mg/L     | 618          | 316          | 68.5         | 138          | 722          | 718          |
| Chromium               | 5                | mg/L     | ND U         | ND U         | ND U         | ND U         | ND U         | ND U         |
| Cobalt                 |                  | mg/L     | ND U         | ND U         | ND U         | ND U         | ND U         | ND U         |
| Copper                 |                  | mg/L     | ND U         | ND U         | 0.0376 B     | 0.0236 B     | ND U         | ND U         |
| Iron                   |                  | mg/L     | ND U         | ND U         | 0.628 B      | 0.284 B      | ND U         | ND U         |
| Lead                   | 5                | mg/L     | ND U         | 0.291        | ND U         | 0.13         | ND U         | ND U         |
| Magnesium              |                  | mg/L     | 7.34         | 9.26         | 9.13         | 13.8         | 15.2         | 15.3         |
| Manganese              |                  | mg/L     | 2.09         | 1.53         | 0.208        | 0.532        | 1.56         | 0.868        |
| Mercury                | 0.2              | mg/L     | ND U         | ND U         | ND U         | ND U         | ND U         | ND U         |
| Nickel                 |                  | mg/L     | ND U         | ND U         | ND U         | ND U         | ND U         | ND U         |
| Potassium              |                  | mg/L     | 3.25         | 7.44         | 8.99         | ND U         | 1.85 B       | 2 B          |
| Selenium               | 1                | mg/L     | ND U         | ND U         | ND U         | ND U         | ND U         | ND U         |
| Silver                 | 5                | mg/L     | ND U         | ND U         | ND U         | ND U         | ND U         | ND U         |

**SEAD 24 Waste Characterization Data  
Time Critical Removal Action  
Seneca Army Depot**

| Parameter                 | Regulatory Limit | Units | SP-SS-019-FS | SP-SS-020-FS | SP-SS-021-FS | SP-SS-022-FS | SP-SS-023-FS | SP-SS-024-FS |
|---------------------------|------------------|-------|--------------|--------------|--------------|--------------|--------------|--------------|
| Sodium                    |                  | mg/L  | 825          | 886          | ND U         | 883          | 859          | 857          |
| Thallium                  |                  | mg/L  | ND U         | ND U         | 887          | ND U         | ND U         | ND U         |
| Vanadium                  |                  | mg/L  | ND U         | ND U         | ND U         | ND U         | ND U         | ND U         |
| Zinc                      |                  | mg/L  | 0.818        | 1.31         | 0.188 B      | 0.243 B      | ND U         | 0.0793 B     |
| <b>PCBs (Total)</b>       |                  |       |              |              |              |              |              |              |
| Aroclor 1016              |                  | µg/kg | ND U         | ND U         | ND U         | ND U         | ND U         | ND U         |
| Aroclor 1221              |                  | µg/kg | ND U         | ND U         | ND U         | ND U         | ND U         | ND U         |
| Aroclor 1232              |                  | µg/kg | ND U         | ND U         | ND U         | ND U         | ND U         | ND U         |
| Aroclor 1242              |                  | µg/kg | ND U         | ND U         | ND U         | ND U         | ND U         | ND U         |
| Aroclor 1248              |                  | µg/kg | ND U         | ND U         | ND U         | ND U         | ND U         | ND U         |
| Aroclor 1254              |                  | µg/kg | ND U         | ND U         | ND U         | ND U         | ND U         | ND U         |
| Aroclor 1260              |                  | µg/kg | ND U         | ND U         | ND U         | ND U         | ND U         | ND U         |
| Total                     | 1,000            | µg/kg | 0 U          | 0 U          | 0 U          | 0 U          | 0 U          | 0 U          |
| <b>Pesticides (Total)</b> |                  |       |              |              |              |              |              |              |
| 4 4'-DDD                  |                  | µg/kg | ND U         | ND U         | ND U         | ND U         | ND U         | ND U         |
| 4 4'-DDE                  |                  | µg/kg | ND U         | 1.7 J        | 0.79 J       | 1.7 J        | ND U         | ND U         |
| 4 4'-DDT                  |                  | µg/kg | 0.4 J        | 2 J          | ND U         | ND U         | ND U         | ND U         |
| Aldrin                    |                  | µg/kg | ND U         | ND U         | ND U         | ND U         | ND U         | ND U         |
| alpha-BHC                 |                  | µg/kg | 0.43 J       | 0.88 J       | 0.49 J       | ND U         | ND U         | ND U         |
| alpha-Chlordane           |                  | µg/kg | ND U         | ND U         | ND U         | 0.18 J       | ND U         | ND U         |
| beta-BHC                  |                  | µg/kg | ND U         | 1.1 J        | 1.2 J        | ND U         | ND U         | ND U         |
| delta-BHC                 |                  | µg/kg | ND U         | ND U         | ND U         | ND U         | ND U         | ND U         |
| Dieldrin                  |                  | µg/kg | ND U         | ND U         | ND U         | ND U         | ND U         | ND U         |
| Endosulfan I              |                  | µg/kg | ND U         | ND U         | 0.19 J       | ND U         | ND U         | ND U         |
| Endosulfan II             |                  | µg/kg | ND U         | ND U         | ND U         | ND U         | ND U         | ND U         |
| Endosulfan sulfate        |                  | µg/kg | ND U         | ND U         | ND U         | ND U         | ND U         | ND U         |
| Endrin                    | 400              | µg/kg | 1.2 J        | ND U         | ND U         | ND U         | ND U         | ND U         |
| Endrin aldehyde           |                  | µg/kg | ND U         | ND U         | ND U         | ND U         | ND U         | ND U         |

**SEAD 24 Waste Characterization Data  
Time Critical Removal Action  
Seneca Army Depot**

| Parameter                    | Regulatory Limit | Units | SP-SS-019-FS | SP-SS-020-FS | SP-SS-021-FS | SP-SS-022-FS | SP-SS-023-FS | SP-SS-024-FS |
|------------------------------|------------------|-------|--------------|--------------|--------------|--------------|--------------|--------------|
| Endrin ketone                |                  | µg/kg | ND U         | ND U         | ND U         | ND U         | ND U         | ND U         |
| gamma-BHC (Lindane)          | 8,000            | µg/kg | ND U         | ND U         | ND U         | ND U         | ND U         | ND U         |
| gamma-Chlordane              | 600              | µg/kg | ND U         | 1.5 J        | ND U         | 0.83 J       | ND U         | ND U         |
| Heptachlor                   | 160              | µg/kg | ND U         | ND U         | ND U         | ND U         | ND U         | ND U         |
| Heptachlor epoxide           |                  | µg/kg | 0.28 J       | ND U         | 0.93 J       | 0.28 J       | ND U         | ND U         |
| Methoxychlor                 | 200,000          | µg/kg | ND U         | ND U         | ND U         | ND U         | ND U         | ND U         |
| Toxaphene                    | 10,000           | µg/kg | ND U         | ND U         | ND U         | ND U         | ND U         | ND U         |
| <b>SVOCs (Totals)</b>        |                  |       |              |              |              |              |              |              |
| 1 2 4-Trichlorobenzene       |                  | µg/kg | ND U         | ND U         | ND U         | ND U         | ND U         | ND U         |
| 1 2-Dichlorobenzene          |                  | µg/kg | ND U         | ND U         | ND U         | ND U         | ND U         | ND U         |
| 1 3-Dichlorobenzene          |                  | µg/kg | ND U         | ND U         | ND U         | ND U         | ND U         | ND U         |
| 1 4-Dichlorobenzene          | 150,000          | µg/kg | ND U         | ND U         | ND U         | ND U         | ND U         | ND U         |
| 2 2-oxybis (1-chloropropane) |                  | µg/kg | ND U         | ND U         | ND U         | ND U         | ND U         | ND U         |
| 2 4 5-Trichlorophenol        | 8,000,000        | µg/kg | ND U         | ND U         | ND U         | ND U         | ND U         | ND U         |
| 2 4 6-Trichlorophenol        | 40,000           | µg/kg | ND U         | ND U         | ND U         | ND U         | ND U         | ND U         |
| 2 4-Dichlorophenol           |                  | µg/kg | ND U         | ND U         | ND U         | ND U         | ND U         | ND U         |
| 2 4-Dimethylphenol           |                  | µg/kg | ND U         | ND U         | ND U         | ND U         | ND U         | ND U         |
| 2 4-Dinitrophenol            |                  | µg/kg | ND U         | ND J         | ND U         | ND U         | ND U         | ND U         |
| 2 4-Dinitrotoluene (total)   | 2,600            | µg/kg | ND U         | 17000*       | ND U         | ND U         | ND U         | ND U         |
| 2 6-Dinitrotoluene           |                  | µg/kg | ND U         | 1100 J       | ND U         | ND U         | ND U         | ND U         |
| 2-Chloronaphthalene          |                  | µg/kg | ND U         | ND U         | ND U         | ND U         | ND U         | ND U         |
| 2-Chlorophenol               |                  | µg/kg | ND U         | ND U         | ND U         | ND U         | ND U         | ND U         |
| 2-Methylnaphthalene          |                  | µg/kg | ND U         | ND U         | ND U         | ND U         | ND U         | ND U         |
| 2-Methylphenol               | 4,000,000        | µg/kg | ND U         | ND U         | ND U         | ND U         | ND U         | ND U         |
| 2-Nitroaniline               |                  | µg/kg | ND U         | ND U         | ND U         | ND U         | ND U         | ND U         |
| 2-Nitrophenol                |                  | µg/kg | ND U         | ND U         | ND U         | ND U         | ND U         | ND U         |
| 3 3-Dichlorobenzidine        |                  | µg/kg | ND U         | ND U         | ND U         | ND U         | ND U         | ND U         |
| 3-Nitroaniline               |                  | µg/kg | ND U         | ND U         | ND U         | ND U         | ND U         | ND U         |

**SEAD 24 Waste Characterization Data**  
**Time Critical Removal Action**  
**Seneca Army Depot**

| Parameter                   | Regulatory Limit | Units | SP-SS-019-FS | SP-SS-020-FS | SP-SS-021-FS | SP-SS-022-FS | SP-SS-023-FS | SP-SS-024-FS |
|-----------------------------|------------------|-------|--------------|--------------|--------------|--------------|--------------|--------------|
| 4 6-Dinitro-2-methylphenol  |                  | µg/kg | ND U         | ND U         | ND U         | ND U         | ND U         | ND U         |
| 4-Bromophenyl phenyl ether  |                  | µg/kg | ND U         | ND U         | ND U         | ND U         | ND U         | ND U         |
| 4-Chloro-3-methylphenol     |                  | µg/kg | ND U         | ND U         | ND U         | ND U         | ND U         | ND U         |
| 4-Chloroaniline             |                  | µg/kg | ND U         | ND U         | ND U         | ND U         | ND U         | ND U         |
| 4-Chlorophenyl phenyl ether |                  | µg/kg | ND U         | ND U         | ND U         | ND U         | ND U         | ND U         |
| 4-Methylphenol              | 4,000,000        | µg/kg | ND U         | ND U         | ND U         | ND U         | ND U         | ND U         |
| 4-Nitroaniline              |                  | µg/kg | ND U         | ND U         | ND U         | ND U         | ND U         | ND U         |
| 4-Nitrophenol               |                  | µg/kg | ND U         | ND J         | ND U         | ND U         | ND U         | ND U         |
| Acenaphthene                |                  | µg/kg | ND U         | ND U         | ND U         | ND U         | ND U         | ND U         |
| Acenaphthylene              |                  | µg/kg | ND U         | ND U         | ND U         | ND U         | ND U         | ND U         |
| Aniline                     |                  | µg/kg | ND U         | ND U         | ND U         | ND U         | ND U         | ND U         |
| Anthracene                  |                  | µg/kg | ND U         | ND U         | ND U         | ND U         | ND U         | ND U         |
| Benzo(a)anthracene          |                  | µg/kg | ND U         | ND J         | ND U         | ND U         | ND U         | ND U         |
| Benzo(a)pyrene              |                  | µg/kg | ND U         | 15           | ND U         | 22           | 29           | 11           |
| Benzo(b)fluoranthene        |                  | µg/kg | ND U         | ND J         | ND U         | ND U         | ND U         | ND U         |
| Benzo(ghi)perylene          |                  | µg/kg | ND U         | ND U         | ND U         | ND U         | ND U         | ND U         |
| Benzo(k)fluoranthene        |                  | µg/kg | ND U         | ND U         | ND U         | ND U         | ND U         | ND U         |
| Benzoic acid                |                  | µg/kg | ND U         | ND J         | ND U         | ND U         | ND U         | ND U         |
| Benzyl alcohol              |                  | µg/kg | ND U         | ND U         | ND U         | ND U         | ND U         | ND U         |
| Bis(2-chloroethoxy)methane  |                  | µg/kg | ND U         | ND U         | ND U         | ND U         | ND U         | ND U         |
| Bis(2-chloroethyl)ether     |                  | µg/kg | ND U         | ND U         | ND U         | ND U         | ND U         | ND U         |
| Bis(2-ethylhexyl)phthalate  |                  | µg/kg | ND U         | ND U         | ND U         | ND U         | ND U         | ND U         |
| Butyl benzyl phthalate      |                  | µg/kg | ND U         | ND U         | ND U         | ND U         | ND U         | ND U         |
| Chrysene                    |                  | µg/kg | ND U         | ND J         | ND U         | ND U         | ND U         | ND U         |
| Dibenzo(a h)anthracene      |                  | µg/kg | ND U         | ND U         | ND U         | ND U         | ND U         | ND U         |
| Dibenzofuran                |                  | µg/kg | ND U         | ND U         | ND U         | ND U         | ND U         | ND U         |
| Diethyl phthalate           |                  | µg/kg | ND U         | ND U         | ND U         | ND U         | ND U         | ND U         |
| Dimethyl phthalate          |                  | µg/kg | ND U         | ND U         | ND U         | ND U         | ND U         | ND U         |
| Di-n-butyl phthalate        |                  | µg/kg | ND U         | ND J         | ND U         | ND U         | ND U         | ND U         |



**SEAD 24 Waste Characterization Data**  
**Time Critical Removal Action**  
**Seneca Army Depot**

| Parameter                  | Regulatory Limit | Units | SP-SS-019-FS | SP-SS-020-FS | SP-SS-021-FS | SP-SS-022-FS | SP-SS-023-FS | SP-SS-024-FS |
|----------------------------|------------------|-------|--------------|--------------|--------------|--------------|--------------|--------------|
| Di-n-octyl phthalate       |                  | µg/kg | ND U         | ND U         | ND U         | ND U         | ND U         | ND U         |
| Fluoranthene               |                  | µg/kg | ND U         | ND U         | ND U         | 65 J         | ND U         | ND U         |
| Fluorene                   |                  | µg/kg | ND U         | ND U         | ND U         | ND U         | ND U         | ND U         |
| Hexachlorobenzene          | 2,600            | µg/kg | ND U         | ND U         | ND U         | ND U         | ND U         | ND U         |
| Hexachlorobutadiene        | 10,000           | µg/kg | ND U         | ND U         | ND U         | ND U         | ND U         | ND U         |
| Hexachlorocyclopentadiene  |                  | µg/kg | ND U         | ND U         | ND U         | ND U         | ND U         | ND U         |
| Hexachloroethane           | 60,000           | µg/kg | ND U         | ND U         | ND U         | ND U         | ND U         | ND U         |
| Indeno(1 2 3-cd)pyrene     |                  | µg/kg | ND U         | ND U         | ND U         | ND U         | ND U         | ND U         |
| Isophorone                 |                  | µg/kg | ND U         | ND U         | ND U         | ND U         | ND U         | ND U         |
| Naphthalene                |                  | µg/kg | ND U         | ND U         | ND U         | ND U         | ND U         | ND U         |
| Nitrobenzene               | 40,000           | µg/kg | ND U         | ND U         | ND U         | ND U         | ND U         | ND U         |
| n-Nitroso-di-n-propylamine |                  | µg/kg | ND U         | ND U         | ND U         | ND U         | ND U         | ND U         |
| n-Nitrosodiphenylamine     |                  | µg/kg | ND U         | 2000 J       | ND U         | ND U         | ND U         | ND U         |
| Pentachlorophenol          | 2,000,000        | µg/kg | ND U         | ND U         | ND U         | ND U         | ND U         | ND U         |
| Phenanthrene               |                  | µg/kg | ND U         | ND J         | ND U         | ND U         | ND U         | ND U         |
| Phenol                     |                  | µg/kg | ND U         | ND U         | ND U         | ND U         | ND U         | ND U         |
| Pyrene                     |                  | µg/kg | ND U         | ND J         | ND U         | 62 J         | ND U         | ND U         |
| Pyridine                   | 100,000          | µg/kg | ND U         | ND U         | ND U         | ND U         | ND U         | ND U         |
| <b>SVOC (TCLP)</b>         |                  |       |              |              |              |              |              |              |
| 2,4 Dinitrotoluene (TCLP)  | 0.13             | mg/l  | NA           | 0.02         | NA           | NA           | NA           | NA           |
| <b>VOCs (Total)</b>        |                  |       |              |              |              |              |              |              |
| 1 1 1 2-Tetrachloroethane  |                  | µg/kg | ND U         | ND U         | ND U         | ND U         | ND U         | ND U         |
| 1 1 1-Trichloroethane      |                  | µg/kg | ND U         | ND U         | ND U         | ND U         | ND U         | ND U         |
| 1 1 2 2-Tetrachloroethane  |                  | µg/kg | ND U         | ND U         | ND U         | ND U         | ND U         | ND U         |
| 1 1 2-Trichloroethane      |                  | µg/kg | ND U         | ND U         | ND U         | ND U         | ND U         | ND U         |
| 1 1-Dichloroethane         |                  | µg/kg | ND U         | ND U         | ND U         | ND U         | ND U         | ND U         |
| 1 1-Dichloroethene         | 14,000           | µg/kg | ND U         | ND U         | ND U         | ND U         | ND U         | ND U         |
| 1 1-Dichloropropene        |                  | µg/kg | ND U         | ND U         | ND U         | ND U         | ND U         | ND U         |

**SEAD 24 Waste Characterization Data  
Time Critical Removal Action  
Seneca Army Depot**

| Parameter                       | Regulatory Limit | Units | SP-SS-019-FS | SP-SS-020-FS | SP-SS-021-FS | SP-SS-022-FS | SP-SS-023-FS | SP-SS-024-FS |
|---------------------------------|------------------|-------|--------------|--------------|--------------|--------------|--------------|--------------|
| 1 2 3-Trichlorobenzene          |                  | µg/kg | ND U         | ND U         | ND U         | ND U         | ND U         | ND U         |
| 1 2 3-Trichloropropane          |                  | µg/kg | ND U         | ND U         | ND U         | ND U         | ND U         | ND U         |
| 1 2 4-Trichlorobenzene          |                  | µg/kg | ND U         | ND U         | ND U         | ND U         | ND U         | ND U         |
| 1 2 4-Trimethylbenzene          |                  | µg/kg | ND U         | ND U         | ND U         | ND U         | ND U         | ND U         |
| 1 2-Dibromo-3-chloropropane     |                  | µg/kg | ND U         | ND U         | ND U         | ND U         | ND U         | ND U         |
| 1 2-Dibromoethane (EDB)         |                  | µg/kg | ND U         | ND U         | ND U         | ND U         | ND U         | ND U         |
| 1 2-Dichlorobenzene             |                  | µg/kg | ND U         | ND U         | ND U         | ND U         | ND U         | ND U         |
| 1 2-Dichloroethane              | 10,000           | µg/kg | ND U         | ND U         | ND U         | ND U         | ND U         | ND U         |
| 1 2-Dichloroethene (total)      |                  | µg/kg | ND U         | ND U         | ND U         | ND U         | ND U         | ND U         |
| 1 2-Dichloropropane             |                  | µg/kg | ND U         | ND U         | ND U         | ND U         | ND U         | ND U         |
| 1 3 5-Trimethylbenzene          |                  | µg/kg | ND U         | ND U         | ND U         | ND U         | ND U         | ND U         |
| 1 3-Dichlorobenzene             |                  | µg/kg | ND U         | ND U         | ND U         | ND U         | ND U         | ND U         |
| 1 3-Dichloropropane             |                  | µg/kg | ND U         | ND U         | ND U         | ND U         | ND U         | ND U         |
| 1 4-Dichlorobenzene             |                  | µg/kg | ND U         | ND U         | ND U         | ND U         | ND U         | ND U         |
| 2 2-Dichloropropane             |                  | µg/kg | ND U         | ND U         | ND U         | ND U         | ND U         | ND U         |
| 2-Butanone (MEK)                | 4,000,000        | µg/kg | ND U         | ND U         | ND U         | ND U         | ND U         | ND U         |
| 2-Chloro-1 3-butadiene (chloro) |                  | µg/kg | ND U         | ND U         | ND U         | ND U         | ND U         | ND U         |
| 2-Chlorotoluene                 |                  | µg/kg | ND U         | ND U         | ND U         | ND U         | ND U         | ND U         |
| 2-Hexanone                      |                  | µg/kg | ND U         | ND U         | ND U         | ND U         | ND U         | ND U         |
| 3-Chloropropene (Allyl Chlorid) |                  | µg/kg | ND U         | ND U         | ND U         | ND U         | ND U         | ND U         |
| 4-Chlorotoluene                 |                  | µg/kg | ND U         | ND U         | ND U         | ND U         | ND U         | ND U         |
| 4-Methyl-2-pentanone (MIBK)     |                  | µg/kg | ND U         | ND U         | ND U         | ND U         | ND U         | ND U         |
| Acetone                         |                  | µg/kg | 2.2 J        | 9.6 J        | 4.5 J        | ND U         | ND U         | ND U         |
| Benzene                         | 10,000           | µg/kg | ND U         | ND U         | ND U         | ND U         | ND U         | ND U         |
| Bromobenzene                    |                  | µg/kg | ND U         | ND U         | ND U         | ND U         | ND U         | ND U         |
| Bromochloromethane              |                  | µg/kg | ND U         | ND U         | ND U         | ND U         | ND U         | ND U         |
| Bromodichloromethane            |                  | µg/kg | ND U         | ND U         | ND U         | ND U         | ND U         | ND U         |
| Bromoform                       |                  | µg/kg | ND U         | ND U         | ND U         | ND U         | ND U         | ND U         |
| Bromomethane                    |                  | µg/kg | ND U         | ND U         | ND U         | ND U         | ND U         | ND U         |

**SEAD 24 Waste Characterization Data  
Time Critical Removal Action  
Seneca Army Depot**

| Parameter                      | Regulatory Limit | Units | SP-SS-019-FS | SP-SS-020-FS | SP-SS-021-FS | SP-SS-022-FS | SP-SS-023-FS | SP-SS-024-FS |
|--------------------------------|------------------|-------|--------------|--------------|--------------|--------------|--------------|--------------|
| Carbon disulfide               |                  | µg/kg | ND U         | ND U         | ND U         | ND U         | ND U         | ND U         |
| Carbon tetrachloride           | 10,000           | µg/kg | ND U         | ND U         | ND U         | ND U         | ND U         | ND U         |
| Chlorobenzene                  | 2,000,000        | µg/kg | ND U         | ND U         | ND U         | ND U         | ND U         | ND U         |
| Chloroethane                   |                  | µg/kg | ND U         | ND U         | ND U         | ND U         | ND U         | ND U         |
| Chloroform                     | 120,000          | µg/kg | ND U         | ND U         | ND U         | ND U         | ND U         | ND U         |
| Chloromethane                  |                  | µg/kg | ND U         | ND U         | ND U         | ND U         | ND U         | ND U         |
| cis-1 2-Dichloroethene         |                  | µg/kg | ND U         | ND U         | ND U         | ND U         | ND U         | ND U         |
| cis-1 3-Dichloropropene        |                  | µg/kg | ND U         | ND U         | ND U         | ND U         | ND U         | ND U         |
| Dibromochloromethane           |                  | µg/kg | ND U         | ND U         | ND U         | ND U         | ND U         | ND U         |
| Dibromomethane                 |                  | µg/kg | ND U         | ND U         | ND U         | ND U         | ND U         | ND U         |
| Dichlorodifluoromethane        |                  | µg/kg | ND U         | ND U         | ND U         | ND U         | ND U         | ND U         |
| Ethylbenzene                   |                  | µg/kg | ND U         | ND U         | ND U         | ND U         | ND U         | ND U         |
| Ethylmethacrylate              |                  | µg/kg | ND U         | ND U         | ND U         | ND U         | ND U         | ND U         |
| Hexachlorobutadiene            |                  | µg/kg | ND U         | ND U         | ND U         | ND U         | ND U         | ND U         |
| Isopropylbenzene               |                  | µg/kg | ND U         | ND U         | ND U         | ND U         | ND U         | ND U         |
| m&p-Xylenes                    |                  | µg/kg | ND U         | ND U         | ND U         | ND U         | ND U         | ND U         |
| Methylene chloride             |                  | µg/kg | ND U         | ND U         | ND U         | ND U         | ND U         | ND U         |
| Methylmethacrylate             |                  | µg/kg | ND U         | ND U         | ND U         | ND U         | ND U         | ND U         |
| Methyl-tert-butyl-ether (MTBE) |                  | µg/kg | ND U         | ND U         | ND U         | ND U         | ND U         | ND U         |
| Naphthalene                    |                  | µg/kg | ND U         | ND U         | ND U         | ND U         | ND U         | ND U         |
| n-Butylbenzene                 |                  | µg/kg | ND U         | ND U         | ND U         | ND U         | ND U         | ND U         |
| n-Propylbenzene                |                  | µg/kg | ND U         | ND U         | ND U         | ND U         | ND U         | ND U         |
| o-Xylene                       |                  | µg/kg | ND U         | ND U         | ND U         | ND U         | ND U         | ND U         |
| p-Isopropyltoluene             |                  | µg/kg | ND U         | ND U         | ND U         | ND U         | ND U         | ND U         |
| sec-Butylbenzene               |                  | µg/kg | ND U         | ND U         | ND U         | ND U         | ND U         | ND U         |
| Styrene                        |                  | µg/kg | ND U         | ND U         | ND U         | ND U         | ND U         | ND U         |
| tert-Butylbenzene              |                  | µg/kg | ND U         | ND U         | ND U         | ND U         | ND U         | ND U         |
| Tetrachloroethene              | 14,000           | µg/kg | ND U         | ND U         | ND U         | ND U         | ND U         | ND U         |
| Tetrahydrofuran                |                  | µg/kg | ND U         | ND U         | ND U         | ND U         | ND U         | ND U         |

**SEAD 24 Waste Characterization Data  
Time Critical Removal Action  
Seneca Army Depot**

| Parameter                   | Regulatory Limit | Units | SP-SS-019-FS | SP-SS-020-FS | SP-SS-021-FS | SP-SS-022-FS | SP-SS-023-FS | SP-SS-024-FS |
|-----------------------------|------------------|-------|--------------|--------------|--------------|--------------|--------------|--------------|
| Toluene                     |                  | µg/kg | 1.5 J        | 0.62 J       | 1.1 J        | 0.63 J       | ND U         | 0.48 J       |
| trans-1 2-Dichloroethene    |                  | µg/kg | ND U         | ND U         | ND U         | ND U         | ND U         | ND U         |
| trans-1 3-Dichloropropene   |                  | µg/kg | ND U         | ND U         | ND U         | ND U         | ND U         | ND U         |
| trans-1 4-Dichloro-2-butene |                  | µg/kg | ND U         | ND U         | ND U         | ND U         | ND U         | ND U         |
| Trichloroethene             | 10,000           | µg/kg | 0.57 J       | ND U         | ND U         | ND U         | ND U         | ND U         |
| Trichlorofluoromethane      |                  | µg/kg | ND U         | ND U         | ND U         | ND U         | ND U         | ND U         |
| Trichlorotrifluoroethane    |                  | µg/kg | ND U         | ND U         | ND U         | ND U         | ND U         | ND U         |
| Vinyl acetate               |                  | µg/kg | ND U         | ND U         | ND U         | ND U         | ND U         | ND U         |
| Vinyl chloride              | 4,000            | µg/kg | ND U         | ND U         | ND U         | ND U         | ND U         | ND U         |

**Notes:**

"" = See TCLP data for 2,4, Dinitrotoluene

**B=** Result is less than the Contract Data Requirements List/Reporting Limit (RL), but greater than or equal to the Instrument Detection Limit/method detection limit (MDL).

**H=** Alternate peak selection upon analytical review

**J=** Result is less than the RL, but greater than or equal to the MDL.

**M=** Manually integrated compound.

**N=** Matrix spike/matrix spike duplicate: Spike recovery exceeds the upper or lower control limits.

**U=** Analyte was not detected at or above the RL.

**R=** Sample was also re-analyzed for Toxicity Characteristic Leaching Procedure (TCLP) due to exceedance (see TCLP data for 2,4 Dinitrotoluene).

**mg/kg=** milligram per kilogram

**mg/L=** milligram per Liter

**µg/kg=** microgram per kilogram

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**APPENDIX E**

**SOIL DISPOSAL SUMMARY**

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**Soil Disposal Summary  
SEAD 24 Soil Removal  
Seneca Army Depot Activity**

| DATE     | DESTINATION             | SITE LOCATION | HAULER COMPANY NAME    | TRUCK ID# | LANDFILL TARE WEIGHT (LBS) | LANDFILL SCALE (LBS) | LOAD (TONS) | MANIFEST NO. | MATERIAL TYPE  |
|----------|-------------------------|---------------|------------------------|-----------|----------------------------|----------------------|-------------|--------------|----------------|
| 12/12/02 | Seneca Meadows Landfill | SEAD 24       | Seneca Pipe and Paving | 25-77     | 27,840                     | 68,240               | 20.2        | 491          | Non. Haz. Soil |
| 12/12/02 | Seneca Meadows Landfill | SEAD 24       | Seneca Pipe and Paving | 17-77     | 28,060                     | 65,580               | 18.76       | 492          | Non. Haz. Soil |
| 12/12/02 | Seneca Meadows Landfill | SEAD 24       | Riccelli Enterprises   | 76        | 28,100                     | 67,040               | 19.47       | 493          | Non. Haz. Soil |
| 12/12/02 | Seneca Meadows Landfill | SEAD 24       | Riccelli Enterprises   | 74        | 27,640                     | 66,340               | 19.35       | 494          | Non. Haz. Soil |
| 12/12/02 | Seneca Meadows Landfill | SEAD 24       | Riccelli Enterprises   | 45        | 28,140                     | 68,560               | 20.21       | 495          | Non. Haz. Soil |
| 12/12/02 | Seneca Meadows Landfill | SEAD 24       | Seneca Pipe and Paving | 24-77     | 28,160                     | 71,640               | 21.74       | 496          | Non. Haz. Soil |
| 12/12/02 | Seneca Meadows Landfill | SEAD 24       | Riccelli Enterprises   | 76        | 28,100                     | 67,920               | 19.91       | 497          | Non. Haz. Soil |
| 12/12/02 | Seneca Meadows Landfill | SEAD 24       | Seneca Pipe and Paving | 17-77     | 28,060                     | 68,940               | 20.44       | 498          | Non. Haz. Soil |
| 12/12/02 | Seneca Meadows Landfill | SEAD 24       | Riccelli Enterprises   | 45        | 28,140                     | 73,700               | 22.78       | 499          | Non. Haz. Soil |
| 12/12/02 | Seneca Meadows Landfill | SEAD 24       | Seneca Pipe and Paving | 24-77     | 28,160                     | 68,000               | 19.92       | 500          | Non. Haz. Soil |
| 12/12/02 | Seneca Meadows Landfill | SEAD 24       | Riccelli Enterprises   | 74        | 27,640                     | 72,400               | 22.38       | 501          | Non. Haz. Soil |
| 12/12/02 | Seneca Meadows Landfill | SEAD 24       | Seneca Pipe and Paving | 25-77     | 27,840                     | 72,000               | 22.08       | 502          | Non. Haz. Soil |
| 12/12/02 | Seneca Meadows Landfill | SEAD 24       | Riccelli Enterprises   | 76        | 28,100                     | 69,920               | 20.91       | 503          | Non. Haz. Soil |
| 12/12/02 | Seneca Meadows Landfill | SEAD 24       | Seneca Pipe and Paving | 17-77     | 28,060                     | 70,600               | 21.27       | 504          | Non. Haz. Soil |
| 12/12/02 | Seneca Meadows Landfill | SEAD 24       | Riccelli Enterprises   | 45        | 28,140                     | 74,980               | 23.42       | 505          | Non. Haz. Soil |
| 12/12/02 | Seneca Meadows Landfill | SEAD 24       | Seneca Pipe and Paving | 24-77     | 28,160                     | 72,080               | 21.96       | 506          | Non. Haz. Soil |
| 12/12/02 | Seneca Meadows Landfill | SEAD 24       | Riccelli Enterprises   | 74        | 27,640                     | 71,260               | 21.81       | 507          | Non. Haz. Soil |
| 12/12/02 | Seneca Meadows Landfill | SEAD 24       | Seneca Pipe and Paving | 25-77     | 27,840                     | 69,920               | 21.04       | 508          | Non. Haz. Soil |
| 12/12/02 | Seneca Meadows Landfill | SEAD 24       | Seneca Pipe and Paving | 17-77     | 28,060                     | 77,300               | 24.62       | 509          | Non. Haz. Soil |
| 12/12/02 | Seneca Meadows Landfill | SEAD 24       | Riccelli Enterprises   | 76        | 28,100                     | 73,060               | 22.48       | 510          | Non. Haz. Soil |
| 12/12/02 | Seneca Meadows Landfill | SEAD 24       | Riccelli Enterprises   | 45        | 28,140                     | 74,320               | 23.09       | 511          | Non. Haz. Soil |
| 12/12/02 | Seneca Meadows Landfill | SEAD 24       | Seneca Pipe and Paving | 24-77     | 28,160                     | 71,700               | 21.77       | 512          | Non. Haz. Soil |
| 12/12/02 | Seneca Meadows Landfill | SEAD 24       | Riccelli Enterprises   | 74        | 27,640                     | 73,080               | 22.72       | 513          | Non. Haz. Soil |
| 12/12/02 | Seneca Meadows Landfill | SEAD 24       | Seneca Pipe and Paving | 25-77     | 27,840                     | 75,620               | 23.89       | 514          | Non. Haz. Soil |
| 12/12/02 | Seneca Meadows Landfill | SEAD 24       | Seneca Pipe and Paving | 17-77     | 28,060                     | 72,960               | 22.45       | 515          | Non. Haz. Soil |
| 12/12/02 | Seneca Meadows Landfill | SEAD 24       | Riccelli Enterprises   | 76        | 28,100                     | 80,040               | 25.97       | 516          | Non. Haz. Soil |
| 12/12/02 | Seneca Meadows Landfill | SEAD 24       | Riccelli Enterprises   | 45        | 28,140                     | 78,440               | 25.15       | 517          | Non. Haz. Soil |
| 12/13/02 | Seneca Meadows Landfill | SEAD 24       | Riccelli Enterprises   | 45        | 28,140                     | 76,740               | 24.30       | 518          | Non. Haz. Soil |
| 12/13/02 | Seneca Meadows Landfill | SEAD 24       | Riccelli Enterprises   | 76        | 28,100                     | 72,120               | 22.01       | 519          | Non. Haz. Soil |
| 12/13/02 | Seneca Meadows Landfill | SEAD 24       | Seneca Pipe and Paving | 17-77     | 28,060                     | 74,100               | 23.02       | 520          | Non. Haz. Soil |
| 12/13/02 | Seneca Meadows Landfill | SEAD 24       | Seneca Pipe and Paving | 25-77     | 27,840                     | 73,380               | 22.77       | 521          | Non. Haz. Soil |
| 12/13/02 | Seneca Meadows Landfill | SEAD 24       | Seneca Pipe and Paving | 1177      | 28,100                     | 69,340               | 20.62       | 522          | Non. Haz. Soil |
| 12/13/02 | Seneca Meadows Landfill | SEAD 24       | Riccelli Enterprises   | 74        | 27,640                     | 74,800               | 23.58       | 523          | Non. Haz. Soil |
| 12/13/02 | Seneca Meadows Landfill | SEAD 24       | Seneca Pipe and Paving | 17-77     | 28,060                     | 74,520               | 23.23       | 524          | Non. Haz. Soil |
| 12/13/02 | Seneca Meadows Landfill | SEAD 24       | Riccelli Enterprises   | 45        | 28,140                     | 74,140               | 23.00       | 525          | Non. Haz. Soil |
| 12/13/02 | Seneca Meadows Landfill | SEAD 24       | Seneca Pipe and Paving | 25-77     | 27,840                     | 71,980               | 22.07       | 526          | Non. Haz. Soil |
| 12/13/02 | Seneca Meadows Landfill | SEAD 24       | Seneca Pipe and Paving | 1177      | 28,100                     | 69,340               | 20.62       | 527          | Non. Haz. Soil |
| 12/13/02 | Seneca Meadows Landfill | SEAD 24       | Riccelli Enterprises   | 79        | 27,080                     | 71,700               | 22.31       | 528          | Non. Haz. Soil |
| 12/13/02 | Seneca Meadows Landfill | SEAD 24       | Riccelli Enterprises   | 45        | 28,140                     | 73,520               | 22.69       | 529          | Non. Haz. Soil |
| 12/13/02 | Seneca Meadows Landfill | SEAD 24       | Seneca Pipe and Paving | 25-77     | 27,840                     | 72,340               | 22.25       | 530          | Non. Haz. Soil |
| 12/13/02 | Seneca Meadows Landfill | SEAD 24       | Seneca Pipe and Paving | 1177      | 28,100                     | 69,560               | 20.73       | 531          | Non. Haz. Soil |
| 12/13/02 | Seneca Meadows Landfill | SEAD 24       | Seneca Pipe and Paving | 1777      | 28,060                     | 71,220               | 21.58       | 532          | Non. Haz. Soil |
| 12/13/02 | Seneca Meadows Landfill | SEAD 24       | Riccelli Enterprises   | 74        | 27,640                     | 74,360               | 23.36       | 533          | Non. Haz. Soil |

**Soil Disposal Summary  
SEAD 24 Soil Removal  
Seneca Army Depot Activity**

| DATE     | DESTINATION             | SITE LOCATION | HAULER COMPANY NAME    | TRUCK ID# | LANDFILL TARE WEIGHT (LBS) | LANDFILL SCALE (LBS) | LOAD (TONS) | MANIFEST NO. | MATERIAL TYPE  |
|----------|-------------------------|---------------|------------------------|-----------|----------------------------|----------------------|-------------|--------------|----------------|
| 12/13/02 | Seneca Meadows Landfill | SEAD 24       | Riccelli Enterprises   | 79        | 27,080                     | 77,800               | 25.36       | 534          | Non. Haz. Soil |
| 12/13/02 | Seneca Meadows Landfill | SEAD 24       | Riccelli Enterprises   | 45        | 28,140                     | 75,840               | 23.85       | 535          | Non. Haz. Soil |
| 12/13/02 | Seneca Meadows Landfill | SEAD 24       | Seneca Pipe and Paving | 25-77     | 27,840                     | 76,140               | 24.15       | 536          | Non. Haz. Soil |
| 12/13/02 | Seneca Meadows Landfill | SEAD 24       | Seneca Pipe and Paving | 1177      | 28,100                     | 74,060               | 22.98       | 537          | Non. Haz. Soil |
| 12/13/02 | Seneca Meadows Landfill | SEAD 24       | Seneca Pipe and Paving | 17-77     | 28,060                     | 74,280               | 23.11       | 538          | Non. Haz. Soil |
| 12/13/02 | Seneca Meadows Landfill | SEAD 24       | Riccelli Enterprises   | 74        | 27,640                     | 73,600               | 22.98       | 539          | Non. Haz. Soil |
| 12/13/02 | Seneca Meadows Landfill | SEAD 24       | Riccelli Enterprises   | 79        | 27,080                     | 77,460               | 25.19       | 540          | Non. Haz. Soil |
| 12/13/02 | Seneca Meadows Landfill | SEAD 24       | Riccelli Enterprises   | 45        | 28,140                     | 73,960               | 22.91       | 541          | Non. Haz. Soil |
| 12/13/02 | Seneca Meadows Landfill | SEAD 24       | Seneca Pipe and Paving | 1177      | 28,100                     | 68,280               | 20.09       | 542          | Non. Haz. Soil |
| 12/13/02 | Seneca Meadows Landfill | SEAD 24       | Riccelli Enterprises   | 74        | 27,640                     | 73,920               | 23.14       | 543          | Non. Haz. Soil |
| 12/13/02 | Seneca Meadows Landfill | SEAD 24       | Seneca Pipe and Paving | 17-77     | 28,060                     | 70,340               | 21.14       | 544          | Non. Haz. Soil |
| 12/16/02 | Seneca Meadows Landfill | SEAD 24       | Seneca Pipe and Paving | 24-77     | 28,160                     | 72,760               | 22.3        | 545          | Non. Haz. Soil |
| 12/16/02 | Seneca Meadows Landfill | SEAD 24       | Seneca Pipe and Paving | 1177      | 28,100                     | 67,900               | 19.9        | 546          | Non. Haz. Soil |
| 12/16/02 | Seneca Meadows Landfill | SEAD 24       | Riccelli Enterprises   | 45        | 28,140                     | 69,140               | 20.5        | 547          | Non. Haz. Soil |
| 12/16/02 | Seneca Meadows Landfill | SEAD 24       | Riccelli Enterprises   | 76        | 28,100                     | 67,640               | 19.77       | 548          | Non. Haz. Soil |
| 12/16/02 | Seneca Meadows Landfill | SEAD 24       | Seneca Pipe and Paving | 677       | 26,960                     | 69,200               | 21.12       | 549          | Non. Haz. Soil |
| 12/16/02 | Seneca Meadows Landfill | SEAD 24       | Seneca Pipe and Paving | 14-77     | 24,400                     | 69,960               | 22.78       | 550          | Non. Haz. Soil |
| 12/16/02 | Seneca Meadows Landfill | SEAD 24       | Riccelli Enterprises   | 97        | 27,860                     | 71,760               | 21.95       | 551          | Non. Haz. Soil |
| 12/16/02 | Seneca Meadows Landfill | SEAD 24       | Seneca Pipe and Paving | 24-77     | 28,160                     | 70,880               | 21.36       | 552          | Non. Haz. Soil |
| 12/16/02 | Seneca Meadows Landfill | SEAD 24       | Seneca Pipe and Paving | 1177      | 28,100                     | 68,540               | 20.22       | 553          | Non. Haz. Soil |
| 12/16/02 | Seneca Meadows Landfill | SEAD 24       | Riccelli Enterprises   | 45        | 28,140                     | 69,600               | 20.73       | 554          | Non. Haz. Soil |
| 12/16/02 | Seneca Meadows Landfill | SEAD 24       | Riccelli Enterprises   | 76        | 28,100                     | 65,320               | 18.61       | 555          | Non. Haz. Soil |
| 12/16/02 | Seneca Meadows Landfill | SEAD 24       | Seneca Pipe and Paving | 14-77     | 24,400                     | 67,440               | 21.52       | 556          | Non. Haz. Soil |
| 12/16/02 | Seneca Meadows Landfill | SEAD 24       | Riccelli Enterprises   | 74        | 27,640                     | 67,180               | 19.77       | 557          | Non. Haz. Soil |
| 12/16/02 | Seneca Meadows Landfill | SEAD 24       | Riccelli Enterprises   | 97        | 27,860                     | 66,760               | 19.45       | 558          | Non. Haz. Soil |
| 12/16/02 | Seneca Meadows Landfill | SEAD 24       | Seneca Pipe and Paving | 677       | 26,960                     | 72,560               | 22.8        | 559          | Non. Haz. Soil |
| 12/16/02 | Seneca Meadows Landfill | SEAD 24       | Seneca Pipe and Paving | 24-77     | 28,160                     | 66,480               | 19.16       | 560          | Non. Haz. Soil |
| 12/16/02 | Seneca Meadows Landfill | SEAD 24       | Seneca Pipe and Paving | 1177      | 28,100                     | 66,280               | 19.09       | 561          | Non. Haz. Soil |
| 12/16/02 | Seneca Meadows Landfill | SEAD 24       | Riccelli Enterprises   | 45        | 28,140                     | 67,320               | 19.59       | 562          | Non. Haz. Soil |
| 12/16/02 | Seneca Meadows Landfill | SEAD 24       | Riccelli Enterprises   | 76        | 28,100                     | 64,660               | 18.28       | 563          | Non. Haz. Soil |
| 12/16/02 | Seneca Meadows Landfill | SEAD 24       | Seneca Pipe and Paving | 1477      | 24,400                     | 70,620               | 23.11       | 564          | Non. Haz. Soil |
| 12/16/02 | Seneca Meadows Landfill | SEAD 24       | Riccelli Enterprises   | 74        | 27,640                     | 70,860               | 21.61       | 565          | Non. Haz. Soil |
| 12/16/02 | Seneca Meadows Landfill | SEAD 24       | Riccelli Enterprises   | 97        | 27,860                     | 74,660               | 23.4        | 566          | Non. Haz. Soil |
| 12/16/02 | Seneca Meadows Landfill | SEAD 24       | Seneca Pipe and Paving | 677       | 26,960                     | 71,560               | 22.3        | 567          | Non. Haz. Soil |
| 12/16/02 | Seneca Meadows Landfill | SEAD 24       | Seneca Pipe and Paving | 24-77     | 28,160                     | 74,500               | 23.17       | 568          | Non. Haz. Soil |
| 12/16/02 | Seneca Meadows Landfill | SEAD 24       | Seneca Pipe and Paving | 1177      | 28,100                     | 73,740               | 22.82       | 569          | Non. Haz. Soil |
| 12/16/02 | Seneca Meadows Landfill | SEAD 24       | Riccelli Enterprises   | 45        | 28,140                     | 70,140               | 21          | 570          | Non. Haz. Soil |
| 12/16/02 | Seneca Meadows Landfill | SEAD 24       | Riccelli Enterprises   | 74        | 22                         | 27,640               | 21.93       | 571          | Non. Haz. Soil |
| 12/16/02 | Seneca Meadows Landfill | SEAD 24       | Riccelli Enterprises   | 76        | 28,100                     | 69,620               | 20.76       | 572          | Non. Haz. Soil |
| 12/16/02 | Seneca Meadows Landfill | SEAD 24       | Seneca Pipe and Paving | 14-77     | 24,400                     | 69,440               | 22.52       | 573          | Non. Haz. Soil |
| 12/16/02 | Seneca Meadows Landfill | SEAD 24       | Riccelli Enterprises   | 97        | 75,580                     | 27,860               | 23.86       | 574          | Non. Haz. Soil |
| 12/19/02 | Seneca Meadows Landfill | SEAD 24       | Riccelli Enterprises   | 61        | 28,700                     | 67,080               | 19.19       | 575          | Non. Haz. Soil |
| 12/19/02 | Seneca Meadows Landfill | SEAD 24       | Riccelli Enterprises   | 95        | 27,940                     | 72,740               | 22.4        | 576          | Non. Haz. Soil |



**Soil Disposal Summary  
SEAD 24 Soil Removal  
Seneca Army Depot Activity**

| DATE     | DESTINATION             | SITE LOCATION | HAULER COMPANY NAME    | TRUCK ID# | LANDFILL TARE WEIGHT (LBS) | LANDFILL SCALE (LBS) | LOAD (TONS) | MANIFEST NO. | MATERIAL TYPE  |
|----------|-------------------------|---------------|------------------------|-----------|----------------------------|----------------------|-------------|--------------|----------------|
| 12/19/02 | Seneca Meadows Landfill | SEAD 24       | Riccelli Enterprises   | 97        | 27,860                     | 75,620               | 23.88       | 577          | Non. Haz. Soil |
| 12/19/02 | Seneca Meadows Landfill | SEAD 24       | Riccelli Enterprises   | 79        | 27,080                     | 74,660               | 23.79       | 578          | Non. Haz. Soil |
| 12/19/02 | Seneca Meadows Landfill | SEAD 24       | Riccelli Enterprises   | 45        | 28,140                     | 72,440               | 22.15       | 579          | Non. Haz. Soil |
| 12/19/02 | Seneca Meadows Landfill | SEAD 24       | Riccelli Enterprises   | 74        | 27,640                     | 69,260               | 20.81       | 580          | Non. Haz. Soil |
| 12/19/02 | Seneca Meadows Landfill | SEAD 24       | Seneca Pipe and Paving | 76        | 28,100                     | 72,340               | 22.12       | 581          | Non. Haz. Soil |
| 12/19/02 | Seneca Meadows Landfill | SEAD 24       | Seneca Pipe and Paving | 377       | 24,960                     | 60,940               | 17.99       | 582          | Non. Haz. Soil |
| 12/19/02 | Seneca Meadows Landfill | SEAD 24       | Seneca Pipe and Paving | 177       | 28,100                     | 75,480               | 23.69       | 583          | Non. Haz. Soil |
| 12/19/02 | Seneca Meadows Landfill | SEAD 24       | Seneca Pipe and Paving | 2477      | 28,160                     | 71,320               | 21.58       | 584          | Non. Haz. Soil |
| 12/19/02 | Seneca Meadows Landfill | SEAD 24       | Seneca Pipe and Paving | 14-77     | 24,400                     | 74,600               | 25.1        | 585          | Non. Haz. Soil |
| 12/19/02 | Seneca Meadows Landfill | SEAD 24       | Riccelli Enterprises   | 14-77     | 27,940                     | 78,060               | 25.06       | 586          | Non. Haz. Soil |
| 12/19/02 | Seneca Meadows Landfill | SEAD 24       | Riccelli Enterprises   | 95        | 27,860                     | 78,260               | 25.2        | 587          | Non. Haz. Soil |
| 12/19/02 | Seneca Meadows Landfill | SEAD 24       | Riccelli Enterprises   | 97        | 27,080                     | 75,980               | 24.45       | 588          | Non. Haz. Soil |
| 12/19/02 | Seneca Meadows Landfill | SEAD 24       | Riccelli Enterprises   | 79        | 28,140                     | 74,820               | 23.34       | 589          | Non. Haz. Soil |
| 12/19/02 | Seneca Meadows Landfill | SEAD 24       | Riccelli Enterprises   | 45        | 27,640                     | 73,560               | 22.96       | 590          | Non. Haz. Soil |
| 12/19/02 | Seneca Meadows Landfill | SEAD 24       | Riccelli Enterprises   | 74        | 28,100                     | 75,860               | 23.88       | 591          | Non. Haz. Soil |
| 12/19/02 | Seneca Meadows Landfill | SEAD 24       | Seneca Pipe and Paving | 76        | 24,960                     | 63,340               | 19.19       | 592          | Non. Haz. Soil |
| 12/19/02 | Seneca Meadows Landfill | SEAD 24       | Seneca Pipe and Paving | 377       | 28,160                     | 76,000               | 23.92       | 593          | Non. Haz. Soil |
| 12/19/02 | Seneca Meadows Landfill | SEAD 24       | Seneca Pipe and Paving | 1177      | 28,100                     | 79,780               | 25.84       | 594          | Non. Haz. Soil |
| 12/19/02 | Seneca Meadows Landfill | SEAD 24       | Seneca Pipe and Paving | 14-77     | 24,400                     | 73,660               | 24.63       | 595          | Non. Haz. Soil |
| 12/19/02 | Seneca Meadows Landfill | SEAD 24       | Riccelli Enterprises   | 79        | 27,080                     | 79,520               | 26.22       | 596          | Non. Haz. Soil |
| 12/19/02 | Seneca Meadows Landfill | SEAD 24       | Riccelli Enterprises   | 61        | 28,700                     | 72,280               | 21.79       | 597          | Non. Haz. Soil |
| 12/19/02 | Seneca Meadows Landfill | SEAD 24       | Riccelli Enterprises   | 97        | 27,860                     | 76,200               | 24.17       | 598          | Non. Haz. Soil |
| 12/19/02 | Seneca Meadows Landfill | SEAD 24       | Riccelli Enterprises   | 45        | 28,140                     | 74,100               | 22.98       | 599          | Non. Haz. Soil |
| 12/19/02 | Seneca Meadows Landfill | SEAD 24       | Riccelli Enterprises   | 74        | 27,640                     | 76,880               | 24.62       | 600          | Non. Haz. Soil |
| 12/19/02 | Seneca Meadows Landfill | SEAD 24       | Riccelli Enterprises   | 95        | 27,940                     | 76,740               | 24.4        | 601          | Non. Haz. Soil |
| 12/19/02 | Seneca Meadows Landfill | SEAD 24       | Riccelli Enterprises   | 76        | 28,100                     | 74,860               | 23.38       | 602          | Non. Haz. Soil |
| 12/19/02 | Seneca Meadows Landfill | SEAD 24       | Seneca Pipe and Paving | 377       | 24,960                     | 65,580               | 20.31       | 603          | Non. Haz. Soil |
| 12/19/02 | Seneca Meadows Landfill | SEAD 24       | Seneca Pipe and Paving | 24-77     | 28,160                     | 81,500               | 26.67       | 604          | Non. Haz. Soil |
| 12/19/02 | Seneca Meadows Landfill | SEAD 24       | Seneca Pipe and Paving | 14-77     | 24,400                     | 73,000               | 24.3        | 605          | Non. Haz. Soil |
| 12/19/02 | Seneca Meadows Landfill | SEAD 24       | Riccelli Enterprises   | 79        | 27,080                     | 79,260               | 26.09       | 606          | Non. Haz. Soil |
| 12/19/02 | Seneca Meadows Landfill | SEAD 24       | Riccelli Enterprises   | 61        | 28,700                     | 72,260               | 21.78       | 607          | Non. Haz. Soil |
| 12/19/02 | Seneca Meadows Landfill | SEAD 24       | Riccelli Enterprises   | 97        | 27,860                     | 74,860               | 23.5        | 608          | Non. Haz. Soil |
| 12/19/02 | Seneca Meadows Landfill | SEAD 24       | Riccelli Enterprises   | 95        | 27,940                     | 73,620               | 22.84       | 609          | Non. Haz. Soil |
| 12/19/02 | Seneca Meadows Landfill | SEAD 24       | Riccelli Enterprises   | 45        | 28,140                     | 78,220               | 25.04       | 610          | Non. Haz. Soil |
| 12/19/02 | Seneca Meadows Landfill | SEAD 24       | Riccelli Enterprises   | 74        | 27,640                     | 73,400               | 22.88       | 611          | Non. Haz. Soil |
| 12/19/02 | Seneca Meadows Landfill | SEAD 24       | Riccelli Enterprises   | 76        | 28,100                     | 74,820               | 23.36       | 612          | Non. Haz. Soil |
| 12/19/02 | Seneca Meadows Landfill | SEAD 24       | Seneca Pipe and Paving | 377       | 24,960                     | 55,940               | 15.49       | 613          | Non. Haz. Soil |
| 12/19/02 | Seneca Meadows Landfill | SEAD 24       | Seneca Pipe and Paving | 24-77     | 28,160                     | 74,460               | 23.15       | 614          | Non. Haz. Soil |
| 12/19/02 | Seneca Meadows Landfill | SEAD 24       | Seneca Pipe and Paving | 14-77     | 24,400                     | 68,300               | 21.95       | 615          | Non. Haz. Soil |
| 12/19/02 | Seneca Meadows Landfill | SEAD 24       | Riccelli Enterprises   | 79        | 27,080                     | 75,140               | 24.03       | 616          | Non. Haz. Soil |
| 12/19/02 | Seneca Meadows Landfill | SEAD 24       | Riccelli Enterprises   | 61        | 28,700                     | 69,740               | 20.52       | 617          | Non. Haz. Soil |
| 12/19/02 | Seneca Meadows Landfill | SEAD 24       | Riccelli Enterprises   | 97        | 27,860                     | 74,120               | 23.13       | 618          | Non. Haz. Soil |
| 12/19/02 | Seneca Meadows Landfill | SEAD 24       | Riccelli Enterprises   | 95        | 27,940                     | 70,640               | 21.35       | 619          | Non. Haz. Soil |

**Soil Disposal Summary  
SEAD 24 Soil Removal  
Seneca Army Depot Activity**

| DATE     | DESTINATION             | SITE LOCATION | HAULER COMPANY NAME    | TRUCK ID# | LANDFILL TARE WEIGHT (LBS) | LANDFILL SCALE (LBS) | LOAD (TONS) | MANIFEST NO. | MATERIAL TYPE  |
|----------|-------------------------|---------------|------------------------|-----------|----------------------------|----------------------|-------------|--------------|----------------|
| 12/19/02 | Seneca Meadows Landfill | SEAD 24       | Riccelli Enterprises   | 45        | 28,140                     | 72,240               | 22.05       | 620          | Non. Haz. Soil |
| 12/19/02 | Seneca Meadows Landfill | SEAD 24       | Riccelli Enterprises   | 74        | 27,640                     | 74,060               | 23.21       | 621          | Non. Haz. Soil |
| 12/19/02 | Seneca Meadows Landfill | SEAD 24       | Riccelli Enterprises   | 76        | 28,100                     | 73,540               | 22.72       | 622          | Non. Haz. Soil |
| 12/19/02 | Seneca Meadows Landfill | SEAD 24       | Seneca Pipe and Paving | 377       | 24,960                     | 55,560               | 15.3        | 623          | Non. Haz. Soil |
| 12/19/02 | Seneca Meadows Landfill | SEAD 24       | Seneca Pipe and Paving | 24-77     | 28,160                     | 71,580               | 21.71       | 624          | Non. Haz. Soil |
| 12/20/02 | Seneca Meadows Landfill | SEAD 24       | Seneca Pipe and Paving | 24-77     | 28,160                     | 73,660               | 22.75       | 625          | Non. Haz. Soil |
| 12/20/02 | Seneca Meadows Landfill | SEAD 24       | Riccelli Enterprises   | 76        | 28,100                     | 65,960               | 18.93       | 626          | Non. Haz. Soil |
| 12/20/02 | Seneca Meadows Landfill | SEAD 24       | Riccelli Enterprises   | 97        | 27,860                     | 69,440               | 20.79       | 627          | Non. Haz. Soil |
| 12/20/02 | Seneca Meadows Landfill | SEAD 24       | Riccelli Enterprises   | 95        | 27,940                     | 73,300               | 22.68       | 628          | Non. Haz. Soil |
| 12/20/02 | Seneca Meadows Landfill | SEAD 24       | Riccelli Enterprises   | 79        | 7,080                      | 66,900               | 19.91       | 629          | Non. Haz. Soil |
| 12/20/02 | Seneca Meadows Landfill | SEAD 24       | Riccelli Enterprises   | 61        | 28,700                     | 65,020               | 18.16       | 630          | Non. Haz. Soil |
| 12/20/02 | Seneca Meadows Landfill | SEAD 24       | Seneca Pipe and Paving | 14-77     | 24,400                     | 74,640               | 25.12       | 631          | Non. Haz. Soil |
| 12/20/02 | Seneca Meadows Landfill | SEAD 24       | Seneca Pipe and Paving | 17-77     | 28,060                     | 68,180               | 20.06       | 632          | Non. Haz. Soil |
| 12/20/02 | Seneca Meadows Landfill | SEAD 24       | Seneca Pipe and Paving | 677       | 26,960                     | 65,240               | 19.14       | 633          | Non. Haz. Soil |
| 12/20/02 | Seneca Meadows Landfill | SEAD 24       | Seneca Pipe and Paving | 1177      | 28,100                     | 68,440               | 20.17       | 634          | Non. Haz. Soil |
| 12/20/02 | Seneca Meadows Landfill | SEAD 24       | Riccelli Enterprises   | 74        | 27,640                     | 64,740               | 18.55       | 635          | Non. Haz. Soil |
| 12/20/02 | Seneca Meadows Landfill | SEAD 24       | Riccelli Enterprises   | 45        | 28,140                     | 68,460               | 20.16       | 636          | Non. Haz. Soil |
| 12/20/02 | Seneca Meadows Landfill | SEAD 24       | Seneca Pipe and Paving | 24-77     | 28,160                     | 76,240               | 24.04       | 637          | Non. Haz. Soil |
| 12/20/02 | Seneca Meadows Landfill | SEAD 24       | Riccelli Enterprises   | 76        | 28,100                     | 71,740               | 21.82       | 638          | Non. Haz. Soil |
| 12/20/02 | Seneca Meadows Landfill | SEAD 24       | Riccelli Enterprises   | 97        | 27,860                     | 71,720               | 21.93       | 639          | Non. Haz. Soil |
| 12/20/02 | Seneca Meadows Landfill | SEAD 24       | Riccelli Enterprises   | 95        | 27,940                     | 73,680               | 22.87       | 640          | Non. Haz. Soil |
| 12/20/02 | Seneca Meadows Landfill | SEAD 24       | Riccelli Enterprises   | 79        | 27,080                     | 72,460               | 22.69       | 641          | Non. Haz. Soil |
| 12/20/02 | Seneca Meadows Landfill | SEAD 24       | Riccelli Enterprises   | 61        | 28,700                     | 65,880               | 18.59       | 642          | Non. Haz. Soil |
| 12/20/02 | Seneca Meadows Landfill | SEAD 24       | Seneca Pipe and Paving | 14-77     | 24,400                     | 74,220               | 24.91       | 643          | Non. Haz. Soil |
| 12/20/02 | Seneca Meadows Landfill | SEAD 24       | Seneca Pipe and Paving | 17-77     | 28,060                     | 74,400               | 23.17       | 644          | Non. Haz. Soil |
| 12/20/02 | Seneca Meadows Landfill | SEAD 24       | Seneca Pipe and Paving | 1177      | 28,100                     | 70,860               | 21.38       | 645          | Non. Haz. Soil |
| 12/20/02 | Seneca Meadows Landfill | SEAD 24       | Riccelli Enterprises   | 74        | 27,640                     | 73,420               | 22.89       | 646          | Non. Haz. Soil |
| 12/20/02 | Seneca Meadows Landfill | SEAD 24       | Riccelli Enterprises   | 45        | 28,140                     | 76,100               | 23.98       | 647          | Non. Haz. Soil |
| 12/20/02 | Seneca Meadows Landfill | SEAD 24       | Seneca Pipe and Paving | 24-77     | 28,160                     | 73,120               | 22.48       | 648          | Non. Haz. Soil |
| 12/20/02 | Seneca Meadows Landfill | SEAD 24       | Riccelli Enterprises   | 76        | 28,100                     | 78,020               | 24.96       | 649          | Non. Haz. Soil |
| 12/20/02 | Seneca Meadows Landfill | SEAD 24       | Riccelli Enterprises   | 95        | 27,940                     | 76,620               | 24.34       | 650          | Non. Haz. Soil |
| 12/20/02 | Seneca Meadows Landfill | SEAD 24       | Riccelli Enterprises   | 97        | 27,860                     | 74,600               | 23.37       | 651          | Non. Haz. Soil |
| 12/20/02 | Seneca Meadows Landfill | SEAD 24       | Riccelli Enterprises   | 79        | 27,080                     | 70,320               | 21.62       | 652          | Non. Haz. Soil |
| 12/20/02 | Seneca Meadows Landfill | SEAD 24       | Riccelli Enterprises   | 61        | 28,700                     | 74,220               | 22.76       | 653          | Non. Haz. Soil |
| 12/20/02 | Seneca Meadows Landfill | SEAD 24       | Seneca Pipe and Paving | 14-77     | 24,400                     | 73,340               | 24.47       | 654          | Non. Haz. Soil |
| 12/20/02 | Seneca Meadows Landfill | SEAD 24       | Seneca Pipe and Paving | 17-77     | 28,060                     | 75,900               | 23.92       | 655          | Non. Haz. Soil |
| 12/20/02 | Seneca Meadows Landfill | SEAD 24       | Seneca Pipe and Paving | 1177      | 28,100                     | 75,200               | 23.55       | 656          | Non. Haz. Soil |
| 12/20/02 | Seneca Meadows Landfill | SEAD 24       | Seneca Pipe and Paving | 377       | 24,960                     | 57,480               | 16.26       | 657          | Non. Haz. Soil |
| 12/20/02 | Seneca Meadows Landfill | SEAD 24       | Riccelli Enterprises   | 74        | 27,640                     | 74,360               | 23.36       | 658          | Non. Haz. Soil |
| 12/20/02 | Seneca Meadows Landfill | SEAD 24       | Riccelli Enterprises   | 46        | 28,140                     | 75,720               | 23.79       | 659          | Non. Haz. Soil |
| 12/20/02 | Seneca Meadows Landfill | SEAD 24       | Seneca Pipe and Paving | 24-77     | 28,160                     | 80,720               | 26.28       | 660          | Non. Haz. Soil |

**Soil Disposal Summary  
SEAD 24 Soil Removal  
Seneca Army Depot Activity**

| DATE     | DESTINATION             | SITE LOCATION | HAULER COMPANY NAME    | TRUCK ID# | LANDFILL TARE WEIGHT (LBS) | LANDFILL SCALE (LBS) | LOAD (TONS) | MANIFEST NO. | MATERIAL TYPE  |
|----------|-------------------------|---------------|------------------------|-----------|----------------------------|----------------------|-------------|--------------|----------------|
| 12/20/02 | Seneca Meadows Landfill | SEAD 24       | Riccelli Enterprises   | 76        | 28,100                     | 78,660               | 25.28       | 661          | Non. Haz. Soil |
| 12/20/02 | Seneca Meadows Landfill | SEAD 24       | Riccelli Enterprises   | 95        | 27,940                     | 75,920               | 23.99       | 662          | Non. Haz. Soil |
| 12/20/02 | Seneca Meadows Landfill | SEAD 24       | Riccelli Enterprises   | 97        | 27,860                     | 72,300               | 22.22       | 663          | Non. Haz. Soil |
| 12/20/02 | Seneca Meadows Landfill | SEAD 24       | Riccelli Enterprises   | 79        | 27,080                     | 75,840               | 24.38       | 664          | Non. Haz. Soil |
| 12/20/02 | Seneca Meadows Landfill | SEAD 24       | Riccelli Enterprises   | 61        | 28,700                     | 78,620               | 24.96       | 665          | Non. Haz. Soil |
| 12/20/02 | Seneca Meadows Landfill | SEAD 24       | Seneca Pipe and Paving | 14-77     | 24,400                     | 74,740               | 25.17       | 666          | Non. Haz. Soil |
| 12/20/02 | Seneca Meadows Landfill | SEAD 24       | Seneca Pipe and Paving | 17-77     | 28,060                     | 73,820               | 22.88       | 667          | Non. Haz. Soil |
| 12/20/02 | Seneca Meadows Landfill | SEAD 24       | Seneca Pipe and Paving | 1177      | 28,100                     | 72,800               | 22.35       | 668          | Non. Haz. Soil |
| 12/20/02 | Seneca Meadows Landfill | SEAD 24       | Riccelli Enterprises   | 45        | 28,140                     | 70,840               | 21.35       | 669          | Non. Haz. Soil |
| 12/21/02 | Seneca Meadows Landfill | SEAD 24       | Riccelli Enterprises   | 76        | 28,100                     | 72,100               | 22          | 670          | Non. Haz. Soil |
| 12/21/02 | Seneca Meadows Landfill | SEAD 24       | Riccelli Enterprises   | 74        | 27,640                     | 65,940               | 19.15       | 671          | Non. Haz. Soil |
| 12/21/02 | Seneca Meadows Landfill | SEAD 24       | Riccelli Enterprises   | 71        | 27,900                     | 75,660               | 23.88       | 672          | Non. Haz. Soil |
| 12/21/02 | Seneca Meadows Landfill | SEAD 24       | Riccelli Enterprises   | 97        | 27,860                     | 73,660               | 22.9        | 673          | Non. Haz. Soil |
| 12/21/02 | Seneca Meadows Landfill | SEAD 24       | Riccelli Enterprises   | 45        | 28,140                     | 72,480               | 22.17       | 674          | Non. Haz. Soil |
| 12/21/02 | Seneca Meadows Landfill | SEAD 24       | Riccelli Enterprises   | 95        | 27,940                     | 75,400               | 23.73       | 675          | Non. Haz. Soil |
| 12/21/02 | Seneca Meadows Landfill | SEAD 24       | Riccelli Enterprises   | 79        | 27,080                     | 76,560               | 24.74       | 676          | Non. Haz. Soil |
| 12/21/02 | Seneca Meadows Landfill | SEAD 24       | Seneca Pipe and Paving | 177       | 28,100                     | 71,220               | 21.56       | 677          | Non. Haz. Soil |
| 12/21/02 | Seneca Meadows Landfill | SEAD 24       | Seneca Pipe and Paving | 677       | 26,960                     | 70,840               | 21.94       | 678          | Non. Haz. Soil |
| 12/21/02 | Seneca Meadows Landfill | SEAD 24       | Seneca Pipe and Paving | 14-77     | 24,400                     | 73,100               | 24.35       | 679          | Non. Haz. Soil |
| 12/21/02 | Seneca Meadows Landfill | SEAD 24       | Seneca Pipe and Paving | 17-77     | 28,060                     | 69,900               | 20.92       | 680          | Non. Haz. Soil |
| 12/21/02 | Seneca Meadows Landfill | SEAD 24       | Seneca Pipe and Paving | 24-77     | 28,160                     | 74,420               | 23.13       | 681          | Non. Haz. Soil |
| 12/21/02 | Seneca Meadows Landfill | SEAD 24       | Riccelli Enterprises   | 76        | 28,100                     | 76,600               | 24.25       | 682          | Non. Haz. Soil |
| 12/21/02 | Seneca Meadows Landfill | SEAD 24       | Riccelli Enterprises   | 45        | 28,140                     | 72,320               | 22.09       | 683          | Non. Haz. Soil |
| 12/21/02 | Seneca Meadows Landfill | SEAD 24       | Riccelli Enterprises   | 74        | 27,640                     | 71,200               | 21.78       | 684          | Non. Haz. Soil |
| 12/21/02 | Seneca Meadows Landfill | SEAD 24       | Seneca Pipe and Paving | 677       | 26,960                     | 72,520               | 22.78       | 685          | Non. Haz. Soil |
| 12/21/02 | Seneca Meadows Landfill | SEAD 24       | Riccelli Enterprises   | 71        | 27,900                     | 76,540               | 24.32       | 686          | Non. Haz. Soil |
| 12/21/02 | Seneca Meadows Landfill | SEAD 24       | Seneca Pipe and Paving | 14-77     | 24,400                     | 75,200               | 25.4        | 687          | Non. Haz. Soil |
| 12/21/02 | Seneca Meadows Landfill | SEAD 24       | Seneca Pipe and Paving | 24-77     | 28,160                     | 73,440               | 22.64       | 688          | Non. Haz. Soil |
| 12/21/02 | Seneca Meadows Landfill | SEAD 24       | Seneca Pipe and Paving | 17-77     | 28,060                     | 73,880               | 22.91       | 689          | Non. Haz. Soil |
| 12/21/02 | Seneca Meadows Landfill | SEAD 24       | Riccelli Enterprises   | 97        | 27,860                     | 73,160               | 22.65       | 690          | Non. Haz. Soil |
| 12/21/02 | Seneca Meadows Landfill | SEAD 24       | Riccelli Enterprises   | 79        | 27,080                     | 74,200               | 23.56       | 691          | Non. Haz. Soil |
| 12/21/02 | Seneca Meadows Landfill | SEAD 24       | Riccelli Enterprises   | 95        | 27,940                     | 71,900               | 21.98       | 692          | Non. Haz. Soil |
| 12/21/02 | Seneca Meadows Landfill | SEAD 24       | Seneca Pipe and Paving | 1177      | 28,100                     | 73,340               | 22.62       | 693          | Non. Haz. Soil |
| 7/31/03  | Seneca Meadows Landfill | SEAD 24       | Riccelli Enterprises   | 71        | 47,500                     | 75,400               | 23.75       | 1033         | Non. Haz. Soil |
| 7/31/03  | Seneca Meadows Landfill | SEAD 24       | Riccelli Enterprises   | 97        | 44,800                     | 72,660               | 22.4        | 1034         | Non. Haz. Soil |
| 7/31/03  | Seneca Meadows Landfill | SEAD 24       | Riccelli Enterprises   | 94        | 42,280                     | 70,320               | 21.14       | 1035         | Non. Haz. Soil |
| 7/31/03  | Seneca Meadows Landfill | SEAD 24       | Riccelli Enterprises   | 95        | 44,340                     | 72,280               | 22.17       | 1036         | Non. Haz. Soil |
| 7/31/03  | Seneca Meadows Landfill | SEAD 24       | Riccelli Enterprises   | 86        | 41,100                     | 68,940               | 20.55       | 1037         | Non. Haz. Soil |
| 7/31/03  | Seneca Meadows Landfill | SEAD 24       | Riccelli Enterprises   | 81        | 45,980                     | 74,120               | 22.99       | 1038         | Non. Haz. Soil |
| 7/31/03  | Seneca Meadows Landfill | SEAD 24       | Riccelli Enterprises   | 74        | 44,680                     | 72,320               | 22.34       | 1039         | Non. Haz. Soil |
| 7/31/03  | Seneca Meadows Landfill | SEAD 24       | Riccelli Enterprises   | 71        | 45,700                     | 73,660               | 22.85       | 1040         | Non. Haz. Soil |
| 7/31/03  | Seneca Meadows Landfill | SEAD 24       | Riccelli Enterprises   | 97        | 44,800                     | 72,660               | 22.4        | 1041         | Non. Haz. Soil |
| 7/31/03  | Seneca Meadows Landfill | SEAD 24       | Riccelli Enterprises   | 94        | 45,260                     | 73,300               | 22.63       | 1042         | Non. Haz. Soil |

**Soil Disposal Summary  
SEAD 24 Soil Removal  
Seneca Army Depot Activity**

| DATE    | DESTINATION             | SITE LOCATION | HAULER COMPANY NAME    | TRUCK ID# | LANDFILL TARE WEIGHT (LBS) | LANDFILL SCALE (LBS) | LOAD (TONS) | MANIFEST NO. | MATERIAL TYPE  |
|---------|-------------------------|---------------|------------------------|-----------|----------------------------|----------------------|-------------|--------------|----------------|
| 7/31/03 | Seneca Meadows Landfill | SEAD 24       | Riccelli Enterprises   | 95        | 43,880                     | 71,820               | 21.94       | 1043         | Non. Haz. Soil |
| 7/31/03 | Seneca Meadows Landfill | SEAD 24       | Riccelli Enterprises   | 86        | 43,360                     | 71,200               | 21.68       | 1044         | Non. Haz. Soil |
| 7/31/03 | Seneca Meadows Landfill | SEAD 24       | Riccelli Enterprises   | 81        | 45,120                     | 73,260               | 22.56       | 1045         | Non. Haz. Soil |
| 7/31/03 | Seneca Meadows Landfill | SEAD 24       | Riccelli Enterprises   | 74        | 45,760                     | 73,400               | 22.88       | 1046         | Non. Haz. Soil |
| 7/31/03 | Seneca Meadows Landfill | SEAD 24       | Riccelli Enterprises   | 71        | 47,480                     | 75,380               | 23.74       | 1047         | Non. Haz. Soil |
| 7/31/03 | Seneca Meadows Landfill | SEAD 24       | Riccelli Enterprises   | 97        | 43,440                     | 71,300               | 21.72       | 1048         | Non. Haz. Soil |
| 7/31/03 | Seneca Meadows Landfill | SEAD 24       | Riccelli Enterprises   | 94        | 45,440                     | 73,480               | 22.72       | 1049         | Non. Haz. Soil |
| 7/31/03 | Seneca Meadows Landfill | SEAD 24       | Riccelli Enterprises   | 86        | 41,180                     | 69,020               | 20.59       | 1050         | Non. Haz. Soil |
| 7/31/03 | Seneca Meadows Landfill | SEAD 24       | Riccelli Enterprises   | 81        | 48,300                     | 76,440               | 24.15       | 1051         | Non. Haz. Soil |
| 7/31/03 | Seneca Meadows Landfill | SEAD 24       | Riccelli Enterprises   | 74        | 45,880                     | 73,520               | 22.94       | 1052         | Non. Haz. Soil |
| 7/31/03 | Seneca Meadows Landfill | SEAD 24       | Riccelli Enterprises   | 71        | 47,900                     | 75,800               | 23.95       | 1053         | Non. Haz. Soil |
| 7/31/03 | Seneca Meadows Landfill | SEAD 24       | Riccelli Enterprises   | 97        | 44,420                     | 72,280               | 22.21       | 1054         | Non. Haz. Soil |
| 8/1/03  | Seneca Meadows Landfill | SEAD 24       | Riccelli Enterprises   | 71        | 47,900                     | 95,800               | 23.95       | 1053         | Non. Haz. Soil |
| 8/1/03  | Seneca Meadows Landfill | SEAD 24       | Riccelli Enterprises   | 97        | 27,860                     | 72,280               | 22.21       | 1054         | Non. Haz. Soil |
| 8/1/03  | Seneca Meadows Landfill | SEAD 24       | Riccelli Enterprises   | 86        | 39,860                     | 79,720               | 19.93       | 1055         | Non. Haz. Soil |
| 8/1/03  | Seneca Meadows Landfill | SEAD 24       | Riccelli Enterprises   | 81        | 28,140                     | 73,840               | 22.85       | 1056         | Non. Haz. Soil |
| 8/1/03  | Seneca Meadows Landfill | SEAD 24       | Riccelli Enterprises   | 81        | 45,700                     | 91,400               | 22.85       | 1056         | Non. Haz. Soil |
| 8/1/03  | Seneca Meadows Landfill | SEAD 24       | Riccelli Enterprises   | 71        | 35,320                     | 70,640               | 17.66       | 1057         | Non. Haz. Soil |
| 8/1/03  | Seneca Meadows Landfill | SEAD 24       | Riccelli Enterprises   | 97        | 39,700                     | 79,400               | 19.85       | 1058         | Non. Haz. Soil |
| 8/1/03  | Seneca Meadows Landfill | SEAD 24       | Riccelli Enterprises   | 86        | 44,960                     | 89,920               | 22.48       | 1059         | Non. Haz. Soil |
| 8/1/03  | Seneca Meadows Landfill | SEAD 24       | Riccelli Enterprises   | 81        | 44,140                     | 88,280               | 22.07       | 1060         | Non. Haz. Soil |
| 8/1/03  | Seneca Meadows Landfill | SEAD 24       | Riccelli Enterprises   | 71        | 53,300                     | 106,600              | 26.65       | 1061         | Non. Haz. Soil |
| 8/1/03  | Seneca Meadows Landfill | SEAD 24       | Riccelli Enterprises   | 97        | 41,360                     | 82,720               | 20.68       | 1062         | Non. Haz. Soil |
| 8/1/03  | Seneca Meadows Landfill | SEAD 24       | Riccelli Enterprises   | 86        | 27,840                     | 72,680               | 22.42       | 1063         | Non. Haz. Soil |
| 8/1/03  | Seneca Meadows Landfill | SEAD 24       | Riccelli Enterprises   | 86        | 44,840                     | 89,680               | 22.42       | 1063         | Non. Haz. Soil |
| 8/1/03  | Seneca Meadows Landfill | SEAD 24       | Riccelli Enterprises   | 81        | 46,300                     | 92,600               | 23.15       | 1064         | Non. Haz. Soil |
| 1/5/05  | Seneca Meadows Landfill | SEAD 24       | Dendis Sand and Gravel | Grey      | 29180                      | 63700                | 17.26       | 1079         | Non. Haz. Soil |
| 1/5/05  | Seneca Meadows Landfill | SEAD 24       | Dendis Sand and Gravel | White     | 41020                      | 62960                | 10.97       | 1080         | Non. Haz. Soil |
| 1/5/05  | Seneca Meadows Landfill | SEAD 24       | Riccelli Enterprises   | 19        | 30020                      | 69860                | 19.92       | 1081         | Non. Haz. Soil |
| 1/5/05  | Seneca Meadows Landfill | SEAD 24       | Riccelli Enterprises   | 74        | 27640                      | 65640                | 19.00       | 1082         | Non. Haz. Soil |
| 1/5/05  | Seneca Meadows Landfill | SEAD 24       | Riccelli Enterprises   | 32        | 28440                      | 70100                | 20.83       | 1083         | Non. Haz. Soil |
| 1/5/05  | Seneca Meadows Landfill | SEAD 24       | Dendis Sand and Gravel | Grey      | 29780                      | 71020                | 20.62       | 1084         | Non. Haz. Soil |
| 1/5/05  | Seneca Meadows Landfill | SEAD 24       | Dendis Sand and Gravel | White     | 29720                      | 73420                | 21.85       | 1085         | Non. Haz. Soil |
| 1/5/05  | Seneca Meadows Landfill | SEAD 24       | Riccelli Enterprises   | 74        | 27640                      | 72280                | 22.32       | 1086         | Non. Haz. Soil |
| 1/5/05  | Seneca Meadows Landfill | SEAD 24       | Riccelli Enterprises   | 19        | 29600                      | 71040                | 20.72       | 1087         | Non. Haz. Soil |
| 1/5/05  | Seneca Meadows Landfill | SEAD 24       | Riccelli Enterprises   | 32        | 28440                      | 76420                | 23.99       | 1088         | Non. Haz. Soil |
| 1/5/05  | Seneca Meadows Landfill | SEAD 24       | Dendis Sand and Gravel | Grey      | 28080                      | 69480                | 20.70       | 1089         | Non. Haz. Soil |
| 1/5/05  | Seneca Meadows Landfill | SEAD 24       | Riccelli Enterprises   | 95        | 27940                      | 71380                | 21.72       | 1090         | Non. Haz. Soil |
| 1/5/05  | Seneca Meadows Landfill | SEAD 24       | Dendis Sand and Gravel | White     | 27340                      | 70700                | 21.68       | 1091         | Non. Haz. Soil |
| 1/5/05  | Seneca Meadows Landfill | SEAD 24       | Riccelli Enterprises   | 74        | 27640                      | 73760                | 23.06       | 1092         | Non. Haz. Soil |
| 1/5/05  | Seneca Meadows Landfill | SEAD 24       | Riccelli Enterprises   | 19        | 28660                      | 75360                | 23.35       | 1093         | Non. Haz. Soil |
| 1/5/05  | Seneca Meadows Landfill | SEAD 24       | Riccelli Enterprises   | 32        | 28440                      | 78400                | 24.98       | 1094         | Non. Haz. Soil |
| 1/5/05  | Seneca Meadows Landfill | SEAD 24       | Dendis Sand and Gravel | White     | 26900                      | 71440                | 22.27       | 1095         | Non. Haz. Soil |
| 1/5/05  | Seneca Meadows Landfill | SEAD 24       | Dendis Sand and Gravel | Grey      | 28940                      | 71320                | 21.19       | 1096         | Non. Haz. Soil |



**Soil Disposal Summary  
SEAD 24 Soil Removal  
Seneca Army Depot Activity**

| DATE    | DESTINATION             | SITE LOCATION | HAULER COMPANY NAME    | TRUCK ID# | LANDFILL TARE WEIGHT (LBS) | LANDFILL SCALE (LBS) | LOAD (TONS) | MANIFEST NO. | MATERIAL TYPE  |
|---------|-------------------------|---------------|------------------------|-----------|----------------------------|----------------------|-------------|--------------|----------------|
| 1/5/05  | Seneca Meadows Landfill | SEAD 24       | Riccelli Enterprises   | 95        | 27940                      | 72080                | 22.07       | 1097         | Non. Haz. Soil |
| 1/5/05  | Seneca Meadows Landfill | SEAD 24       | Riccelli Enterprises   | 74        | 27640                      | 72040                | 22.20       | 1098         | Non. Haz. Soil |
| 1/7/05  | Seneca Meadows Landfill | SEAD 24       | Dendis Sand and Gravel | Grey      | 27960                      | 66140                | 19.09       | 1099         | Non. Haz. Soil |
| 1/7/05  | Seneca Meadows Landfill | SEAD 24       | Dendis Sand and Gravel | White     | 26780                      | 67340                | 20.28       | 1100         | Non. Haz. Soil |
| 1/7/05  | Seneca Meadows Landfill | SEAD 24       | Riccelli Enterprises   | 32        | 28440                      | 67860                | 19.71       | 1101         | Non. Haz. Soil |
| 1/7/05  | Seneca Meadows Landfill | SEAD 24       | Riccelli Enterprises   | 19        | 28660                      | 70500                | 20.92       | 1102         | Non. Haz. Soil |
| 1/7/05  | Seneca Meadows Landfill | SEAD 24       | Riccelli Enterprises   | 76        | 28100                      | 72600                | 22.25       | 1103         | Non. Haz. Soil |
| 1/7/05  | Seneca Meadows Landfill | SEAD 24       | Riccelli Enterprises   | 74        | 27640                      | 72480                | 22.42       | 1104         | Non. Haz. Soil |
| 1/7/05  | Seneca Meadows Landfill | SEAD 24       | Riccelli Enterprises   | 95        | 27940                      | 69140                | 20.6        | 1105         | Non. Haz. Soil |
| 1/7/05  | Seneca Meadows Landfill | SEAD 24       | Dendis Sand and Gravel | White     | 26800                      | 68860                | 20.6        | 1106         | Non. Haz. Soil |
| 1/7/05  | Seneca Meadows Landfill | SEAD 24       | Dendis Sand and Gravel | Grey      | 27780                      | 69780                | 21.00       | 1107         | Non. Haz. Soil |
| 1/7/05  | Seneca Meadows Landfill | SEAD 24       | Riccelli Enterprises   | 32        | 28440                      | 72860                | 22.21       | 1108         | Non. Haz. Soil |
| 1/7/05  | Seneca Meadows Landfill | SEAD 24       | Riccelli Enterprises   | 19        | 28660                      | 76220                | 23.78       | 1109         | Non. Haz. Soil |
| 1/7/05  | Seneca Meadows Landfill | SEAD 24       | Riccelli Enterprises   | 74        | 27640                      | 74800                | 23.58       | 1110         | Non. Haz. Soil |
| 1/7/05  | Seneca Meadows Landfill | SEAD 24       | Riccelli Enterprises   | 95        | 27940                      | 72240                | 22.15       | 1111         | Non. Haz. Soil |
| 1/7/05  | Seneca Meadows Landfill | SEAD 24       | Dendis Sand and Gravel | Grey      | 27940                      | 71580                | 21.82       | 1112         | Non. Haz. Soil |
| 1/7/05  | Seneca Meadows Landfill | SEAD 24       | Dendis Sand and Gravel | White     | 27940                      | 68880                | 20.47       | 1113         | Non. Haz. Soil |
| 1/7/05  | Seneca Meadows Landfill | SEAD 24       | Riccelli Enterprises   | 76        | 28100                      | 73880                | 22.89       | 1114         | Non. Haz. Soil |
| 1/7/05  | Seneca Meadows Landfill | SEAD 24       | Riccelli Enterprises   | 32        | 28440                      | 76200                | 23.88       | 1115         | Non. Haz. Soil |
| 1/7/05  | Seneca Meadows Landfill | SEAD 24       | Riccelli Enterprises   | 19        | 28660                      | 75120                | 23.23       | 1116         | Non. Haz. Soil |
| 1/7/05  | Seneca Meadows Landfill | SEAD 24       | Riccelli Enterprises   | 74        | 27640                      | 71740                | 22.05       | 1117         | Non. Haz. Soil |
| 1/7/05  | Seneca Meadows Landfill | SEAD 24       | Dendis Sand and Gravel | Grey      | 27960                      | 69960                | 21.00       | 1118         | Non. Haz. Soil |
| 1/7/05  | Seneca Meadows Landfill | SEAD 24       | Dendis Sand and Gravel | White     | 27280                      | 71260                | 21.99       | 1119         | Non. Haz. Soil |
| 1/7/05  | Seneca Meadows Landfill | SEAD 24       | Riccelli Enterprises   | 95        | 27940                      | 71500                | 21.78       | 1120         | Non. Haz. Soil |
| 1/7/05  | Seneca Meadows Landfill | SEAD 24       | Riccelli Enterprises   | 76        | 28100                      | 75520                | 23.71       | 1121         | Non. Haz. Soil |
| 1/7/05  | Seneca Meadows Landfill | SEAD 24       | Riccelli Enterprises   | 32        | 28440                      | 77280                | 24.42       | 1122         | Non. Haz. Soil |
| 1/7/05  | Seneca Meadows Landfill | SEAD 24       | Riccelli Enterprises   | 19        | 27640                      | 72520                | 22.44       | 1123         | Non. Haz. Soil |
| 1/7/05  | Seneca Meadows Landfill | SEAD 24       | Riccelli Enterprises   | 74        | 28660                      | 75160                | 23.25       | 1124         | Non. Haz. Soil |
| 1/7/05  | Seneca Meadows Landfill | SEAD 24       | Dendis Sand and Gravel | Grey      | 27980                      | 72140                | 22.08       | 1125         | Non. Haz. Soil |
| 1/7/05  | Seneca Meadows Landfill | SEAD 24       | Dendis Sand and Gravel | White     | 27280                      | 72680                | 22.70       | 1126         | Non. Haz. Soil |
| 1/7/05  | Seneca Meadows Landfill | SEAD 24       | Riccelli Enterprises   | 95        | 27940                      | 75440                | 23.75       | 1127         | Non. Haz. Soil |
| 1/7/05  | Seneca Meadows Landfill | SEAD 24       | Riccelli Enterprises   | 76        | 76840                      | 28100                | 24.37       | 1128         | Non. Haz. Soil |
| 1/10/05 | Seneca Meadows Landfill | SEAD 24       | Dendis Sand and Gravel | Grey      | 28140                      | 72400                | 22.13       | 1129         | Non. Haz. Soil |
| 1/10/05 | Seneca Meadows Landfill | SEAD 24       | Dendis Sand and Gravel | White     | 27660                      | 72640                | 22.49       | 1130         | Non. Haz. Soil |
| 1/10/05 | Seneca Meadows Landfill | SEAD 24       | Riccelli Enterprises   | 74        | 27640                      | 77440                | 24.9        | 1131         | Non. Haz. Soil |
| 1/10/05 | Seneca Meadows Landfill | SEAD 24       | Riccelli Enterprises   | 76        | 28100                      | 75480                | 23.69       | 1132         | Non. Haz. Soil |
| 1/10/05 | Seneca Meadows Landfill | SEAD 24       | Dendis Sand and Gravel | Grey      | 28040                      | 76960                | 24.46       | 1133         | Non. Haz. Soil |
| 1/10/05 | Seneca Meadows Landfill | SEAD 24       | Dendis Sand and Gravel | White     | 27760                      | 73360                | 22.80       | 1134         | Non. Haz. Soil |
| 1/10/05 | Seneca Meadows Landfill | SEAD 24       | Riccelli Enterprises   | 74        | 27640                      | 75660                | 24.01       | 1135         | Non. Haz. Soil |
| 1/10/05 | Seneca Meadows Landfill | SEAD 24       | Riccelli Enterprises   | 76        | 28100                      | 77520                | 24.71       | 1136         | Non. Haz. Soil |
| 1/10/05 | Seneca Meadows Landfill | SEAD 24       | Dendis Sand and Gravel | Grey      | 28160                      | 68680                | 20.26       | 1137         | Non. Haz. Soil |
| 1/10/05 | Seneca Meadows Landfill | SEAD 24       | Dendis Sand and Gravel | White     | 27980                      | 69880                | 20.95       | 1138         | Non. Haz. Soil |
| 1/10/05 | Seneca Meadows Landfill | SEAD 24       | Riccelli Enterprises   | 74        | 27460                      | 74160                | 23.26       | 1139         | Non. Haz. Soil |
| 1/10/05 | Seneca Meadows Landfill | SEAD 24       | Riccelli Enterprises   | 76        | 28100                      | 72960                | 22.43       | 1140         | Non. Haz. Soil |

**Soil Disposal Summary  
SEAD 24 Soil Removal  
Seneca Army Depot Activity**

| DATE    | DESTINATION             | SITE LOCATION | HAULER COMPANY NAME    | TRUCK ID# | LANDFILL TARE WEIGHT (LBS) | LANDFILL SCALE (LBS) | LOAD (TONS) | MANIFEST NO. | MATERIAL TYPE  |
|---------|-------------------------|---------------|------------------------|-----------|----------------------------|----------------------|-------------|--------------|----------------|
| 1/10/05 | Seneca Meadows Landfill | SEAD 24       | Dendis Sand and Gravel | Grey      | 28000                      | 73300                | 22.65       | 1141         | Non. Haz. Soil |
| 1/10/05 | Seneca Meadows Landfill | SEAD 24       | Dendis Sand and Gravel | White     | 27440                      | 77260                | 24.91       | 1142         | Non. Haz. Soil |
| 1/10/05 | Seneca Meadows Landfill | SEAD 24       | Riccelli Enterprises   | 74        | 27640                      | 75160                | 23.76       | 1143         | Non. Haz. Soil |
| 1/10/05 | Seneca Meadows Landfill | SEAD 24       | Riccelli Enterprises   | 76        | 28100                      | 78880                | 25.39       | 1144         | Non. Haz. Soil |
| 1/10/05 | Seneca Meadows Landfill | SEAD 24       | Dendis Sand and Gravel | Grey      | 27640                      | 68340                | 20.35       | 1145         | Non. Haz. Soil |
| 1/10/05 | Seneca Meadows Landfill | SEAD 24       | Dendis Sand and Gravel | White     | 28040                      | 71440                | 21.70       | 1146         | Non. Haz. Soil |
| 1/10/05 | Seneca Meadows Landfill | SEAD 24       | Riccelli Enterprises   | 74        | 27640                      | 67640                | 20.00       | 1147         | Non. Haz. Soil |
| 1/10/05 | Seneca Meadows Landfill | SEAD 24       | Riccelli Enterprises   | 76        | 28100                      | 70320                | 21.11       | 1148         | Non. Haz. Soil |
| 1/11/05 | Seneca Meadows Landfill | SEAD 24       | Dendis Sand and Gravel | Grey      | 28140                      | 72480                | 22.17       | 1049         | Non. Haz. Soil |
| 1/11/05 | Seneca Meadows Landfill | SEAD 24       | Dendis Sand and Gravel | White     | 27800                      | 68940                | 20.57       | 1050         | Non. Haz. Soil |
| 1/11/05 | Seneca Meadows Landfill | SEAD 24       | Riccelli Enterprises   | 74        | 27640                      | 73820                | 23.09       | 1051         | Non. Haz. Soil |
| 1/11/05 | Seneca Meadows Landfill | SEAD 24       | Riccelli Enterprises   | 76        | 28100                      | 74620                | 23.26       | 1052         | Non. Haz. Soil |
| 1/11/05 | Seneca Meadows Landfill | SEAD 24       | Dendis Sand and Gravel | Grey      | 27860                      | 69700                | 20.92       | 1053         | Non. Haz. Soil |
| 1/11/05 | Seneca Meadows Landfill | SEAD 24       | Dendis Sand and Gravel | White     | 28240                      | 72060                | 21.91       | 1054         | Non. Haz. Soil |
| 1/11/05 | Seneca Meadows Landfill | SEAD 24       | Riccelli Enterprises   | 74        | 27640                      | 75120                | 23.74       | 1055         | Non. Haz. Soil |
| 1/11/05 | Seneca Meadows Landfill | SEAD 24       | Riccelli Enterprises   | 76        | 28100                      | 76400                | 24.15       | 1056         | Non. Haz. Soil |
| 1/11/05 | Seneca Meadows Landfill | SEAD 24       | Dendis Sand and Gravel | Grey      | 28500                      | 75580                | 23.54       | 1057         | Non. Haz. Soil |
| 1/11/05 | Seneca Meadows Landfill | SEAD 24       | Dendis Sand and Gravel | White     | 28060                      | 73560                | 22.75       | 1058         | Non. Haz. Soil |
| 1/11/05 | Seneca Meadows Landfill | SEAD 24       | Riccelli Enterprises   | 74        | 27640                      | 74680                | 23.52       | 1059         | Non. Haz. Soil |
| 1/11/05 | Seneca Meadows Landfill | SEAD 24       | Riccelli Enterprises   | 76        | 28100                      | 73580                | 22.74       | 1060         | Non. Haz. Soil |
| 1/11/05 | Seneca Meadows Landfill | SEAD 24       | Dendis Sand and Gravel | Grey      | 28480                      | 71100                | 21.31       | 1061         | Non. Haz. Soil |
| 1/11/05 | Seneca Meadows Landfill | SEAD 24       | Dendis Sand and Gravel | White     | 28080                      | 70380                | 21.16       | 1062         | Non. Haz. Soil |
| 1/11/05 | Seneca Meadows Landfill | SEAD 24       | Riccelli Enterprises   | 74        | 27640                      | 68280                | 20.32       | 1063         | Non. Haz. Soil |
| 1/11/05 | Seneca Meadows Landfill | SEAD 24       | Riccelli Enterprises   | 76        | 28100                      | 73020                | 22.46       | 1064         | Non. Haz. Soil |
| 1/11/05 | Seneca Meadows Landfill | SEAD 24       | Dendis Sand and Gravel | Grey      | 28060                      | 77400                | 24.67       | 1065         | Non. Haz. Soil |
| 1/11/05 | Seneca Meadows Landfill | SEAD 24       | Dendis Sand and Gravel | White     | 27600                      | 75220                | 23.81       | 1066         | Non. Haz. Soil |
| 1/11/05 | Seneca Meadows Landfill | SEAD 24       | Riccelli Enterprises   | 74        | 27640                      | 72420                | 22.39       | 1067         | Non. Haz. Soil |
| 1/11/05 | Seneca Meadows Landfill | SEAD 24       | Riccelli Enterprises   | 76        | 28100                      | 75400                | 23.65       | 1068         | Non. Haz. Soil |
| 1/12/05 | Seneca Meadows Landfill | SEAD 24       | Dendis Sand and Gravel | Grey      | 28760                      | 74120                | 22.68       | 1069         | Non. Haz. Soil |
| 1/12/05 | Seneca Meadows Landfill | SEAD 24       | Dendis Sand and Gravel | White     | 28320                      | 69360                | 20.52       | 1070         | Non. Haz. Soil |
| 1/12/05 | Seneca Meadows Landfill | SEAD 24       | Riccelli Enterprises   | 76        | 28100                      | 74420                | 23.16       | 1071         | Non. Haz. Soil |
| 1/12/05 | Seneca Meadows Landfill | SEAD 24       | Riccelli Enterprises   | 74        | 27640                      | 73200                | 22.78       | 1072         | Non. Haz. Soil |
| 1/12/05 | Seneca Meadows Landfill | SEAD 24       | Dendis Sand and Gravel | Grey      | 28800                      | 74260                | 22.73       | 1073         | Non. Haz. Soil |
| 1/12/05 | Seneca Meadows Landfill | SEAD 24       | Dendis Sand and Gravel | White     | 28320                      | 70540                | 21.11       | 1074         | Non. Haz. Soil |
| 1/12/05 | Seneca Meadows Landfill | SEAD 24       | Riccelli Enterprises   | 76        | 28100                      | 73760                | 22.83       | 1075         | Non. Haz. Soil |
| 1/12/05 | Seneca Meadows Landfill | SEAD 24       | Riccelli Enterprises   | 74        | 27640                      | 72060                | 22.21       | 1076         | Non. Haz. Soil |
| 1/12/05 | Seneca Meadows Landfill | SEAD 24       | Dendis Sand and Gravel | Grey      | 28200                      | 76680                | 24.24       | 1077         | Non. Haz. Soil |
| 1/12/05 | Seneca Meadows Landfill | SEAD 24       | Dendis Sand and Gravel | White     | 28700                      | 70200                | 20.75       | 1078         | Non. Haz. Soil |
| 1/12/05 | Seneca Meadows Landfill | SEAD 24       | Riccelli Enterprises   | 76        | 28100                      | 75240                | 23.57       | 1079         | Non. Haz. Soil |
| 1/12/05 | Seneca Meadows Landfill | SEAD 24       | Riccelli Enterprises   | 74        | 27640                      | 76460                | 24.41       | 1080         | Non. Haz. Soil |
| 1/12/05 | Seneca Meadows Landfill | SEAD 24       | Dendis Sand and Gravel | Grey      | 28340                      | 76700                | 24.18       | 1081         | Non. Haz. Soil |
| 1/12/05 | Seneca Meadows Landfill | SEAD 24       | Dendis Sand and Gravel | White     | 62200                      | 79780                | 8.79        | 1082         | Non. Haz. Soil |
| 1/12/05 | Seneca Meadows Landfill | SEAD 24       | Dendis Sand and Gravel | 76        | 28440                      | 62200                | 16.88       | 1082         | Non. Haz. Soil |
| 1/12/05 | Seneca Meadows Landfill | SEAD 24       | Riccelli Enterprises   | 76        | 28100                      | 74780                | 23.34       | 1083         | Non. Haz. Soil |

**Soil Disposal Summary  
SEAD 24 Soil Removal  
Seneca Army Depot Activity**

| DATE     | DESTINATION             | SITE LOCATION | HAULER COMPANY NAME    | TRUCK ID# | LANDFILL TARE WEIGHT (LBS) | LANDFILL SCALE (LBS) | LOAD (TONS) | MANIFEST NO. | MATERIAL TYPE  |
|----------|-------------------------|---------------|------------------------|-----------|----------------------------|----------------------|-------------|--------------|----------------|
| 1/12/05  | Seneca Meadows Landfill | SEAD 24       | Riccelli Enterprises   | 74        | 27640                      | 75420                | 23.89       | 1084         | Non. Haz. Soil |
| 1/13/05  | Seneca Meadows Landfill | SEAD 24       | Dendis Sand and Gravel | Grey      | 28460                      | 73320                | 22.43       | 1085         | Non. Haz. Soil |
| 1/13/05  | Seneca Meadows Landfill | SEAD 24       | Riccelli Enterprises   | 74        | 27640                      | 71520                | 21.94       | 1086         | Non. Haz. Soil |
| 1/13/05  | Seneca Meadows Landfill | SEAD 24       | Riccelli Enterprises   | 95        | 27940                      | 69000                | 20.53       | 1087         | Non. Haz. Soil |
| 1/13/05  | Seneca Meadows Landfill | SEAD 24       | Dendis Sand and Gravel | Grey      | 28400                      | 65860                | 18.73       | 1088         | Non. Haz. Soil |
| 1/13/05  | Seneca Meadows Landfill | SEAD 24       | Dendis Sand and Gravel | White     | 28960                      | 66440                | 18.74       | 1089         | Non. Haz. Soil |
| 1/13/05  | Seneca Meadows Landfill | SEAD 24       | Riccelli Enterprises   | 74        | 27640                      | 77180                | 24.77       | 1090         | Non. Haz. Soil |
| 1/13/05  | Seneca Meadows Landfill | SEAD 24       | Riccelli Enterprises   | 95        | 27940                      | 72120                | 22.49       | 1091         | Non. Haz. Soil |
| 1/13/05  | Seneca Meadows Landfill | SEAD 24       | Dendis Sand and Gravel | Grey      | 28640                      | 71480                | 21.42       | 1092         | Non. Haz. Soil |
| 1/13/05  | Seneca Meadows Landfill | SEAD 24       | Dendis Sand and Gravel | White     | 29340                      | 72720                | 21.69       | 1093         | Non. Haz. Soil |
| 1/13/05  | Seneca Meadows Landfill | SEAD 24       | Riccelli Enterprises   | 74        | 27640                      | 71960                | 22.16       | 1094         | Non. Haz. Soil |
| 1/13/05  | Seneca Meadows Landfill | SEAD 24       | Riccelli Enterprises   | 95        | 27940                      | 27940                | 22.31       | 1095         | Non. Haz. Soil |
| 1/13/05  | Seneca Meadows Landfill | SEAD 24       | Dendis Sand and Gravel | Grey      | 28320                      | 75260                | 23.47       | 1096         | Non. Haz. Soil |
| 1/13/05  | Seneca Meadows Landfill | SEAD 24       | Dendis Sand and Gravel | White     | 28860                      | 73080                | 22.11       | 1097         | Non. Haz. Soil |
| 1/13/05  | Seneca Meadows Landfill | SEAD 24       | Riccelli Enterprises   | 74        | 27640                      | 74820                | 23.59       | 1098         | Non. Haz. Soil |
| 1/14/05  | Seneca Meadows Landfill | SEAD 24       | Dendis Sand and Gravel | White     | 31220                      | 76760                | 22.77       | 1085         | Non. Haz. Soil |
| 1/14/05  | Seneca Meadows Landfill | SEAD 24       | Riccelli Enterprises   | 76        | 28100                      | 82740                | 27.32       | 1086         | Non. Haz. Soil |
| 1/14/05  | Seneca Meadows Landfill | SEAD 24       | Riccelli Enterprises   | 95        | 27940                      | 77060                | 24.56       | 1087         | Non. Haz. Soil |
| 1/14/05  | Seneca Meadows Landfill | SEAD 24       | Riccelli Enterprises   | 74        | 27640                      | 75480                | 23.92       | 1088         | Non. Haz. Soil |
| 1/14/05  | Seneca Meadows Landfill | SEAD 24       | Dendis Sand and Gravel | Grey      | 29020                      | 67920                | 19.45       | 1089         | Non. Haz. Soil |
| 1/14/05  | Seneca Meadows Landfill | SEAD 24       | Riccelli Enterprises   | 95        | 28100                      | 69800                | 22.71       | 1091         | Non. Haz. Soil |
| 1/14/05  | Seneca Meadows Landfill | SEAD 24       | Riccelli Enterprises   | 74        | 29080                      | 71620                | 22.48       | 1092         | Non. Haz. Soil |
| 1/14/05  | Seneca Meadows Landfill | SEAD 24       | Dendis Sand and Gravel | White     | 40620                      | 70460                | 14.92       | 1093         | Non. Haz. Soil |
| 1/14/05  | Seneca Meadows Landfill | SEAD 24       | Riccelli Enterprises   | 95        | 27940                      | 73360                | 21.27       | 1095         | Non. Haz. Soil |
| 2/8/05   | Seneca Meadows Landfill | SEAD 24       | Dendis Sand and Gravel | Grey      | 68220                      | 41740                | 20.87       | 1096         | Non. Haz. Soil |
| 2/8/05   | Seneca Meadows Landfill | SEAD 24       | Dendis Sand and Gravel | White     | 70900                      | 44120                | 22.06       | 1097         | Non. Haz. Soil |
| 2/8/05   | Seneca Meadows Landfill | SEAD 24       | Riccelli Enterprises   | Ric-74    | 73700                      | 46060                | 23.03       | 1098         | Non. Haz. Soil |
| 2/8/05   | Seneca Meadows Landfill | SEAD 24       | Riccelli Enterprises   | Ric-95    | 72800                      | 44860                | 22.43       | 1099         | Non. Haz. Soil |
| 2/8/05   | Seneca Meadows Landfill | SEAD 24       | Dendis Sand and Gravel | Grey      | 76780                      | 50040                | 25.02       | 1100         | Non. Haz. Soil |
| 2/8/05   | Seneca Meadows Landfill | SEAD 24       | Dendis Sand and Gravel | White     | 77860                      | 50940                | 25.47       | 1101         | Non. Haz. Soil |
| 2/8/05   | Seneca Meadows Landfill | SEAD 24       | Riccelli Enterprises   | Ric-74    | 79460                      | 51820                | 25.91       | 1102         | Non. Haz. Soil |
| 2/8/05   | Seneca Meadows Landfill | SEAD 24       | Riccelli Enterprises   | Ric-95    | 77200                      | 49260                | 24.63       | 1103         | Non. Haz. Soil |
| 2/8/05   | Seneca Meadows Landfill | SEAD 24       | Riccelli Enterprises   | Ric-74    | 75960                      | 48320                | 24.16       | 1104         | Non. Haz. Soil |
| 2/8/05   | Seneca Meadows Landfill | SEAD 24       | Riccelli Enterprises   | Ric-95    | 79180                      | 51240                | 25.62       | 1105         | Non. Haz. Soil |
| 2/9/2005 | Seneca Meadows Landfill | SEAD 24       | Riccelli Enterprises   | Ric 74    | 81620                      | 53980                | 26.99       | 1106         | Non. Haz. Soil |
| 2/9/2005 | Seneca Meadows Landfill | SEAD 24       | Riccelli Enterprises   | Ric 95    | 82740                      | 54800                | 27.4        | 1107         | Non. Haz. Soil |
| 2/9/2005 | Seneca Meadows Landfill | SEAD 24       | Riccelli Enterprises   | Ric 71    | 79060                      | 51160                | 25.58       | 1108         | Non. Haz. Soil |
| 2/9/2005 | Seneca Meadows Landfill | SEAD 24       | Riccelli Enterprises   | Ric 76    | 81120                      | 53020                | 26.51       | 1109         | Non. Haz. Soil |
| 2/9/2005 | Seneca Meadows Landfill | SEAD 24       | Riccelli Enterprises   | Ric 74    | 80180                      | 52540                | 26.27       | 1110         | Non. Haz. Soil |
| 2/9/2005 | Seneca Meadows Landfill | SEAD 24       | Riccelli Enterprises   | Ric 95    | 80840                      | 52900                | 26.45       | 1111         | Non. Haz. Soil |
| 2/9/2005 | Seneca Meadows Landfill | SEAD 24       | Riccelli Enterprises   | Ric 71    | 79440                      | 51540                | 25.77       | 1112         | Non. Haz. Soil |
| 2/9/2005 | Seneca Meadows Landfill | SEAD 24       | Riccelli Enterprises   | Ric 76    | 79120                      | 51020                | 25.51       | 1113         | Non. Haz. Soil |
| 2/9/2005 | Seneca Meadows Landfill | SEAD 24       | Riccelli Enterprises   | Ric 74    | 73460                      | 45020                | 22.91       | 1114         | Non. Haz. Soil |



**Soil Disposal Summary  
SEAD 24 Soil Removal  
Seneca Army Depot Activity**

| DATE     | DESTINATION             | SITE LOCATION | HAULER COMPANY NAME  | TRUCK ID# | LANDFILL TARE WEIGHT (LBS) | LANDFILL SCALE (LBS) | LOAD (TONS)  | MANIFEST NO.   | MATERIAL TYPE  |  |
|----------|-------------------------|---------------|----------------------|-----------|----------------------------|----------------------|--------------|----------------|----------------|--|
| 2/9/2005 | Seneca Meadows Landfill | SEAD 24       | Riccelli Enterprises | Ric 71    | 80220                      | 52320                | 26.16        | 1115           | Non. Haz. Soil |  |
| 2/9/2005 | Seneca Meadows Landfill | SEAD 24       | Riccelli Enterprises | Ric 76    | 76840                      | 48740                | 24.37        | 1116           | Non. Haz. Soil |  |
| 2/9/2005 | Seneca Meadows Landfill | SEAD 24       | Riccelli Enterprises | Ric 95    | 75040                      | 47100                | 23.55        | 1117           | Non. Haz. Soil |  |
| 2/9/2005 | Seneca Meadows Landfill | SEAD 24       | Riccelli Enterprises | Ric 74    | 76680                      | 49040                | 24.52        | 1118           | Non. Haz. Soil |  |
| 2/9/2005 | Seneca Meadows Landfill | SEAD 24       | Riccelli Enterprises | Ric 76    | 75160                      | 47060                | 23.53        | 1119           | Non. Haz. Soil |  |
| 2/9/2005 | Seneca Meadows Landfill | SEAD 24       | Riccelli Enterprises | Ric 95    | 75840                      | 47900                | 23.95        | 1120           | Non. Haz. Soil |  |
| 2/9/2005 | Seneca Meadows Landfill | SEAD 24       | Riccelli Enterprises | Ric 71    | 74860                      | 46960                | 23.48        | 1121           | Non. Haz. Soil |  |
| 2/9/2005 | Seneca Meadows Landfill | SEAD 24       | Riccelli Enterprises | Ric-74    | 76800                      | 49160                | 24.58        | 1122           | Non. Haz. Soil |  |
| 2/9/2005 | Seneca Meadows Landfill | SEAD 24       | Riccelli Enterprises | Ric-76    | 81240                      | 53140                | 26.57        | 1123           | Non. Haz. Soil |  |
| 2/10/05  | Seneca Meadows Landfill | SEAD 24       | Riccelli Enterprises | 74        | 73440                      | 45800                | 22.9         | 1124           | Non. Haz. Soil |  |
| 2/10/05  | Seneca Meadows Landfill | SEAD 24       | Riccelli Enterprises | 95        | 73540                      | 45600                | 22.8         | 1125           | Non. Haz. Soil |  |
| 2/10/05  | Seneca Meadows Landfill | SEAD 24       | Riccelli Enterprises | 19        | 81580                      | 52920                | 26.46        | 1126           | Non. Haz. Soil |  |
| 2/10/05  | Seneca Meadows Landfill | SEAD 24       | Riccelli Enterprises | 76        | 75760                      | 47660                | 23.83        | 1127           | Non. Haz. Soil |  |
| 2/10/05  | Seneca Meadows Landfill | SEAD 24       | Riccelli Enterprises | 74        | 74160                      | 46520                | 23.26        | 1128           | Non. Haz. Soil |  |
| 2/10/05  | Seneca Meadows Landfill | SEAD 24       | Riccelli Enterprises | 95        | 73160                      | 45220                | 22.61        | 1129           | Non. Haz. Soil |  |
| 2/10/05  | Seneca Meadows Landfill | SEAD 24       | Riccelli Enterprises | 19        | 73720                      | 45060                | 22.53        | 1130           | Non. Haz. Soil |  |
| 2/10/05  | Seneca Meadows Landfill | SEAD 24       | Riccelli Enterprises | 76        | 74480                      | 46380                | 23.19        | 1131           | Non. Haz. Soil |  |
| 2/10/05  | Seneca Meadows Landfill | SEAD 24       | Riccelli Enterprises | 74        | 74320                      | 46680                | 23.34        | 1132           | Non. Haz. Soil |  |
| 2/10/05  | Seneca Meadows Landfill | SEAD 24       | Riccelli Enterprises | 19        | 77480                      | 48820                | 24.41        | 1133           | Non. Haz. Soil |  |
| 2/10/05  | Seneca Meadows Landfill | SEAD 24       | Riccelli Enterprises | 95        | 77640                      | 49700                | 24.85        | 1134           | Non. Haz. Soil |  |
| 2/10/05  | Seneca Meadows Landfill | SEAD 24       | Riccelli Enterprises | 76        | 69620                      | 41520                | 20.76        | 1135           | Non. Haz. Soil |  |
| 2/10/05  | Seneca Meadows Landfill | SEAD 24       | Riccelli Enterprises | 74        | 68980                      | 41340                | 20.67        | 1136           | Non. Haz. Soil |  |
| 2/10/05  | Seneca Meadows Landfill | SEAD 24       | Riccelli Enterprises | 19        | 65540                      | 36880                | 18.44        | 1137           | Non. Haz. Soil |  |
| 2/10/05  | Seneca Meadows Landfill | SEAD 24       | Riccelli Enterprises | 95        | 64320                      | 36380                | 18.19        | 1138           | Non. Haz. Soil |  |
| 2/10/05  | Seneca Meadows Landfill | SEAD 24       | Riccelli Enterprises | 76        | 51220                      | 23120                | 11.56        | 1139           | Non. Haz. Soil |  |
| 5/17/05  | Seneca Meadows Landfill | SEAD 24       | Riccelli Enterprises | 19        | 79060                      | 50360                | 25.18        | 1140           | Non. Haz. Soil |  |
| 5/17/05  | Seneca Meadows Landfill | SEAD 24       | Riccelli Enterprises | 74        | 73800                      | 46160                | 23.08        | 1141           | Non. Haz. Soil |  |
| 5/17/05  | Seneca Meadows Landfill | SEAD 24       | Riccelli Enterprises | 71        | 71080                      | 43180                | 21.59        | 1142           | Non. Haz. Soil |  |
| 5/17/05  | Seneca Meadows Landfill | SEAD 24       | Riccelli Enterprises | 32        | 75900                      | 47000                | 23.5         | 1143           | Non. Haz. Soil |  |
| 5/17/05  | Seneca Meadows Landfill | SEAD 24       | Riccelli Enterprises | 74        | 72580                      | 44940                | 22.47        | 1144           | Non. Haz. Soil |  |
| 5/17/05  | Seneca Meadows Landfill | SEAD 24       | Riccelli Enterprises | 19        | 72880                      | 44220                | 22.11        | 1145           | Non. Haz. Soil |  |
| 5/17/05  | Seneca Meadows Landfill | SEAD 24       | Riccelli Enterprises | 71        | 71620                      | 43720                | 21.86        | 1146           | Non. Haz. Soil |  |
| 5/17/05  | Seneca Meadows Landfill | SEAD 24       | Riccelli Enterprises | 32        | 73780                      | 45000                | 22.5         | 1147           | Non. Haz. Soil |  |
| 5/17/05  | Seneca Meadows Landfill | SEAD 24       | Riccelli Enterprises | 74        | 75140                      | 47500                | 23.75        | 1148           | Non. Haz. Soil |  |
| 5/17/05  | Seneca Meadows Landfill | SEAD 24       | Riccelli Enterprises | 19        | 78020                      | 49480                | 24.74        | 1149           | Non. Haz. Soil |  |
| 5/17/05  | Seneca Meadows Landfill | SEAD 24       | Riccelli Enterprises | 71        | 76080                      | 48400                | 24.2         | 1150           | Non. Haz. Soil |  |
| 5/17/05  | Seneca Meadows Landfill | SEAD 24       | Riccelli Enterprises | 32        | 72820                      | 44100                | 22.05        | 1151           | Non. Haz. Soil |  |
| 5/17/05  | Seneca Meadows Landfill | SEAD 24       | Riccelli Enterprises | 74        | 71600                      | 43960                | 21.98        | 1152           | Non. Haz. Soil |  |
| 1/19/06  | Seneca Meadows Landfill | SEAD 24       | Riccelli Enterprises | 14        | 27400                      | 53480                | 26.74        | 1088           | Non. Haz. Soil |  |
| 1/19/06  | Seneca Meadows Landfill | SEAD 24       | Riccelli Enterprises | 19        | 28860                      | 49620                | 24.81        | 1089           | Non. Haz. Soil |  |
| 1/19/06  | Seneca Meadows Landfill | SEAD 24       | Riccelli Enterprises | 19        | 29340                      | 49260                | 24.63        | 1090           | Non. Haz. Soil |  |
|          |                         |               |                      |           |                            |                      | <b>Total</b> | <b>9623.02</b> | <b>Tons</b>    |  |

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**APPENDIX F**

**COST SUMMARY**

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## APPENDIX F – FINANCIAL BREAKDOWN

**Table 1-1**  
**Financial Breakdown for Time Critical Removal Action (SEAD 24)**

| <b>Task Description</b>             | <b>TCRA Costs</b> |
|-------------------------------------|-------------------|
| Work Plan                           | \$3,980           |
| Health and Safety Plan              | \$2,120           |
| Chemical Sampling and Analysis Plan | \$3,290           |
| Emergency Contingency Plan          | \$340             |
| Mob/Demob                           | \$9,050           |
| Site Preparation                    | \$14,865          |
| Excavate Soils                      | \$70,000          |
| Investigative Drilling              | \$1,320           |
| Sampling and Analytical             | \$90,245          |
| T&D                                 | \$372,280         |
| Site Restoration                    | \$10,490          |
| Site Security                       | \$1,860           |
| Field Management                    | \$58,265          |
| Project Admin/Home Office           | \$14,270          |
| Site Visits and Meetings            | \$5,365           |
| Project Closeout                    | \$2,075           |
| Final Report                        | \$14,215          |
| Low Value Equipment                 | \$340             |
| <b>Cost Subtotal</b>                | <b>\$674,370</b>  |
| <b>Fee (7%)</b>                     | <b>\$47,205</b>   |
| <b>Project Total</b>                | <b>\$721,575</b>  |
| <b>Cost per cubic yard/ton</b>      | <b>\$134/\$75</b> |