

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

Omaha District

**FORMER AIR FORCE PLANT NO. 51  
MONROE COUNTY  
GREECE, NEW YORK**

**Contract No. DACA45-98-D-0004  
Task Order No. 0011**

**INTERIM REMOVAL ACTION  
AREA 1**

**FINAL  
COMPLETION REPORT**

**August 2001**

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01M-0007

**WESTON.**  
STRUCTURAL DESIGN/CONSULTANTS

**FINAL  
COMPLETION REPORT**

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Task Order No. 0011

Prepared for:

**U.S. ARMY CORPS OF ENGINEERS  
OMAHA DISTRICT  
Fort Crook Area  
Rapid Response Residence Office**

Prepared by:

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August 2001

W.O. No. 20074-515-011

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## TABLE OF CONTENTS

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<b>Section</b>	<b>Page</b>
<b>1. INTRODUCTION.....</b>	<b>1-1</b>
1.1 SITE DESCRIPTION .....	1-2
1.2 SITE BACKGROUND .....	1-2
1.3 PROJECT OBJECTIVES.....	1-5
<b>2. SAFETY AND QUALITY CONTROL PROTOCOLS.....</b>	<b>2-1</b>
2.1 HEALTH AND SAFETY.....	2-1
2.1.1 Air Monitoring .....	2-1
2.1.2 Personal Protective Equipment .....	2-2
2.2 QUALITY CONTROL.....	2-2
<b>3. DESCRIPTION OF WORK.....</b>	<b>3-1</b>
3.1 MOBILIZATION .....	3-1
3.2 SITE PREPARATION.....	3-2
3.3 LIQUIDS REMOVAL .....	3-4
3.4 SEDIMENT REMOVAL AND SAMPLING .....	3-5
3.4.1 Phase I .....	3-5
3.4.2 Phase II .....	3-9
3.5 WASTE CHARACTERIZATION, TRANSPORTATION AND DISPOSAL.....	3-11
3.5.1 Liquid Waste .....	3-11
3.5.2 Solid Waste.....	3-12
3.6 SITE RESTORATION .....	3-13
3.7 DEMOBILIZATION .....	3-15
<b>4. REFERENCES.....</b>	<b>4-1</b>

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## **APPENDICES**

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- APPENDIX A      PHOTO LOG
- APPENDIX B      SEDIMENT AND GROUND WATER ANALYTICAL DATA
- APPENDIX C      BORING LOGS
- APPENDIX D      BACKFILL ANALYTICAL DATA
- APPENDIX E      CHAIN OF CUSTODY RECORDS

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## **LIST OF FIGURES**

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<b>Title</b>	<b>Page</b>
Figure 1-1 Site Location Map .....	1-3
Figure 1-2 Site Map .....	1-4
Figure 3-1 Sample Locations .....	3-7

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## LIST OF ACRONYMS

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AFB	Air Force Base
CQC	Contractor Quality Control
DCE	dichloroethene
frac	fractational
GSA	General Services Administration
HTRW	Hazardous, Toxic and Radioactive Waste
IRA	Interim Removal Action
MCWA	Monroe County Water Authority
NYSDEC	New York State Department of Environmental Conservation
NYSDOH	New York State Department of Health
Ogden	Ogden Environmental and Energy Services Co., Inc.
OSHA	Occupational Safety and Health Administration
OSR	On-Site Representative
PCBs	polychlorinated biphenyls
PPE	personal protective equipment
QC	Quality Control
SSHASP	Site-Specific Safety and Health Plan
SVOCs	semi-volatile organic compounds
TAGM	Technical and Administrative Guidance Memorandum
TCE	trichloroethene
USACE	U.S. Army Corps of Engineers
VOCs	volatile organic compounds
WESTON	Roy F. Weston, Inc.
WP	Work Plan

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## **SECTION 1**

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### **INTRODUCTION**

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## **1. INTRODUCTION**

This Final Completion Report describes the technical approach of Roy F. Weston, Inc., (WESTON®) for the work performed at the Former Air Force Plant No. 51 in Greece, New York. The work was performed under the Rapid Response/Immediate Response Contract for Control/Remediation of Hazardous, Toxic and Radioactive Waste (HTRW), under Task Order No. 11 of Contract No. DACA45-98-D-0004 for the U.S. Army Corps of Engineers (USACE).

The work for this project included the following phased tasks:

- Mobilization of construction equipment, personnel, sanitary and support equipment, and temporary office and storage trailers to the project site.
- Site preparation including rough grading of the support area, delivery of crushed gravel, preparation of haul roads and equipment staging pads, clearing and grubbing of brush and vegetation, installation of a silt fence along the perimeter of the former lagoon area, and installation of hay bale check dams in the lagoon's overflow swale.
- Removal, transportation, and disposal of the contaminated standing water from the lagoon.
- Removal, solidification, transportation, and disposal of the first 1 foot of sediment from the entire bottom of the lagoon.
- Initial pre-excavation soil sampling.
- Performance of soil borings and test pits to vertically characterize the distribution of contaminants below the former lagoon.
- Additional soil excavation down to groundwater elevation in five of the six cells.
- Final sidewall and bottom post-excavation soil and groundwater sampling.
- Site restoration including construction/installation of engineered backfill at the groundwater interface. Backfilling of the excavation above the engineered layer with imported common fill, and final grading.
- Demobilization activities including decontamination and removal of equipment, personnel, and materials and disposal of resulting wastes.

Final site restoration activities are currently scheduled to be completed in late fall (2001) to complete removal of construction fence, to perform hydro seeding of the Former lagoon area, to perform final grading, and all remaining punch list items.

For reference purposes, a photo log is included in Appendix A for each phase of work identified above.

## **1.1 SITE DESCRIPTION**

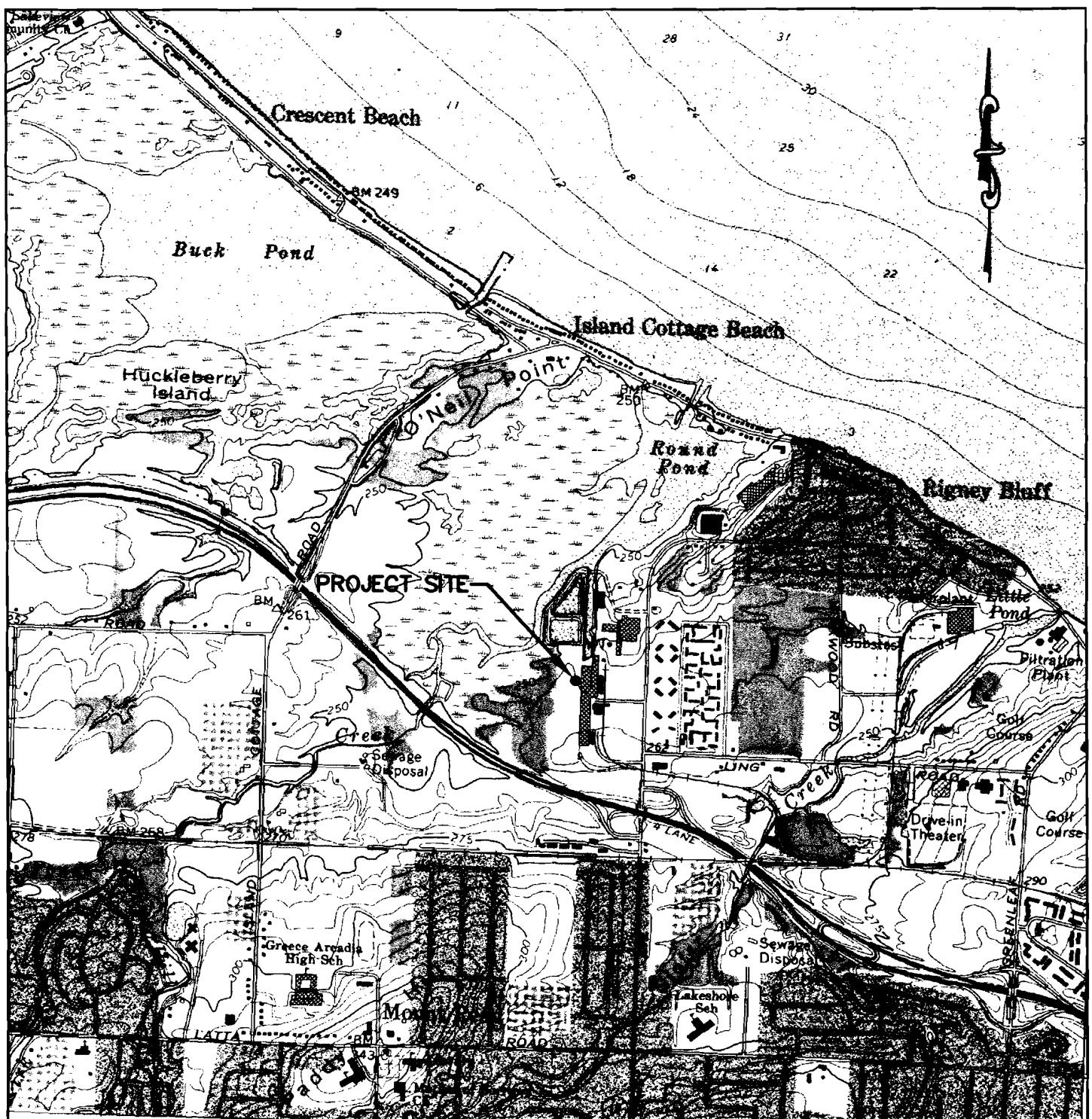
The Former Air Force Plant No. 51 is located in Greece (Monroe County), New York, north of the Lake Ontario State Parkway and adjacent to Dewey Avenue (see Figure 1-1). Between 16-19 November 1999, Ogden Environmental and Energy Services Co., Inc. (Ogden) performed a targeted Hazardous and Toxic Remedial Waste (HTRW) investigation of the site for the Omaha District, U.S. Army Corps of Engineers. The report prepared by Ogden, identified as "Final Former Air Force Plant No. 51 HTRW Investigation," dated April 2000 (the Ogden report), identified seven areas of concern at the site. Soil/sediment and surface water within Area 1 were identified as media containing contaminants of concern.

Area 1 is located northwest of the Genesee Scrap Metal main building and consists of a 14,220 sf surface impoundment (lagoon) that formerly collected the discharge water from electroplating operations. The thickly wooded lagoon is bound to the east by the historical building, to the north and west by a chain link fence, and to the south by an arbitrary site perimeter line determined by the current owner of the 4800 Dewey Avenue Associates property. (see Figure 1-2).

According to the Ogden report, the water depth of the lagoon was estimated at approximately 1 foot (this depth was confirmed based on a sitewalk performed by WESTON in September 2000). In addition, the primary receptor of contaminated surface water and sediments from Area 1 is wildlife located in the freshwater wetland area to the west of the project site. The wetlands, identified in the Ogden report as Area 2, are hydraulically connected to Area 1 by a drainage swale that extends from the western end of the lagoon. Both the Area 1 lagoon and the drainage swale, "ditch" are shown in Figure 1-2.

## **1.2 SITE BACKGROUND**

According to the Ogden report, Air Force Plant No. 51 was built for the production of ocean-going ships during World War II. Later, the Department of Defense produced B-52 bulkheads at



SOURCE

**US DEPT. OF THE INTERIOR, GEOLOGICAL SURVEY  
7.5 MINUTE SERIES (TOPOGRAPHIC)  
ROCHESTER WEST, N.Y., 1971 (PR 1978)  
BRADDOCK HEIGHTS, N.Y., 1971 (PR 1978)**

## **GRAPHIC SCALE**

**APPROXIMATE SCALE IN FEET**

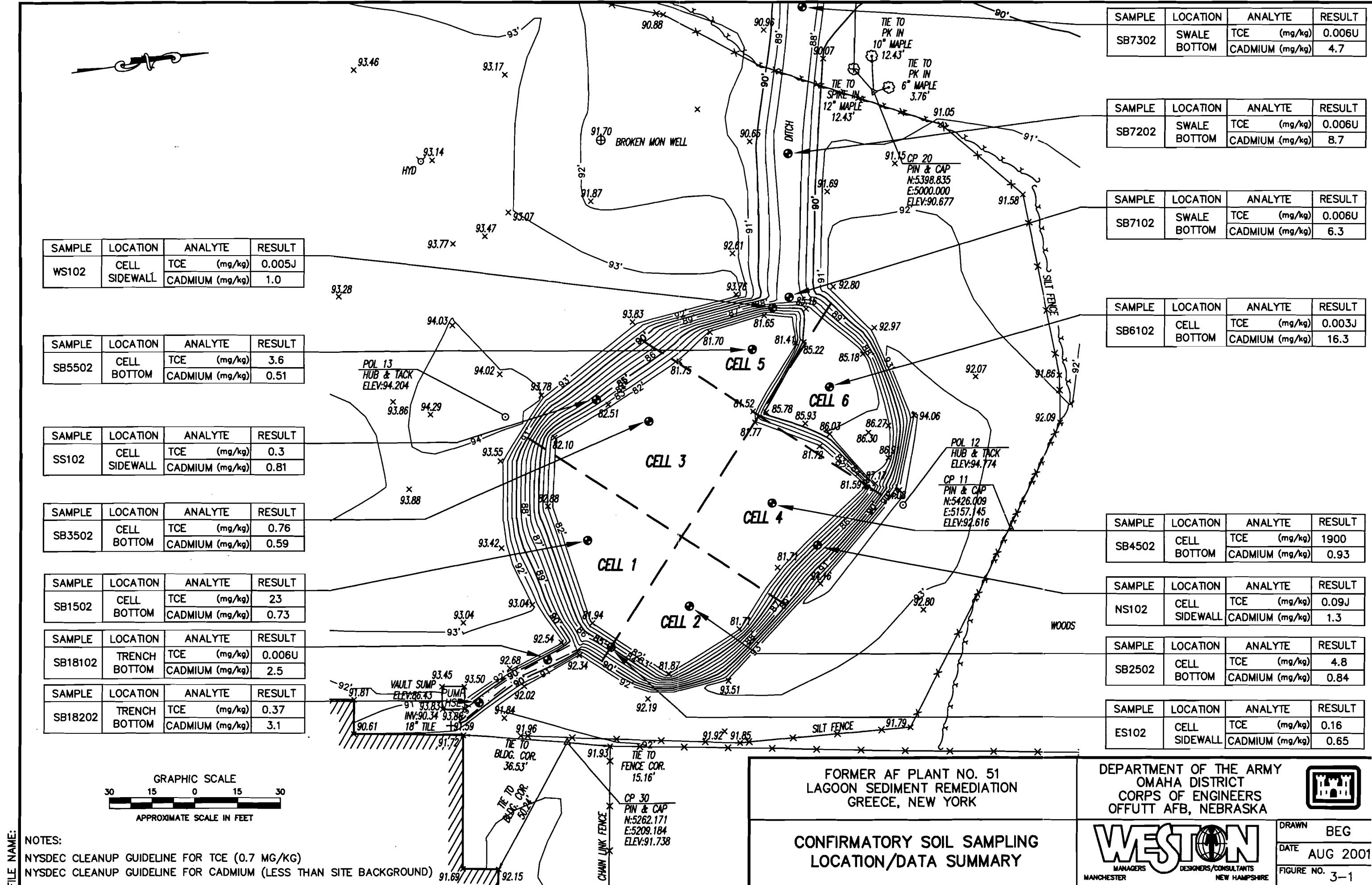
FORMER AIR FORCE PLANT NO. 51  
GREECE, NEW YORK

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



## SITE LOCATION MAP

DRAWN BEG  
DATE AUG 2001  
FIGURE NO. 1-1



the site, and lastly, before its present use by a scrap metal company, it was utilized for the production of Talos ground-handling equipment.

In September 1959, care and custody of the site was accepted by the General Services Administration (GSA). On 10 March 1961 by quitclaim deed, the GSA conveyed 40.33 acres fee and 3.66 acres easement to the Monroe County Water Authority (MCWA). Later, on 7 November 1963, the Monroe County Water Authority, by quitclaim deed, conveyed 36.63 acres fee and 3.24 acres easement to 4800 Dewey Avenue, Incorporated. The firm (4800 Dewey Avenue, Inc.) currently leases the property to the Genesee Scrap and Tin Company. Genesee Scrap and Tin stores and repackages scrap and tin products for resale.

During the Ogden investigation, sediment samples were collected from three locations within Area 1 at a depth of 0 to 6 inches. The sediment samples were analyzed for total metals, volatile organic compounds (VOCs), and cyanide. In addition, three surface water samples were also collected from Area 1 and analyzed for total metals and cyanide. Based on the investigation data, contaminants detected in Area 1 sediment included trichloroethene (TCE), cis-1, 2-dichloroethene (DCE), vinyl chloride, cadmium, chromium, copper, lead, nickel, zinc, and cyanide. Contaminants detected in Area 1 surface water included TCE, cis-1, 2 DCE, vinyl chloride, cadmium, chromium, copper, and lead.

### **1.3 PROJECT OBJECTIVES**

The primary objective of the Air Force Base (AFB) Plant 51 Interim Removal Action (IRA) was to remove the contaminated liquids and contaminated sediments from the former electroplating lagoon and to assess the contaminant concentrations following post-excavation activities. If groundwater was encountered in the excavation, it was to be sampled. The intent of the removal was to abate conditions immediately dangerous to human health and the environment. The secondary objective, established in conjunction with USACE and New York State Department of Environmental Conservation (NYSDEC) representatives, was to excavate and remove contaminant levels in sediments within the footprint of the lagoon area to NYSDEC Recommended Soil Cleanup Objectives and/or to continue excavation until the groundwater elevation was achieved.

In order to accomplish this, WESTON and USACE worked with the NYSDEC in order to reduce target contaminant concentrations for VOCs, semi-volatile organic compounds (SVOCs), and metals in the sediments to below the acceptable site cleanup guidelines. The site cleanup level for TCE was .7 mg/kg. All other VOC, and SVOC concentrations were reviewed in accordance with the Technical and Administrative Guidance Memorandum (TAGM) No. 4046 except metals samples including cadmium, which were compared with Site Background concentrations in accordance with and under the approval of NYSDEC. Additional parameters such as pesticides, and polychlorinated biphenyls (PCBs) were analyzed for but not detected in any samples.

The following time line summarizes the major planning and partnering sessions that were held among USACE, WESTON, NYSDEC, and other regulatory and local representatives to maintain project objectives throughout site remediation activities:

<u>Date</u>	<u>Meeting Type</u>
07/13/00	Pre-construction site visit
08/02/00	On-site information and partnering session
09/18/00	Comment review/partnering session at NYSDEC (Albany, NY)
10/10/00	On-site meeting
10/10/00	Public availability session Greece Arcadia High School
12/06/00	On-site project status meeting
01/08/00	Phase II planning conference call
05/09/01	Final site inspection

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**SECTION 2**

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**SAFETY AND QUALITY CONTROL PROTOCOLS**

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## **2. SAFETY AND QUALITY CONTROL PROTOCOLS**

### **2.1 HEALTH AND SAFETY**

During the IRA, safety was established and maintained at the highest priority levels to ensure that all parties, including site management staff, craft staff, visitors, and the local community, were protected. The Work Plan (WP) and Safety Plan for the IRA were developed and approved with the guidance, input, and cooperation of USACE, New York State Department of Health (NYSDOH), NYSDEC, Town of Greece, the property owner, and the MCWA.

Site work was conducted in accordance with the safety procedures detailed in the approved Site-Specific Safety and Health Plan (SSHASP) and Work Plan. WESTON's field team was responsible for proper implementation of the approved plans. NYSDEC inspectors, NYSDOH inspectors, the property owner's representatives, town officials, and MCWA representatives periodically visited the site to review progress and to confirm compliance.

WESTON's Site Safety Officer performed the required real-time dust particulate, noise, and perimeter monitoring and record keeping to ensure compliance in accordance with state, federal, and local requirements. Daily safety meeting records, daily equipment inspection records, and air monitoring data summaries are attached to USACE Daily Quality Control (QC) Reports and are available upon request.

#### **2.1.1 Air Monitoring**

Air monitoring was conducted during intrusive activities to maintain compliance with the requirements of NYSDOH and the NYSDEC Community Air Monitoring Program. Air monitoring equipment was utilized in accordance with the procedures outlined in the Safety Plan. A total of four fixed monitoring stations were established at locations along the perimeter of the site (three downwind and one upwind). The location of the stations varied based on site-specific tasks and wind direction. At each station, VOC and airborne particulate concentrations were measured and data were logged with real-time

instrumentation. In addition to the fixed stations, the Site Safety Officer utilized real-time instruments to measure and document readings in accordance with the community air plan requirements. During site work, no exceedances of the organic vapor and airborne particulate concentrations were reported. Copies of the air monitoring data logger downloads are on file and available for review upon request.

Personal air samples were collected during the first 4 days of each phase of intrusive activities to document the potential levels of worker exposure. In addition, real-time direct reading air monitoring equipment and colorimetric chemical detector tubes were utilized to detect and quantify contaminants of concern. Based on instrument and/or detector response, personal protective equipment (PPE) was upgraded or downgraded.

### **2.1.2 Personal Protective Equipment**

In general, the following levels of protection were utilized on-site during site remediation activities:

<b><u>Task</u></b>	<b><u>Minimum PPE Level</u></b>
Mobilization	D
Site Preparation	D
Liquids Removal	C
Sediment Removal	C
Soil Excavation	C
Sampling	C
Decontamination	Modified D
Backfilling	D
Site Restoration	D
Demobilization	D

There were no Occupational Safety and Health Administration (OSHA) recordable or Lost Time incidents during the IRA.

## **2.2 QUALITY CONTROL**

As it relates to this project, Quality Control (QC) can be divided into two separate but interrelated functions: on-site QC, and off-site technical support QC. The on-site QC role was supervised and implemented by the Site Superintendent and field team. Key USACE

and WESTON personnel performed the off-site QC role. Specialized professional technical support was required during various phases of the IRA and key personnel within the project team provided guidance when required. The following is a listing of key QC personnel and general roles:

<u>Key Personnel</u>	<u>Discipline</u>	<u>QC Role</u>
<b>On-site:</b>		
Denzie White (USACE)	Construction	Contractor Oversight (OSR)
Steven O'Brien (WESTON)	Construction	Plan Implementation
Jim Wallis (WESTON)	Safety	Plan Implementation
Bill Schmitt (WESTON)	Cost Engineering	Plan Implementation
<b>Off-site:</b>		
Jim Baron (USACE)	Program Chemist	Data Validation/Tech support
Timothy Jensen (USACE)	Geotechnical	Plan review/Tech support
Andy Winslow (USACE)	Project Mgr (COR)	Data review/Tech support
George Crawford (WESTON)	CIH/Safety	Plan review/Tech support
Bill Freeman (WESTON)	Program Chemist	Data Validation/Tech support
Eric Johansen (WESTON)	Project Mgr.	Data review/Tech support
Chris Kane (WESTON)	Project Mgr.	Data review/Tech support

The on-site team consisted of the Omaha District Rapid On-Site Representative (OSR) and WESTON's field personnel. On a daily and task-specific basis, quality objectives were evaluated and reviewed with essential personnel prior to execution. The three-part quality program adopted from USACE (Preparatory, Initial, and Follow-up) was implemented to ensure conformance with the plan objectives and procedures. Quality was evaluated during execution and at each definable phase of the task being performed. Observations were documented in the daily Contractor Quality Control (CQC) reports and the site-specific logbook. In addition, photos were taken to establish permanent records of the work (see Appendix A).

Documentation of technical guidance and off-site QC review consists primarily of fax, e-mail, and telephone records of conversations. Significant phone conversation logs and correspondence are available upon request.

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**SECTION 3**

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**DESCRIPTION OF WORK**

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### **3. DESCRIPTION OF WORK**

#### **3.1 MOBILIZATION**

Mobilization was performed by WESTON on 10 October 2000 to initiate activities associated with the remediation of Area 1 Lagoon. This included the mobilization of staff, equipment, and materials necessary to complete all site activities.

Phased mobilization of construction and support equipment was performed to ensure timely performance of site activities in accordance with the project schedule. Mobilization and site preparation activities were coordinated in advance between the WESTON Site Manager and the Omaha District-Rapid OSR.

On 7 September 2000, prior to mobilization of construction equipment, WESTON established a grid system in the Area 1 lagoon to delineate areas targeted for sampling activities. The grid system consisted of six cells with each cell extending a lateral distance of approximately 40 wide feet by 50 feet long. A total of four pre-excavation sediment samples were collected to identify and quantify initial contaminant concentrations. The samples were obtained with a manually driven lexan tube sediment sampler. Utilizing chest waders and a Jon boat the sampling team accessed the center of Cells 1, 2, 4, and 5. The lexan tube was driven into the lagoon sediment and underlying soil through the standing water. Dense soil conditions in Cells 1, 2 and 5 limited sample penetration depth to 4-inches below the existing lagoon bottom. In Cell 4 softer soil was encountered and tube penetration extended to a depth of 12-inches.

Sediment samples were analyzed for a full waste characterization profile including: VOC, SVOC, PCB, Reactivity, Corrosivity, Flash Point, Total Metals, Cyanide and a full TCLP. Based on a review of the data, NYSDEC TAGM limits were exceeded for TCE, cis-1, 2 DCE, 4-methyl 1-2 pentanone, cadmium, chromium, manganese, selenium, and zinc. A summary of Pre-Excavation data is included in Table 1-1 (Appendix B).

### **3.2 SITE PREPARATION**

Prior to mobilization activities, the owner removed a number of large metal structures, scattered pieces of metal debris, empty drums, and soil stockpiles from within the 250-foot by 500-foot site perimeter and rough graded the site in order to facilitate site preparation activities by WESTON. Initial site preparation activities included clearing the remaining metal debris and establishing work zones for safety purposes, constructing a haul road and staging pad, installing erosion and sedimentation controls, performing clearing and grubbing, surveying, and other ancillary tasks.

The level area of the lot was regraded and imported stone was delivered and spread along the eastern portion of the site to create a staging area for the office trailers and decontamination trailers. A separate area was also graded for vehicle parking. Additional surficial improvements included the construction of a haul road and staging area. Crushed stone was delivered and placed to allow for heavy truck access to the fractational (frac) tank staging area and to the southern edge of the lagoon where soil loading was to be performed. A 50-foot by 50-foot gravel staging pad was constructed to accommodate five 21,000-gallon frac tanks. The pad was constructed along the northwestern end of the lot adjacent to the lagoon but west of the haul road. The haul road, frac tank pad, and the majority of the staging area and parking lot were compacted with a 10-ton roller. In addition, 9-foot by 12-foot polyethylene tarps were attached to the chain link fence on the east side of the lagoon to form a wind barrier between the lagoon and the MCWA treatment plant.

Erosion and sedimentation control measures were installed at all environmentally sensitive areas, including the lagoon, swale, and trench area. Silt fence was installed approximately 40 to 50 feet back along the lagoon's north and west sides in order to allow sufficient space for heavy equipment traffic prior to clearing and grubbing. The fence also extended across the overflow swale and south across the work area along the western border of the site. Intermediate hay bale check dams were constructed and placed at three locations in the overflow swale to mitigate surface water flow and to prevent fine migration along the swale during remediation.

WESTON's Transportation & Disposal contractor, Charter Environmental, collected four liquid samples from the standing water in the lagoon on 16 October 2000 for waste characterization purposes. A treatability analysis was performed on the samples and the liquid waste disposal profile was generated in order to obtain profile approval from the treatment/disposal facility.

Concurrent with installation of erosion and sedimentation controls, clearing and grubbing of trees and underbrush from the lagoon perimeter was performed. This included removal of trees with a hydraulic shear, removal of underbrush using a hydro-axe, and grubbing of stumps using an excavator. Wood debris from the clearing activities was chipped and stockpiled while the stumps were decontaminated and ground with the aid of a grapple attachment.

A baseline topographic survey was performed on 9 October 2000 to document pre-construction site conditions relating to the lagoon and the surrounding areas. This included the collection of surface data within an area of approximately 300 feet (east to west) by 500 feet (north to south). Elevation data and other site features including the location of the lagoon, drainage ditch (swale), vault sump, monitoring wells, site office trailer, decon trailer, truck scale, perimeter chain link fence, silt fence, and staging areas were surveyed. The topographical data and structures are shown in Figure 1-2.

During site preparation activities, the drain sump located at the northwest corner of the main building was investigated. Based on a visual inspection of the drain sump, it was unclear whether discharge from the building drainage system entered into the lagoon from the drainage sump. Furthermore, the potential for installing additional storm water management controls could not be evaluated until confirmation of the drainage route from the drain sump was determined. On 16 October 2000, at the direction of the OSR, WESTON collected a representative sample of the liquid inside the drain sump. The sample was obtained by lowering a bailer into the liquid through the sump cover hatch. The sample was analyzed for waste disposal characterization parameters including: VOC, TPH, TCLP Metals and Total Cyanide. A summary of the drain sump data is shown in Table 1-2 (Appendix B).

A dye test was completed on 20 October 2000 to confirm the drainage route. Based upon a visual inspection of the dye pathway, it was noted that the system discharged to the adjacent Area 2 wetlands (located west of the chain link fence) through an 18-inch concrete outfall pipe instead of the lagoon.

Once clearing activities were completed and all staging areas had been defined, a safety fence was installed to establish the exclusion, contaminant reduction, and support zones. The decon pad was installed in the contaminant reduction zone and the staging area was established in the support zone.

### **3.3 LIQUIDS REMOVAL**

On 23 October 2000, dewatering of the lagoon was initiated to remove approximately 1 foot of standing water above the underlying sediment. Dewatering sumps were installed on the south and west edges of the lagoon to expedite removal of the water. The sumps were utilized to pump water from the lagoon bottom into one of five 21,000-gallon on-site frac tanks. A total of five frac tanks were initially staged on-site for storage purposes; however, two of the five frac tanks were removed following the initial dewatering effort since the additional storage capacity was not required. Decontamination liquid collected during the first mobilization phase was also stored in the frac tanks. Tanker trucks with vacuum equipment were utilized to remove the final decontamination rinsate solutions from both the decon pad and frac tanks prior to shipment off-site. Liquid that was pumped and stored during the first phase of the initial dewatering effort and from decontamination events in October 2000 was transported off-site in November as stated in Subsection 3.5. Liquid generated on-site after this period was transported off-site in successive events between January and February 2001.

## **3.4 SEDIMENT REMOVAL AND SAMPLING**

### **3.4.1 Phase I**

#### **Initial Characterization**

Characterization samples were collected on 26 October 2000 from Cells 1-6, after the bulk dewatering of the lagoon had been completed to determine contaminant concentrations in the sediment at the bottom of the lagoon. The purpose of the sampling was to verify whether or not the initial sediment profile was affected by dewatering. The sampling was also used to evaluate if separate excavation events in each cell would be more cost effective versus performing excavation over the entire lagoon bottom following solidification. One sample was collected from the center of each cell. Each composite sample was collected at a depth of 12 inches below existing ground and analyzed for VOC's, SVOC's, PCB's, and Cyanide. A complete summary of analytical data is presented in Table 1-3 (Appendix B).

#### **Sediment Solidification**

On 30 October 2000 following dewatering of the saturated sediment, lime was added to the sediment due to the high moisture content to solidify the material for off-site transportation and disposal. Approximately 130 tons of lime were delivered in dump trailers and placed in the southeast corner of the lagoon to facilitate solids mixing. The lime was mixed into the sediment using two excavators equipped with grading buckets. A standard (CAT 320B) excavator was utilized within the lagoon footprint to remove visibly stained sediment from the bottom of the work area while mixing in a sufficient quantity of lime so that the material could be efficiently transferred without the presence of free liquids. The processed sediment and lime additive were then transferred to the south side of the lagoon where the long reach (CAT 325L) excavator mixed in additional lime to complete the solidification process. The solidified sediment was loaded into lined roll-off containers, which were staged in the support zone after loading. Separate Frac

tank and decon pad sediment material was moisture solidified through the addition of Cellutec™ cellulose absorbent media.

### **Initial Sediment Removal and Sampling**

Once the sediment was solidified and removed to an approximate depth of 6 inches, additional excavation was performed to remove the underlying soil to a total depth of approximately 12 inches from original grade along the bottom and sidewalls of the lagoon. Initial post-excavation bottom and sidewall samples were collected from Cells 1-6 on 8 December 2000 at a depth of 12 inches BOG. One sample was collected from the bottom center and middle sidewall of each cell for a total of 12 samples. Initial post-excavation sampling results revealed that all sidewall and bottom samples exceeded the clean-up criteria for cadmium at the confirmatory depth of 1 foot. In addition, exceedances for TCE were exhibited in Cells 2 and 4. Sample locations and TCE/cadmium data are shown in Figure 3-1. A complete summary of analytical data is presented in Table 1-4 (Appendix B).

### **Swale Excavation and Sampling**

At the direction of USACE, WESTON removed approximately 1 foot of sediment from the overflow swale on the west side of the lagoon to remove potentially contaminated surface material that may have been deposited from the lagoon. The swale bottom varies in width from approximately 15 feet (at the lagoon outlet) to approximately 6 feet at the release approximately 150 feet downstream. A total of three samples were collected from the swale at 50-foot intervals following excavation on 8 December 2000 as shown in Figure 3-1. The samples were analyzed for VOCs, semivolatile organic compounds (SVOCs), PCBs, pesticides, and metals; however, only concentrations above site background were reported for cadmium, calcium, magnesium, nickel, selenium, and zinc. A complete summary of analytical data is presented in Table 1-4 (Appendix B).

## **Trench Excavation and Sampling**

The 18-inch influent pipe leading from the manufacturing plant to the lagoon and the concrete cradle below the influent pipe were also excavated, crushed, and disposed of with the stabilized lagoon sediments. Based on the size of the influent pipe, the resulting debris was removed from a width of approximately 24 to 30-inches wide to a depth of 4 feet at the invert elevation within the lagoon. A total of two samples were collected from the trench bottom approximately 10 feet in from the lagoon and 10 feet in from the building on 8 December 2000 as shown in Figure 3-1 for the same analytical parameters. As compared with the swale sample data, similar results were obtained from the trench sample data with exceedances reported for metals only. A complete summary of analytical data is presented in Table 1-4 (Appendix B).

## **Soil Borings and Sampling**

Based on the exceedances for TCE and cadmium at bottom and sidewall sample locations at a depth of 1 foot, a site specific vertical delineation SOW was prepared and approved by the USACE. On 21 and 22 December 2000, soil borings were advanced into the subsurface soils in each cell of the lagoon by Nothnagle Drilling, Inc. to evaluate in-situ soil concentrations for TCE. Soil samples were collected from the post-excavation surface down two feet in Cells 1, 2, 3, 4 and 6 with a standard hollow stem auger drill rig utilizing a 3-inch diameter stainless steel split-spoon. Each six-inch interval over the first two feet was sampled. The test boring in Cell 5 was advanced to an approximate depth of 9.5 ft. BOG. In accordance with the approved vertical delineation plan, a temporary piezometer was installed and groundwater was measured at 6 feet below grade. Based on headspace readings and field observations selected intervals from each boring were analyzed for the driving contaminant of concern; TCE. The data for all soil borings is presented in Table 1-5 (Appendix B). Soil boring data from test borings in Cells 2, 3, and 4 (to 2 feet) and in Cell 5 (to GW) revealed contaminant concentrations exceeded the NYSDEC clean-up criteria for TCE. Based upon review of the data by USACE and NYSDEC, it was determined that additional testing and/or delineation were necessary in

order to evaluate contaminant concentrations further. Most of the soil encountered at depths beyond 2 feet while performing soil borings consisted mostly of coarse to fine sand with a trace of silt and fine gravel. Drilling logs for the soil borings are contained in Appendix C for reference purposes.

### **3.4.2 Phase II**

#### **Additional Sediment Removal**

A plan of action was discussed and approved via conference call with the USACE on 8 January 2001 to continue delineation efforts. It was determined that the most efficient and cost effective solution for continued vertical characterization was through further excavation and test pitting. Based on prior post-excavation sampling data from the lagoon bottom, the second phase of soil excavation was initiated on 22 January 2001. Soil was excavated from Cells 2, 3, and 4 to an additional depth of 2 feet based on the 22 December 2000 boring data while a plan for the rapid evaluation of the lagoon's subsurface contamination was developed. TCE and cadmium concentrations were the primary constituents evaluated in determining the depth of excavation. A local laboratory was contracted to perform rapid turnaround analysis of soil samples to expedite the soil removal.

#### **Test Pit Excavation to GW and Sampling**

On 25 January 2001 the first round of test pits were advanced in the centers of Cells 1, 2, 3, 4 and 6 to the approximate groundwater elevation (6 ft. below original ground) to evaluate TCE concentrations to GW. The center of Cell 5 could not be accessed because of the location of the stabilized sediment stockpile. Test pit samples were collected at consecutive 1-foot intervals starting from three down to six feet below initial post excavation grade. The samples were sent to a local laboratory for rapid turn around analysis to expedite remedial action decisions. Samples were analyzed for the primary drivers, VOCs and metals (where applicable). The test pit data for samples collected on 25 January 2001 is presented in Table 1-5 (Appendix B). Based on a review

of the data, exceedances were reported between 3 feet and 6 feet BOG (GW elevation) in Cells 2, 3, and 4. In addition, free liquid was observed entering the test pits through fractures in the subgrade soil. A dark dense separate phase liquid was observed to be migrating into the test pits in Cells 1 and 4. Soil samples collected in Cell 1 were not analyzed due to matrix interferences with the liquid.

On 30 and 31 January 2001, additional test pits were excavated in Cells 2, 5, and 6 to complete vertical characterization of all six cells down to groundwater elevation. Test pit data for samples collected between 30 and 31 January 2001 is presented in Table 1-5 (Appendix B). Based on a review of the data, exceedances were reported in Cell 5 only to a depth of 5 feet. Data from Cells 2 and 6 was not analyzed.

### **Excavation to GW and Sampling**

Soil from Cells 1 through 5 was excavated from initial post-excavation grade to a depth of approximately 5.5 to 6 feet due to confirmatory sample data for TCE and/or cadmium. The depth of soil removed from Cells 1 to 5 was based on the groundwater measurements in the Cell 4 test pit to a depth of 6 feet. Excavation beyond a depth of 1 to 1.5 feet was not required in Cell 6 since the NYSDEC guideline concentration for TCE and cadmium were achieved. On 3 February 2001, groundwater was observed at the approximate relative elevation of 81.61 feet.

### **Final Confirmatory Sampling**

Based on the completion of excavation activities, final post-excavation samples were collected and analyzed for VOCs, SVOCs, PCBs, pesticides, and metals from the bottom-center of Cells 1 through 5 on 13 February 2001. These samples were collected at an elevation approximately equal to the groundwater elevation ( $81.61 \pm 6$  inches) for a total depth of approximately 5.5 to 6.0 feet from BOG. Sidewall samples were also collected for the same parameters from the north, south, east, and west sidewalls at a height of approximately 3.5 feet BOG. A complete summary of the post-excavation “second round” sample data is presented in Table 1-4 (Appendix B). Target contaminant

concentrations for TCE and cadmium are shown at each bottom and sidewall sample location in Figure 3-1. It is noted that sample number SS102 was initially analyzed and estimated at 1.0 E mg/kg for TCE in the preliminary data package. However, the final diluted sample result for TCE was .3 D mg/kg since the initial undiluted sample exceeded the instruments calibration range. A clarification for this sample can be found in Mitchems VOA Data Qualifier letter dated 19 July 2001 located in Appendix B.

Although exceedances were reported above the cleanup guideline concentrations in bottom samples, additional excavation of contaminated soil was not required since material had been removed to groundwater elevation in Cells 1-5. Groundwater at 6 feet BOG was found to contain 14,000 ug/l TCE following excavation activities. All confirmatory data was reviewed with USACE and NYSDEC representatives following completion of excavation activities. A complete summary of the groundwater analytical data is presented in Table 1-6 (Appendix B). Copies of the laboratory analytical reports are on file and are available upon request.

### **3.5 WASTE CHARACTERIZATION, TRANSPORTATION AND DISPOSAL**

Throughout the course of the IRA, two separate waste streams (liquids and solids) were generated at the site from remediation activities. The liquids and solids were both treated as hazardous waste based on historical waste characterization and profile data.

#### **3.5.1 Liquid Waste**

Liquid waste that was generated on-site included dewatering fluid from the lagoon and decontamination fluid from the personnel decontamination trailer, the exclusion zone, and from the heavy equipment decontamination pad. The liquid disposal characterization profile was prepared based on historical data provided in the Ogden report and from generator knowledge of past site activities. Treatability samples were collected on 16 October 2000 prior to completion of the waste profile.

Between 3 November 2000 and 8 November 2000, contaminated water was transported off-site in 5,000-gallon tankers to CECOS International Inc. of Niagara Falls, New York

for disposal. The wastewater was transported offsite as RQ Hazardous Waste Liquid, Class 9, NA 3082, PG III with a D043 waste code number. A total of 42,305 gallons of water were manifested off-site during the first phase of liquid treatment and disposal.

On 12 December 2000, two of the three remaining frac tanks were cleaned. The last tank was retained on-site to store wastewater generated during excavation dewatering and decontamination activities. Between 24 January 2001 and 15 February 2001, an additional volume of 40,675 gallons of contaminated water were manifested and transported off-site to the CECOS International treatment and disposal facility to complete the second phase of liquids removal.

Based on manifest documents and site records, a total of approximately 82,980 gallons of contaminated water were generated and transported off-site during the IRA at the Former Air Force Plant 51. The water was treated at CECOS via pH adjustment, air stripping, and carbon polishing prior to disposal. Copies of the waste profile sheets, manifests and transporter and disposal facility permits are on file and are available upon request.

### **3.5.2 Solid Waste**

Solid waste that was generated on-site included sediment and solidified material, soil excavated from the lagoon, residual solids from the cleaning of the frac tanks and the decontamination pad, and tarpaulins/PPE. The solids disposal characterization profile was based on samples collected on 26 October 2000 and generator knowledge of past site activities.

The staged sediment that was removed from the lagoon was originally targeted for transportation to the Model City facility in Buffalo, New York, for disposal. However, the sediment failed to meet Model City's acceptance criteria. As a result, the transportation and disposal of the sediment was re-evaluated during a shutdown period between 11 November 2000 and 4 December 2000 to obtain the proper approvals and authorizations for the international transportation of hazardous waste. In addition, it was determined during the shutdown period that it was more cost-effective to utilize dump trailers rather than roll-off containers to store/transport the sediment and soil.

Transportation and disposal activities for the first phase of load out were performed between 7 December 2000 and 19 December 2000. Sediment and soil were direct loaded into dump trailers for disposal. Trucks were routed into a lined loading area immediately south of the lagoon. The long reach excavator transferred material from the solidified stockpile to load the trucks directly. During this phase, approximately 75 loads totaling approximately 1,389.48 tons were transported as hazardous waste to the Horizon Landfill located in Grandes Piles, Quebec, for disposal.

Transportation and disposal activities for the second phase of load out were performed between 26 January 2001 and 13 February 2001. During this phase, approximately 159 loads totaling approximately 3,327.54 tons were transported off-site as hazardous waste to the Horizon Landfill located in Grandes Piles, Quebec for disposal.

Based on manifest documents and site records, a total of approximately 4,717 tons of hazardous wastes were generated and transported off-site for disposal during the IRA at Air Force Plant 51. The material was placed in a Maximum Security Cell within the landfill. Copies of the manifests, waste profile sheets, land ban disposal forms, transporter and disposal facility permits, USEPA Acknowledgement of Consent letter, and the Canadian authorization to import hazardous waste are on file and are available upon request.

### **3.6 SITE RESTORATION**

Site restoration activities were initiated on 13 February 2001 following completion of excavation and loading activities at Area 1. This included the construction of a liner/fill component system at groundwater elevation in the lagoon, placement of common fill above the groundwater elevation, installation of a permeable geotextile material and 1 foot of fill in the swale, and backfilling the trench area.

Soil samples were collected from two separate borrow pits on 13 December 2000 and on 7 February 2001 to obtain confirmatory analytical data for the proposed backfill material. The sand fill supplier and common fill supplier borrow pit locations are listed below for informational purposes:

<u>Borrow Pit No. 1</u>	<u>Borrow Pit No. 2</u>
Valley Sand and Gravel 95 River Road Scottsville, NY 14546	Riccelli Enterprises North Road Scottsville, NY 14546

A total of 15 samples (representing a maximum quantity of 7,500 cy) were collected and analyzed for VOCs, SVOCs, pesticides, polychlorinated biphenyls (PCBs), and metals based on a sampling frequency of 1 sample per 500 cy to ensure that the borrow materials were suitable for use as clean fill. The borrow material analytical data was reviewed with USACE and NYSDEC prior to backfilling to ensure the background metals concentrations were acceptable. Based on a review of the data by NYSDEC, backfilling operations were approved. All offsite borrow concentrations were below TAGM limits except for metals parameters, which were approved by NYSDEC in lieu of the TAGM limits for backfilling purposes. A summary of the analytical data is contained in Table 2-1 (Appendix D). Copies of the laboratory reports for the data are on file and are available upon request. In addition, copies of all chain of custody reports are included in Appendix E.

Due to the excavation depth in Cells 1 to 5 to groundwater (approximately 5.5 to 6.0 feet), it was necessary to construct an engineered backfill system consisting of sand fill, a permeable geotextile liner material, and common fill in the lagoon. In accordance with the approved backfill design, a 1-1.5 foot layer of coarse -processed- sand was installed on the excavation bottom at groundwater elevation for a total volume of approximately 500 cy. The sand was overlaid with a 6-oz. non-woven permeable geotextile (polypropylene) material in order to allow sufficient recharge capacity for the groundwater. The geotextile was placed according to the approved design layout in an east to west orientation beginning on the south side of the lagoon proceeding north. The 15-foot-wide geotextile was overlapped a minimum of 2 feet at the seams to ensure coverage of the entire area. Following placement of the geotextile material, common backfill material was placed on top of the geotextile to the top of slope along the lagoon perimeter. The geotextile material and 1 foot of common fill were placed in the swale

from the lagoon to the perimeter fence and the trench was backfilled. Hydroseeding and/or fine grading will be performed in summer 2001.

Post-excavation limits within Area 1 were surveyed to document the vertical and lateral extent of sediment removal activities (see Figure 3-1). However, final survey data is not yet available for current backfill elevations since site restoration activities have not been completed.

### **3.7 DEMOBILIZATION**

Following completion of backfilling activities and decontamination activities, WESTON demobilized the site. All labor, equipment, and materials were shipped offsite. Initial demobilization activities included the removal of safety fence, fence poles, and the windbreak wall along the perimeter of the site on 20 February 2001. Between 20 February 2001 and 22 February 2001, utilities were disconnected, the site office trailer was removed, construction tools and supplies were secured in the storage trailer and were shipped off-site, the portable sanitation facilities were removed from the site, and all heavy equipment was loaded and transported off-site.

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## **SECTION 4**

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### **REFERENCES**

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## **4. REFERENCES**

- Day Engineering, P.C. Preliminary Scope of Work Site Investigation, September 1992.
- Northern Ecological Associates, Inc. and Ogden Environmental and Energy Services, Inc., Final Former Air Force Plant No. 51 HTRW Investigation, April 2000.
- NYSDEC, Division of Water. 1998. Ambient Water Quality Standards and Guidance Values and Ground Water Effluent Limitations. Technical and Operational Guidance Series (1.1.1), (Revised January 1999, November 1999).
- NYSDEC, Division of Hazardous Waste Remediation. 1994. Revised TAGM – Determination of Soil Cleanup Objectives and Cleanup Levels. TAGM HWR-94-4046. (January 24, 1994).

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**APPENDIX A**

**PHOTO LOG**

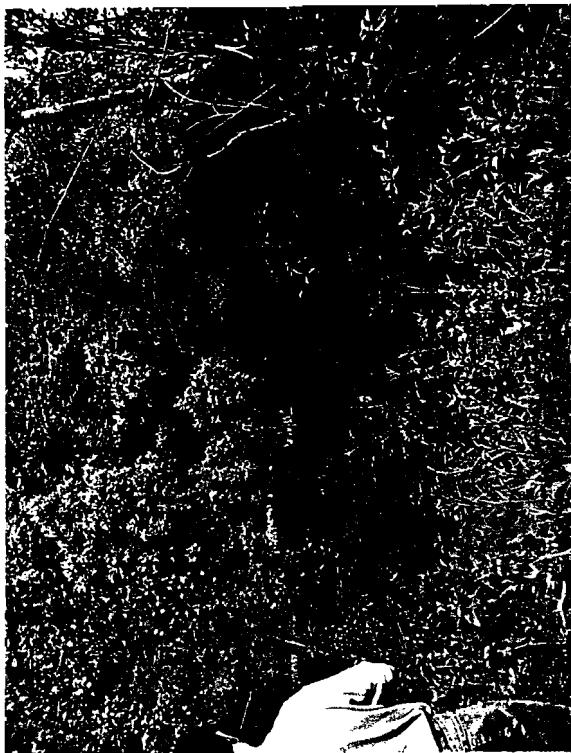
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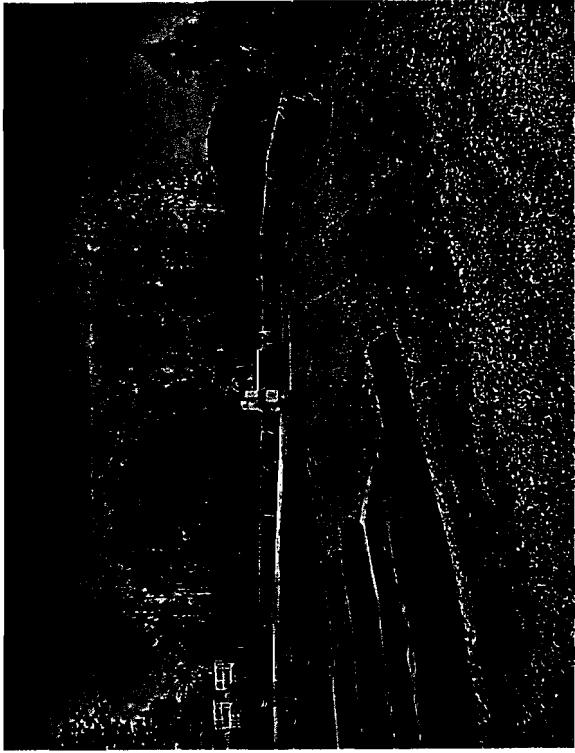
**Mobilization**



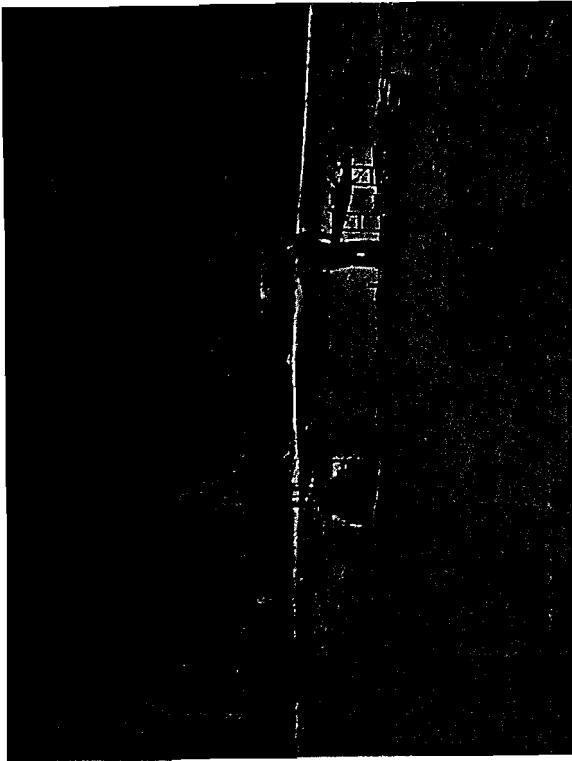
**Clear & Grub**



**Preconstruction**



**Site Prep**



**Sampling**



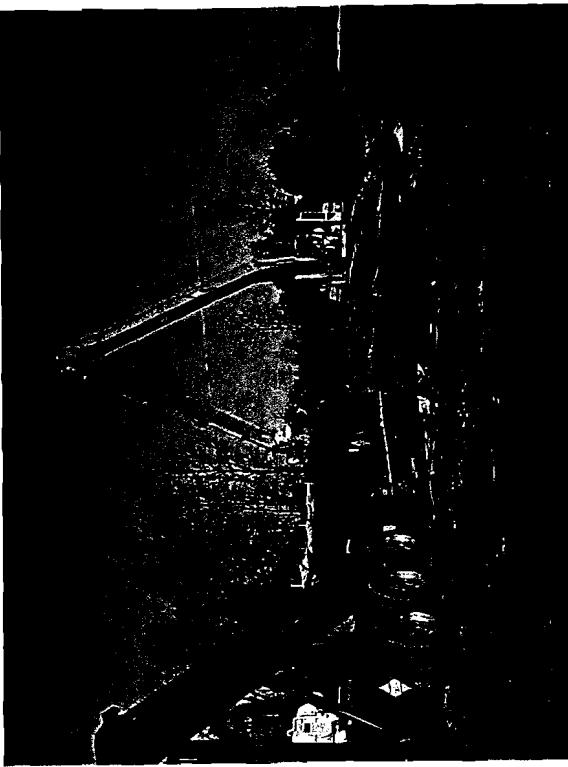
**Sediment  
Stabilization**



**Dewatering**



**Monitoring**



**Excavating /  
Stockpiles**



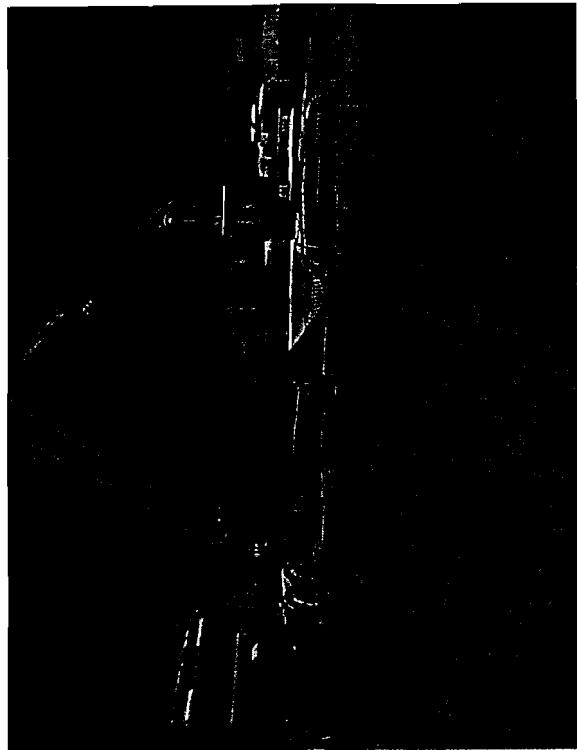
**Loading**



**Final  
Excavating**



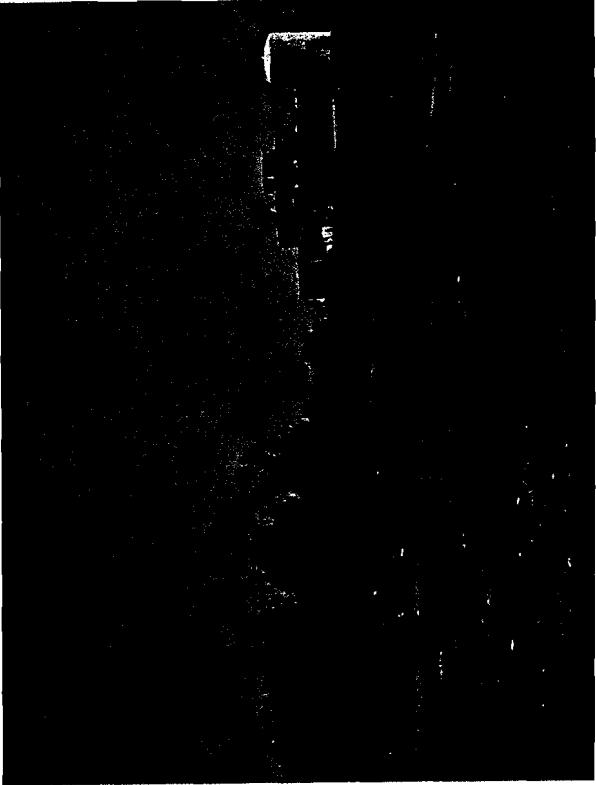
**Site Restoration**



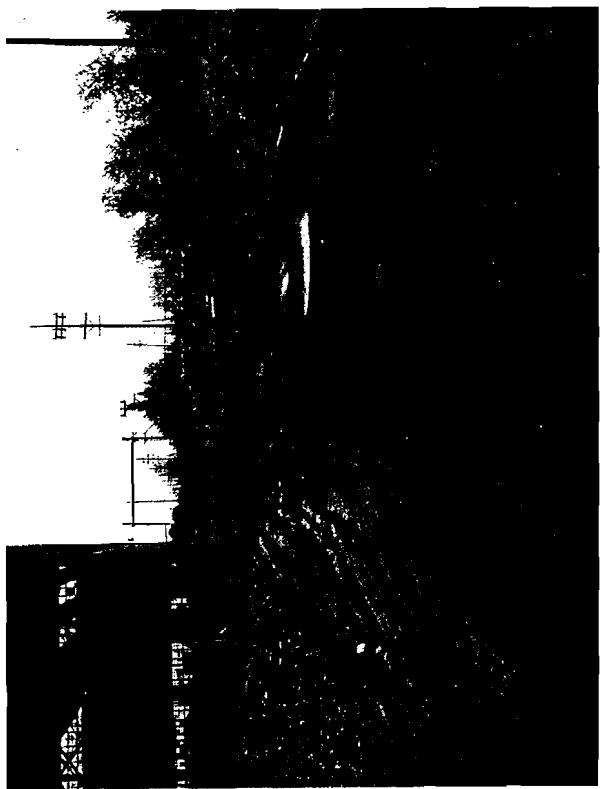
**Waste Disposal**



**Rough Grade 1**



**Rough Grade 2**



**Haul Rd./Exit**

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## **APPENDIX B**

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### **SEDIMENT AND GROUND WATER ANALYTICAL DATA**

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**Table 1-1**  
**AF-51 Analytical Data**  
**Area 1 Pre-Excavation**

LAGOON POST EXCAVATION CONFIRMATION SAMPLES						
Sample No.	TACM No.	Eastern USA	Bottom (Cell 1) 0.4 in. (BOG)	Bottom (Cell 2) 0.4 in. (BOG)	Bottom (Cell 4) 0.1 in. (BOG)	Bottom (Cell 5) 0.4 in. (BOG)
Laboratory Sample ID #	4046	Background	AFB51001104 71442001 09/07/2000	AFB51002104 71442002 09/07/2000	AFB51001102 71442003 09/07/2000	AFB51005104 71442004 09/07/2000
Sample Date	Recommended Soil Cleanup Objectives	Background	Sediment (mg/kg)	Sediment (mg/kg)	Sediment (mg/kg)	Sediment (mg/kg)
Sample Type	(mg/kg)					
Depth (ft.)						
Matrix						
<b>Volatiles</b>						
Acetone	0.20		7.2 U	30 U	.008	.041
Benzene	0.06		7.2 U	30 U	.006 U	.008 U
Benzoic Acid	2.70		7.2 U	30 U	.006 U	.008 U
2-Butanone	0.30		7.2 U	30 U	.006 U	.008 U
Carbon Disulfide	2.70		7.2 U	30 U	.006 U	.008 U
Carbon Tetrachloride	0.60		7.2 U	30 U	.006 U	.008 U
Chlorobenzene	1.70		7.2 U	30 U	.006 U	.008 U
Chloroethane	1.90		7.2 U	30 U	.006 U	.008 U
Chloroform	0.30		7.2 U	30 U	.006 U	.008 U
Dibromochloromethane	N/A		7.2 U	30 U	.006 U	.008 U
1,2-Dichlorobenzene	7.90		7.2 U	30 U	.006 U	.008 U
1,3-Dichlorobenzene	1.60		7.2 U	30 U	.006 U	.008 U
1,4-Dichlorobenzene	8.50		7.2 U	30 U	.006 U	.008 U
1,1-Dichloroethane	0.20		7.2 U	30 U	.006 U	.008 U
1,2-Dichloroethane	0.10		9.9	30 U	.006 U	.008 U
1,1-Dichloroethene	0.40		7.2 U	30 U	.006 U	.008 U
1,2-Dichloroethene	0.30		9.9	51	SJ	.008 U
1,3-Dichloropropane	0.30		7.2 U	30 U	.006 U	.008 U
Ethylbenzene	5.50		7.2 U	30 U	.006 U	.008 U
113 Freon (1,1,2 Trichloro-1,2,2)	6.00		7.2 U	30 U	.006 U	.008 U
Methylene Chloride	0.10		7.2 U	30 U	.006 U	.008 U
4-Methyl-2-Pentanone	1.00		7.2 U	30 U	3 J	.008 U
Tetrachloroethene	1.40		7.2 U	30 U	.006 U	.008 U
1,1,1-Trichloroethane	0.80		7.2 U	30 U	.006 U	.008 U
1,1,2,2-Tetrachloroethane	0.60		7.2 U	30 U	.006 U	.008 U
1,2,3-Trichloropropane	0.40		7.2 U	30 U	.006 U	.008 U
1,2,4-Trichlorobenzene	3.40		7.2 U	30 U	.006 U	.008 U
Toluene	1.50		7.2 U	30 U	.006 U	.008 U
Trichloroethene	0.70		140	820	0.16	.008 U
Vinyl Chloride	0.20		7.2 U	30 U	.006 U	.008 U
Xylene	1.20		7.2 U	30 U	.006 U	.008 U
<b>Semivolatiles</b>						
Acenaphthene	50.00		.390 U	.490U	4 U	.5 U
Acenaphthylene	41.00		.390 U	.490U	4 U	.5 U
Aniline	0.10		.390 U	.490U	4 U	.5 U
Anthracene	50.00		.390 U	.490U	4 U	.5 U
Benzo(a)anthracene	224 or MDL		.390 U	.490U	4 U	.5 U
Benzo (a) pyrene	.061 or MDL		.390 U	.490U	4 U	.5 U
Benzo (b) fluoranthene	1.10		.390 U	.490U	4 U	.5 U
Benzo (g,h,i) perylene	50.00		.390 U	.490U	4 U	.5 U
Benzo (k) fluoranthene	1.10		.390 U	.490U	4 U	.5 U
Bis (2-ethylhexyl) phthalate	50.00		.330 J	.340 J	.046 J	.095 J
Butylbenzylphthalate	50.00		.390 U	.490U	4 U	.5 U
Chrysene	0.40		.390 U	.490U	4 U	.5 U
4-Chloroaniline	.22 or MDL		.390 U	.490U	4 U	.5 U
4-Chloro-3-methylphenol	.24 or MDL		.390 U	.490U	4 U	.5 U
2-Chlorophenol	0.80		.390 U	.490U	4 U	.5 U
Dibenzo furan	6.20		.061 J	.490U	4 U	.5 U
Dibenzo (a,h) anthracene	.014 or MDL		.390 U	.490U	4 U	.5 U
3,3-Dichlorobenzidine	N/A		.390 U	.490U	4 U	.5 U
2,4 Dichlorophenol	0.40		.390 U	.490U	4 U	.5 U
2,4-Dinitrophenol	.2 or MDL		.790 U	.990 U	.81 U	1 U
2,6-Dinitrotoluene	1.00		.390 U	.490U	4 U	.5 U
Diethylphthalate	7.10		.390 U	.490U	4 U	.5 U
Dimethylphthalate	2.00		.390 U	.490U	4 U	.5 U
Di-n-butyl phthalate	8.10		.092J	.490U	4 U	.5 U
Di-n-octyl phthalate	50.00		.390 U	.490U	4 U	.5 U
Fluoroanthene	50.00		.390 U	.490U	4 U	.5 U
Fluorene	50.00		.049 J	.490U	4 U	.5 U
Hexachlorobenzene	0.41		.180 J	.110 J	4 U	.5 U
Indeno (1,2,3-cd) Pyrene	3.20		.390 U	.490U	4 U	.5 U
Isophorone	4.40		.390 U	.490U	4 U	.5 U
2-Methylnaphthalene	36.40		1.40	.61	.05 J	.5 U
2-Methylphenol	.1 or MDL		.390 U	.490U	4 U	.5 U
4-Methylphenol	0.90		.390 U	.490U	4 U	.5 U
Naphthalene	13.00		.380 J	.160 J	4 U	.5 U

**Table 1-1**  
**AF-51 Analytical Data**  
**Area 1 Pre-Excavation**

Nitrobenzene	2 or MDL		.390 U	.490U	.4 U	.5 U
2-Nitroaniline	.43 or MDL		.790 U	.990 U	.81 U	1 U
2-Nitrophenol	.33 or MDL		.390 U	.490U	.4 U	.5 U
4-Nitrophenol	.1 or MDL		.790 U	.990 U	.81 U	1 U
3-Nitroaniline	.5 or MDL		.790 U	.990 U	.81 U	1 U
Pentachlorophenol	1 or MDL		.790 U	.990 U	.81 U	1 U
Phenanthrene	50.00		.046 J	.490U	.4 U	.5 U
Phenol	.03 or MDL		.390 U	.490U	.4 U	.5 U
Pyrene	50.00		.390 U	.490U	.4 U	.5 U
2,4,5-Trichlorophenol	0.10		.790 U	.990 U	.81 U	1 U
<b>PCBs (mg/kg)</b>						
Aroclor-1016	1		.040 U	.050 U	.039 U	.052 U
Aroclor-1221	1		.040 U	.050 U	.039 U	.052 U
Aroclor-1232	1		.040 U	.050 U	.039 U	.052 U
Aroclor-1242	1		.040 U	.050 U	.039 U	.052 U
Aroclor-1248	1		.040 U	.050 U	.039 U	.052 U
Aroclor-1254	1		.040 U	.050 U	.039 U	.052 U
Aroclor-1260	1		.040 U	.050 U	.039 U	.052 U
<b>Pesticide (mg/kg)</b>						
Aldrin	0.041		NS	NS	NS	NS
Alpha-BHC	0.11		NS	NS	NS	NS
Beta-BHC	0.2		NS	NS	NS	NS
Delta-BHC	0.3		NS	NS	NS	NS
Chlordane	0.54		NS	NS	NS	NS
2,4-D	0.5		NS	NS	NS	NS
4,4-DDD	2.9		NS	NS	NS	NS
4,4-DDE	2.1		NS	NS	NS	NS
4,4-DDT	2.1		NS	NS	NS	NS
Dibenz-P-dioxin	N/A		NS	NS	NS	NS
Dieldrin	0.044		NS	NS	NS	NS
Endosulfan I	0.9		NS	NS	NS	NS
Endosulfan II	0.9		NS	NS	NS	NS
Endosulfan Sulfate	1		NS	NS	NS	NS
Endrin	0.1		NS	NS	NS	NS
Endrin Keytone	N/A		NS	NS	NS	NS
Gamma-BHC	0.06		NS	NS	NS	NS
Gamma-chlordane	0.54		NS	NS	NS	NS
Heptachlor	0.1		NS	NS	NS	NS
Heptachlor epoxide	0.02		NS	NS	NS	NS
Methoxychlor	N/A		NS	NS	NS	NS
Mitotane	N/A		NS	NS	NS	NS
Parathion	1.2		NS	NS	NS	NS
Polychlorinated dibenzo-furans	N/A		NS	NS	NS	NS
<b>Metals (mg/kg)</b>						
Aluminum	SB	33000	5600	7400	7000	6100
Antimony	SB	N/A	ND	ND	ND	ND
Arsenic	7.5 or SB	3.0-12	2	ND	5	ND
Barium	300 or SB	15-600	70	120	84	65
Beryllium	.16 or SB	0.1-75	ND	ND	ND	ND
Cadmium	1 or SB	0.1-1	110	710	6.60	210
Calcium	SB	130-35000	41000	31000	32000	35000
Chromium	10 or SB	1.5-40	65	1100	27	420
Cobalt	30 or SB	2.5-60	6	6	8	7
Copper	25 or SB	1000-50000	14	71	13	31
Iron	2000 or SB	000-55000	15000	14000	17000	14000
Lead	SB	200-500	30	82	10	24
Magnesium	SB	100-5000	11000	6700	7800	6000
Manganese	SB	50-5000	450	300	400	310
Mercury	0.1	0.001-0.2	ND	ND	ND	ND
Nickel	13 or SB	0.5-25	11	14	16	14
Potassium	SB	8500-11000	750	1000	670	720
Selenium	2.0 or SB	0.1-3.9	8	8	9	7
Silver	SB	N/A	ND	ND	ND	ND
Sodium	SB	6000-8000	240	370	ND	190
Thallium	SB	N/A	ND	ND	ND	ND
Vanadium	150 or SB	1-300	22	32	19	21
Zinc	20 or SB	9.0-50	390	680	54	270
Cyanide	N/A	N/A	2.70	6	ND	2

**Table 1-2**  
**AF-51 Analytical Data**  
**Drain Sump**

		Characterization
Sample No.	Laboratory Sample ID #	Drain Sump
Sample Date	Technical and Operational Guidance Series Recommended	71674001
Sample Type	GW	10/16/2000
Depth (ft.)	Standards/Guidance	Grab
Matrix	Values (ug/l)	Not Applicable
<b>Volatiles (ug/l)</b>		Water (ug/l)
Acetone	50.00	2 U
Benzene	1.00	5 U
Benzoic Acid	NS	5 U
2-Butanone	50.00	5 U
Carbon Disulfide	50.00	5 U
Carbon Tetrachloride	NS	5 U
Chlorobenzene	5.00	5 U
Chloroethane	5.00	5 U
Chloroform	7.00	5 U
Dibromochloromethane	5.00	5 U
1,2-Dichlorobenzene	5.00	5 U
1,3-Dichlorobenzene	5.00	5 U
1,4-Dichlorobenzene	5.00	5 U
1,1-Dichloroethane	0.60	5 U
1,2-Dichloroethane	5.00	5 U
1,1-Dichloroethene	5.00	5 U
1,2-Dichloroethene	5.00	17
1-3 Dichloropropane	5.00	5 U
Ethylbenzene	5.00	5 U
113 Freon (1,1,2 Trichloro-1,2,2)	5.00	5 U
Methylene Chloride	5.00	5 U
4-Methyl-2-Pentanone	NS	5 U
Tetrachloroethene	5.00	5 U
1,1,1-Trichloroethane	5.00	5 U
1,1,2,2-Tetrachloroethane	5.00	5 U
1,2,3-Trichloropropane	5.00	5 U
1,2,4-Trichlorobenzene	5.00	5 U
Toluene	5.00	5 U
Trichloroethene	5.00	13
Vinyl Chloride	2.00	3 J
Xylene	5.00	5 U
<b>Hydrocarbons (mg/kg)</b>		
Total Petroleum Hydrocarbon	NS	4.2
<b>Total Cyanide (mg/l)</b>		
Total Cyanide	NS	ND

**Table 1-2**  
**AF-51 Analytical Data**  
**Drain Sump**

		Characterization
Sample No.	Technical and Operational Guidance Series Recommended	Drain Sump
Laboratory Sample ID #	GW	71674001
Sample Date		10/16/2000
Sample Type		Grab
Depth (ft.)	Standards/Guidance	Not Applicable
Matrix	Values (ug/l)	Water (ug/l)
<b>Metals (mg/kg)</b>		
Aluminum	NS	0.90
Antimony	3	ND
Arsenic	25	ND
Barium	1000	ND
Beryllium	3	ND
Cadmium	5	ND
Calcium	NS	39.00
Chromium	NS	ND
Cobalt	NS	ND
Copper	200	ND
Iron	300	0.80
Lead	25	0.02
Magnesium	35000	11.00
Manganese	300	ND
Mercury	0.7	ND
Nickel	100	ND
Potassium	NS	5.00
Selenium	10	ND
Silver	50	ND
Sodium	20000	11.00
Thallium	0.5	ND
Vanadium	NS	ND
Zinc	2000	ND
Cyanide	NS	ND

**Table 1-3**  
**AF-51 Analytical Data**  
**Area 1 - Characterization**

CHARACTERIZATION SAMPLES								
Sample No.	Laboratory Sample ID #	Eastern USA Background	AFB5100SD12012	ABF5100SD22012	AFB5100SD32012	AFB5100SD42012	AFB5100SD52012	AFB5100SD62012
Sample Date	Sample Type		71742001 10/26/2000 Bottom (Cell 1) 0- 1 ft. (BOG)	71742002 10/26/2001 Bottom (Cell 2) 0- 1 ft. (BOG)	71742003 10/26/2001 Bottom (Cell 3) 0- 1 ft. (BOG)	71742004 10/26/2001 Bottom (Cell 4) 0- 1 ft. (BOG)	71742005 10/26/2001 Bottom (Cell 5) 0- 1 ft. (BOG)	71742006 10/26/2001 Bottom (Cell 6) 0- 1 ft. (BOG)
Matrix	Recommended Soil Cleanup Objectives (mg/kg)		Sediment (mg/kg)					
<b>Volatiles</b>								
Acetone	0.20		55 U	16 U	26 U	16 U	.039 B	.039 B
Benzene	0.06		55 U	16 U	26 U	16 U	.010 U	.008 U
Benzoic Acid	2.70		55 U	16 U	26 U	16 U	.010 U	.008 U
2-Butanone	0.30		55 U	16 U	26 U	16 U	.010 U	.008 U
Carbon Disulfide	2.70		55 U	16 U	26 U	16 U	.010 U	.008 U
Carbon Tetrachloride	0.60		55 U	16 U	26 U	16 U	.010 U	.008 U
Chlorobenzene	1.70		55 U	16 U	26 U	16 U	.010 U	.008 U
Chloroethane	1.90		55 U	16 U	26 U	16 U	.010 U	.008 U
Chloroform	0.30		55 U	16 U	26 U	16 U	.010 U	.008 U
Dibromochloromethane	N/A		55 U	16 U	26 U	16 U	.010 U	.008 U
1,2-Dichlorobenzene	7.90		55 U	16 U	26 U	16 U	.010 U	.008 U
1,3-Dichlorobenzene	1.60		55 U	16 U	26 U	16 U	.010 U	.008 U
1,4-Dichlorobenzene	8.50		55 U	16 U	26 U	16 U	.010 U	.008 U
1,1-Dichloroethane	0.20		55 U	16 U	26 U	16 U	.010 U	.008 U
1,2-Dichloroethane	0.10		55 U	16 U	26 U	16 U	.010 U	.008 U
1,1-Dichloroethene	0.40		55 U	16 U	26 U	16 U	0.004 J	.008 U
1,2-Dichloroethene	0.30		55 U	16 U	26 U	16 U	.010 U	.008 U
1,3-Dichloropropane	0.30		55 U	16 U	26 U	16 U	.010 U	.008 U
Ethylbenzene	5.50		55 U	16 U	26 U	16 U	.010 U	.008 U
113 Freon (1,1,2 Trichloro-1,1,1-trifluoroethane)	6.00		55 U	16 U	26 U	16 U	.010 U	.008 U
Methylene Chloride	0.10		55 U	16 U	26 U	16 U	.010 U	.008 U
4-Methyl-2-Pentanone	1.00		55 U	16 U	26 U	16 U	.010 U	.008 U
Tetrachloroethene	1.40		55 U	16 U	26 U	16 U	.010 U	.008 U
1,1,1-Trichloroethane	0.80		55 U	16 U	26 U	16 U	.010 U	.008 U
1,1,2,2-Tetrachloroethane	0.60		55 U	16 U	26 U	16 U	.010 U	.008 U
1,2,3-Trichloropropane	0.40		55 U	16 U	26 U	16 U	.010 U	.008 U
1,2,4-Trichlorobenzene	3.40		55 U	16 U	26 U	16 U	.010 U	.008 U
Toluene	1.50		55 U	16 U	26 U	16 U	.010 U	.008 U
Trichloroethene	0.70		74	180	410	380	0.031B	.099 B
Vinyl Chloride	0.20		55 U	16 U	26 U	16 U	.010 U	.008 U
Xylene	1.20		55 U	16 U	26 U	16 U	.010 U	.008 U
<b>Semivolatiles</b>								
Acenaphthene	50.00		.740 U	1.1 U	.680 U	1.1 U	.640 U	.610 U

**Table 1-3**  
**AF-51 Analytical Data**  
**Area 1 - Characterization**

CHARACTERIZATION SAMPLES								
Sample No.	Laboratory Sample ID #	Sample Type	Depth (ft.)	Matrix	AFB5100SD12012	AFB5100SD22012	AFB5100SD32012	AFB5100SD42012
Sample Date	Eastern USA Background				71742001 10/26/2000 Bottom (Cell 1) 0- 1 ft. (BOG)	71742002 10/26/2001 Bottom (Cell 2) 0- 1 ft. (BOG)	71742003 10/26/2001 Bottom (Cell 3) 0- 1 ft. (BOG)	71742004 10/26/2001 Bottom (Cell 4) 0- 1 ft. (BOG)
Aceanaphthylene	41.00				.740 U	1.1 U	.680 U	1.1 U
Aniline	0.10				.740 U	1.1 U	.680 U	1.1 U
Anthracene	50.00				.740 U	1.1 U	.680 U	1.1 U
Benz(a)anthracene	.224 or MDL				.740 U	1.1 U	.680 U	1.1 U
Benz(a) pyrene	.061 or MDL				.740 U	1.1 U	.680 U	1.1 U
Benz(b) fluoranthene	1.10				.740 U	1.1 U	.680 U	1.1 U
Benz(g,h,i) perylene	50.00				.740 U	1.1 U	.680 U	1.1 U
Benz(k) fluoranthene	1.10				.740 U	1.1 U	.680 U	1.1 U
Bis (2-ethylhexyl) phthalate	50.00				.630 J	.660 J	.420 J	.490 J
Butylbenzylphthalate	50.00				.740 U	1.1 U	.680 U	1.1 U
Chrysene	0.40				.740 U	1.1 U	.680 U	1.1 U
4-Chloroaniline	.22 or MDL				.740 U	1.1 U	.680 U	1.1 U
4-Chloro-3-methylphenol	.24 or MDL				.740 U	1.1 U	.680 U	1.1 U
2-Chlorophenol	0.80				.740 U	1.1 U	.680 U	1.1 U
Dibenzofuran	6.20				0.061 J	1.1 U	.680 U	1.1 U
Dibenzo (a,h) anthracene	.014 or MDL				.740 U	1.1 U	.680 U	1.1 U
3,3-Dichlorobenzidine	N/A				.740 U	1.1 U	.680 U	1.1 U
2,4 Dichlorophenol	0.40				.740 U	1.1 U	.680 U	1.1 U
2,4-Dinitrophenol	.2 or MDL				1.5 U	2.2 U	1.4 U	2.3 U
2,6-Dinitrotoluene	1.00				.740 U	1.1 U	.680 U	1.1 U
Diethylphthalate	7.10				.740 U	1.1 U	.680 U	1.1 U
Dimethylphthalate	2.00				.740 U	1.1 U	.680 U	1.1 U
Di-n-butyl phthalate	8.10				0.092 J	1.1 U	.680 U	1.1 U
Di-n-octyl phthalate	50.00				.740 U	1.1 U	.680 U	1.1 U
Fluoranthene	50.00				.097 J	.130 J	.680 U	1.1 U
Fluorene	50.00				.090 J	1.1 U	.680 U	1.1 U
Hexachlorobenzene	0.41				.250 J	.190 J	.150 J	.190 J
Indeno (1,2,3-cd) Pyrene	3.20				.740 U	1.1 U	.680 U	1.1 U
Isophorone	4.40				.740 U	1.1 U	.680 U	1.1 U
2-Methylnaphthalene	36.40				0.87	.930 J	.640 J	.770 J
2-Methylphenol	.1 or MDL				.740 U	1.1 U	.680 U	1.1 U
4-Methylphenol	0.90				.740 U	1.1 U	.680 U	1.1 U
Naphthalene	13.00				.160 J	.190 J	.110 J	.140 J
Nitrobenzene	.2 or MDL				.740 U	1.1 U	.680 U	1.1 U

**Table 1-3**  
**AF-51 Analytical Data**  
**Area 1 - Characterization**

CHARACTERIZATION SAMPLES								
Sample No.		Eastern USA Background	AFB5100SD12012	ABF5100SD22012	AFB5100SD32012	AFB5100SD42012	AFB5100SD52012	AFB5100SD62012
Laboratory Sample ID #			71742001	71742002	71742003	71742004	71742005	71742006
Sample Date			10/26/2000	10/26/2001	10/26/2001	10/26/2001	10/26/2001	10/26/2001
Sample Type	TAGM No. 4046 Recommended Soil Cleanup Objectives (mg/kg)		Bottom (Cell 1)	Bottom (Cell 2)	Bottom (Cell 3)	Bottom (Cell 4)	Bottom (Cell 5)	Bottom (Cell 6)
Depth (ft.)			0-1 ft. (BOG)					
Matrix			Sediment (mg/kg)					
2-Nitroaniline	.43 or MDL		1.5 U	1.1 U	1.4 U	2.3 U	1.3 U	1.2 U
2-Nitrophenol	.33 or MDL		.740 U	1.1 U	.680 U	1.1 U	.640 U	.610 U
4-Nitrophenol	.1 or MDL		1.5 U	2.2 U	1.4 U	2.3 U	1.3 U	1.2 U
3-Nitroaniline	.5 or MDL		1.5 U	2.2 U	1.4 U	2.3 U	1.3 U	1.2 U
Pentachlorophenol	1 or MDL		1.5 U	2.2 U	1.4 U	2.3 U	1.3 U	1.2 U
Phenanthrene	50.00		.110 J	.120 J	.680 U	1.1 U	.640 U	.610 U
Phenol	.03 or MDL		.740 U	1.1 U	.680 U	1.1 U	.640 U	.610 U
Pyrene	50.00		.087 U	.120 J	.680 U	1.1 U	.640 U	.610 U
2,4,5-Trichlorophenol	0.10		1.5	2.2 U	1.4 U	2.3 U	1.3 U	1.2 U
PCBs (mg/kg)								
Aroclor-1016	1		.076 U	.110 U	.068 U	.110 U	.066 U	.060 U
Aroclor-1221	1		.076 U	.110 U	.068 U	.110 U	.066 U	.060 U
Aroclor-1232	1		.076 U	.110 U	.068 U	.110 U	.066 U	.060 U
Aroclor-1242	1		.076 U	.110 U	.068 U	.110 U	.066 U	.060 U
Aroclor-1248	1		.076 U	.110 U	.068 U	.110 U	.066 U	.060 U
Aroclor-1254	1		0.340	0.410	0.170	0.230	0.120	0.093
Aroclor-1260	1		.076 U	.110 U	.068 U	.110 U	.066 U	.060 U
Metals (mg/kg)								
Cyanide	N/A	N/A	7	4	4	3	6	4

**Table 1-4**  
**AF-51 Analytical Data**  
**Area 1 Post- Excavation**

LAGOON-POST EXCAVATION CONFIRMATION SAMPLES- 1ST ROUND														
Sample No.	TAGM No. 4046	Eastern USA	SB1102 72002001 12/08/2000 Bottom (Cell 1) 1.0 ft. (BOG) Soil (mg/kg)	SB1202 72002002 12/08/2000 Sidewall (Cell 1) 1.0 ft. (BOG) Soil (mg/kg)	SB2102 72002003 12/08/2000 Bottom (Cell 2) 1.0 ft. (BOG) Soil (mg/kg)	SB2202 72002004 12/08/2000 Bottom (Cell 3) 1.0 ft. (BOG) Soil (mg/kg)	SB3102 72002005 12/08/2000 Bottom (Cell 4) 1.0 ft. (BOG) Soil (mg/kg)	SB3202 72002006 12/08/2000 Bottom (Cell 5) 1.0 ft. (BOG) Soil (mg/kg)	SB4102 72002007 12/08/2000 Bottom (Cell 6) 2.0 ft. (BOG) Soil (mg/kg)	SB4202 72002008 12/08/2000 Sidewall (Cell 1) 1.0 ft. (BOG) Soil (mg/kg)	SB5102 72002009 12/08/2000 Bottom (Cell 2) 1.0 ft. (BOG) Soil (mg/kg)	SB5202 72002010 12/08/2000 Bottom (Cell 3) 1.0 ft. (BOG) Soil (mg/kg)	SB6102 72002011 12/08/2000 Bottom (Cell 4) 1.0 ft. (BOG) Soil (mg/kg)	SB6202 72002012 12/08/2000 Sidewall (Cell 5) 1.0 ft. (BOG) Soil (mg/kg)
Volatiles														
Acetone	0.20		.075	.006 U	.760 U	.005 J	.094	.006 J	.32 U	.007	.007	.006	.005 J	.007 U
Benzene	0.06		.060 U	.006 U	.760 U	.006 U	.006 U	.007 U	.32 U	.006 U	.006 U	.006 U	.007 U	.007 U
Benzoic Acid	2.70		.060 U	.006 U	.760 U	.006 U	.006 U	.007 U	.32 U	.006 U	.006 U	.006 U	.007 U	.007 U
2-Butanone	0.30		.060 U	.006 U	.760 U	.006 U	.013	.007 U	.32 U	.006 U	.006 U	.006 U	.007 U	.007 U
Carbon Disulfide	2.70		.060 U	.006 U	.760 U	.006 U	.006 U	.007 U	.32 U	.006 U	.006 U	.006 U	.015	
Carbon Tetrachloride	0.60		.060 U	.006 U	.760 U	.006 U	.006 U	.007 U	.32 U	.006 U	.006 U	.006 U	.007 U	.007 U
Chlorobenzene	1.70		.060 U	.006 U	.760 U	.006 U	.006 U	.007 U	.32 U	.006 U	.006 U	.006 U	.007 U	.007 U
Chloroethane	1.90		.060 U	.006 U	.760 U	.006 U	.006 U	.007 U	.32 U	.006 U	.006 U	.006 U	.007 U	.007 U
Chloroform	0.30		.060 U	.006 U	.760 U	.006 U	.006 U	.007 U	.32 U	.006 U	.006 U	.006 U	.005 J	.005 J
Dibromochloromethane	N/A		.060 U	.006 U	.760 U	.006 U	.006 U	.007 U	.32 U	.006 U	.006 U	.006 U	.007 U	.007 U
1,2-Dichlorobenzene	7.90		.060 U	.006 U	.760 U	.006 U	.006 U	.007 U	.32 U	.006 U	.006 U	.006 U	.007 U	.007 U
1,3-Dichlorobenzene	1.60		.060 U	.006 U	.760 U	.006 U	.006 U	.007 U	.32 U	.006 U	.006 U	.006 U	.007 U	.007 U
1,4-Dichlorobenzene	8.50		.060 U	.006 U	.760 U	.006 U	.006 U	.007 U	.32 U	.006 U	.006 U	.006 U	.007 U	.007 U
1,1-Dichloroethane	0.20		.060 U	.006 U	.760 U	.006 U	.006 U	.007 U	.32 U	.006 U	.006 U	.006 U	.007 U	.007 U
1,2-Dichloroethane	0.10		.060 U	.006 U	.760 U	.006 U	.006 U	.007 U	.32 U	.006 U	.006 U	.006 U	.007 U	.007 U
1,1-Dichloroethene	0.40		.060 U	.006 U	.760 U	.006 U	.006 U	.007 U	.32 U	.006 U	.006 U	.006 U	.007 U	.007 U
1,2-Dichloroethene	0.30		.087	.006 U	2	.006 U	.006 U	.007 U	7.5 J	.006 U	.006 U	.006 U	.009	.007 U
1,3-Dichloropropane	0.30		.060 U	.006 U	.760 U	.006 U	.006 U	.007 U	.32 U	.006 U	.006 U	.006 U	.007 U	.007 U
Ethylbenzene	5.50		.060 U	.006 U	.760 U	.006 U	.006 U	.007 U	.32 U	.006 U	.006 U	.006 U	.007 U	.007 U
113 Freon (1,1,2 Trichloro-1,2,2)	6.00		.060 U	.006 U	.760 U	.006 U	.006 U	.007 U	.32 U	.006 U	.006 U	.006 U	.007 U	.007 U
Methylene Chloride	0.10		.060 U	.006 U	.760 U	.006 U	.006 U	.007 U	.32 U	.006 U	.006 U	.006 U	.007 U	.007 U
4-Methyl-2-Pentanone	1.00		.060 U	.006 U	.760 U	.006 U	.006 U	.007 U	.32 U	.006 U	.006 U	.006 U	.007 U	.007 U
Tetrachloroethene	1.40		0.850	.006 U	.760 U	.006 U	.006 U	.007 U	.32 U	.003 J	.006 U	.003 U	.007 U	.007 U
1,1,1-Trichloroethane	0.80		.060 U	.006 U	.760 U	.006 U	.006 U	.007 U	.32 U	.006 U	.006 U	.006 U	.007 U	.007 U
1,1,2,2-Tetrachloroethane	0.60		.060 U	.006 U	.760 U	.006 U	.006 U	.007 U	.32 U	.006 U	.006 U	.006 U	.007 U	.007 U
1,2,3-Trichloropropene	0.40		.060 U	.006 U	.760 U	.006 U	.006 U	.007 U	.32 U	.006 U	.006 U	.006 U	.007 U	.007 U
1,2,4-Trichlorobenzene	3.40		.060 U	.006 U	.760 U	.006 U	.006 U	.007 U	.32 U	.006 U	.006 U	.006 U	.007 U	.007 U
Toluene	1.50		.060 U	.001 J	.760 U	.006 U	.006 U	.007 U	.32 U	.006 U	.006 U	.006 U	.007 U	.001 J
Trichloroethene	0.70		.060 U	.005 J	18	.003 J	.002 J	.007 U	530 U	.006 U	.005 J	.006 U	.004 J	.003 J
Vinyl Chloride	0.20		.060 U	.006 U	.760 U	.006 U	.006 U	.007 U	.32 U	.006 U	.006 U	.006 U	.007 U	.007 U
Xylene	1.20		.060 U	.006 U	.760 U	.006 U	.006 U	.007 U	.32 U	.006 U	.006 U	.006 U	.007 U	.007 U

**Table 1-4**  
**AF-51 Analytical Data**  
**Area 1 Post- Excavation**

LAGOON-POST EXCAVATION CONFIRMATION SAMPLES- 1ST ROUND															
Sample No.	Laboratory Sample ID #	TAGM No. 4046	Eastern USA	SB1102 72002001	SB1202 72002002	SB1202 72002003	SB202 72002004	SB3102 72002003	SB3202 72002004	SB4102 72002005	SB4202 72002006	SB5102 72002001	SB5202 72002002	SB6102 72002007	SB6202 72002008
Sample Date		Recommended Soil Cleanup Objectives (mg/kg)	Background	Bottom (Cell 1) 1.0 ft. (BOG) Soil (mg/kg)	Bottom (Cell 1) 1.0 ft. (BOG) Soil (mg/kg)	Bottom (Cell 2) 1.0 ft. (BOG) Soil (mg/kg)	Bottom (Cell 2) 1.0 ft. (BOG) Soil (mg/kg)	Bottom (Cell 3) 1.0 ft. (BOG) Soil (mg/kg)	Bottom (Cell 3) 1.0 ft. (BOG) Soil (mg/kg)	Bottom (Cell 4) 1.0 ft. (BOG) Soil (mg/kg)	Bottom (Cell 4) 1.0 ft. (BOG) Soil (mg/kg)	Bottom (Cell 5) 1.0 ft. (BOG) Soil (mg/kg)	Bottom (Cell 5) 1.0 ft. (BOG) Soil (mg/kg)	Bottom (Cell 6) 2.0 ft. (BOG) Soil (mg/kg)	Bottom (Cell 6) 1.0 ft. (BOG) Soil (mg/kg)
<b>Semivolatiles</b>															
Acenaphthene	50.00			.390 U	.4 U	.410 U	.37 U	.370 U	.42 U	.41 U	.38 U	.41 U	.47 U	.42 U	
Acenaphthylene	41.00			.390 U	.4 U	.410 U	.37 U	.370 U	.42 U	.41 U	.38 U	.41 U	.15 J	.42 U	
Aniline	0.10			.390 U	.4 U	.410 U	.37 U	.370 U	.42 U	.41 U	.38 U	.41 U	.47 U	.42 U	
Anthracene	50.00			.390 U	.4 U	.410 U	.37 U	.370 U	.42 U	.41 U	.38 U	.41 U	.26 J	.42 U	
Benz(a)anthracene	.224 or MDL			.390 U	.058 J	.410 U	.37 U	.370 U	.42 U	.41 U	.38 U	.41 U	0.5/.42UD	.42 U	
Benz(a) pyrene	.061 or MDL			.390 U	.4 U	.410 U	.37 U	.370 U	.42 U	.41 U	.38 U	.41 U	.46 J	.42 U	
Benz(b) fluoranthene	1.10			.390 U	.062 J	.410 U	.37 U	.370 U	.42 U	.41 U	.042 J	.38 U	.41 U	.056	.42 U
Benz(g,h,i) perylene	50.00			.390 U	.4 U	.410 U	.37 U	.370 U	.42 U	.41 U	.38 U	.41 U	.27 J	.42 U	
Benz(k) fluoranthene	1.10			.390 U	.4 U	.410 U	.37 U	.370 U	.42 U	.41 U	.38 U	.41 U	.2 J	.42 U	
Bis (2-ethylhexyl) phthalate	50.00			.390 U	.4 U	.410 U	.37 U	.370 U	.42 U	.41 U	.084 J	.38 U	.41 U	.47 U	.11 J
Butylbenzylphthalate	50.00			.390 U	.4 U	.410 U	.37 U	.370 U	.42 U	.41 U	.41 U	.38 U	.41 U	.47 U	.42 U
Chrysene	0.40			.390 U	.056 J	.410 U	.37 U	.370 U	.42 U	.41 U	.41 U	.38 U	.41 U	0.51/.42UD	.42 U
4-Chloroaniline	.22 or MDL			.390 U	.4 U	.410 U	.37 U	.370 U	.42 U	.41 U	.41 U	.38 U	.41 U	.47 U	.42 U
4-Chloro-3-methylphenol	.24 or MDL			.390 U	.4 U	.410 U	.37 U	.370 U	.42 U	.41 U	.41 U	.38 U	.41 U	.47 U	.42 U
2-Chlorophenol	0.80			.390 U	.4 U	.410 U	.37 U	.370 U	.42 U	.41 U	.41 U	.38 U	.41 U	.47 U	.42 U
Dibenzofuran	6.20			.390 U	.4 U	.410 U	.37 U	.370 U	.42 U	.41 U	.41 U	.38 U	.41 U	.07 J	.42 U
Dibenzo (a,h) anthracene	.014 or MDL			.390 U	.4 U	.410 U	.37 U	.370 U	.42 U	.41 U	.41 U	.38 U	.41 U	.47 U	.42 U
3,3-Dichlorobenzidine	N/A			.390 U	.4 U	.410 U	.37 U	.370 U	.42 U	.41 U	.41 U	.38 U	.41 U	.47 U	.84 U
2,4 Dichlorophenol	0.40			.390 U	.4 U	.410 U	.37 U	.370 U	.42 U	.41 U	.41 U	.38 U	.41 U	.47 U	.42 U
2,4-Dinitrophenol	.2 or MDL			.790 U	.82 U	.410 U	.74 U	.760 U	.84 U	.84 U	.83 U	.77 U	.83 U	.96 U	.86 U
2,6-Dinitrotoluene	1.00			.390 U	.4 U	.410 U	.37 U	.370 U	.42 U	.41 U	.41 U	.38 U	.41 U	.96 U	.42 U
Diethylphthalate	7.10			.390 U	.4 U	.410 U	.37 U	.370 U	.42 U	.41 U	.41 U	.38 U	.41 U	.47 U	.42 U
Dimethylphthalate	2.00			.390 U	.4 U	.410 U	.37 U	.370 U	.42 U	.41 U	.41 U	.38 U	.41 U	.47 U	.42 U
Di-a-butyl phthalate	8.10			.390 U	.4 U	.410 U	.37 U	.370 U	.42 U	.41 U	.41 U	.38 U	.41 U	.47 U	.42 U
Di-a-octyl phthalate	50.00			.390 U	.4 U	.410 U	.37 U	.370 U	.42 U	.41 U	.41 U	.38 U	.41 U	.47 U	.42 U
Fluoranthene	50.00			.390 U	.088 J	.410 U	.37 U	.370 U	.42 U	.41 U	.085 J	.38 U	.41 U	1.20	.42 U
Fluorene	50.00			.390 U	.4 U	.410 U	.37 U	.370 U	.42 U	.41 U	.41 U	.38 U	.41 U	.1 J	.42 U
Hexachlorobenzene	0.41			.390 U	.4 U	.410 U	.37 U	.370 U	.42 U	.41 U	.41 U	.38 U	.41 U	.47 U	.42 U
Indeno (1,2,3-cd) Pyrene	3.20			.390 U	.4 U	.410 U	.37 U	.370 U	.42 U	.41 U	.41 U	.38 U	.41 U	.27 J	.42 U
Istophorone	4.40			.390 U	.4 U	.410 U	.37 U	.370 U	.42 U	.41 U	.41 U	.38 U	.41 U	.47 U	.42 U
2-Methylnaphthalene	36.40			.390 U	.4 U	.410 U	.37 U	.370 U	.42 U	.057 J	.41 U	.38 U	.41 U	.47 U	.42 U
2-Methylphenol	.1 or MDL			.390 U	.4 U	.410 U	.37 U	.370 U	.42 U	.41 U	.41 U	.38 U	.41 U	.47 U	.42 U
4-Methylphenol	0.90			.390 U	.4 U	.410 U	.37 U	.370 U	.42 U	.41 U	.41 U	.38 U	.41 U	.47 U	.42 U
Naphthalene	13.00			.390 U	.4 U	.410 U	.37 U	.370 U	.42 U	.41 U	.41 U	.38 U	.41 U	.1 J	.42 U
Nitrobenzene	.2 or MDL			.390 U	.4 U	.410 U	.37 U	.370 U	.42 U	.41 U	.41 U	.38 U	.41 U	.47 U	.42 U
2-Nitroaniline	.43 or MDL			.790 U	.82 U	.830 U	.74 U	.760 U	.84 U	.84 U	.83 U	.77 U	.83 U	.96 U	.86 U
2-Nitrophenol	.33 or MDL			.390 U	.4 U	.410 U	.37 U	.370 U	.42 U	.41 U	.41 U	.38 U	.41 U	.47 U	.42 U
4-Nitrophenol	.1 or MDL			.790 U	.82 U	.830 U	.74 U	.760 U	.84 U	.84 U	.83 U	.77 U	.83 U	.96 U	.86 U
3-Nitroaniline	.5 or MDL			.790 U	.82 U	.830 U	.74 U	.760 U	.84 U	.84 U	.83 U	.77 U	.83 U	.47 U	.86 U
Pentachlorophenol	1 or MDL			.790 U	.82 U	.830 U	.74 U	.760 U	.84 U	.84 U	.83 U	.77 U	.83 U	.96 U	.86 U
Phenanthrene	50.00			.390 U	.4 U	.410 U	.37 U	.370 U	.42 U	.41 U	.41 U	.38 U	.41 U	1.00	.42 U
Phenol	.03 or MDL			.390 U	.4 U	.410 U	.37 U	.072 J	.42 U	.41 U	.41 U	.38 U	.41 U	.47 U	.42 U
Pyrene	50.00			.390 U	.099 J	.410 U	.37 U	.370 U	.42 U	.41 U	.081 J	.38 U	.41 U	1.10	.42 U
2,4,5-Trichlorophenol	0.10			.790 U	.82 U	.830 U	.74 U	.760 U	.84 U	.84 U	.83 U	.77 U	.83 U	.96 U	.86 U
PCBs (mg/kg)															
Aroclor-1016	1			.041 U	.041 U	.041 U	.038 U	.038 U	.042 U	.041 U	.042 U	.039 U	.041 U	.057 U	.042 U
Aroclor-1221	1			.041 U	.041 U	.041 U	.038 U	.038 U	.042 U	.041 U	.042 U	.039 U	.041 U	.057 U	.042 U
Aroclor-1232	1			.041 U	.041 U	.041 U	.038 U	.038 U	.042 U	.041 U	.042 U	.039 U	.041 U	.057 U	.042 U
Aroclor-1242	1			.041 U	.041 U	.041 U	.038 U	.038 U	.042 U	.041 U	.042 U	.039 U	.041 U	.057 U	.042 U
Aroclor-1248	1			.041 U	.041 U	.041 U	.038 U	.038 U	.042 U	.041 U	.042 U	.039 U	.041 U	.057 U	.042 U
Aroclor-1254	1			.041 U	.041 U	.041 U	.038 U	.038 U	.042 U	.041 U	.042 U	.039 U	.041 U	.057 U	.042 U
Aroclor-1260	1			.041 U	.041 U	.041 U	.038 U	.038 U	.042 U	.041 U	.042 U	.039 U	.041 U	0.10	.042 U

**Table 1-4**  
**AF-51 Analytical Data**  
**Area 1 Post- Excavation**

LAGOON-POST EXCAVATION CONFIRMATION SAMPLES- 1ST ROUND															
Sample No.	Laboratory Sample ID #	TAGM No. 4046	Eastern USA	SB1102	SB1202	SB2102	SB2202	SB3102	SB3202	SB4102	SB4202	SB5102	SB5202	SB6102	SB6202
Sample Date	Sample Type	Cleanup Objectives	Background	72002001	72002002	72002003	72002004	72002005	72002006	72002007	72002008	72002001	72002002	72002007	72002008
Depth (ft.)	Matrix	(mg/kg)		Bottom (Cell 1)	Bottom (Cell 2)	Bottom (Cell 3)	Bottom (Cell 4)	Bottom (Cell 5)	Bottom (Cell 6)	Bottom (Cell 7)	Bottom (Cell 8)	Bottom (Cell 9)	Bottom (Cell 10)	Bottom (Cell 11)	
Pesticide (mg/kg)				1.0 ft. (BOG)	1.0 ft. (BOG)										
Aldrin		0.041		.002 U	.0021 U	.0021 U	.0019 U	.0019 U	.0022 U	.0021 U	.002 U	.0021 U	.0024 U	.0022 U	
Alpha-BHC		0.11		.002 U	.0021 U	.0021 U	.0019 U	.0019 U	.0022 U	.0021 U	.002 U	.0021 U	.0024 U	.0022 U	
Beta-BHC		0.2		.002 U	.0021 U	.0021 U	.0019 U	.0019 U	.0022 U	.0021 U	.002 U	.0021 U	.0024 U	.0022 U	
Delta-BHC		0.3		.002 U	.0021 U	.0021 U	.0019 U	.0019 U	.0022 U	.0021 U	.002 U	.0021 U	.0024 U	.0022 U	
Chlordane		0.54		.002 U	.0021 U	.0021 U	.0019 U	.0019 U	.0022 U	.0021 U	.002 U	.0021 U	.0024 U	.0022 U	
2,4-D		0.5		.0039 U	NR	NR									
4,4-DDD		2.9		.0039 U	.004 U	.0041 U	.0037 U	.0037 U	.0042 U	.0041 U	.0041 U	.0038 U	.0041 U	.0042 U	
4,4-DDE		2.1		.0039 U	.004 U	.0041 U	.0037 U	.0037 U	.0042 U	.0041 U	.0041 U	.0038 U	.0041 U	.0042 U	
4,4-DDT		2.1		.0039 U	.004 U	.0041 U	.0037 U	.0037 U	.0042 U	.0041 U	.0041 U	.0038 U	.0041 U	.0042 U	
Dibenz-P-dioxin		N/A		NR	NR										
Dieldrin		0.044		.0039 U	.004 U	.0041 U	.0037 U	.0037 U	.0042 U	.0041 U	.0041 U	.0038 U	.0041 U	.0042 U	
Endosulfan I		0.9		.002 U	.0021 U	.0021 U	.0019 U	.0019 U	.0022 U	.0021 U	.0021 U	.0021 U	.0024 U	.0022 U	
Endosulfan II		0.9		.0039 U	.004 U	.0041 U	.0037 U	.0037 U	.0042 U	.0041 U	.0041 U	.0038 U	.0041 U	.0042 U	
Endosulfan Sulfate		1		.0039 U	.004 U	.0041 U	.0037 U	.0037 U	.0042 U	.0041 U	.0041 U	.0038 U	.0041 U	.0042 U	
Endrin		0.1		.0039 U	.004 U	.0041 U	.0037 U	.0037 U	.0042 U	.0041 U	.0041 U	.0038 U	.0041 U	.0042 U	
Endrin Keytome		N/A		.0039 U	.004 U	.0041 U	.0037 U	.0037 U	.0042 U	.0041 U	.0041 U	.0038 U	.0041 U	.0042 U	
Gamma-BHC		0.06		.002 U	.0021 U	.0021 U	.0019 U	.0019 U	.0022 U	.0021 U	.0021 U	.002 U	.0024 U	.0022 U	
Gamma-chlordane		0.54		.002 U	.0021 U	.0021 U	.0019 U	.0019 U	.0022 U	.0021 U	.0021 U	.002 U	.0024 U	.0022 U	
Heptachlor		0.1		.002 U	.0021 U	.0021 U	.0019 U	.0019 U	.0022 U	.0021 U	.0021 U	.002 U	.0024 U	.0022 U	
Heptachlor epoxide		0.02		.002 U	.0021 U	.0021 U	.0019 U	.0019 U	.0022 U	.0021 U	.0021 U	.002 U	.0024 U	.0022 U	
Methoxychlor		N/A		.020 U	.021 U	.021 U	.019 U	.019 U	.022 U	.021 U	.021 U	.020 U	.021 U	.024 U	
Mitotane		N/A		NR	NR										
Parathion		1.2		NR	NR										
Polychlorinated dibenzo-furans		N/A		NR	NR										
Metals (mg/kg)															
Aluminum		SB	33000	4130	5040.00	3120.00	5390.00	4900.00	8740.00	9880	8460.00	5240.00	8220.00	8490.00	14700.00
Antimony		SB	N/A	0.28	0.36	0.34	0.33	0.28	0.30	0.34	0.28	0.34	0.22	0.32	0.38
Arsenic		7.5 or SB	3.0-12	1.5	2.30	2.20	2.80	2.00	4.30	3.3	2.60	3.10	2.90	7.00	4.80
Barium		300 or SB	15-600	33.4	47.40	32.30	56.90	35.00	73.70	73	70.10	41.50	63.80	111.00	109.00
Beryllium		16 or SB	0.1-75	0.21	0.24	0.22	0.25	0.24	0.42	0.43	0.36	0.28	0.38	0.31	0.64
Cadmium		1 or SB	0.1-1	2.3	8.9*	1.50	6.2*	4.70	7.6*	3.2	13.9*	5.50	4.7*	16.3/7.7D	4.2*
Calcium		SB	130-35000	36500	48000*	40700.00	37100*	39900.00	50000*	61200	31200.00	55000.00	76700*	10,300	4,370
Chromium		10 or SB	1.5-40	8.3	12.40	6.70	15.10	11.40	18.80	15.3	24.70	13.20	12.60	241/11.4D	23.20
Cobalt		30 or SB	2.5-60	4.3	5.20	3.30	5.00	5.60	8.90	8.3	6.60	6.10	7.20	8.40	11.40
Copper		25 or SB	1000-50000	9.3	12.60	8.30	11.40	9.90	20.80	16.6	13.70	9.90	17.60	91.80	24.20
Iron		2000 or SB	2000-550000	10600	12200.00	877.00	12800.00	11900.00	17700.00	18500	15300.00	13300.00	17700.00	35500.00	25700.00
Lead		SB	200-500	0.22	0.27	0.26	0.25	0.22	0.23	0.26	0.22	0.26	0.17	0.38	0.29
Magnesium		SB	100-5000	8080	8590*	12400.00	8540*	8940.00	10700*	11900	8690*	6050.00	10200*	4630	5140*
Manganese		SB	50-5000	333	458.00	285.00	385.00	391.00	516.00	469	436.00	424.00	466.00	634.00	820.00
Mercury		0.1	0.001-0.2	0.018	0.02	0.02	0.02	0.018	0.02	0.02	0.02	0.02	0.05	0.02	0.02
Nickel		13 or SB	0.5-25	10	13.30	7.30	12.60	15.80	29.2*	21	16.40	18.00	20.90	226/10.8D	30.70
Potassium		SB	8500-11000	746	765.00	658.00	779.00	689.00	953.00	1620	1030.00	591.00	958.00	821.00	1430.00
Selenium		2.0 or SB	0.1-3.9	0.38	0.48	0.45	0.44	3.6	5.4*	0.48	0.38	3.90	5*	0.66	0.76
Silver		SB	N/A	0.23	0.37	0.26	0.24	0.19	0.20	0.37	0.19	0.22	0.15	0.37	0.25
Sodium		SB	6000-8000	130	140.00	139.00	141.00	188.00	237.00	191	213.00	202.00	244.00	279.00	142.00
Thallium		SB	N/A	1.5	1.60	1.50	1.80	0.35	0.30	2.5	2.20	1.70	0.22	4.50	3.30
Vanadium		150 or SB	1-300	17.1	18.10	19.00	18.50	18.80	24.20	25.7	22.40	16.70	23.60	58.80	25.70
Zinc		20 or SB	9.0-50	24.9	35.7	18.3	36.60	36.60	59.8*	50.5	116*	43.10	44.40	234/27.7D	71.1*
Cyanide		N/A	N/A	0.22	0.21	0.20	0.34	0.18	0.31	0.23	0.22	0.40	0.20	1.30	0.18

\* Concentration applicable to sample however additional material removed from location during subsequent excavations, other parameters below TAGM or SB not flagged

**Table 1-4**  
**AF-51 Analytical Data**  
**Area 1 Post- Excavation**

18" PIPE TRENCH & OVERFLOW SWALE POST EXC. CONFIRMATION SAMPLES							
Sample No.	TAGM No. 4046	Eastern USA Background	SB18102 7/20/2011 12/08/2000	SB18202 7/20/2012 12/08/2000	SB7102 7/20/2005 12/08/2000	SB7202 7/20/2006 12/08/2000	SB7302 7/20/2007 12/08/2000
Laboratory Sample ID #	Recommended Soil Cleanup Objectives (mg/kg)	Background	Trench (10 ft. L) 36-38 in.(BOG) Soil (mg/kg)	Trench (10 ft. B) 36-38 in.(BOG) Soil (mg/kg)	Swale(0 ft. DS) 8-12 in.(BOG) Soil (mg/kg)	Swale(50 ft. DS) 8-12 in.(BOG) Soil (mg/kg)	Swale(100 ft. DS) 8-12 in.(BOG) Soil (mg/kg)
<b>Volatiles</b>							
Acetone	.20		.006 U	.006 U	.005 J	.005 J	.004 J
Benzene	.06		.006 U	.006 U	.006 U	.003 J	.006 U
Benzoic Acid	2.70		.006 U	.006 U	.006 U	.006 U	.006 U
2-Butanone	.30		.006 U	.006 U	.006 U	.006 U	.006 U
Carbon Disulfide	2.70		.013	.007	.006 U	.006 U	.006 U
Carbon Tetrachloride	.60		.006 U	.006 U	.006 U	.006 U	.006 U
Chlorobenzene	1.70		.006 U	.006 U	.006 U	.006 U	.006 U
Chloroethane	1.90		.006 U	.006 U	.006 U	.006 U	.006 U
Chloroform	0.30		.006 U	.006 U	.005 J	.006 J	.004 J
Dibromo-chloromethane	N/A		.006 U	.006 U	.006 U	.006 U	.006 U
1,2-Dichlorobenzene	7.90		.006 U	.006 U	.006 U	.006 U	.006 U
1,3-Dichlorobenzene	1.60		.006 U	.006 U	.006 U	.006 U	.006 U
1,4-Dichlorobenzene	8.50		.006 U	.006 U	.006 U	.006 U	.006 U
1,1-Dichloroethane	0.20		.006 U	.006 U	.006 U	.006 U	.006 U
1,2-Dichloroethane	0.10		.006 U	.006 U	.006 U	.006 U	.006 U
1,1-Dichloroethene	0.40		.006 U	.006 U	.006 U	.006 U	.006 U
1,2-Dichloroethene	0.30		.006 U	.0043	.006 U	.006 U	.006 U
1,3-Dichloropropane	0.30		.006 U	.006 U	.006 U	.006 U	.006 U
Ethylbenzene	5.50		.006 U	.006 U	.006 U	.006 U	.006 U
113 Freon (1,1,2 Trichloro-1,2,2)	6.00		.006 U	.006 U	.006 U	.006 U	.006 U
Methylene Chloride	0.10		.006 U	.006 U	.006 U	.006 U	.006 U
4-Methyl-2-Pentanone	1.00		.006 U	.006 U	.006 U	.006 U	.006 U
Tetrachloroethene	1.40		.004 J	.006 U	.002 J	.003 J	.002 J
1,1,1-Trichloroethane	0.80		.006 U	.006 U	.006 U	.006 U	.006 U
1,1,2,2-Tetrachloroethane	0.60		.006 U	.006 U	.006 U	.006 U	.006 U
1,2,3-Trichloropropane	0.40		.006 U	.006 U	.006 U	.006 U	.006 U
1,2,4-Trichlorobenzene	3.40		.006 U	.006 U	.006 U	.006 U	.006 U
Toluene	1.50		.006 U	.001 J	.006 U	.001 J	.006 U
Trichloroethene	0.70		.006 U	.0037	.006 U	.006 U	.006 U
Vinyl Chloride	0.20		.006 U	.006 U	.006 U	.006 U	.006 U
Xylene	1.20		.006 U	.006 U	.006 U	.006 U	.006 U
<b>Semivolatiles</b>							
Acenaphthene	50.00		.37 U	.39 U	.4 U	.43 U	.38 U
Acenaphthylene	41.00		.37 U	.39 U	.4 U	.43 U	.38 U
Aniline	0.10		.37 U	.39 U	.4 U	.43 U	.38 U
Anthracene	50.00		.37 U	.39 U	.4 U	.43 U	.38 U
Benzo(a)anthracene	.224 or MDL		.37 U	.39 U	.4 U	.43 U	.38 U
Benzo (a) pyrene	.061 or MDL		.37 U	.39 U	.4 U	.43 U	.38 U
Benzo (b) fluoranthene	1.10		.37 U	.39 U	.4 U	.43 U	.38 U
Benzo (g,h,i) perylene	50.00		.37 U	.39 U	.4 U	.43 U	.38 U
Benzo (k) fluoranthene	1.10		.37 U	.39 U	.4 U	.43 U	.38 U
Bis (2-ethylhexyl) phthalate	50.00		.37 U	.39 U	.4 U	.43 U	.38 U
Butylbenzylphthalate	50.00		.37 U	.39 U	.4 U	.43 U	.38 U
Chrysene	0.40		.37 U	.39 U	.4 U	.43 U	.38 U
4-Chloroaniline	.22 or MDL		.37 U	.39 U	.4 U	.43 U	.38 U
4-Chloro-3-methylphenol	.24 or MDL		.37 U	.39 U	.4 U	.43 U	.38 U
2-Chlorophenol	0.80		.37 U	.39 U	.4 U	.43 U	.38 U
Dibenzofuran	6.20		.37 U	.39 U	.4 U	.43 U	.38 U
Dibenzo (a,h) anthracene	.014 or MDL		.37 U	.39 U	.4 U	.43 U	.38 U
1,3-Dichlorobenzidine	N/A		.37 U	.39 U	.4 U	.43 U	.38 U
2,4 Dichlorophenol	0.40		.37 U	.39 U	.4 U	.43 U	.38 U

**Table 1-4**  
**AF-51 Analytical Data**  
**Area 1 Post- Excavation**

18 " PIPE TRENCH & OVERFLOW SWALE POST EXC. CONFIRMATION SAMPLES								
Sample No.	Laboratory Sample ID #	TAGM No. 4046	Eastern USA	SB18102 72002011 12/08/2000 Trench (10 ft. L) 36-38 in.(BOG) Soil (mg/kg)	SB18202 72002012 12/08/2000 Trench (10 ft. B) 36-38 in.(BOG) Soil (mg/kg)	SB7102 72020005 12/08/2000 Swale(0 ft. DS) 8-12 in.(BOG) Soil (mg/kg)	SB7202 72020006 12/08/2000 Swale(50 ft. DS) 8-12 in.(BOG) Soil (mg/kg)	SB7302 72020007 12/08/2000 Swale(100 ft. DS) 8-12 in.(BOG) Soil (mg/kg)
2,4-Dinitrophenol	.2 or MDL			.76 U	.79 U	.8 U	.87 U	.76 U
2,6-Dinitrotoluene	1.00			.37 U	.39 U	.4 U	.43 U	.38 U
Diethylphthalate	7.10			.37 U	.39 U	.4 U	.43 U	.38 U
Dimethylphthalate	2.00			.37 U	.39 U	.4 U	.43 U	.38 U
Di-n-butyl phthalate	8.10			.37 U	.39 U	.4 U	.43 U	.38 U
Di-n-octyl phthalate	50.00			.37 U	.39 U	.4 U	.43 U	.38 U
Fluoranthene	50.00			.37 U	.39 U	.4 U	.43 U	.38 U
Fluorene	50.00			.37 U	.39 U	.4 U	.43 U	.38 U
Hexachlorobenzene	0.41			.37 U	.39 U	.4 U	.43 U	.38 U
Indeno (1,2,3-cd) Pyrene	3.20			.37 U	.39 U	.4 U	.43 U	.38 U
Isophorone	4.40			.37 U	.39 U	.4 U	.43 U	.38 U
2-Methylnaphthalene	36.40			.37 U	.39 U	.4 U	.43 U	.38 U
2-Methylphenol	1 or MDL			.37 U	.39 U	.4 U	.43 U	.38 U
4-Methylphenol	0.90			.37 U	.39 U	.4 U	.43 U	.38 U
Naphthalene	13.00			.37 U	.39 U	.4 U	.43 U	.38 U
Nitrobenzene	.2 or MDL			.37 U	.39 U	.4 U	.43 U	.38 U
2-Nitroaniline	.43 or MDL			.76 U	.79 U	.8 U	.87 U	.76 U
2-Nitrophenol	.33 or MDL			.37 U	.39 U	.4 U	.43 U	.38 U
4-Nitrophenol	.1 or MDL			.76 U	.79 U	.8 U	.87 U	.76 U
3-Nitroaniline	.5 or MDL			.76 U	.79 U	.8 U	.87 U	.76 U
Pentachlorophenol	1 or MDL			.76 U	.79 U	.8 U	.87 U	.76 U
Phenanthrene	50.00			.37 U	.39 U	.4 U	.43 U	.38 U
Phenol	.03 or MDL			.37 U	.39 U	.4 U	.43 U	.38 U
Pyrene	50.00			.37 U	.39 U	.4 U	.43 U	.38 U
2,4,5-Trichlorophenol	0.10			.76 U	.79 U	.8 U	.87 U	.76 U
PCBs (mg/kg)								
Aroclor-1016	1			.038 U	.039 U	.04 U	.043 U	.038 U
Aroclor-1221	1			.038 U	.039 U	.04 U	.043 U	.038 U
Aroclor-1232	1			.038 U	.039 U	.04 U	.043 U	.038 U
Aroclor-1242	1			.038 U	.039 U	.04 U	.043 U	.038 U
Aroclor-1248	1			.038 U	.039 U	.04 U	.043 U	.038 U
Aroclor-1254	1			.038 U	.039 U	.04 U	.043 U	.038 U
Aroclor-1260	1			.038 U	.039 U	.04 U	.043 U	.038 U
Pesticide (mg/kg)								
Aldrin	0.041			.001 U	.002 U	.002 U	.002 U	.001 U
Alpha-BHC	0.11			.001 U	.002 U	.002 U	.002 U	.001 U
Beta-BHC	0.2			.001 U	.002 U	.002 U	.002 U	.001 U
Delta-BHC	0.3			.001 U	.002 U	.002 U	.002 U	.001 U
Chlordane	0.54			.001 U	.002 U	.002 U	.002 U	.001 U
2,4-D	0.5			NR	NR	NR	NR	NR
4,4-DDD	2.9			.003 U	.004 U	.004 U	.004 U	.003 U
4,4-DDE	2.1			.003 U	.004 U	.004 U	.004 U	.003 U
4,4-DDT	2.1			.003 U	.004 U	.004 U	.004 U	.003 U
Dibenz-P-dioxin	N/A			NR	NR	NR	NR	NR
Dieldrin	0.044			.003 U	.004 U	.004 U	.004 U	.003 U
Endosulfan I	0.9			.001 U	.002 U	.002 U	.002 U	.001 U
Endosulfan II	0.9			.003 U	.004 U	.004 U	.004 U	.003 U
Endosulfan Sulfate	1			.003 U	.004 U	.004 U	.004 U	.003 U
Eadrin	0.1			.003 U	.004 U	.004 U	.004 U	.003 U
Eadrin Keytione	N/A			.003 U	.004 U	.004 U	.004 U	.003 U
Gamma-BHC	0.06			.001 U	.002 U	.002 U	.002 U	.001 U
Gamma-chlordane	0.54			.001 U	.002 U	.002 U	.002 U	.001 U
Heptachlor	0.1			.001 U	.002 U	.002 U	.002 U	.001 U
Heptachlor epoxide	0.02			.001 U	.002 U	.002 U	.002 U	.001 U
Methoxychlor	N/A			.019 U	.02 U	.02 U	.022 U	.019 U
Mitotane	N/A			NR	NR	NR	NR	NR
Parathion	1.2			NR	NR	NR	NR	NR
Polychlorinated dibenzo-furans	N/A			NR	NR	NR	NR	NR

**Table 1-4**  
**AF-51 Analytical Data**  
**Area 1 Post- Excavation**

18 " PIPE TRENCH & OVERFLOW SWALE POST EXC. CONFIRMATION SAMPLES							
Sample No.		Eastern USA	SB18102 72002011 12/08/2000	SB18202 72002012 12/08/2000	SB7102 72020005 12/08/2000	SB7202 72020006 12/08/2000	SB7302 72020007 12/08/2000
Laboratory Sample ID #	TAGM No. 4046 Recommended Soil Cleanup Objectives (mg/kg)	Background	Trench (10 ft. L) 36-38 in.(BOG) Soil (mg/kg)	Trench (10 ft. B) 36-38 in.(BOG) Soil (mg/kg)	Swale(0 ft. DS) 8-12 in.(BOG) Soil (mg/kg)	Swale(50 ft. DS) 8-12 in.(BOG) Soil (mg/kg)	Swale(100 ft. DS) 8-12 in.(BOG) Soil (mg/kg)
<b>Metals (mg/kg)</b>							
Aluminum	SB	33000	5940.00	7260.00	11600.00	11000.00	7820.00
Antimony	SB	N/A	0.34	0.32	0.30	0.30	0.34
Arsenic	7.5 or SB	3.0-12	2.60	2.90	5.00	5.70	2.70
Barium	300 or SB	15-600	55.60	53.00	105.00	64.40	40.30
Beryllium	.16 or SB	0.1-75	0.27	0.34	0.56	0.49	0.35
Cadmium	1 or SB	0.1-1	2.50	3.10	6.30	8.70	4.70
Calcium	SB	130-35000	42600.00	44400.00	4530.00	37900.00	1660.00
Chromium	10 or SB	1.5-40	10.80	22.00	22.20	17.00	12.40
Cobalt	30 or SB	2.5-60	5.50	7.10	11.70	10.50	7.60
Copper	25 or SB	1000-50000	12.80	15.60	21.00	22.30	11.20
Iron	2000 or SB	2000-550000	14200.00	15800.00	22900.00	21900.00	14700.00
Lead	SB	200-500	0.26	0.24	0.98	0.23	0.79
Magnesium	SB	100-5000	12400.00	10600.00	4550.00	9920.00	2,640.00
Manganese	SB	50-5000	374.00	448.00	381.00	549.00	171.00
Mercury	0.1	0.001-0.2	0.09	0.02	0.02	0.02	0.02
Nickel	13 or SB	0.5-25	13.90	19.80	33.50	32.80	20.30
Potassium	SB	8500-11000	907.00	1150.00	851.00	1010.00	526.00
Selenium	2.0 or SB	0.1-3.9	0.46	0.43	7.10	6.90	4.50
Silver	SB	N/A	0.37	0.22	0.20	0.20	0.23
Sodium	SB	6000-8000	141.00	170.00	158.00	220.00	143.00
Thallium	SB	N/A	2.10	2.10	0.30	0.42	0.34
Vanadium	150 or SB	1-300	21.50	21.50	24.00	25.10	16.70
Zinc	20 or SB	9.0-50	41.90	40.90	70.00	69.20	45.30
Cyanide	N/A	N/A	0.16	0.17	0.51	5.30	1.80

**Table 1-4**  
**AF-51 Analytical Data**  
**Area 1 Post- Excavation**

LA GOON-POST EXCAVATION CONFIRMATION SAMPLES - 2ND ROUND							LA GOON-POST EXCAVATION CONFIRMATION SAMPLES					
Sample No.	TAGM No.	Background	SB1502 80300001 02/13/2001 Bottom (Cell 1) 6.0 ft. (BOG) Soil (mg/kg)	SB2502 80300002 02/13/2001 Bottom (Cell 2) 6.0 ft. (BOG) Soil (mg/kg)	SB3502 80300003 02/13/2001 Bottom (Cell 3) 6.0 ft. (BOG) Soil (mg/kg)	SB4502 80300004 02/13/2001 Bottom (Cell 4) 6.0 ft. (BOG) Soil (mg/kg)	SB5502 80300005 02/13/2001 Bottom (Cell 5) 6.0 ft. (BOG) Soil (mg/kg)	NS102 80300006 02/13/2001 North Sidewall 3.5 ft. (BOG) Soil (mg/kg)	SS102 80300007 02/13/2001 South Sidewall 3.5 ft. (BOG) Soil (mg/kg)	ES102 80300008 02/13/2001 East Sidewall 3.5 ft. (BOG) Soil (mg/kg)	WS102 80300009 02/13/2001 West Sidewall 3.5 ft. (BOG) Soil (mg/kg)	D102 (DUPWS102) 80300011 02/13/2001 Sidewall 3.5 ft. (BOG) Soil (mg/kg)
<b>Volatiles</b>												
Acetone	0.20		.62 J	.42	.024 J	120 U	.29 J	.005 J	.005 J	.007	.006 U	.006 J
Benzene	0.06		1.1 U	.29 U	.03 U	120 U	.29 U	.006 U	.006 U	.005 U	.006 U	.006 U
Benzoic Acid	2.70		1.1 U	.29 U	.03 U	120 U	.29 U	.006 U	.006 U	.005 U	.006 U	.006 U
2-Butanone	0.30		1.1 U	.29 U	.03 U	120 U	.29 U	.006 U	.006 U	.005 U	.006 U	.006 U
Carbon Disulfide	2.70		1.1 U	.29 U	.03 U	120 U	.29 U	.006 U	.006 U	.005 U	.006 U	.006 U
Carbon Tetrachloride	0.60		1.1 U	.29 U	.03 U	120 U	.29 U	.006 U	.006 U	.005 U	.006 U	.006 U
Chlorobenzene	1.70		1.1 U	.29 U	.02 U	120 U	.29 U	.006 U	.006 U	.005 U	.006 U	.006 U
Chloroethane	1.90		1.1 U	.29 U	.03 U	120 U	.29 U	.006 U	.006 U	.005 U	.006 U	.006 U
Chloroform	0.30		1.1 U	.29 U	.03 U	120 U	.29 U	.006 U	.006 U	.005 U	.006 U	.006 U
Dibromochloromethane	N/A		1.1 U	.29 U	.03 U	120 U	.29 U	.006 U	.006 U	.005 U	.006 U	.006 U
1,2-Dichlorobenzene	7.90		1.1 U	.29 U	.03 U	120 U	.29 U	.006 U	.006 U	.005 U	.006 U	.006 U
1,3-Dichlorobenzene	1.60		1.1 U	.29 U	.03 U	120 U	.29 U	.006 U	.006 U	.005 U	.006 U	.006 U
1,4-Dichlorobenzene	8.50		1.1 U	.29 U	.03 U	120 U	.29 U	.006 U	.006 U	.005 U	.006 U	.006 U
1,1-Dichloroethane	0.20		1.1 U	.29 U	.03 U	120 U	.29 U	.006 U	.006 U	.005 U	.006 U	.006 U
1,2-Dichloroethane	0.10		1.1 U	.29 U	.03 U	120 U	.29 U	.006 U	.006 U	.005 U	.006 U	.006 U
1,1-Dichloroethylene	0.40		1.1 U	.29 U	.03 U	120 U	.29 U	.006 U	.006 U	.020	.006 U	.006 U
1,2-Dichloroethylene	0.30		1.1 U	.12 J	.03	120 U	.29 U	.002 J	.043	.005 U	.003 J	.006 U
1,3-Dichloropropane	0.30		1.1 U	.29 U	.03 U	120 U	.29 U	.006 U	.006 U	.005 U	.006 U	.006 U
Ethylbenzene	5.50		1.1 U	.29 U	.03 U	120 U	.29 U	.006 U	.006 U	.005 U	.006 U	.006 U
113 Freon (1,1,2 Trichloro-1,2	6.00		1.1 U	.29 U	.03 U	120 U	.29 U	.006 U	.006 U	.005 U	.006 U	.006 U
Methylene Chloride	0.10		1.1 U	.29 U	.03 U	120 U	.29 U	.006 U	.006 U	.005 U	.006 U	.006 U
4-Methyl-2-Pentanone	1.00		1.1 U	.29 U	.03 U	120 U	.29 U	.006 U	.006 U	.005 U	.006 U	.006 U
Tetrachloroethene	1.40		1.1 U	.29 U	.03 U	120 U	.29 U	.006 U	.001 J	.005 U	.006 U	.006 U
1,1,1-Trichloroethane	0.80		1.1 U	.29 U	.03 U	120 U	.29 U	.006 U	.006 U	.005 U	.006 U	.006 U
1,1,2,2-Tetrachloroethane	0.60		1.1 U	.29 U	.03 U	120 U	.29 U	.006 U	.006 U	.005 U	.006 U	.006 U
1,2,3-Trichloropropene	0.40		1.1 U	.29 U	.03 U	120 U	.29 U	.006 U	.006 U	.005 U	.006 U	.006 U
1,2,4-Trichlorobenzene	3.40		1.1 U	.29 U	.03 U	120 U	.29 U	.006 U	.006 U	.005 U	.006 U	.006 U
Toluene	1.50		1.1 U	.29 U	.03 U	120 U	.29 U	.006 U	.006 U	.001 J	.006 U	.006 U
Trichloroethylene	0.70		23	4.8	.76	1900	3.6	.09 J	.3D	.16	.005 J	.009
Vinyl Chloride	0.20		1.1 U	.29 U	.03 U	120 U	.29 U	.006 U	.006 U	.005 U	.006 U	.006 U
Xylene	1.20		1.1 U	.29 U	.03 U	120 U	.29 U	.006 U	.006 U	.005 U	.006 U	.006 U
<b>Semi-volatiles</b>												
Acenaphthene	50.00		1.1 U	1.2 U	1.1 U	1.2 U	1.1 U	1.2 U	1.2 U	1.0 U	1.2 U	1.3 U
Acenaphthylene	41.00		1.1 U	1.2 U	1.1 U	1.2 U	1.1 U	1.2 U	1.2 U	1.0 U	1.2 U	1.3 U
Aniline	0.10		1.1 U	1.2 U	1.1 U	1.2 U	1.1 U	1.2 U	1.2 U	1.0 U	1.2 U	1.3 U
Anthracene	50.00		1.1 U	1.2 U	1.1 U	1.2 U	1.1 U	1.2 U	1.2 U	1.0 U	1.2 U	1.3 U
Benz(a)anthracene	.224 or MDL		1.1 U	1.2 U	1.1 U	1.2 U	1.1 U	1.2 U	1.2 U	1.0 U	1.2 U	1.3 U
Benz (a) pyrene	.061 or MDL		1.1 U	1.2 U	1.1 U	1.2 U	1.1 U	1.2 U	1.2 U	1.0 U	1.2 U	1.3 U
Benz (b) fluoranthene	1.10		1.1 U	1.2 U	1.1 U	1.2 U	1.1 U	1.2 U	1.2 U	1.0 U	1.2 U	1.3 U
Benz (g,h,i) perylene	50.00		1.1 U	1.2 U	1.1 U	1.2 U	1.1 U	1.2 U	1.2 U	1.0 U	1.2 U	1.3 U
Benz (k) fluoranthene	1.10		1.1 U	1.2 U	1.1 U	1.2 U	1.1 U	1.2 U	1.2 U	1.0 U	1.2 U	1.3 U
Bis (2-ethylhexyl) phthalate	50.00		1.1 U	.35J	1.1 U	.21J	1.1 U	1.2 U	1.2 U	1.0 U	1.2 U	1.3 U
Butylbenzylphthalate	50.00		1.1 U	1.2 U	1.1 U	1.2 U	1.1 U	1.2 U	1.2 U	1.0 U	1.2 U	1.3 U
Chrysene	0.40		1.1 U	1.2 U	1.1 U	1.2 U	1.1 U	1.2 U	1.2 U	1.0 U	1.2 U	1.3 U
4-Chloroaniline	.22 or MDL		1.1 U	1.2 U	1.1 U	1.2 U	1.1 U	1.2 U	1.2 U	1.0 U	1.2 U	1.3 U
4-Chloro-3-methylphenol	.24 or MDL		1.1 U	1.2 U	1.1 U	1.2 U	1.1 U	1.2 U	1.2 U	1.0 U	1.2 U	1.3 U
2-Chlorophenol	0.80		1.1 U	1.2 U	1.1 U	1.2 U	1.1 U	1.2 U	1.2 U	1.0 U	1.2 U	1.3 U
Dibenzo furan	6.20		1.1 U	1.2 U	1.1 U	1.2 U	1.1 U	1.2 U	1.2 U	1.0 U	1.2 U	1.3 U

Table 1-4  
AF-51 Analytical Data  
Area 1 Post- Excavation

LAGOON-POST EXCAVATION CONFIRMATION SAMPLES - 2ND ROUND								LAGOON-POST EXCAVATION CONFIRMATION SAMPLES					
Sample No.		Eastern USA Background	SB1502 80300001 02/13/2001 Bottom (Cell 1) 6.0 ft. (BOG) Soil (mg/kg)	SB2502 80300002 02/13/2001 Bottom (Cell 2) 6.0 ft. (BOG) Soil (mg/kg)	SB3502 80300003 02/13/2001 Bottom (Cell 3) 6.0 ft. (BOG) Soil (mg/kg)	SB4502 80300004 02/13/2001 Bottom (Cell 4) 6.0 ft. (BOG) Soil (mg/kg)	SB5502 80300005 02/13/2001 Bottom (Cell 5) 6.0 ft. (BOG) Soil (mg/kg)	NS102 80300006 02/13/2001 North Sidewall 3.5 ft. (BOG) Soil (mg/kg)	SS102 80300007 02/13/2001 South Sidewall 3.5 ft. (BOG) Soil (mg/kg)	ES102 80300008 02/13/2001 East Sidewall 3.5 ft. (BOG) Soil (mg/kg)	WS102 80300009 02/13/2001 West Sidewall 3.5 ft. (BOG) Soil (mg/kg)	D102 (DU/PWS102) 80300011 02/13/2001 Sidewall 3.5 ft. (BOG) Soil (mg/kg)	
Dibenzo (a,h) anthracene	.014 or MDL		1.1 U	1.2 U	1.1 U	1.2 U	1.1 U	1.2 U	1.2 U	1.0 U	1.2 U	1.3 U	
3,3-Dichlorobenzidine	N/A		1.1 U	1.2 U	1.1 U	1.2 U	1.1 U	1.2 U	1.2 U	1.0 U	1.2 U	1.3 U	
2,4-Dichlorophenol	0.40		1.1 U	1.2 U	1.1 U	1.2 U	1.1 U	1.2 U	1.2 U	1.0 U	1.2 U	1.3 U	
2,4-Dinitrophenol	.2 or MDL		2.3 U	2.4 U	2.3 U	2.4 U	2.3 U	2.5 U	2.4 U	2.0 U	2.4 U	2.6 U	
2,6-Dinitrotoluene	1.00		1.1 U	1.2 U	1.1 U	1.2 U	1.1 U	1.2 U	1.2 U	1.0 U	1.2 U	1.3 U	
Diethylphthalate	7.10		1.1 U	1.2 U	1.1 U	1.2 U	1.1 U	1.2 U	.14 J	1.0 U	1.2 U	1.3 U	
Dimethylphthalate	2.00		1.1 U	1.2 U	1.1 U	1.2 U	1.1 U	1.2 U	1.2 U	1.0 U	1.2 U	1.3 U	
Di-n-butyl phthalate	8.10		1.1 U	1.2 U	1.1 U	1.2 U	1.1 U	1.2 U	1.2 U	1.0 U	1.2 U	1.3 U	
Di-n-octyl phthalate	50.00		1.1 U	1.2 U	1.1 U	1.2 U	1.1 U	1.2 U	1.2 U	1.0 U	1.2 U	1.3 U	
Fluoranthene	50.00		1.1 U	1.2 U	1.1 U	1.2 U	1.1 U	1.2 U	1.2 U	1.0 U	1.2 U	1.3 U	
Fluorene	50.00		1.1 U	1.2 U	1.1 U	1.2 U	1.1 U	1.2 U	1.2 U	1.0 U	1.2 U	1.3 U	
Hexachlorobenzene	0.41		1.1 U	1.2 U	1.1 U	1.2 U	1.1 U	1.2 U	1.2 U	1.0 U	1.2 U	1.3 U	
Indeno (1,2,3- <i>cd</i> ) Pyrene	3.20		1.1 U	1.2 U	1.1 U	1.2 U	1.1 U	1.2 U	1.2 U	1.0 U	1.2 U	1.3 U	
Isophorone	4.40		1.1 U	1.2 U	1.1 U	1.2 U	1.1 U	1.2 U	1.2 U	1.0 U	1.2 U	1.3 U	
2-Methylnaphthalene	36.40		1.1 U	1.2 U	1.1 U	.14 J	1.1 U	1.2 U	1.2 U	1.0 U	1.2 U	1.3 U	
2-Methylphenol	.1 or MDL		1.1 U	1.2 U	1.1 U	1.2 U	1.1 U	1.2 U	1.2 U	1.0 U	1.2 U	1.3 U	
4-Methylphenol	0.90		1.1 U	1.2 U	1.1 U	1.2 U	1.1 U	1.2 U	1.2 U	1.0 U	1.2 U	1.3 U	
Naphthalene	13.00		1.1 U	1.2 U	1.1 U	1.2 U	1.1 U	1.2 U	1.2 U	1.0 U	1.2 U	1.3 U	
Nitrobenzene	.2 or MDL		1.1 U	1.2 U	1.1 U	1.2 U	1.1 U	1.2 U	1.2 U	1.0 U	1.2 U	1.3 U	
2-Nitroaniline	.43 or MDL		2.3 U	2.4 U	2.3 U	2.4 U	2.3 U	2.5 U	2.4 U	2.0 U	2.4 U	2.6 U	
2-Nitrophenol	.33 or MDL		1.1 U	1.2 U	1.1 U	1.2 U	1.1 U	1.2 U	1.2 U	1.0 U	1.2 U	1.3 U	

**Table 1-4**  
**AF-51 Analytical Data**  
**Area 1 Post- Excavation**

LAGOON-POST EXCAVATION CONFIRMATION SAMPLES - 2ND ROUND										LAGOON-POST EXCAVATION CONFIRMATION SAMPLES				
Sample No.		Eastern USA	SB1502 80300001 02/13/2001 Bottom (Cell 1) 6.0 ft. (BOG) Soil (mg/kg)	SB2502 80300002 02/13/2001 Bottom (Cell 2) 6.0 ft. (BOG) Soil (mg/kg)	SB3502 80300003 02/13/2001 Bottom (Cell 3) 6.0 ft. (BOG) Soil (mg/kg)	SB4502 80300004 02/13/2001 Bottom (Cell 4) 6.0 ft. (BOG) Soil (mg/kg)	SB5502 80300005 02/13/2001 Bottom (Cell 5) 6.0 ft. (BOG) Soil (mg/kg)	NS102 80300006 02/13/2001 North Sidewall 3.5 ft. (BOG) Soil (mg/kg)	SS102 80300008 02/13/2001 South Sidewall 3.5 ft. (BOG) Soil (mg/kg)	ES102 80300009 02/13/2001 East Sidewall 3.5 ft. (BOG) Soil (mg/kg)	WS102 80300011 02/13/2001 West Sidewall 3.5 ft. (BOG) Soil (mg/kg)	D102 (DUPWS102) 80300011 02/13/2001 Sidewall 3.5 ft. (BOG) Soil (mg/kg)		
4-Nitrophenol	.1 or MDL		2.3 U	2.4 U	2.3 U	2.4 U	2.3 U	2.5 U	2.4 U	2.0 U	2.4 U	2.6 U		
3-Nitroaniline	.5 or MDL		2.3 U	2.4 U	2.3 U	2.4 U	2.3 U	2.5 U	2.4 U	2.0 U	2.4 U	2.6 U		
Pentachlorophenol	1 or MDL		2.3 U	2.4 U	2.3 U	2.4 U	2.3 U	2.5 U	2.4 U	2.0 U	2.4 U	2.6 U		
Phenanthrene	50.00		1.1 U	1.2 U	1.1 U	1.2 U	1.1 U	1.2 U	1.2 U	1.0 U	1.2 U	1.3 U		
Phenol	.03 or MDL		1.1 U	1.2 U	1.1 U	1.2 U	1.1 U	1.2 U	1.2 U	1.0 U	1.2 U	1.3 U		
Pyrene	50.00		1.1 U	1.2 U	1.1 U	1.2 U	1.1 U	1.2 U	1.2 U	1.0 U	1.2 U	1.3 U		
2,4,5-Trichlorophenol	0.10		2.3 U	2.4 U	2.3 U	2.4 U	2.3 U	2.5 U	2.4 U	2.0 U	2.4 U	2.6 U		
PCBs (mg/kg)														
Aroclor-1016	1		110 U	120 U	110 U	120 U	100 U	120 U	100 U	120 U	120 U	130 U		
Aroclor-1221	1		110 U	120 U	110 U	120 U	100 U	120 U	100 U	120 U	120 U	130 U		
Aroclor-1232	1		110 U	120 U	110 U	120 U	100 U	120 U	100 U	120 U	120 U	130 U		
Aroclor-1242	1		110 U	120 U	110 U	120 U	100 U	120 U	100 U	120 U	120 U	130 U		
Aroclor-1248	1		110 U	120 U	110 U	120 U	100 U	120 U	100 U	120 U	120 U	130 U		
Aroclor-1254	1		110 U	120 U	110 U	120 U	100 U	120 U	100 U	120 U	120 U	130 U		
Aroclor-1260	1		110 U	120 U	110 U	120 U	100 U	120 U	100 U	120 U	120 U	130 U		
Pesticide (mg/kg)														
Aldrin	0.041		.0058 U	.0059 U	.0056 U	.0059 U	.0054 U	.0062 U	.0062 U	.0053 U	.0062 U	.0064 U		
Alpha-BHC	0.11		.0058 U	.0059 U	.0056 U	.0059 U	.0054 U	.0062 U	.0062 U	.0053 U	.0062 U	.0064 U		
Beta-BHC	0.2		.0058 U	.0059 U	.0056 U	.0059 U	.0054 U	.0062 U	.0062 U	.0053 U	.0062 U	.0064 U		
Delta-BHC	0.3		.0058 U	.0059 U	.0056 U	.0059 U	.0054 U	.0062 U	.0062 U	.0053 U	.0062 U	.0064 U		
Chlordane	0.54		.0058 U	.0059 U	.0056 U	.0059 U	.0054 U	.0062 U	.0062 U	.0053 U	.0062 U	.0064 U		
2,4-D	0.5		NR	NR	NR	NR	NR	NR	NR	NR	NR	NR		
4,4-DDD	2.9		.011 U	.011 U	.011 U	.011 U	.010 U	.012 U	.012 U	.010 U	.012 U	.012 U		
4,4-DDE	2.1		.011 U	.011 U	.011 U	.011 U	.010 U	.012 U	.012 U	.010 U	.012 U	.012 U		
4,4-DDT	2.1		.011 U	.011 U	.011 U	.011 U	.010 U	.012 U	.012 U	.010 U	.012 U	.012 U		
Dibenzo-P-dioxin	N/A		NR	NR	NR	NR	NR	NR	NR	NR	NR	NR		
Dieldrin	0.044		.011 U	.011 U	.011 U	.011 U	.010 U	.012 U	.012 U	.010 U	.012 U	.012 U		
Endosulfan I	0.9		.011 U	.011 U	.011 U	.011 U	.010 U	.012 U	.012 U	.010 U	.012 U	.012 U		
Endosulfan II	0.9		.011 U	.011 U	.011 U	.011 U	.010 U	.012 U	.012 U	.010 U	.012 U	.012 U		
Endosulfan Sulfate	1		.011 U	.011 U	.011 U	.011 U	.010 U	.012 U	.012 U	.010 U	.012 U	.012 U		
Endrin	0.1		.011 U	.011 U	.011 U	.011 U	.010 U	.012 U	.012 U	.010 U	.012 U	.012 U		
Endrin Keytone	N/A		.011 U	.011 U	.011 U	.011 U	.010 U	.012 U	.012 U	.010 U	.012 U	.012 U		
Gamma-BHC	0.06		.0058 U	.0059 U	.0056 U	.0059 U	.0054 U	.0062 U	.0062 U	.0053 U	.0062 U	.0064 U		
Gamma-chlordane	0.54		.0058 U	.0059 U	.0056 U	.0059 U	.0054 U	.0062 U	.0062 U	.0053 U	.0062 U	.0064 U		
Heptachlor	0.1		.0058 U	.0059 U	.0056 U	.0059 U	.0054 U	.0062 U	.0062 U	.0053 U	.0062 U	.0064 U		
Heptachlor epoxide	0.02		.0058 U	.0059 U	.0056 U	.0059 U	.0054 U	.0062 U	.0062 U	.0053 U	.0062 U	.0064 U		
Methoxychlor	N/A		.011 U	.011 U	.011 U	.011 U	.010 U	.012 U	.012 U	.010 U	.012 U	.012 U		
Mitotane	N/A		NR	NR	NR	NR	NR	NR	NR	NR	NR	NR		
Parathion	1.2		NR	NR	NR	NR	NR	NR	NR	NR	NR	NR		
Polychlorinated dibenzo-furans	N/A		NR	NR	NR	NR	NR	NR	NR	NR	NR	NR		
Metals (mg/kg)														
Aluminum	SB	33000	4020.00	6700.00	4020.00	6710.00	3610.00	8190.00	4700.00	3780.00	7470.00	7000.00		
Antimony	SB	N/A	.11 U	.11 U	.12 U	.11 B	.12 U	.1 U	.12 B	.12 U	.12 B	.11 U		
Arsenic	7.5 or SB	3.0-12	2.30	2.70	2.1 B	3.40	1.60	4.20	2.60	1.9 B	4.40	3.60		
Barium	300 or SB	15-600	44.30	58.20	42.70	47.40	42.80	73.20	62.80	33.70	91.40	79.80		
Beryllium	.16 or SB	0.1-75	.19 B	.32 B	.19 B	.31 B	.17 B	.38 B	.22 B	.17 B	.37 B	.33 B		
Cadmium	I or SB	0.1-1	0.73	0.84	0.59	0.93	0.51	1.30	0.81	0.65	1.00	0.85		
Calcium	SB	130-35000	41300.00	43100.00	44700.00	54900.00	37700.00	76,300	38,400	39800.00	66800.00	43700.00		
Chromium	10 or SB	1.5-40	8.00	11.00	7.80	11.50	6.70	13.80	8.50	7.20	11.70	10.50		

**Table 1-4**  
**AF-51 Analytical Data**  
**Area 1 Post- Excavation**

LAGOON-POST EXCAVATION CONFIRMATION SAMPLES - 2ND ROUND							LAGOON-POST EXCAVATION CONFIRMATION SAMPLES									
Sample No.	Laboratory Sample ID #	Sample Date	Sample Type	Depth (ft.)	Matrix	Recommended Soil Cleanup Objectives (mg/kg)	SB1502 80300001 02/13/2001 Bottom (Cell 1) 6.0 ft. (BOG) Soil (mg/kg)	SB2502 80300002 02/13/2001 Bottom (Cell 2) 6.0 ft. (BOG) Soil (mg/kg)	SB3502 80300003 02/13/2001 Bottom (Cell 3) 6.0 ft. (BOG) Soil (mg/kg)	SB4502 80300004 02/13/2001 Bottom (Cell 4) 6.0 ft. (BOG) Soil (mg/kg)	SB5502 80300005 02/13/2001 Bottom (Cell 5) 6.0 ft. (BOG) Soil (mg/kg)	NS102 80300006 02/13/2001 North Sidewall Soil (mg/kg)	SS102 80300007 02/13/2001 South Sidewall Soil (mg/kg)	ES102 80300008 02/13/2001 East Sidewall Soil (mg/kg)	WS102 80300009 02/13/2001 West Sidewall Soil (mg/kg)	D102 (DUPWS102) 80300011 02/13/2001 Sidewall Soil (mg/kg)
Cobalt	30 or SB	2.5-60	4.3 B	6.70	4.2 B	6.70	3.8 B	7.60	4.9 B	4.9 B	7.30	6.70				
Copper	25 or SB	1000-50000	7.40	8.60	7.80	11.80	5.60	13.60	8.00	6.70	12.30	15.20				
Iron	2000 or SB	2000-550000	10500.00	15400.00	10500.00	15300.00	9360.00	17700.00	11700.00	10500.00	16600.00	14800.00				
Lead	SB	200-500	.23 U	.42 B	.23 U	.9 B	.16 U	.24 U	.0.20	.2 U	.23 U	1.70				
Magnesium	SB	100-5000	9780.00	10500.00	10800.00	12400.00	9960.00	13300.00	8810.00	8990.00	11600.00	9190.00				
Manganese	SB	50-5000	315.00	411.00	314.00	407.00	296.00	518.00	352.00	314.00	424.00	387.00				
Mercury	0.1	0.001-0.2	.02 U	.02 U	.02 U	.02 U	.02 U	.02 U	.02 U	.02 U	.02 U	.02 U				
Nickel	13 or SB	0.5-25	10.50	16.80	10.20	16.40	9.20	18.30	12.00	10.10	18.40	17.30				
Potassium	SB	8500-11000	647.00	1120.00	691.00	1100.00	584.00	1,290.00	706.00	627.00	1060.00	862.00				
Selenium	2.0 or SB	0.1-3.9	4.4	5.7	3.80	6.20	3.40	6.50	4.70	4.1	6.00	5.80				
Silver	SB	N/A	.11 U	.17 B	.12 U	.2 U	.15 B	.24 B	.14 B	.1 U	.3 B	.16 B				
Sodium	SB	6000-8000	119.00	155.00	130.00	179.00	119.00	196.00	135.00	113.00	170.00	129.00				
Thallium	SB	N/A	.23 U	.22 U	.23 U	.23 U	.16 U	.24 U	.2 U	.2 U	.7 B	.78 B				
Vanadium	150 or SB	1-300	16.50	20.80	16.70	22.60	14.80	25.30	17.20	15.80	24.00	19.50				
Zinc	20 or SB	9.0-50	.21	.29 .80	.18 .70	.34 .20	.16 .90	.38 .40	.23 .40	.19 .30	.35 .30	.34 .50				
Cyanide	N/A	N/A	.13 U	.16 U	.15 U	.16 U	.11 U	.18 U	.14 U	.13 U	.14 U					

\* Concentration applicable to sample however additional material removed from location during subsequent excavations, other parameters below TAGM or SB not flagged

**Table 1-5**  
**AF-51 Analytical Data**  
**Area 1 Interim Sampling**

Sample Date	Sample ID	Result (TCE)ppm	Location	Purpose	Comments
12/21/00	AFB51-00-SB-5-3(0-6")	670	Cell 5 center soil boring	Vertical delineation	Soil boring to groundwater
12/21/00	AFB51-00-SB-5-3(6-12")	NA	Cell 5 center soil boring	Vertical delineation	Soil boring to groundwater
12/21/00	AFB51-00-SB-5-3(12-18")	NA	Cell 5 center soil boring	Vertical delineation	Soil boring to groundwater
12/21/00	AFB51-00-SB-5-3(18-24")	0.091	Cell 5 center soil boring	Vertical delineation	Soil boring to groundwater
12/21/00	AFB51-00-SB-5-3(3'-3'6")	NA	Cell 5 center soil boring	Vertical delineation	Soil boring to groundwater
12/21/00	AFB51-00-SB-5-3(4'-4'6")	NA	Cell 5 center soil boring	Vertical delineation	Soil boring to groundwater
12/21/00	AFB51-00-SB-5-3(5'-5'6")	2.3	Cell 5 center soil boring	Vertical delineation	Soil boring to groundwater
12/21/00	AFB51-00-SB-5-3(6'-6'6")	NA	Cell 5 center soil boring	Vertical delineation	Soil boring to groundwater
12/21/00	AFB51-00-SB-5-3(8'-8'6")	0.014	Cell 5 center soil boring	Vertical delineation	Soil boring to groundwater
12/21/00	AFB51-00-SB-5-3(9'-9'6")	NA	Cell 5 center soil boring	Vertical delineation	Soil boring to groundwater
12/22/00	AFB51-00-SB-1-3(0-6")	NA	Cell 1 center soil boring	Vertical delineation	Soil boring 2' below initial post-ex
12/22/00	AFB51-00-SB-1-3(6-12")	NA	Cell 1 center soil boring	Vertical delineation	Soil boring 2' below initial post-ex
12/22/00	AFB51-00-SB-1-3(12-18")	0.34	Cell 1 center soil boring	Vertical delineation	Soil boring 2' below initial post-ex
12/22/00	AFB51-00-SB-1-3(18-24")	0.037	Cell 1 center soil boring	Vertical delineation	Soil boring 2' below initial post-ex
12/22/00	AFB51-00-SB-2-3(0-6")	130	Cell 2 center soil boring	Vertical delineation	Soil boring 2' below initial post-ex
12/22/00	AFB51-00-SB-2-3(6-12")	110	Cell 2 center soil boring	Vertical delineation	Soil boring 2' below initial post-ex
12/22/00	AFB51-00-SB-2-3(12-18")	0.038	Cell 2 center soil boring	Vertical delineation	Soil boring 2' below initial post-ex
12/22/00	AFB51-00-SB-2-3(18-24")	0.11	Cell 2 center soil boring	Vertical delineation	Soil boring 2' below initial post-ex
12/22/00	AFB51-00-SB-3-3(0-6")	79	Cell 3 center soil boring	Vertical delineation	Soil boring 2' below initial post-ex
12/22/00	AFB51-00-SB-3-3(6-12")	NA	Cell 3 center soil boring	Vertical delineation	Soil boring 2' below initial post-ex
12/22/00	AFB51-00-SB-3-3(12-18")	0.041	Cell 3 center soil boring	Vertical delineation	Soil boring 2' below initial post-ex
12/22/00	AFB51-00-SB-3-3(18-24")	.076 J	Cell 3 center soil boring	Vertical delineation	Soil boring 2' below initial post-ex
12/22/00	AFB51-00-SB-4-3(0-6")	NA	Cell 4 center soil boring	Vertical delineation	Soil boring 2' below initial post-ex
12/22/00	AFB51-00-M-4-3(0-6")	11	Cell 4 center soil boring	Vertical delineation	Soil boring 2' below initial post-ex
12/22/00	AFB51-00-SB-4-3(6-12")	NA	Cell 4 center soil boring	Vertical delineation	Soil boring 2' below initial post-ex
12/22/00	AFB51-00-SB-4-3(12-18")	NA	Cell 4 center soil boring	Vertical delineation	Soil boring 2' below initial post-ex
12/22/00	AFB51-00-SB-4-3(18-24")	5 J	Cell 4 center soil boring	Vertical delineation	Soil boring 2' below initial post-ex
12/22/00	AFB51-00-SB-6-3(0-6")	0.015	Cell 6 center soil boring	Vertical delineation	Soil boring 2' below initial post-ex
12/22/00	AFB51-00-SB-6-3(6-12")	NA	Cell 6 center soil boring	Vertical delineation	Soil boring 2' below initial post-ex
12/22/00	AFB51-00-SB-6-3(12-18")	NA	Cell 6 center soil boring	Vertical delineation	Soil boring 2' below initial post-ex
12/22/00	AFB51-00-SB-6-3(18-24")	.002 J	Cell 6 center soil boring	Vertical delineation	Soil boring 2' below initial post-ex
1/25/01	AFB51-01-SB-1-4(3')	NA	Cell 1 center test pit	Vertical delineation	Test pit sample 1-foot intervals
1/25/01	AFB51-01-SB-1-4(4')	NA	Cell 1 center test pit	Vertical delineation	Test pit sample 1-foot intervals
1/25/01	AFB51-01-SB-1-4(5')	NA	Cell 1 center test pit	Vertical delineation	Test pit sample 1-foot intervals
1/25/01	AFB51-01-SB-1-4(6')	NA	Cell 1 center test pit	Vertical delineation	Test pit sample 1-foot intervals
1/25/01	AFB51-01-SB-2-4(3')	4.148	Cell 2 center test pit	Vertical delineation	Test pit sample 1-foot intervals
1/25/01	AFB51-01-SB-2-4(4')	4.584	Cell 2 center test pit	Vertical delineation	Test pit sample 1-foot intervals
1/25/01	AFB51-01-SB-2-4(5')	3.47	Cell 2 center test pit	Vertical delineation	Test pit sample 1-foot intervals
1/25/01	AFB51-01-SB-2-4(6')	3.656	Cell 2 center test pit	Vertical delineation	Test pit sample 1-foot intervals
1/25/01	AFB51-01-SB-3-4(3')	13.178	Cell 3 center test pit	Vertical delineation	Test pit sample 1-foot intervals
1/25/01	AFB51-01-SB-3-4(4')	24.65	Cell 3 center test pit	Vertical delineation	Test pit sample 1-foot intervals
1/25/01	AFB51-01-SB-3-4(5')	11.06	Cell 3 center test pit	Vertical delineation	Test pit sample 1-foot intervals

**Table 1-5**  
**AF-51 Analytical Data**  
**Area 1 Interim Sampling**

Sample Date	Sample ID	Result (TCE)ppm	Location	Purpose	Comments
1/25/01	AFB51-01-SB-3-4(6')	12.064	Cell 3 center test pit	Vertical delineation	Test pit sample 1-foot intervals
1/25/01	AFB51-01-SB-4-4(3')	16.766	Cell 4 center test pit	Vertical delineation	Test pit sample 1-foot intervals
1/25/01	AFB51-01-SB-4-4(4')	NA	Cell 4 center test pit	Vertical delineation	Test pit sample 1-foot intervals
1/25/01	AFB51-01-SB-4-4(5')	NA	Cell 4 center test pit	Vertical delineation	Test pit sample 1-foot intervals
1/25/01	AFB51-01-SB-4-4(6')	16.766	Cell 4 center test pit	Vertical delineation	Test pit sample 1-foot intervals
1/25/01	AFB51-01-SB-6-4(3')	0.43	Cell 6 center test pit	Vertical delineation	Test pit sample 1-foot intervals
1/25/01	AFB51-01-SB-6-4(4')	0.63	Cell 6 center test pit	Vertical delineation	Test pit sample 1-foot intervals
1/25/01	AFB51-01-SB-6-4(5')	0.568	Cell 6 center test pit	Vertical delineation	Test pit sample 1-foot intervals
1/25/01	AFB51-01-SB-6-4(6')	0.506	Cell 6 center test pit	Vertical delineation	Test pit sample 1-foot intervals
1/30/01	AFB51-01-SB-2-5(6-7')	0.0075	Cell 1 center test pit	Vertical delineation	Test pit sample 1-foot intervals
1/31/01	AFB51-01-SB-5-4(1.5')	<DL	Cell 5 center test pit	Vertical delineation	Test pit sample 1-foot intervals
1/31/01	AFB51-01-SB-5-4(3')	3.354	Cell 5 center test pit	Vertical delineation	Test pit sample 1-foot intervals
1/31/01	AFB51-01-SB-5-4(4')	0.0196	Cell 5 center test pit	Vertical delineation	Test pit sample 1-foot intervals
1/31/01	AFB51-01-SB-5-4(5')	2.644	Cell 5 center test pit	Vertical delineation	Test pit sample 1-foot intervals
1/31/01	AFB51-01-SB-6-4(1')	NA	Cell 6 center test pit	Vertical delineation	Test pit sample 1-foot intervals

**Table 1-6**  
**AF-51 Analytical Data**  
**Area 1 -Groundwater**

Sample No.	Technical and Operational Guidance Series	Post Exc. GW
Laboratory Sample ID #	Recommended GW Standards/Guidance Values(ug/l)	GW (ug/l)
Sample Date		01GW1
Sample Type		80312001
Depth (ft.)		02/14/2001
Matrix		Groundwater
		6.0 ft. (BOG)
<b>Volatiles (ug/l)</b>		
Acetone	50.00	1000 U
Benzene	1.00	1000 U
Benzoic Acid	NS	1000 U
2-Butanone	50.00	1000 U
Carbon Disulfide	50.00	1000 U
Carbon Tetrachloride	NS	1000 U
Chlorobenzene	5.00	1000 U
Chloroethane	5.00	1000 U
Chloroform	7.00	1000 U
Dibromochloromethane	5.00	1000 U
1,2-Dichlorobenzene	5.00	1000 U
1,3-Dichlorobenzene	5.00	1000 U
1,4-Dichlorobenzene	5.00	1000 U
1,1-Dichloroethane	0.60	1000 U
1,2-Dichloroethane	5.00	1000 U
1,1-Dichloroethene	5.00	1000 U
1,2-Dichloroethene	5.00	1000 U
1-3 Dichloropropane	5.00	1000 U
Ethylbenzene	5.00	1000 U
113 Freon (1,1,2 Trichloro-1,2,2)	5.00	1000 U
Methylene Chloride	5.00	1000 U
4-Methyl-1-Pentanone	NS	1000 U
Tetrachloroethene	5.00	1000 U
1,1,1-Trichloroethane	5.00	1000 U
1,1,2,2-Tetrachloroethane	5.00	1000 U
1,2,3-Trichloropropane	5.00	1000 U
1,2,4-Trichlorobenzene	5.00	1000 U
Toluene	5.00	1000 U
Trichloroethene	5.00	14,000
Vinyl Chloride	2.00	1000 U
Xylene	5.00	1000 U
<b>Semivolatiles (ug/l)</b>		
Acenaphthene	NS	10 U
Acenaphthylene	NS	10 U
Aniline	5.00	10 U
Anthracene	50.00	10 U
Benzo(a)anthracene	0.002	10 U
Benzo (a) pyrene	0.002	10 U
Benzo (b) fluoranthene	0.002	10 U
Benzo (g,h,I) perylene	NS	10 U
Benzo (k) fluoranthene	0.002	10 U
Bis (2-ethylhexyl) phthalate	50.00	10 U
Butylbenzylphthalate	50.00	10 U
Chrysene	0.002	10 U
4-Chloroaniline	5.00	10 U
4-Chloro-3-methylphenol	5.00	10 U
2-Chlorophenol	5.00	10 U
Dibenzofuran	NS	10 U
Dibenzo (a,h) anthracene	NS	10 U
3,3-Dichlorobenzidine	5.00	10 U
2,4 Dichlorophenol	5.00	10 U
2,4-Dinitrophenol	5.00	20 U
2,6-Dinitrotoluene	NS	10 U
Diethylphthalate	50.00	1 JB
Dimethylphthalate	50.00	10 U
Di-n-butyl phthalate	50.00	10 U
Di-n-octyl phthalate	50.00	10 U
Fluoroanthene	50.00	10 U
Fluorene	50.00	10 U
Hexachlorobenzene	0.04	10 U
Indeno (1,2,3-cd) Pyrene	0.002	10 U

**Table 1-6**  
**AF-51 Analytical Data**  
**Area 1 -Groundwater**

		Post Exc. GW
Sample No.		01GW1
Laboratory Sample ID #		80312001
Sample Date		02/14/2001
Sample Type		Groundwater
Depth (ft.)		6.0 ft. (BOG)
Matrix	Values(ug/l)	GW (ug/l)
Isophorone	50.00	10 U
2-Methylnaphthalene	NS	2 J
2-Methylphenol	5.00	10 U
4-Methylphenol	5.00	10 U
Naphthalene	10.00	10 U
Nitrobenzene	5.00	10 U
2-Nitroaniline	5.00	20 U
2-Nitrophenol	5.00	10 U
4-Nitrophenol	5.00	20 U
3-Nitroaniline	5.00	20 U
Pentachlorophenol	1.00	20 U
Phenanthrene	50.00	10 U
Phenol	1.00	10 U
Pyrene	50.00	10 U
2,4,5-Trichlorophenol	1.00	20 U
PCBs (ug/l)		
Aroclor-1016	0.09	1 U
Aroclor-1221	0.09	1 U
Aroclor-1232	0.09	1 U
Aroclor-1242	0.09	1 U
Aroclor-1248	0.09	1 U
Aroclor-1254	0.09	1 U
Aroclor-1260	0.09	1 U
Pesticide (ug/l)		
Aldrin	NS	.05 U
Alpha-BHC	NS	.05 U
Beta-BHC	NS	.05 U
Delta-BHC	NS	.05 U
Chlordane	0.05	.05 U
2,4-D	50	.05 U
4,4-DDD	NS	.05 U
4,4-DDE	NS	.1 U
4,4-DDT	NS	.1 U
Dibenz-P-dioxin	NS	.05 U
Dieldrin	0.004	.1 U
Endosulfan I	NS	.05 U
Endosulfan II	NS	.1 U
Endosulfan Sulfate	NS	.1 U
Endrin	NS	.1 U
Endrin Keytone	NS	.1 U
Gamma-BHC	NS	.05 U
Gamma-chlordane	NS	.05 U
Heptachlor	0.04	.05 U
Heptachlor epoxide	0.03	.05 U
Methoxychlor	35	.5 U
Mitotane	NS	.05 U
Parathion	NS	.05 U
Polychlorinated dibenzo-furans	NS	.05 U

**Table 1-6**  
**AF-51 Analytical Data**  
**Area 1 -Groundwater**

Sample No.	Technical and Operational Guidance Series	Post Exc. GW
Laboratory Sample ID #	Recommended GW Standards/Guidance Values(ug/l)	01GW1 80312001 02/14/2001 Groundwater 6.0 ft. (BOG) GW (ug/l)
Sample Date		
Sample Type		
Depth (ft.)		
Matrix		
<b>Metals (ug/l+A95)</b>		
Aluminum	NS	160 B
Antimony	3	1.2 B
Arsenic	25	2 U
Barium	1000	61.9 B
Beryllium	3	.1 U
Cadmium	5	.53 B
Calcium	NS	56100
Chromium	NS	.5 U
Cobalt	NS	2.8 B
Copper	200	16.2 B
Iron	300	229
Lead	25	2 U
Magnesium	35000	20100
Manganese	300	244
Mercury	0.7	.13 U
Nickel	100	3.5 B
Potassium	NS	1440
Selenium	10	8.3 B
Silver	50	1.8 B
Sodium	20000	5520
Thallium	0.5	2.2 B
Vanadium	NS	12.9 B
Zinc	2000	6 U
Cyanide	NS	3 U

## **Data Flag/Qualifiers**

- J This flag indicates an estimated value due to either:
- the compound was detected at below the Reporting Limit, or
  - estimated concentration for Tentatively Identified Compound
- For Volatiles and Semivolatiles analyses, detections will be assigned a “J” value up to five or ten times lower than the Reporting Limit, respectively.
- B For organic analyses, this flag indicates the analyte was also detected in the associated Method Blank. The B flag has an alternative meaning for CLP-type metals analyses, indicating a “trace” concentration below the normal reporting limit and above the detection limit.
- D This flag indicates the analyte concentration was obtained from a diluted analysis
- E This flag indicates the analyte concentration exceeded the Calibration Range. The E flag has an alternative meaning for CLP-type metals analyses, indicating an estimated concentration due to the presence of interferences.
- P This flag is used for Pesticides/PCB/Herbicide analyte when there is a greater than 40% difference for detected concentration between the two GC columns used for Primary and Confirmation analyses. This difference typically indicates an interference, causing one value to be unusually high. The **lower** of the two values is reported in the Analysis Report.
- U Not Detected. This compound was analyzed-for but not detected. Reporting limit is the value listed and is equivalent to our lowest calibration standard.
- A Used to flag semivolatile organic Tentatively Identified Compound library search results for compounds identified as aldol condensation byproducts.
- N Used to flag results for Tentatively Identified Compounds where a compound has passed the identification criteria, and has been positively identified.
- N/A Not Available
- SB Site Background
- MDL Method Detection Limit
- NR Not Reported
- NS Not Sampled
- BO Below Original Ground



*"Environmental Testing For The New Millennium"*

July 19, 2001

Mr. Chris Kane  
Roy F. Weston, Inc.  
1 Wall Street  
Manchester, NH 03101

Subject: COE Analyses – Greece, NY Site  
VOA Data Qualifiers

Dear Chris:

Per our telephone conversation the other day and your email dated July 16, 2001, I am submitting this to address your client's concerns regarding sample SS102.

This sample was originally analyzed undiluted, and the result exceeded the instrument's calibration range. This range is from 5-200 ppb; any result above or below this range is considered estimated, because the instrument is not calibrated to measure outside of the established range. Any such results are flagged per EPA protocols, "E" for results above the range and "J" for below. In this case the instrument estimated the concentration at 1000 ppb and flagged the result with an "E."

Again, the accuracy of this result questionable because it is greater than the upper limits of the calibration and requires a dilution. The dilution will bring the analyte within calibration range, and the amount detected is then multiplied by the dilution factor to accurately quantify the final result. This result is also flagged per EPA protocols with a "D" qualifier.

If you have any questions regarding this submittal, please call me or Ed Lawler at the number below.

Regards,

A handwritten signature in black ink, appearing to read "PA. Senecal".  
Paul A. Senecal  
Vice President

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**APPENDIX C**

**BORING LOGS**

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HTRW DRILLING LOG				DISTRICT RAPID RESPONSE OMAHA	HOLE NUMBER SB-1
1. COMPANY NAME ROY F. WESTON	2. DRILL SUBCONTRACTOR NOTH NAGLE DRILLING	SHEET 1 OF 1			
3. PROJECT AFP 51 GREECE NY	4. LOCATION 4800 DEWEY AVENUE				
5. NAME OF DRILLER Steve Gelser	6. MANUFACTURER'S DESIGNATION OF DRILL CME-55 Bensadler				
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT 3" stainless steel split spoon	8. HOLE LOCATION Cell #1 Area 1				
	9. SURFACE ELEVATION 90				
10. DATE STARTED 12/21/00	11. DATE COMPLETED 12/21/00				
12. OVERBURDEN THICKNESS 0	13. DEPTH GROUNDWATER ENCOUNTERED NA				
14. DEPTH DRILLED INTO ROCK NA	15. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED NA				
16. TOTAL DEPTH OF HOLE 12	17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY) NA				
18. GEOTECHNICAL SAMPLES NONE	DISTURBED	UNDISTURBED	19. TOTAL NUMBER OF CORE BOXES		
20. SAMPLES FOR CHEMICAL ANALYSIS VOC	METALS	OTHER (SPECIFY)	OTHER (SPECIFY)	OTHER (SPECIFY)	21. TOTAL CORE RECOVERY %
22. DISPOSITION OF HOLE Bentonite chips	BACKFILLED	MONITORING WELL	OTHER (SPECIFY)	OTHER (SPECIFY)	23. SIGNATURE OF INSPECTOR
LOCATION SKETCH/COMMENTS AFP 51 AREA 1 LAGOON				SCALE 1"=40'	
<p>N →</p> <p>Base Map DWG 00291-S4-01 Fischer Assoc. 11/7/00</p>					
PROJECT Former Air Force Base Plant 51 Greece, NY			HOLE NO. SB-1		

HTRW. DRILLING LOG (CONTINUATION SHEET)							HOLE NUMBER <b>SB-1</b>
PROJECT <b>AFP 51 Greece, NY</b>		INSPECTOR <b>Steven A. O'Brien</b>				SHEET <b>2</b> OF <b>2</b> SHEETS	
ELEV. (a)	DEPTH (b)	DESCRIPTION OF MATERIALS (c)	FIELD SCREENING RESULTS OVM(d)	GEOTECH SAMPLE OR CORE BOX NO. (e)	ANALYTICAL SAMPLE NO. (f)	BLOW COUNT (g)	REMARKS (h)
	.5	brown moist coarse to fine sand w/ TR SFT trace fine gravel GM/NC	←	9501			
	1.0		←	24002	56		
	1.5		←	12123	93	$\frac{20}{20}$	Rcc.
	2.0	red brown coarse to fine sand and silt w/ TR coarse to fine gravel / GM/NC	←	19604	82		
					10 1/2		
							EOB 2.0'

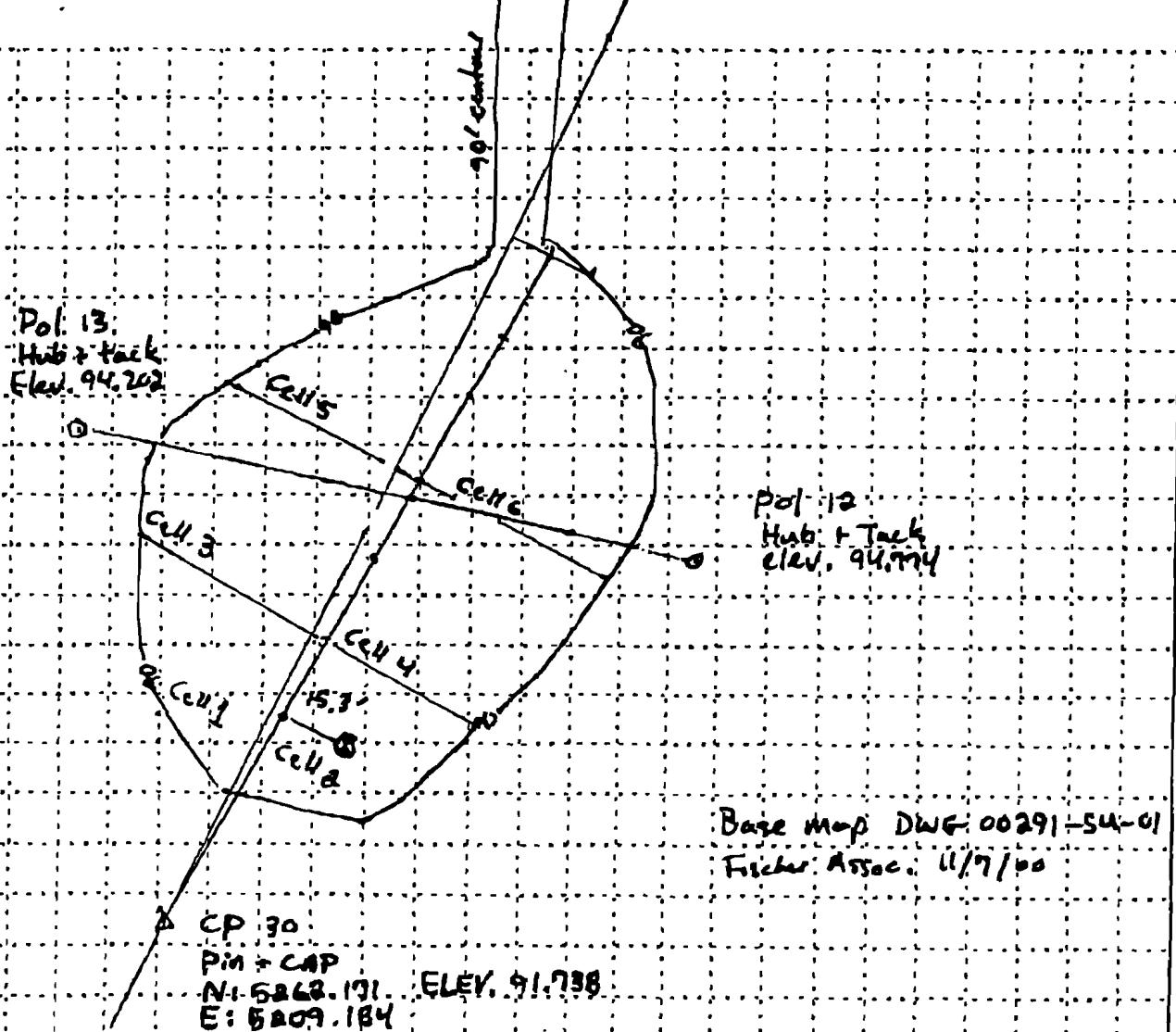
PROJECT **Former A., Force Base Plant 51 Greece, NY**HOLE NO. **SB-1**

HTRW DRILLING LOG		DISTRICT RAPID RESPONSE OMAHA	HOLE NUMBER SB-2
1. COMPANY NAME ROY F. WESTON	2. DRILL SUBCONTRACTOR NOTHAGLE DRILLING		3. SHEET 1 OF 1 SHEETS
3. PROJECT AFP 51 GREECE NY	4. LOCATION 4800 DEWEY AVENUE		
5. NAME OF DRILLER Steve Gelser	6. MANUFACTURER'S DESIGNATION OF DRILL CME 55 Bombardier		
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT HSA 4 1/4" ID 3" Stainless Steel Spoon	8. HOLE LOCATION Area 1 Lagoon		
	9. SURFACE ELEVATION ± 90'		
10. DATE STARTED 12/01/00	11. DATE COMPLETED 12/01/00		
12. OVERBURDEN THICKNESS 21'	15. DEPTH GROUNDWATER ENCOUNTERED NA		
13. DEPTH DRILLED INTO ROCK NA	16. DEPTH TO WATER AND CLAPSED TIME AFTER DRILLING COMPLETED NA		
14. TOTAL DEPTH OF HOLE 21'	17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY) NA		

18. GEOTECHNICAL SAMPLES NONE	DISTURBED	UNDISTURBED	19. TOTAL NUMBER OF CORE BOXES			
20. SAMPLES FOR CHEMICAL ANALYSIS 4	VOC 4	METALS 4	OTHER (SPECIFY)	OTHER (SPECIFY)	OTHER (SPECIFY)	21. TOTAL CORE RECOVERY %
22. DISPOSITION OF HOLE Bentonite chips	BACKFILLED	MONITORING WELL	OTHER (SPECIFY)	23. SIGNATURE OF INSPECTOR Jr. HS		

LOCATION SKETCH/COMMENTS AFP 51 AREA 1 LAGOON SCALE 1" = 40'

N →



**HTRW DRILLING LOG (CONTINUATION SHEET)**

PROJECT <u>AFP 51 Greece, NY</u>	INSPECTOR <u>Stevens A. O'Brien</u>	HOLE NUMBER <b>SB-2</b>
		SHEET 2 OF 2 SHEETS

ELEV. (ft)	DEPTH (ft)	DESCRIPTION OF MATERIALS (c)	FIELD SCREENING RESULTS OV (d)	GEOTECH SAMPLE DR. CORE BOX NO. (e)	ANALYTICAL SAMPLE NO. (f)	BLOW COUNT (g)	REMARKS (h)
.5		redbrown moist coarse to fine sand little silt & Medium/Fine Grav/ Gt/Nc	← 2480	1		31	
1.0		brown damp to coarse fine sand little silt & trace coarse to fine sand Gt/Nc	← 2700	2		62	Rcc = $\frac{24}{24}$
1.5			← 2560	3		68	
2.0			← 2600	4	73		100% 2.0'

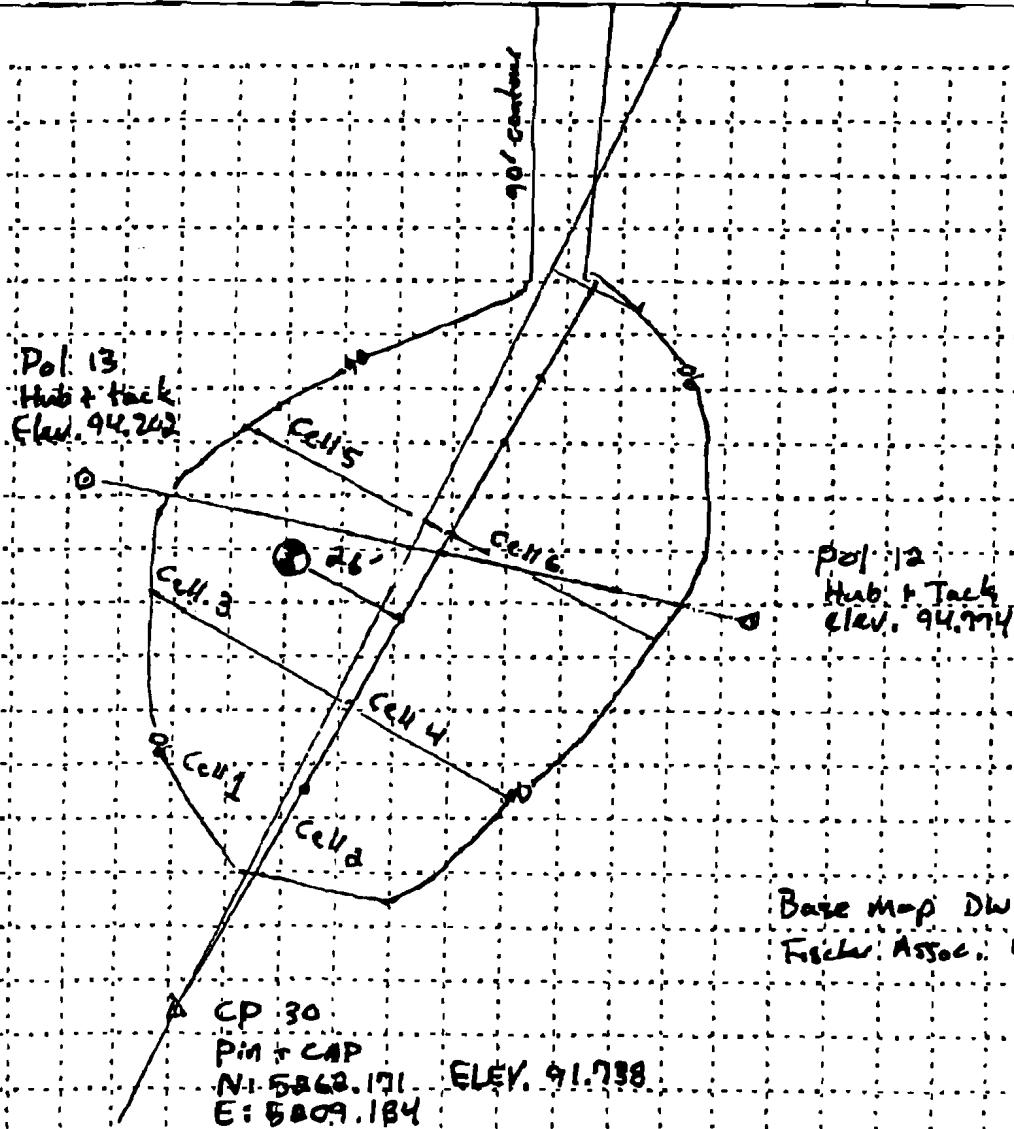
PROJECT  
Former Air Force Base Plant 51 Greece, Ny

HOLE NO. **SB-2**

HTRW DRILLING LOG		DISTRICT RAPID RESPONSE OMAHA	HOLE NUMBER SB-3			
1. COMPANY NAME <b>ROY F. WESTON</b>	2. DRILL SUBCONTRACTOR <b>NOTHNGNAGLE DRILLING</b>	SHEET OF 1 OF 2				
3. PROJECT <b>AFP 51 GREECE NY</b>	4. LOCATION <b>4800 DEWEY AVENUE</b>					
5. NAME OF DRILLER <b>Steve Gelser</b>	6. MANUFACTURER'S DESIGNATION OF DRILL <b>CME 55 Bomber</b>					
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT <b>HSA 4" ID 3" Standard Steel Spoon</b>	8. HOLE LOCATION <b>Area 1 Lagoon</b>					
	9. SURFACE ELEVATION <b>88'</b>					
	10. DATE STARTED <b>13/12/00</b>	11. DATE COMPLETED <b>12/13/00</b>				
12. OVERBURDEN THICKNESS <b>2'</b>	13. DEPTH DRILLED INTO ROCK <b>NA</b>	14. TOTAL DEPTH OF HOLE <b>2'</b>	15. DEPTH GROUNDWATER ENCOUNTERED <b>NA</b>			
			16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED <b>NA</b>			
			17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY) <b>NA</b>			
18. GEOTECHNICAL SAMPLES <b>NONE</b>	DISTURBED	UNDISTURBED	19. TOTAL NUMBER OF CORE BOXES			
20. SAMPLES FOR CHEMICAL ANALYSIS <b>4</b>	VOC <b>4</b>	METALS <b>4</b>	OTHER (SPECIFY)	OTHER (SPECIFY)	OTHER (SPECIFY)	21. TOTAL CORE RECOVERY %
22. DISPOSITION OF HOLE <b>Bentonite chips</b>	BACKFILLED <b>✓</b>	MONITORING WELL	OTHER (SPECIFY)	23. SIGNATURE OF INSPECTOR <b>Stevie</b>		

LOCATION SKETCH/COMMENTS **AFP 51 AREA 1 LAGOON** SCALE **1" = 46'**

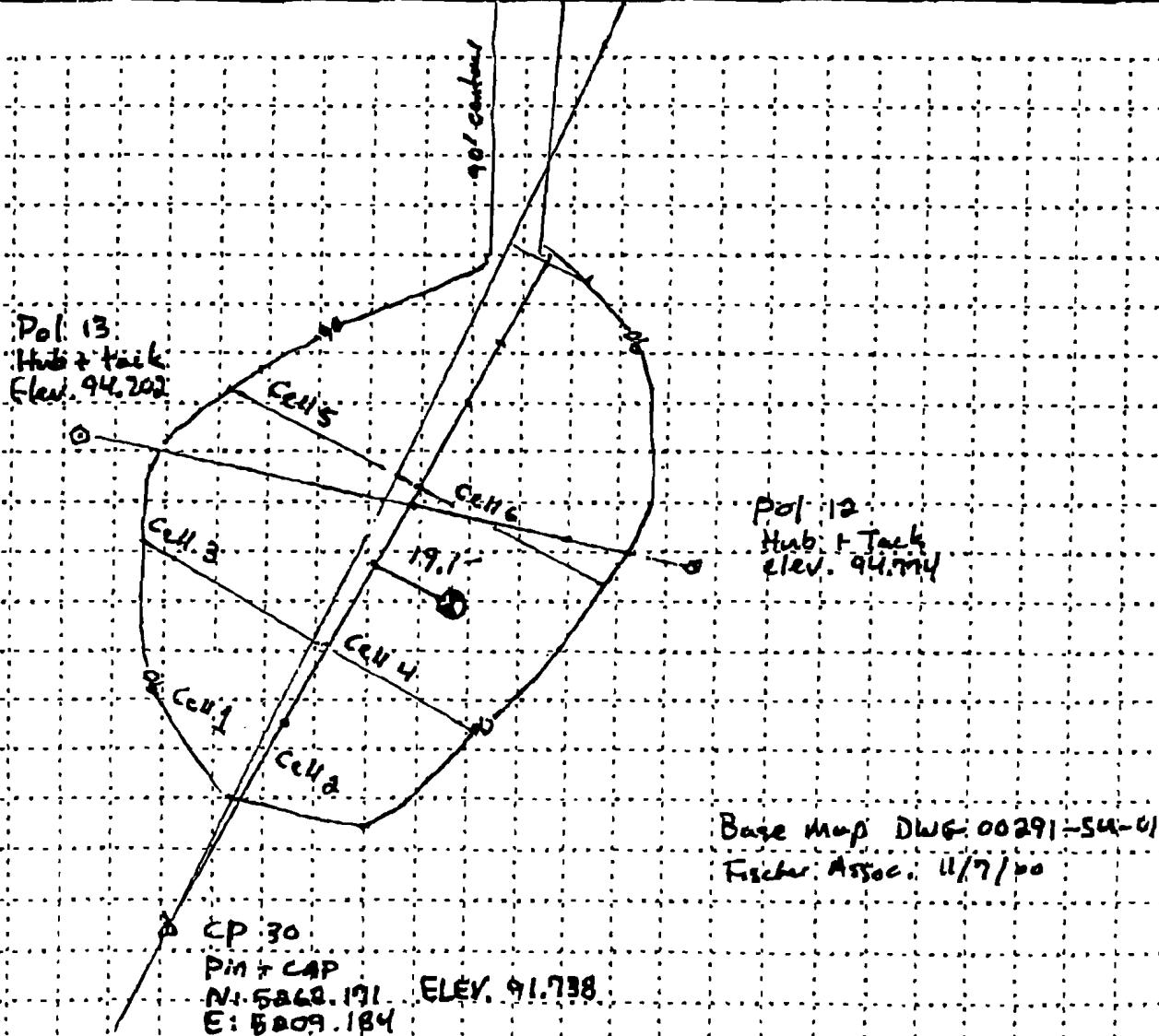
**N →**



HTRW DRILLING LOG (CONTINUATION SHEET)							HOLE NUMBER SB-3
PROJECT <u>AFP 51 Greece, NY</u>		INSPECTOR <u>Steven A. O'Brien</u>					SHEET 2 OF 2
ELEV. (a)	DEPTH (b)	DESCRIPTION OF MATERIALS (c)	FIELD SCREENING RESULTS (d)	GEOTECH SAMPLE OR CORE BOX NO. (e)	ANALYTICAL SAMPLE NO. (f)	BLOW COUNT (g)	REMARKS (h)
1.5		Red brown damp silt little coarse to fine sand trace coarse to fine gravel	1089	39	1		Rec. = 23 24 Glaucal Tilly
1.6			1001	46	2		
1.6				96			
1.6		GM / NC	2950	88	3		
2.0		brown damp coarse to fine sand little silt trace fine gravel	2080		4		EOS 20'

HTRW DRILLING LOG		DISTRICT RAPID RESPONSE OMAHA	HOLE NUMBER SB-4
1. COMPANY NAME <u>ROY F. WESTON</u>	2. DRILL SUBCONTRACTOR <u>NOTMAGLE DRILLING</u>	SHEET 1	OF SHEETS 2
3. PROJECT <u>AFP 51 GREECE NY</u>	4. LOCATION <u>4800 DEWEY AVENUE</u>		
5. NAME OF DRILLER <u>Steve Gelser</u>	6. MANUFACTURER'S DESIGNATION OF DRILL <u>CME 55</u>		
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT <u>HSA 4 1/4 ID 3" Stemless Steel Spool</u>	8. HOLE LOCATION <u>Area 1 Lagoon</u>		
9. SURFACE ELEVATION <u>~ 90'</u>	10. DATE STARTED <u>12/21/00</u>	11. DATE COMPLETED <u>12/27/00</u>	
12. OVERBURDEN THICKNESS <u>3'</u>	13. DEPTH DRILLED INTO ROCK <u>NA</u>	14. TOTAL DEPTH OF HOLE <u>3'</u>	15. DEPTH GROUNDWATER ENCOUNTERED <u>NA</u>
16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED <u>NA</u>	17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY) <u>NA</u>		
18. GEOTECHNICAL SAMPLES <u>NONE</u>	DISTURBED	UNDISTURBED	19. TOTAL NUMBER OF CORE BOXES
20. SAMPLES FOR CHEMICAL ANALYSIS <u>4</u>	VOC <u>4</u>	METALS <u>4</u>	OTHER (SPECIFY) OTHER (SPECIFY) OTHER (SPECIFY)
22. DISPOSITION OF HOLE <u>Bentonite chips</u>	BACKFILLED <u>✓</u>	MONITORING WELL	23. SIGNATURE OF INSPECTOR <u>SC 08</u>
LOCATION SKETCH/COMMENTS <u>AFP 51 AREA 1 LAGOON</u>			SCALE <u>1"=40'</u>

N →





HTRW DRILLING LOG		DISTRICT RAPID RESPONSE OMAHA	HOLE NUMBER SB-5	
1. COMPANY NAME <b>ROY F. WESTON</b>	2. DRILL SUBCONTRACTOR <b>NOTIONNAGLE DRILLING</b>	3. SHEET 1 OF SWEETS		
3. PROJECT <b>AFP 51 GREECE NY</b>	4. LOCATION <b>4800 DEWEY AVENUE</b>			
5. NAME OF DRILLER <b>Steve Gelser</b>	6. MANUFACTURER'S DESIGNATION OF DRILL <b>CME 55 Bombardier</b>			
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT <b>HSA 4 1/4 I.D. Stainless Steel Split Spoon</b>	8. HOLE LOCATION <b>Cell 5 Area I see below</b>			
9. SURFACE ELEVATION <b><math>\approx 90'</math></b>	10. DATE STARTED <b>12/21/00</b>			
11. DATE COMPLETED <b>12/21/00</b>	12. OVERBURDEN THICKNESS <b>10'</b>			
13. DEPTH DRILLED INTO ROCK <b>NA</b>	14. DEPTH GROUNDWATER ENCOUNTERED <b><math>\approx 8'</math></b>			
15. TOTAL DEPTH OF HOLE <b>10'</b>	16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED <b>6' after 16 hrs.</b>			
17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY) <b>Top frost. Water level indicator</b>	18. GEOTECHNICAL SAMPLES <b>NONE</b>			
19. DISTURBED	UNDISTURBED	20. TOTAL NUMBER OF CORE BOXES <b>NA</b>		
21. VOC <b>10</b>	22. METALS <b>10</b>	23. OTHER (SPECIFY) <b>OTHER (SPECIFY)</b>	24. OTHER (SPECIFY) <b>OTHER (SPECIFY)</b>	25. TOTAL CORE RECOVERY % <b>0</b>
26. DISPOSITION OF HOLE <b>BACKFILLED</b>	27. MONITORING WELL <b>Piezometer</b>	28. OTHER (SPECIFY) <b>None</b>	29. SIGNATURE OF INSPECTOR <b>[Signature]</b>	
LOCATION SKETCH/COMMENTS <b>AFP 51 AREA 1 LAGOON</b>		SCALE <b>1" = 10'</b>		
<p>N →</p> <p>None. Surveyor called. Contours are wrong. Will need to adjust elevation according to revised map.</p> <p>Pol. 13 Hub + Tack Elev. 94.202</p> <p>Cells 1, 2, 3, 4, 5, 6, 7, 8</p> <p>CP 30 Pin + CAP N: 5868.191 E: 5809.184 ELEV. 91.738</p> <p>Pol. 13 Hub + Tack elev. 94.774</p> <p>Base map DWG 00291-SU-01 Fischer Assoc. 11/7/00</p>				
PROJECT <b>Times Air Force Base Plant 51 Greece, NY</b>		HOLE NO. <b>SB-5</b>		

PROJECT HIRWURKILLING LUG INSPECTION SHEET  
AFP 51 Greece, NY INSPECTOR Steven A. Obrien SHEET 2 OF 2

ELEV. (ft)	DEPTH (ft)	DESCRIPTION OF MATERIALS (c)	FIELD SCREENING RESULTS OMA (d)	GEOTECH SAMPLE OR CORE BOX NO. (e)	ANALYTICAL SAMPLE NO. (f)	BLOW COUNT (g)	REMARKS (h)
90	0	brown dry fine sand fine silt + SM/NC	233		1	10 46	$\frac{22}{24}$ = Rec
	.5	red brown damp silt some fine sand trace coarse to fine gravel GM/NC	800		2	40	
	1.0	same	1,800		3	55	Glacial Till
	1.5	same	2,500		4	.	
	2.0	same				.	
	2.5	same				5	
	3.0	brown moist very fine to fine sand trace silt + fine gravel GM/NC	2,900		5	80 84 $\frac{108}{5}$	17/17 = Rec
	3.5	Auger only 9.8'-4.0'	2,400		6		soon return 3.4'
	4.0	same					
	4.5						
	5.0		700		7	48 50	
	5.5'	gray brown dry silt little very fine sand trace fine gravel ML/NC				39 37	Till $\frac{21}{24}$ = Rec
	6.0'	same	100		8	38	
	6.5	same	0			32	
	7.0	same		NR		32 31	$\frac{5}{24}$ = Rec
	7.5	same					
	8.0	same	29		9		
	8.5'	gray brown wet very fine sand some silt trace fine gravel				13	
	9.0'	same ML/NC	1.1			15	
	9.5	same				19	
	10.0'	same				21	
							10.0' EOB

PROJECT Former A.F. Force Base Plant 51 Greece, NY

HOLE NO. SB-5

HTRW DRILLING LOG		DISTRICT RAPID RESPONSE OMAHA	HOLE NUMBER SB-6	
1. COMPANY NAME <u>ROY F. WESTON</u>	2. DRILL SUBCONTRACTOR <u>NOT NAGLE DRILLING</u>	SHEET OF	SHEETS	
3. PROJECT <u>AFP 51 GREECE NY</u>	4. LOCATION <u>4800 DEWEY AVENUE</u>			
5. NAME OF DRILLER <u>Steve Gelser</u>	6. MANUFACTURER'S IDENTIFICATION OF DRILL <u>CME 55 Basic</u>			
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT <u>HSA 4 1/4 I.D. 3" Standard Steel Split Spec</u>	8. HOLE LOCATION <u>Area 1 lagoon</u>			
9. SURFACE ELEVATION <u>91.70'</u>	10. DATE STARTED <u>12/21/00</u>	11. DATE COMPLETED <u>12/21/00</u>		
12. OVERBURDEN THICKNESS <u>3'</u>	13. DEPTH DRILLED INTO ROCK <u>NA</u>	14. DEPTH GROUNDWATER ENCOUNTERED		
15. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED	16. OTHER WATER LEVEL MEASUREMENTS (SPECIFY)			
17. OTHER GEOTECHNICAL SAMPLES <u>NONE</u>	DISTURBED	UNDISTURBED	18. TOTAL NUMBER OF CORE BOXES	
19. SAMPLES FOR CHEMICAL ANALYSIS <u>4</u>	VOC <u>4</u>	METALS <u>4</u>	OTHER (SPECIFY) OTHER (SPECIFY) OTHER (SPECIFY)	21. TOTAL CORE RECOVERY <u>0%</u>
22. DISPOSITION OF HOLE <u>Bentonite chips</u>	BACKFILLED <u>✓</u>	MONITORING WELL <u> </u>	23. SIGNATURE OF INSPECTOR <u>St. OR</u>	
LOCATION SKETCH/COMMENTS <u>AFP 51 AREA 1 LAGOON</u>			SCALE <u>1" = 40'</u>	
<p>N →</p> <p>Pol. 13 Hub + Tack Elev. 94.202</p> <p>Cen 1</p> <p>Cen 2</p> <p>Cen 3</p> <p>Cen 4</p> <p>Cen 5</p> <p>Cen 6</p> <p>Pol. 12 Hub + Tack elev. 94.774</p> <p>CP 30</p> <p>Pin + CAP N: 5868.191 ELEV. 91.738 E: 5809.184</p> <p>Base Map DWG. 00291-SU-01 Fischer Assoc. 11/7/00</p>				
PROJECT <u>Farmers Air Force Base Plant 51 Greece, NY</u>			HOLE NO. <u>SB-6</u>	

HTRW DRILLING LOG (CONTINUATION SHEET)							HOLE NUMBER SB-6
PROJECT AFP 51 Greece, NY		INSPECTOR Steven A. Obrien				SHEET 2 OF 2	
ELEV. (a)	DEPTH (b)	DESCRIPTION OF MATERIALS (c)	FIELD SCREENING RESULTS OVW(d)	GEOTECH SAMPLE OR CORE BOX NO. (e)	ANALYTICAL SAMPLE NO. (f)	BLOW COUNT (g)	REMARKS (h)
.5		brown damp coarse to Anisard II brick Trace fine gravel / 6M/MC		← 101		19	
1.0				← 102		23	RCC 21 24
1.5				← 73		31	
2.0		red brown coarse to fine sand and silt trace coarse fine gravel / 6M/MC		← 354		42	EOG 2.0 "

## **APPENDIX D**

### **BACKFILL ANALYTICAL DATA**

**Table 2-1**  
**AF-51 Analytical Results**  
**Area 1 - Backfill**

BACKFILL CHARACTERIZATION SAMPLES										
Sample No.	TAGM No. 4046	Eastern USA Background	Clean Fill-01 72112001 12/13/2000 Grab (0-500 cy) Processed Sand (mg/kg)	Clean Fill-02 72112002 12/13/2000 Grab (500-1000 cy) Processed Sand (mg/kg)	Clean Fill-03 72112003 12/13/2000 Grab (1000-1500 cy) Processed Sand (mg/kg)	Clean Fill 04 80256001 02/07/2001 Grab (1500-2000 cy) Bank Run (mg/kg)	Clean Fill 05 80256002 02/07/2001 Grab (2000-2500 cy) Bank Run (mg/kg)	Clean Fill 06 80256003 02/07/2001 Grab (2500-3000 cy) Bank Run (mg/kg)	Clean Fill 07 80267001 02/08/2001 Grab (0-400 cy) Sand (mg/kg)	
<b>Volatiles</b>										
Acetone	0.20		.005 BJ	.005 BJ	.006 B	.006U	.006 U	.006 U	.005 U	
Benzene	0.06		.006 U	.006 U	.006 U	.006U	.006 U	.006 U	.005 U	
Benzoic Acid	2.70		NR	NR	NR	NR	.006 U	.006 U	.006 U	NR
2-Butanone	0.30		.006 U	.006 U	.006 U	.006U	.006 U	.006 U	.005 U	
Carbon Disulfide	2.70		.006 U	.006 U	.006 U	.001J	.005J	.006 U	.005 U	
Carbon Tetrachloride	0.60		.006 U	.006 U	.006 U	.006U	.006 U	.006 U	.005 U	
Chlorobenzene	1.70		.006 U	.006 U	.006 U	.006U	.006 U	.006 U	.005 U	
Chloroethane	1.90		.006 U	.006 U	.006 U	.006U	.006 U	.006 U	.005 U	
Chloroform	0.30		.006 U	.006 U	.006 U	.006U	.006 U	.006 U	.005 U	
Dibromo-chloromethane	N/A		.006 U	.006 U	.006 U	.006U	.006 U	.006 U	.005 U	
1,2-Dichlorobenzene	7.90		.006 U	.006 U	.006 U	.006U	.006 U	.006 U	.005 U	
1,3-Dichlorobenzene	1.60		.006 U	.006 U	.006 U	.006U	.006 U	.006 U	.005 U	
1,4-Dichlorobenzene	8.50		.006 U	.006 U	.006 U	.006U	.006 U	.006 U	.005 U	
1,1-Dichloroethane	0.20		.006 U	.006 U	.006 U	.006U	.006 U	.006 U	.005 U	
1,2-Dichloroethane	0.10		.006 U	.006 U	.006 U	.006U	.006 U	.006 U	.005 U	
1,1-Dichloroethene	0.40		.006 U	.006 U	.006 U	.006U	.006 U	.006 U	.005 U	
1,2-Dichloroethene	0.30		.006 U	.006 U	.006 U	.006U	.006 U	.006 U	.005 U	
1-3 Dichloropropane	0.30		.006 U	.006 U	.006 U	.006U	.006 U	.006 U	.005 U	
Ethylbenzene	5.50		.006 U	.006 U	.006 U	.006U	.006 U	.006 U	.005 U	
113 Freon (1,1,2 Trichloro-1,2,2)	6.00		.006 U	.006 U	.006 U	.006U	.006 U	.006 U	.005 U	
Methylene Chloride	0.10		.006 U	.006 U	.006 U	.004J	.004 J	.004 J	.005 U	
4-Methyl-2-Pentanone	1.00		.006 U	.006 U	.006 U	.006U	.006 U	.006 U	.005 U	
Tetrachloroethene	1.40		.006 U	.006 U	.006 U	.006U	.006 U	.006 U	.005 U	
1,1,1-Trichloroethane	0.80		.006 U	.006 U	.006 U	.006U	.006 U	.006 U	.005 U	
1,1,2,2-Tetrachloroethane	0.60		.006 U	.006 U	.006 U	.006U	.006 U	.006 U	.005 U	
1,2,3-Trichloropropene	0.40		.006 U	.006 U	.006 U	.006U	.006 U	.006 U	.005 U	
1,2,4-Trichlorobenzene	3.40		.006 U	.006 U	.006 U	.006U	.006 U	.006 U	.005 U	
Toluene	1.50		.006 U	.006 U	.006 U	.006U	.006 U	.006 U	.005 U	
Trichloroethene	0.70		.006 U	.006 U	.006 U	.006U	.006 U	.006 U	.005 U	
Vinyl Chloride	0.20		.006 U	.006 U	.006 U	.006U	.006 U	.006 U	.005 U	
Xylene	1.20		.006 U	.006 U	.006 U	.006U	.006 U	.006 U	.005 U	

**Table 2-1**  
**AF-51 Analytical Results**  
**Area 1 - Backfill**

Sample No.	TAGM No. 4046	Eastern USA Background	Clean Fill 08 80256005 02/07/2001 Grab (3000-3500 cy) Bank Run (mg/kg)	Clean Fill 09 80256006 02/07/2001 Grab (3500-4000 cy) Bank Run (mg/kg)	Clean Fill 10 80256007 02/07/2001 Grab (4000-4500 cy) Bank Run (mg/kg)	Clean Fill 11 80256008 02/07/2001 Grab (4500-5000 cy) Bank Run (mg/kg)	Clean Fill 12 80256009 02/07/2001 Grab (5000-5500 cy) Bank Run (mg/kg)	Clean Fill 13 80256010 02/07/2001 Grab (5500-6000 cy) Bank Run (mg/kg)	Clean Fill 14 80256011 02/07/2001 Grab (6500-7000 cy) Bank Run (mg/kg)	Clean Fill 15 80256012 02/07/2001 Grab (7000-7500 cy) Bank Run (mg/kg)
<b>Volatiles</b>										
Acetone	0.20		.006 U	.006 U	.006 U	.005 U	.006 U	.006 U	.006 U	.006 U
Benzene	0.06		.006 U	.006 U	.006 U	.005 U	.002 J	.006 U	.006 U	.006 U
Benzoic Acid	2.70		.006 U	.006 U	.006 U	.005 U	.006 U	.006 U	.006 U	.006 U
2-Butanone	0.30		.006 U	.006 U	.006 U	.005 U	.006 U	.006 U	.006 U	.006 U
Carbon Disulfide	2.70		.006 U	.006 U	.001 J	.005 U	.006 U	.006 U	.006 U	.006 U
Carbon Tetrachloride	0.60		.006 U	.006 U	.006 U	.005 U	.006 U	.006 U	.006 U	.006 U
Chlorobenzene	1.70		.006 U	.006 U	.006 U	.005 U	.006 U	.006 U	.006 U	.006 U
Chloroethane	1.90		.006 U	.006 U	.006 U	.005 U	.006 U	.006 U	.006 U	.006 U
Chloroform	0.30		.006 U	.006 U	.006 U	.005 U	.006 U	.006 U	.006 U	.006 U
Dibromochloromethane	N/A		.006 U	.006 U	.006 U	.005 U	.006 U	.006 U	.006 U	.006 U
1,2-Dichlorobenzene	7.90		.006 U	.006 U	.006 U	.005 U	.006 U	.006 U	.006 U	.006 U
1,3-Dichlorobenzene	1.60		.006 U	.006 U	.006 U	.005 U	.006 U	.006 U	.006 U	.006 U
1,4-Dichlorobenzene	8.50		.006 U	.006 U	.006 U	.005 U	.006 U	.006 U	.006 U	.006 U
1,1-Dichloroethane	0.20		.006 U	.006 U	.006 U	.005 U	.006 U	.006 U	.006 U	.006 U
1,2-Dichloroethane	0.10		.006 U	.006 U	.006 U	.005 U	.006 U	.006 U	.006 U	.006 U
1,1-Dichloroethene	0.40		.006 U	.006 U	.006 U	.005 U	.006 U	.006 U	.006 U	.006 U
1,2-Dichloroethene	0.30		.006 U	.006 U	.006 U	.005 U	.006 U	.006 U	.006 U	.006 U
1-3 Dichloropropane	0.30		.006 U	.006 U	.006 U	.005 U	.006 U	.006 U	.006 U	.006 U
Ethylbenzene	5.50		.006 U	.006 U	.006 U	.005 U	.006 U	.006 U	.006 U	.006 U
113 Freon (1,1,2 Trichloro-1,2,2)	6.00		.006 U	.006 U	.006 U	.005 U	.006 U	.006 U	.006 U	.006 U
Methylene Chloride	0.10		.003 J	.004 J	.006 U	.006	.011	.007	.008	.008
4-Methyl-2-Pentanone	1.00		.006 U	.006 U	.006 U	.005 U	.006 U	.006 U	.006 U	.006 U
Tetrachloroethene	1.40		.006 U	.006 U	.006 U	.005 U	.006 U	.006 U	.006 U	.006 U
1,1,1-Trichloroethane	0.80		.006 U	.006 U	.006 U	.005 U	.006 U	.006 U	.006 U	.006 U
1,1,2,2-Tetrachloroethane	0.60		.006 U	.006 U	.006 U	.005 U	.006 U	.006 U	.006 U	.006 U
1,2,3-Trichloropropane	0.40		.006 U	.006 U	.006 U	.005 U	.006 U	.006 U	.006 U	.006 U
1,2,4-Trichlorobenzene	3.40		.006 U	.006 U	.006 U	.005 U	.006 U	.006 U	.006 U	.006 U
Toluene	1.50		.006 U	.006 U	.006 U	.005 U	.006 U	.006 U	.006 U	.006 U
Trichloroethene	0.70		.006 U	.006 U	.006 U	.005 U	.006 U	.006 U	.006 U	.006 U
Vinyl Chloride	0.20		.006 U	.006 U	.006 U	.005 U	.006 U	.006 U	.006 U	.006 U
Xylene	1.20		.006 U	.006 U	.006 U	.005 U	.006 U	.006 U	.006 U	.006 U

**Table 2-1**  
**AF-51 Analytical Results**  
**Area 1 - Backfill**

Sample No. Laboratory Sample ID #	TAGM No. 4046 Recommended Soil Cleanup Objectives (mg/kg)	Eastern USA Background	BACKFILL CHARACTERIZATION SAMPLES						Clean Fill 07 80267001 02/08/2001
			Clean Fill-01 72112001 12/13/2000 Grab (0-500 cy) Processed Sand (mg/kg)	Clean Fill-02 72112002 12/13/2000 Grab (500-1000 cy) Processed Sand (mg/kg)	Clean Fill-03 72112003 12/13/2000 Grab (1000-1500 cy) Processed Sand (mg/kg)	Clean Fill 04 80256001 02/07/2001 Grab (1500-2000 cy) Bank Run (mg/kg)	Clean Fill 05 80256002 02/07/2001 Grab (2000-2500 cy) Bank Run (mg/kg)	Clean Fill 06 80256003 02/07/2001 Grab (2500-3000 cy) Bank Run (mg/kg)	
			Grab (0-400 cy) Sand (mg/kg)						
<b>Semivolatiles</b>									
Acenaphthene	50.00		.38 U	.36 U	.39 U	.41 U	.42 U	.41 U	.35 U
Acenaphthylene	41.00		.38 U	.36 U	.39 U	.41 U	.42 U	.41 U	.35 U
Aniline	0.10		NR	NR	NR	.41 U	.42 U	.41 U	.35 U
Anthracene	50.00		.38 U	.36 U	.39 U	.072 J	.42 U	.41 U	.35 U
Benz(a)anthracene	.22		.38 U	.36 U	.087 J	.32 J	.13 J	.14 J	.35 U
Benzo (a) pyrene	.061 or MDL		.38 U	.36 U	.14 J	.41	.19 J	.21 J	.35 U
Benzo (b) fluoranthene	1.10		.38 U	.36 U	.21 J	.50	.30 J	.31 J	.35 U
Benzo (g,h,i) perylene	50.00		.38 U	.36 U	.14 J	.31 J	.20 J	.23 J	.35 U
Benzo (k) fluoranthene	1.10		.38 U	.36 U	.084 J	.19 J	.10 J	.10 J	.35 U
Bis (2-ethylhexyl) phthalate	50.00		.38 U	.36 U	.39 U	.41 U	.16 JB	.17 JB	.18 U
Butylbenzylphthalate	50.00		.38 U	.36 U	.39 U	.41 U	.42 U	.41 U	.35 U
Chrysene	0.40		.38 U	.36 U	.14 J	.35 J	.20 J	.21 J	.35 U
4-Chloroaniline	.22 or MDL		.38 U	.36 U	.39 U	.41 U	.42 U	.41 U	.35 U
4-Chloro-3-methylphenol	.24 or MDL		.38 U	.36 U	.39 U	.41 U	.42 U	.41 U	.35 U
2-Chlorophenol	0.80		.38 U	.36 U	.39 U	.41 U	.42 U	.41 U	.35 U
Dibenzofuran	6.20		.38 U	.36 U	.39 U	.41 U	.42 U	.41 U	.35 U
Dibenzo (a,h) anthracene	.014 or MDL		.38 U	.36 U	.39 U	.57 J	.42 U	.41 U	.35 U
3,3-Dichlorobenzidine	N/A		.38 U	.36 U	.39 U	.41 U	.42 U	.41 U	.35 U
2,4 Dichlorophenol	0.40		.38 U	.36 U	.39 U	.41 U	.42 U	.41 U	.35 U
2,4-Dinitrophenol	.2 or MDL		.78 U	.74 U	.8 U	.83 U	.86 U	.83 U	.71 U
2,6-Dinitrotoluene	1.00		.38 U	.36 U	.39 U	.41 U	.42 U	.41 U	.35 U
Diethylphthalate	7.10		.38 U	.36 U	.39 U	.41 U	.42 U	.41 U	.35 U
Dimethylphthalate	2.00		.38 U	.36 U	.39 U	.41 U	.42 U	.41 U	.35 U
Di-n-butyl phthalate	8.10		.38 U	.36 U	.39 U	.41 U	.42 U	.41 U	.35 U
Di-n-octyl phthalate	50.00		.38 U	.36 U	.39 U	.41 U	.42 U	.41 U	.35 U
Fluoranthene	50.00		.041 J	.36 U	.23 J	.56	.33 J	.37 J	.35 U
Fluorene	50.00		.38 U	.36 U	.39 U	.41 U	.42 U	.41 U	.35 U
Hexachlorobenzene	0.41		.38 U	.36 U	.39 U	.41 U	.42 U	.41 U	.35 U
Indeno (1,2,3-cd) Pyrene	3.20		.38 U	.36 U	.13 J	.34 J	.20 J	.22 J	.35 U
Isophorone	4.40		.38 U	.36 U	.39 U	.41 U	.42 U	.41 U	.35 U
2-Methylnaphthalene	36.40		.38 U	.36 U	.39 U	.41 U	.42 U	.41 U	.35 U
2-Methylphenol	.1 or MDL		.38 U	.36 U	.39 U	.41 U	.42 U	.41 U	.35 U
4-Methylphenol	0.90		.38 U	.36 U	.39 U	.41 U	.42 U	.41 U	.35 U
Naphthalene	13.00		.38 U	.36 U	.05 U	.41 U	.42 U	.41 U	.35 U
Nitrobenzene	.2 or MDL		.38 U	.36 U	.39 U	.41 U	.42 U	.41 U	.35 U
2-Nitroaniline	.43 or MDL		.78 U	.74 U	.8 U	.83 U	.86 U	.83 U	.71 U
2-Nitrophenol	.33 or MDL		.38 U	.36 U	.39 U	.41 U	.42 U	.41 U	.35 U
4-Nitrophenol	.1 or MDL		.78 U	.74 U	.8 U	.83 U	.86 U	.83 U	.71 U
3-Nitroaniline	.5 or MDL		.78 U	.74 U	.8 U	.83 U	.86 U	.83 U	.71 U
Pentachlorophenol	1 or MDL		.78 U	.74 U	.8 U	.83 U	.86 U	.83 U	.71 U
Phenanthrene	50.00		.38 U	.36 U	.069 J	.29 J	.11 J	.11 J	.35 U
Phenol	.03 or MDL		.38 U	.36 U	.39 U	.41 U	.42 U	.41 U	.35 U
Pyrene	50.00		.38 U	.36 U	.21 J	.50	.30 J	.32 J	.35 U
2,4,5-Trichlorophenol	0.10		.78 U	.74 U	.8 U	.83 U	.86 U	.83 U	.71 U

**Table 2-1**  
**AF-51 Analytical Results**  
**Area 1 - Backfill**

Sample No.	TAGM No. 4046	Eastern USA Background	Clean Fill 08 80256005 02/07/2001	Clean Fill 09 80256006 02/07/2001	Clean Fill 10 80256007 02/07/2001	Clean Fill 11 80256008 02/07/2001	Clean Fill 12 80256009 02/07/2001	Clean Fill 13 802560010 02/07/2001	Clean Fill 14 80256011 02/07/2001	Clean Fill 15 80256012 02/07/2001
Laboratory Sample ID #	Recommended Soil Cleanup Objectives (mg/kg)		Grab (3000-3500 cy) Bank Run (mg/kg)	Grab (3500-4000 cy) Bank Run (mg/kg)	Grab (4000-4500 cy) Bank Run (mg/kg)	Grab (4500-5000 cy) Bank Run (mg/kg)	Grab (5000-5500 cy) Bank Run (mg/kg)	Grab (5500-6000 cy) Bank Run (mg/kg)	Grab (6500-7000 cy) Bank Run (mg/kg)	Grab (7000-7500 cy) Bank Run (mg/kg)
<b>Semivolatiles</b>										
Acenaphthene	50.00		.42 U	.44 U	.42 U	.36 U	.39 U	.38 U	.40 U	.38 U
Acenaphthylene	41.00		.42 U	.44 U	.42 U	.36 U	.39 U	.38 U	.40 U	.38 U
Aniline	0.10		.42 U	.44 U	.42 U	.36 U	.39 U	.38 U	.40 U	.38 U
Anthracene	50.00		.42 U	.44 U	.42 U	.36 U	.39 U	.38 U	.40 U	.38 U
Benz(a)anthracene	0.22		.08 J	.13 J	.07 J	.36 U	.39 U	.38 U	.40 U	.38 U
Benzo (a) pyrene	.061 or MDL		.12 J	.17 J	.10 J	.36 U	.39 U	.38 U	.40 U	.38 U
Benzo (b) fluoranthene	1.10		.18 J	.25 J	.16 J	.36 U	.39 U	.38 U	.40 U	.38 U
Benzo (g,h,i) perylene	50.00		.13 J	.16 J	.11 J	.36 U	.39 U	.38 U	.40 U	.38 U
Benzo (k) fluoranthene	1.10		.06 J	.12 J	.05 J	.36 U	.39 U	.38 U	.40 U	.38 U
Bis (2-ethylhexyl) phthalate	50.00		.19 JB	.22 JB	.18 JB	.47 B	.16 JB	.17 JB	.21 JB	.16 JB
Butylbenzylphthalate	50.00		.42 U	.44 U	.42 U	.36 U	.39 U	.38 U	.40 U	.38 U
Chrysene	0.40		.12 J	.18 J	.11 J	.36 U	.39 U	.38 U	.40 U	.38 U
4-Chloroaniline	22 or MDL		.42 U	.44 U	.42 U	.36 U	.39 U	.38 U	.40 U	.38 U
4-Chloro-3-methylphenol	24 or MDL		.42 U	.44 U	.42 U	.36 U	.39 U	.38 U	.40 U	.38 U
2-Chlorophenol	0.80		.42 U	.44 U	.42 U	.36 U	.39 U	.38 U	.40 U	.38 U
Dibenzofuran	6.20		.42 U	.44 U	.42 U	.36 U	.39 U	.38 U	.40 U	.38 U
Dibenzofuran	.014 or MDL		.42 U	.44 U	.42 U	.36 U	.39 U	.38 U	.40 U	.38 U
Dibenzo (a,h) anthracene	N/A		.42 U	.44 U	.42 U	.36 U	.39 U	.38 U	.40 U	.38 U
3,3-Dichlorobenzidine			.42 U	.44 U	.42 U	.36 U	.39 U	.38 U	.40 U	.38 U
2,4-Dichlorophenol	0.40		.86 U	.89 U	.42 U	.36 U	.39 U	.38 U	.40 U	.38 U
2,4-Dinitrophenol	.2 or MDL		.42 U	.44 U	.86 U	.72 U	.78 U	.78 U	.81 U	.77 U
2,6-Dinitrotoluene	1.00		.42 U	.44 U	.42 U	.36 U	.39 U	.38 U	.40 U	.38 U
Diethylphthalate	7.10		.42 U	.44 U	.42 U	.36 U	.39 U	.38 U	.40 U	.38 U
Dimethylphthalate	2.00		.42 U	.44 U	.42 U	.36 U	.39 U	.38 U	.40 U	.38 U
Di-n-butyl phthalate	8.10		.42 U	.44 U	.42 U	.36 U	.39 U	.38 U	.40 U	.38 U
Di-n-octyl phthalate	50.00		.42 U	.44 U	.42 U	.36 U	.39 U	.38 U	.40 U	.38 U
Fluoroanthene	50.00		.21 J	.32 J	.19 J	.36 U	.39 U	.38 U	.40 U	.38 U
Fluorene	50.00		.42 U	.44 U	.42 U	.72 U	.39 U	.38 U	.40 U	.38 U
Hexachlorobenzene	0.41		.42 U	.44 U	.42 U	.36 U	.39 U	.38 U	.40 U	.38 U
Indeno (1,2,3-cd) Pyrene	3.20		.12 J	.16 J	.10 J	.36 U	.39 U	.38 U	.40 U	.38 U
Isophorone	4.40		.42 U	.44 U	.42 U	.36 U	.39 U	.38 U	.40 U	.38 U
2-Methylnaphthalene	36.40		.42 U	.44 U	.42 U	.36 U	.39 U	.38 U	.40 U	.38 U
2-Methylphenol	.1 or MDL		.42 U	.44 U	.42 U	.36 U	.39 U	.38 U	.40 U	.38 U
4-Methylphenol	0.90		.42 U	.44 U	.42 U	.36 U	.39 U	.38 U	.40 U	.38 U
Naphthalene	13.00		.42 U	.44 U	.42 U	.36 U	.39 U	.38 U	.40 U	.38 U
Nitrobenzene	2 or MDL		.42 U	.44 U	.42 U	.36 U	.39 U	.38 U	.40 U	.38 U
2-Nitroaniline	.43 or MDL		.86 U	.89 U	.86 U	.72 U	.78 U	.78 U	.81 U	.77 U
2-Nitrophenol	.33 or MDL		.42 U	.44 U	.42 U	.36 U	.39 U	.38 U	.40 U	.38 U
4-Nitrophenol	.1 or MDL		.86 U	.89 U	.86 U	.72 U	.78 U	.78 U	.81 U	.77 U
3-Nitroaniline	.5 or MDL		.86 U	.89 U	.86 U	.72 U	.78 U	.78 U	.81 U	.77 U
Pentachlorophenol	1 or MDL		.86 U	.89 U	.86 U	.72 U	.78 U	.78 U	.81 U	.77 U
Phenanthrene	50.00		.07 J	.11 J	.06 J	.36 U	.39 U	.38 U	.40 U	.38 U
Phenol	.03 or MDL		.42 U	.44 U	.42 U	.36 U	.39 U	.38 U	.40 U	.38 U
Pyrene	50.00		.18 J	.29 J	.17 J	.36 U	.39 U	.38 U	.40 U	.38 U
2,4,5-Trichlorophenol	0.10		.86 U	.89 U	.86 U	.72 U	.78 U	.78 U	.81 U	.77 U

**Table 2-1**  
**AF-51 Analytical Results**  
**Area 1 - Backfill**

BACKFILL CHARACTERIZATION SAMPLES										
Sample No.	TAGM No. 4046	Eastern USA Background	Clean Fill-01 72112001 12/13/2000 Grab (0-500 cy) Processed Sand (mg/kg)	Clean Fill-02 72112002 12/13/2000 Grab (500-1000 cy) Processed Sand (mg/kg)	Clean Fill-03 72112003 12/13/2000 Grab (1000-1500 cy) Processed Sand (mg/kg)	Clean Fill 04 80256001 02/07/2001 Grab (1500-2000 cy) Bank Run (mg/kg)	Clean Fill 05 80256002 02/07/2001 Grab (2000-2500 cy) Bank Run (mg/kg)	Clean Fill 06 80256003 02/07/2001 Grab (2500-3000 cy) Bank Run (mg/kg)	Clean Fill 07 80267001 02/08/2001 Grab (0-400 cy) Sand (mg/kg)	
<b>PCBs (mg/kg)</b>										
Aroclor-1016	1		.039 U	.038 U	.04 U	.041 U	.042 U	.041 U	.35 U	
Aroclor-1221	1		.039 U	.038 U	.04 U	.041 U	.042 U	.041 U	.35 U	
Aroclor-1232	1		.039 U	.038 U	.04 U	.041 U	.042 U	.041 U	.35 U	
Aroclor-1242	1		.039 U	.038 U	.04 U	.041 U	.042 U	.041 U	.35 U	
Aroclor-1248	1		.039 U	.038 U	.04 U	.041 U	.042 U	.041 U	.35 U	
Aroclor-1254	1		.039 U	.038 U	.04 U	.041 U	.042 U	.041 U	.35 U	
Aroclor-1260	1		.039 U	.038 U	.04 U	.041 U	.042 U	.041 U	.35 U	
<b>Pesticide (mg/kg)</b>										
Aldrin	0.041		.002 U	.001 U	.002 U	.002 U	.002 U	.002 U	.001 U	
Alpha-BHC	0.11		.002 U	.001 U	.002 U	.002 U	.002 U	.002 U	.001 U	
Beta-BHC	0.2		.002 U	.001 U	.002 U	.002 U	.002 U	.002 U	.001 U	
Delta-BHC	0.3		.002 U	.001 U	.002 U	.002 U	.002 U	.002 U	.001 U	
Chlordane	0.54		.002 U	.001 U	.002 U	.002 U	.002 U	.002 U	.001 U	
2,4-D	0.5		NR	NR	NR	NR	NR	NR	NR	
4,4-DDD	2.9		.003 U	.003 U	.004 U	.004 U	.004 U	.004 U	.003 U	
4,4-DDE	2.1		.003 U	.003 U	.004 U	.004 U	.004 U	.004 U	.003 U	
4,4-DDT	2.1		.003 U	.003 U	.004 U	.004 U	.004 U	.004 U	.003 U	
Dibenzo-P-dioxin	N/A		NR	.001 U	NR	NR	NR	NR	.001 U	
Dieleadrin	0.044		.003 U	.003 U	.004 U	.004 U	.004 U	.004 U	.003 U	
Endosulfan I	0.9		.003 U	.001 U	.003 U	.002 U	.002 U	.002 U	.001 U	
Endosulfan II	0.9		.003 U	.003 U	.004 U	.004 U	.004 U	.004 U	.003 U	
Endosulfan Sulfate	1		.003 U	.003 U	.004 U	.004 U	.004 U	.004 U	.003 U	
Endrin	0.1		.003 U	.003 U	.004 U	.004 U	.004 U	.004 U	.003 U	
Endrin Keytione	N/A		.003 U	.003 U	.004 U	.004 U	.004 U	.004 U	.003 U	
Gamma-BHC	0.06		.002 U	.001 U	.002 U	.002 U	.002 U	.002 U	.001 U	
Gamma-chlordan	0.54		.002 U	.001 U	.002 U	.002 U	.002 U	.002 U	.001 U	
Heptachlor	0.1		.002 U	.001 U	.002 U	.002 U	.002 U	.002 U	.001 U	
Heptachlor epoxide	0.02		.002 U	.001 U	.002 U	.002 U	.002 U	.002 U	.001 U	
Methoxychlor	N/A		.02 U	.019 U	.02 U	.021 U	.022 U	.021 U	.01 U	
Mitotane	N/A		NR	NR	NR	.002 U	NR	NR	NR	
Parathion	1.2		NR	NR	NR	.002 U	NR	NR	NR	
Polychlorinated dibenzo-furans	N/A		NR	NR	NR	.002 U	NR	NR	NR	

**Table 2-1**  
**AF-51 Analytical Results**  
**Area 1 - Backfill**

Sample No.	TAGM No. 4046	Eastern USA Background	Clean Fill 08 80256005 02/07/2001 Grab (3000-3500 cy) Bank Run (mg/kg)	Clean Fill 09 80256006 02/07/2001 Grab (3500-4000 cy) Bank Run (mg/kg)	Clean Fill 10 80256007 02/07/2001 Grab (4000-4500 cy) Bank Run (mg/kg)	Clean Fill 11 80256008 02/07/2001 Grab (4500-5000 cy) Bank Run (mg/kg)	Clean Fill 12 80256009 02/07/2001 Grab (5000-5500 cy) Bank Run (mg/kg)	Clean Fill 13 80256010 02/07/2001 Grab (5500-6000 cy) Bank Run (mg/kg)	Clean Fill 14 80256011 02/07/2001 Grab (6500-7000 cy) Bank Run (mg/kg)	Clean Fill 15 80256012 02/07/2001 Grab (7000-7500 cy) Bank Run (mg/kg)
<b>PCBs (mg/kg)</b>										
Aroclor-1016	1		.044 U	.044 U	.042 U	.036 U	.039 U	.039 U	.040 U	.038 U
Aroclor-1221	1		.044 U	.044 U	.042 U	.036 U	.039 U	.039 U	.040 U	.038 U
Aroclor-1232	1		.044 U	.044 U	.042 U	.036 U	.039 U	.039 U	.040 U	.038 U
Aroclor-1242	1		.044 U	.044 U	.042 U	.036 U	.039 U	.039 U	.040 U	.038 U
Aroclor-1248	1		.044 U	.044 U	.042 U	.036 U	.039 U	.039 U	.040 U	.038 U
Aroclor-1254	1		.044 U	.044 U	.042 U	.036 U	.039 U	.039 U	.040 U	.038 U
Aroclor-1260	1		.044 U	.044 U	.042 U	.036 U	.039 U	.039 U	.040 U	.038 U
<b>Pesticide (mg/kg)</b>										
Aldrin	0.041		.002 U							
Alpha-BHC	0.11		.002 U							
Beta-BHC	0.2		.002 U							
Delta-BHC	0.3		.002 U							
Chlordane	0.54		.002 U							
2,4-D	0.5		NR							
4,4-DDD	2.9		.004 U							
4,4-DDE	2.1		.004 U							
4,4-DDT	2.1		.004 U							
Dibenz-P-dioxin	N/A		NR							
Dieldrin	0.044		.004 U							
Endosulfan I	0.9		.002 U							
Endosulfan II	0.9		.004 U							
Endosulfan Sulfate	1		.004 U							
Endrin	0.1		.004 U							
Endrin Keytone	N/A		.004 U							
Gamma-BHC	0.06		.002 U							
Gamma-chlordane	0.54		.002 U							
Heptachlor	0.1		.002 U							
Heptachlor epoxide	0.02		.002 U							
Methoxychlor	N/A		.022 U	.022 U	.022 U	.018 U	.020 U	.020 U	.020 U	.019 U
Mitotane	N/A		NR							
Parathion	1.2		NR							
Polychlorinated dibenzo-furans	N/A		NR							

**Table 2-1**  
**AF-51 Analytical Results**  
**Area 1 - Backfill**

Sample No.	TAGM No. 4046 Recommended Soil Cleanup Objectives (mg/kg)	Eastern USA Background	BACKFILL CHARACTERIZATION SAMPLES								
			Clean Fill-01 72112001 12/13/2000 Grab (0-500 cy) Processed Sand (mg/kg)	Clean Fill-02 72112002 12/13/2000 Grab (500-1000 cy) Processed Sand (mg/kg)	Clean Fill-03 72112003 12/13/2000 Grab (1000-1500 cy) Processed Sand (mg/kg)	Clean Fill 04 80256001 02/07/2001 Grab (1500-2000 cy) Bank Run (mg/kg)	Clean Fill 05 80256002 02/07/2001 Grab (2000-2500 cy) Bank Run (mg/kg)	Clean Fill 06 80256003 02/07/2001 Grab (2500-3000 cy) Bank Run (mg/kg)	Clean Fill 07 80267001 02/08/2001 Grab (0-400 cy) Sand (mg/kg)		
<b>Metals (mg/kg)</b>											
Aluminum	SB	33000	8810.00	9020.00	12500.00	10,800.00	10,000.00	8,370.00	1,880.00		
Antimony	SB	N/A	0.21	0.22	0.30	0.19	0.091	0.089	0.07		
Arsenic	7.5 or SB	3.0-12	2.50	2.10	2.90	5.60	3.80	2.80	2.10		
Barium	300 or SB	15-600	51.20	37.80	87.70	157.00	80.10	64.30	11.90		
Beryllium	.16 or SB	0.1-75	0.43	0.41	0.60	0.67	0.51	0.41	0.09		
Cadmium	1 or SB	0.1-1	1.30	1.10	1.70	0.064	0.036	0.052	0.03		
Calcium	SB	130-35000	19500.00	789.00	12800.00	10,400.00	15,300.00	63,500.00	117,000.00		
Chromium	10 or SB	1.5-40	10.50	12.00	15.90	13.80	13.00	9.30	3.00		
Cobalt	30 or SB	2.5-60	5.70	6.60	8.10	18.10	7.00	4.30	1.80		
Copper	25 or SB	1000-50000	11.70	10.30	12.30	7.80	10.10	9.40	3.80		
Iron	2000 or SB	2000-550000	12500.00	13400.00	17600.00	23,600.00	16,300.00	11,900.00	5,740.00		
Lead	SB	200-500	11.50	2.80	14.10	28.70	24.60	15.60	0.13		
Magnesium	SB	100-5000	9620.00	2480.00	7450.00	6,630.00	8,710.00	33,900.00	54,700.00		
Manganese	SB	50-5000	397.00	300.00	417.00	1,720.00	567.00	421.00	445.00		
Mercury	0.1	0.001-0.2	0.06	0.03	0.08	0.091	0.084	0.069	0.01		
Nickel	13 or SB	0.5-25	15.00	16.80	20.70	10.30	11.10	8.90	1.90		
Potassium	SB	8500-11000	859.00	774.00	1110.00	737.00	768.00	628.00	356.00		
Selenium	2.0 or SB	0.1-3.9	5.30	5.10	7.10	7.90	5.30	3.60	1.60		
Silver	SB	N/A	0.14	0.15	0.20	0.10	0.091	0.089	0.07		
Sodium	SB	6000-8000	139.00	87.70	200.00	110.00	157.00	359.00	129.00		
Thallium	SB	N/A	1.80	2.10	2.60	0.21	0.18	0.18	0.13		
Vanadium	150 or SB	1-300	18.20	15.80	23.70	29.60	25.10	18.10	1.80		
Zinc	20 or SB	9.0-50	54.10	40.20	74.70	58.10	57.40	51.90	16.20		
Cyanide	N/A	N/A	NR	NR		0.15	0.20	0.17			

**Table 2-1**  
**AF-51 Analytical Results**  
**Area 1 - Backfill**

Sample No.	TAGM No. 4046	Eastern USA Background	Clean Fill 08 80256005 02/07/2001	Clean Fill 09 80256006 02/07/2001	Clean Fill 10 80256007 02/07/2001	Clean Fill 11 80256008 02/07/2001	Clean Fill 12 80256009 02/07/2001	Clean Fill 13 802560010 02/07/2001	Clean Fill 14 80256011 02/07/2001	Clean Fill 15 80256012 02/07/2001
Laboratory Sample ID #	Recommended Soil Cleanup Objectives (mg/kg)		Grab (3000-3500 cy) Bank Run (mg/kg)	Grab (3500-4000 cy) Bank Run (mg/kg)	Grab (4000-4500 cy) Bank Run (mg/kg)	Grab (4500-5000 cy) Bank Run (mg/kg)	Grab (5000-5500 cy) Bank Run (mg/kg)	Grab (5500-6000 cy) Bank Run (mg/kg)	Grab (6500-7000 cy) Bank Run (mg/kg)	Grab (7000-7500 cy) Bank Run (mg/kg)
<b>Metals (mg/kg)</b>										
Aluminum	SB	33000	12,200.00	10,500.00	11,000.00	4,970.00	6,370.00	6,590.00	7,730.00	5,520.00
Antimony	SB	N/A	0.18	0.088	0.11	0.098	0.094	0.11	0.082	0.087
Arsenic	7.5 or SB	3.0-12	4.10	3.60	4.40	2.60	3.90	3.30	4.00	3.50
Barium	300 or SB	15-600	101.00	76.60	95.70	25.70	39.90	36.70	53.40	44.60
Beryllium	.16 or SB	0.1-75	0.63	0.51	0.59	0.24	0.35	0.33	0.41	0.30
Cadmium	1 or SB	0.1-1	0.053	0.035	0.045	0.039	0.037	0.039	0.033	0.035
Calcium	SB	130-35000	9,530.00	25,200.00	11,600.00	92,500.00	1,430.00	1,970.00	5,940.00	2,700.00
Chromium	10 or SB	1.5-40	16.60	13.20	14.70	8.10	8.70	8.90	10.10	7.10
Cobalt	30 or SB	2.5-60	8.10	6.30	9.60	3.10	5.50	5.40	6.00	4.60
Copper	25 or SB	1000-50000	10.30	9.40	9.80	8.20	8.20	8.00	9.10	6.10
Iron	2000 or SB	2000-550000	20,100.00	16,400.00	18,500.00	8,980.00	12,200.00	12,100.00	13,600.00	9,990.00
Lead	SB	200-500	25.10	22.40	26.90	0.49	14.40	13.60	17.90	14.30
Magnesium	SB	100-5000	5,800.00	14,500.00	6,570.00	42,200.00	2,410.00	2,650.00	5,190.00	2,590.00
Manganese	SB	50-5000	453.00	442.00	673.00	338.00	494.00	427.00	607.00	481.00
Mercury	0.1	0.001-0.2	0.075	0.065	0.062	0.038	0.030	0.024	0.064	0.016
Nickel	13 or SB	0.5-25	15.30	11.20	13.60	6.80	8.10	8.40	9.60	6.30
Potassium	SB	8500-11000	892.00	797.00	835.00	903.00	480.00	535.00	654.00	404.00
Selenium	2.0 or SB	0.1-3.9	6.50	5.60	6.00	2.70	4.10	4.00	4.30	3.20
Silver	SB	N/A	0.13	0.088	0.11	0.098	0.094	0.10	0.082	0.087
Sodium	SB	6000-8000	113.00	135.00	128.00	144.00	57.30	71.70	79.50	56.70
Thallium	SB	N/A	0.26	0.18	0.22	0.20	0.19	0.20	0.16	0.17
Vanadium	150 or SB	1-300	28.80	25.40	27.30	12.80	16.00	16.60	19.30	13.80
Zinc	20 or SB	9.0-50	61.00	65.00	61.90	33.50	32.20	32.40	44.40	31.50
Cyanide	N/A	N/A	0.18	0.19	0.22	0.14	0.12	0.13	0.14	0.12

# **APPENDIX E**

## **CHAIN OF CUSTODY RECORDS**

# **CHAIN-OF-CUSTODY RECORD**

Page 1 of 1

<b>REPORT TO</b>				<b>INVOICE TO</b>				LAB PROJECT #:		
COMPANY <i>Ray F Weston Inc.</i>		PHONE <i>860-368-3206</i>		COMPANY <i>SAME</i>		PHONE		<i>71442</i>		
NAME <i>Eric Johansen</i>		FAX <i>860-368-3201</i>		NAME		FAX				
ADDRESS <i>148 Eastern Boulevard</i>				ADDRESS				TURNAROUND TIME: <i>5 day*</i>		
CITY/ST/ZIP <i>Glastonbury CT 06033</i>				CITY/ST/ZIP						
CLIENT PROJECT NAME: <i>USACE RAPID Group</i>		CLIENT PROJECT #: <i>20074-515-011-2000</i>		CLIENT P.O.#:		REQUESTED ANALYSES				
SAMPLE IDENTIFICATION	DATE/TIME SAMPLED	COMPOSITE	GRAB	WATER	SOIL	TOTAL Sediment	LAB ID	# OF CONTAINERS	Comments	
<i>AFB51-00-1-1-(0-1)</i>	<i>9/7/00 10:30</i>	✓	✓			✓	01	2	<i>VOC EPA 8260</i> <i>SVOC 8220</i> <i>PCB 8082</i> <i>Reactivity</i> <i>Carcinogen</i> <i>Flash Ignitible 11</i> <i>Total volatile 8610/24</i> <i>Genotoxic 9012</i> <i>Film 9012</i> <i>TCLP Temp</i>	
<i>AFB51-00-2-1-(0-4)</i>	<i>9/7/00 10:50</i>	✓	✓			✓	02	2		
<i>AFB51-00-4-1-(0-5)</i>	<i>9/7/00 11:30</i>	✓	✓			✓	03	2		
<i>AFB51-00-5-1-(0-4)</i>	<i>9/7/00 11:45</i>	✓	✓			✓	04	2		
TB	<i>9/6/00 09:10</i>		✓				05	1		
Temp Blank	<i>NA NA</i>		✓						✓	
TSF#	RELINQUISHED BY	DATE/TIME		ACCEPTED BY		DATE/TIME	ADDITIONAL REMARKS:		COOLER TEMP:	
1	<i>StEB</i>	<i>9/8/00 09:00</i>		<i>Jay Healey</i>		<i>9/8/00 09:00</i>	<i>* Need Fax results by Friday 9-15-00 or sooner. Contact Eric Johansen @ (860) 368-3206 with questions</i>		<i>6°C</i>	
2		/				/				
3		/		/		/				

**WHITE:** LABORATORY COPY

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## **CHAIN-OF-CUSTODY RECORD**

Page 1 of 1

**CHAIN-OF-CUSTODY RECORD**Page 1 of 1

REPORT TO				INVOICED TO				LAB PROJECT #:					
COMPANY	Roy F. Weston, Inc	PHONE	860-368-3206	COMPANY	Roy F. Weston, Inc	PHONE	860-368-3206						
NAME	Eric Johansen	FAX	860-368-3201	NAME	Eric Johansen	FAX	860-368-3201	TURNAROUND TIME:					
ADDRESS	148 Eastern Blvd	ADDRESS	148 Eastern Blvd.					71743					
CITY/ST/ZIP	Glastonbury CT 06033	CITY/ST/ZIP	Glastonbury, CT 06033					24 hr.					
CLIENT PROJECT NAME:	USACE - Air Force Plant 51	CLIENT PROJECT #:	20074-515-011	CLIENT P.O.#:									
SAMPLE IDENTIFICATION	DATE/TIME SAMPLED	COMPOSIT:	GRAB	WATER	SOIL	OTHER	LAB ID	# OF CONTAINERS	TCE/DEE by OSHA M-101	BTEX by NIOSH M-102	Metals by ACGIH 7300-2400	REQUESTED ANALYSES	COMMENTS
CQ 5970	10-19-00'				✓		01	1	✓	✓	/		186,017.5 cc's Air Volume
CQ 6233	10-21-00				✓		02	1	✓	✓	/		357,058 cc's Air Volume
CQ 6232	10-20-00'				✓		03	1	✓	✓	/		292,608 cc's Air Volume
CQ 6255	10-23-00'				✓		04	1	✓	✓	✓		680,061 cc's "
CQ 6256	10-23-00'				✓		05	1	/	/	✓		667,732.5 cc's "
CQ 6257	10-23-00'				✓		06	1	/	/	✓		106,134 cc's "
CQ 6300	10-25-00				✓		07	1	✓	✓			267,392 cc's "
CQ 6301	10-25-00'				✓		08	1	/	/	✓		234,643.5 cc's "
CQ 6302	10-25-00'				✓		09	1	/	/	✓		153,588 cc's "
1													
2													
3													
ISFM	RELINQUISHED BY	DATE/TIME		ACCEPTED BY		DATE/TIME		ADDITIONAL REMARKS:				COOLER TEMP:	
1	<u>J. Z. Zalell</u>	10/24/00 1730		<u>J. Johnson</u>		10/26/00 0900		Charcoal Tubes for Air Personal Monitoring				AMBIENT	
2		/				/							
3		/				/							
Also Fax Results to 716-621-2227													

CHAIN-OF-CUSTODY RECORDPage 1 of 1

REPORT TO		INVOICE TO		LAB PROJECT #:					
COMPANY <i>Ray F. Weston Inc.</i>	PHONE <i>860-368-3206</i>	COMPANY <i>SAME</i>	PHONE						
NAME <i>Eric Juhansen</i>	FAX <i>860-368-3201</i>	NAME	FAX	TURNAROUND TIME: <i>24-48hr.</i>					
ADDRESS <i>148 Eastern Boulevard</i>	ADDRESS								
CITY/ST/ZIP <i>Glastonbury CT 06033</i>	CITY/ST/ZIP								
CLIENT PROJECT NAME: <i>USACE RAPID</i> <i>AFB Plant 51 Greece NY</i>	CLIENT PROJECT #: <i>20074-515-011</i>	CLIENT P.O.#:	REQUESTED ANALYSES						
SAMPLE IDENTIFICATION	DATE/TIME SAMPLED	COMPOSITE	GRAB	WATER	SOIL	OTHER	LAB ID	# OF CONTAINERS	Comments
<i>AFB51-00-SD-1-2(0-1)</i>	<i>10/26/00 1:50pm</i>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>			<input checked="" type="checkbox"/>	<i>01</i>	<i>2</i>	<i>VOA 8260</i>
<i>AFB51-00-SD-2-2(0-1)</i>	<i>10/26/00 1:58pm</i>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>			<input checked="" type="checkbox"/>	<i>02</i>	<i>2</i>	<i>SVAC 8270</i>
<i>AFB51-00-SD-3-2(0-1)</i>	<i>10/26/00 1:53pm</i>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>			<input checked="" type="checkbox"/>	<i>03</i>	<i>2</i>	<i>PCB 8282</i>
<i>AFB51-00-SD-4-2(0-1)</i>	<i>10/26/00 1:41pm</i>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>			<input checked="" type="checkbox"/>	<i>04</i>	<i>2</i>	<i>Granite</i>
<i>AFB51-00-SD-5-2(0-1)</i>	<i>10/26/00 1:33pm</i>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>			<input checked="" type="checkbox"/>	<i>05</i>	<i>2</i>	<i>1:33pm</i>
<i>AFB51-00-SD-6-2(0-1)</i>	<i>10/26/00 1:25pm</i>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>			<input checked="" type="checkbox"/>	<i>06</i>	<i>2</i>	<i>1:25pm</i>
<i>AFB51-00-SD-6-2D(0-1)</i>	<i>10/26/00 1:25pm</i>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>			<input checked="" type="checkbox"/>	<i>07</i>	<i>2</i>	<i>1:25pm</i>
Temp	/	/	/						
/	/	/	/						
/	/	/	/						
/	/	/	/						
TSF#	RELINQUISHED BY	DATE/TIME	ACCEPTED BY			DATE/TIME	ADDITIONAL REMARKS:		COOLER TEMP:
1	<i>John O'Brien</i>	<i>10/26/00 16:30</i>	<i>Fed ex</i>			<i>10/26/00 16:30</i>	<i>Fax results to the site ATTN Steve O'Brien Phone (716) 621-3472 Fax (716) 621-2027</i>		<i>6°</i>
2		/	<i>Arthur P. Smith</i>			<i>10/27/00 0900</i>			
3	<i>TLO</i>	/				/			
		WHIT	BOR	CO	SELL	REPO	IPY	: CL	COP.

CHAIN-OF-CUSTODY RECORDPage 1 of 1

REPORT TO		INVOICED TO		LAB PROJECT #:	
COMPANY	Roy F. Weston Inc	COMPANY	Roy F. Weston Inc		
NAME	Jim Wallis / Steve O'Brian / Eric Johansen	PHONE	716-621-3472	PHONE	860-368-3206
FAX	716-621-2227	NAME	Eric Johansen	FAX	860-368-3201
ADDRESS	148 Eastern Blvd.	ADDRESS	148 Eastern Blvd.	TURNAROUND TIME:	
CITY/ST/ZIP	Glastonbury CT 06033	CITY/ST/ZIP	Glastonbury, CT 06033	24 hrs	

CLIENT PROJECT NAME:	CLIENT PROJECT #: 20074-515-011	CLIENT P.O.#:	REQUESTED ANALYSES								COMMENTS	
			TCE	DCE	OCDE by NIOSH M-101	BTX	NIOSH M-102					
USACE-Air Force Plant 51												Sample Volume
CQ 6259	11/1/00'		✓	01	✓	✓						671,834 cc's Air
CQ 6261	11/1/00'		✓	02	✓	✓						646,768 cc's
CQ 6262	11/2/00'		✓	03	✓	✓						782,385 cc's
CQ 6258	11/2/00'		✓	04	✓	✓						199,341 cc's
CQ 6291	11/2/00'		✓	05	✓	✓						690,272 cc's
CQ 6293	11/3/00'		✓	06	✓	✓						573,400 cc's
CQ 6294	11/3/00'		✓	07	✓	✓						673,620 cc's
CQ 6295	11/3/00'		✓	08	✓	✓						659,176 cc's
CQ 6276	11/4/00'		✓	09	✓	✓						601,704 cc's
CQ 6297	11/4/00'		✓	10	✓	✓						596,875.5 cc's

TS#	RELINQUISHED BY	DATE/TIME	ACCEPTED BY	DATE/TIME	ADDITIONAL REMARKS:	COOLER TEMP:
1		11/9/00 1730		11/10/00 0900	Charcoal Tubes for Air + Personal Monitoring.	AMBIENT
2		/		/		40.025
3		/		/	At Lab Fax results to 716-621-2227	

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## CHAIN-OF-CUSTODY RECORD

Page 1 of 8

REPORT TO		RECEIVED BY		LAB PROJECT #:  7200Z					
COMPANY	Rey F. Weston Inc.	PHONE	500-368-3206						
NAME	Eric Johansen	FAX	500-368-3201						
ADDRESS	148 Eastern Boulevard	ADDRESS							
CITY/ST/ZIP	Glastonbury CT 06033	CITY/ST/ZIP							
CLIENT PROJECT NAME: AFB Plant 51 Greene NY		CLIENT PROJECT #: 20074-515-a1-5000	CLIENT P.O.#:	REQUESTED ANALYSES  LOC 11826585 SVOC Tolu methyls Pest PCB Cr As					
SAMPLE IDENTIFICATION	DATE/TIME SAMPLED	COMPOSITE	GRAN		WATER	SOIL	OTHER	LAB ID	# OF CONTAINERS
AF851-00-SB-1-(a)	10/7/00 16:19	✓		✓			01	2	
AF851-00-SB-1-(a)	10/7/00 16:36	✓		✓			02	2	
AF851-00-SB-3-(a)	10/7/00 16:45	✓		✓			03	2	
AF851-00-SB-2-2(a)	10/7/00 16:53	✓		✓			04	2	
AF851-00-SB-4-(a)	10/7/00 17:01	✓		✓			05	2	
AF851-00-SB-4-(a)	10/7/00 17:13	✓		✓			06	2	
AF851-00-SB-6-(a)	10/7/00 17:30	✓		✓			07	2	
AF851-00-SB-6-2(a)	10/7/00 17:38	✓		✓			08	2	
AF851-00-SB-6-1(a)	10/7/00 17:40	✓		✓			09	2	
AF851-00-D-6-1(a)	10/7/00 17:50	✓		✓			10	2	
Temp				✓					
							1		
SPN	RELINQUISHED BY	DATE/TIME		ACCEPTED BY	DATE/TIME		ADDITIONAL REMARKS:		COOLER TEMP:
1	<i>AFB</i>	10/7/00 16:30		<i>Fred</i>	1		Analyze per QA plan As advised by Paul Sancay		60°
2		1		<i>John</i>	10/7/00 17:00				
3		1			1				
		EVHC	LBOR	IVCC	WHL	REP... JPY	RHL	CLNTN/CRNOV	



175 Metro Center Boulevard  
Warwick, Rhode Island 02886-1755  
(401) 732-3400 • Fax (401) 732-3499  
email: milkeen@milkeen.com

## CHAIN-OF-CUSTODY RECORD

Page 2 of 2

REPORT TO:		INVESTIGATOR:		LAB PROJECT #:		
COMPANY	Ray F. Weston Inc.	PHONE	210-368-3206	COMPANY SAME	PHONE	
NAME	Eric Jorgenson	FAX	210-368-3201	NAME	FAX	72002
ADDRESS	148 Eastern Boulevard	ADDRESS		TURNAROUND TIME:	Per Ben Dodge	
CITY/ST/ZIP	Glastonbury CT 06033	CITY/ST/ZIP		72 hr. TAT		

CLIENT PROJECT NAME: AFB Plant 51 Greene NY	CLIENT PROJECT #: 20074-515-011-5000	CLIENT P.O.#:	REQUESTED ANALYSES							
SAMPLE IDENTIFICATION	DATE/TIME SAMPLED	COMPOSITE	GRAB	WATER	SOIL	OTHER	LAB ID	# OF CONTAINERS	Comments	
AFB51-00-SB-10-1(0-)	10/7/00 17:47	✓	✓				11	2	You SVOC HCl metals	
AFB51-00-SB-10-2(0-)	10/7/00 18:11	✓	✓				12	2	Pest PCB Cu	
/										
/										
/										
/										
/										
/										
/										
/										
/										
/										
/										

TS#	RELINQUISHED BY	DATE/TIME	ACCEPTED BY	DATE/TIME	ADDITIONAL REMARKS:	COOLER TEMP:
1	Steve B.	10/7/00 18:30	FedEx	/	Analyze per QA plan as reviewed by Paul Senecal	6°C
2	/	/	John Ryall	10/8/00 0900		
3	/	/		/		

WHITE: LABORATORY COPY

YELLOW: REPORT COPY

PINK: CLIENT'S COPY

## CHAIN-OF-CUSTODY RECORD

Page 1 of 1

REPORT TO		INVOICE TO		LAB PROJECT #:													
COMPANY	Roy F. Weston Inc.	PHONE	860-368-3206	COMPANY	SAME												
NAME	Eric Jehansen	FAX	860-368-3201	NAME													
ADDRESS	148 Eastern Boulevard	ADDRESS		TURNAROUND TIME:													
CITY/ST/ZIP	Glastonbury CT 06033	CITY/ST/ZIP			72 hr.												
CLIENT PROJECT NAME:	AFB Plant 51	CLIENT PROJECT #:	30074-515-011-5000	CLIENT P.O.#:													
Greece, NY																	
SAMPLE IDENTIFICATION	DATE/TIME SAMPLED	COMPOSITE	GRAB	WATER	SOIL	OTHER	LAB ID	# OF CONTAINERS	REQUESTED ANALYSES								COMMENTS
IF851-00-SB-5-1(0-3)	12/8/00 11:16:15	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>				01	2	VOC	860	DLC	Tetra	methyl	PCB	Crude	9012	
IF851-00-SB-5-2(0-3)	12/8/00 11:16:19	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>				02	2									
IF851-00-SB-3-1(0-3)	12/8/00 11:16:36	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>				03	2									
IF851-00-SB-5-3(0-3)	12/8/00 11:16:45	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>				04	2									
IF851-00-SB-7-1(0-3)	12/8/00 11:16:00	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>				05	2									
IF851-00-SB-7-2(0-3)	12/8/00 11:15:42	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>				06	2									
IF851-00-SB-7-3(0-3)	12/8/00 11:15:36	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>				07	2									
Temp	/						1										
/	/																
/	/																
/	/																
/	/																
TSF#	RELINQUISHED BY	DATE/TIME	ACCEPTED BY			DATE/TIME	ADDITIONAL REMARKS:			COOLER TEMP:							
1		12/8/00 11:45	Fedex			/	Analyze per QA plan As reviewed by Paul Serecal.			6°C							
2		/				12/9/00 10:00											
3		/				/											

CHAIN-OF-CUSTODY RECORDPage 1 of 1

12/28/2000 16:07 FAX 401 732 3498

MITKEM CORPORATION

4016

REPORT TO:		INVOICED TO:		LAB PROJECT #:
COMPANY	Ray F. Weston Inc	COMPANY	SAME	PHONE
NAME	Eric Jchansen	NAME		FAX
ADDRESS	148 Eastern Boulevard	ADDRESS		TURNAROUND TIME:
CITY/ST/ZIP	Glastonbury CT	CITY/ST/ZIP		Std.

CLIENT PROJECT NAME: AFB Plant 51 Greece, NY	CLIENT PROJECT #: 80074-515-011-7000	CLIENT P.O.#:	REQUESTED ANALYSES	
--	---	---------------	--------------------	--

SAMPLE IDENTIFICATION	DATE/TIME SAMPLED	COMPOSITE	GRAN	WATER	SOIL	OTHER	LAB ID	# OF CONTAINERS	VOC	SVOC	EN60B	EN70C	Hdrt Pst 8062	PCB	Toluol mH5610	Temp	Comments
clean fill - 01	12/13/00 16:00		✓		✓		01	2	✓	✓	✓	✓	✓	✓	✓		
clean fill - 02	12/13/00 16:35		✓		✓		02	2	✓	✓	✓	✓	✓	✓	✓		
clean fill - 03	12/13/00 16:40		✓		✓		03	2	✓	✓	✓	✓	✓	✓	✓		
Temp	/			✓				1									
/																	
/																	
/																	
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/																	
/																	
/																	
/																	
/																	

TSF#	RELINQUISHED BY	DATE/TIME	ACCEPTED BY	DATE/TIME	ADDITIONAL REMARKS:	COOLER TEMP:
1	<u>SCB</u>	12/20/00 17:00	<u>Felix</u>	/	Samples were collected and held cool since 12/13/00 because of holding time on VOC.	66
2		/	<u>J. J. Smith</u>	12/21/00 09:00		
3		/		/		

WHITE: LABORATORY COPY

YELLOW: REPORT COPY

PINK: CLIENT'S COPY

72132

Page 1 of 3CHAIN-OF-CUSTODY RECORD

Dec-22-2000

03:47pm

From-ROY F WESTON

6603689237

T-828

P.002/004

F-724

REPORT TO		INVOICE TO		LAB PROJECT #						
COMPANY	NAME	COMPANY	NAME							
COMPANY	Ray F. Weston Inc	PHONE	860-368-3206	NAME						
NAME	Eric Jorgenson	FAX	860-368-3201	ADDRESS						
ADDRESS	148 Eastern Boulevard									
CITY/ST/ZIP	Glastonbury CT 06033			CITY/ST/ZIP						
CLIENT PROJECT NAME:	USACE Rapid Response	CLIENT PROJECT #:	USACE	CLIENT P.O.#:						
+FB 51 Greece NY		30074-515-CII-7000								
SAMPLE IDENTIFICATION	DATE/TIME SAMPLED	COMPOSITE	GRAB	WATER	SOIL	OTHER	LAB ID	% OF CONTAINERS	REQUESTED ANALYSES	COMMENTS
IF851-00-SB-1-1(0-6)	12/22/00 10:00	✓	✓				01	2	VOC S26CB Total metals 8010	Mark
IF851-00-SB-1-3(6-15)	12/22/00 0852									New
IF851-00-SB-1-3(0-15)	12/22/00 0855									Proj
IF851-00-SB-1-3(0-24)	12/22/00 0850						*	01		
IF851-00-SB-2-3(0-6)	12/22/00 10:30						02			
IF851-00-SB-2-3(6-15)	12/22/00 10:30									
IF851-00-SB-2-3(12-18)	12/22/00 10:34									
IF851-00-SB-2-3(14-18)	12/22/00 10:36						*	02		
IF851-00-D-2-3(0-6)	12/22/00 10:30						*	03		
IF851-00-SB-3-3(0-6)	12/22/00 0826						03			
IF851-00-SB-3-3(6-12)	12/22/00 0829									
IF851-00-SB-3-3(12-18)	12/22/00 0832	✓	✓				✓	✓		
TS#	RELINQUISHED BY	DATE/TIME		ACCEPTED BY		DATE/TIME		ADDITIONAL REMARKS:		COOLER TEMP:
1	<u>StefB</u>	12/22/00 12:30		FedEx		/		* Analyze only samples marked. Hold remainder pending further instruction!		
2		/				/				
		/				/				

CHAIN-OF-CUSTODY RECORDPage 2 of 3

Dec-22-2000 03:47pm From-ROY F WESTON

REPORT TO		INVOICE TO		LAB PROJECT #:
COMPANY	NAME	COMPANY	NAME	
Reg F. Weston Inc.	PHONE 860-368-3206	SAME	PHONE	72153
AME Eric Johansen	FAX 860-368-3201	NAME	FAX	
ADDRESS 148 Eastern Boulevard		ADDRESS		TURNAROUND TIME:
CITY/ST/ZIP Glastonbury CT 06033		CITY/ST/ZIP		

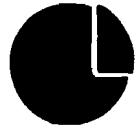
CLIENT PROJECT NAME: ASACe Rapid Response		CLIENT PROJECT #: ASACe		CLIENT P.O. #:		REQUESTED ANALYSES												
4FB 51 Greece, NY		20074-515-011-7000																
SAMPLE IDENTIFICATION	DATE/TIME SAMPLED	COMPOSITE	CLAY	WATER	SOIL	LAB ID	# OF CONTAINERS	Vac 83163	Tet methyl 6010									COMMENTS
4FB51-00-SB-3(18-34)	12/22/08:34	✓	✓	*		07	2											
4FB51-00-SB-3(18-34)	12/22/09:45																	
4FB51-00-SB-4-3(6-12)	12/22/09:47																	
4FB51-00-SB-4-3(12-12)	12/22/09:48																	
4FB51-00-SB-4-3(12-12)	12/22/09:50		*															
4FB51-00-M-4-3(0-6)	12/22/09:45		*															
4FB51-00-SB-5-3(0-6)	12/31/15:00																	
4FB51-00-SB-5-3(6-12)	12/31/15:08																	
4FB51-00-SB-5-3(12-12)	12/31/15:10																	
4FB51-00-SB-5-3(12-12)	12/31/15:13		*															
4FB51-00-SB-6-3(0-6)	12/32/09:23					05												
4FB51-00-SB-6-3(6-12)	12/32/09:21	✓	✓	✓														

TS#	RElinquished By	DATE/TIME	ACCEPTED BY	DATE/TIME	ADDITIONAL REMARKS:	COOLER TEMP:
1	TCB	12/03/00 12:30	Fedex	/	* Analyze only samples marked. Hold remaining pending further instructions!	
2	O	/		/		
3	O	/		/		

# CHAIN-OF-CUSTODY RECORD

Page 3 of 3

REPORT TO					INVOICE TO			LAB PROJECT #:	
COMPANY Ray F. Weston, Inc.		PHONE 860-368-3206	COMPANY SAME		PHONE			72132	
NAME Eric Johnson		FAX 860-368-3201	NAME		FAX				
ADDRESS 148 Eastern Boulevard					ADDRESS			TURNAROUND TIME:	
CITY/ST/ZIP Glastonbury CT 06033					CITY/ST/ZIP				
CLIENT PROJECT NAME: USACE Rapid Response		CLIENT PROJECT #: USACE		CLIENT P.O.#: 20074-515-011-7000		REQUESTED ANALYSES			
SAMPLE IDENTIFICATION	DATE/TIME SAMPLED	COMPOSITE	GRAB	WATER	SOIL	OTHER	LAB ID	# OF CONTAINERS	Comments
AFB51-00-5B-6-3(10-16)	12/22/09:35	✓		✓			08	2	VOC E2603
AFB51-00-5B-6-3(10-20)	12/22/09:36	✓	✓				04	2	Tetra methyl 8010
Tarp	/		✓				05	1	Temp
AFB51-00-5B-5-3(3-32)	12/31/15:03	✓		✓			09	2	
AFB51-00-5B-5-3(4-46)	12/31/15:44						10	1	
AFB51-00-5B-5-3(5-54)	12/31/15:47						06-05	1	
AFB51-00-5B-5-3(6-66)	12/31/16:10							✓	
AFB51-00-5B-5-3(8-86)	12/31/16:18						06-05	1	
AFB51-00-5B-5-3(9-96)	12/31/16:31	✓		✓				✓	
	/								
	/								
	/								
TS#	RELINQUISHED BY	DATE/TIME		ACCEPTED BY		DATE/TIME	ADDITIONAL REMARKS:		COOLER TEMP:
1	<u>John B</u>	12/22/09 12:30		FedEx		/	Anticipate High VOC Concentrations. Call for/ Screen. Fax Field Screening Data.		6°C
2		/		<u>John B</u>		12/23/09 10:00			
3		/				/			



LOZIER

LABORATORIES, INC.

696 N. Winton Rd., Rochester, NY 14609  
 5611 Water St., Middlesex, NY 14507  
 (888) 841-5227 • (716) 554-4114

## SEND REPORT TO:

Chris Kane

Ray F. Weston Inc

1 Wall Street Manchester, NH 03101

## COMPANY NAME

western USA/E

## TURNAROUND TIME

 Standard Service  
 Rush Service 12-04 hr.

## PROJECT NAME / NUMBER

Date Req.: 11/26/01

AFB Plant 51 Greece

Phone No.: (716) 621-3472

Fax No.: (716) 621-2227

## PARAMETERS FOR ANALYSIS

TCE  
VOA 8260  
metals To be Cadmium

SEND INVOICE TO:  
 Chris Kane  
 Ray F. Weston Inc  
 1 Wall Street Manchester, NH 03101

SEND INVOICE TO:  
 Chris Kane  
 Ray F. Weston Inc  
 1 Wall Street Manchester, NH 03101

P.O. #

SAMPLE ID	DATE	TIME	TYPE				Laboratory ID Number
			Comp.	Grab	Aqueous	Soil	
AF851-00-SB-1-4 (3')	11/25/01	12:10	✓	✓			
AF851-00-SB-1-4 (4')		12:12		✓			
AF851-00-SB-1-4 (5')		12:14					
AF851-00-SB-1-4 (6')		12:17					
AF851-00-SB-2-4 (3')		11:33					
AF851-00-SB-2-4 (4')		11:37					
AF851-00-SB-2-4 (5')		11:41					
AF851-00-SB-2-4 (6')		11:44					
AF851-00-SB-3-4 (3')		12:35					
AF851-00-SB-3-4 (4')	✓	12:40	✓	✓			

REMARKS: Please include all QC information Spike Results/method Blank/curve and HP Internal Standards Printout.  
 Will fax headspace screening results to file 1c6.  
 Do not run the AF851-00-SB-1-4 series. (Hold)  
 Metals analysis will be run after review of TCE results.

## TOTAL CONTAINERS

## CUSTODY

SEAL INTACT?  YES  NO  N/A

## SHIPMENT

COMPLETE?  YES  NO  N/A

## TEMPERATURE:

\_\_\_\_ °C  TS  TB  TM

## RECEIVED BY

IRE

DATE

TIME

40357 40358 40359 40360 40361 40362 MANILLA COPY

Steven H. Ulrich on 10-10-01

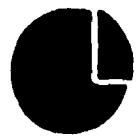
110700

2.

Received for Laboratory by:

11/25/01

4:15



LOZIER

LABORATORIES, INC.

696 N. Winton Rd., Rochester, NY 14609  
 5611 Water St., Middlesex, NY 14507  
 (888) 841-5227 • (716) 554-4114

SEND REPORT TO:  
Chris Kane  
Ray F. Weston Inc  
1 Wall Street  
Manchester, NH 03101

COMPANY NAME		TURNAROUND TIME		PARAMETERS FOR ANALYSIS	
<u>Westen / USACE</u>		<input type="checkbox"/> Standard Service <input checked="" type="checkbox"/> Rush Service <u>12-24 hr.</u>			
PROJECT NAME / NUMBER		Date Req.: <u>1/13/01</u>			
<u>AFB Plant 51</u>		Phone No.: <u>(716) 621-3472</u>			
		Fax No.: <u>(716) 621-3227</u>			
SEND INVOICE TO:					
<u>Chris Kane</u>					
<u>Ray F. Weston Inc</u>					
<u>1 Wall Street Manchester, NH 03101</u>					
P.O. #					

SAMPLE ID	DATE	TIME	TYPE Comp. S	Grab S	Aqueous S	St S	Other S	CHAIN OF CUSTODY RECORD		Laboratory ID Number	
AFB51-00-SB-3-4 (5')	1/13/01	10:48									
AFB51-00-SB-3-4 (6')		12:15									
AFB51-00-SB-4-4 (3')		11:50									
AFB51-00-SB-4-4 (4')		11:53									
AFB51-00-SB-4-4 (5')		11:55									
AFB51-00-SB-4-4 (6')		11:57									
AFB51-00-SB-6-4 (3')		12:01									
AFB51-00-SB-6-4 (4')		12:03									
AFB51-00-SB-6-4 (5')		12:06									
AFB51-00-SB-6-4 (6')	✓	12:08	✓	✓							

REMARKS: Please include all QC information Spike Results / Method Blank / Cure  
 and HP Internal Standards Printout  
 Will Fax headspace screening results to the lab.  
 Do not run the AFB51-00-SB-4-4 series (Hold)  
 Matrix analysis will be run after review of TCE res. 1/5.

SAMPLE'S NAME:

SIGNATURE:

TOTAL CONTAINERS

CUSTODY

SEAL INTACT?  YES  NO  N/A

SHIPMENT

COMPLETE?  YES  NO  N/A

TEMPERATURE:

°C  TS  TB  TM

40455

MANILLA  
COPY

ENQUIRIED BY

IRE  
CBDATE  
1/13/01TIME  
11:50

SAMPLES RECEIVED BY

NAME AND SIGNATURE  
CBDATE  
1/13/01TIME  
11:50

Received for laboratory by:

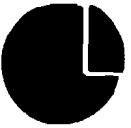
PINK SAMPLE COPY

LOZIER ANALYTICAL GROUP

ORIGINAL LAB COPY

YELLOW CUSTOMER COPY

CONFIDENTIAL INFORMATION



LOZIER

LABORATORIES, INC.

696 N. Winton Rd., Rochester, NY 14609  
 5611 Water St., Middlesex, NY 14507  
 (888) 841-5227 • (716) 554-4114

## SEND REPORT TO:

Chris Kane  
 Ray F. Weston Inc  
 1 Wall Street  
 Manchester NH 03101

## COMPANY NAME

Weston / USACE

## TURNAROUND TIME

Standard Service  
 Rush Service 12-24 hr.

## PROJECT NAME / NUMBER

AFB Plant 51

Date Req.: 1/16/01

Phone No.: (716) 621-3472

Fax No.: (716) 621-2227

## PARAMETERS FOR ANALYSIS

VOA	E260 TCE
metals	Tch / Cadmium

## SEND INVOICE TO:

Chris Kane

Ray F. Weston Inc

1 Wall Street Manchester NH 03101

P.O. #

## CHAIN OF CUSTODY RECORD

Laboratory ID Number

SAMPLE ID	DATE	TIME	TYPE	Comp.	Grab	Aqueous	Soil	Other		
AFB51-00-SB-3-4 (5')	1/15/01	12:43		✓	✓					✓
AFB51-00-SB-3-4 (6')		12:45			✓					✓
AFB51-00-SB-4-4 (3)		11:50								
AFB51-00-SB-4-4 (4)		11:53								
AFB51-00-SB-4-4 (5')		11:55								
AFB51-00-SB-4-4 (6')		11:57								
AFB51-00-SB-6-4 (3)		12:01								✓
AFB51-00-SB-6-4 (4)		12:03								✓
AFB51-00-SB-6-4 (5')		12:06								✓
AFB51-00-SB-6-4 (6')	✓	12:08		✓	✓					✓

REMARKS: Please include all QC information Spike Results / Method Blank / Curve

and HP Internal Standards Printout

will Fax headspace screening results to the lab.

Do not run the AFB51-00-SB-4-4 series (Hold)

Metals analysis will be run after review of TCE results.

## TOTAL CONTAINERS

CUSTODY  
SEAL INTACT?  YES  NO  N/ASHIPMENT  
COMPLETE?  YES  NO  N/A

## TEMPERATURE:

\_\_\_\_ °C  TS  TB  TM

## SIGNED BY:

DATE: 1/16/01

TIME: 1430

MANILLA  
COPY

Steven A. Brown

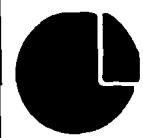
1/16/01

TCE

2.

Received for Laboratory by:

*K. Hunter*



**LOZIER  
LABORATORIES, INC.**

696 N. Winton Rd., Rochester, NY 14609  
5611 Water St., Middlesex, NY 14507  
(888) 841-5227 • (716) 554-4114

## COMPANY NAME

Winston USA/C

## TURNAROUND TIME

Standard Service  
 Rush Service 11/24/01

## PARAMETERS FOR ANALYSIS

## PROJECT NAME / NUMBER

Art Plant S1 640000

Date Req.: 11/26/01

Phone No.: (716) 621-7177

Fax No.: (716) 621-2387

## SEND REPORT TO:

Chris Kane

New F. Winston, Inc.  
1 Wall Street  
Manchester, NH 03101

## SEND INVOICE TO:

Chris Kane

New F. Winston, Inc.

1 Wall Street Manchester, NH 03101

P.O. #

EBC VOC

## SAMPLE ID

## DATE

## TIME

TYPE	Comp.	Grab	Aqueous	Soil	Other
		V	V		

## CHAIN OF CUSTODY RECORD

Laboratory ID Number

C211-1 Liquid

1/25/01 14:30

REMARKS: This may be pure product "Cantin"

Please include all QC information Spike Results/Method Blank/Curve and HP Internal Standards Point out.

## TOTAL CONTAINERS

CUSTODY SEAL INTACT?  YES  NO  N/A

SHIPMENT COMPLETE?  YES  NO  N/A

## TEMPERATURE:

°C  TS  TB  TM

40356 MANILLA COPY

SIGNATURE:



## TELENQUISHED BY

## NAME AND SIGNATURE

Steven O'Brien

## DATE

1/25/01

## TIME

14:45

## SAMPLES RECEIVED BY

## NAME AND SIGNATURE

1. Tom

## DATE

1/25/01

## TIME

14:45

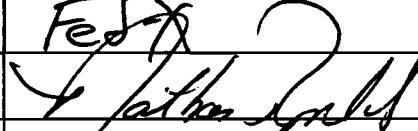
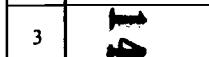
Received for Laboratory by:

K. Hunter

1/25/01 14:45

# CHAIN-OF-CUSTODY RECORD

Page 1 of 1

REPORT TO		INVOICE TO																	
COMPANY	Ray F. Weston Inc.	COMPANY	Ray F. Weston Inc.	LAB PROJECT #:															
NAME	Chris Kane	NAME	Chris Kane	80191															
ADDRESS	4800 Dewey Ave	ADDRESS	1 Wall Street 1	TURNAROUND TIME:															
CITY/ST/ZIP	Greece, NY 14615	CITY/ST/ZIP	Manchester NH 03101																
CLIENT PROJECT NAME:	AFB51 Greece, NY	CLIENT PROJECT #:	20074-515-011-	CLIENT P.O.#:															
SAMPLE IDENTIFICATION	DATE/TIME SAMPLED	COMPOSITE	GRAB	WATER	SOIL	OTHER	LAB ID	# OF CONTAINERS	REQUESTED ANALYSES										COMMENTS
									OSHA method 1007										
CT1-1	1-30-01'						01	1	<input checked="" type="checkbox"/>										Volume = 93,760.05 cc's
CT1-2	/						02	1	<input type="checkbox"/>										1
CT2-1	/						03	1	<input type="checkbox"/>										Volume = 43,548 cc's
CT2-2	/						04	1	<input type="checkbox"/>										1
CT3-1	/						05	1	<input type="checkbox"/>										Volume = 58,831.5 cc's
CT3-2	/						06	1	<input type="checkbox"/>										1
	/																		
	/																		
	/																		
	/																		
	/																		
TSF#	RELINQUISHED BY	DATE/TIME		ACCEPTED BY		DATE/TIME		ADDITIONAL REMARKS:										COOLER TEMP:	
1		1/30/01 1800		FedEx		/												AMBIENT	
2		/				1/31/01 0900												COOLER TEMP:	
3		/				/												AMBIENT	

CHAIN-OF-CUSTODY RECORDPage 1 of 2

REPORT TO				INVOICE TO				LAB PROJECT #:	
COMPANY	ROY F. WESTON	PHONE	716-621-3777	COMPANY	ROY F. WESTON, INC.	PHONE	603-656-5401		
NAME	BILL SCHMITT	FAX	716-621-2227	NAME	CHRIS KANE	FAX	603-656-5501	TURNAROUND TIME:	
ADDRESS	500 CENTER PLACE DRIVE	ADDRESS	1 WALL ST					80256	
CITY/ST/ZIP	ROCHESTER, NY 14615	CITY/ST/ZIP	MANCHESTER, NH 03101					5-DAY	
CLIENT PROJECT NAME:	AFB PLANT 51	CLIENT PROJECT #:	20074-515-01-900	CLIENT P.O.#:	REQUESTED ANALYSES				
GREECE, NY					X	X	X	X	COMMENTS
SAMPLE IDENTIFICATION	DATE/TIME SAMPLED	COMPOSITE	GRAB	WATER	SOIL	OTHER	LAB ID	# OF CONTAINERS	* MITKEM ID
CLEAN FILL - 04	2/7/01 14:36	/	/	/	04	2	/	/	01
CLEAN FILL - 05	2/7/01 14:39	/	/	/	05	2	/	/	02
CLEAN FILL - 06	2/7/01 14:40	/	/	/	06	2	/	/	03
CLEAN FILL - 07	2/7/01 14:41	/	/	/	07	2	/	/	04
CLEAN FILL - 08	2/7/01 14:53	/	/	/	08	2	/	/	05
CLEAN FILL - 09	2/7/01 14:54	/	/	/	09	2	/	/	06
CLEAN FILL - 10	2/7/01 14:59	/	/	/	10	2	/	/	07
CLEAN FILL - 11	2/7/01 15:00	/	/	/	11	2	/	/	08
CLEAN FILL - 12	2/7/01 15:07	/	/	/	12	2	/	/	09
CLEAN FILL - 13	2/7/01 15:10	/	/	/	13	2	/	/	10
CLEAN FILL - 14	2/7/01 15:15	/	/	/	14	2	/	/	11
CLEAN FILL - 15	2/7/01 15:19	/	/	/	15	2	/	/	12
TS#	RELINQUISHED BY	DATE/TIME		ACCEPTED BY		DATE/TIME		ADDITIONAL REMARKS:	
1	Colin J. Schmitt	2/7/01 16:50		A. Kane		2/8/01 9:00		SAMPLES WERE COLLECTED AND HELD COOL SINCE 2/07/01.	
2		/				/		INCLUDE CYANIDE ANALYSES WITH NESTLIS	
3		/				/		4°C	

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## CHAIN-OF-CUSTODY RECORD

Page 2 of 2

REPORT TO		INVOICE TO		LAB PROJECT #:						
COMPANY	ROY F. WESTON, INC.	COMPANY	ROY F. WESTON, INC.	603-656-5428						
NAME	BILL SCHMITT	NAME	CHRIS KANE	FAX 603-656-5501						
ADDRESS	500 CENTER PLACE DRIVE	ADDRESS	1 WALL ST.	TURNAROUND TIME:						
CITY/ST/ZIP	ROCHESTER, NY 14615	CITY/ST/ZIP	MANCHESTER, NH 03101	5-DAY						
CLIENT PROJECT NAME: AFB PLANT 51 GREECE, NY	CLIENT PROJECT #: 20074-S15-011-700	CLIENT P.O. #:	REQUESTED ANALYSES							
SAMPLE IDENTIFICATION	DATE/TIME SAMPLED	COMPOSITE:	GRAB	WATER	SOIL	OTHER	LAB ID	# OF CONTAINERS		COMMENTS
CLEAN FILL-16	2/7/01 15:20		✓	✓			16	2	✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓	13
CLEAN FILL-17	2/7/01 16:01		✓	✓			17	2	✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓	
TEMP BLANK	2/7/01		✓					1	✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓	✓
TSEN#	RELINQUISHED BY	DATE/TIME	ACCEPTED BY		DATE/TIME	ADDITIONAL REMARKS:		COOLER TEMP:		
1	Edwin J. Genton	2/7/01 16:50	Stu Leadlehr		2/8/01 9:10	SAMPLES WERE COLLECTED AND HELD COOL SINCE 2/07/01		4°C		
2.		/			/					
3		/			/	# INCLUDE CRANIDE ANALYSES WITH METALS				

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CHAIN-OF-CUSTODY RECORDPage 1 of 1

REPORT TO		INVOICE TO				LAB PROJECT #:  <i>80267</i>	TURNAROUND TIME:  <i>3-DAY</i>			
COMPANY	ROY F. WESTON, INC	PHONE	603-656-5428	COMPANY	SAME —			PHONE		
NAME	CHRIS KANE	FAX	603-656-5501	NAME				FAX		
ADDRESS	WALL ST.	ADDRESS		CITY/ST/ZIP	MANCHESTER, NH 13101					
CLIENT PROJECT NAME: AFB PLANT 51 GREECE, NY	CLIENT PROJECT #:	CLIENT P.O.#:	REQUESTED ANALYSES							
SAMPLE IDENTIFICATION	DATE/TIME SAMPLED	COMPOSITE	GRAB	WATER	SOIL	OTHER	LAB ID	# OF CONTAINERS	Comments	
CLEAN FILL - 17	2/8/01 1300		✓		✓		01	17	2	<i>VOC 8260 B</i>
CLEAN FILL - 18	2/8/01 1300		✓		✓		02	18	2	<i>SVOC 8270 C</i>
TEMP BLANK	2/8/01			✓					1	<i>PBT 8081</i>
										<i>PCB 8082</i>
										<i>TOTAL METALS 8010</i>
										<i>(* CYANIDE)</i>
										<i>TEMPERATURE</i>
TSF#	RELINQUISHED BY	DATE/TIME	ACCEPTED BY				DATE/TIME	ADDITIONAL REMARKS:		COOLER TEMP.
1	JIM WALLIS	2/8/01 1600	<i>John Wallis</i>				2/9/01 0900	<i>Samples were collected and held cool since 2/8/01</i>		4°C
2		/					/			6°C
3		/					/	<i>* INCLUDE CYANIDE ANALYSES WITH METALS</i>		

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CHAIN-OF-CUSTODY RECORDPage 1 of 1

REPORT TO		INVOICE TO		LAB PROJECT #:  80300
COMPANY Rory F. Weston Inc.	PHONE 603-656-5428	COMPANY Rory F. Weston Inc.	PHONE 603-656-5428	
NAME Chris Kane	FAX 603-656-5501	NAME Chris Kane	FAX 603-656-5501	
ADDRESS 1 Wall Street		ADDRESS 1 Wall Street		TURNAROUND TIME:
CITY/ST/ZIP Manchester NH 03101		CITY/ST/ZIP Manchester NH 03101		

SAMPLE IDENTIFICATION	DATE/TIME SAMPLED	COMPOSITE	GRAB	WATER	SOIL	OTHER	LAB ID	# OF CONTAINERS	REQUESTED ANALYSES							COMMENTS
									VOC gdt	SULF gdt	TOTAL METALS VDT/FN/NO	PBT/6022	PBT/6022	Crude 9113		
4FB51-01-SB-1-5(0-3") 9/13/01 5:25	✓		✓				01	2	✓	✓	✓	✓	✓			
4FB51-01-SB-2-5(0-3") 9/13/01 5:40		1		1			02	1								
4FB51-01-SB-3-5(0-3") 9/13/01 5:45							03	1								
4FB51-01-SB-4-5(0-3") 9/13/01 5:55							04	1								
4FB51-01-SB-5-5(0-3") 9/13/01 6:10							05	1								
4FB51-01-SB-NS-1(0-3") 9/13/01 6:20							06	1								
4FB51-01-SB-SS-1(0-3") 9/13/01 6:25							07	1								
4FB51-01-SB-ES-1(0-3") 9/13/01 6:50							08	1								
4FB51-01-SB-WS-1(0-3") 9/13/01 6:50							09	1								
4FB51-01-SB-m-5(0-3") 9/13/01 7:50							10	1								
4FB51-01-SB-D-5(0-3") 9/13/01 7:50	✓		✓				11	1	✓	✓	✓	✓	✓	✓	✓	

S#	RELINQUISHED BY	DATE/TIME	ACCEPTED BY	DATE/TIME	ADDITIONAL REMARKS:	COOLER TEMP:
1	<u>ATCB</u>	9/13/01 10:40	<u>FedEx</u>	/	Analyze Per QA Plan As reviewed by Paul Sengenier Temp Blank	66
2		/	<u>J. Johnson</u>	9/14/01 0500		
3		/		/		

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Page 1 of 1