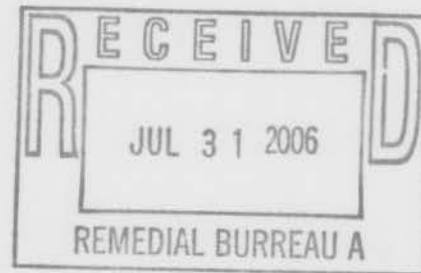


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July 28, 2006

Mr. Julio Vazquez
USEPA Region II
Superfund Federal Facilities Section
290 Broadway, 18th Floor
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Mr. Kuldeep K. Gupta, P.E.
New York State Department of Environmental Conservation (NYSDEC)
Division of Environmental Remediation
Remedial Bureau A, Section C
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Albany, NY 12233-7015

Ms. Charlotte Bethoney
Bureau of Environmental Exposure Investigation
Flanigan Square, Room 300
547 River Street
Troy, NY 12180

SUBJECT: Draft Contract-Specific Sampling and Analysis Plan for Seneca Army Depot Activity PBCII, Remedial Actions at Six Sites (SEADs-4, -11, -16, -17, -38, and -121C)

Dear Mr. Vazquez/Mr. Gupta/Ms. Bethoney:

Parsons is pleased to submit its Draft Contract-Specific Sampling and Analysis Plan (SAP) for Remedial Actions at Six Sites (SEADs-4, -11, -16, -17, -38, and -121C) at Seneca Army Depot Activity (SEDA) located in Romulus, New York (EPA Site ID# NY0213820830; NY Site ID# 8-50-006). This Contract-Specific SAP is intended to be used as an addendum to the Seneca Generic Site-Wide SAP, which is provided as Appendix A to the Contract-Specific Sampling and Analysis Plan.

It is Parsons' intention to use this Contract-Specific SAP, along with the Seneca Generic Site-Wide SAP and the site-specific work plans to guide sampling and analysis and quality assurance and quality control for the referenced six sites at Seneca Army Depot Activity.

Mr. Vazquez/Mr. Gupta/Ms. Bethoney
July 28, 2006
Page 2

Should you have any questions, please do not hesitate to call me at (617) 449-1405 to discuss them.

Sincerely,



Todd Heino, P.E.
Program Manager

Enclosure

cc: S. Absolom, SEDA
C. Boes, USAEC
J. Fallo, USACE, NY District
T. Battaglia, USACE, NY District
J. Fellingner, Contractor for USEPA

K. Hoddinott, USACHPPM
R. Battaglia, USACE, NY District
T. Enroth, USACE, NY District
J. Perez, AFCEE

**FINAL
CONTRACT-SPECIFIC SAMPLING AND ANALYSIS PLAN
FOR SENECA ARMY DEPOT ACTIVITY PBC II**

REMEDIAL ACTIONS AT SEVEN SITES (SEADS-4, -11, -16, -17, -38, -70, AND -121C)

**SENECA ARMY DEPOT ACTIVITY
ROMULUS, NEW YORK**

October 31, 2006

Prepared by:

Parsons Infrastructure & Technology Group, Inc.

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EPA SITE ID# NY0213820830
NY SITE ID# 8-50-006
CONTRACT NUMBER FA8903-04-D-8675
TASK ORDER 0031
CDRL A006

Final Contract-Specific Sampling and Analysis Plan
for Remedial Actions at Seven Sites (SEADs-4, -11, -16, -17, -38, -70, and -121C)
Seneca Army Depot Activity
Romulus, New York

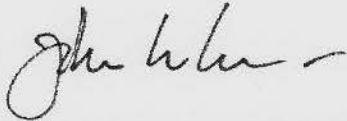
Reviewed and Approved by:



Todd Heino, Parsons Project Manager,

10/31/06

Date



John Lanier, Parsons Quality Assurance Officer

10/31/06

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10/31/06

Date

Julio F. Vazquez, USEPA Region 2 Project Manager

Date

Kuldeep K. Gupta, NYSDEC Project Manager

Date

Jesse Perez, AFCEE Contracting Officer's Representative

Date

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Final Contract-Specific Sampling and Analysis Plan
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Final Contract-Specific Sampling and Analysis Plan
for Remedial Actions at Seven Sites (SEADs-4, -11, -16, -17, -38, -70, and -121C)
Seneca Army Depot Activity
Romulus, New York

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- Appendix A Revised Final Generic Site-Wide Sampling and Analysis Plan for Seneca Army
Depot Activity (Parsons, July 2006) - Electronic Copy on CD
- Appendix B Response to Comments

ACRONYMS

AFCEE	Air Force Center for Environmental Excellence
ANSETS	Analytical Services Tracking System
ARAR	Applicable or Relevant and Appropriate Requirement
ASP	Analytical Service Protocol
BEC	Base Environmental Coordinator
bgs.	Below Ground Surface
CD	Compact Disk
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CFR	Code of Federal Regulation
COR	Contracting Officer's Representative
DDESB	Department of Defense Explosive Safety Board
DoD	Department of Defense
DQO(s)	Data Quality Objective(s)
DRMO	Defense Reutilization and Marketing Office
EBS	Environmental Baseline Survey
EE/CA	Engineering Evaluation/Cost Analysis
ELAP	Environmental Laboratory Approval Program
EOD	Explosive Ordnance Disposal
ESL	Expanded Site Inspection
ft	feet or foot
HI	Hazard Index
IRA	Interim Removal Action
LCS/LCSD	Laboratory Control Sample/Laboratory Control Sample Duplicate
lf	linear feet
LTM	Long-Term Management
MEC	Munitions and Explosives of Concern
MS/MSD	Matrix Spike/Matrix Spike Duplicate
NCP	National Contingency Plan
NFA	No Further Action
NYSDEC	New York State Department of Environmental Conservation
NYSDOH	New York State Department of Health
OE	Ordnance and Explosives
PCB	Polychlorinated Biphenyl
PE	Professional Engineer
PHSO	Project Health and Safety Officer
PITG, or PI&TG, or Parsons	Parsons Infrastructure & Technology Group Inc.

Final Contract-Specific Sampling and Analysis Plan
for Remedial Actions at Seven Sites (SEADs-4, -11, -16, -17, -38, -70, and -121C)
Seneca Army Depot Activity
Romulus, New York

PRAP	Proposed Remedial Action Plan
QAO	Quality Assurance Officer
QA/QC	Quality Assurance/Quality Control
QC	Quality Control
RA	Remedial Action
RC	Response Complete
RCRA	Resource Conservation and Recovery Act
RI	Remedial Investigation
RI/FS	Remedial Investigation/Feasibility Study
RIP	Remedy In Place
ROD	Record of Decision
RSCC	Regional Sample Control Coordinator
SAP	Sampling and Analysis Plan
SARA	Superfund Amendments and Reauthorization Act
SEDA	Seneca Army Depot Activity
SOP	Standard Operating Procedure
SOW	Statement of Work
SS-WP	Site-Specific Work Plan
SVOC	Semivolatile Organic Compound
SW	Surface Water
SWMU	Solid Waste Management Unit
TAGM	Technical and Administrative Guidance Memorandum
TBC	To Be Considered
TCE	Trichloroethylene
TCLP	Toxicity Characteristic Leaching Procedure
TPH	Total Petroleum Hydrocarbon
USACE	United States Army Corps of Engineers
USEPA	United States Environmental Protection Agency
UXO	Unexploded Ordnance
UXOSO	UXO Safety Officer
VOC	Volatile Organic Compound

1.0 INTRODUCTION

This document (hereafter referred to as the contract-specific SAP) is the contract-specific sampling and analysis plan (SAP) for remedial actions that will be completed at seven sites, SEADs -4, -11, -16, -17, -38, -70, and -121C, at the Seneca Army Depot Activity (SEDA) in Romulus, New York (NY). This document has been prepared by Parsons Infrastructure & Technology Group Inc. (Parsons or PITG), on behalf of the U.S. Army (Army) and the Air Force Center for Environmental Excellence (AFCEE), under Contract Number FA8903-04-D-8675, Task Order 0031, "Remedial Actions – Seneca Army Depot Activity, NY."

This contract-specific SAP is intended to be used as an addendum to the Generic Site-Wide SAP for SEDA (hereafter referred to as the generic SAP), which was submitted to all concerned parties by the Army and Parsons on July 24, 2006. The generic SAP serves as the umbrella document which presents and details most of the common sampling and analysis requirements and procedures that may be expected to be used or required in support of the environmental studies and investigations and remedial actions that the Army continues to perform under the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA) as amended by the Superfund Amendments and Reauthorization Act of 1986 (SARA) - 42 USC§ § 9601 – 9675. An electronic copy of the generic SAP is provided on a compact disk (CD) which is attached as Appendix A of this document.

This contract-specific SAP presents and describes contract-specific sampling and analysis plans, procedures, and variations to generic procedures that are unique to one or more of the seven sites under Contract Number FA8903-04-D-8675, Task Order 0031, "Remedial Actions – Seneca Army Depot Activity, NY." Unless amended or superseded by information provided in this contract-specific SAP or in the site-specific work plan (SS-WP) developed for each site, all sampling and analysis activities performed during this contract will be consistent with the procedures defined and documented in the SEDA generic SAP. Detailed site-specific sampling and analysis schedules are discussed and documented in the SS-WP prepared for each site. The three documents (i.e., the generic SAP, this contract-specific SAP, and the SS-WP for each site) should be consulted as guidance for sampling and analysis for each site under this Contract (FA8903-04-D-8675, Task Order 0031). Figure 1 illustrates the framework of the sampling and analysis guidance for this project.

2.0 PROJECT DESCRIPTION

This section presents a brief summary of the scope of work, objectives, approach, and site information pertinent to the remedial action project within the scope of this Contract. Detailed scope of work, cleanup objectives, approach, site information, and additional site information caused by any revisions to the scope of work (e.g., information of added sites due to the project expansion) for each of the sites will be presented in the SS-WP. Detailed discussion of site contamination will be presented in the site-specific Proposed Plan and Record of Decision (ROD).

2.1 PROJECT SCOPE AND OBJECTIVES

The objective of this Contract (FA8903-04-D-8675, Task Order 0031) is to achieve regulatory closure of seven sites (SEADs-4, -11, -16, -17, -38, -70, and -121C) in accordance with the requirements of CERCLA, as amended by the SARA and National Oil and Hazardous Substances Contingency Plan (NCP) requirements. There is an open Resource Conservation Recovery Act (RCRA) Part A interim permit for sites at the Depot that the Army is working to close out. Environmental remediation requirements arising from RCRA responsibilities have been deferred to the CERCLA program.

The regulatory closure will be achieved through the following remediation work:

- Achieve Remedy in Place (RIP), through excavation/disposal at the following historic solid waste management units (SWMUs):
 - SEAD-4, Munitions Washout Facility.
 - SEAD-11, Old Landfill.
 - SEAD-001-R (SEAD-16), Abandoned Deactivation Furnace.
 - SEAD-001-R (SEAD-17), Deactivation Furnace.
 - SEAD-38, Building 2078 Boiler Blow Down Pit (within SEAD-4).
 - SEAD-70, Fill Area Adjacent to Building 2110 (or T-2110)
 - SEAD-121(C), Environmental Baseline Survey (EBS) Site - Industrial Defense Reutilization and Marketing Office (DRMO) Yard.
- Upon achievement of RIP, perform Remedial Action (RA) at all of the RIP sites until achievement of Response Complete (RC).
- Upon achievement of RC, perform necessary Long-Term Management (LTM) at the above sites. LTM includes development and implementation of an exit or ramp-down strategy for LTM activities at each site.

- Complete all CERCLA 121(c) reviews required for the sites and correct any deficiencies noted in the CERCLA 121 (c) review.

A summary of the proposed remedial action and long-term management at each site is presented in Table 1. Table 2 summarizes regulatory and remedial approaches at the seven sites involved in this project. The location of the seven sites is shown in Figure 2.

Regulatory coordination of the remedial investigations (RIs) and actions at the SEDA is being provided by the New York Department of Environmental Conservation (NYSDEC), with input from the New York State Department of Health (NYSDOH), and the United States Environmental Protection Agency (USEPA) Region 2.

2.2 SEAD-4 AND SEAD-38: FORMER MUNITIONS WASHOUT FACILITY AND BUILDING 2079 BOILER BLOWDOWN LEACH PIT

SEAD-4 and SEAD-38 are considered one operable unit (SEAD-4/38) for the purposes of remedial action due to geographical proximity (SEAD-38 is located within SEAD-4).

SEAD-4 is the former Munitions Washout Facility, which operated from 1948 to 1963. SEAD-4 contains several buildings, multiple drainage ditches, and a manmade wastewater pond with a diameter of 150 feet (ft). The pond was periodically dredged and the sediments contaminated with chromium were placed next to the pond. The site is contaminated with lead (up to 11,200 mg/Kg in soil) and chromium (up to 18,600 mg/Kg in soil).

SEAD-38 is the former Building 2079 Boiler Blowdown Leach Pit that is located within SEAD-4. Limited sampling conducted in 1993 and 1994 at SEAD-38 showed that total petroleum hydrocarbons (TPH) had been released to the localized area where boiler blowdown was suspected to have been historically discharged (Parsons, 2002a). During the combined SEAD-4/SEAD-38 site investigations performed in 1998 and 1999, soil, ditch soil, surface water (SW), and groundwater samples were collected from SEAD-38 and surrounding area. Chemicals found in SEAD-38 soil, ditch soil, surface water, or groundwater do not pose unacceptable risks to human health or the environment under the planned future use scenario (i.e., institutional training) with the exception of the vanadium concentration found at a single location (i.e., SD4-28) in the drainage ditches, which appears to pose potential risk to the environment.

Detailed RI results and risk assessment results are presented in the RI report (Parsons, 2002c). Soil, drainage ditch soil, and sediment excavation and disposal will be proposed and presented in the ROD for SEAD-4/38.

2.3 SEAD-11: OLD CONSTRUCTION DEBRIS LANDFILL

SEAD-11 is the Old Construction Debris Landfill that operated in the 1940s. The landfill measures approximately 4.5 acres; it was estimated to contain approximately 36,300 cubic yard of construction debris, rusted drums, ash, glass, and soil. The landfill has an average thickness of 4 feet. Elevated trichloroethylene (TCE) concentrations (up to 42 mg/Kg) and lead concentrations (up to 7,210 mg/Kg) have been detected in the landfill materials. The landfill has been thoroughly investigated by Parsons using test pits, monitoring wells, soil gas probes, and geophysical mapping. Groundwater quality standards have not been significantly exceeded outside the immediate bounds of the landfill. An Interim Removal Action (IRA) will be completed by excavating lead and TCE contaminated soil and debris followed by a No Further Action (NFA) Proposed Plan and ROD.

2.4 SEAD-16 AND SEAD-17: ABANDONED DEACTIVATION FURNACE AND DEACTIVATION FURNACE

SEAD-16 and SEAD-17 are considered one operable unit (SEAD-16/17) for the purposes of remedial action due to geographical proximity, similarity of historic operations, and similarity of contaminants. SEAD-16 and SEAD-17 were used to demilitarize various small arms munitions. The process involved heating the munitions within a rotating steel kiln, which caused the munitions to detonate. Combustion byproducts produced during this detonation were then swept out of the kiln through an air pollution control system (i.e., cyclone separator and baghouse) and through the stack, while ash was captured for subsequent disposal. SEAD-16 has been inactive and abandoned since the 1960s; SEAD-17 has been inactive since 1989.

Based on the results of a Remedial Investigation/Feasibility Study (RI/FS), both sites contain shallow soils (less than 1 ft) that are contaminated with heavy metals, including lead (up to 140,000 mg/Kg) and zinc (up to 14,600 mg/Kg). There is no discernable groundwater plume or groundwater problem identified at either site. Metals have been detected in the groundwater at the sites; however, they exist at concentrations below or slightly above the respective NYSDEC Class GA Groundwater Standards. An ordnance and explosives (OE) engineering evaluation/cost analysis (EE/CA) and geophysical surveys were performed at the sites and detected the presence of OE scrap. In accordance with the Department of Defense Explosive Safety Board (DDESB) procedures, OE clearance will be required prior to soil excavation to address this issue. Parsons prepared the RI/FS, Proposed Remedial Action Plan (PRAP), and ROD. The ROD requires soil excavation at SEAD-16/17, stabilization (if necessary) and disposal of excavated soil, and clearance of OE to 6 inches. The ROD also requires decontamination or removal of the concrete pad and walls of the SEAD-17 deactivation furnace enclosure.

2.5 SEAD-70: FILL AREA ADJACENT TO BUILDING 2110

SEAD-70 is the Fill Area adjacent to Building 2110 located in the northwest portion of SEDA. The area east of the building, which measures approximately 200 feet by 200 feet, was used as a disposal area for construction debris. Up to 1993 the area was used as a staging area.

Three borings were advanced in the fill area of SEAD-70 during the Expanded Site Inspection (ESI) to determine the depth of the fill and to characterize the fill. A total of three test pit excavations were performed in the fill area to provide a visual identification of fill materials. A total of 12 surface and subsurface soil samples were collected within the fill area. Surface soil samples were collected within 2" below ground surface (bgs.) and subsurface soil samples were collected 2-10' bgs. Four monitoring wells were installed at SEAD-70 and a total of four groundwater samples were collected during the ESI. Two surface water and sediment samples were collected from the wetlands area downgradient of the fill area.

No pesticide or polychlorinated biphenyl (PCB) was detected in any of the soil samples. The detected volatile organic compound (VOC) and semivolatile organic compound (SVOC) concentrations were all below the NYSDEC Technical and Administrative Guidance Memorandum (TAGM) values. A number of soil samples were found to contain metals at concentrations that exceeded their associated TAGM values. Four metals (aluminum, iron, manganese, and thallium) were found at concentrations above their respective criteria (as discussed in Section 2.7). Surface water concentrations were all below the respective criteria. Several Polynuclear Aromatic Hydrocarbons (PAHs) and metals were detected in the sediment samples above the respective criteria. The analytical results for SEAD-70 are presented in the Expanded Site Inspection for Seven Low Priority AOCs – SEADs 60, 62, 63, 64(A, B, B, and D), 67, 70, and 71 (Parsons, 1995).

A mini risk assessment was conducted for SEAD-70 and the results and conclusion are presented in the Mini Risk Assessment for SEADs 9, 27, 28, 32, 33, 34, 43, 44A, 44B, 52, 56, 58, 62, 64A, 64B, 64C, 64D, 66, 68, 69, 70 and 120B (Parsons, 2002b). The total cancer risk from all exposure routes is within or below the EPA target range for all identified receptors. The total non-cancer hazard index (HI) from all exposure routes is less than one for the Park Worker and the Recreational Visitor, but exceeds one for the Construction Worker (HI=2). The elevated hazard index for the Construction Worker is due solely to ingestion of soil, with arsenic being the significant risk contributor. While arsenic was detected in all 12 soil samples, only the maximum value, 88.5mg/Kg, exceeded the TAGM, 8.9 mg/Kg for arsenic.

2.6 SEAD-121C: DRMO YARD

SEAD-121C is the DRMO Yard and encompasses about 5 acres. The DRMO Yard was used for maintenance activities and for storage of vehicles and other materials including batteries, scrap metal, and tires. The site is generally unvegetated with two ephemeral streams running alongside the area.

Observations made during the site visit conducted in June 2002 noted that jersey barriers lined the southwestern border of the site. The area within the barriers was mostly empty, except that small amounts of shale bits and metallic debris were present. In some isolated areas, shallow soils have elevated PAH concentrations (total carcinogenic PAH level as high as 48.4 mg/Kg) and heavy metal concentrations (lead concentration up to 18,900 mg/Kg). The ditch soils were not affected based on the RI results. The groundwater showed certain metals at concentrations exceeding Class GA Groundwater Standards; however, the concentrations are typical of the background levels for SEDA groundwater.

Parsons performed a risk assessment as part of the ongoing RI and determined that "No risk-based actions will be necessary at SEAD-121C." The risk assessment was approved by USEPA in June 2006 and by NYSDEC in October 2006. As a result, although the site was originally included in the SOW for Task Order 0031 under Contract FA8903-04-D-8675, it is determined by the Army that no action is needed at the site. The no action plan will be proposed in the PRAP and ROD for the site.

2.7 APPLICABLE REGULATIONS/STANDARDS

Applicable or Relevant and Appropriate Requirements (ARARs) and "To Be Considered" (TBC) regulatory items identified in the Generic Site-Wide Sampling and Analysis Plan for Seneca Army Depot Activity (Parsons, 2006) for different environmental matrices are applicable to this project unless otherwise specified in the SS-WP.

3.0 PROJECT ORGANIZATION AND RESPONSIBILITIES

This section presents the relationship between the key elements of the project organization and their responsibilities.

3.1 PROJECT ORGANIZATION

The organizations who will be directly involved in the performance of the SEDA Remedial Actions projects include U.S. Army (SEDA and other Army Corps of Engineers Districts), the U.S. Air Force Center for Environmental Excellence, the NYSDEC, USEPA Region 2, Parsons, and subcontractors. The organizations, key personnel from each organization, and personnel contacts are listed in Table 3. A chart showing the project organization is presented in Figure 3. Project-specific responsibilities (to include any additional subcontractors) and project-specific team will be identified and discussed in detail in the SS-WP.

3.2 ROLES AND RESPONSIBILITIES

Following is a description of the key elements of the organization and their responsibilities.

3.2.1 USEPA and NYSDEC

USEPA Region 2 and NYSDEC are the primary regulatory agencies maintaining oversight and administering the completion of remedial investigations and actions at the SEDA site. These agencies will receive copies of the SAP. Parsons will submit all relevant regulatory documents to SEDA and the AFCEE for review and approval, prior to their delivery to NYSDEC and USEPA Region 2. NYSDEC and USEPA Region 2 are responsible for the final acceptance of all documents with authority under CERCLA and RCRA.

3.2.2 AFCEE

As identified in the Statement of Work (SOW) for Task Order 0031 under Contract FA8903-04-D-8675, AFCEE manages and administers the contract vehicle under which the US Government is procuring contractor services to complete the Remedial Actions at Seneca Army Depot. The primary AFCEE Contact for the Remedial Actions program is Mr. Jesse Perez, who is the AFCEE Contracting Officer's Representative (COR). Mr. Perez, or his designee, will provide day-to-day liaison with the Army and Parsons and ensure that appropriate coordination is maintained among the different parties involved in the project. He is responsible for monitoring, reviewing, and approving technical work performed by Parsons under the Contract and for ensuring that AFCEE contractual and programmatic objectives are achieved and documented.

3.2.3 SEDA

Remedial Actions identified in the SOW for Task Order 0031 under Contract FA8903-04-D-8675 will be performed at seven SWMUs located at the SEDA. Mr. Stephen Absolom is the Army's designated Base Environmental Coordinator (BEC) for SEDA and he is responsible for ensuring that the Army's environmental obligations and contractual objectives are met. Mr. Absolom, or his designee, is responsible for securing and managing project funds, establishing and maintaining the information repository, promoting public involvement, and coordinating regulator and stakeholder interaction. Mr. Absolom, or his designee, will also be responsible for reviewing and approving, on behalf of the Army, all project documents submitted by Parsons.

3.2.4 USACE, NY District

The Army Corps of Engineers (USACE), New York District provides funding and technical support for remedial investigations and actions performed at the SEDA. Ms. Janet Fallo, Mr. Thomas Enroth, and Mr. Thomas Battaglia are project managers who oversee and manage various projects at SEDA in support of Mr. Absolom.

3.2.5 Parsons

Parsons has been contracted to perform and complete the Remedial Actions identified in the SOW for Task Order 0031 under Contract FA8903-04-D-8675 for the SEDA and will be responsible for preparing necessary technical and administrative documents, implementing the necessary actions and achieving RIP and RC, as described in the Task Order/Contract SOW, for all identified sites. Parsons' program team consists of members who have extensive experience in conducting site investigation/remediation. Key personnel and their respective roles and responsibilities are summarized in Table 4 and discussed below.

3.2.5.1 Project Manager

Mr. Todd Heino will serve as the Parsons Project Manager for the project - "Remedial Actions - Seneca Army Depot Activity, NY" and will have overall responsibility for administering, managing, and implementing the technical and administrative components of the Contract. Mr. Heino will direct and administer all Parsons' efforts on this project, and he will bear responsibility of maintaining liaison and coordinating the actions of all involved AFCEE, Army, USEPA, NYSDEC, project and subcontract personnel. Mr. Heino will be supported in his role by Parsons' project team. Mr. Heino will oversee and direct the preparation and submittal of all required programmatic and regulatory documents, and he will direct the performance of all required work.

3.2.5.2 Project Team

Parsons' project team consists of a diverse mixture of personnel, including a project engineer, a technical director, a site manager, a regulatory specialist, a quality assurance officer, engineers, chemists, geologists, risk assessors, construction managers, health and safety personnel, Unexploded Ordnance (UXO) technicians, and field sampling personnel. Parsons' project team, along with selected subcontractors, are responsible for completing the technical work required by the Task Order 0031 under Contract FA8903-04-D-8675 SOW and for developing, summarizing, and reporting key data (technical, financial, etc.) required by the involved parties (e.g., regulatory agencies, AFCEE, Army, etc.). All project personnel are responsible for implementing the SEDA Generic Site-Wide SAP, this contract-specific SAP, and the SS-WPs, and for reporting all deviation from the SAPs and the SS-WPs to the Project Manager. Corrective action procedures must be implemented when deviations from the SAPs and the SS-WPs are noted or whenever project personnel identify field sampling or analytical problems that could potentially affect data quality or usability.

Project Engineer

Parsons' Project Engineer will have the primary responsibility for managing and administering the technical components of the work required under the "Remedial Actions, Seneca Army Depot Activity, NY" Contract. Ms. Jackie Travers, a registered Professional Engineer (PE), has been designated as Parsons' Project Engineer for this project and will be responsible for the assembly and coordination of the technical staff needed to complete the work required. She will coordinate primarily with Parsons' Project Manager, the Project Chemist, and the Site Manager.

Technical Director

Mr. Jeff Adams will perform duties of a Technical Director for the SEDA Remedial Action activities. As the Technical Director, Mr. Jeff Adams will assist Mr. Heino by providing technical guidance and oversight of all contract related activities that are performed during the completion of the identified contract work.

Site Manager

Parsons' Site Manager will have the day-to-day responsibility of the oversight and coordination of all activities performed by Parsons' personnel or subcontractors at the Seneca Army Depot Activity. Mr. Tom Andrews, PE, has been designated as Parsons' Site Manager for this project. Parsons' field team and subcontract personnel working at the Seneca Army Depot facility will interact directly with the Site Manager and receive direction and assignments of tasks that they are to complete. Field team personnel (via designated team leader) and lead subcontract representatives will provide the Site Manager with daily reports of the work assigned, the work completed, conflicting schedules or

potential work problems or delays that are expected based on their daily best estimates. The Site Manager will be responsible for assessing and evaluating the accuracy of all daily work reports, and for formally approving daily subcontractor work summaries before they are submitted to the Project Engineer, the Project Manager, and Parsons' subcontracting and financial support personnel for posting and payment. The Site Manager will also be responsible for notifying the Parsons Project Manager or Project Engineer of any expected delay or problem that may impact Parsons' ability to perform the required work in accordance with the terms of the Contract or regulatory time restrictions. With the consent of the Program Manager, the Site Manager will also serve as Parsons' primary liaison between Parsons' field personnel (project staff and subcontractors) and client/regulatory visitors to the site.

Regulatory Specialist

Mr. Jeff Adams is designated as the regulatory specialist for this project. His responsibilities include:

- to coordinate with federal, state, and local regulators;
- to manage project-specific regulatory issues;
- to develop closure documentation for the sites under the Contract; and
- to ensure CERCLA 121(c) process is completed at the sites.

Mr. Adams will verify whether or not all ARARs are met and approve all closure documentation.

Quality Assurance Officer

Mr. John Lanier is the Quality Assurance Officer (QAO) for the Remedial Actions project at SEDA. Mr. Lanier satisfies the requirements for a QAO that are identified in the NYSDEC (2002) Technical Guidance for Site Investigation and Remediation. As the QAO, Mr. Lanier will not be involved in the generation or collection of primary project data, but will be responsible for overseeing and auditing the SAP and data generation and collection process to ensure that the work conducted is completed in accordance with the requirements specified in the Generic SAP, this contract-specific SAP, and the Site-Specific Work Plans. Mr. Lanier, or his designee, may conduct field audits and coordinate any corrective actions with the project manager and the project chemist. The QAO will certify that the primary project data are collected and analyzed using the appropriate procedures. The QAO, or designated team, is responsible for preparing and revising the SAP. Mr. Lanier will coordinate primarily with the Project Manager, the Technical Director, the Project Engineer, the Site Manager, and the Project Chemist, but will have access to all members of the assembled project team as needed.

Field Analyst

When field analyses are warranted, a qualified field analyst will be assigned to conduct the necessary analyses. A field analyst must have the following minimum qualifications: (1) completion of a certification course or training by an experienced analyst who has demonstrated proficiency in the method; or, (2) demonstration of the analyst's proficiency by correlation of the analyst's results with laboratory confirmation analysis.

Field Sampling Team

Members of field sampling teams are responsible for the collection, transcription, and retention of all pertinent field data, information, forms, records, measurements and samples; sample preservation and storage in the field; sample packaging; coordination and arrangement of sample shipment and delivery; and field measurements. All team members should be familiar with the requirements of the generic SAP, the contract-specific SAP, and the SS-WPs.

Project Chemist

The project chemist will have at least two years of experience in data review and be familiar with USEPA Region 2 data validation requirements and the New York NYSDEC (2000) Analytical Service Protocol (ASP). The project chemist is responsible for data verification, data validation, and data usability evaluation for all analytical data generated for the project.

The project chemist will be responsible for communicating with the laboratory on a regular basis regarding sample shipment, receipt, and login, and all issues related to data quality, scheduling and data packages. The project chemist will review all project and laboratory documentation related to the analytical process and will prepare data verification reports as needed. In addition, the project chemist is responsible for the quarterly data submittal to the Army and quarterly Analytical Services Tracking System (ANSETS) Data Requirement form submittal to the USEPA Region 2 Regional Sample Control Coordinator (RSCC).

Data Users

Technical personnel who use the collected data to perform their responsibilities (e.g., risk assessment, remedial design) will use the data for various purposes. Data users are responsible for communicating additional data needs to the Project Manager.

Project Health and Safety Officer

Parsons Project Health and Safety Officer (PHSO) oversees the health and safety of personnel involved in the project. The Project Health and Safety Officer is responsible for developing the Parsons Project Health and Safety Plan and site-specific Health and Safety Plans as are needed in support of the scope of work and has the authority to initiate a work stoppage due to health and safety concerns. As work encompassed by this Contract includes possible Munitions and Explosives of Concern (MEC) considerations, the PHSO will be supported by an Unexploded Ordnance Safety Officer (UXOSO) who will bear primary responsibility for overseeing all anticipated work performed at SEAD-16 (Abandoned Deactivation Furnace) and DEAD-17 (Deactivation Furnace).

3.2.6 Subcontractor

Laboratory

The analytical laboratory(ies) selected to perform analyses for environmental samples collected under the Contract must be certified under the Environmental Laboratory Approval Program (ELAP), implemented by NYSDOH, and be capable of providing complete environmental analytical services consistent with USEPA protocols and NYSDEC (2000) ASP. The selected analytical laboratory(ies) will implement Quality Assurance/Quality Control (QA/QC) procedures consistent with the NYSDEC ASP protocol, Region 2 Standard Operating Procedure (SOPs), the generic SAP, and this contract-specific SAP. Prior to sample analysis, each laboratory must submit detailed information regarding their ELAP certification, laboratory project manager, and QA/QC procedures to Parsons. Parsons Project Chemist will review the ELAP certification and QA/QC manual submitted by the laboratory to ensure consistency with requirements by the generic SAP, this contract-specific SAP, and the SS-WPs.

All analytical data will be verified prior to being released by the laboratory. Verification will include both editorial and technical reviews. The electronic format of the data will be reviewed along with the hardcopy data package. A final review of the data package will be performed and the approved data package will be signed by the laboratory's Project Manager, or designee, when complete.

Other Subcontractors

Other subcontractors identified for specific site will be specified in the SS-WP. A list of potential subcontractors that may be used can be found in the generic SAP.

4.0 DATA QUALITY OBJECTIVES

Data quality objectives (DQOs) are developed in accordance with the USEPA (2006, 2000) Guidance for the data quality objective development process, the USEPA (2005a) Uniform Federal Policy for Quality Assurance Project Plans, and the NYSDEC (2001) Development and Review of Site Analytical Plans. This section summarizes the general DQO development process for the activities within the scope of this Contract. The detailed sampling and analysis plan and DQOs will be presented in the SS-WP.

The overall objective of the project is to perform remedial actions at the identified SWMUs to meet pre-determined cleanup goals and eventually to achieve regulatory closure of the sites. In order to verify whether or not the remedial actions are complete, the following question will be asked: "Do the concentrations of contaminants in affected mediums (e.g., soil, groundwater) exceed the respective action levels?" The action levels are pre-determined cleanup goals developed for each site. These action levels could be risk-based cleanup goals, ARARs, or TBC values. Based on the answer to the above question, the following actions will be taken:

- More sampling for better information (data are inconclusive)
- Remedial action is complete (criteria/standards are met)
- More excavation and sampling (criteria/standards are exceeded)

A decision will be made by comparing the chemical results (e.g., confirmatory results, long-term monitoring results) to the action levels. Quality control limits are presented in the generic SAP to minimize the possibility of making a decision error. The quality control limits include, but are not limited to, reporting limits, matrix spike/matrix spike duplicate (MS/MSD) recovery limits, laboratory control sample/laboratory control sample duplicate (LCS/LCSD) recovery limits, and field and laboratory duplicate performance limits. Unless otherwise specified in the SS-WP, the quality control limits presented in the generic SAP will be used for the sites under this Contract.

Action levels, chemical list to be analyzed, and analytical methods for the decision making will be determined based on the specific site conditions and will be identified in the SS-WP. Any potential spatial and temporal boundaries, if existent, will also be addressed in the SS-WP. A judgmental sampling design (versus probability-based sampling) based on historic sample results and site conditions will be used for the necessary investigations and its content will be detailed in the SS-WP.

It should be noted that DQOs may be revised during the project's performance period due to the development and review of new site information and data. Revisions, if any, will be documented in the completion report.

5.0 FIELD SAMPLING PLAN

The following types of samples are likely to be collected during the remedial actions conducted under the Contract.

- Confirmatory soil/ditch soil/sediment samples for confirmation of the removal of all soil/ditch soil/sediment exceeding the site cleanup goals;
- Disposal waste characterization samples for characterization of excavated material for disposal;
- Fill material samples for verification of clean material being backfilled;
- Excavation water samples for characterization of excavated groundwater/surface water for disposal;
- Groundwater and surface water samples for prior-remediation and/or post-remediation monitoring;
- Drum sample for characterization of the material in intact drum for disposal.

This section specifies sampling procedures. Sample custody and management, QA/QC sample collection and requirement, laboratory analytical requirement, data management and evaluation, and performance assessment and system audits will be performed in accordance with the generic SAP (Parsons, 2006). Detailed sample collection schedules and analytical methods will be presented in the individual SS-WPs.

5.1 EXCAVATION CONFIRMATORY SAMPLING

Sampling of excavations will be performed to show that excavation is complete, site-specific cleanup goals are met, and backfilling can begin.

5.1.1 Confirmatory Sample Collection

A detailed sampling plan will be designed for each site based on the historic data and site conditions and the sampling plan will be presented in the SS-WP. The frequency of confirmation sampling will be varied based on the specific site conditions. In general, confirmatory samples will be collected as discrete samples from the bottom and each sidewall of the excavation. Unless otherwise specified in the site-specific work plan, the following frequency of confirmation sampling will be used:

- Excavation bottoms: one sample per 2,500 ft², or less, of excavation bottom, with a minimum of one sample being collected from any excavation that is not terminated at the underlying bedrock's surface. If the excavation is terminated at the bedrock's surface, no bottom samples will be required.

- Sidewalls (only for excavations greater than 1.0 ft in depth): one sample per 50 linear feet (lf), or less, of sidewall, at a depth halfway between the ground surface and the bottom of the excavation or at a depth determined based on historic data. At least one discrete sample will be collected from each face of the open excavation.
- Perimeter surface samples (only for excavations less than 1.0 ft in depth): one sample per 50 lf, or less, of perimeter length. A minimum of one sample will be collected along each edge of the excavation.
- Ditch samples: one sample per every 50 lf, or less, of ditch length. Bottom samples, if warranted, will be collected for every 2,500 ft², or less, of excavation.

Samples will be collected using stainless steel spoon, spatula, or/and encore sampler, from the interior of the excavations. If entry into the excavation is not permitted due to the depth, the samples will be collected from the bucket of a backhoe. Samples will be collected following procedures outlined in the generic SAP.

5.1.2 Confirmatory Sample Numbering

Confirmatory samples will be labeled as follows:

LLEXNNNNNQI

LL (two or more characters) designates site location.

- 04 - SEAD-4/38
- 11 - SEAD-11
- 16 - SEAD-16
- 17 - SEAD-17
- 121C - SEAD-121C

To add 70 - SEAD-70

EX designates that the sample is from an excavation.

NNNNN is the sample number. Sample type is designated based on this 5-digit numbering system. Sample numbers start with the next consecutive number.

- 00001~00009 - Trip Blanks
- 00100~00199 - Field or Rinsate Blanks
- 10000~19999 - Soil Samples
- 40000~49999 - Sediment/Ditch Soil Samples
- 50000~59999 - Miscellaneous Samples (such as mulch or debris material).

QI is a two-letter quality control (QC) identifier.

- MS - Matrix Spike

- MSD - Matrix Spike Duplicate

Every label will be unique. In the field, the sampling team will document the location where samples are collected in a log and include a sketch of sampling grids and the sample locations.

5.2 DISPOSAL CHARACTERIZATION SAMPLING

Disposal characterization samples will be collected and analyzed to determine if the excavated soils or other excavated/removed materials can be disposed as non-hazardous waste. The number of disposal characterization required by the disposal facility will be determined by the selected facility based on the review of the historic sampling results at each site. Two disposal facilities have been tentatively identified to receive wastes from the remedial actions performed under this Contract:

- Ontario County Landfill, Flint, New York, and
- Seneca Meadows Landfill, Waterloo, New York

5.2.1 Disposal Characterization Sample Collection

Composite samples will be collected following procedures outlined in the generic SAP. No field QC samples will be collected for the disposal characterization sampling.

5.2.2 Disposal Characterization Sample Analysis

The composite sample will be submitted for toxicity characteristic leaching procedure (TCLP) VOC, TCLP SVOC, TCLP metal, TCLP pesticide, TCLP herbicide, PCB, ignitability, pH, and reactivity analyses. The corresponding analytical methods are specified in the generic SAP. The results will be compared with the limits used for hazardous waste identification (as specified in 40 CFR §261 and summarized in the generic SAP).

5.2.3 Disposal Characterization Sample Numbering

The disposal characterization samples will be labeled as follows:

LLDSNNNNN

LL (two or more characters) designates site location, as specified in **Section 5.1.2**. DS designates that the sample is collected for disposal characterization. NNNNN is the sample number, as specified in **Section 5.1.2**.

Every label will be unique. In the field, the sampling personnel will keep a log of the sample information (e.g., sample locations and collection methods).

5.3 FILL MATERIAL SAMPLING

One representative sample will be collected from each source of off-site fill material selected to be used for backfill purposes to determine if it is acceptable as clean fill. The subcontractor will provide Parsons with data indicating that the fill material is comprised of soil or other unregulated material as set forth in 6 NYCRR Part 350 and that it was not originated from another remedial site or site subject to regulatory oversight, unless it is non-contaminated unregulated material. Further, the analytical results will be documented to demonstrate that the selected fill material does not contain chemical contaminants at levels that exceed applicable soil clean-up objectives as defined by applicable guidance, regulation, or identified by the remedial program for the site.

5.3.1 Fill Material Sample Collection

The subcontractor will submit representative fill material samples and provide the analytical results for comparison to the site cleanup objectives. One sample will be collected for each type of fill material prior to use. No QA/QC samples will be collected for the fill material sampling.

5.3.2 Fill Material Sample Analysis

The samples will be submitted for at least the following analyses:

- VOC analysis using SW846 Method 8260B,
- SVOC analysis using SW846 Method 8270C, and
- Metal analysis using SW846 Method 6010B and Method 7471A.

The sample results will be compared to documented soil cleanup objectives. If the concentrations exceed the soil cleanup objective values, the fill material will be rejected for the project unless approved for use by the regulatory agencies.

5.3.3 Fill Material Sample Numbering

The fill material sample will be designated as follows:

LLFMNNNNN

LL (two or more characters) designates site location, as specified in **Section 5.1.2**. FM designates that the sample is collected for fill material. NNNNN is the sample number consistent with the specifications presented in **Section 5.1.2**.

5.4 EXCAVATION WATER SAMPLING

Excavation water, including run-off, run-on, and decontamination water, will be collected on-site in 5,000 gallon frac tanks. After filling, these tanks will be allowed to settle for a minimum of 72 hours before sampling.

5.4.1 Excavation Water Sample Collection

Samples will be collected from the mid depth of the tank using a dedicated disposable polyethylene bailer lowered into the tank with nylon rope.

5.4.2 Excavation Water Sample Analysis

Seneca County Sewer District No. 2 requires that the excavation water be analyzed for metals. In addition, the Army will require the excavation water sample be analyzed for VOCs and SVOCs and the results be compared to hazardous waste criteria values to ensure the water is non-hazardous according to 6 NYCRR Part 371. The Seneca County Sewer District will review the results and determine if the analytical results are acceptable. If the analytical results are acceptable to the District, the contents of the frac tank will be emptied directly into the SEDA sewer for disposal. If the analytical results are not accepted by the District, the water will be pre-treated before it is discharged into the SEDA sewer. It is anticipated that all collected water will be suitable for discharge to the sewer.

5.4.3 Excavation Water Sample Numbering

The water samples will be numbered as follows:

LLWWTTMMDD

LL (two or more characters) designates site location, as specified in **Section 5.1.2**. WW designates that it is an excavation water sample. TT indicates the tank number (e.g., T1, T2). MMMDD is the month and the day that the sample is collected (e.g., NOV07). It is anticipated that one tank may serve a number of areas at SEAD, and that the tank may be used several times over the length of the project.

5.5 GROUNDWATER AND SURFACE WATER MONITORING

Groundwater and surface water monitoring will be performed as part of the remedial actions at SEDA under this Contract.

5.5.1 Groundwater and Surface Water Sample Collection

All groundwater samples will be collected using low flow sampling techniques according to the Ground Water Sampling Procedure Low Stress (Low Flow) Purging and Sampling (USEPA Region 2, 1998). Surface water will be collected in accordance with the generic SAP. Sampling procedure, QC sample collection, sample handling and custody, holding times, and collection of field parameters will be conducted in accordance with the generic SAP (Parsons, 2006).

5.5.2 Groundwater and Surface Water Sample Numbering

The groundwater samples will be numbered as LLMW2NNNNQI and the surface water samples will be numbered as LLSW3NNNNQI.

LL (two or more characters) designates site location and QI is a two-letter QC identifier, as specified in **Section 5.1.2**. MW indicates Monitoring Well and SW represents Surface Water.

5.6 DRUM CHARACTERIZATION SAMPLING

In the event that intact drums are recovered from the sites during remedial actions, drums will be opened in accordance with the Generic SAP. Samples will be collected from the drums in accordance with the Generic SAP and analyzed for hazardous waste characteristics. Based on the analytical results, the drums will be grouped together based on compatibility and disposed of at the appropriate disposal facilities either in bulk or as individual drums.

5.6.1 Drum Characterization Sample Collection

One composite sample will be collected from each recovered intact drum following procedures outlined in the generic SAP. No field QC samples will be collected for the drum characterization sampling.

5.6.2 Drum Characterization Sample Analysis

The composite sample will be submitted for toxicity characteristic leaching procedure (TCLP) VOC, TCLP SVOC, TCLP metal, TCLP pesticide, TCLP herbicide, PCB, ignitability, pH, and reactivity analyses. The corresponding analytical methods are specified in the generic SAP. The results will be compared with the limits used for hazardous waste identification (as specified in 40 CFR §261 and summarized in the generic SAP).

5.6.3 Drum Characterization Sample Numbering

The drum characterization samples will be labeled as follows:

LLDRNN

LL (two or more characters) designates site location, as specified in **Section 5.1.2**. DR designates that the sample is collected for drum characterization. NN is the sample number, assigned sequentially.

Every label will be unique. In the field, the sampling personnel will keep a log of the sample information (e.g., sample locations and collection methods).

6.0 DATA VALIDATION

Both confirmatory soil sample results and groundwater and surface water long-term monitoring results will be validated in accordance with the requirements contained in the analytical method, the generic SAP (Parsons, 2006), the contract-specific SAP, the SS-WPs, the NYSDEC (2000) ASP, the USEPA Region 2 SOPs, and the USEPA National Functional Guidelines for Data Review (USEPA, 2005b, 2004). Unless otherwise specified, disposal waste characterization samples, excavation water samples, or fill material samples will not be validated.

7.0 SPECIAL TRAINING AND CERTIFICATION

Unexploded Ordnance (UXO) avoidance/clearance is required at SEAD-16/17. All field personnel performing UXO avoidance/clearance work should receive proper training as specified in the Generic Site-Wide Health and Safety Plan for Seneca Army Depot Activity (Parsons, 2005) and the generic SAP. In brief, all UXO personnel will be U.S. citizens and graduates from one of the following schools or courses:

- U.S. Army Bomb Disposal School, Aberdeen Proving Ground, Maryland;
- The U.S. Naval Explosive Ordnance Disposal (EOD) School;
- The EOD Assistants Course, Redstone, Alabama; the EOD Assistants Course, Eglin AFB, Florida; or a Department of Defense (DoD)-certified equivalent course.

To effectively and safely implement UXO avoidance/clearance at SEAD-16/17, an activity-specific UXO Site Manager is assigned to manage all UXO-related activities performed on SEAD-16/17.

8.0 REFERENCES

New York State Department of Environmental Conservation (NYSDEC). 1998 with 2000 and 2004 Addendum. Ambient Water Quality Standard and Guidance Values and Groundwater Effluent Limitations.

New York State Department of Environmental Conservation (NYSDEC). 2002. Technical Guidance for Site Investigation and Remediation. DER-10. December.

New York State Department of Environmental Conservation (NYSDEC). 2001. Technical Administrative Guidance Memorandum SW-96-09: Development and Review of Site Analytical Plans. May.

New York State Department of Environmental Conservation (NYSDEC). 2000. Analytical Service Protocols.

Parsons. 2006. Generic Site-Wide Sampling and Analysis Plan. Revised Final. July.

Parsons. 2005. Accident Prevention Plan and Generic Site-Wide Health and Safety Plan for Seneca Army Depot Activity. March.

Parsons. 2002a Final Action Memorandum and Decision Document, Time-Critical Removal Actions, Three VOC SITES (SEADs 38, 39, & 40). August.

Parsons. 2002b. Mini Risk Assessment for SEADs 9, 27, 28, 32, 33, 34, 43, 44A, 44B, 52, 56, 58, 62, 64A, 64B, 64C, 64D, 66, 68, 69, 70 and 120B. Final. May.

Parsons. 2002c. Final Remedial Investigation Report at the Munitions Washout Facility (SEAD-4). January.

Parsons. 1995. Expanded Site Inspection for Seven Low Priority AOCs – SEADs 60, 62, 63, 64(A, B, B, and D), 67, 70, and 71. Draft. April.

United States Environmental Protection Agency (USEPA). 2006. Guidance on Systematic Planning Using the Data Quality Objectives Process. EPA QA/G-4. February.

United States Environmental Protection Agency (USEPA). 2005a. Uniform Federal Policy for Quality Assurance Project Plans, Evaluating, Assessing, and Documenting Environmental Data Collection and Use Programs. May.

Final Contract-Specific Sampling and Analysis Plan
for Remedial Actions at Seven Sites (SEADs-4, -11, -16, -17, -38, -70, and -121C)
Seneca Army Depot Activity
Romulus, New York

United States Environmental Protection Agency (USEPA). 2005b. USEPA Contract Laboratory Program National Functional Guidelines for Superfund Organic Methods Data Review. Draft Final. January.

United States Environmental Protection Agency (USEPA). 2004. USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review. October.

United States Environmental Protection Agency (USEPA). 2000. Data Quality Objectives Process for Hazardous Waste Site Investigations. QA/G-4HW. January.

United States Environmental Protection Agency (USEPA) Region 2. Region 2 RCRA and CERCLA Data Validation Standard Operating Procedures (SOPs). On-line resources at <http://www.epa.gov/region02/desa/hsw/sops.htm>.

United States Environmental Protection Agency (USEPA) Region 2. 1998. Ground Water Sampling Procedure Low Stress (Low Flow) Purging and Sampling. March 16.

Table 1
Proposed Remedial Action and Long-Term Management for Seven SEDA Sites to Achieve Site Closure
Seneca Army Depot Activity
Romulus, New York

Site	Proposed Remedial Action (Operations)	Long-Term Management	CERCLA 121(c) Reviews	Response Complete Required
SEAD-4/38	Excavate Pb and Cr metal contaminated soil/sediment for offsite disposal; building cleaning and debris removal / disposal.	Not required.	Required	6/30/11
SEAD-11	Excavate Pb- and TCE-contaminated soil and debris for offsite disposal.	5 years semi-annual groundwater monitoring; monitoring land use controls; reporting; rampdown strategy.	Required	6/30/12
SEAD-001-R (SEAD-16)	OE clearance / avoidance, building cleaning and debris removal / disposal, excavate metal and PAH-contaminated soil for offsite disposal.	5 years annual surface water and groundwater monitoring; monitoring land use controls; reporting; rampdown strategy.	Required	6/30/11
SEAD-001-R (SEAD-17)	OE clearance / avoidance, excavate metal contaminated soil for offsite disposal.	5 years annual surface water and groundwater monitoring; monitoring land use controls; reporting; rampdown strategy.	Required	6/30/11
SEAD-70	Excavate metal-contaminated soil for offsite disposal.	Not required.	Required	9/30/10
SEAD-121(C)	No Action required.	Not required	Required	6/30/11

Note: Remedial actions and long-term management for the sites may be revised in the future and the site-specific work plan should be consulted for the most updated site plan for remedial actions and long-term management.

Final Sampling and Analysis Plan
for Remedial Actions at Seven Sites (SEADs-4, -11, -16, -17, -38, -70, and -121C)
Seneca Army Depot Activity
Romulus, New York

Table 2
Summary of Regulatory and Remedial Approaches
Seneca Army Depot Activity
Romulus, New York

Site	Regulatory Process						Remedial Approach						Notes
	Action Memorandum/Decision Document	Interim Removal Action Work Plan	NFA Proposed Plan / ROD	RI/FS Process	Preparation/Approval of Proposed Plan / ROD	RD/RA Work Plan	Soil Excavation and Removal	Groundwater Monitoring	Demolition	Meet RCRA Closure Requirements	OE Avoidance	Building Cleaning / Debris Removal	
Pre-ROD removals													
SEAD-11: Old Const Debris Landfill	✓	O	O	✓	✓	✓	O	O			✓		Excavate lead and TCE contaminated soil and debris for offsite disposal
SEAD-70: Fill Area adjacent Buliding 2110	O	O	O	✓	✓	✓	O						Excavate arsenic contaminated soils for offsite disposal
SEAD-121C: DRMO Yard	✓	✓	✓	✓	O	✓	✓	✓					No Action is required
Post-ROD remediation													
SEAD-4: Munitions Washout Facility	✓	✓	✓	✓	O	O	O	O				✓	Excavate metal contaminated soils for offsite disposal
SEAD-16: Abandoned Deac Furnace	✓	✓	✓	✓	✓	O	O	O			O	✓	Excavate metal and PAH contaminated soils for offsite disposal
SEAD-17: Deactivation Furnace	✓	✓	✓	✓	✓	O	O	O		✓	O		Excavate metal contaminated soils for offsite disposal
SEAD-38: Bldg 2079 Boiler Blowdown	✓	✓	✓	✓	O	O	O						Excavate TPH contaminated soils for offsite disposal
✓ = completed; O = required to complete													

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Final Sampling and Analysis Plan
for Remedial Actions at Seven Sites (SEADs-4, -11, -16, -17, -38, -70, and -121C)
Seneca Army Depot Activity
Romulus, New York

Table 3
Summary of Key Project Personnel
Seneca Army Depot Activity
Romulus, New York

Organization	Position	Name & Address	Responsibility	Phone	Fax	Email
Seneca Army Depot Activity	Installation Manager	Stephen Absalom SEDA 5786 State Route 96, P.O. Box 9 Romulus, New York 14541-0009	Project Coordination and management	607-869-1309	607-869-1362	stephen.m.absoom@us.army.mil
AFCEE	Contracting Officer's Representative (COR)	Jesse Perez HQ AFCEE/IWA – COR 3300 Sidney Brooks, Building 532 Brooks City-Base, TX 78235-5112	Project Management and Administration	210-536-5269	210-536-4330	Jesse.perez@brooks.af.mil
USACE, NY District	Project Manager	Janet Fallo SEDA, 5786 State Route 96, Building 125 Romulus, New York 14541-0009	Project Coordination, fund programming	607-869-1248	607-869-1251	Janet.R.Fallo@nan02.usace.army.mil
USACE, NY District	Project Manager	Randall Battaglia SEDA, 5786 State Route 96, Building 125 Romulus, New York 14541-0009	Project Coordination, fund programming	607-869-1523	607-869-1251	randy.w.battaglia@nan02.usace.army.mil
USACE, NY District	Project Manager	Thomas Enroth SEDA, 5786 State Route 96, Building 125 Romulus, New York 14541-0009	Project Coordination, fund programming	607-869-1255	607-869-1251	Thomas.R.Enroth@nan02.usace.army.mil
Parsons	Project manager	Todd Heino 150 Federal Street, 4 th Floor Boston, MA 02110	Overall project coordination	617-449-1405	617-946-9777	todd.heino@parsons.com
Parsons	Regulatory Specialist	Jeff Adams 150 Federal Street, 4 th Floor Boston, MA 02110	Regulatory issue management	617-449-1570	617-946-9777	Jeff.Adams@parsons.com
Parsons	Project Engineer	Jackie Travers 150 Federal Street, 4 th Floor Boston, MA 02110	Overall project coordination and management assistance	617-449-1566	617-946-9777	Jacqueline.Travers@parsons.com
Parsons	Technical Director	Jeff Adams 150 Federal Street, 4 th Floor Boston, MA 02110	Provide technical recommendation	617-449-1570	617-946-9777	Jeff.Adams@parsons.com

Final Sampling and Analysis Plan
for Remedial Actions at Seven Sites (SEADs-4, -11, -16, -17, -38, -70, and -121C)
Seneca army Depot Activity
Romulus, New York

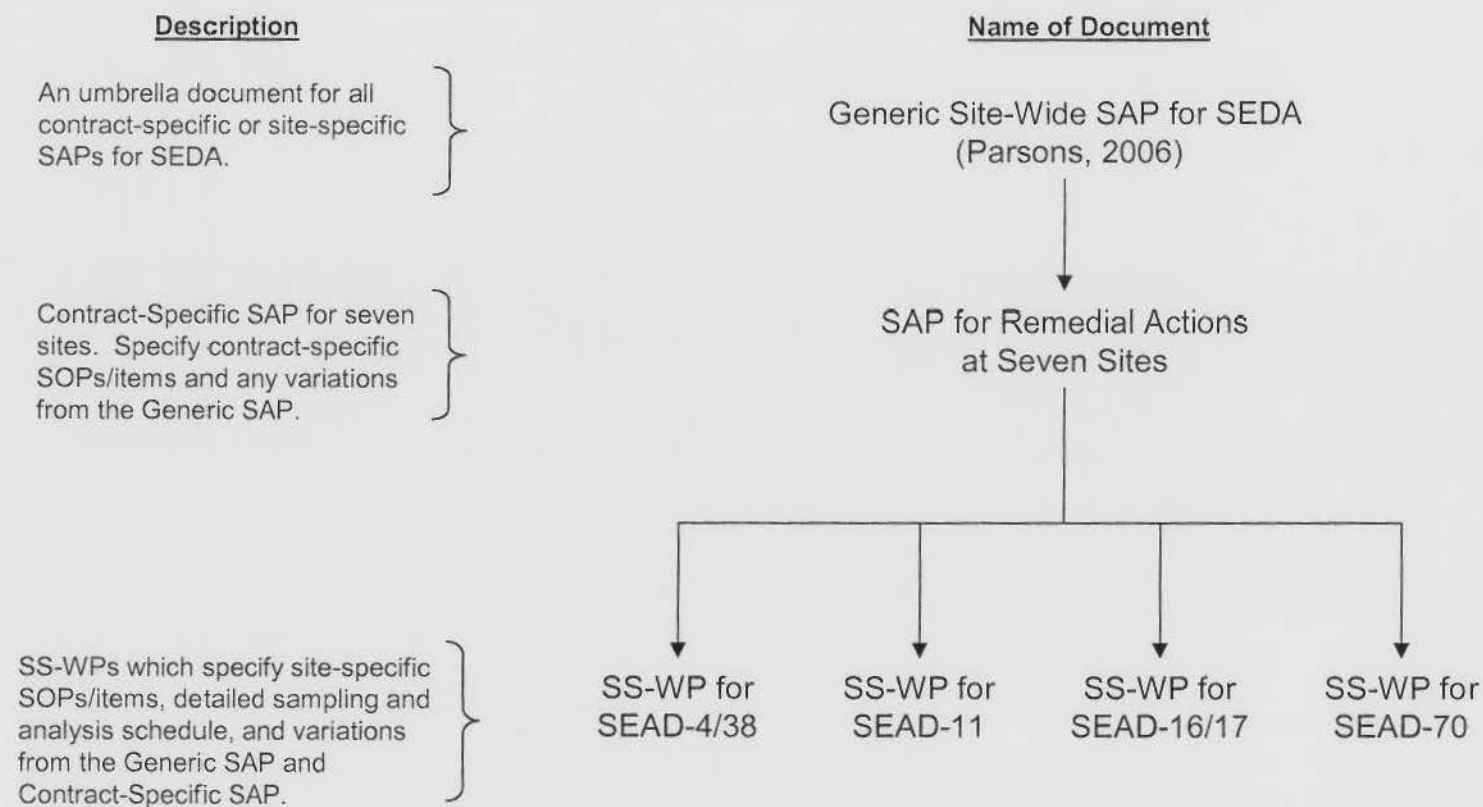
Table 3 (Continued)
Summary of Key Project Personnel
Seneca Army Depot Activity
Romulus, New York

Organization	Position	Name & Address	Responsibility	Phone	Fax	Email
Parsons	Quality Assurance Officer	John Lanier 180 Lawrence Bell Dr, Suite 104 Williamsville, NY 14221	Overall QA implementation	716-633-7074 x222	716-633-7195	John.Lanier@parsons.com
Parsons	Site Manager	Tom Andrews 180 Lawrence Bell Dr., Suite 104 Williamsville, NY 14221	Site work coordination and management	716-633-7074	716-633-6195	Tom.Andrews@parsons.com
Parsons	Database researcher	Brendan Baranek-Olmstead 150 Federal Street, 4 th Floor Boston, MA 02110	Database management	617-449-1404	617-946-9777	Brendan.Baranek-Olmstead@parsons.com
Parsons	Project Chemist	Chunhua Liu 150 Federal Street, 4 th Floor Boston, MA 02110	Data Evaluation, Laboratory Coordination	617-449-1567	617-946-9777	Chunhua.liu@parsons.com
Parsons	Field Analyst	Ben McAllister 150 Federal Street, 4 th Floor Boston, MA 02110	Field Analysis	617-946-1592	617-946-9777	benedict.mcAllister@parsons.com
Parsons	Project Safety Manager	Timothy Mustard 1700 Broadway, Suite 900 Denver, CO 80290	Project safety management	303-764-8810	303-831-8208	Tim.Mustard@parsons.com
Laboratory	Lab Manager	TBD	Laboratory Analyses	TBD	TBD	TBD
NYSDEC	Project Manager	Kuldeep K. Gupta 625 Broadway Albany, NY 12233-7015	Supervision, review, and approval	518-402-9620		kgupta@gw.dec.state.ny.us
USEPA Region 2	Project Manager	Julio F. Vazquez 290 Broadway, 18th Floor New York, NY 10007-1866	Supervision, review, and approval	212-637-4323	212-637-3256	vazquez.julio@epamail.epa.gov

Table 4
Key Personnel Roles, Responsibilities, and Authorities

Responsibility	Authority
Project Manager: Todd Heino, PE	
• Direct overall project and completion of PWS goals. • Maintain project interface with SEDA management. • Perform overall project planning, organizing, monitoring, and control. • Lead the preparation of the PMP. • Represent Parsons on all project matters. • Interface with subcontractors' senior management. • Attend all contractor meetings. • Ensure overall project QA/QC. • Report progress regularly to SEDA; present milestone briefings. • Oversee creation of project website. • Represent Parsons and assist SEDA in resolving regulatory issues. • Assist with public involvement activities. • Ensure implementation of subcontracting goals	• Approve PMP. • Approve all assigned personnel. • Approve all deliverables. • Implement corrective actions. • Approve all project-specific plans and reports. • Approve subcontractor invoices. • Direct all human resources to support SEDA project.
Project Engineer: Jackie Travers, PE	
• Evaluate technical approach for best-method implementation. • Ensure technical requirements are met. • Lead design reviews. • Provide input into progress-to-date reports. • Obtain proper permits, licenses, and approvals. • Lead review of all work plans and reports. • Provide oversight of Site Manager activities. • Coordinate technical support staff. • Interface with regulators. • Assist with subcontractor management.	• Make basic assignments at the site level. • Approve all project deliverables and reports. • Approve all site-specific plans. • Perform stop work authority for onsite work.
Site Manager: Tom Andrews, PE	
• Manage field office; provide onsite supervision of field work, construction, demolition, disposal and site restoration. • Ensure conformance with Project Engineering drawings/contract requirements. • Oversee work order execution (quality, cost, and schedule). • Review of all site-specific work plans. • Oversee deliverable/report preparation. • Oversee work plan preparation. • Serve as primary POC on a daily basis with SEDA. • Conduct daily tasks for project repository and administrative record. • Report safety incidents. • Manage subcontractor field work.	• Approve all site work and restoration activity. • Approve all demolition and disposal activity. • Exercise stop work authority for onsite work. • Approve subcontractor submittals. • Approve all site-specific plans. • Approve all deliverables and reports. • Approve all site-specific assigned personnel. • Approve subcontractor invoices.
Regulatory Specialist: Jeff Adams	
• Manage project-specific regulatory issues. • Develop closure documentation for site on PWS. • Ensure CERCLA 121(c) process is completed. • Interface with federal, state, and local regulators.	• Approve all closure documentation. • Verify all ARARs are met.

FIGURE 1
Project Sampling and Analysis Guidance Framework



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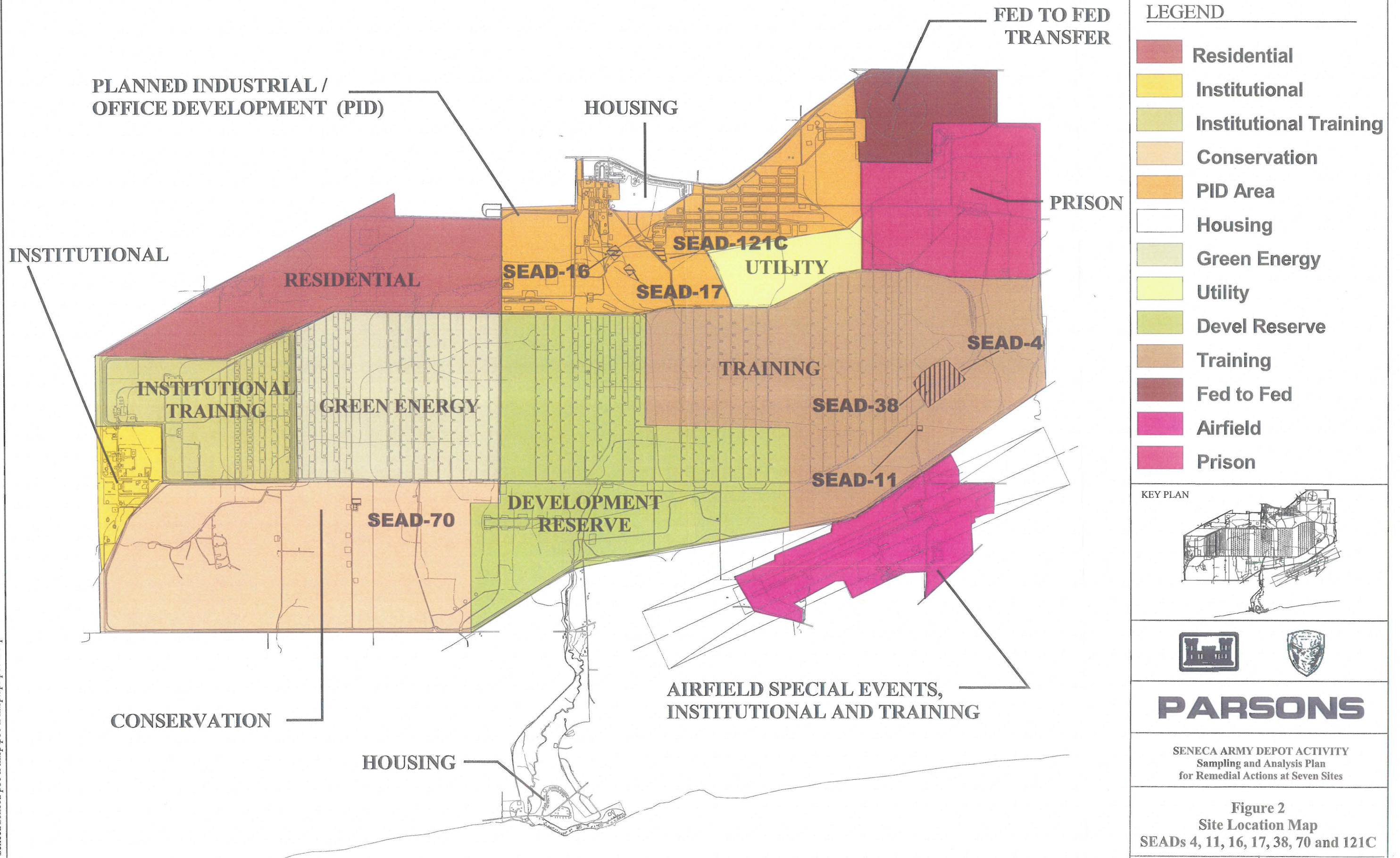
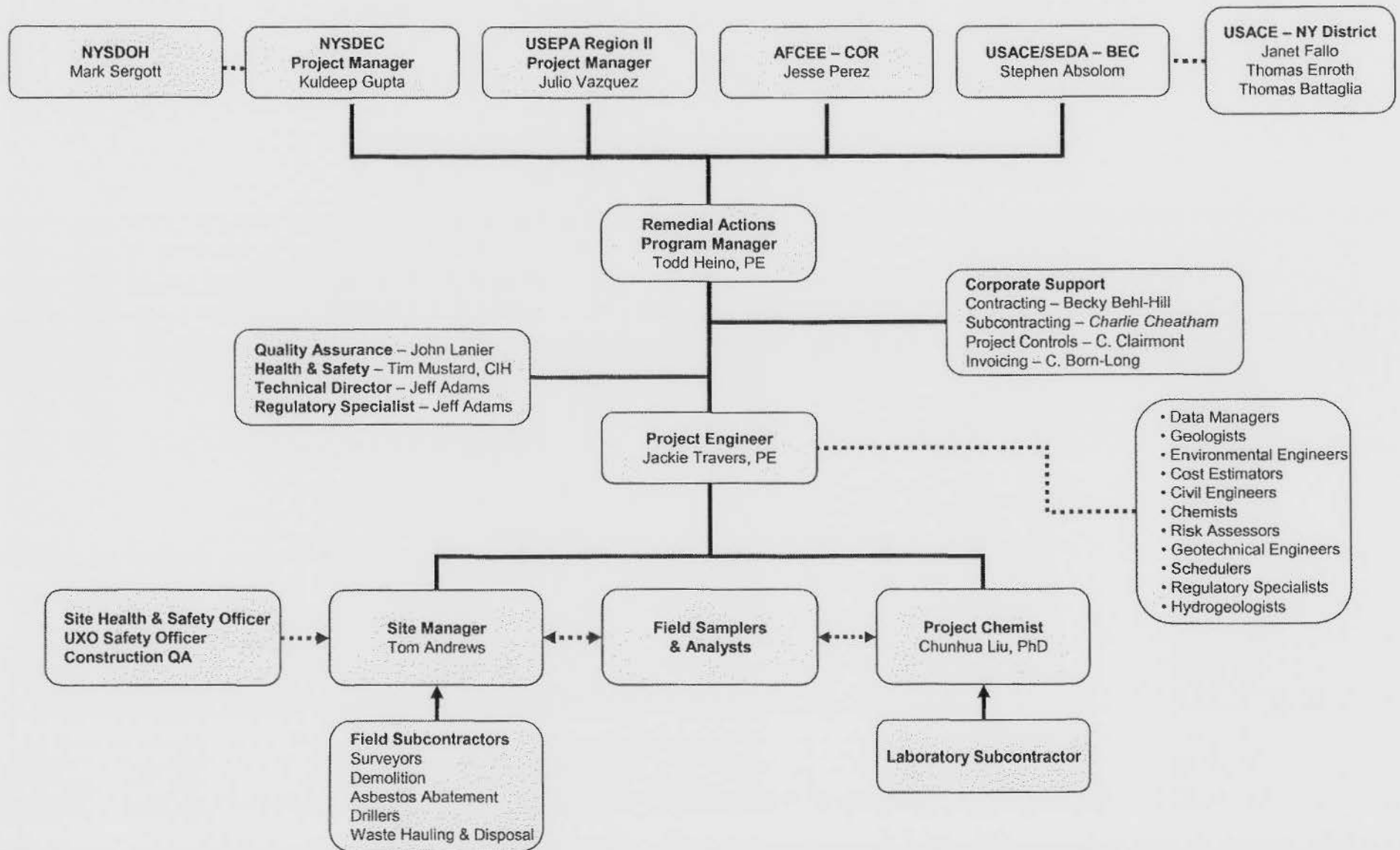


Figure 3
Organizational Chart
Remedial Actions – Seneca Army Depot Activity
Contract FA8903-04-D-8675 TO 0031



Draft Sampling and Analysis Plan
for Remedial Actions at Six Sites (SEADs-4, -11, -16, -17, -38, and -121C)
Seneca Army Depot Activity
Romulus, New York

Appendix A

Revised Final Generic Site-Wide Sampling and Analysis Plan for Seneca Army Depot Activity

Submitted by Parsons in July 2006

(Electronic Copy on CD)

Final Sampling and Analysis Plan
for Remedial Actions at Seven Sites (SEADs-4, -11, -16, -17, -38, -70, and -121C)
Seneca Army Depot Activity
Romulus, New York

Appendix B

Response to Comments

Army's Response to Comments from the United States Environmental Protection Agency

Subject: Draft Contract-Specific Sampling and Analysis Plan
for Remedial Actions at Six Sites
Seneca Army Depot
Romulus, New York

Comments Dated: September 21, 2006

Date of Comment Response: October 31, 2006

Army's Response to Comments

Comment 1: I found Areas of Concern (AOCs) on Figure 2 that are not explained within the text, for instance, buildings 2110, 336, S-331, SEAD-70. In addition, I could not find building S-01 on figure 2, even though it is listed within the text.

Response 1: Agreed. Figure 2 has been revised to be consistent with the text. Discussion of SEAD-70 has been included in the text as Section 2.5. It should be noted that building demolition will be presented in detail in a separate document and therefore is no longer included in this document.

Comment 2: Building demolitions should comply with the Clean Air Act (CAA) and implementing regulations (i.e., 40 CFR 61.145) for asbestos-containing materials.

Response 2: Acknowledged. The recommended statement will be included in the work plan for building demolition.

Comment 3: On page 5, the paragraph above section 2.6, there is a statement that EPA is still reviewing the risk assessment for SEAD-121C. This statement is incorrect. EPA accepted the risk assessment on June 28, 2006 via email.

Response 3: Agreed. The last paragraph of the section for SEAD-121C (renumbered as Section 2.6) has been revised to reflect that both EPA and NYSDEC have accepted the risk assessment for SEAD-121C and that no action is required at the site.

Comment 4: My laboratory staff indicates that Section 4 on Data Quality Objectives is too general, and that Section 6 only mentions the data that will be validated. The Army is required to provide more detailed information on the site-specific SAP/QAPP.

Response 4: Acknowledged. Detailed data quality objectives and data validation requirement will be specified in the site-specific work plan (SS-WP). It should be noted that a thorough discussion of data quality objectives and data validation is also presented in Section 4 and Section 8 of the Generic Site-Wide Sampling and Analysis Plan for Seneca Army Depot Activity (Parsons, July 2006), which should be used as an informational reference for this project.

Army's Response to Comments from the New York State Department of Environmental Conservation

Subject: Draft Contract-Specific Sampling and Analysis Plan
for Remedial Actions at Six Sites
Seneca Army Depot
Romulus, New York

Comments Dated: September 29, 2006

Date of Comment Response: October 31, 2006

Army's Response to Comments

GENERAL COMMENTS:

Comment 1: Section 2.1, page 2: Project Scope and Objectives – It is stated that Table 1 provides a summary of the proposed remedial action and Long-Term Management (LTM) at each of the six sites. Please clarify the timeframe (i.e. quarterly, semi-annual) of periodic monitoring of surface water (SW) and groundwater (GW) at SEAD-4/38, SEAD-11, and SEAD-121(C) as indicated on Table 1.

Response 1: Agreed. Table 1 has been revised to specify the frequency of periodic monitoring of surface water and groundwater. It should be noted that remedial actions and long-term management for the sites may be revised in the future and the site-specific work plan should be consulted for the most updated site plan for remedial actions and long-term management.

Comment 2: Section 2.2 to 2.5, page 3 to 5: What cleanup levels have been selected to be protective for future use of the areas like Institutional Area, Institutional and Training Area, Training Area. Please provide more detailed information about Clean up objective and present contamination in Table form.

Response 2: Acknowledged. The objective of Sections 2.2 through 2.5 was to briefly summarize the background of the sites covered in this project. Detailed subscription of the sites (including site-specific cleanup levels and present contamination) will be covered in the site-specific work plans and other site-specific documents such as Proposed Plan and Record of Decision. It is reasonable not to include site-specific cleanup objectives in this Sampling and Analysis report as the site-specific cleanup levels have not been finalized for all of the sites covered in this project.

Comment 3: Section 2.2, page 3. SEAD-4 and SEAD-38 – It is stated that "Surface water and groundwater will be monitored semi-annually for the first year subsequent to the completion of the remedial action." According to Table 1, the LTM consists of two years of periodic surface water and groundwater monitoring. Revision to the document is requested to reflect the correct term of monitoring.

Response 3: Agreed. Both Table 1 and Section 2.2 have been revised to reflect the most updated plan for SEAD-4/38. No monitoring program is currently proposed for SEAD-4/38.

Comment 4: Section 2.6, page 5: Has the Army done any previous investigation? Please explain and revise the report to provide additional discussion.

Response 4: Acknowledged. It should be noted that building demolition will be presented in detail in a separate document (i.e., building demolition work plan) and therefore is no longer included in this document. Discussion of previous investigation at the buildings will be provided in the building demolition work plan.

Comment 5: Section 5.1.1, page 13: Confirmatory Sample Collection – I request that all confirmatory soil samples be collected as discrete samples and not as composites as stated in the text.

Response 5: Acknowledged. Section 5.1.1 has been revised to specify that the confirmatory sample is a discrete sample.