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ACTION, ABERDEEN PROVING GROUND, MARYLAND

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**ABSTRACT:** This technical report details the removal action at the Adamsite Storage Vaults, performed by Foster Wheeler Environmental Corporation. The goal of the removal action was to: 1) remove elevated radiologically contaminated soil, 2) removal and dispose of the liquid and sediment from the vaults, 3) remove and recycle the structural steel, 4) remove and place concrete walls inside of the vaults, 5) fill the vaults with low-strength concrete, and 6) grade the site with stone. The goal of the removal action was accomplished.



US Army Corps  
of Engineers  
Baltimore District

# ENVIRONMENTAL REMEDiation RESIDENT OFFICE

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## FINAL TECHNICAL REPORT for the ADAMSITE STORAGE VAULTS REMOVAL ACTION

ABERDEEN PROVING GROUND, MD  
EDGEWOOD AREA

(w/o Appendices)

Contract No. DACA31-94-D-0020  
Delivery Order No. 3, Site 3

January 1997



**FOSTER WHEELER ENVIRONMENTAL CORPORATION**

*A Division of* FOSTER WHEELER USA CORPORATION

P. O. Box 104 • Aberdeen Proving Ground • MD • 21010-0104

(410) 671-6015

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Edgewood Area

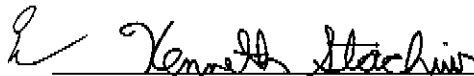
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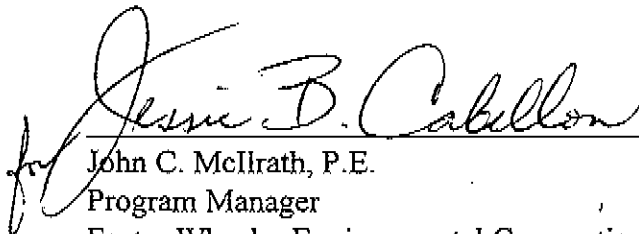
Robert P. Rizzieri, M.S., P.E.  
Resident Engineer and Administrative Contracting Officer  
Environmental Remediation Resident Office

2/7/97  
Date



Kenneth Stachiw  
Chief, Environmental Conservation and Restoration Division  
Directorate of Safety, Health & Environment

2/13/97  
Date



John C. McIlrath, P.E.  
Program Manager  
Foster Wheeler Environmental Corporation

1-23-97  
Date



Timothy Reese, P.E.  
Project Manager  
Foster Wheeler Environmental Corporation

1-23-97  
Date

The views, opinions, and/or findings contained in this report are those of the author(s) and should not be construed as an official Department of the Army position, policy, or decision, unless so designated by other documentation.

# TABLE OF CONTENTS

EXECUTIVE SUMMARY .....	ES-1
1.0 INTRODUCTION .....	1-1
1.1 Site History .....	1-1
1.2 Previous Investigations .....	1-4
1.3 Removal Action Summary .....	1-6
2.0 REMOVAL ACTION FIELD PROGRAM .....	2-1
2.1 Radiological Assessment of the Adamsite Storage Vaults .....	2-1
2.1.1 Removal of Radiological Soil at R-1 and R-2 .....	2-1
2.2 Mobilization and Site Preparation for Removal Action .....	2-2
2.3 Removal of Existing Water and Sediment from the Vaults .....	2-2
2.4 Removal of Existing Roof Panels, Structural Steel, and Concrete .....	2-2
2.5 Backfill Vaults .....	2-3
2.6 Demobilization .....	2-3
3.0 ANALYTICAL RESULTS .....	3-1
4.0 CHRONOLOGICAL SUMMARY .....	4-1
5.0 CONCLUSIONS .....	5-1
6.0 REFERENCES .....	6-1

## LIST OF TABLES

Table 2-1	Disposed Material from the Adamsite Storage Vaults .....	2-3
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## LIST OF FIGURES

Figure 1-1	Site Location Map .....	1-2
Figure 1-2	Site Layout Map .....	1-3
Figure 1-3	Sketch of Adamsite Vaults .....	1-5

**TABLE OF CONTENTS**  
**(Continued)**

**APPENDICES**

(Appendices are included under a separate cover. Appendices can be obtained by contacting the Directorate of Safety, Health & Environment at 410-671-3320)

- Appendix A: Additional Removal/Remediation Actions
- Appendix B: General Physics Analytical Results
- Appendix C: WESTON Analytical Results
- Appendix D: FWENC Radiological Assessment
- Appendix E: Meeting Minutes
- Appendix F: Permits - Excavation
- Appendix G: Manifests
- Appendix H: Daily Construction Quality Control Reports
- Appendix I: DAAMS Tubes Results

## ACRONYMS AND ABBREVIATIONS

APG	Aberdeen Proving Ground
CRDEC	Chemical Research, Development, and Engineering Center
CLSM	Controlled Low Strength Material
CN	Chloracetophenone
CWM	Chemical Warfare Material
DAAMS	Depot Area Air Monitoring System
DRMO	Defense Reutilization and Marketing Office
DSHE	Directorate of Safety, Health & Environment
ERDEC	Edgewood Research, Development, and Engineering Center
ERRO	Environmental Remediation Resident Office
FWENC	Foster Wheeler Environmental Corporation
GP	General Physics
HFA	Human Factors Applications, Inc.
QC	Quality Control
ur/hr	Micro Roentgen/hour
NE	northeast
NRC	Nuclear Regulatory Commission
PCB	Polychlorinated Biphenyl
PPE	Personal Protective Equipment
PCM	Potentially Contaminated Material
ppm	parts per million
RCRA	Resource Conservation and Recovery Act
RFA	RCRA Facility Assessment
SSHO	Site Safety and Health Officer
SW	southwest
TAL/TCL	Target Analyte List/Target Compound List
TCLP	Toxicity Characteristic Leaching Procedure
USACE	U.S. Army Corps of Engineers
UXO	Unexploded Ordnance



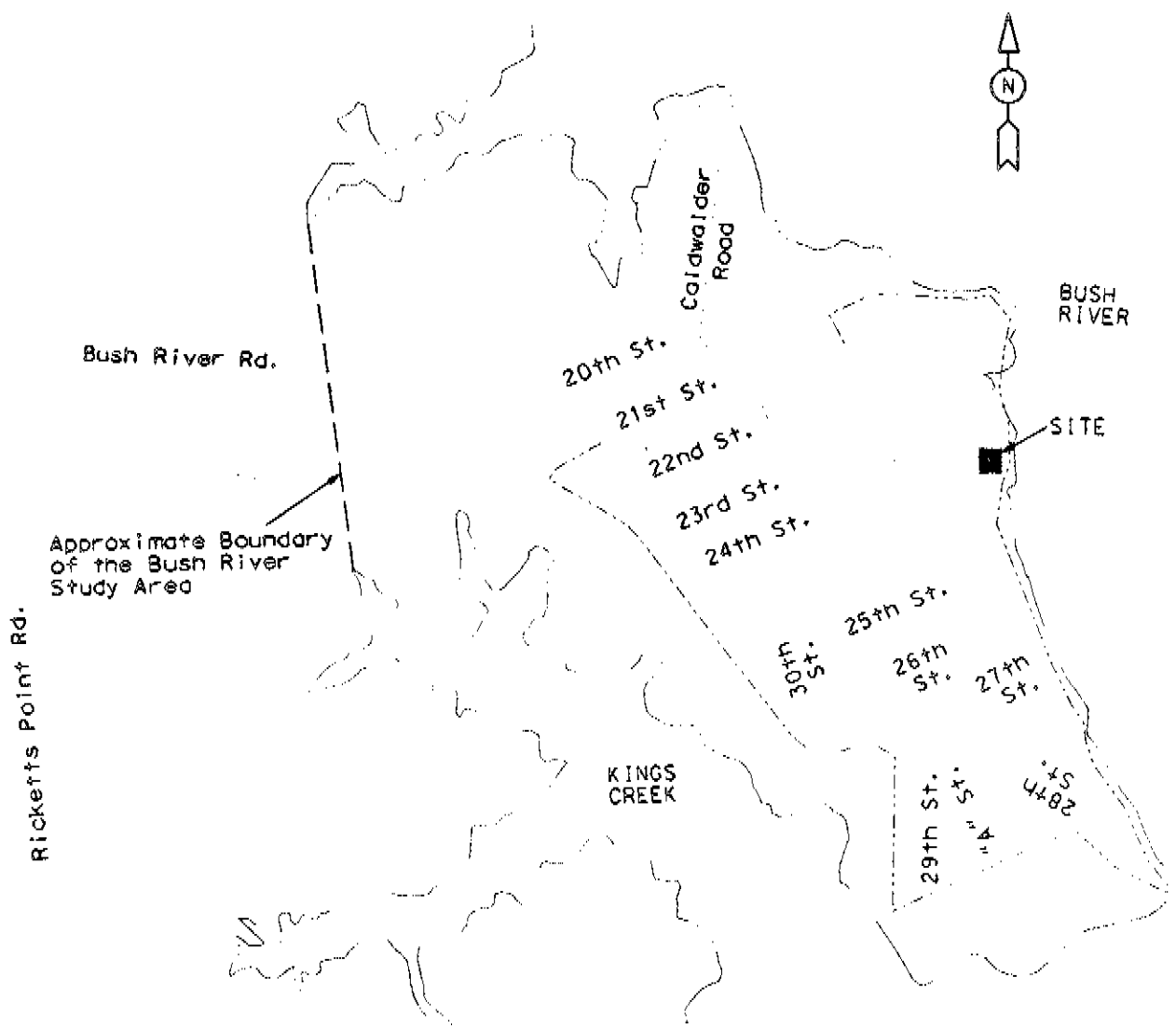
## EXECUTIVE SUMMARY


This technical report discusses the removal action conducted under the Installation Restoration Program at the Adamsite Storage Vaults, Building E2370. The objective of this removal action was to mitigate the imminent threats to human health and the environment at the Adamsite Vaults by removing the radiologically contaminated soil, removing the vault contents, and closure of the vaults. This removal action was performed between July 1995 and September 1996.

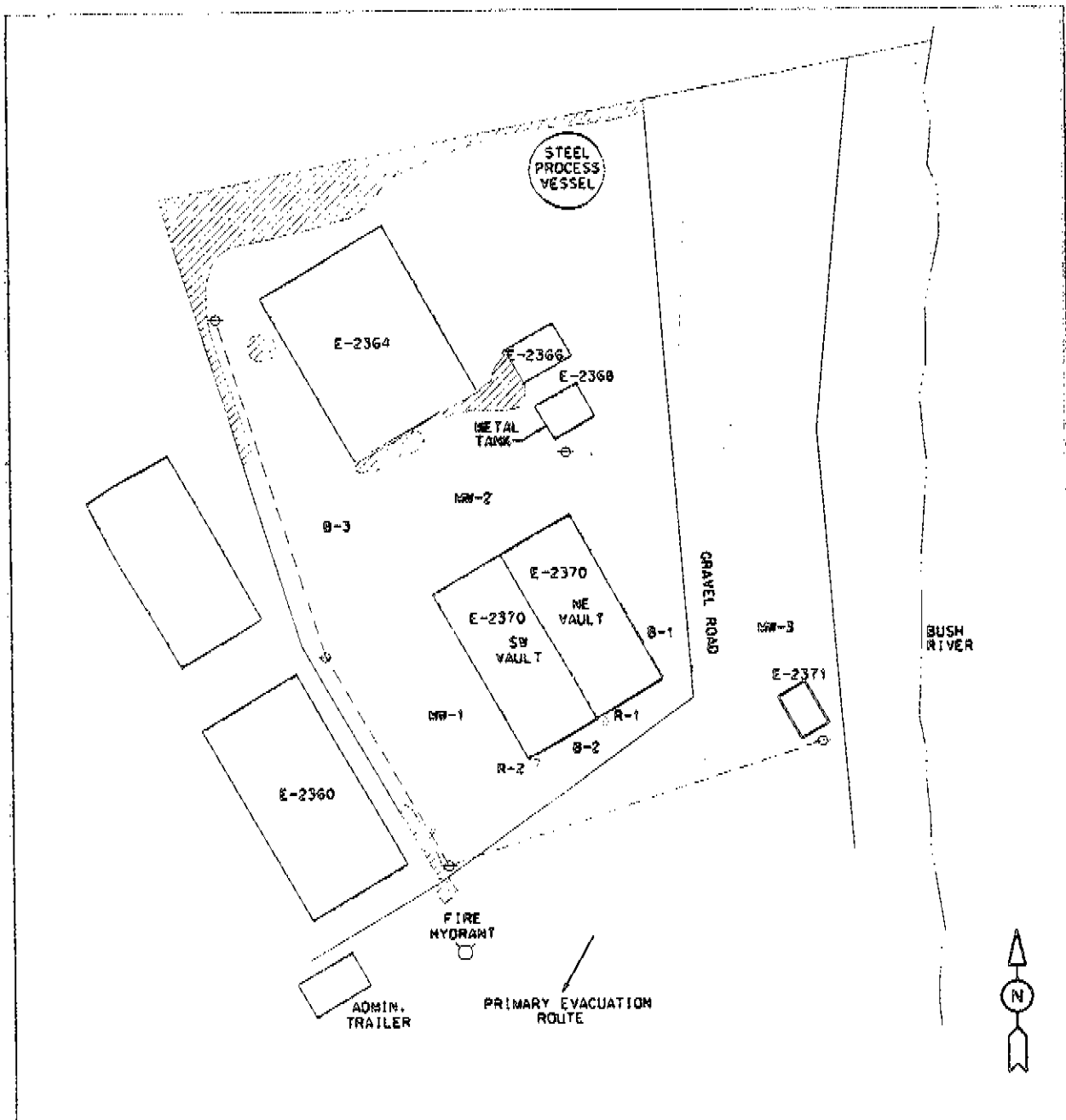
The Adamsite Storage Vaults Removal Action consisted of: 1) chemical characterization and structural investigation of the vaults and the area (completed by prior contractors); 2) a radiological assessment of the area; 3) removal of elevated radiological contaminated soil; 4) removal of material from two storage vaults (northeast and southwest); 5) removal of an existing building structure; and 6) backfill of the storage vaults with Controlled Low Strength Material (CLSM).

As part of the removal action process, a preliminary site investigation was conducted by U. S. Army Corps of Engineers, Baltimore District in 1976, which included soil borings around the building for arsenic. The results indicated arsenic concentrations up to 65 parts per million (ppm). In May, 1992, General Physics (GP) sampled the sediment and water in the northeast vault and found several chemicals present in the sediment including arsenic (1,370 ppm), lead (25,000 ppm), copper (411 ppm), chromium (183 ppm), barium (573 ppm), and cyanide (12 ppm). In August 1993, WESTON performed a field investigation of the Adamsite Vaults and found surface contamination of polychlorinated biphenyls (PCBs), arsenic, mercury, and beryllium. Groundwater samples indicated the presence of chloroform, 1,1,2,2-tetrachloroethane, tetrachloroethane, trichloroethane, beryllium, and 1,1,2-trichloroethane. In August 1995, Foster Wheeler Environmental conducted a radiological assessment of the site and found surface contamination. A detailed discussion of all previous sampling results is included in Section 1.2, Previous Investigations. Appendix A presents information about additional removal/remediation actions in the Bush River Study Area.

In summary, to mitigate the imminent threat to human health and the environment, the radiologically contaminated soil, the vault roof structure, and the vault contents were removed and disposed. The vaults were backfilled with CLSM and covered with crushed stone to grade. The goal of the Adamsite Storage Vaults Removal Action was accomplished.




CLIENT U.S. ARMY CORP. OF ENGINEERS BALTIMORE DISTRICT					
 FOSTER WHEELER ENVIRONMENTAL CORPORATION <small>DATE: 10/24/1996</small> PROJECT NAME:					
ABERDEEN PROVING GROUND, MARYLAND, EDGEWOOD AREA ADAMSITE STORAGE VAULTS REMOVAL ACTION					
SITE LOCATION					
DESIGN	DESIGNED	PREPARED	CHECKED	APPROVED	DATE
SCALE:	DRAWING NUMBER:			DWG. NO.	REV.
1" = 100'	FIGURE 1-1				



**LEGEND**

- ⊕ 4" MONITORING WELL
- SOIL BORING LOCATION
- ⊕ POWER POLE
- RADIOLOGICAL CONTAMINATION
- R1 AND R2 (RADIOLOGICAL CONTAMINATED SOIL REMOVED)

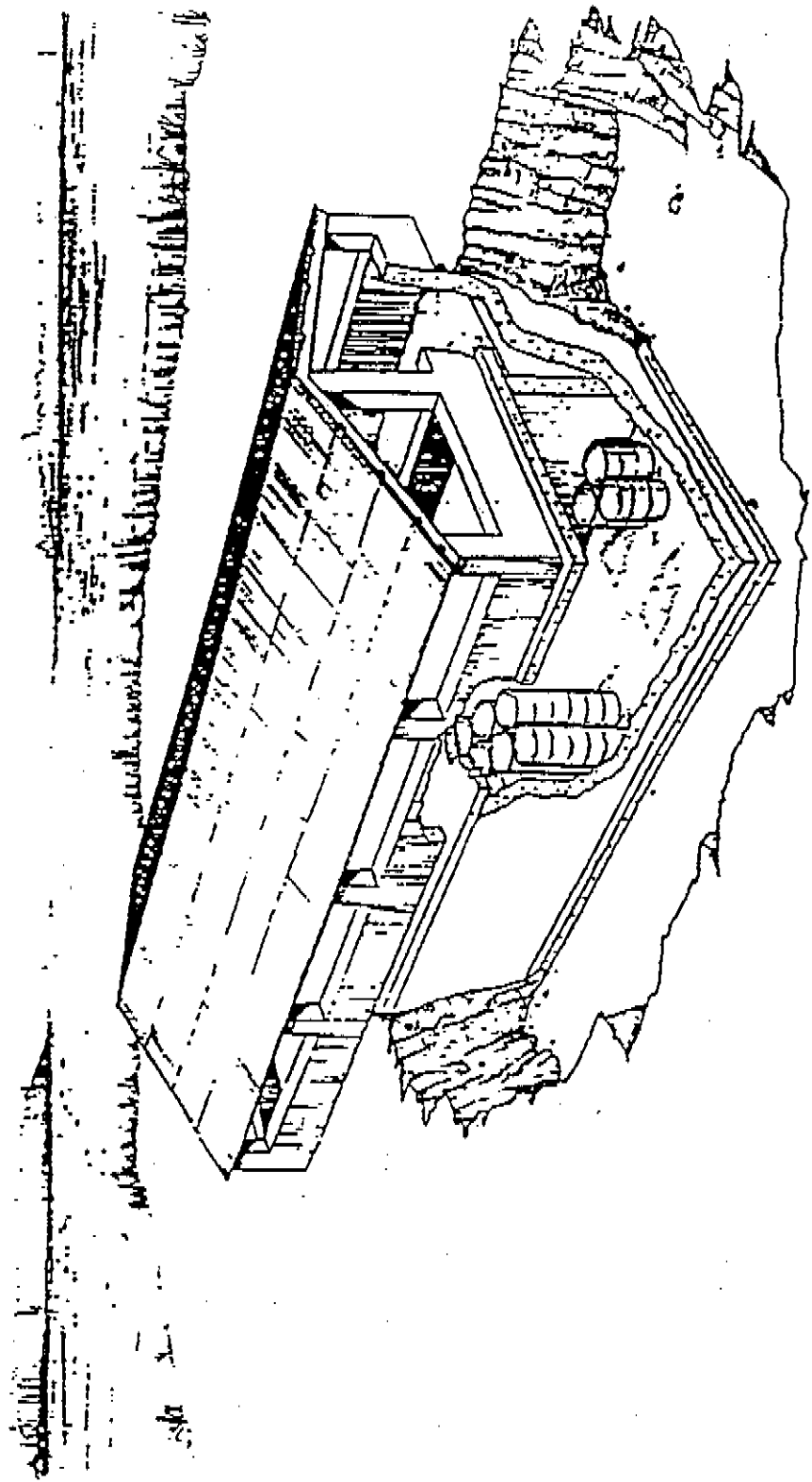
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 FOSTER WHEELER ENVIRONMENTAL CORPORATION <small>SIX RIDGE TERRACE</small>		
<small>PROJECT NAME:</small> ABERDEEN PROVING GROUND, MARYLAND, EDGEWOOD AREA ADAMSITE STORAGE VAULTS REMOVAL ACTION		
SITE LAYOUT MAP		
<small>SCALE:</small> 1"=50'	<small>DRAWING NUMBER:</small> FIGURE 1-2	<small>NO. OF REV.</small>

In 1960, the southwest vault was used to store Adamsite (DM, diphenyl cyanoarsine) prior to disposal. Adamsite is a vomiting agent. More than 700 55-gallon drums were placed into the vault in two layers and surrounded with sand. A concrete pad formed a ceiling over the drums 1 foot thick at ground level. According to the RFA report, the drums of DM were removed in 1983; the bulk of the sand and concrete cap were also removed off-site for disposal. The RFA also states that one of the recovered drums contained chloroacetophenone (CN), a lachrymator and an active ingredient in the riot control gas mace. CN may have been stored in or around the facility. Reports that the northeast vault was used for storing wastewater from a nearby shower house for personnel engaged in radioactive waste disposal have been recorded, but are unsubstantiated. Sediment was removed from the southwest vault in the late 1980s by Chemical Waste Management under contract with DSHE. There has been no use of the building since 1983. An artist's sketch of the facility is included as Figure 1-3.

## 1.2 Previous Investigations

A preliminary investigation of Building E-2370 by USACE, Baltimore District was conducted in 1976 as part of the removal action process of the building (Technical Report ARSCL-TR-77050, June 1977). The investigation included taking 15 soil borings to a depth of 12 feet in the vicinity of the structure to determine if contamination from the vaults was entering the surrounding area. The soil samples were sampled for arsenic, a decomposition product of DM. Soil samples from the borings showed arsenic concentrations ranging from 30 to 65 parts per million (ppm). Arsenic was the only parameter analyzed at the time. The Chemical Research, Development, and Engineering Center (CRDEC) performed a recovery operation in 1983. During the recovery operation, water and concrete from the vaults were temporarily placed in the southeastern side of the vaults.

In 1990, Chemical Waste Management was contracted to remove the sand and concrete located in the southeastern side of the vault facility, which remained from the drum removal. In May 1992, General Physics (GP), under contract to DSHE, sampled the sediment and water in the NE vault. One sample each of water and sediment was collected and analyzed for Target Analyte List/Target Compound List (TAL/TCL) parameters and gross alpha and gross beta contamination. The GP analytical report dated 11 June 1992 indicated that several chemicals such as arsenic, lead, copper, chromium, barium and cyanide were present in the water and sediment samples collected from the NE vault. The GP Report is included as Appendix B.



Source: Baltimore District USACE Technical Report, ARCST-TR-77050, June 1977

FIGURE 1-3 ARTIST'S SKETCH OF ADAMSITE VAULTS

In July and August 1993, WESTON conducted field investigation activities in and around the Adamsite Vaults. Samples were taken of sediments and water remaining in the vaults (for additional characterization purposes), soils surrounding the vaults, groundwater samples with depths, and the vault concrete. WESTON obtained one water sample and two sediment samples from the NE vault; two sediment samples from the SW vault; and concrete samples at two discrete intervals at two locations in each vault. Samples retrieved from soil borings up to 12-feet in depth around the vaults revealed contamination of polychlorinated biphenyls (PCBs), arsenic, mercury, and beryllium at the surface. Groundwater samples indicated the presence of chloroform, 1,1,2,2-tetrachloroethane, tetrachloroethane, trichloroethane, beryllium, and 1,1,2-trichloroethane. All of these samples were analyzed for Toxicity Characteristic Leaching Procedure (TCLP) parameters and radionuclides and were determined to be nonhazardous waste. Appendix C provides a Summary of Results From the Preliminary Field Investigation Report; Sampling of the Adamsite Storage Vaults at Edgewood Area, WESTON, 22 October 1993.

A radiological assessment of the site was completed in August 1995 by Foster Wheeler Environmental Corporation, prior to the implementation of the removal action at the Adamsite Storage Vaults. The purpose of the assessment was to determine the radiological condition of the soil at the Adamsite Storage Vaults and determine if soil remediation was required. The elements of the radiological assessment included establishment of sampling grids at the site, determination of background levels, a walkover gamma survey, and the collection and analysis of soil samples. It was determined that radiologically contaminated soil would have to be removed from two locations (R-1 and R-2) near the Adamsite Vaults before the removal action could commence. Additional areas were also identified as radiologically contaminated but were not in the immediate vicinity of the removal action. The total excavated area was less than 20 ft<sup>2</sup> and the total volume of excavation was less than 1yd<sup>3</sup>. Results of the Radiological Assessment are included as Appendix D.

### 1.3 Removal Action Summary

Based on the previous investigations, the removal action was conducted as follows:

- Removal of Soil at R-1 and R-2
- Mobilization and Site Preparation
- Removal of Existing Water and Sediment from the Vaults
- Removal of Existing Roof Panels, Structural Steel, and Concrete
- Backfill Vaults
- Demobilization

This removal action was performed in accordance with the following documents:

- Removal Actions for the Adamsite Storage Vaults at Edgewood Area, Aberdeen Proving Ground, Maryland, Work Plan. WESTON. 17 February 1994.
- Radiological Assessment of the Adamsite Storage Vaults at Edgewood Area, Aberdeen Proving Ground, Maryland. Foster Wheeler Environmental Corporation. August 1995 (Appendix D).
- Addendum #1 to the WESTON 17 February 94 Work Plan "Removal Actions for the Adamsite Storage Vaults at Edgewood Area, Aberdeen Proving Ground, Maryland". Foster Wheeler Environmental Corporation. February 1996.
- Attachments to Addendum #1 Removal Actions for the Adamsite Storage Vaults at Edgewood Area, Aberdeen Proving Ground, Maryland. Foster Wheeler Environmental Corporation. February 1996.

## **2.0 REMOVAL ACTION FIELD PROGRAM**

### **2.1 Radiological Assessment of the Adamsite Storage Vaults**

A radiological assessment of the site was completed in August 1995 by Foster Wheeler Environmental Corporation, prior to the implementation of the removal action at the Adamsite Storage Vaults. The purpose of the assessment was to determine the radiological condition of the soil at the Adamsite Storage Vaults and determine if soil remediation was required.

A Radiological Sampling Plan was prepared for the Radiological Assessment of the Adamsite Storage Vaults. The plan was patterned after the June 1992 Nuclear Regulatory Commission (NRC) Regulation NUREG/CR 5849, "Manual for Conducting Radiological Surveys in Support of Licence Termination" for a termination survey of soils. Radiological remediation was required prior to initiating removal actions at the Adamsite Storage Vaults. The Radiological Sampling Plan and associated Health and Safety Plan were approved in July 1995.

Following approval of the Radiological Sampling Plan with Health and Safety Plan, FWENC went onsite to conduct a radiological assessment of the site to determine if remediation was required and to document the compliance with the release criteria if remediation was not required. Results of this assessment are included in Appendix D, "Radiological Assessment of the Adamsite Storage Vaults Aberdeen Proving Ground, Maryland."

#### **2.1.1 Removal of Radiological Soil at R-1 and R-2**

Based on the results of the August 1995 Radiological Assessment of the Adamsite Storage Vaults, Appendix D, the areas designated as R-1 and R-2 required remediation prior to removal actions at the Adamsite Vaults because of elevated levels of radioactive contamination. An Unexploded Ordnance (UXO) clearance was performed to a depth of 2 feet prior to soil removal. Soil was then removed to a depth (approximately 8 inches) where radiological field instrumentation readings were below twice background (approx. 20 micro Roentgen/hour) using a Ludlum Gamma meter. The boundary of the soil excavations was designated by the survey completed in August 1995 and detailed in Appendix D. The soil was scanned by a Radiation Protection Technician to ensure that detection was below 2 times background levels. Excavated soil was placed in six 5-gallon pails and transported to the Radiological Storage Yard which is located adjacent to the Adamsite Storage Vault area, for disposal with the 26th Street waste. The soil was emptied from the 5-gallon pails to a B-25 metal container. Radiological waste will be disposed of at Envirocare of Utah, Inc. in Clive, Utah.



## **2.2 Mobilization and Site Preparation for Removal Action**

A coordination meeting for the field activities was conducted on July 19, 1996. Minutes of that meeting are found in Appendix E. Mobilization activities were conducted on July 24, 1996. These activities consisted of mobilizing equipment to the site; identifying the site hazards; delineating work zones; constructing decontamination areas; and conducting baseline air monitoring. A utility clearance and a hot work permit were obtained for the site activities. Appendix F includes all copies of permits obtained for site activities.

## **2.3 Removal of Existing Water and Sediment from the Vaults**

Approximately 15,000 gallons of water were pumped out of the vaults by Chemical Waste Management via vacuum trucks and disposed of through DSHE at an off site, permitted industrial wastewater treatment plant. The steel piping and wood from the vaults were placed into nine 4 foot x 4 foot x 4 foot (4'x4'x4') wooden boxes. The 4'x4'x4' wooden boxes were screened for chemical warfare material (CWM) according to Edgewood Research, Development, and Engineering Center (ERDEC)-accepted procedures and sent to the APG Thermal Treatment Facility for disposal. The southwest vault contained very little water and sediment; the northeast vault contained most of the water, sediment, and metal piping. Sediment from the vaults was removed and placed into a 30 cubic yard dumpster for disposal. For waste disposal manifests see Appendix G. For Daily Construction Quality Control Reports see Appendix H.

## **2.4 Removal of Existing Roof Panels, Structural Steel, and Concrete**

Building removal consisted of removing existing roof panels and structural steel and breaking up the concrete vault sidewalls to the appropriate elevation of the existing ground surface. The roof panels and structural steel of the building were removed using a Cat 235C shear and a grappler. The grappler was used to support and remove the roof and structural steel during removal activities.

The concrete sidewalls of the vaults were broken up using the Cat 235 shear and the concrete was placed into the vaults. The vaults were then backfilled with flowable fill, CLSM. The roof panels and structural steel were containerized into 3 dumpsters and transported to the Defense Reutilization and Marketing Office (DRMO) for recycling. 26,160 pounds of steel were removed from the vault area. Material was disposed of as outlined in Table 2-1.

**Table 2-1**  
**Disposed Material from the Adamsite Storage Vaults**

<b>Material</b>	<b>Volume</b>	<b>Disposal Method</b>
Liquid (from NE and SW vaults)	15,000 gallons	Chemical Waste Management- Wastewater Treatment
Potentially Contaminated Material (PCM) (from NE and SW vaults) and Personal Protective Equipment (PPE)	9 boxes (16 Cubic Yard-approx.)	Thermal Treatment
Sediment (from NE and SW vaults)	30 Cubic Yard Dumpster	Chemical Waste Management - Landfill
Radiological Contaminated Soil	10 gallons	Envirocare - Landfill
Scrap Metal	26,160 lbs (25 Cubic Yard)	DRMO - Recycled

## 2.5 Backfill Vaults

The concrete stockpiled around the vaults as well as the concrete vault walls were broken into smaller pieces and backfilled into the vaults. The vaults were then backfilled with flowable fill material having a permeability of  $10^{-3}$  feet/second (ft/sec) to a depth of 12 inches below the existing ground surface. The remainder of the space in the vault was then covered with geotextile membrane and covered with #2 crushed stone to the elevation of the existing ground surface.

## 2.6 Demobilization

After removing the aboveground building structure and securing the vaults, the decontamination and staging areas were dismantled and removed. The perimeter fence that was taken down during the removal action was repaired. The site was regraded to a condition similar to its condition before activities began. Upon completion of site restoration, all equipment, materials, and personnel were demobilized from the site.

### 3.0 ANALYTICAL RESULTS

No additional sampling was conducted during the August 1996 removal action; however, DAAMS tube testing was conducted on the wooden boxes containing piping and wood from the vaults. All nine 4' x 4' x 4' wooden boxes were cleared for chemical agents and disposed of at the APG Thermal Treatment Facility. The DAAMS tubes results are presented in Appendix I.

#### 4.0 CHRONOLOGICAL SUMMARY

This chronological summary provides information concerning the record of events for the removal activities at the Adamsite Storage Vaults. Routine activities were performed on a daily basis including daily health and safety briefings, air and temperature monitoring, and Quality Control (QC) oversight. Although these activities are not included in this chronological summary, they are included in the Daily Construction Quality Control Reports. Work performed, significant activities, and any special concerns are covered in the chronological summary.

Date	Event
22 October 1993	WESTON preliminary field investigation report was completed.
July 1995	Radiological Sampling Plan with Health and Safety Plan was approved.
August 1995	Radiological survey and sampling was completed at Adamsite Storage Vaults.
March 1996	Addendum #1 (Removal Actions for the Adamsite Storage Vaults at Edgewood Area) was approved.
June 1996	Preliminary Assessment Survey was approved for Adamsite Storage Vaults.
19 July 1996	Adamsite Storage Vaults Coordination Meeting was held (see Appendix E for minutes).
22 July 1996	The Site Safety and Health Officer (SSHO) conducted a project health and safety briefing. The SSHO explained how each work activity will be completed in a safe manner, and the monitoring that will be completed during work activities. The SSHO conducted pre-work safety briefings at the beginning of each day. Radiological and caution warning signs were placed in the radiological soil removal areas. Human Factors Applications, Inc. (HFA), the UXO specialists, cleared the radiological soil removal areas (R-1 and R-2) to a 2 foot depth. Radiological soil was then removed to a depth of 8 inches, scanned using a Ludlum Gamma meter, and placed in six 5 gallon pails in accordance with the Work Plan Addendum #1. Soil was then transported to the Radiological Storage Yard for disposal and placed in B25-212649.

- 24 July 1996 Began field mobilization. APG Directorate of Public Works and ERDEC disconnected electrical power lines adjacent to the Adamsite Storage Vaults. A preparatory inspection was performed by the QC Engineer and the USACE representative for the mobilization phase. Initial inspections were performed on heavy equipment that arrived on-site.
- 25 July 1996 Continued mobilization. Initial inspections were performed on additional heavy equipment that arrived on-site. A burn permit was obtained from the APG Fire Department.
- 26 July 1996 Continued mobilization. A decontamination area was constructed at the site. The two storage vaults (southwest and northeast) were measured; it was determined that approximately 18,234 gallons of liquid would be removed by vacuum truck. The SW vault contained 4,208 gallons of liquid and the NE vault contained 14,026 gallons of liquid. A follow-up inspection was conducted for mobilization activities.
- 29 July 1996 Continued mobilization. Chain link fencing, barbed wire, and 7 posts were removed from the site and replaced with snow fencing. Grass around the work area was cut with a weed whacker. A preparatory inspection was conducted for the removal of water from the vaults. Wooden boxes (4'x4'x4') were staged at the site.
- 30 July 1996 Three vacuum tanker trucks were utilized to remove liquid from both the NE and SW storage vaults. The estimated volume of disposed liquid was 15,900 gallons. A preparatory inspection was performed on the sediment removal actions. Sediment and debris removal in the SW vault was performed in accordance with the Work Plan Section 2.2.3.
- 31 July 1996 Sediment and wood located inside the SW vault was removed and staged for disposal. Rubble located outside of the Adamsite Storage Vaults was then placed inside the SW vault and metal was placed into 4'x4'x4' wooden boxes. A preparatory inspection was completed for the removal of existing roof panels, structural steel, and concrete. PCM located in one corner of the NE vault was removed and staged in order to gain access to the structural steel associated with the building roof. Laborers then began to cut and place structural steel into a dumpster.

- 1 August 1996 Structural steel from the roofing structure was removed and placed into rolloff dumpsters. Two dumpsters filled with steel were transported to DRMO by Bel Air Trash for recycling. Metal piping and PCM from the NE vault was removed, cut, and placed in 4'x4'x4' wooden boxes.
- 2 August 1996 The remaining steel from the roof structure was removed and placed into a rolloff dumpster. A preparatory inspection of the removal of the vault walls was conducted. The walls of the SW vault were dismantled and placed into the vault. Wood and tin roofing panels located inside the SW vault were cut and placed into 4'x4'x4' wooden boxes.
- 5 August 1996 The remaining SW vault walls were broken up and placed inside the vault. The vault was then backfilled with 205 yd<sup>3</sup> flowable fill following a preparatory inspection. The backfilled vault was secured with snow fencing and warning signs. Metal and sediment in the NE vault were removed and placed into a 4'x4'x4' wooden box. A dumpster of steel was sent to DRMO for recycling.
- 6 August 1996 Seventy six (76) additional yd<sup>3</sup> of flowable fill were backfilled into the SW vault for a total of 281 yd<sup>3</sup>. Several inches of flowable fill were removed from the SW vault and placed in the NE vault to allow crushed stone to be placed on top of the fill material. Snow fencing was placed around the backfilled SW vault. Sediment and metal in the NE vault was removed and placed into a 30-yd<sup>3</sup> dumpster.
- 7 August 1996 Laborers continued to remove several inches of flowable fill from the SW vault to bring the depth of the vault to 6 - 12 inches below grade. Concrete reduction of the NE vault walls was conducted in accordance with the Work Plan Sections 2.2.5.1/2.2.6. The concrete was then placed inside the NE vault. Two concrete tank saddles located near the vaults were also placed inside the NE vault. A headspace analysis of the five 4'x4'x4' wooden boxes of metal piping was conducted by ERDEC. Fencing posts located at the site were repaired.

- 8 August 1996 Laborers continued the removal of several inches of flowable fill to bring the depth of the vault to 6 - 12 inches below grade. A geotextile membrane was placed on top of the flowable fill after the depth of the vault was brought to 6 to 12 inches below grade. Twelve inches of crushed stone were then placed on top of the fill material. Personnel continued concrete reduction of the walls of the NE vault, as well as the center wall between the two vaults. The concrete was placed into the NE vault. The two tank saddles that were placed into the NE vault were frisked and cleared for elevated readings of alpha, beta, and gamma radiation.
- 9 August 1996 Personnel backfilled the northeast vault with 202 yards of flowable fill. The vault was filled to approximately 12 inches below grade level.
- 12 August 1996 Personnel placed geotextile membrane on top of the hardened flowable fill and backfilled the NE vault with 126 tons of crushed stone. Damage to the access road leading to the site was repaired. The SSHO conducted a health and safety briefing and conducted daily monitoring activities.
- 13 August 1996 Site demobilization began with the removal of temporary barriers and general site cleanup.
- 14 August 1996 Continued demobilization of Adamsite Storage Vaults. Laborers began repairing and reinstalling the fence around the site. A 30-yd<sup>3</sup> dumpster of sediment and wooden boxes were disposed of by Chemical Waste Management. ERDEC disposed of four 4'x4'x4' wooden boxes filled with metal piping.
- 15 August 1996 Completed demobilization of Adamsite Storage Vaults. Replacement of fencing around the site continued, the crushed stone on both vaults were brought to grade using a tire loader, and wood from the vaults were repacked into 4'x4'x4' wooden boxes. Support equipment was removed from the site.
- 21 August 1996 The final inspection checklist was conducted. The stone was leveled and the 4'x4'x4' wooden boxes were picked up for disposal by ERDEC.
- 17 Sept. 1996 The final three 4'x4'x4' wooden boxes containing metal and wood were screened for CWM by ERDEC, cleared (see Appendix I), and picked up for disposal by ERDEC. The final inspection checklist was completed.
- 20 Sept. 1996 The final QC Daily Report was submitted.

## 5.0 CONCLUSIONS

The goal of the Adamsite Storage Vaults removal action (removing the elevated radiologically contaminated soil, removing and disposing of the liquid and sediment from the vaults, removing and recycling the structural steel, removing and placing the concrete inside the vaults, filling the vaults to grade with CLSM, and grading the site with stone) was accomplished.



## 6.0 REFERENCES

WESTON. October 1991. Preliminary Assessment Screening Study of Building E-2370 Adamsite Storage Vaults at Edgewood Area, Aberdeen Proving Ground, Maryland.

WESTON. 17 February 1994. Removal Actions for the Adamsite Storage Vaults at Edgewood Area, Aberdeen Proving Ground, Maryland. Work Plan.

Foster Wheeler Environmental Corporation. July 1995. Radiological Sampling Plan with Health and Safety Plan for the Adamsite Storage Vaults Removal Action at Edgewood Area, Aberdeen Proving Ground, Maryland.

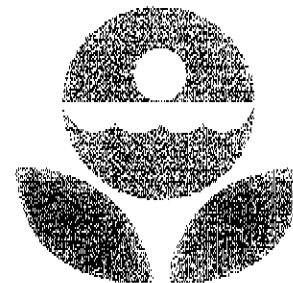
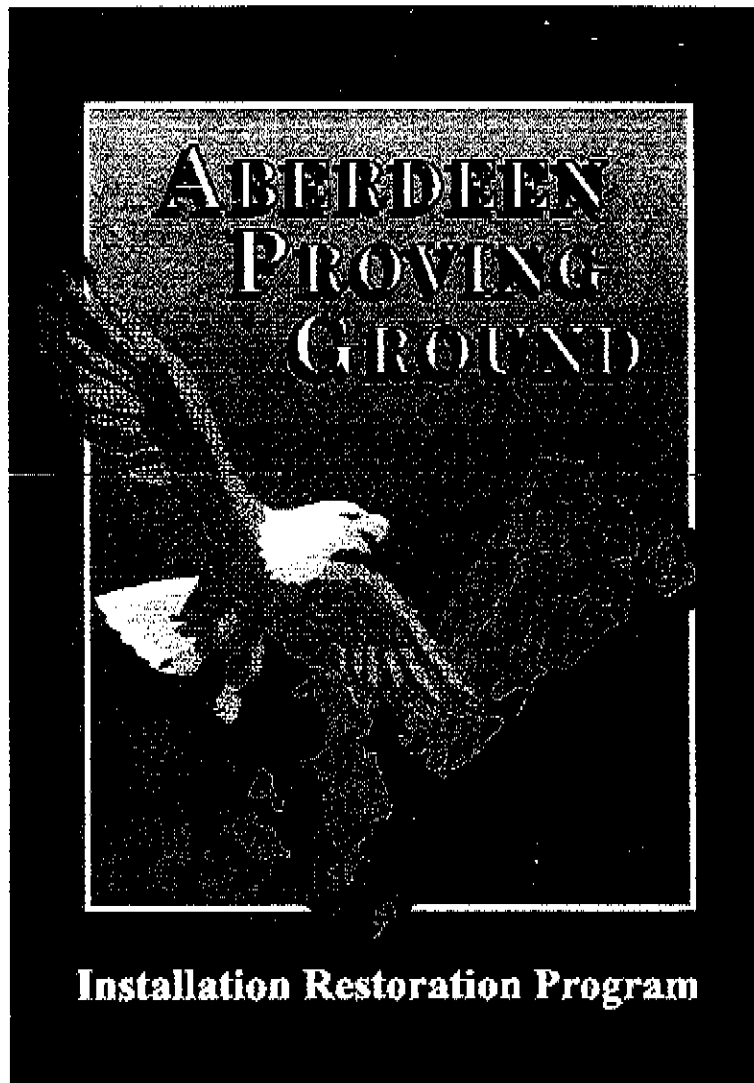
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U. S. Army Corps of Engineers, Baltimore District. June 1977. Technical Report ARCSL-TR-77050.



U.S. ARMY CORPS OF ENGINEERS, BALTIMORE DISTRICT

APPENDICES FOR THE FINAL TECHNICAL REPORT  
ADAMSITE STORAGE VAULTS REMOVAL ACTION

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JANUARY, 1997  
ABERDEEN PROVING GROUND  
EDGEWOOD AREA



US Army Corps  
of Engineers  
Baltimore District

# ENVIRONMENTAL REMEDiation RESIDENT OFFICE

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## APPENDICES

for the

### FINAL TECHNICAL REPORT

for the

### ADAMSITE STORAGE VAULTS REMOVAL ACTION

### ABERDEEN PROVING GROUND, MD EDGEWOOD AREA

Contract No. DACA31-94-D-0020  
Delivery Order No. 0003, Site No. 03

January, 1997



**FOSTER WHEELER ENVIRONMENTAL CORPORATION**

*A Division of* FOSTER WHEELER USA CORPORATION

P. O. Box 104 • Aberdeen Proving Ground • MD • 21010-0104

(410) 671-6015

**APPENDICES**  
**for the**  
**FINAL TECHNICAL REPORT**  
**for the**  
**ADAMSITE STORAGE VAULTS REMOVAL ACTION**

**Appendices**

- Appendix A: Additional Removal/Remediation Actions
- Appendix B: General Physics Analytical Results
- Appendix C: WESTON Analytical Results
- Appendix D: FWENC Radiological Assessment
- Appendix E: Meeting Minutes
- Appendix F: Permits - Excavation
- Appendix G: Manifests
- Appendix H: Daily Construction Quality Control Reports
- Appendix I: DAAMS Tubes Results

**APPENDIX A**

**ADDITIONAL REMOVAL/REMEDIATION ACTIONS**

Preliminary investigation sampling, which revealed groundwater contamination, presence of elevated radiological soil contamination will be further addressed under the Remedial Investigation/Feasibility Study (RI/FS) process for the Bush River Study Area as part of the Installation Restoration Program.

**APPENDIX B**

**GENERAL PHYSICS ANALYTICAL RESULTS**

# GP ENVIRONMENTAL SERVICES ANALYTICAL RESULTS

06/11/92

GP ENVIRONMENTAL SERVICES  
202 Perry Parkway  
Gaithersburg, MD 20877

Work order: 9205187  
Work ID: ARK 410  
Date Received: 05/20/92

Atten: Client Services  
Phone: (800) 926-6802

Dir. of Safety, Health & Env.  
Bldg. EA 4430, Aberdeen  
Edgewood, MD 21010-5401  
Atten: Mr. Bob Solyan

Certified by: *[Signature]*

### SAMPLE IDENTIFICATION

GP ID	Client ID
9205187-01A	325-2141-E2370W
9205187-01B	
9205187-01C	
9205187-01D	
9205187-01E	
9205187-01F	
9205187-01G	
9205187-01H	
9205187-01I	
9205187-01J	
9205187-01K	
9205187-01L	
9205187-01M	
9205187-02A	326-2141-E2370S
9205187-02B	
9205187-02C	
9205187-02D	



GP ENVIRONMENTAL SERVICES  
ORGANIC ANALYSIS RESULTS

GP ID: 9205187-01A  
Client ID: 325-2141-E2370W  
Collected: 05/20/92  
Dilution: 1

Matrix: WATER  
Method: 8270  
Units: ug/L

Analyst: FP  
Analyzed: 05/28/92  
Extracted: 05/26/92

SEMIVOLATILE TARGET COMPOUNDS

Parameter	Result	Det. Lim.	Qualifier
1,2,4-Trichlorobenzene	BQL	11	
1,2-Dichlorobenzene	BQL	11	
1,3-Dichlorobenzene	BQL	11	
1,4-Dichlorobenzene	BQL	11	
2,4,5-Trichlorophenol	BQL	11	
2,4,6-Trichlorophenol	BQL	11	
2,4-Dichlorophenol	BQL	11	
2,4-Dimethylphenol	BQL	11	
2,4-Dinitrophenol	BQL	54	
2,4-Dinitrotoluene	BQL	11	
2,6-Dinitrotoluene	BQL	11	
2-Chloronaphthalene	BQL	11	
2-Chlorophenol	BQL	11	
2-Methylnaphthalene	BQL	11	
2-Methylphenol	BQL	11	
2-Nitroaniline	BQL	54	
2-Nitrophenol	BQL	11	
3,3'-Dichlorobenzidine	BQL	22	
3-Nitroaniline	BQL	54	
4,6-Dinitro-2-methylphenol	BQL	54	
4-Bromophenyl phenyl ether	BQL	11	
4-Chloro-3-methylphenol	BQL	22	
4-Chloroaniline	BQL	22	
4-Chlorophenyl phenyl ether	BQL	11	
4-Methylphenol	BQL	11	
4-Nitroaniline	BQL	22	
4-Nitrophenol	BQL	54	
Acenaphthone	BQL	11	
Acenaphthylene	BQL	11	
Anthracene	BQL	11	
Benzo(a)anthracene	BQL	11	
Benzo(a)pyrene	BQL	11	
Benzo(b)fluoranthene	BQL	11	

2  
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# GP ENVIRONMENTAL SERVICES ORGANIC ANALYSIS RESULTS

Analyst: FP  
Analyzed: 05/28/92  
Extracted: 05/26/92

GP ID: 9205187-01A  
Client ID: 325-2161-E2370W  
Collected: 05/20/92  
Dilutions: 1

Matrix: WATER  
Method: 8270  
Units: ug/L

## SEMIVOLATILE TARGET COMPOUNDS

Parameter	Result	Det. Lim.	Qualifier
Benzo(g,h,i)perylene	BQL	11	
Benzo(k)fluoranthene	BQL	11	
Benzoic acid	54.8	54	
Benzyl alcohol	BQL	22	
Butyl benzyl phthalate	BQL	11	
Chrysene	BQL	11	
Di-n-butylphthalate	BQL	11	
Di-n-octylphthalate	BQL	11	
Dibenz(a,h)anthracene	BQL	11	
Dibenzofuran	BQL	11	
Diethylphthalate	BQL	11	
Dimethyl phthalate	BQL	11	
Fluorene	BQL	11	
Hexachlorobenzene	BQL	11	
Hexachlorobutadiene	BQL	11	
Hexachlorocyclopentadiene	BQL	11	
Hexachloroethane	BQL	11	
Indeno(1,2,3-cd)pyrene	BQL	11	
Isophorone	BQL	11	
N-Nitroso-di-n-dipropylamine	BQL	11	
N-Nitrosodiphenylamine	BQL	11	
Naphthalene	BQL	11	
Nitrobenzene	BQL	54	
Pentachlorophenol	BQL	11	
Phenanthrene	BQL	11	
Phenol	BQL	11	
Pyrene	BQL	11	
bis(2-Chloroethoxy) methane	BQL	11	
bis(2-Chloroethyl) ether	BQL	11	
bis(2-Chloroisopropyl) ether	BQL	11	
bis(2-Ethylhexyl)phthalate	BQL	11	

3.0

Notes and definitions for this report:  
BQL = Below Quantitation Limit

GP ENVIRONMENTAL SERVICES  
ORGANIC ANALYSIS RESULTS

GP ID: 9205187-010  
Client ID: 325-2141-E2370v  
Collected: 05/20/92  
Dilution: 1

Matrix: WATER  
Method: SW846 8080  
Units: ug/L

Analyst: PH  
Analyzed: 05/23/92  
Extracted: 05/21/92

GC TARGET COMPOUNDS

Parameter	Result	Det. Lim.	Qualifier
4,4'-DDD	BQL	0.11	
4,4'-DDE	BQL	0.041	
4,4'-DDE	8.94	0.12	
4,4'-DDT	BQL	0.041	
Aldrin	BQL	0.52	
Aroclor-1016	BQL	0.52	
Aroclor-1221	BQL	0.52	
Aroclor-1232	BQL	0.67	
Aroclor-1242	BQL	1.0	
Aroclor-1248	BQL	1.0	
Aroclor-1254	BQL	1.0	
Aroclor-1260	BQL	1.0	
Chlordane	BQL	0.14	
Dieldrin	BQL	0.021	
Endosulfan I	BQL	0.14	
Endosulfan II	BQL	0.041	
Endosulfan sulfate	BQL	0.68	
Endrin	BQL	0.062	
Endrin aldehyde	BQL	0.24	
Heptachlor	BQL	0.031	
Heptachlor Epoxide	BQL	0.85	
Methoxychlor	BQL	1.8	
Toxaphene	BQL	2.5	
alpha-BHC	BQL	0.031	
beta-BHC	BQL	0.062	
delta-BHC	BQL	0.093	
gamma-BHC (Lindane)	BQL	0.041	

0.02  
0.002  
0.002  
10

Notes and definitions for this report:

GP ENVIRONMENTAL SERVICES  
ORGANIC ANALYSIS RESULTS

GP ID: 9205187-01K  
Client ID: 325-2141-E2370W  
Collected: 05/20/92  
Dilution: 1

Matrix: WATER  
Method: 8260w  
Units: ug/l

Analyst: DR  
Analyzed: 05/29/92

VOLATILE TARGET COMPOUNDS

Parameter	Result	Det. Lim.	Qualifier
1,1,1-Trichloroethane	BQL	5.0	
1,1,2,2-Tetrachloroethane	BQL	5.0	
1,1,2-Trichloroethane	BQL	5.0	
1,1-Dichloroethane	BQL	5.0	
0.7 0.5 1,1-Dichloroethene	BQL	5.0	
1,2-Dichloroethane	BQL	5.0	
1,2-Dichloropropene	BQL	100	
2-Butanone	BQL	10	
2-Chloroethylvinyl ether	BQL	50	
2-Hexanone	BQL	50	
4-Methyl-2-pentanone	156	100	
Acetone	BQL	5.0	
0.011 Benzene	BQL	5.0	
Bromodichloromethane	BQL	5.0	
Bromoform	BQL	10	
Bromomethane	BQL	100	
Carbon Disulfide	BQL	5.0	
0.5 Carbon Tetrachloride	BQL	5.0	
1.0 Chlorobenzene	BQL	5.0	
Chlorodibromomethane	BQL	10	
Chloroethane	BQL	5.0	
6 Chloroform	BQL	10	
Chloromethane	BQL	5.0	
Ethylbenzene	2.49	5.0	J
Methylene Chloride	BQL	5.0	
Styrene	BQL	5.0	
Tetrachloroethene	BQL	5.0	
Toluene	BQL	5.0	
Trichloroethene	BQL	50	
Vinyl Acetate	BQL	10	
Vinyl Chloride	BQL	5.0	
Xylene	BQL	5.0	
cis-1,3-Dichloropropene	BQL	5.0	
trans-1,2-Dichloroethene	BQL	5.0	
trans-1,3-Dichloropropene	BQL	5.0	

Notes and definitions for this report:

BQL = Below Quantitation Limit

J = An estimated value, below method detection limit

GP ENVIRONMENTAL SERVICES  
ORGANIC ANALYSIS RESULTS

Page 6

GP ID: 9205187-02A  
Client ID: 326-2141-E2370S  
Collected: 05/20/92  
Dilution: 20

Matrix: SEDIMENT  
Method: SW846 8080  
Units: ug/Kg

Analyst: AD  
Analyzed: 06/05/92  
Extracted: 06/02/92

GC TARGET COMPOUNDS

Parameter	Result	Det. L/m.	Qualifier
4,4'-DDD	58.2	230	J
4,4'-DDE	43.3	84	J
4,4'-DDT	150	250	J
Aldrin	BQL	84	
Aroclor-1016	BQL	1100	
Aroclor-1221	BQL	1100	
Aroclor-1232	BQL	1100	
Aroclor-1242	BQL	1400	
Aroclor-1248	BQL	2100	
Aroclor-1248	BQL	2100	
Aroclor-1254	BQL	2100	
Aroclor-1260	BQL	300	
Chlordane	BQL	42	
Dieldrin	BQL	300	
Endosulfan I	8.44	84	J
Endosulfan II	9.24	1400	J
Endosulfan sulfate	7.01	130	J
Endrin	24.4	490	J
Endrin aldehyde	BQL	64	
Heptachlor	BQL	1800	
Heptachlor Epoxide	79.4	3700	J
Methoxychlor	BQL	5100	
Toxaphene	BQL	64	
alpha-BHC	BQL	130	
beta-BHC	8.86	190	J
gamma-BHC (Lindane)	BQL	84	

Notes and definitions for this report:

BQL = Below Quantitation Limit

GP ENVIRONMENTAL SERVICES  
ORGANIC ANALYSIS RESULTS

GP ID: 9205187-02A  
Client ID: 326-2141-E23705  
Collected: 05/20/92  
Dilution: 1

Matrix: SEDIMENT  
Method: 8270  
Units: ug/Kg

Analyst: FP  
Analyzed: 06/05/92  
Extracted: 06/02/92

SEMI-VOLATILE TARGET COMPOUNDS

Parameter	Result	Det. Lim.	Qualifier
1,2,4-Trichlorobenzene	BQL	1000	
1,2-Dichlorobenzene	BQL	1000	
1,3-Dichlorobenzene	BQL	1000	
1,4-Dichlorobenzene	BQL	1000	
2,4,5-Trichlorophenol	BQL	1000	
2,4,6-Trichlorophenol	BQL	1000	
2,4-Dichlorophenol	BQL	1000	
2,4-Dimethylphenol	BQL	5200	
2,4-Dinitrophenol	BQL	1000	
2,4-Dinitrotoluene	BQL	1000	
2,6-Dinitrotoluene	BQL	1000	
2-Chloronaphthalene	BQL	1000	
2-Chlorophenol	BQL	1000	
2-Methylnaphthalene	BQL	1000	
2-Methylphenol	BQL	5200	
2-Nitroaniline	BQL	1000	
2-Nitrophenol	BQL	2000	
3,3'-dichlorobenzidine	BQL	5200	
3-Nitroaniline	BQL	5200	
4,6-Dinitro-2-methylphenol	BQL	1000	
4-Bromophenyl phenyl ether	BQL	2000	
4-Chloro-3-methylphenol	BQL	2000	
4-Chloroaniline	BQL	1000	
4-Chlorophenyl phenyl ether	BQL	1000	
4-Methylphenol	BQL	2000	
4-Nitroaniline	BQL	5200	
4-Nitrophenol	BQL	1000	
Acenaphthene	BQL	1000	
Acenaphthylene	BQL	1000	
Anthracene	1040	1000	
Benzo(a)anthracene	1650	1000	
Benzo(a)pyrene	4890	1000	
Benzo(b)fluoranthene			

Notes and definitions for this report:

BQL = Below Quantitation Limit

J = An estimated value, below method detection limit

GP ENVIRONMENTAL SERVICES  
ORGANIC ANALYSIS RESULTS

Page 8

GP ID: 9205187-02A  
Client ID: 326-2141-E2370S  
Collected: 05/20/92  
Dilution: 1

Matrix: SEDIMENT  
Method: 8270  
Units: ug/Kg

Analyst: FP  
Analyzed: 06/05/92  
Extracted: 06/02/92

SEMIVOLATILE TARGET COMPOUNDS

Parameter	Result	Det. Lim.	Qualifier
Benzo(a,h,i)perylene	1150	1000	
Benzo(k)fluoranthene	BQL	1000	
Benzoic acid	7160	5200	
Benzyl alcohol	BQL	2000	
Butyl benzyl phthalate	BQL	1000	
Chrysene	1040	1000	
Di-n-butylphthalate	BQL	1000	
Di-n-octylphthalate	BQL	1000	
Dibenz(a,h)anthracene	BQL	1000	
Dibenzofuran	BQL	1000	
Diethylphthalate	BQL	1000	
Dimethyl phthalate	BQL	1000	
Fluoranthene	1800	1000	
Fluorene	151	1000	
Hexachlorobenzene	1250	1000	
Hexachlorobutadiene	BQL	1000	
Hexachlorocyclopentadiene	BQL	1000	
Hexachloroethane	5100	1000	
Indeno(1,2,3-cd)pyrene	1160	1000	
Isophorone	BQL	1000	
N-Nitroso-di-n-dipropylamine	BQL	1000	
N-nitrosodiphenylamine	2760	1000	
Naphthalene	BQL	1000	
Nitrobenzene	BQL	1000	
Pentachlorophenol	BQL	5200	
Phenanthrene	937	1000	
Phenol	BQL	1000	
Pyrene	3600	1000	
bis(2-Chloroethoxy) methane	BQL	1000	
bis(2-Chloroethyl) ether	BQL	1000	
bis(2-Chloroisopropyl) ether	BQL	1000	
bis(2-Ethylhexyl)phthalate	1080	1000	

Notes and definitions for this report:

BQL = Below Quantitation Limit

GP ENVIRONMENTAL SERVICES  
ORGANIC ANALYSIS RESULTS

GP ID: 9205187-02C  
Client ID: 326-2141-E2370S  
Collected: 05/20/92  
Dilution: 1

Matrix: SEDIMENT  
Method: 8240s  
Units: ug/Kg

Analyst: DR  
Analyzed: 05/27/92

VOLATILE TARGET COMPOUNDS

Parameter	Result	Det. Lim.	Qualifier
1,1,1-Trichloroethane	BQL	16	
1,1,2,2-Tetrachloroethane	BQL	16	
1,1,2-Trichloroethane	BQL	16	
1,1-Dichloroethane	BQL	16	
1,1-Dichloroethene	BQL	16	
1,2-Dichloroethane	BQL	16	
1,2-Dichloropropene	BQL	16	
2-Butanone	39.8	310	J
2-Chloroethylvinyl ether	BQL	31	
2-Hexanone	BQL	160	
4-Methyl-2-pentanone	BQL	160	
Acetone	109	310	BJ
Benzene	BQL	16	
Bromodichloromethane	BQL	16	
Bromoform	BQL	16	
Bromomethane	BQL	31	
Carbon Disulfide	7.86	310	J
Carbon Tetrachloride	BQL	16	
Chlorobenzene	BQL	16	
Chlorodibromomethane	BQL	16	
Chloroethane	BQL	31	
Chloroethene	3.13	16	J
Chloroform	BQL	31	
Chloromethane	BQL	16	
Ethylbenzene	BQL	16	
Methylene Chloride	35	16	B
Styrene	3.82	16	J
Tetrachloroethene	91.0	16	
Toluene	BQL	16	
Trichloroethene	3.35	16	J
Vinyl Acetate	BQL	160	
Vinyl Chloride	BQL	31	
Xylene	BQL	16	
cis-1,3-Dichloropropene	BQL	16	
trans-1,2-Dichloroethene	BQL	16	
trans-1,3-Dichloropropene	BQL	16	

Notes and definitions for this report:

BQL = Below Quantitation Limit

J = An estimated value, below method detection limit

B = Compound found in associated method blank



GP ENVIRONMENTAL SERVICES  
METALS ANALYSIS RESULTS

GP ID: 9205187-01G  
Client ID: 325-2141-E2370W

Matrix: WATER  
Collected: 05/20/92

Element	Method	Result	Det. Lim.	Units	Dil.	Digested	Analyzed by
		5070	153	ug/L	1	05/28/92	MB 06/02/92
Aluminum	MCAW 200.7				1	05/28/92	MB 06/02/92
100 Barium	MCAW 200.7	256	19.1	ug/L	1	05/28/92	MB 06/02/92
Beryllium	MCAW 200.7	BQL	0.800	ug/L	1	05/28/92	MB 06/02/92
1 Cadmium	MCAW 200.7	8.00	2.40	ug/L	1	05/28/92	MB 06/02/92
Calcium	MCAW 200.7	1510000	1830	ug/L	20	05/28/92	MB 06/02/92
50 Chromium	MCAW 200.7	26.6	9.10	ug/L	1	05/28/92	MB 06/02/92
Cobalt	MCAW 200.7	BQL	22.5	ug/L	1	05/28/92	MB 06/02/92
Copper	MCAW 200.7	68.7	17.2	ug/L	1	05/28/92	MB 06/02/92
Iron	MCAW 200.7	49500	670	ug/L	20	05/28/92	MB 06/02/92
Magnesium	MCAW 200.7	15700	58.0	ug/L	1	05/28/92	MB 06/02/92
Manganese	MCAW 200.7	145	5.20	ug/L	1	05/28/92	MB 06/02/92
Nickel	MCAW 200.7	61.5	28.9	ug/L	1	05/28/92	MB 06/02/92
Vanadium	MCAW 200.7	BQL	22.5	ug/L	1	05/28/92	MB 06/02/92
Zinc	MCAW 200.7	1350	6.50	ug/L	1	06/01/92	MG 06/01/92
Antimony	MCAW 204.2	BQL	15.9	ug/L	1	05/28/92	TES 06/02/92
5 Arsenic	MCAW 206.2	815	185	ug/L	1	05/28/92	TES 06/02/92
50 Lead	MCAW 239.2	1020	46.0	ug/L	1	05/27/92	MP 05/27/92
0.2 Mercury	MCAW 243.1	BQL	0.200	ug/L	1	05/28/92	TES 06/03/92
Potassium	MCAW 258.1	337	3.00	ug/L	1	05/28/92	TES 06/02/92
Selenium	MCAW 270.2	BQL	4.30	ug/L	1	05/28/92	TES 06/02/92
Silver	MCAW 272.2	BQL	0.800	ug/L	1	05/28/92	TES 06/03/92
Sodium	MCAW 273.1	261	1.90	ug/L	1	05/28/92	SR 06/01/92
Thallium	MCAW 279.2	BQL	3.60	ug/L	1	05/28/92	

GP ENVIRONMENTAL SERVICES  
METALS ANALYSIS RESULTS

GP ID: 9205187-02A  
Client ID: 326-2161-E2370S

Matrix: SEDIMENT  
Collected: 05/20/92

Element	Method	Result	Det. Lim.	Units	Dil.	Digested	Analyzed by	
Aluminum	MCAW 200.7	12700	96.3	mg/Kg	1	05/28/92	MB	06/02/92
Barium	MCAW 200.7	80L	0.500	mg/Kg	1	05/28/92	MB	06/02/92
Beryllium	MCAW 200.7	4.09	1.50	mg/Kg	1	05/28/92	MB	06/02/92
Cadmium	MCAW 200.7	17900	83.1	mg/Kg	1	05/28/92	MB	06/02/92
Calcium	MCAW 200.7	183	5.70	mg/Kg	1	05/28/92	MB	06/02/92
Chromium	MCAW 200.7	14.3	14.2	mg/Kg	1	05/28/92	MB	06/03/92
Cobalt	MCAW 200.7	411	10.8	mg/Kg	20	05/28/92	MB	06/02/92
Copper	MCAW 200.7	161000	21.1	mg/Kg	1	05/28/92	MB	06/02/92
Iron	MCAW 200.7	1660	36.5	mg/Kg	1	05/28/92	MB	06/02/92
Magnesium	MCAW 200.7	387	3.30	mg/Kg	1	05/28/92	MB	06/02/92
Manganese	MCAW 200.7	68.0	18.2	mg/Kg	1	05/28/92	MB	06/02/92
Nickel	MCAW 200.7	88.0	14.2	mg/Kg	1	05/28/92	MB	06/02/92
Vanadium	MCAW 200.7	3290	4.10	mg/Kg	1	05/28/92	MB	06/01/92
Zinc	MCAW 204.2	80L	10.0	mg/Kg	1	05/28/92	TES	06/02/92
Antimony	MCAW 206.2	1370	116	mg/Kg	1	05/28/92	TES	06/02/92
Arsenic	MCAW 239.2	25000	1450	mg/Kg	1	06/02/92	SB	06/02/92
Lead	MCAW 245.5	0.670	0.300	mg/Kg	1	05/28/92	TES	06/03/92
Mercury	MCAW 258.1	3420	189	mg/Kg	1	05/28/92	TES	06/02/92
Potassium	MCAW 270.2	80L	2.71	mg/Kg	1	05/28/92	YES	06/02/92
Selenium	MCAW 272.2	1.13	0.503	mg/Kg	1	05/28/92	TES	06/03/92
Silver	MCAW 273.1	335	120	mg/Kg	1	05/28/92	SB	06/01/92
Sodium	MCAW 279.2	80L	2.26	mg/Kg				
Thallium								

Notes and definitions for this report:  
80L = Below Quantitation Limit

**GP ENVIRONMENTAL SERVICES  
WET CHEMISTRY ANALYSIS RESULTS**

GP ID: 9205187-01H  
Client ID: 325-2141-E2370W

Collected: 05/20/92  
Matrix: WATER

Parameter	Method	Result	Det.Lim.	Units	Dil.	Analyzed by
Total Cyanide	SOW390/335.2	NDL	10.0	ug/l	1	VKH 05/31/92

GP ID: 9205187-02A  
Client ID: 326-2141-E2370S

Collected: 05/20/92  
Matrix: SEDIMENT

Parameter	Method	Result	Det.Lim.	Units	Dil.	Analyzed by
Percent Solids	HCAWM 160.3	31.8		%		CS 05/28/92
Total Cyanide	SOW390/335.2	11.9	6.29	mg/Kg	1	VKH 05/31/92

GP ENVIRONMENTAL SERVICES  
RADIOLOGICAL RESULTSGP ID: 9205187-011  
Client ID: 325-2141-E2370W  
Collected: 05/20/92

Matrix: Water

## TARGET COMPOUNDS

<u>Compound</u>	<u>Result (pCi/L)</u>
Gross alpha	200 ± 70
Gross beta	580 ± 40

GP ENVIRONMENTAL SERVICES  
RADIOLOGICAL RESULTSGP ID: 9205187-02B  
Client ID: 326-2141-E2370S  
Collected: 05/20/92

Matrix: Sediment

## TARGET COMPOUNDS

<u>Compound</u>	<u>Result (pCi/g)</u>
Gross alpha	12 ± 5
Gross beta	25 ± 3

**APPENDIX C**

**WESTON ANALYTICAL RESULTS**

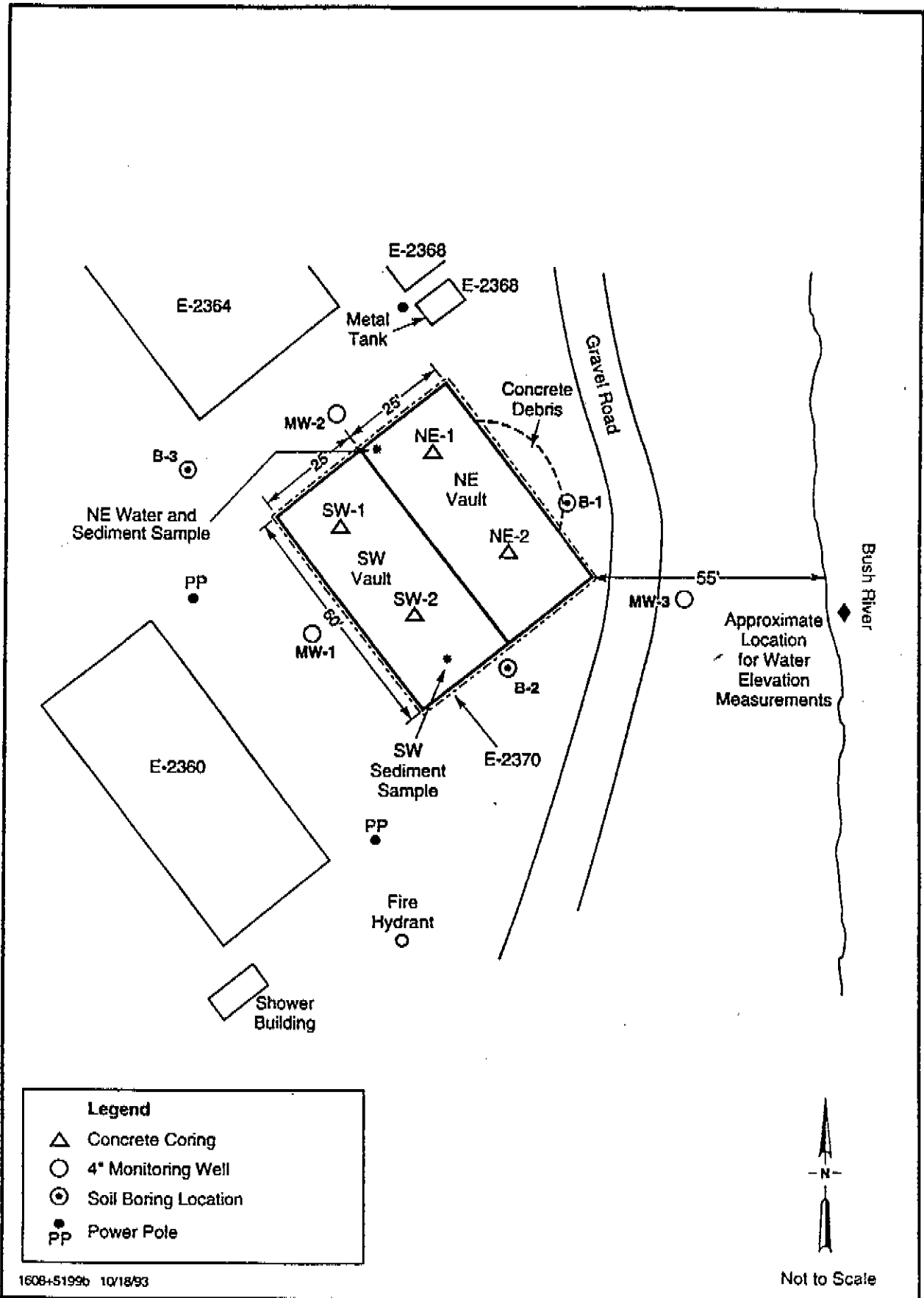
### 3.2 SUMMARY OF ANALYTICAL RESULTS

As discussed in Section 2 of this report, WESTON collected samples from the soils surrounding the vaults at six soil boring/monitoring well installation locations, one groundwater sample from each of the three monitoring wells, one water sample and two sediment samples at the NE vault, two sediment samples at the SW vault, and concrete samples at two discrete intervals at two locations in each vault. The sampling locations are indicated in Figure 3-2. All analytical results for samples collected are included in the tables located at the end of this section and in Appendix E of this report.

The samples were analyzed for CSM, as discussed in Subsection 2.4 of this report. As shown in Table 3-1, all samples screened provided negative responses for Sarin (GB), Soman (GD), O-ethyl S-(2-diisopropylmaminoethyl) -methylphosphonothioate (VX), and mustard (HD).

None of the compounds detected in the concrete chip, the vault sediment, and the vault water met the hazardous waste criteria defined in the Resource Conservation and Recovery Act (RCRA) 40 Code of Federal Regulations (CFR) 261. The analytical data for these samples are presented in Tables 3-2 through 3-4.

Review of the soil boring and monitoring well soil sample data indicated detectable levels of volatiles, pesticides/polychlorinated biphenyls (PCBs), and metals. The following summary indicates the parameter and the location detected above the RCRA Corrective Action Level. The specific analytical data for the soil boring and monitoring well soil samples are indicated in Tables 3-5 and 3-6.



- Legend**
- △ Concrete Coring
  - 4" Monitoring Well
  - ⊙ Soil Boring Location
  - PP Power Pole

1608-5199b 10/18/93

Not to Scale

FIGURE 3-2 APPROXIMATE SAMPLING LOCATIONS



**APG Environmental Remediation**  
**Contract No. DACA87-90-D-0031**  
**DO No. 10, Adamsite**  
**Preliminary Field Investigation Report**

Parameter	Soil Sample Location Detected Above RCRA Corrective Action Standard
Aroclor	MW-2-S (0 to 6 inches)
Arsenic	B-2-S (0 to 6 inches)
Beryllium	MW-1-S (0 to 6 inches, 6 inches to 2 ft, and 4 ft to 6 ft)
	MW-2-S (6 inches to 2 ft and 4 ft to 6 ft)
	MW-3-S (0 to 6 inches, 6 inches to 2 ft, 4 ft to 6 ft, 10 ft to 12 ft, and 10 ft to 12 ft DUP)
Mercury	B-3-S (0 to 6 inches, 4 ft to 6 ft, and 10 ft to 12 ft DUP)

Aroclor 1260 was detected above the RCRA Corrective Action Standard in the soil sample collected at MW-2-S (at an interval of 0 to 6 inches). The RCRA Corrective Action Standard for PCBs is 90 mg/kg.

Soil samples collected at MW-1 (at intervals of 0 to 6 inches, 6 inches to 2 ft, and 4 ft to 6 ft), at MW-2 (at intervals of 6 inches to 2 ft and 4 ft to 6 ft), and at all intervals at MW-3 exceeded the RCRA Corrective Action Standard for beryllium. The soil sample collected at soil boring B-2 (at an interval of 0 to 6 inches) exceeded the RCRA Corrective Action Standard for arsenic. The soil sample collected at soil boring B-3 (at intervals of 0 to 6 inches, 4 ft to 6 ft, and 10 ft to 12 ft) exceeded the RCRA Corrective Action Standard for mercury.

The analytical results collected from the groundwater at MW-1, MW-2, and MW-3 indicated detectable levels of volatiles and metals. The following summary indicates the parameters detected above the RCRA Corrective Action Standard for water and the respective monitoring well. The analytical data for the monitoring well groundwater samples are indicated in Table 3-7.

APG Environmental Remediation  
 Contract No. DACA87-90-D-0031  
 DO No. 10, Adamsite  
 Preliminary Field Investigation Report

Parameter	Groundwater Sample Location Detected Above the RCRA Corrective Action Standard
Chloroform	MW-1
1,1,2,2-Tetrachloroethane	MW-2 and MW-3
Tetrachloroethane	MW-2 and MW-3
Trichloroethane	MW-2 and MW-3
Beryllium	MW-1
1,1,2-Trichloroethane	MW-2 and MW-3

Chloroform, 1,1,2,2-tetrachloroethane, tetrachloroethane, trichloroethane, 1,1,2-trichloroethane, and beryllium were detected at levels exceeding the RCRA Corrective Action Standard for water.

The analytical results collected from the decontamination water and soil boring/monitoring well drilling tailings indicated levels below those listed in 40 CFR 261 for characterizing RCRA hazardous wastes (see Tables 3-8 and 3-9).

### 3.2.1 Radiation Characterization

Two water, six sediment, and nine concrete chip samples from the Adamsite vaults were taken and analyzed for radionuclides. In general, no elevated levels of radionuclides were found, although the gross beta activity of the water sample is unusually high. Gross beta activity for the two water samples was 610 pCi/L and 550 pCi/L. These activities can be compared with the criteria contained in the Federal Drinking Water Standards, 40 CFR 141, although these regulations would certainly not apply to the water in the vaults. The regulation states that if the gross beta activity is greater than 50 pCi/L, it should be analyzed for specific radionuclides. This was done for the analyses that were performed for

APG Environmental Remediation  
Contract No. DACA87-90-D-0031  
DO No. 10, Adamsite  
Preliminary Field Investigation Report

total uranium, carbon-14, tritium, and a gamma spectrum. The only specific radionuclide that was detected above detection limits was potassium -40 in one sample (299 pCi/L).

Potassium -40 is a naturally occurring radionuclide and a beta emitter, and may be the cause of the elevated gross beta activity.

In the vaults' sediment, the gross beta analysis varied from <3 pCi/g to 10 pCi/g, which is typical for soil. Four radionuclides were detected in the gamma spectrum analysis: beryllium -7 was identified in three samples with a maximum activity of 0.4 pCi/g; potassium -40 was identified in all six samples with a maximum activity of 8 pCi/g; cesium -137 was identified in all six samples with a maximum activity of 0.12 pCi/g; and thorium -228 was identified in three samples with a maximum activity of 0.16 pCi/g.

Potassium -40 and thorium -228 are naturally occurring radionuclides and the concentrations are typical of soil. The report Environmental Radiation Measurements (National Council on Radiation Probation and Measurements (NCRP), Report No. 50, 1976) gave an average activity for potassium -40 of 10 pCi/g and thorium -232 (the parent of thorium -228) of 06 pCi/g. Cesium -137 in these low concentrations is probably fallout from atomic bomb explosions. It has a 30-year half-life and would still exist in the soil (NCRP, Report No. 50). Beryllium -7 is produced in the atmosphere by cosmic rays.

Gross alpha and gross beta analyses were performed on the nine concrete chip samples. No alpha activity was detected, and the beta activity varied from 3.6 pCi/g to 18 pCi/g. These are typical values for soils (NCRP, Report No. 50).

APG Environmental Remediation  
 Contract No. DACA87-90-D-0031  
 DO No. 10, Adamsite  
 Preliminary Field Investigation Report

Table 3-1

Results of CSM Screening for Adamsite Vault Soil Samples

Sample ID	Description of Sample Location	Agent Presence Detected At or Above the Given Concentration			
		GB at 20 ppb (ng/g)	GD at 20 ppb (ng/g)	VX at 20 ppb (ng/g)	HD at 200 ppb (ng/g)
A00969	B-1-S (0-6")	negative	negative	negative	negative
A00970	B-1-S (6"-2')	negative	negative	negative	negative
A00971	B-1-S (4-6')	negative	negative	negative	negative
A00972	B-1-S (10-12')	negative	negative	negative	negative
A00973	B-2-S (0-6")	negative	negative	negative	negative
A00974	B-2-S (6"-2')	negative	negative	negative	negative
A00975	B-2-S (4-6')	negative	negative	negative	negative
A00976	B-2-S (10-12')	negative	negative	negative	negative
A00977	B-3-S (0-6")	negative	negative	negative	negative
A00978	B-3-S (6"-2')	negative	negative	negative	negative
A00979	B-3-S (4-6')	negative	negative	negative	negative
A00980	B-3-S (10-12')	negative	negative	negative	negative
A00981	B-3-S (10-12') (DUP)	negative	negative	negative	negative
A00987	MW-2-S (0-6")	negative	negative	negative	negative
A00988	MW-2-S (6"-2')	negative	negative	negative	negative
A00989	MW-2-S (4-6')	negative	negative	negative	negative
A00983	MW-1-S (0-6")	negative	negative	negative	negative
A00990	MW-2-S (10-12')	negative	negative	negative	negative
A00984	MW-1-S (6"-2')	negative	negative	negative	negative
A00985	MW-1-S (4-6')	negative	negative	negative	negative
A00986	MW-1-S (10-12')	negative	negative	negative	negative
A00991	MW-3-S (0-6")	negative	negative	negative	negative

APG Environmental Remediation  
 Contract No. DACA87-90-D-0031  
 DO No. 10, Adamsite  
 Preliminary Field Investigation Report

Table 3-1

Results of CSM Screening for Adamsite Vault Soil Samples  
 (Continued)

Sample ID	Description of Sample Location	Agent Presence Detected At or Above the Given Concentration			
		GB at 20 ppb (ng/g)	GD at 20 ppb (ng/g)	VX at 20 ppb (ng/g)	HD at 200 ppb (ng/g)
A00992	MW-3-S (6'-2')	negative	negative	negative	negative
A00993	MW-3-S (4-6')	negative	negative	negative	negative
A00994	MW-3-S (10-12')	negative	negative	negative	negative
A00995	MW-3-S (10-12') (DUP)	negative	negative	negative	negative
01031	NE1-S-0	negative	negative	negative	negative
01030	NE2-S-0	negative	negative	negative	negative
01029	NE2-S-0 (DUP)	negative	negative	negative	negative
01033	SW1-S-0	negative	negative	negative	negative
01026	SW2-S-0	negative	negative	negative	negative
01068	MW-1-W-A	negative	negative	negative	negative
01069	MW-2-W-A	negative	negative	negative	negative
01070	MW-3-W-A	negative	negative	negative	negative
01071	MW-3-W-A (DUP)	negative	negative	negative	negative
01045	NEV-W-A	negative	negative	negative	negative
01046	NEV-W-A (DUP)	negative	negative	negative	negative

Table 3-2  
 Summary of Toxicity Characteristic Leachate Procedure (TCLP) Analytical Results

Aberdeen Proving Ground

Adamsite Storage Vaults  
 Delivery Order No. 10  
 Concrete Core Samples

Parameter	RCRA Haz. Waste Char (40 CFR)	Sample # 00954 NE1-C(2-6")	Sample # 00955 NE2-C(0-2")	Sample # 00956 NE2-C(2-6")	Sample # 00957 NE2-C(2-6") (DUP)	Sample # 00820 Trip Blank
TCLP						
Metals						
- Barium (Total)	100,000 ug/L	213 ug/L	88.8 ug/L	104 ug/L	153 ug/L	-----
Volatiles	-----	ND	ND	ND	ND	ND
Semivolatiles	-----	ND	ND	ND	ND	-----
Herbicides	-----	ND	ND	ND	ND	-----
Pesticides	-----	ND	ND	ND	ND	-----
Reactivity						
- Cyanide (Total; Reactive)	-----	ND	ND	ND	ND	-----
- Sulfide	-----	ND	ND	ND	ND	-----
Corrosivity (pH)	< 2 or > 12.5	11.4	11.0	11.3	11.2	-----
Ignitibility	-----	No flash	No flash	No flash	No flash	-----



Table 3 -- 3  
 Summary of Toxicity Characteristic Leachate Procedure (TCLP) Analytical Results  
 Aberdeen Proving Ground  
 Adamsite Storage Vaults  
 Delivery Order No. 10  
 Vault Sediment Samples

Parameter	RCRA Haz. Waste Char. (40 CFR)	Sample #	Sample #	Sample #	Sample #	Sample #	Sample #	Sample #	Sample #
		01035 NE2-S-0 (DUP)	01036 NE2-S-0	01037 NE1-S-0	01039 SW2-S-0 (DUP)	01040 SW2-S-0	01041 SW1-S-0	Sample # TCLP Blank	
<b>Metals</b>									
- Lead	5,000 ug/L	ND	275 ug/L	ND	2,790 ug/L	ND	2,060 ug/L	ND	ND
- Barium (Total)	100,000 ug/L	523 ug/L	464 ug/L	310 ug/L	344 ug/L	313 ug/L	318 ug/L	318 ug/L	ND
- Arsenic	5,000 ug/L	ND	ND	ND	375 ug/L	381 ug/L	147 ug/L	147 ug/L	ND
<b>Volatiles</b>									
		ND	ND	ND	ND	ND	ND	ND	ND
<b>Semivolatiles</b>									
	-----	ND	ND	ND	ND	ND	ND	ND	ND
<b>Herbicides</b>									
	-----	ND	ND	ND	ND	ND	ND	ND	ND
<b>Pesticides</b>									
	-----	ND	ND	ND	ND	ND	ND	ND	ND
<b>Reactivity</b>									
- Cyanide (Total; Reactive)	-----	ND	ND	ND	ND	ND	ND	ND	-----
- Sulfide	-----	13.1 mg/kg	ND	ND	16 mg/kg	ND	7.15 mg/kg	7.15 mg/kg	-----
Corrosivity (pH)	< 2 or > 12.5	7.86	7.52	7.26	7.03	7.49	6.97	6.97	-----
<b>Ignitibility</b>									
	-----	No flash	No flash	No flash	No flash	No flash	No flash	No flash	-----



DACA87-90-D-0031  
 Delivery Order No. 10 - Adamsite

Table 3-4  
 Summary of Toxicity Characteristic Leachate Procedure (TCLP) Analytical Results  
 Aberdeen Proving Ground  
 Adamsite Storage Vaults  
 Delivery Order No. 10  
 Vault Water

Parameter	RCRA Haz. Waste Char. (40 CFR)	Sample # 00824 Trip Blank	Sample # 00825 Trip Blank	Sample # 01051 NEV-W-A	Sample # 01052 NEV-W-A (DUP)
TCLP					
Metals					
- Barium (Total)	100,000 ug/L	-----	-----	214	214
Volatiles	-----	ND	ND	ND	ND
Semivolatiles	-----	-----	-----	ND	ND
Herbicides	-----	-----	-----	ND	ND
Pesticides	-----	-----	-----	ND	ND
Reactivity					
-- Cyanide (Total; Reactive)	-----	-----	-----	ND	ND
-- Sulfide	-----	-----	-----	ND	ND
Corrosivity (pH)	<2 or >12.5	-----	-----	6.9	6.9
Ignitibility	-----	-----	-----	No flash	No flash

Table 3-5  
 Summary of Analytical Results  
 Aberdeen Proving Ground  
 Adamsite Storage Vaults  
 Delivery Order No. 10  
 Soil Boring Samples

Parameter	RCRA Corrective Action Standards 1	Sample # 00997 B1-S (0-6")	Sample # 00998 B1-S (6"-2')	Sample # 00999 B1-S (4-6')	Sample # 01001 B1-S (10-12')	Sample # 01002 B2-S (0-6")	Sample # 01003 B2-S (6"-2')
<b>TCL ANALYTES</b>							
<b>Volatiles</b>							
- Acetone	8,000,000 ug/Kg	ND	ND	ND	ND	ND	ND
- Trichloroethene	60,000 ug/Kg	ND	1.14 ug/Kg	ND	ND	ND	ND
<b>Pesticides/PCBs</b>							
- 4,4' DDE	2,000 ug/Kg	8.93 ug/Kg	2.10 ug/Kg	ND	ND	ND	ND
- Endrin	20,000 ug/Kg	ND	ND	ND	ND	2.38 ug/Kg	ND
<b>Semivolatiles (BNA)</b>							
<b>TAL ANALYTES</b>							
<b>Metals</b>							
- Arsenic	80 mg/Kg	13 mg/Kg	3.6 mg/Kg	2.51 mg/Kg	2.16 mg/Kg	148 mg/Kg	10.8 mg/Kg
- Lead	No proposed level	127 mg/Kg	31.5 mg/Kg	13.3 mg/Kg	11.2 mg/Kg	543 mg/Kg	28.4 mg/Kg
- Potassium	----	711 mg/Kg	563 mg/Kg	874 mg/Kg	724 mg/Kg	455 mg/Kg	578 mg/Kg
- Sodium	----	ND	80.7 mg/Kg	82.6 mg/Kg	99.5 mg/Kg	92.8 mg/Kg	112 mg/Kg
- Aluminum	----	111 mg/Kg	129 mg/Kg	159 mg/Kg	83.6 mg/Kg	41.8 mg/Kg	119 mg/Kg
- Barium	----	0.655 mg/Kg	0.472 mg/Kg	0.386 mg/Kg	0.268 mg/Kg	0.497 mg/Kg	0.474 mg/Kg
- Beryllium	0.2 mg/Kg	0.004 mg/Kg	0.004 mg/Kg	0.005 mg/Kg	0.004 mg/Kg	ND	0.003 mg/Kg
- Cadmium	40 mg/Kg	ND	ND	ND	ND	ND	ND
- Calcium	----	11.6 mg/Kg	7.32 mg/Kg	1.82 mg/Kg	4.11 mg/Kg	16.1 mg/Kg	16.7 mg/Kg
- Cobalt	----	0.057 mg/Kg	0.059 mg/Kg	0.852 mg/Kg	0.302 mg/Kg	0.081 mg/Kg	0.051 mg/Kg
- Chromium	400 mg/Kg	0.170 mg/Kg	0.16 mg/Kg	0.226 mg/Kg	0.175 mg/Kg	1.07 mg/Kg	0.165 mg/Kg
- Copper	----	0.246 mg/Kg	0.093 mg/Kg	0.152 mg/Kg	0.102 mg/Kg	1.05 mg/Kg	0.097 mg/Kg
- Iron	----	182 mg/Kg	148 mg/Kg	188 mg/Kg	100 mg/Kg	1,360 mg/Kg	143 mg/Kg
- Magnesium	----	15.7 mg/Kg	14.8 mg/Kg	23.6 mg/Kg	9.81 mg/Kg	15.1 mg/Kg	14.6 mg/Kg
- Manganese	----	1.06 mg/Kg	0.78 mg/Kg	0.781 mg/Kg	3.36 mg/Kg	4.42 mg/Kg	0.904 mg/Kg
- Nickel	2,000 mg/Kg	0.084 mg/Kg	0.066 mg/Kg	0.064 mg/Kg	0.060 mg/Kg	0.276 mg/Kg	0.049 mg/Kg
- Vanadium	----	0.257 mg/Kg	0.246 mg/Kg	0.262 mg/Kg	0.286 mg/Kg	0.239 mg/Kg	0.254 mg/Kg
- Zinc	----	157 mg/Kg	0.481 mg/Kg	0.375 mg/Kg	0.231 mg/Kg	124 mg/Kg	1.35 mg/Kg

<sup>1</sup> Federal Register/Vol. 55, No. 145/Friday, July 27, 1990/Proposed Rules.  
 ND - No analytes detected above the laboratory detection limits.

DACA87-90-D-0031  
 Delivery Order No. 10 - Adamsite

Table 3--5

Summary of Analytical Results

Aberdeen Proving Ground

Adamsite Storage Vaults  
 Delivery Order No. 10  
 Soil Boring Samples  
 (Continued)

Parameter	RCRA Corrective Action Standards <sup>1</sup>	Sample # 01004 B2-S(4-6')	Sample # 01005 B2-S(10-12')	Sample # 01084 Trip Blank	Sample # 01085 Trip Blank
<b>TCL ANALYTES</b>					
<b>Volatiles</b>					
Pesticides/PCBs	-----	ND	ND	ND	ND
Semivolatiles (BNA)	-----	ND	ND	-----	-----
<b>TAL ANALYTES</b>					
<b>Metals</b>					
- Arsenic	80 mg/Kg	3.46 mg/Kg	1.48 mg/Kg	-----	-----
- Lead	No proposed level	9.62 mg/Kg	8.56 mg/Kg	-----	-----
- Mercury	20.0 mg/Kg	ND	ND	-----	-----
- Potassium	-----	638 mg/Kg	583 mg/Kg	-----	-----
- Sodium	-----	69.5 mg/Kg	113 mg/Kg	-----	-----
- Aluminum	-----	118 mg/Kg	60.7 mg/Kg	-----	-----
- Barium	-----	0.284 mg/Kg	0.273 mg/Kg	-----	-----
- Beryllium	0.2 mg/Kg	0.003 mg/Kg	0.003 mg/Kg	-----	-----
- Calcium	-----	3.77 mg/Kg	4.18 mg/Kg	-----	-----
- Cobalt	-----	0.044 mg/Kg	0.037 mg/Kg	-----	-----
- Chromium	400 mg/Kg	0.154 mg/Kg	0.197 mg/Kg	-----	-----
- Copper	-----	0.107 mg/Kg	0.087 mg/Kg	-----	-----
- Iron	-----	170 mg/Kg	31.3 mg/Kg	-----	-----
- Magnesium	-----	14.0 mg/Kg	7.91 mg/Kg	-----	-----
- Manganese	-----	0.550 mg/Kg	0.232 mg/Kg	-----	-----
- Nickel	2,000 mg/Kg	0.039 mg/Kg	ND	-----	-----
- Vanadium	-----	0.271 mg/Kg	0.184 mg/Kg	-----	-----
- Zinc	-----	0.232 mg/Kg	0.191 mg/Kg	-----	-----

<sup>1</sup> Federal Register/Vol. 55, No. 145/Friday, July 27, 1990/Proposed Rules.  
 No analytes detected above the laboratory detection limits.

Table 3-5  
 Summary of Analytical Results  
 Aberdeen Proving Ground  
 Adamsite Storage Vaults  
 Delivery Order No. 10  
 Soil Boring Samples  
 (Continued)

Parameter	RCA Corrective Action Standards <sup>1</sup>	Sample # 01006 B3-S(0-6')	Sample # 01007 B3-S(6-2')	Sample # 01008 B3-S(4-6')	Sample # 01009 B3-S(10-12')	Sample # 01010 B3-S(10-12')(DUP)	Sample # 00811 Trip Blank	Sample # 00812 Trip Blank
<b>TCL ANALYTES</b>								
<b>Volatiles</b>								
- Acetone	8,000,000 ug/Kg	30.1 ug/Kg	39.0 ug/Kg	34.4 ug/Kg	5,420 ug/Kg	4,480 ug/Kg	ND	ND
- Methylene Chloride	50,000 ug/Kg	9.93 ug/Kg	11.2 ug/Kg	14.2 ug/Kg	ND	ND	ND	ND
<b>Pesticides/PCBs</b>								
- 4,4' DDE	2,000 ug/Kg	ND	ND	2.18 ug/Kg	ND	ND	---	---
- 4,4' DDT	2,000 ug/Kg	12.7 ug/Kg	ND	ND	ND	ND	---	---
<b>Semivolatiles (BNA)</b>								
<b>TAL ANALYTES</b>								
<b>Metals</b>								
- Arsenic	80 mg/Kg	25.3 mg/Kg	8.11 mg/Kg	8.96 mg/Kg	1.56 mg/Kg	ND	---	---
- Lead	No proposed level	79.1 mg/Kg	109 mg/Kg	127 mg/Kg	3.99 mg/Kg	1.94 mg/Kg	---	---
- Mercury	20.0 mg/Kg	990 mg/Kg	ND	309 mg/Kg	ND	2,310 mg/Kg	---	---
- Potassium	---	157 mg/Kg	898 mg/Kg	1,150 mg/Kg	278 mg/Kg	217 mg/Kg	---	---
- Sodium	---	386 mg/Kg	672 mg/Kg	75.8 mg/Kg	50.6 mg/Kg	ND	---	---
- Aluminum	---	138 mg/Kg	177 mg/Kg	171 mg/Kg	48.0 mg/Kg	ND	---	---
- Barium	---	0.198 mg/Kg	0.452 mg/Kg	0.380 mg/Kg	0.123 mg/Kg	33.1 mg/Kg	---	---
- Beryllium	0.2 mg/Kg	0.002 mg/Kg	0.005 mg/Kg	0.005 mg/Kg	ND	0.081 mg/Kg	---	---
- Calcium	---	8,970 mg/Kg	1,040 mg/Kg	893 mg/Kg	175 mg/Kg	109 mg/Kg	---	---
- Cobalt	---	0.370 mg/Kg	0.062 mg/Kg	0.044 mg/Kg	ND	ND	---	---
- Chromium	400 mg/Kg	1.21 mg/Kg	0.249 mg/Kg	0.267 mg/Kg	0.066 mg/Kg	0.049 mg/Kg	---	---
- Copper	---	34.4 mg/Kg	12.4 mg/Kg	14.5 mg/Kg	ND	ND	---	---
- Iron	---	244 mg/Kg	234 mg/Kg	224 mg/Kg	40.3 mg/Kg	28.7 mg/Kg	---	---
- Magnesium	---	89,600 mg/Kg	3,080 mg/Kg	3,120 mg/Kg	362 mg/Kg	345 mg/Kg	---	---
- Manganese	---	476 mg/Kg	76.2 mg/Kg	80.9 mg/Kg	70.6 mg/Kg	35.1 mg/Kg	---	---
- Nickel	2,000 mg/Kg	8.10 mg/Kg	0.417 mg/Kg	0.246 mg/Kg	0.048 mg/Kg	0.048 mg/Kg	---	---
- Vanadium	---	0.294 mg/Kg	0.328 mg/Kg	0.355 mg/Kg	0.085 mg/Kg	0.054 mg/Kg	---	---
- Zinc	---	0.334 mg/Kg	0.403 mg/Kg	0.374 mg/Kg	0.110 mg/Kg	0.064 mg/Kg	---	---

<sup>1</sup> Federal Register/Vol. 55, No. 145/Friday, July 27, 1990/Proposed Rules.  
 ND - No analytes detected above the laboratory detection limits.

DACA87-90-D-0031  
 Delivery Order No. 10 - Adamsite

Table 3--6  
 Summary of Analytical Results  
 Aberdeen Proving Ground  
 Adamsite Storage Vaults  
 Delivery Order No. 10  
 Monitoring Well Soil Samples

Parameter	RCRA Corrective Action Standards 1	Sample # 00809 Trip Blank	Sample # 00810 Trip Blank	Sample # 01012 MW 1-S (0-6")	Sample # 01013 MW 1-S (6"-2')	Sample # 01014 MW 1-S (4-6')	Sample # 01015 MW 1-S (10-12')
<b>ICL ANALYTES</b>							
<b>Volatiles</b>							
- Acetone	8,000,000 ug/Kg	ND	ND	ND	ND	ND	ND
- Methylene Chloride	90,000 ug/Kg	ND	ND	ND	ND	ND	ND
<b>Pesticides/PCBs</b>							
- 4,4' DDE	2,000 ug/Kg	-----	-----	3.82 ug/Kg	ND	ND	ND
- 4,4' DDT	2,000 ug/Kg	-----	-----	6.39 ug/Kg	ND	ND	ND
<b>Semivolatiles (BNA)</b>							
<b>ICL ANALYTES</b>							
<b>Metals</b>							
- Arsenic	80 mg/Kg	-----	-----	7.50 mg/Kg	9.40 mg/Kg	2.70 mg/Kg	ND
- Lead	No proposed level	-----	-----	46.2 mg/Kg	10.6 mg/Kg	7.30 mg/Kg	2.10 mg/Kg
- Potassium	-----	-----	-----	442 mg/Kg	705 mg/Kg	555 mg/Kg	186 mg/Kg
- Silver	200 mg/Kg	-----	-----	0.290 mg/Kg	ND	ND	ND
- Sodium	-----	-----	-----	138 mg/Kg	255 mg/Kg	46.3 mg/Kg	ND
- Aluminum	-----	-----	-----	8,460 mg/Kg	16,400 mg/Kg	10,600 mg/Kg	1,940 mg/Kg
- Barium	-----	-----	-----	53.7 mg/Kg	42.8 mg/Kg	30.6 mg/Kg	7.20 mg/Kg
- Beryllium	0.2 mg/Kg	-----	-----	0.23 mg/Kg	0.450 mg/Kg	0.34 mg/Kg	ND
- Calcium	-----	-----	-----	2,580 mg/Kg	851 mg/Kg	210 mg/Kg	75.1 mg/Kg
- Cobalt	-----	-----	-----	13.1 mg/Kg	5.7 mg/Kg	3.90 mg/Kg	ND
- Chromium	400 mg/Kg	-----	-----	40.9 mg/Kg	20.3 mg/Kg	12.3 mg/Kg	2.60 mg/Kg
- Copper	-----	-----	-----	25.3 mg/Kg	9.20 mg/Kg	7.80 mg/Kg	ND
- Iron	-----	-----	-----	13,900 mg/Kg	19,200 mg/Kg	9,850 mg/Kg	2,260 mg/Kg
- Magnesium	-----	-----	-----	15,200 mg/Kg	1,840 mg/Kg	1,370 mg/Kg	258 mg/Kg
- Manganese	-----	-----	-----	210 mg/Kg	79.2 mg/Kg	59.4 mg/Kg	12.8 mg/Kg
- Nickel	2,000 mg/Kg	-----	-----	3.15 mg/Kg	13.1 mg/Kg	8.3 mg/Kg	ND
- Vanadium	-----	-----	-----	16.5 mg/Kg	30.7 mg/Kg	20.1 mg/Kg	ND
- Zinc	-----	-----	-----	51.9 mg/Kg	47.2 mg/Kg	28.1 mg/Kg	5.70 mg/Kg

1 Federal Register/Vol. 55, No. 145/Friday, July 27, 1990/Proposed Rules.  
 - No analytes detected above the laboratory detection limits.

Table 3--6  
 Summary of Analytical Results  
 Aberdeen Proving Ground  
 Adamsite Storage Vaults  
 Delivery Order No. 10  
 Monitoring Well Soil Samples  
 (Continued)

Parameter	RCRA Corrective Action Standards 1	Sample # 01016 MW2-S(0-6)	Sample # 01017 MW2-S(6-2)	Sample # 01014 MW2-S(4-6)	Sample 01019 MW2-S(10-12)
<b>TOC ANALYTES</b>					
<b>Volatiles</b>					
- Acetone	8,000,000 ug/Kg	ND	ND	ND	ND
- Trichloroethene	60,000 ug/Kg	8.48 ug/Kg	ND	ND	ND
- 1,1,2,2-Tetrachloroethane	40,000 ug/Kg	ND	14.0 ug/Kg	11.0 ug/Kg	ND
- Xylene	2E+8 ug/Kg	ND	14.2 ug/Kg	ND	ND
<b>Pesticides/PCBs</b>					
- 4,4' DDE	2,000 ug/Kg	ND	ND	ND	ND
- 4,4' DDT	2,000 ug/Kg	ND	ND	ND	ND
- Aroclor 1260	90 ug/Kg	1,590 ug/Kg	ND	ND	ND
<b>Semi-volatiles (BNA)</b>					
<b>TAL ANALYTES</b>					
<b>Metals</b>					
- Arsenic	80 mg/Kg	7.70 mg/Kg	4.3 mg/Kg	4.3 mg/Kg	ND
- Lead	No proposed level	120 mg/Kg	11.1 mg/Kg	8.3 mg/Kg	4.40 mg/Kg
- Potassium	---	533 mg/Kg	660.0 mg/Kg	991 mg/Kg	270 mg/Kg
- Silver	200 mg/Kg	0.158 mg/Kg	ND	ND	ND
- Sodium	---	135 mg/Kg	75.1 mg/Kg	119 mg/Kg	ND
- Aluminum	---	6,070 mg/Kg	15,000 mg/Kg	15,900 mg/Kg	3,520 mg/Kg
- Barium	---	50.9 mg/Kg	51.5 mg/Kg	36.4 mg/Kg	10.2 mg/Kg
- Beryllium	0.2 mg/Kg	0.180 mg/Kg	0.520 mg/Kg	0.560 mg/Kg	ND
- Cadmium	40 mg/Kg	2.40 mg/Kg	ND	ND	ND
- Calcium	---	2,450 mg/Kg	301 mg/Kg	469 mg/Kg	134 mg/Kg
- Cobalt	---	7.0 mg/Kg	5.9 mg/Kg	3.9 mg/Kg	ND
- Chromium	400 mg/Kg	27.6 mg/Kg	17.8 mg/Kg	22 mg/Kg	4.20 mg/Kg
- Copper	---	31.6 mg/Kg	6.9 mg/Kg	12.1 mg/Kg	ND
- Iron	---	23,500 mg/Kg	15,800 mg/Kg	19,900 mg/Kg	2,190 mg/Kg
- Magnesium	---	2,560 mg/Kg	1,260 mg/Kg	1,930 mg/Kg	325 mg/Kg
- Manganese	---	98.0 mg/Kg	65.1 mg/Kg	65.6 mg/Kg	24.7 mg/Kg
- Nickel	2,000 mg/Kg	24.6 mg/Kg	12.0 mg/Kg	11.1 mg/Kg	4.60 mg/Kg
- Vanadium	---	14.2 mg/Kg	26.3 mg/Kg	36.4 mg/Kg	4.50 mg/Kg
- Zinc	---	21.8 mg/Kg	34.0 mg/Kg	32.1 mg/Kg	8.90 mg/Kg

1 Federal Register/Vol. 55, No. 145/Friday, July 27, 1990/Proposed Rules.  
 ND -- No analytes detected above the laboratory detection limits.

DACA87-90-D-0031  
 Delivery Order No. 10 - Adamsite

Table 3-6  
 Summary of Analytical Results  
 Aberdeen Proving Ground  
 Adamsite Storage Vaults  
 Delivery Order No. 10  
 Monitoring Well Soil Samples  
 (Continued)

Parameter	RCRA Corrective Action Standards 1	Sample #01020 MW3-S(0-6")	Sample #01021 MW3-S(6"-2')	Sample #00807 Trip Blank	Sample #00808 Trip Blank
<b>TCL ANALYTES</b>					
Volatiles					
- Acetone	80,000 ug/kg	ND	ND	13.1 ug/L	15.5 ug/L
Pesticides/PCBs	-----	ND	ND	-----	-----
Semivolatiles (BNA)	-----	ND	ND	-----	-----

Table 3-6 Cont'd: Summary of Metals Analytical Results

Parameter	RCRA Corrective Action Standards 1	Sample #01020 MW3-S(0-6")	Sample #01021 MW3-S(6"-2')	Sample #01022 MW3-S(4'-6')	Sample #01023 MW3-S(10-12')	Sample #01024 MW3-S(10-12') (mg/Kg) (DUP)	Sample #01079 Field Blank (mg/Kg)
<b>TAL ANALYTES</b>							
Metals							
- Arsenic	80 mg/kg	4.44	7.14	2.09	ND	ND	ND
- Lead	No proposed level	138	12.7	8.28	10.8	11.4	ND
- Potassium	-----	545	500	844	785	670	2.13
- Sodium	-----	593	124	108	368	301	0.406
- Aluminum	-----	18,200	17,000	14,600	13,500	17,800	ND
- Barium	-----	68.5	50.8	35.1	62	60.9	ND
- Beryllium	0.2 mg/kg	0.313	0.437	0.405	0.882	0.443	ND
- Calcium	-----	7,390	1,160	398	737	695	ND
- Cadmium	40 mg/kg	1.16	7.1	ND	ND	ND	161
- Cobalt	-----	12.3	7.1	4.89	8.14	9.29	ND
- Chromium	400 mg/kg	32.4	20.2	20.5	36.4	35.3	ND
- Copper	-----	95	9.21	10.4	16	13.3	ND
- Iron	-----	16,900	22,500	15,600	17,300	13,500	ND
- Magnesium	-----	3,980	1,880	2,040	2,300	2,120	ND
- Manganese	-----	239	86.9	62.8	55.4	71.9	ND
- Nickel	2,000 mg/kg	16.6	8.27	6.77	9.42	9.81	ND
- Vanadium	-----	33.5	30.6	29.5	48.7	36.4	ND
- Zinc	-----	484	51	35.4	34.5	32.6	ND

1 Federal Register/Vol. 55, No. 145/Friday, July 27, 1990/Proposed Rule.  
 ND - Analytes detected above the laboratory detection limits.

DACA87-90-D-0031  
 Delivery Order No. 10 - Adamsite

Table 3-6  
 Summary of Analytical Results  
 Aberdeen Proving Ground  
 Adamsite Storage Vaults  
 Delivery Order No. 10  
 Monitoring Well Soil Samples  
 (Continued)

Parameter	RCRA Corrective Action Standards <sup>1</sup>	Sample # MW3-S(4-6)	Sample # 01023 MW3-S(10-12)	Sample # 01024 MW3-S(10-12)	Sample # 01079 Field Blank
<b>TCL ANALYTES</b>					
<b>Volatiles</b>					
- Acetone	8,000,000 ug/Kg	36.6 ug/Kg	342 ug/Kg	903 ug/Kg	14.1 ug/L
- Methylene Chloride	90,000 ug/Kg	10.1 ug/Kg	6.10 ug/Kg	ND	ND
Pesticides/PCBs	-----	ND	ND	ND	ND
Semivolatiles (BNA)	-----	ND	ND	ND	ND

<sup>1</sup> Federal Register/Vol. 55, No. 145/Friday, July 27, 1990/Proposed Rules.  
 ND - No analytes detected above the laboratory detection limits.



DACA87-90-D-0031  
 Delivery Order No. 10 - Adamsite

Table 3-7

Summary of Analytical Results  
 Aberdeen Proving Ground  
 Adamsite Storage Vaults  
 Delivery Order No. 10  
 Monitoring Well Groundwater Samples

Parameter	RCRA Corrective Action Standards 1	Sample # 01073 MW-1-W-A	Sample # 01074 MW-2-W-A	Sample # 01075 MW-3-W-A	Sample # 01076 MW-3-W-A(DUP)	Sample # 00840 Trip Blank	Sample # 00841 Trip Blank
<b>TCL ANALYTES</b>							
<b>Volatiles</b>							
-Chloroform	6.0 ug/L	7.56 ug/L	ND	ND	ND	ND	ND
-Methylene Chloride	5.0 ug/L	ND	ND	ND	ND	ND	ND
-1,1,2,2-Tetrachloroethane	2.0 ug/L	ND	82.7 ug/L	213 ug/L	236 ug/L	ND	ND
-Tetrachloroethene	0.7 ug/L	ND	6.25 ug/L	12.2 ug/L	12.4 ug/L	ND	ND
-Trichloroethene	5.0 ug/L	ND	46.8 ug/L	153 ug/L	151 ug/L	ND	ND
-1,1,2-Trichloroethane	6.0 ug/L	ND	6.04 ug/L	18.1 ug/L	16.8 ug/L	ND	ND
-Trans 1,2-Dichloroethene	-----	ND	ND	78.9 ug/L	76.2 ug/L	ND	ND
Pesticides/PCBs	-----	ND	ND	ND	ND	-----	-----
Semivolatiles (BNA)	-----	ND	ND	ND	ND	-----	-----
<b>TAL ANALYTES</b>							
<b>Metals</b>							
-Lead	50.0 ug/L	25.4 ug/L	21.0 ug/L	20.5 ug/L	24.9 ug/L	-----	-----
-Potassium	-----	1740 ug/L	1610 ug/L	520 ug/L	2150 ug/L	-----	-----
-Sodium	-----	8190 ug/L	2790 ug/L	3610 ug/L	34900 ug/L	-----	-----
-Aluminum	-----	11,800 ug/L	9190 ug/L	418 ug/L	519 ug/L	-----	-----
-Barium	-----	84.4 ug/L	61.8 ug/L	52 ug/L	49.6 ug/L	-----	-----
-Beryllium	0.008 ug/L	0.869 ug/L	ND	ND	ND	-----	-----
-Calcium	-----	9,050 ug/L	18,200 ug/L	13,400 ug/L	12,800 ug/L	-----	-----
-Cobalt	-----	10.1 ug/L	ND	28.9 ug/L	27.9 ug/L	-----	-----
-Chromium	50.0 ug/L	30.7 ug/L	19.8 ug/L	8.64 ug/L	9.48 ug/L	-----	-----
-Iron	-----	21,800 ug/L	9,060 ug/L	2,810 ug/L	3,010 ug/L	-----	-----
-Magnesium	-----	6,340 ug/L	8,540 ug/L	5,750 ug/L	5,350 ug/L	-----	-----
-Manganese	-----	208 ug/L	182 ug/L	340 ug/L	323 ug/L	-----	-----
-Mercury	2.0 ug/L	0.420 ug/L	ND	ND	ND	-----	-----
-Nickel	700 ug/L	ND	ND	20.2 ug/L	29.6 ug/L	-----	-----
-Vanadium	-----	34.2 ug/L	15.7 ug/L	ND	ND	-----	-----
-Zinc	-----	83.6 ug/L	42.2 ug/L	58.0 ug/L	54.5 ug/L	-----	-----

1 Federal Register/Vol. 55, No. 145/Friday, July 27, 1990/Proposed Rules.  
 ND - No analytes detected above the laboratory detection limits.

DACA87-90-D-0031  
 Delivery Order 10 - Adamsite

Table 3-8

Summary of Toxicity Characteristic Leachate Procedure (TCLP) Analytical Results

Aberdeen Proving Ground

Adamsite Storage Vaults  
 Delivery Order No. 10  
 Drill Cuttings and Decon Water

Parameter	RCRA Haz. Waste Char. (40 CFR)	Sample #		Sample #		Sample #		Sample #		Sample #	
		01082 Decon Water	01081 Decon (DUP)	01101 MW-1-T-Comp	01102 MW-2-T-Comp	01103 MW-3-T-Comp	00829 Trip Blank	00830 Trip Blank			
<b>TCLP</b>											
<b>Metals</b>											
- Barium (Total)	100,000 ug/L	126 ug/L	76.2 ug/L	533 ug/L	472 ug/L	771 ug/L					
- Arsenic	5,000 ug/L	ND	ND	ND	144 ug/L	ND					
<b>Volatiles</b>											
		ND	ND	ND	ND	ND					
<b>Semivolatiles</b>											
		ND	ND	ND	ND	ND					
<b>Herbicides</b>											
		ND	ND	ND	ND	ND					
<b>Pesticides</b>											
		ND	ND	ND	ND	ND					
<b>Reactivity</b>											
- Cyanide		ND	ND	ND	ND	ND					
- Sulfide		ND	6.69 mg/kg	11.5 mg/kg	13.8 mg/kg	14.4 mg/kg					
<b>PCBs</b>											
		ND	ND								
<b>Corrosivity (pH)</b>	< 2 or > 12.5	7.78	7.66	5.9	5.55	5.86					
<b>Ignitibility</b>		No flash	No flash	No flash	No flash	No flash					
<b>Nitrates</b>		0.091 mg/L	0.09 mg/L								

DACA87-90-D-0031  
 Delivery Order 10 - Adamsite

Table 3-9  
 Summary of Toxicity Characteristic Leachate Procedure (TCLP) Analytical Results  
 Aberdeen Proving Ground  
 Adamsite Storage Vaults  
 Delivery Order No. 10  
 Soil Boring Tailings

Parameter	RCRA Haz. Waste Char. (40 CFR)	Sample # B-1-T-Comp	Sample # B-2-T-Comp	Sample # B-3-T-Comp	Sample # B-3-T-Comp (DUP)	Sample # Trip Blank	Sample # Trip Blank	TCLP Blank
<b>Metals</b>								
- Arsenic	5,000 ug/L	ND	276 ug/L	ND	ND	ND	ND	ND
- Barium (Total)	100,000 ug/L	624 ug/L	649 ug/L	178 ug/L	416 ug/L	ND	ND	ND
Volatiles	-----	ND	ND	ND	ND	ND	ND	ND
Semivolatiles	-----	ND	ND	ND	ND	ND	ND	ND
Herbicides	-----	ND	ND	ND	ND	ND	ND	ND
Pesticides	-----	ND	ND	ND	ND	ND	ND	ND
Reactivity								
- Cyanide	-----	ND	ND	ND	ND	ND	ND	ND
- Sulfide	-----	14.3 mg/kg	19.3 mg/kg	19.8 mg/kg	20.8 mg/kg	ND	ND	ND
Corrosivity (pH)	< 2 or > 12.5	4.72	7.21	6.17	5.64	ND	ND	ND
Ignitibility	-----	No flash	No flash	No flash	No flash	No flash	No flash	No flash

**APPENDIX D**

**FWENC RADIOLOGICAL ASSESSMENT**



**FOSTER WHEELER ENVIRONMENTAL CORPORATION**

October 16, 1995

Mr. Robert P. Rizzieri, M.S., P.E.  
Resident Engineer  
ATTN: Mr. Billy Sanders  
Environmental Remediation Resident Office  
P.O. Box 56  
Gunpowder Branch  
Aberdeen Proving Ground, Maryland 21010-0056

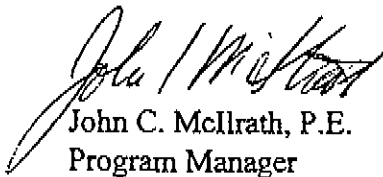
Subject: Contract No. DACA31-94-D-0020, D.O. 0003, Draft Report of Radiological Assessment of the Adamsite Storage Vaults

Dear Mr. Rizzieri:

The enclosed radiological assessment of the Adamsite Storage Vaults incorporates the results from radiological survey and sampling that was completed in August 1995. Please review this report and advise me of any other actions in regards to the Adamsite Storage vaults remediation project.

If you have any questions, please contact me or Mr. Tim Reese at 410-671-6015.

Sincerely,

  
John C. McIlrath, P.E.  
Program Manager

cc: Ingrid Bon  
Timothy Reese

# RADIOLOGICAL ASSESSMENT OF THE ADAMSSITE STORAGE VAULTS

## Aberdeen Proving Ground, Maryland

### 1.0 Introduction

A radiological sampling plan was prepared and implemented to assess the radiological conditions of the soil at the Adamsite Storage Vaults. This in turn would determine whether or not the site could be released for unrestricted use, and if not, the level of control which would have to be exercised.

The assessment was done in accordance with the "Radiological Sampling Plan with Health & Safety Plan for the Adamsite Storage Vaults Removal Action" prepared by Foster Wheeler Environmental under contract Number DACA31-94-D-0020, and dated July 1995. The plan was developed to parallel the approach to site release outlined in draft NUREG/CR 5849 "Manual for Conducting Radiological Surveys in Support of License Termination". Elements of the sampling plan included gridding of the site, determination of background, a walkover gamma survey, and the collection and analysis of soil samples.

### 2.0 Gridding of the Site

Figure 1 shows the results of the gridding of the site. Grid points were established in a square array beginning in the Northeast corner of the site with a spacing of 10m. Because of the irregular shape of the site boundary and features within the site (e.g., buildings and concrete slabs) incomplete grid blocks were sometimes combined to maintain approximate unity in the size of each grid. Bricks were used as markers at the intersection of the grid boundaries for reference during the walkover survey.

### 3.0 Determination of Background

Background was determined by selecting an area thought to be free of man-made contamination and taking a series of 10 one-minute counts six inches above the surface. Soil was then collected from the same ten locations and composited. The instrument used was a Ludlum Model 2221 portable survey meter with a 2X2 sodium iodide detector. Because of the possibility of seeing assorted radionuclides, the instrument was operated in the "window-out" mode so that all gamma radiation exceeding the threshold energy would be seen. The location selected was about 100 yards northeast of the site across a cattail filled swale. A gamma isotopic analysis was made of the sample composite.

The gross counts per minute seen in the ten locations varied between 6768 and 8259. The average was  $7450 \pm 449$ . The analysis of the composite yielded the following results:

cobalt-60	< 0.13 pCi/g
cesium-137	< 0.65 pCi/g
bismuth-214	$0.71 \pm .55$ pCi/g
thorium-234	< 15 pCi/g

Thorium-234, a daughter of uranium-238, is used to determine and quantify its presence.

Bismuth-214 is a daughter of naturally occurring radium-226

In addition to the background measured in the field a background measurement was made each day in the Foster Wheeler Environmental Radiological Trailer to verify the consistent operation of the instrument used for the walkover survey. The gross counts per minute seen over the five days that the instrument was used varied from 5065 to 5387 gross counts per minute, and the average was  $5230 \pm 134$  gross counts per minute.

#### 4.0 Walkover Survey

The walkover survey was performed by two technicians. One operated the instrument, holding the detector six inches above the ground and walking systematically back and fourth across the grid. The other recorded the information collected. The instrument used had a digital readout which gave periodic (one per second) readings of the gross count rate. As the one technician walked he reported the gross count rate seen (usually rounded off to the nearest 100 counts per minute) averaged across the previous readings. This was not done, however, if the count rate was observed to change significantly. In that case the technician slowed his walk to allow time for the readout to stabilize, and then report the result. This activity was continued for ten minutes, or until the entire grid had been surveyed, whichever occurred last.

The readings were recorded on a previously prepared map of the grid section in approximately the location of the technician at the time the reading was reported. The survey sheet also showed the path of the technician making the walkover. As a result the survey maps each contain an array of several dozen gross count rate readings.

In addition to the surveys of the 21 grid sections within the fence the walkover included the area outside the fence to a distance of about 3m. However, the area inside of the radiological storage yard, to the left of the grid sections noted with an "A" in Figure 1, was not included in this activity.

The survey data collected is summarized in Figure 2. This figure gives a profile of the gross count rates seen in the various areas. The site and adjacent area is divided into four categories based on the count rates seen. These groups consist of regions where the count rates fell into the following ranges:

<u>Gross Count Rate Range</u>	<u>Color Code</u>
< twice background	white
2 to 5 times background	green
5 to 10 times background	gray
> 10 times background	black

As shown in this figure most of the contamination greater than twice background was found in three regions. Two of these regions correspond to paths where stormwater runoff from the adjacent radioactive material storage yard would be expected. One of these follows a noticeable depression through sections 1A and 2A through E. The depression continues east of the site to the Bush River. Contamination was found by the walkover survey outside of the fence all the way to the cattails on the riverbank. The second region also followed a small gully that paralleled the fence along the left side of grid sections 2A through 8A. Contamination was also found outside of the fence where this shallow gully empties into a grassy area. Except for these two washes no contamination was found outside on the three sides of the site surveyed.

The third region with significant contamination was south and south east of Building E-2364, and appears to be associated with activity there. The pattern is consistent with contamination that first appeared outside at the doorway of the building, and then washed to the southeast as far as the neighboring slab.

There were no indications of significant radioactivity found in the remainder of the site except for two isolated hot spots.

#### 4.1 Definition of "Affected" Areas

Gross count rates in excess of two times the background gross count rate measured in the trailer were circled on the survey map. If one or more of these twice-background count rates was seen in a grid section, that section was identified as affected.

This practice was modified somewhat in the field, however, when there got to be so many affected areas, that there weren't going to be enough unaffected areas to get the needed 30 samples as prescribed in the plan. Therefore, for two grid sections where there was only a single reading greater than twice background in each an "affected" sample was scheduled for that location and three "unaffected" samples were scheduled for random locations elsewhere in that grid.

Grid sections in which there were no readings found in excess of twice background were identified as unaffected areas. In all, six areas were found to be unaffected. There were the two hybrid areas as noted in the previous paragraph and 13 affected areas - making up the total of 21 grid sections.

#### 4.2 Determination of sampling points in Affected Areas

The locations corresponding to the four highest readings in an affected grid section were identified (using spray paint) for sampling.

#### 4.3 Determination of sampling points in Unaffected Areas

In each grid where there were no readings greater than twice background the grids were divided into four quarters and a random location was marked in each of the quarters. Spray paint of a different color was used. No reference was made to the original walkover survey when selecting a sample point in the chosen quarter.

In each of the two hybrid grids the location with the highest reading was identified for the collection of an "affected area" sample. The remainder of the grid was then divided into three subsections and three other locations were identified for the collection of the "unaffected area" samples.

### 5.0 Sampling

The first step in sampling was to have ordinance technicians scan the selected sampling points to see if any metal, indicative of UXO, were present. Since many of the affected area locations were adjacent to the (chain-link) fence legitimate readings of the soil were hard or impossible to get. In these cases the ordinance technicians took the samples themselves.



Sampling was done by using a stainless steel trowel to dig up soil from the selected area. The soil was transferred to a clean plastic sheet and mixed. Stones larger than golf-ball size were removed and the soil transferred to two bottles, one for chemical screening (100 mL) and the other for gamma isotopic analysis (1,000 mL). The caps were placed on the bottles, and the external surfaces wiped clean with a moist paper towel. The bottles were labelled and boxed in preparation for shipping to the laboratory for analysis.

The trowel was also wiped clean. Periodic surveys of the cleaned trowel did not indicate the presence of any detectable quantities of residual radioactive material. A clean sheet of plastic was used for each sample.

This process was repeated for 52 samples from affected areas, two affected area samples from the hybrid grids, 24 samples from unaffected areas and six unaffected area samples from the hybrid grids. In all there were 54 affected area samples and 30 unaffected area samples. Figure 3 shows the sample locations for these 84 samples. The locations where affected-area samples were taken are identified by the numbers one through four enclosed in squares. Locations where unaffected-area samples were taken are noted by numbers inscribed in circles.

## 6.0 Analysis

The first step in the analysis was to get the samples chemically screened so that staff at the analytical laboratory would not be exposed to chemical warfare agents. As soon as a set of samples were cleared based on the splits, the 1,000 mL samples were sent to Pace Environmental Laboratories in Golden, Colorado for gamma isotopic analyses. They used about 100 grams of the sample to match an established geometry and counted the samples for 900 seconds each. They reported sensitivities for the common radionuclides expected in the following ranges:

<u>Radionuclide</u>	<u>Range of Sensitivity (pCi/g)</u>
Potassium-40	0.90 to 7.0
Cobalt-60	0.07 to 2.1
Cesium-137	0.06 to 2.7
Thorium-234	2.1 to 15

## 7.0 Results

The results of the gamma isotopic analyses of the 30 samples from unaffected areas is given as follows:

<u>Radionuclide</u>	<u>% Detects</u>	<u>Range (pCi/g)</u>	<u>Mean (pCi/g)*</u>	<u>Standard Deviation (pCi/g)</u>
Potassium-40	27	2.9 to 8.3	3.5	± 2.7
Cobalt-60	0			
Cesium-137	47	0.43 to 2.4	0.73	± 0.71
Lead-212	10	0.78 to 1.1	0.34	± 0.20
Thorium-234	0			

\*(Values of 0.5 times the sensitivity were used for "non-detects" to compute the mean and standard deviation.)

The results of the gamma isotopic analyses of the 54 samples from affected areas is given as follows:

<u>Radionuclide</u>	<u>% Detects</u>	<u>Range (pCi/g)</u>	<u>Mean (pCi/g)*</u>	<u>Standard Deviation (pCi/g)</u>
Potassium-40	6	5.6 to 14	2.0	± 2.2
Cobalt-60	4	31 to 287**		
Cesium-137	85	1.0 to 290	28	± 50
Lead-212	0			
Thorium-234	2	66,000***		

\*(Values of 0.5 times the sensitivity were used for "non-detects" to compute the mean and standard deviation)

\*\*Without the two samples with detectable Co-60 the mean concentration was found to be 0.28 pCi/g. With these two samples the concentration averages 6.2 +/- 39 pCi/g.

\*\*\*Th-234 (the indicator for U-238) was detected in one sample. Also present was Pa-234, another daughter of U-238 (63000 pCi/g), and U-235 (65 pCi/g). The derived ratio between Th-234 and U-235 indicated that the uranium present is depleted (0.25% U-235).

## 8.0

### Data Evaluation

A review of the data from analysis of samples taken from unaffected areas did not identify anything unusual. Radiological contaminants identified included two naturally occurring radionuclides (potassium-40 and lead-212) at low concentrations and cesium-137 present in about half of the samples at concentrations ranging from 0.43 to 2.4 pCi/g.

The results of analyses of samples taken from affected areas confirms the results of the walkover survey. Higher concentrations of radionuclides were found in a few isolated hot spots, along drainage paths from the adjacent fenced storage yard, and south of Building E-2364 (Grid sections 5B and 5C).

The three hottest spots were (1) an isolated area adjacent to the center of the vaults on the south side, (sample location 8B1), (2) an area adjacent to the fenced storage lot which was just upstream of the major drainage pathway through the site (sample location 1A1), and (3) an isolated area to the left of Building E-2364 (sample location 3A4). The 8B1 sample was the only one to containing uranium. The concentration found 66,000 pCi/g was by far the highest concentration found on site. However, because of the radiological nature of uranium the only potential for significant exposure would be through breathing the dust if material from that area became airborne. The 1A1 sample contained both cobalt and cesium that have apparently migrated onto the site from the storage yard to the west. A supplement to the walkover survey included a visit to the storage yard across the fence from this location. Count rates there were as much as three times higher than those found on the site. The 3A4 sample was truly isolated. There were no significant readings taken in any direction. This contamination must have been the result of a single well defined spill of cesium-137.

Cobalt-60 was found there at a concentration of 31 pCi/g. It is the only other place on site where cobalt-60 was found (besides location 1A1) and seems to be isolated from any other sources of contamination.

Patterns of cesium contamination were seen which corresponded to those shown in Figure 2. The highest concentrations followed the drainage pathway starting in Grid 1A and exiting the site from Grid 2E. A similar pattern followed the fence southwest from the same starting point (Grid 1A). The third contamination pattern seems to have originated at the doorways on the south side of Building E-2364. Runoff may have carried this material east as far as the next slab (sample locations 5C3 and 5C4).

There were four areas where the sample analyses indicated concentrations that were generally lower than expected based on the results of the walkover survey. These were along the storage yard fence (Grids 8A, 5A and 4A) and south of Building E-2364 (Grid 5C). There are three possible reasons that seem credible, nonuniform contamination, possible contributions from adjacent sources, and possible contamination in deeper layers. Non-uniform contamination could account for this if significant sources of contamination were missed in collecting the 1,000 mL soil sample. Increased background from adjacent sources is possible since all the areas are next to boundaries (the east fence or the south wall of Building E-2364). Sources on the other side of the fence or inside of the building could have caused the readings taken during the walkover survey to be high - and therefore the sample concentrations to appear low. Third, contamination may exist there at levels lower than the depth of the sample collected (2 or 3 inches). This could have contributed to the counts seen during the walkover survey, but not to the concentrations seen in the samples.

## 9.0 Radiological Assessment

An assessment was made of the significance of the concentrations found as they would affect (1) remediation work on the site, and (2) the release of the site for unrestricted use.

The primary potential for radiation exposure during remediation of the site is via the suspension and inhalation of the uranium bearing soil found at location 8B1. This limited area should be remediated (by excavation, packaging, and disposal) prior to doing work in the immediate vicinity. The contamination in Grids 1A and 2A, and the 3A4 hot spot should probably be avoided - not necessarily to prevent personnel exposure, but to avoid spreading the contamination in such a way to make the eventual release of the site more difficult.

The activities estimated to be required to facilitate the release of the site for unrestricted use would include the removal of the hot spots and parts of the cesium contaminated soils found along the runoff pathways noted. The hot spots mentioned would be those at locations 3A4, 7A4, 8B1, and the area in 1A1 where cobalt-60 is present. The remediation of the cesium-contaminated areas would depend on the definition of an applicable release criterion. This in turn depends on the extent of the contamination and the assumed exposure scenario. Values suggested (and in some cases used) by others include 15, 25, and 50 pCi/g. Depending on

which criterion can be justified, some removal of cesium-contaminated soil is likely to be required. The suggested priority for soil removal is given as follows:

- Contaminated areas in Grids 1A and 2A,
- Contaminated areas in Grids 5C, 5A, and 5B,
- Contaminated areas in Grids 2B, 2C, 2D, and 2E,
- Contaminated areas in Grids 3A and 4A, and
- Contaminated areas in Grids 7A and 8A.

Removal would be expected to be that necessary to achieve an average concentration that would be less than the criterion defined and to keep the maximum concentrations less than three times that limit.

Note finally that the release of the Adamsite for unrestricted use should not be attempted until it can be assured that the intrusion of contamination from the adjacent storage yard has been stopped.

APPENDIX I

Sample Results

This appendix gives the radiological concentrations reported by Pace Laboratories for radionuclides identified during the gamma isotopic analysis when those concentrations exceeded the laboratory reporting level. The sample numbers listed (e.g., 62u-5D2) are interpreted as follows:

- 62 is a sequential sample number.
- “u” means “unaffected” - as opposed to “a” meaning “affected”. Sample locations from unaffected areas are shown as circles on Figure 3. Sample locations from affected areas are shown as squares.
- 5D is the grid identification.
- 2 refers to the similarly marked location in Grid 5D on Figure 3.

Table A-1 gives the radiological concentrations detected in samples taken from unaffected areas.

Table A-1 Concentrations of Radionuclides in Unaffected Areas (pCi/g)					
Sample ID	K-40	Co-60	Cs-137	Pb-212	Th-234
29u-3BC1					
30u-3BC2	2.9±1.9				
31u-3BC3	6.7±3.0		2.2 ±.48		
32u-3BC4					
34u-3D2			1.7 ±.43		
35u-3D3			0.44±.26		
33u-3D4	6.6±2.8		0.54±.24		
37u-3E1	6.7±3.2				
38u-3E2	6.5±3.1				
39u-3E3	8.3±4.7		0.80±.40		
40u-3E4			1.6 ±.40		
45u-4D1					
46u-4D2					
47u-4D3			2.4 ±.74		
48u-4D4			1.8 ±.50		

Table A-2 (Continued)  
 Concentrations of Radionuclides in Affected Areas  
 (pCi/g)

Sample ID	K-40	Co-60	Cs-137	Pb-212	Th-234
27a-3A3					
28a-3A4			290 ± 31		
36a-3D1			6.3 ± 1.2		
41a-4A1			5.9 ± 1.4		
42a-4A2	14 ± 7.6		5.8 ± 1.3		
43a-4A3			8.8 ± 1.8		
44a-4A4			9.2 ± 1.7		
49a-5A1			20 ± 3.1		
50a-5A2	11 ± 7.7				
51a-5A3					

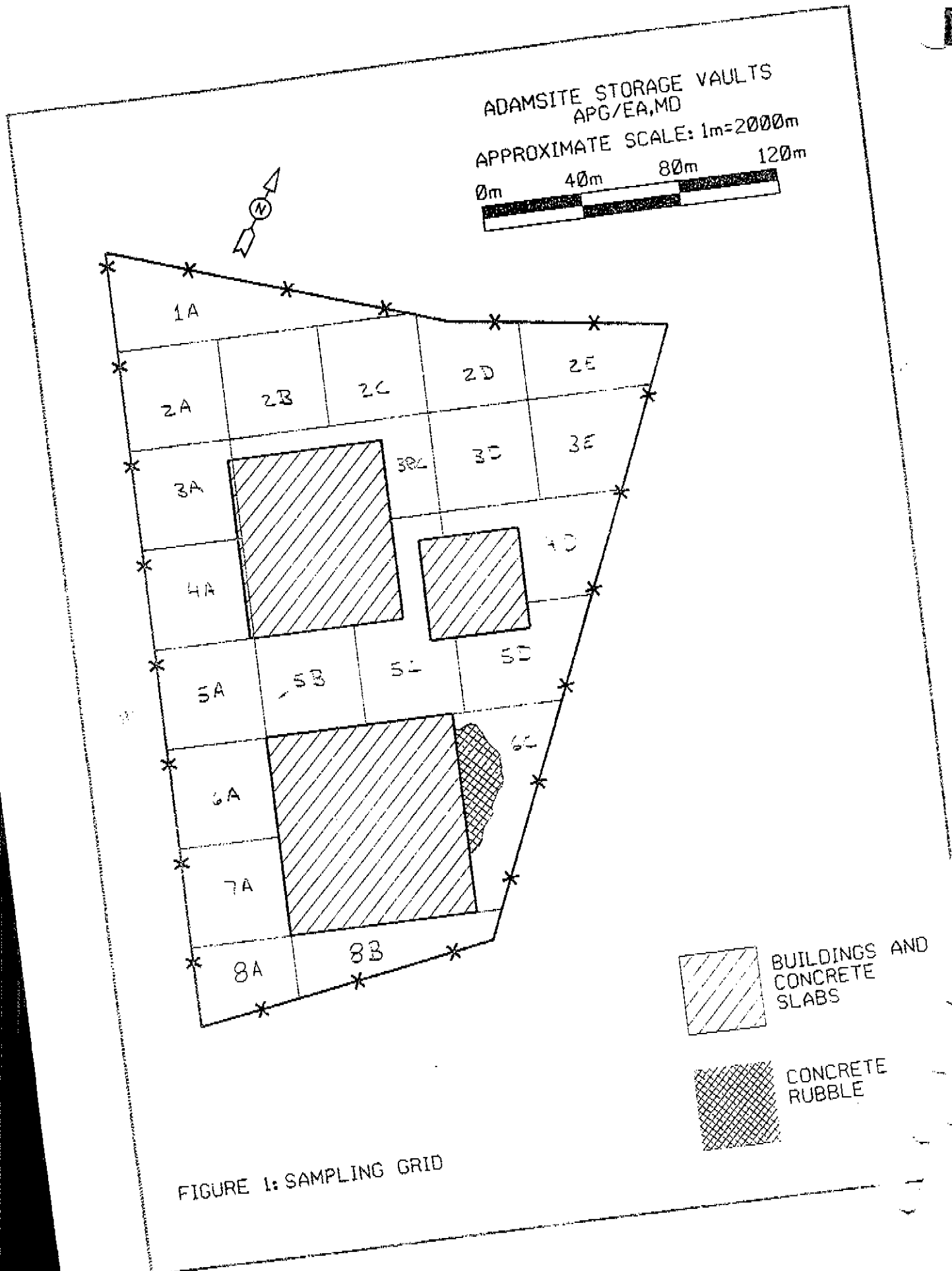


Table A-2 (Continued)  
Concentrations of Radionuclides in Affected Areas  
(pCi/g)

Sample ID	K-40	Co-60	Cs-137	Pb-212	Th-234
80a-8A4			4.7 ± 1.0		
81a-8B1					66,000±780

ADAMSSITE STORAGE VAULTS  
APG/EA,MD

APPROXIMATE SCALE: 1m=2000m

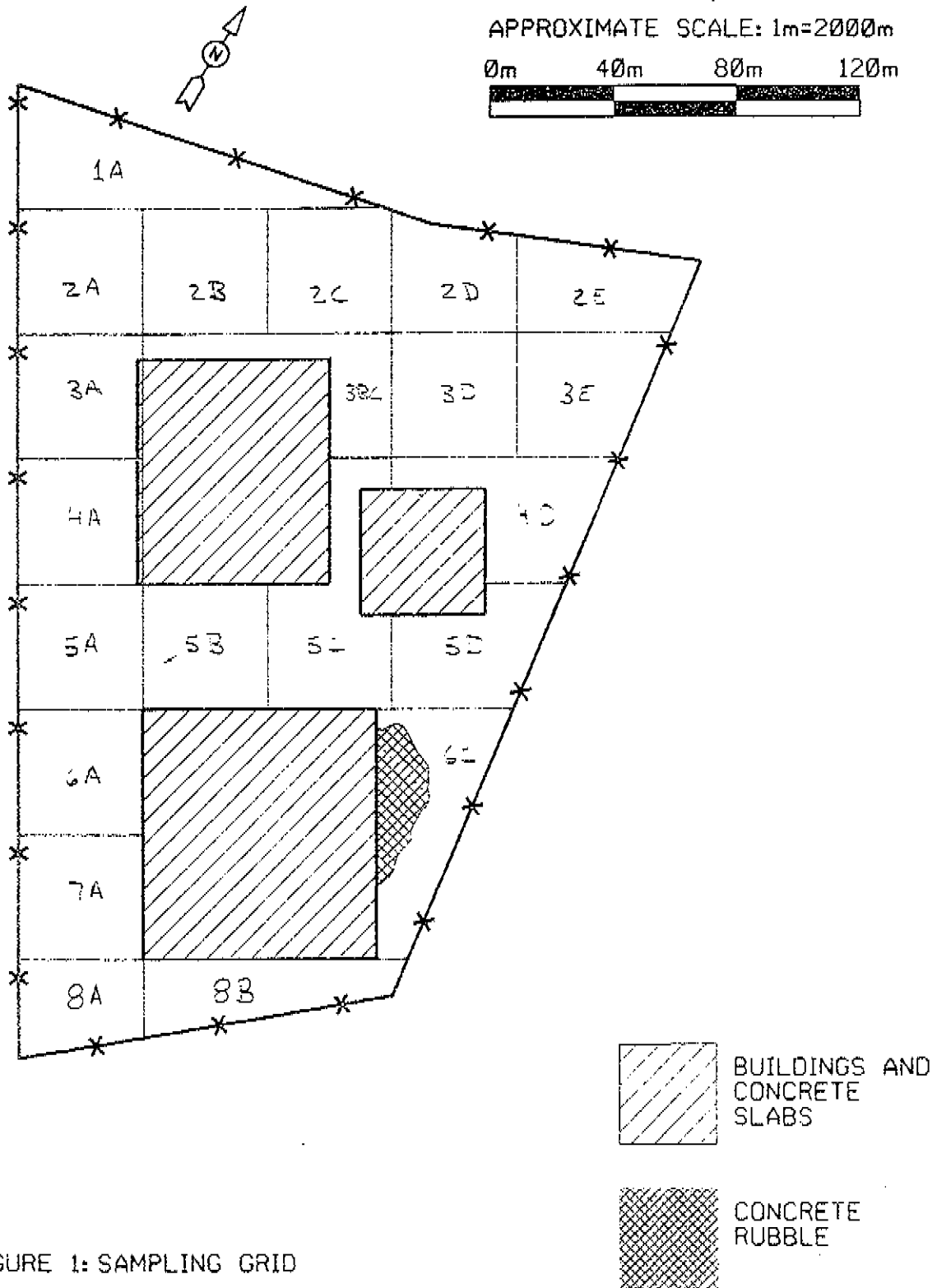
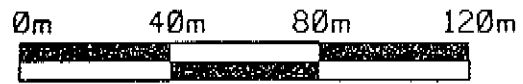


FIGURE 1: SAMPLING GRID



ADAMSITE STORAGE VAULTS  
APG/EA,MD

APPROXIMATE SCALE: 1m=2000m

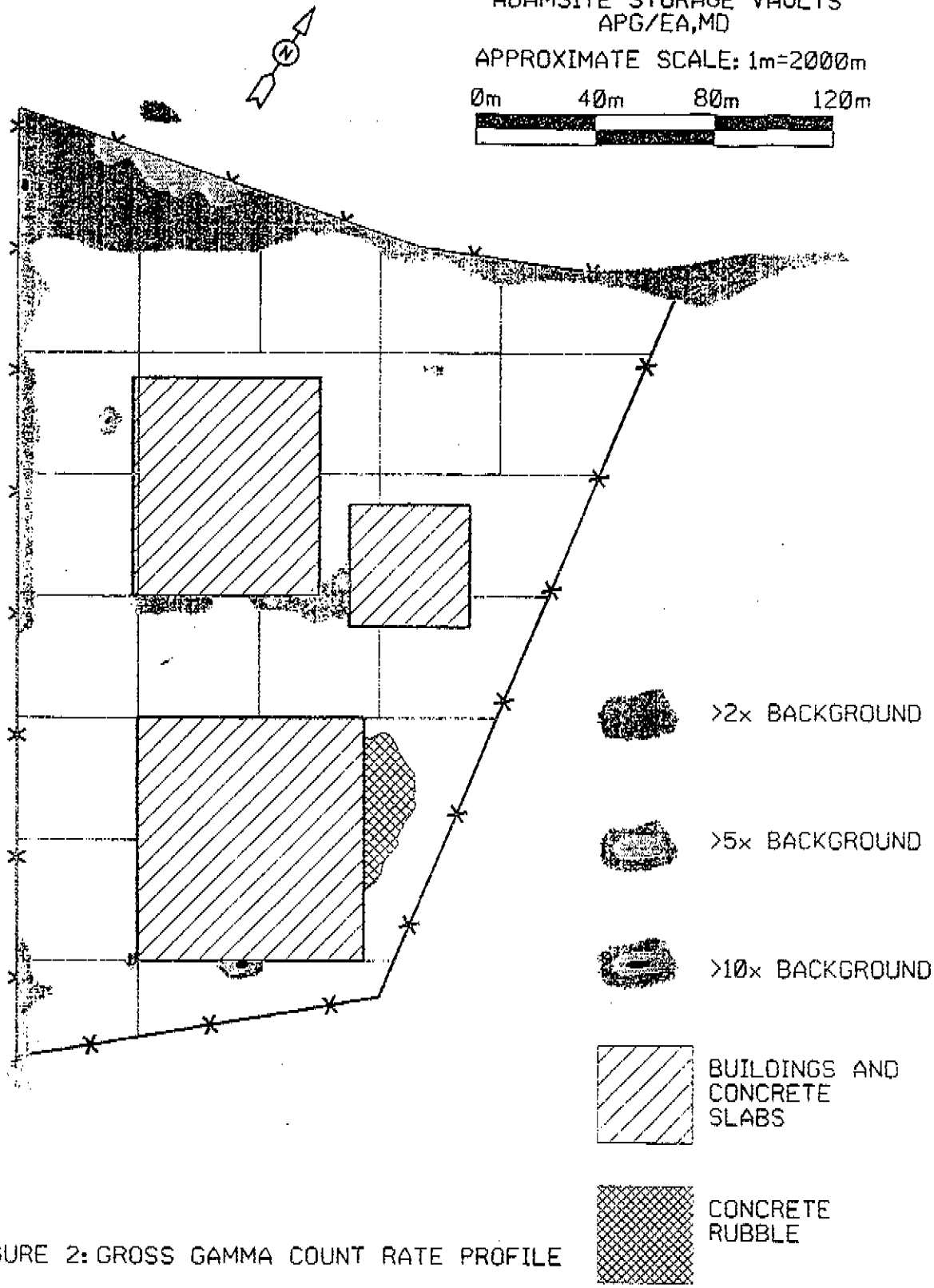
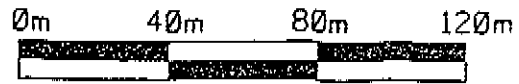


FIGURE 2: GROSS GAMMA COUNT RATE PROFILE

# ADAMSITE STORAGE VAULTS APG/EA,MD

APPROXIMATE SCALE: 1m=2000m

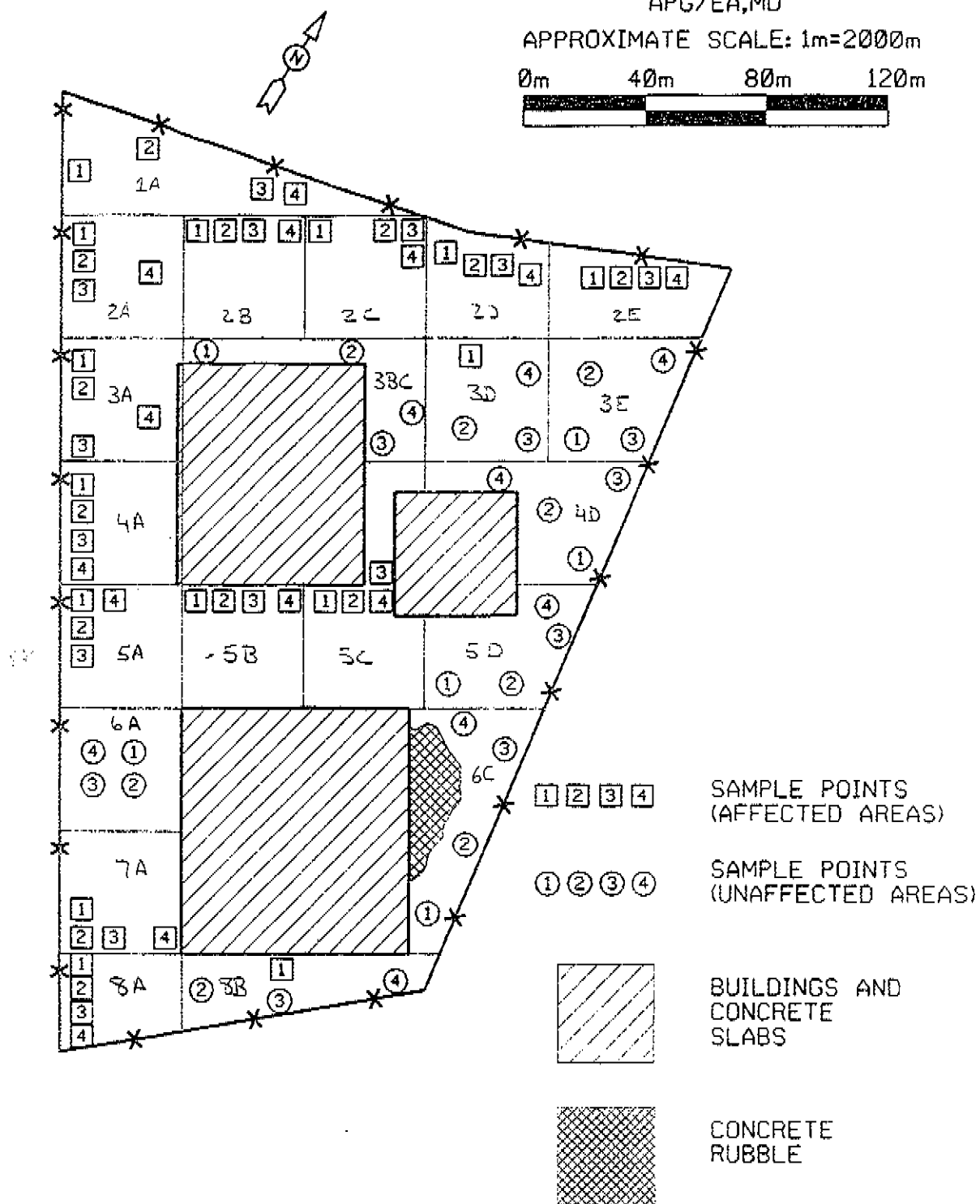


FIGURE 3: APPROXIMATE SAMPLING POINTS FOR  
AFFECTED AND UNAFFECTED AREAS

Table A-2  
Concentrations of Radionuclides in Affected Areas  
(pCi/g)

Sample ID	K-40	Co-60	Cs-137	Pb-212	Th-234
1a-1A1		287 ± 22	213 ± 23		
2a-1A2			28 ± 4.0		
3a-1A3			40 ± 5.2		
4a-1A4			56 ± 7.1		
5a-2A1			150 ± 17		
6a-2A2			42 ± 5.4		
7a-2A3			6.4 ± 1.4		
8a-2A4			3.9 ± 0.8		
9a-2B1			6.9 ± 1.3		
10a-2B2			8.6 ± 1.6		
11a-2B3			7.1 ± 1.6		
12a-2B4			22 ± 3.2		
13a-2C1			2.0 ± 0.6		
14a-2C2			9.8 ± 1.7		
15a-2C3			24 ± 3.4		
16a-2C4					
17a-2D1			13 ± 2.0		
18a-2D2			3.3 ± 0.9		
19a-2D3			10 ± 2.0		
20a-2D4			19 ± 3.0		
21a-2E1			20 ± 2.7		
22a-2E2			1.0 ± 0.5		
23a-2E3			18 ± 2.5		
24a-2E4	5.6 ± 6.0		13 ± 2.2		
25a-3A1			12 ± 2.1		
26a-3A2			5.2 ± 1.2		

Table A-2 (Continued)  
 Concentrations of Radionuclides in Affected Areas  
 (pCi/g)

Sample ID	K-40	Co-60	Cs-137	Pb-212	Th-234
27a-3A3					
28a-3A4			290 ± 31		
36a-3D1			6.3 ± 1.2		
41a-4A1			5.9 ± 1.4		
42a-4A2	14 ± 7.6		5.8 ± 1.3		
43a-4A3			8.8 ± 1.8		
44a-4A4			9.2 ± 1.7		
49a-5A1			20 ± 3.1		
50a-5A2	11 ± 7.7		23 ± 3.4		
51a-5A3			31 ± 4.3		
52a-5A4			1.6 ± 0.5		
53a-5B1			6.8 ± 1.4		
54a-5B2			5.4 ± 1.2		
55a-5B3			2.9 ± 0.8		
56a-5B4			12 ± 1.8		
57a-5C1			37 ± 4.6		
58a-5C2			14 ± 2.2		
59a-5C3			65 ± 8.1		
60a-5C4			20 ± 2.9		
73a-7A1			2.2 ± 1.0		
74a-7A2					
75a-7A3					
76a-7A4		31 ± 3.1	2.1 ± 0.9		
77a-8A1					
78a-8A2					
79a-8A3					

**APPENDIX E**  
**MEETING MINUTES**



FOSTER WHEELER ENVIRONMENTAL CORPORATION

LETTER OF TRANSMITTAL  
No. 00696

Project: REMEDIATION PROGRAM

Job: 13710200

U.S. ARMY CORPS OF ENGINEERS  
P.O. BOX 56  
A.P.G.,

MD 21010-0056

July 23, 1996

Attn: ROBERT P. RIZZIERI, M.S., P.E.

Ref: ADAMSITE NOTIFICATION  
MEETING MINUTES 19 JULY  
1996

X Attached Separate Cover Via:

Shop Dwg \_ Prints \_ Plans \_ Samples \_ Specifications  
Letter \_ Change Order X Other: NOTIFICATION MTG. ADAM

No.	Date	Item	Number	Description	Status
	23JUL96			ADAMSITE STORAGE VAULTS REMOVAL ACITON NOTIFICATION MEETING MINUTES 19 JULY 1996. CONTRACT NO. DACA31-94-D-0020, DELIVERY ORDER NO. 0003, SITE 3.	

These above items are transmitted for your action as noted:

<input type="checkbox"/> For Approval	<input type="checkbox"/> For Review And Comment	<input type="checkbox"/> Returned For Corrections
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Signed: Jessie B. Cabellon  
By: JESSIE B. CABELLON, P.E.  
Date: July 23, 1996  
FILE

Copy For:  
U.S. ARMY CORPS OF ENGINEERS



FOSTER WHEELER ENVIRONMENTAL CORPORATION

ADAMSITE STORAGE VAULTS REMOVAL ACTION  
NOTIFICATION MEETING

MEETING MINUTES

July 19, 1996

1000 Hours

<u>Attendee</u>	<u>Organization</u>	<u>Phone No.</u>
Jamie Fair	CENAB-COF-ER	(410) 671-6003
Billy Sanders	CENAB-COF-ER	(410) 671-6003
Brian McCann	DSHE	(410) 671-2910
Tim Rodeffer	DSHE-IRD	(410) 612-7316
Donna Lynch	MDE	(410) 631-3440
Carl Reitenbach	EA Engineering	(410) 771-4950
Michael Fox	EA Engineering	(410) 771-4950
Hap Gonzer	EA Engineering	(410) 771-4950
Timothy Reese	Foster Wheeler Environmental	(410) 671-6015
Jessie Cabellon	Foster Wheeler Environmental	(410) 671-6015
James Morning	Foster Wheeler Environmental	(410) 671-6015
Keith Branch	Foster Wheeler Environmental	(410) 671-6015
Kathy Kneten	Foster Wheeler Environmental	(401) 671-6015

\*\*\*\*\*

**Adamsite Storage Vaults Removal Action:**

- Everyone present introduced themselves. The purpose of this meeting was for Foster Wheeler to describe the proposed operations at Adamsite. Scope of the removal actions will include the removal of radioactively contaminated soil, removal of one (1) building, the removal of contents from two (2) vaults, and filling of the two (2) vaults with flowable fill.
- The areas containing low level radioactively contaminated soil will be roped off. The area (R-1) containing radioactively contaminated soil, will be removed.
- All radioactively contaminated soil will be processed with the radioactively contaminated soil at the 26th Street location.

- Schedule:

Mobilization - 24 July

Removal Activities - 29 July

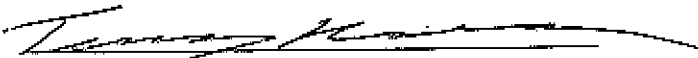
Demobilization - Early September

- PAS approval has been acquired from ERDEC for building demolition.
- Foster Wheeler has started coordination with Mr. Paul Harvey of DSHE for waste removal.
- Liquid waste will be removed by tanker trucks by DSHE and ChemWaste.
- Non-hazardous sediment waste will be placed in drums with drum liners for later disposal by DSHE.
- Structural steel/roof panels will be placed in steel rolloffs for DRMO (Mr. Jim Gray).
- Iron and old wood from roofing materials along with PPE will be placed in wooden boxes, bubble tested and Foster Wheeler will coordinate their thermal treatment.
- All concrete next to and in the vaults will be placed in the vaults and entombed with flowable fill.
- Kevric will supply laborers and operators. Foster Wheeler is requesting Kevric send personnel who already have cholinesterase and M-40 masks. Masks will need to be reissued for some personnel. Two operators and three laborers will be used for this project. (Two of the laborers will only be used during sediment removal.)
- Mike Fox with EA Engineering will be the Site-Superintendent.
- The shearer will be used to demolish the concrete wall. If the shearer does not do the job a hoe-ram will be used.
- A loader with a fork lift and bucket attachment will be used on site.
- Safety meetings will be held daily and the safety plan must be signed by all personnel.
- Mr. Fair stated that lead paint was used on the metal beams at this site.
- Mr. Morning stated that minirams would be used for monitoring particulates.
- Two ladders will be used to access the vault area. Personnel will be tied to the ladder while entering and exiting the vault. The vault is considered a non-permitted confined space.



- Power lines in the work area will be de-energized.
- If contacts need to be removed in the staging area, it will be considered a UXO operation and will be performed by Human Factors Applications (HFA).
- The staging area across from the CASY Yard has been cleared for use as a staging area by HFA. This area will be used to supplement the staging area around Adamsite.
- Approval to roll back the fence was given by the Provost Marshall and ERDEC (Tim Blades).
- The water and sediment in the vaults was previously sampled, the results can be found in Section 1 of the Weston report.
- No additional analytical analysis will be completed for this project at this time, unless directed by ERRO. The drummed sediment may need TCLP analysis, but it will not be scheduled unless requested by Paul Harvey through ERRO. The vaults were previously pressure washed by Chem Waste.
- The QC Engineer will note in the daily reports all activities/procedures and their references from the work plan.
- The removal of radioactively contaminated soil will be performed in modified Level "D" PPE. Radioactively contaminated soil will be removed to two times background or 20uR/hr.
- There are approximately 20 drums of sediment in the bottom of the vaults. Approximately 15-20 drums of sediment are in the northeast vault and approximately 0-5 drums of sediment are in the southwest vault.
- MDE will visit Adamsite the first week of August, 1996.

Prepared by Foster Wheeler Environmental Corporation

  
Timothy A. Reese, Project Manager

**AGENDA  
ADAMSITE STORAGE VAULTS REMOVAL ACTION  
NOTIFICATION MEETING**

**JULY 19, 1996 - 1000 HOURS**

**I. INTRODUCTION**

**II. PROJECT DESCRIPTION**

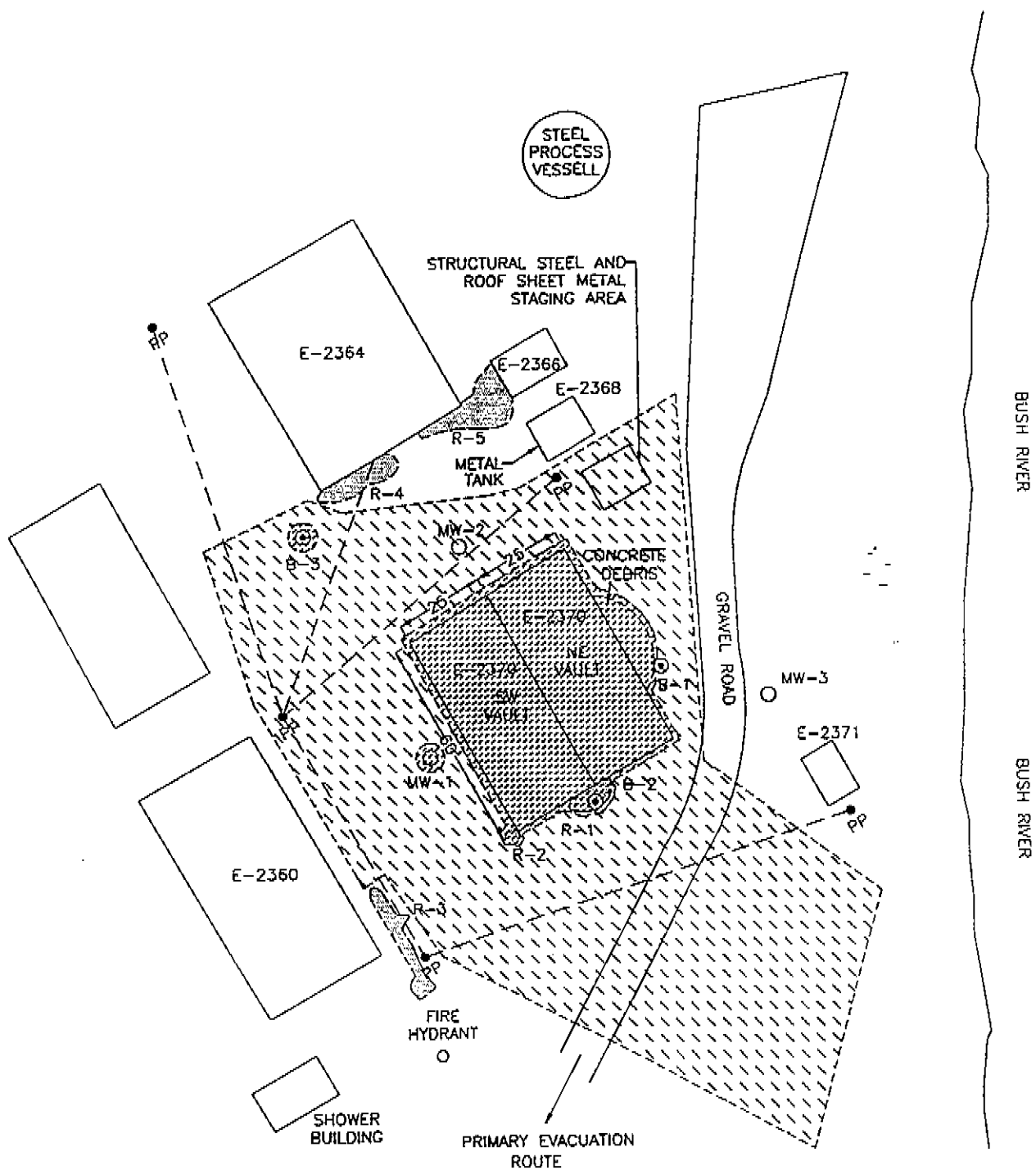
- Project Organization
- Site Layout

**III SCHEDULE**







- Mobilization July 24, 1996
- Removal Activities July 29, 1996
- Demobilization September 3, 1996

**IV ISSUES**

- Power Lines De-energized
- Removal of Perimeter Fence
- Liquid Removal from Vaults
- Removal of Waste (sediment, decon water, etc.)
- Steel shipment to DRMO

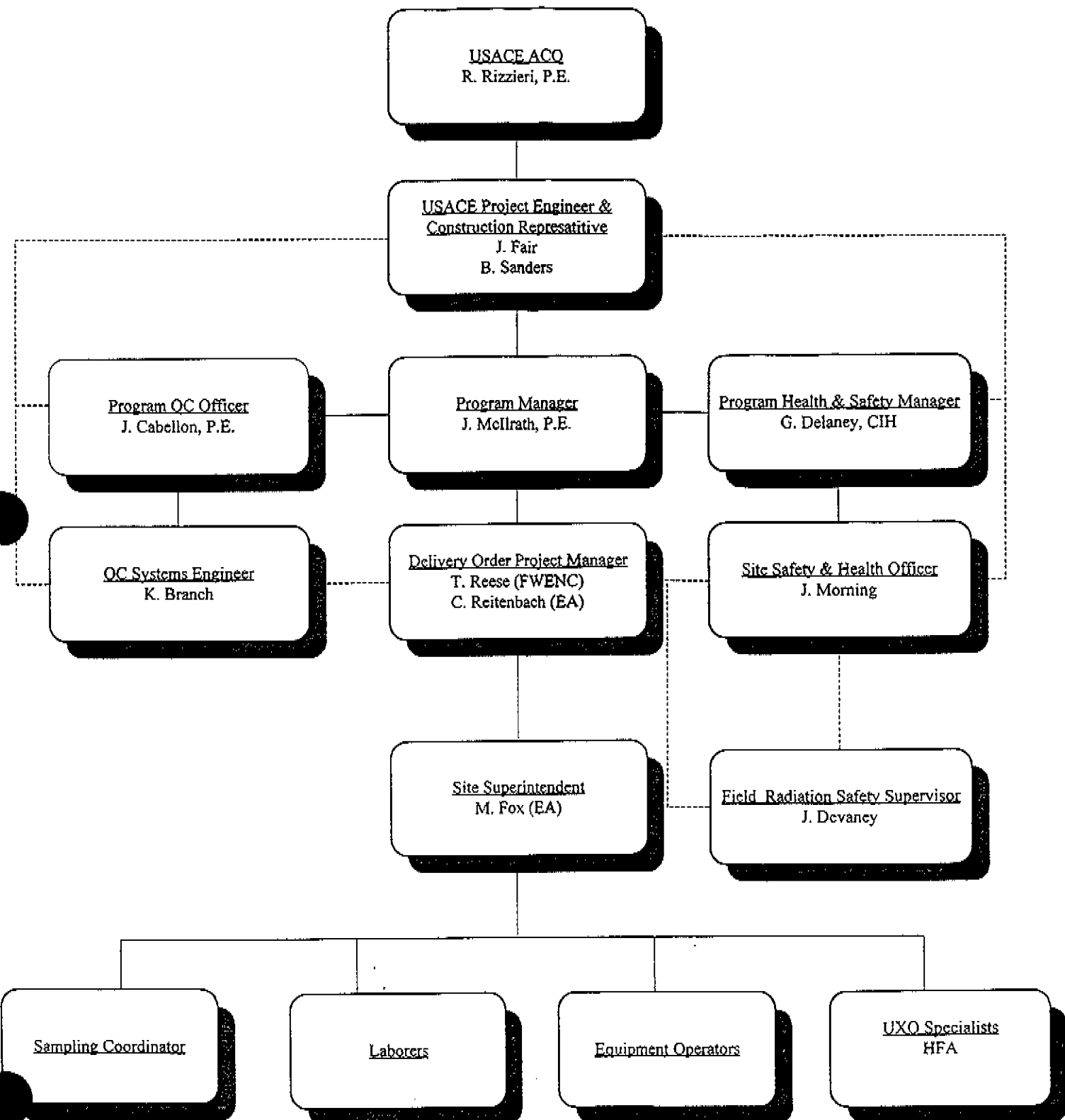


**LEGEND**

-  CONTAMINATION REDUCTION ZONE / MATERIAL AND EQUIPMENT STAGING AREA
-  EXCLUSION ZONE
-  4" MONITORING WELL
-  SOIL BORING LOCATION
-  POWER POLE
-  RADIOACTIVE CONTAMINATED SOIL (TO BE FENCED EXCEPT R-1)



# PROGRAM ORGANIZATIONAL CHART ADAMSITE STORAGE VAULTS



**APPENDIX F**

**PERMITS (EXCAVATION AND BURN)**



FOSTER WHEELER ENVIRONMENTAL CORPORATION

LETTER OF TRANSMITTAL  
No. 00026

Project: REMEDIATION PROGRAM

Job: 13710200

U.S. ARMY CORP OF ENGINEERS  
P.O. BOX 56  
A.P.G., MD 21010-0056

July 26, 1995

Attn: DENNIS FISHER

Ref: EXCAVATION PERMIT  
ADAMSITE STORAGE VAULTS

X Attached Separate Cover Via:

Shop Dwg  Prints  Plans  Samples  Specifications  
 Letter  Change Order  Other: EXCAVATION PERMIT

No.	Date	Item	Number	Description	Status
	26JUL95			EXCAVATION PERMIT FOR ADAMSITE STORAGE VAULTS.	

These above items are transmitted for your action as noted:

<input type="checkbox"/> For Approval	<input type="checkbox"/> For Review And Comment	<input type="checkbox"/> Returned For Corrections
<input checked="" type="checkbox"/> For Your Use	<input type="checkbox"/> Approved As Submitted	<input type="checkbox"/> Resubmit 0 Copies For Approval
<input type="checkbox"/> As Requested	<input type="checkbox"/> Approved As Noted	<input type="checkbox"/> Submit 0 Copy For Distribution
<input type="checkbox"/> Bids Due:	<input type="checkbox"/> Returned After Loan	<input type="checkbox"/> Return 0 Copies Correctd Print

Transmitted by: FOSTER WHEELER ENVIRONMENTAL CORP.

Signed: [Signature]  
By: TIMOTHY A. REESE  
Date: 26 JUL 95  
FILE

Copy For:  
U.S. ARMY CORP OF ENGINEERS

102

EXCAVATION PERMIT  
DIRECTORATE OF PUBLIC WORKS  
ABERDEEN PROVING GROUND, MARYLAND

1134

EXPIRATION DATE: 8/25/95 CONTROL NO.: DP-1134

EXCAVATOR SECTION	CONTRACT, DELIVERY ORDER, OR WORK ORDER NUMBER: DACA 31-94-D-0020, D.O. #03 Site #3 Foster Wheeler Environmental Corporation	
	IF CONTRACT, CONTRACTING OFFICER'S REPRESENTATIVE: Corps of Engineers, Mr R. Ricciardi, M.S., P.E.	
	PERMIT HOLDER (LAST NAME, FIRST NAME, MI): Fisher, Dennis J.	TELEPHONE NO.: 410-671-6003
	ORGANIZATION: U.S. Army Corps of Engineers, ERRO	DATE REQUESTED: 7/12/95
	EXCAVATION ZONE(S) AND JOB SITE: See Attached Plans, - Edgewood Area, Adamsite Storage Vaults Area	

A. DESCRIPTION (AREA, DEPTH, LOCATION, JUSTIFICATION):  
 ① Visible Stained Cell - Adamsite Vault Area, 2 Feet, Anywhere in the Adamsite Area  
 ② 10 ft around B-2, B-3, and MW-2; 2 Depth 2 Feet, See Figure 2  
 ③ 6 inch deep surface samples, located throughout fenced in Area - See Figure 3

B. SKETCH OR MAP OF THE AREA WITH THE LOCATION IDENTIFIED INCLUDING BUILDING NUMBER ATTACHED?  YES  NO

EXCAVATION CONTROL OFFICE	<b>GENERAL CONDITIONS</b>				
	A. MISS UTILITY CONTACT DATE:		TICKET NO.:	VALIDATION DATE:	
	B. DPW UTILITIES	ELECTRIC	CLEARMARKED		CHECKED BY
		PLUMBING	CLEARMARKED		
		HVAC	CLEARMARKED		
	C. MAGNETOMETER SWEEP:		REQUIRED <input type="checkbox"/> NOT REQUIRED <input type="checkbox"/>		
	D. SOIL CHEMISTRY ANALYSIS:		REQUIRED <input type="checkbox"/> NOT REQUIRED <input type="checkbox"/>		
	E. EXCAVATED MATERIAL/SOIL DISPOSITION:				
	<input type="checkbox"/> BACKFILL EXCAVATION		<input type="checkbox"/> SPREAD ON JOB SITE		
	<input type="checkbox"/> STOCKPILE		<input type="checkbox"/> CONTAINERIZE		
<input type="checkbox"/> REMOVE FROM JOB SITE		<input type="checkbox"/> SPECIAL CONDITIONS			

1. Unless specifically indicated, this permit does not authorize the relocation of excavated soils or materials outside the immediate job site as defined on this permit.
2. This permit is to be on-site of excavation, available for inspection by government representative.
3. This permit is valid ONLY after any required Unexploded Ordnance detection, identification and removal have been performed.
4. This permit must be signed by a DPW representative to be valid.
5. It is the responsibility of the Excavator to ensure this permit is renewed prior to the expiration date.

SPECIAL CONDITIONS

- ATTACHED SHEETS
- ADDITIONAL CONDITIONS ON THE BACK

SPECIAL INSTRUCTIONS: If any of the general or special conditions conflict with contractual requirements, must contact Contracting Officer prior to excavation.

PERMIT HOLDER'S SIGNATURE:

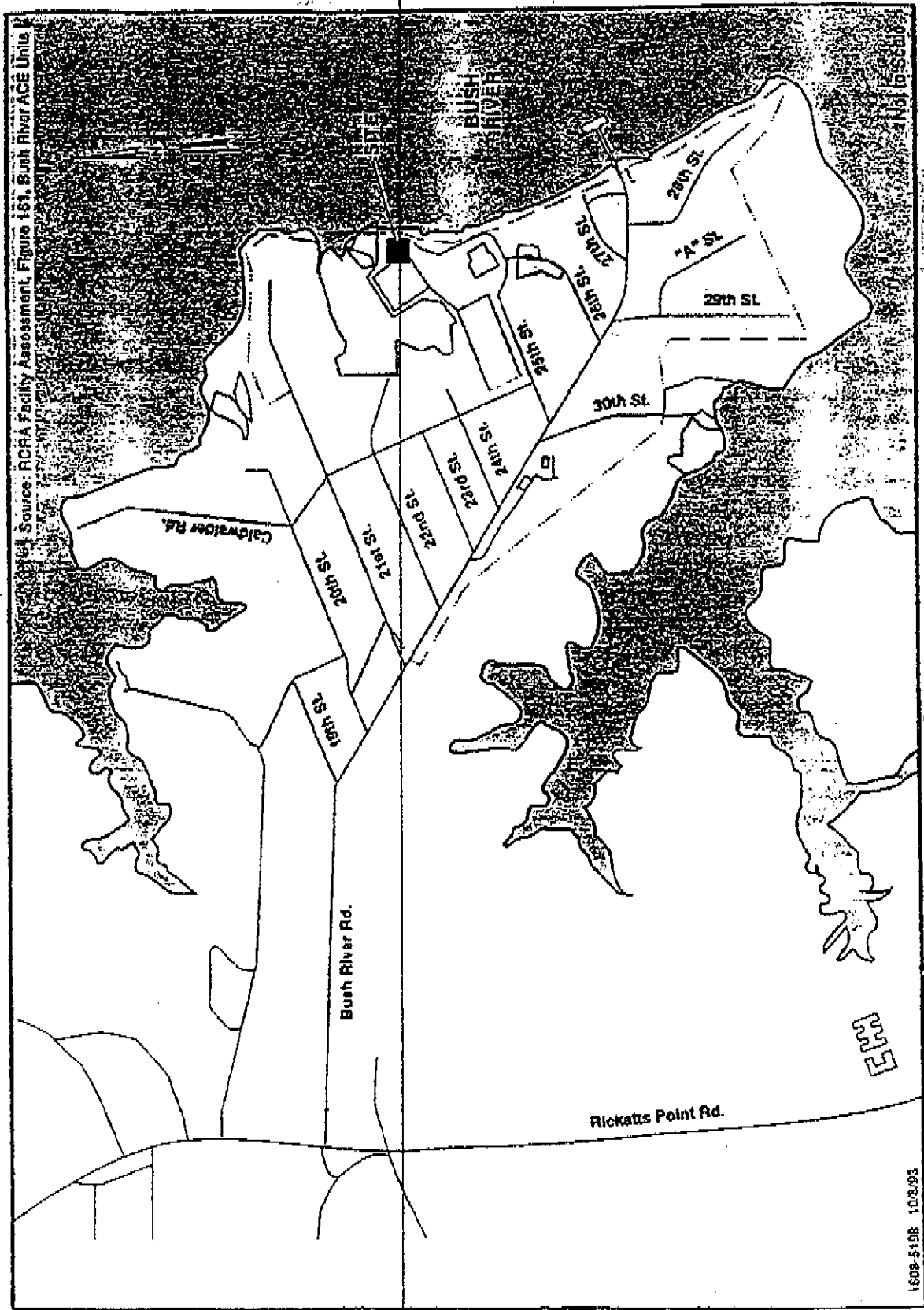


FIGURE 1 SITE LOCATION MAP, BUSH RIVER RESEARCH OPERATION AREA, ADAMSITE STORAGE VAULTS, APG, MD

1609-5198 1032.03



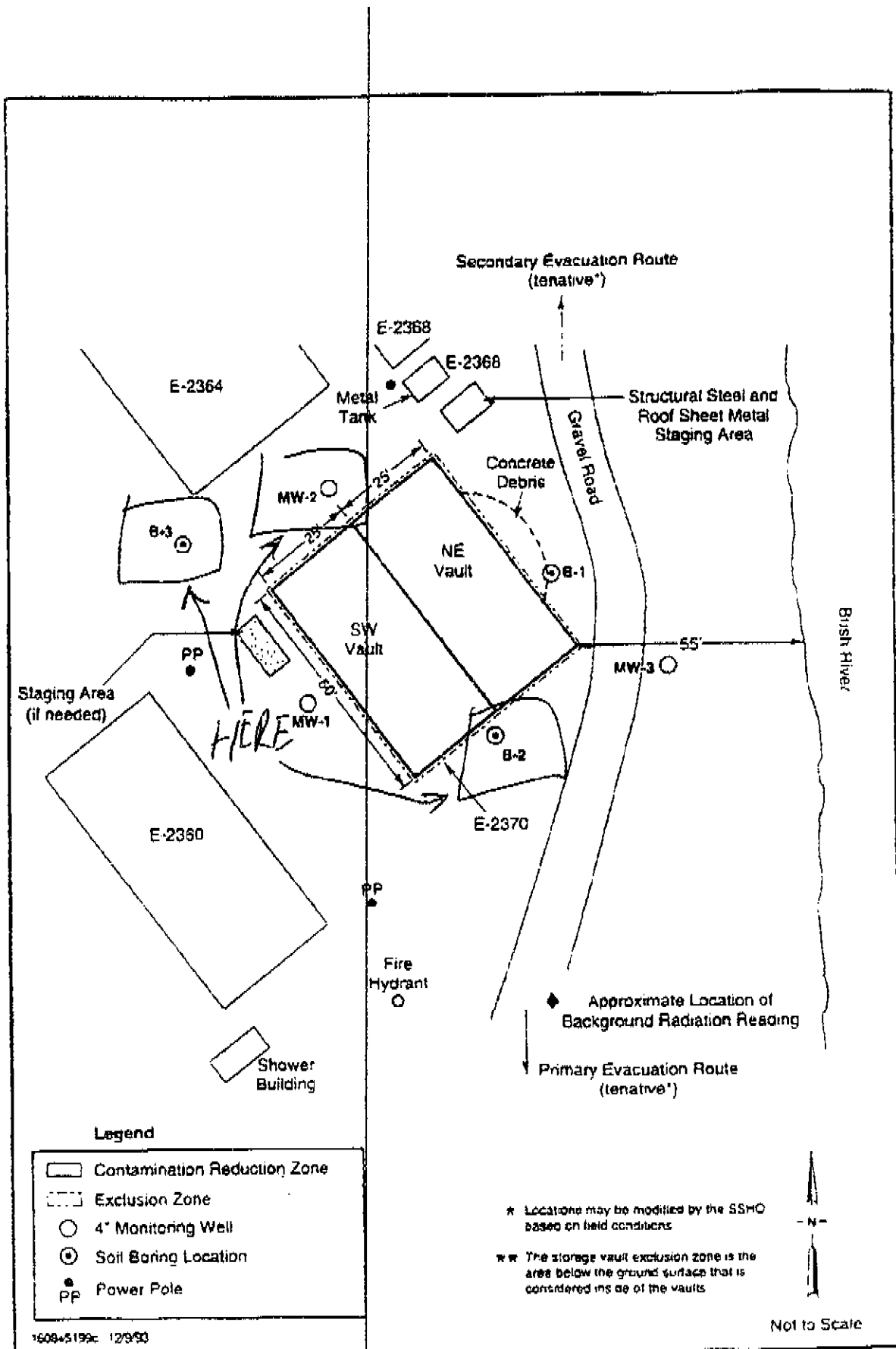


FIGURE 2 PROPOSED SITE LAYOUT  
(TAKEN FROM DO No. 10 TECHNICAL REPORT)

ADAMSITE STORAGE VAULTS  
APG/EA,MD  
APPROXIMATE SCALE: 1"=40'

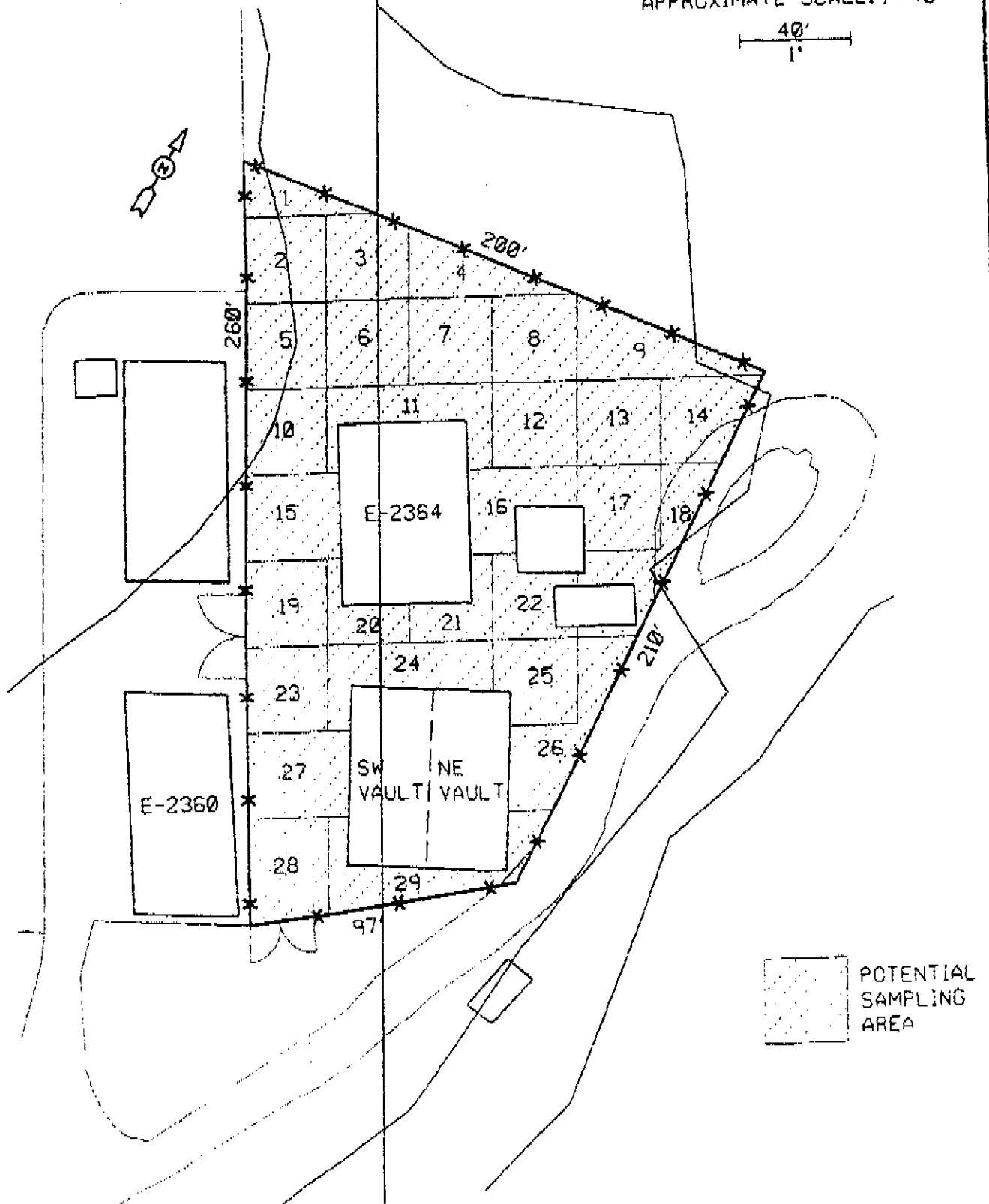
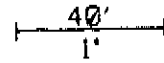


FIGURE 3: PRELIMINARY SAMPLING GRID

Installation Safety Division Comments to Excavation Permit, DP-1134, Soil Sampling, Borings, etc, Adamsite Storage Vault Area

1. All work must be performed IAW a Site Specific Safety & Health Plan that has been approved by the Installation Safety Division.
2. Disposal of soils must be coordinated with the Hazardous Waste Branch, DSHE, 671-8423/8425.

*Patricia A. Barber*  
PATRICIA A BARBER  
Safety Manager

CONTRACTOR - BEFORE THIS REPORT, YOU ARE RESPONSIBLE FOR PROTECTING ALL utility markings. If markings are lost or destroyed, cease all excavation and contact issuing office at once. Contractors and Sub-Contractors are responsible for notification of Miss Utility 48 hours before any excavation.



DATE: 7-25-95 DIGGING PERMIT # 1134

UTILITY LOCATION REPORT / DIGGING CLEARANCE

PROJECT NAME/DESC. SOIL BORINGS

PROPOSED: SOIL BORINGS CONTRACTOR: U.S. ARMY CORPS

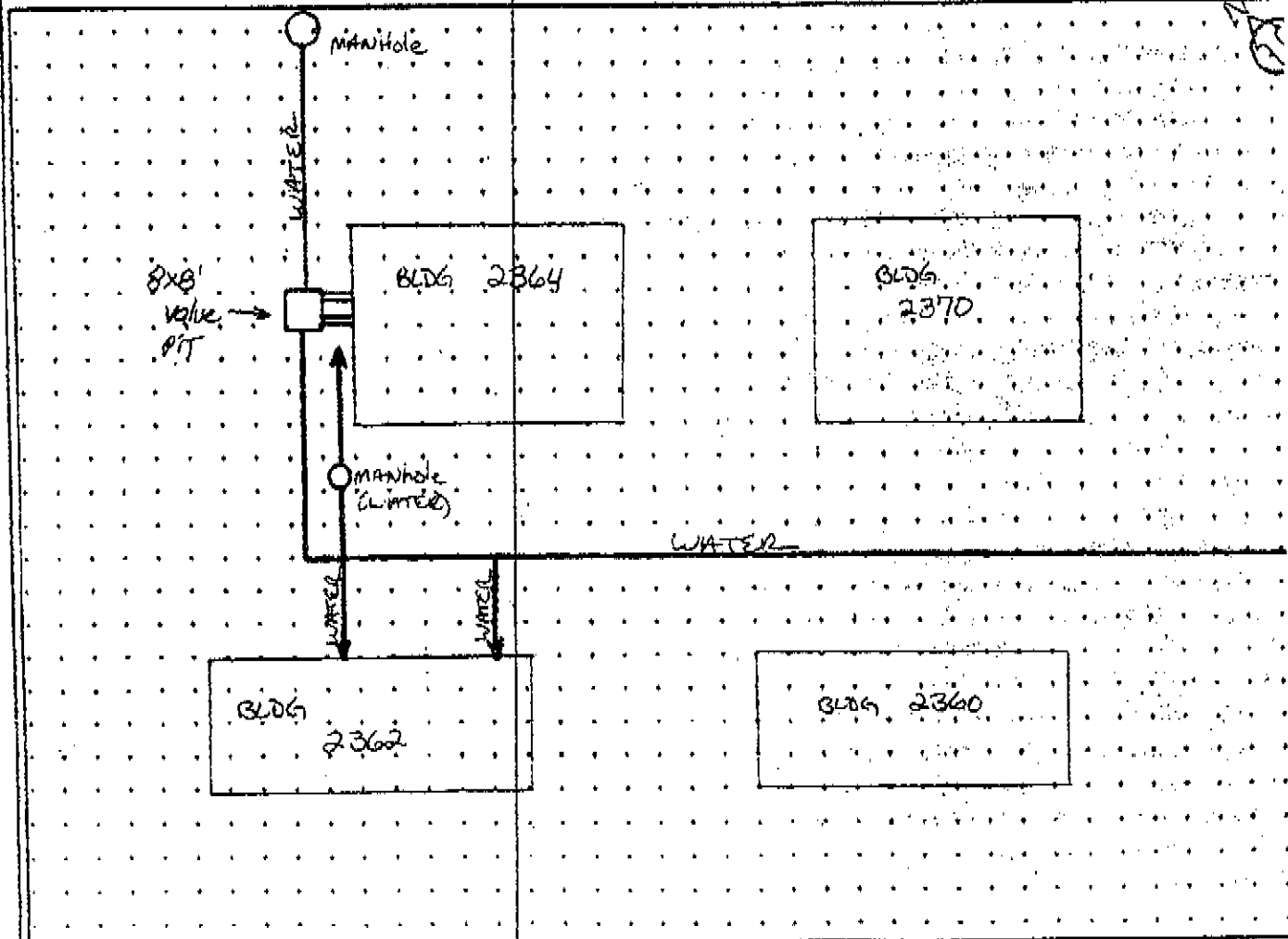
HAS CONTRACTOR STAKED PROPOSED? NO IS THIS A RE-MARK? NO

MISS UTILITY TICKET # N/A VALIDATION DATE N/A

UTILITY LOG

NO PLANT  
OVERHEAD  
MARKED CONFLICT  
BURIED  
NO CONFLICT  
PRESENT NOT GOV'T  
OWNED UTILITY

TELE/COMM DRAIN	ELECTRIC	WATER	STEAM	GAS	SEWER	STORM	SECURITY	CATV	UNKNOWN UTILITY
				✓			✓	✓	
✓	✓		✓						
		✓							
					✓	✓			



**APPENDIX G**

**MANIFESTS**

R.D. #9  
York, PA 17402

Document Refer **No** 95 03566

(717) 755-2199 (Laboratory)

Doc. No. 96246

**NON-HAZARDOUS RESIDUAL WASTE MANIFEST**

1. Generator of Waste (must be filled in by producer) EPA I.D. NO. MD3210021355  
 Company Name: (Print or Type) Aberdeen Proving Ground RCRA/TSCA Operations  
 Pick-up Address: STEAP-SH-EWE, Bldg. B5863, APG, MD 21010-5425  
(No.) (Street) (City) (State) (Zip Code)  
 Telephone Number: (410) 671-2157 SIC No. \_\_\_\_\_  
 Waste Stream Identification: This manifest represents a non-hazardous waste as per  
E.P.A. and PA D.E.R. regulations. Non-Regulated Material, Not Hazardous by D.O.T.  
 Tons: \_\_\_\_\_ Cubic Yards: \_\_\_\_\_ Other (Specify): Estimated Weights  
 Special Handling Instructions, if any: Contract: DAAD 05-91-D-7940. Project 69222. PC 766.  
Mail C.O.D. to: P.O. Box 105, APG, MD 21010-0105. Emergency Response: (800) 353-2-  
MM63966 (1 of 2)  
 MODERN ID #: 2200565

This is to certify that the above named materials are properly classified, described, packaged, marked, and labeled and are in proper condition for transportation according to applicable state and federal law. The wastes were consigned to the transporter named. I certify that the foregoing is true and correct to the best of my knowledge.

Date: 8/14/96 Signature: Roger Calvert Env. Protection Spc  
(Name and Title)

2. Contractor: Advanced Environmental Technical Services (AETS)  
 Address: P.O. Box 96, Sealston, VA 22547  
 Contact: Anthony Hudson Phone: (540) 775-9000

3. Hauler of Waste (must be filled-in by hauler) EPA I.D. No. PAD146714878  
 COMPANY NAME: Horwith Trucks, Inc. PHONE: (610) 261-2220  
 ADDRESS: P.O. Box 7, Northampton, PA 18067  
 Pick-up Date: 8-14-96 Truck No. 295 Vehicle Lic. No. AB59211 P1  
 The above described waste was picked up and hauled by me to the disposal facility named below and was accepted. I certify under penalty of perjury that the foregoing is true and correct.  
 Signature of authorized agent and title: Harvey Johnson Date: 8-14-96

4. Disposer of Waste (must be filled-in by disposer)  
 Company Name: (Print or Type): Modern Landfill  
 Site Location: R.D. #9 Prospect Rd., York, Pennsylvania 17402  
 Waste subject to this manifest was delivered by the above hauler to this disposal facility and accepted c  
 \_\_\_\_\_ (DISPOSAL DATE)  
 Signature of authorized agent and title: \_\_\_\_\_

MODERN LANDFILL

Site Permit No. 100113

R.D. #9  
York, PA 17402

Document Refer **No** 95 03567

(717) 755-2199 (Laboratory)

**NON-HAZARDOUS RESIDUAL WASTE MANIFEST** Doc. No. 96249

1. Generator of Waste (must be filled in by producer) EPA I.D. NO. MD3210021355  
 Company Name: (Print or Type) Aberdeen Proving Ground RCRA/TSCA Operations  
 Pick-up Address: STEAP-SH-EWE, Bldg. E5863, APG, MD 21010-5425  
(No.) (Street) (City) (State) (Zip Code)  
 Telephone Number: (410) 671-2157 SIC No. \_\_\_\_\_  
 Waste Stream Identification: This manifest represents a non-hazardous waste as per  
E.P.A. and PA D.E.R. regulations. Non-Regulated Material, Not Hazardous by D.O.T.  
 Tons: 10 Cubic Yards: \_\_\_\_\_ Other (Specify): Estimated Weights  
 Special Handling Instructions, if any: DAAD 05-91-D-7040. Project 69222. PC 766.  
Mail C.O.D. to: P.O. Box 105, APG, MD 21010-0105. Emergency Response: (800) 353-2387  
HM63966 (2 of 2)

MODERN ID #: 2200585

This is to certify that the above named materials are properly classified, described, packaged, marked, and labeled and are in proper condition for transportation according to applicable state and federal law. The wastes were consigned to the transporter named. I certify that the foregoing is true and correct to the best of my knowledge.

Date: 15-Aug-96

Signature: [Signature] IR WASTE COORD.  
(Name and Title)

2. Contractor: Advanced Environmental Technical Services (ARTS)  
 Address: P.O. Box 96, Sealston, VA 22547  
 Contact: Anthony Hudson Phone: (540) 775-9000

3. Hauler of Waste (must be filled-in by hauler) EPA I.D. No. PAD146714878  
 COMPANY NAME: Horwith Trucks, Inc. PHONE: (610) 261-2220  
 ADDRESS: P.O. Box 7, Northampton, PA 18067  
 Pick-up Date: 8-15-96 Truck No. 268 Vehicle Lic. No. 301-PA  
 The above described waste was picked up and hauled by me to the disposal facility named below and was accepted. I certify under penalty of perjury that the foregoing is true and correct.  
 Signature of authorized agent and title: [Signature] Date: 8/15/96

4. Disposer of Waste (must be filled-in by disposer)  
 Company Name: (Print or Type): Modern Landfill  
 Site Location: R.D. #9 Prospect Rd., York, Pennsylvania 17402  
 Waste subject to this manifest was delivered by the above hauler to this disposal facility and accepted on: \_\_\_\_\_  
 \_\_\_\_\_ (DISPOSAL DATE)  
 Signature of authorized agent and title: \_\_\_\_\_



State of New Jersey  
Department of Environmental Protection  
Hazardous Waste Regulation Program  
Manifest Section  
CN 421, Trenton, NJ 08625-0421

\* 2 2 8 9 5 9 6 \*

CAP6

Use one of print in black letters. Form designed for use on elite (12-pitch) typewriter.

UNIFORM HAZARDOUS WASTE MANIFEST

Generator's US EPA ID No  
K D 3 2 1 0 0 2 1 3 5 5

Manifest Document No  
9 6 2 1 3 0 1

1. Designated Facility Name and Site Address  
Aberdeen Proving Ground RCRA/TSCA Operations  
P.O. Box 105  
APG MD 21010-0105

A. State Manifest Document Number  
**NJA 2289596**  
B. State (Generator's ID) Site Address  
Bldg. E5863

2. Transporter 1 Company Name  
Freehold Cartage, Inc.

C. State Trans. ID-NJDEPE  
V 5 9 3 9 X  
Decal No.  
2 3 1 2 9 X

3. US EPA ID Number  
N J D 0 5 4 1 2 6 1 6 4

D. Transporter's Phone  
302 658-2773

4. Designated Facility Name and Site Address  
E. I. Dupont de Nemours & Co., Inc.  
Chambersworks Route 130  
Deepwater NJ 08023

E. State Trans. ID-NJDEPE  
Decal No.  
F. Transporter's Phone  
G. State Facility's ID  
Same  
H. Facility's Phone  
609 540-2773

5. US DOT Description (including Proper Shipping Name, Hazard Class or Division, ID Number and Packing Group)  
Non-Regulated Material  
Not Hazardous by D.O.T.  
BM3085

12. Containers  
No. 13. Total Quantity  
14. Unit (Wt/Vol)  
15. Waste No.  
X X 1 T T X 5 5 P D 6 I D 7 2

Additional Descriptions for Materials Listed Above  
Aquifer Wastewater 100%  
HM63949 (1 of 2)

C. Handling Codes for Wastes Listed Above  
T O I

Additional Descriptions for Materials Listed Above  
Contract: DAAD 05-91-D-7040. Project 69222. PC 766.  
Emergency Response Information: ~~609 285 x 1899 x 124 x 3399~~  
HWH-N/A 96A-N/A DC-N/A (800) 353-2387

OW# 4320  
REL# 64  
D.O. 38-5

9. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations.  
If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment. OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.

Printed/Typed Name  
KEN WARREN

Signature  
K Warren  
Month Day Year  
07 13 1996

17. Transporter 1 Acknowledgement of Receipt of Materials  
Printed/Typed Name  
ROBERT J. KERRIGAN

Signature  
Robert J. Kerrigan  
Month Day Year  
07 13 1996

18. Transporter 2 Acknowledgement of Receipt of Materials  
Printed/Typed Name

Signature  
Month Day Year

Discrepancy Indication Space

20. Facility Owner or Operator Certification of receipt of hazardous waste



**Federal Department of Environmental Protection  
Hazardous Waste Regulation Program  
Manifest Section**  
CN 421, Trenton, N.J. 08625-0421

\* 2 2 8 9 5 9

CAPE

Please type or print in block letters. (Form designed for use on elite (12 pitch) typewriter.)

Form Approved, OMB No. 2050-0039, Expires 9/30/88

**UNIFORM HAZARDOUS WASTE MANIFEST**

1. Generator's Name and Mailing Address  
**Aberdeen Proving Ground RCRA/TSCA Operations  
 P.O. Box 105  
 APG MD 21010-0105**

2. Generator's Phone ( ) **410 671-2157**

3. Transporter 1 Company Name  
**Freehold Cartage, Inc.**

4. Transporter 1 Company Phone  
**NJ 005 412 6164**

5. Designated Facility Name and Site Address  
**E. I. Dupont de Nemours & Co., Inc.  
 Chambersworks Route 130  
 Deepwater NJ 08023**

6. Designated Facility Phone  
**NJ 000 238 5730**

2. Page 1 of 1

Information in the shaded area is not required by Federal law

A. State Manifest Document Number  
**NJA 2289597**

B. State Generator's ID (Gen. Site Address)  
**Bldg. #5863**

C. State Trans. ID NJDEPE  
 Decal No. **1X115193**

D. Transporter's Phone  
**302 658-2773**

E. State Trans. ID NJDEPE  
 Decal No. \_\_\_\_\_

F. Transporter's Phone ( ) \_\_\_\_\_

G. State Facility's ID **Same**

H. Facility's Phone **(609) 540-2773**

11. U.S. DOT Description (including Proper Shipping Name, Hazard Class or Division, ID Number, and Packing Group)	12. Containers		13. Total Quantity	14. Unit Wt/Vol	15. Waste No.
	No.	Type			
a. <b>Non-Regulated Material Not Hazardous by D.O.T. BM3085</b>	X	X	1	T	1
b. _____					
c. _____					
d. _____					

Additional Descriptions for Materials Listed Above

a. **Aguifer Wastewater 100X  
HM63949 (2 of 3)**

b. \_\_\_\_\_

c. \_\_\_\_\_

d. \_\_\_\_\_

K. Handling Codes for Wastes Listed Above

a. **T | 0 | 1**

b. \_\_\_\_\_

c. \_\_\_\_\_

d. \_\_\_\_\_

10. Special Handling Instructions and Additional Information  
**Contract: DAAD 05-91-D-7040. Project 69222. PC 766.  
 Emergency Response Information: ~~EMERGENCY (800) 424-9300~~  
 HWH-N/A 96A-N/A DC-N/A (800) 353-2387**

**OW# 4320  
REL# 65  
D.O. 38-5**

16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national environmental regulations.

If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and selected a waste management method that is available to me and that I can afford.

Printed Name: **Ken WARREN** Signature: \_\_\_\_\_ Month Day Year: **07 30 96**

17. Transporter's Acknowledgment of Receipt of Materials  
 Printed Name: **Dennis M. Richardville** Signature: \_\_\_\_\_ Month Day Year: **10 7 31 09**

18. Transporter's Acknowledgment of Receipt of Materials  
 Printed Name: \_\_\_\_\_ Signature: \_\_\_\_\_ Month Day Year: \_\_\_\_\_

19. Discrepancy between \_\_\_\_\_

20. Facility's Acknowledgment of Receipt of Hazardous Material (Required by the manifest except as noted in Item 19)  
 Printed Name: \_\_\_\_\_

In case of an emergency or spill, immediately call the state the emergency or the N.J. Dept. of Environmental Protection and Energy. (609) 292-7172

**Hazardous Waste Regulation Program  
Manifest Section**  
CN 421, Trenton, NJ 08625-0421

CAPG

Please type or print in block letters. (Form designed for use on elite (12-pitch) typewriter.)

Form Approved OMB No. 2050-0039 Expires 9-30-88

**UNIFORM HAZARDOUS  
WASTE MANIFEST**

Generator's US EPA ID No. **MD 3210021355**  
Manifest Document No. **982317**

Page 1 of 1  
Information in the shaded area is not required by Federal law

**Aberdeen Proving Ground RCRA/TSCA Operations**  
P.O. Box 105  
APG MD 21010-0105  
Generator's Phone: **410 671-2157**

State of Interest Document Number  
**NJA 2289598**  
State Generator's ID (incl. Site Address)  
**Bldg. B5863**

Transporter 1 Company Name  
**Freehold Cartage, Inc.**  
US EPA ID Number  
**NJD 054126164**

State Trans. ID-NJDEPE  
**X 15 936**  
Decal No.  
**X 23018**  
Transporter's Phone  
**302 638-2773**

Transporter 2 Company Name  
US EPA ID Number

State Trans. ID-NJDEPE  
Decal No.  
Transporter's Phone

Designated Facility Name and Site Address  
**E. I. Dupont de Nemours & Co., Inc.**  
**Chambersworks Route 130**  
**Deepwater NJ 08023**  
US EPA ID Number  
**NJD 002385730**

State Facility's ID  
**Same**  
Facility's Phone  
**609 546-2773**

1. US DOT Description (including Proper Shipping Name, Hazard Class or Division, and Packing Group)	2. Containers		13. Total Quantity	14. Unit (Wt/Vol)	15. Waste No.
	12. No.	Type			
<b>Non-Regulated Material Not Hazardous by D.O.T. BM3085</b>	<b>X X 1 T T</b>	<b>X 4 7 5 0 6</b>	<b>I D 7 2</b>		

Additional Descriptions for Materials Listed Above  
**Aquifer Wastewater 100%  
HM63949 (3 of 3)**

Handling Codes for Wastes Listed Above  
a. **T 0 1**

Contract: **DAAB 05-91-D-7040** Project **69222** PC **766**  
Emergency Response Information: **CHEMTREC (800) 424-9300**  
**HWH-N/A 96A-N/A DC-N/A 353-2387**

**OW# 4320  
REL# 66  
D.O. 38-5**

**16. GENERATOR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations.  
If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment. OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.

Printed/Typed Name: **KEN WARREN** Signature: *[Signature]* Month Day Year: **07/31/96**

**17. Transporter 1 Acknowledgement of Receipt of Materials**  
Printed/Typed Name: **WENNS M. Richardville** Signature: *[Signature]* Month Day Year: **07/31/96**

**18. Transporter 2 Acknowledgement of Receipt of Materials**  
Printed/Typed Name: Signature: Month Day Year:

**19. Discrepancy Indication Space**

**20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.**  
Printed/Typed Name: Signature: Month Day Year:

MATERIAL COURIER RECEIPT

SHIPPER: *Wholesale Environmental Services*  
ADDRESS: *Adams Storage*  
LOCATION: *Wholesale Environmental Services*

SHIP: CONT. DOCUMENT NO. *10/1/82*  
SUPPLY ACCOUNT NUMBER  
SUPPLY ACCOUNT NUMBER

DATE: *10/1/82*  
LOCATION OF TRANSFER: *Wholesale Environmental Services*

SHIPMENT TRANSFERS

LOCATION OF TRANSFER: *K-2447*  
SHIPMENT'S PRINTED NAME (LAST, FIRST, M.I.): *DEAN SALITA*  
SIGNATURE: *Dean Salita*  
DATE (YR/MO/DAY): *10/1/82*  
ORGAN. OR ACCOUNT NO.: *FAIR C*  
SOCIAL SECURITY NUMBER: *24-36-7779*

LOCATION OF TRANSFER: *[REDACTED]*  
SHIPMENT'S PRINTED NAME (LAST, FIRST, M.I.): *[REDACTED]*  
SIGNATURE: *[REDACTED]*  
DATE (YR/MO/DAY): *[REDACTED]*  
ORGAN. OR ACCOUNT NO.: *[REDACTED]*  
SOCIAL SECURITY NUMBER: *[REDACTED]*

LOCATION OF TRANSFER: *[REDACTED]*  
SHIPMENT'S PRINTED NAME (LAST, FIRST, M.I.): *[REDACTED]*  
SIGNATURE: *[REDACTED]*  
DATE (YR/MO/DAY): *[REDACTED]*  
ORGAN. OR ACCOUNT NO.: *[REDACTED]*  
SOCIAL SECURITY NUMBER: *[REDACTED]*

LOCATION OF TRANSFER: *[REDACTED]*  
SHIPMENT'S PRINTED NAME (LAST, FIRST, M.I.): *[REDACTED]*  
SIGNATURE: *[REDACTED]*  
DATE (YR/MO/DAY): *[REDACTED]*  
ORGAN. OR ACCOUNT NO.: *[REDACTED]*  
SOCIAL SECURITY NUMBER: *[REDACTED]*

LOCATION OF TRANSFER: *[REDACTED]*  
SHIPMENT'S PRINTED NAME (LAST, FIRST, M.I.): *[REDACTED]*  
SIGNATURE: *[REDACTED]*  
DATE (YR/MO/DAY): *[REDACTED]*  
ORGAN. OR ACCOUNT NO.: *[REDACTED]*  
SOCIAL SECURITY NUMBER: *[REDACTED]*

LOCATION OF TRANSFER: *[REDACTED]*  
SHIPMENT'S PRINTED NAME (LAST, FIRST, M.I.): *[REDACTED]*  
SIGNATURE: *[REDACTED]*  
DATE (YR/MO/DAY): *[REDACTED]*  
ORGAN. OR ACCOUNT NO.: *[REDACTED]*  
SOCIAL SECURITY NUMBER: *[REDACTED]*

SHIPMENT DESCRIPTION

LINE NUMBER	QUANTITY	SERIAL NUMBERS	REMARKS
ADAM-Box 1	1 Box	Adam Box 1	9608070102-M01 Metal Pipes
ADAM-Box 2	1 Box	Adam Box 2	9608070103-M01 Metal Pipes
ADAM-Box 3	1 Box	Adam Box 3	9608070104-M01 Metal Pipes
ADAM-Box 5	1 Box	Adam Box 5	9608070106-M01 Metal Pipes

This waste material contains NO asbestos or other hazardous materials.

carbon. This waste material has been certified XXX IAW AMCR 385-13, Chapter 5 to be below the surgeon generals levels for XXX materials. This waste contains NO constituents that could in any way cause an explosion condition if processed through high temperature incinerator. WASTE JASOUR PARKS / S-R. CC NON ASMA-C Job: Billy Sanders



**MATERIEL COURIER RECEIPT**

SHIPPER'S CONTROL/DOCUMENT NO.

SUPPLY ACCOUNT NUMBER

SUPPLY ACCOUNT NUMBER

I certify by my signature that I have received the materiel listed on this form and am aware of the applicable safety and security requirements.

**SHIPMENT TRANSFERS**

LOCATION OF TRANSFER	DATE (YR/MO/DAY)	ORGAN. OR ACCOUNT NO.
E. 3947 DEAN SMITH	9/6/94	EADEC
JEAN B... LOCATION OF TRANSFER	2-11-77	211-36-777A
LOCATION OF TRANSFER	DATE (YR/MO/DAY)	ORGAN. OR ACCOUNT NO.
LOCATION OF TRANSFER	DATE (YR/MO/DAY)	ORGAN. OR ACCOUNT NO.
LOCATION OF TRANSFER	DATE (YR/MO/DAY)	ORGAN. OR ACCOUNT NO.
LOCATION OF TRANSFER	DATE (YR/MO/DAY)	ORGAN. OR ACCOUNT NO.
LOCATION OF TRANSFER	DATE (YR/MO/DAY)	ORGAN. OR ACCOUNT NO.
LOCATION OF TRANSFER	DATE (YR/MO/DAY)	ORGAN. OR ACCOUNT NO.
LOCATION OF TRANSFER	DATE (YR/MO/DAY)	ORGAN. OR ACCOUNT NO.

**PRIVACY-ACT STATEMENT**

AUTHORITY: 5 U.S.C. Sec 552a (PL 93-579)

PRINCIPLE PURPOSES: To provide a receipt for transfer of controlled material. The use required and is necessary to provide positive identification of the individuals receiving for ROUTINE USES: To document transfer of materiel from a shipper to a courier, courier to co- or receiver.

DISCLOSURE IS VOLUNTARY: Since the SSAN must be used, refusal to provide SSAN may be grounds for action to remove the individual concerned from duties involving the materiel transferred by use of this form.

**SHIPMENT DESCRIPTION**

REMARKS

LINE NUMBER	QUANTITY	SERIAL NUMBERS	REMARKS
1	1 box	18-18	18-18-18-18
2	1 box	18-18	18-18-18-18
3			
4			
5			
6			
7			
8			
9			
10			
11			
12			
13			
14			
15			
16			
17			
18			
19			
20			

**APPENDIX H**

**DAILY CONSTRUCTION QUALITY CONTROL REPORTS**

Daily Report: 1

July 22, 1996

**Foster Wheeler Environmental Corporation**  
*APG Environmental Remediation*

**DAILY CONSTRUCTION QUALITY CONTROL REPORT**

Daily Report No.: 01

Date: July 22, 1996 (Mon.)

Contract No.: DACA31-94- D-0020

Project Title & Location: DO #0003, Adamsite Storage Vaults - Edgewood Area

Weather: Cloudy  
and Damp Precipitation: 0.0 in. Temp: Min. 72°F Max. 75°F

Personnel On Site: USACE (1), ERDEC (0), FWENC (4), EA (0), HFA (0), KEVRIC (1),  
ONSITE (1)

Summary of Major Work Activities:

- Delineate work zone
- Remove Rad Soil at R-1, R-2 ( Work Plan Sec 4.3.3.1)
- Secure Removal area with warning signs
- Monitor Removal area to ensure Radiation area is below 2x background (20 Micro-R/Hr)

I. Work Performed by Foster Wheeler Environmental Personnel: (Indicate location and description of work performed by prime and/or subcontractors. When network analysis is used, identify work by NAS activity number).

K. Branch, QC Engineer, provided oversight to ensure quality work would be performed according to the work plan (Work Plan Section 3.3.5). K. Branch oversaw the removal and Radiological scanning of soil at R-1, and R-2, and the transport of the soil to the Rad Yard to be disposed with the 26th Street generated waste.

J. Morning (Site Safety and Health Officer-SSHO) conducted a health and safety briefing (See Attached Daily Briefing Sign-In Sheet). During the briefing, all site personnel were briefed on site activities, and possible radiation hazards associated with this task. J. Morning provided health and safety support throughout the mornings activities.

The SSHO calibrated real-time air monitoring instruments including: CGI, FID, PID, and the MINIRAM particulate/aerosol monitor, for use during activities at Adamsite Storage Vaults (Work Plan Section 4.10.1.4).

---

The SSHO monitored meteorological conditions including temperature (wet bulb global thermometer) and wind direction (with wind socks) (Work Plan Section 4.10.2).

---

The SSHO continuously monitored air quality conditions with the FID, PID, CGI, and the MINIRAM particulate/aerosol monitor (Work Plan Table 4-3).

---

T. Reese, Project Manager, was on site to monitor the removal, transport, and disposal of Rad Soil at R-1, and R-2 (Adamsite).

---

Work Performed by Subcontractors:

T. Park, Assistant Superintendent, conducted a pre-operational meeting to review the planned site activities for the Rad soil removal. T. Park directed site activities throughout the brief operation (Work Plan Add #1, Sect. 2.3.9).

---

The ONSITE Rad Technician (Supervisor) assisted in the Removal and scanning out of soil at R-1, and R-2. No deficiencies were noted. The KEVRIC Rad Technician assisted in the Removal and scanning of Rad soil at R-1, and R-2. The removal area was cleared of UXO (2' depth) by HFA Inc, in August 1995. The Rad Soil was removed to a depth of about eight inches and scanned using a Ludlum Gamma meter then placed in five gallon pails. The removal area was rescanned to ensure detection was below 2x background (20 micro-R/Hr). The soil (approx. 5 cf) was transported to the Rad Yard to be disposed with the Weston repackaged Waste : N B25-212649.

---

The KEVRIC Rad Technician Placed Radiological and caution warnings signs in the Rad Soil removal area.

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2. Operating Plant or Equipment Utilized, Mob. and/or Demo. (Not hand tools)

Equipment Utilized: Air-monitoring equipment (CGI, FID, PID, Personnel sampling pump, Radiation detection equipment, and particulate monitor), (1) minivan, (1) full size 4x4 pick-up truck, and (1) small pick-up truck.

---

3. Control Activities Performed:

Preparatory Inspections: (Identify feature of work and attach minutes).

Initial Inspections: (Identify feature of work and attach minutes).

Daily QC of Health and Safety Instruments and Procedures Inspection Checklist (See Attached)

---

Daily QC of Radiation Instruments and Procedures Inspection Checklist (See Attached)

---

Preparatory/ Initial Inspection Checklist (See Attached)

---

4. Tests performed and Test Results: (Identify test requirement by paragraph number in specifications and/or sheet number in plans).

Periodic air-monitoring data results were reported by the SSHO. No results were found above background. This information is recorded in the SSHO's Daily Health and Safety Report.

---

5. Material Received: (Note inspection results and storage provided)

No material was received today.

---

6. Waste Generated and/or Disposed:

Waste PPE was generated by removal team and disposed with the Rad Yard (D.O.1) PPE.

---

7. Off site Surveillance Activities, Including Action Taken:

No off site surveillance activities occurred this date.

8. Job Safety: (List items checked, results, instructions and corrective actions taken)

Total Manhours Worked to Date: 20 hours Total Number of Days Worked on Site: 1 day  
Total Manhours Worked with No Lost Time Accidents: 20 hours Total Number of Lost Time  
Accidents on the Site to Date: 0

Air monitoring readings taken with the FID, PID, CGI, HCN sensor, and MINIRAM  
particulate/aerosol monitor were not reported to be above background for each instrument.

9. Remarks: (Instructions received or given. Conflict(s) in Plans and/or specifications.  
Delays encountered.)

B. Sanders (USACE/ERRO-OSR) was on site to monitor work activities associated with the Removal  
and scanning out of soil at R-1, and R-2 (Adamsite Storage Vaults).

10. Attachments:

Daily QC of Health and Safety Instruments and Procedures Inspection Checklist (See Attached)

Daily QC of Radiation Instruments and Procedures Inspection Checklist (See Attached)

Preparatory/ Initial Inspection Checklist (See Attached)

Daily H&S Report (SSHO Daily Log, Calibration Records (CGI, PID, Particulate monitor, HCN  
monitor, Radiation survey form, Personnel sampling pump data, Activity Hazard Analysis), Air  
Monitoring Results.

Daily Field Radiation Safety Report

QC Authorization letter

List of Major Definable Features of Work (Eight features are enclosed that will need inspections)

Contractor's Verification: On behalf of the Contractor, I certify that this report is complete and correct, and all materials and equipment used and work performed during this reporting are in compliance with the contract plans and specifications, to the best of my knowledge, except as may be noted above.

Keith Branch      7.23.96  
Keith Branch      Date  
QC Systems Engineer

# FOSTER WHEELER ENVIRONMENTAL CORPORATION

*APG Environmental Remediation*

## Quality Control of Health and Safety Instruments and Procedures Inspection Checklist

All QC inspections must be completed by a designated QC Engineer or alternate who is qualified in the operation and calibrations of health and safety instruments and procedures.

The QC Engineer should observe the calibration of health and safety instrumentation randomly, or at least once every five calibrations. The QC Engineer shall inspect the health and safety operations/forms listed below.

Quality Control No.: N/A Date Started: 7.22.96  
 Date Completed: \_\_\_\_\_  
 Contract No.: DACA31-94-P-0020 Project Site and Location: Adams Site Storage Vaults  
 QC Engineer(s): K. Branch  
 Site Health & Safety Officer(s): J. Morning

Operation/Form	7/22 Month/Day					Notes
Calibration Log Completed	✓					
Daily Briefing Log Completed						
Daily Instrument Source/Background Check Form (for each instrument used)	✓					
Daily Health & Safety Report Form	✓					
Sign In Log for Work Zones	N/A					
Proper Donning and Doffing of PPE	✓					
Air Monitoring/Sampling Form	✓					
In Compliance with SHERP & SOPs	✓					
H & S Violations	None					
Heat and Cold Stress Monitoring	N/A					
All OSHA Forms Up to Date	✓					
SHERP Review for All Personnel	✓					
Delineation of Work Zones	✓					
Shower Trailer Inspection	N/A					

# FOSTER WHEELER ENVIRONMENTAL CORPORATION

## APG Environmental Remediation

### Quality Control of Radiation Instruments and Procedures

#### Inspection Checklist

All QC inspections must be completed by a designated QC Engineer or alternate who is qualified in the operation and calibrations of radiation instruments and procedures.

The QC Engineer or alternate should observe the calibration of radiation instruments and procedures randomly, or at least once every five calibrations. The QC Engineer shall inspect the following radiation operations/forms.

Quality Control No.: N/A Date Started: 7.22.96  
 Date Completed: \_\_\_\_\_  
 Contract No.: DAC31-94-D-0020 Project Site and Location: ADAMSITE Storage Vaults  
 QC Engineer(s): Keith Braneh  
 Radiation Instrument Technician(s): J. Devaney, T. Thorsen

Operation/Form	1/2	Month/Day				Notes
QC Observes Radiation Instruments Calibration Steps	N/A					
Daily Instrument Check Source Form Up to Date	✓					
Daily Instrument Source/Background Check Form for Each Instrument Used	✓					
Radiation and Contamination Survey Form/Package: <input type="checkbox"/> In progress	✓					
Radiation and Contamination Survey Form/Package: <input type="checkbox"/> Completed	N/A					
Daily Radiological Work Summary Form	✓					
Air Sampling Form/Package: <input type="checkbox"/> In progress	✓					
Air Sampling Form/Package: <input type="checkbox"/> Completed	✓					
Waste Characterization Activities Up to Date (see procedures)	N/A					
Areas Containing Radioactive Materials Properly Posted	✓					
Radioactive Waste Inventory Up to Date	N/A					
Containers Properly marked and Identified with Radioactive Labels and Inventory Sheets	N/A					

# FOSTER WHEELER ENVIRONMENTAL CORPORATION

## *APG Environmental Remediation*

### Quality Control of Radiation Instruments and Procedures

#### Inspection Checklist

All QC inspections must be completed by a designated QC Engineer or alternate who is qualified in the operation and calibrations of radiation instruments and procedures.

The QC Engineer or alternate should observe the calibration of radiation instruments and procedures randomly, or at least once every five calibrations. The QC Engineer shall inspect the following radiation operations/forms.

Quality Control No.: N/A Date Started: 7.22.96  
 Date Completed: \_\_\_\_\_  
 Contract No.: DAC 31-94-0-0020 Project Site and Location: ADAM Site Storage Vaults  
 QC Engineer(s): Keith Branch  
 Radiation Instrument Technician(s): J. Devaney, T. Thorsen

Operation/Form	7/22	Month	/	Day	Notes
Film Badge/TLD Issue Form	N/A				
Pocket Dosimeter Issue Log	N/A				
Personnel Exposures Within Administrative and/or Regulatory Limits	✓				
In Compliance with Written Radiological Procedures	✓				
Pending Radiation Safety Issues	None				
Radiological Field Office Inspection	✓				

DAILY HEALTH AND SAFETY REPORT  
DAILY REPORT #: 01

Client: US Army Corps of Engineers, ERRO, Baltimore District

Date: 7-22-96Project: Delivery Order #0003, Site 3, Adamsite Storage Vaults, Edgewood Area, APG FW Proj.#: DACA31-94-D-0020Wind: out of NWTemperature:(Hi/Low): 72 - 75°FSky: OVERCASTPrecipitation: RAIN off - ON

LEVEL OF PROTECTION REQUIRED

A · B · C · (D) (circle) (required in work zone)

## REMEDIATION &amp; SITE ACTIVITIES

TIME

REMARKS/COMMENTS/ACCOMPLISHMENTS/DELAYS

0910

SHSO GAVE RAD TECHS HAZARD ANALYSIS BRIEFING AND WENT OVER SHERP, SIGNED OFF. RAD TECHS ARE FROM 26<sup>th</sup> St. Project and are familiar w/ site.

0917

PLACED High Volume RAD Air Sampler in E-2 and (1) Personal Sampling Pump (PSP) on Tom Thorsen. PSP WAS PREP AND CALIBRATED, SEE ATTACHED CALIBRATION SHEET, CHECK AREA OF OPERATIONS w/ HHS EQUIPMENT FROM THE 26<sup>th</sup> St Site, INSTRUMENTS WERE CALIBRATED FOR THAT CREW, SEE COPY OF CALIBRATION SHEETS. NO READINGS ABOVE ACTION LEVELS WERE FOUND, SEE AIR MONITOR LOG ATTACHED. ACOE BILLY SANDERS ON SITE, RADIO PHONE CHECK OK.

0925

Tom Thorsen + John Deannway (FRSS) Enter E-2 To "DIG" Hot SPOTS, MOD Level C, Slight Misty RAIN off-on

1030

OPERATION complete, Demob HHS Sampler. NO READINGS ABOVE ACTION LEVELS DETECTED. Hot SPOTS removed to Spec<sup>s</sup>. Soil. BAGGED AND PLACED w/ 26<sup>th</sup> St Series

1045

Site Secured, Areas Demarked per Site plan

1104

Return to 26<sup>th</sup> St Rad Yard OPERATIONS. See Rad Report for Results of PSP and RAD Air Monitors - Verbal from FRSS Stated All was OK.




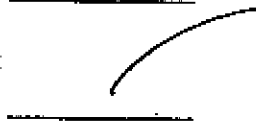
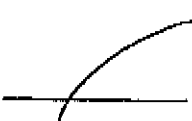

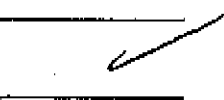

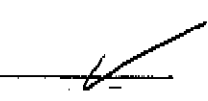


FOSTER WHEELER ENVIRONMENTAL CORPORATION

CALIBRATION RECORD FOR  
COMBUSTIBLE GAS INDICATOR

SERIAL NUMBER: ~~FW00143~~ 11069 *Passport*

*SM*

1. Turn instrument on (HORN OFF position). Set % LEL meter pointer to zero by adjusting the ZERO LEL control. (do this within 30 seconds). Check when complete. 
2. Use CALIBRATE O2 control to set it at 20.6%. If this can be done then replace the O2 cell. Check when complete. 
3. Press the ALARM RESET button. If the alarm light does not go out and the green pilot light begins flashing then TAG OUT unit for repair and enter note below. Check when complete. 
4. Check flow by placing finger momentarily over sample inlet. If indicator float does not drop to the no flow position then TAG OUT for repair and enter note below. Check, when complete. 
5. Check battery, recharge if necessary. Check when complete. 
6. Turn ON-OFF control to the ON position. If the pilot lamp does not light then TAG OUT unit for repair. Check when complete. 
7. Note the calibration gas % LEL 
8. Introduce calibration gas to instrument. If the meter pointer is not +/- LEL, stop the cal. gas flow and remove the right hand side (speaker panel). Turn on the flow and adjust the "S" control with a small screwdriver to obtain the reading specified for the cal. gas. When complete sign, date and record the time below.

NOTATIONS: *50% PENTANE*  
*Alarms OK*

Name: *J. M. ...*

*7-22-96*

*0103*

FOSTER WHEELER ENVIRONMENTAL CORPORATION  
CALIBRATION RECORD FOR  
MINIRAM AEROSOL MONITOR/SUNSHIELD/MODEL PDM-SNS  
SERIAL NO. FW 00143

1. Turn instrument ON. Allow to warm up for several minutes.
2. MINIRAM has been factory-calibrated. To zero the unit, use a dust free office environment or employ the Z-bag calibrator.

The Z-Bag™ is a convenient kit for zeroing the MINIRAM in the field. It provides a clean-air environment inside a plastic bag into which the MINIRAM is placed for zeroing. The Z-Bag kit consists of a one-way flow rubber bulb for manual air pumping, a filter cartridge, a zippered plastic container, a connecting hardware.

To use Z-Bag for zeroing MINIRAM proceed as follows:

1. Remove rubber bulb filter assembly from Z-Bag. Place Z-Bag on flat surface with red flow fitting facing up. Flatten bag. Remove small plastic cap from flow fitting on bag.
2. Insert ribbed elbow connector (attached to filter cartridge) into red flow fitting of plastic bag, until connector is flush with bottom of red flow fitting.
3. MINIRAM should be in its OFF condition (observe display). If display is blanked, or if MINIRAM is in the MEAS mode, key OFF.
4. Open Z-Bag and place MINIRAM inside, approximately at its center.
5. Key ZERO through the open end of the Z-Bag. Immediately zip closed the Z-Bag and begin to pump hand bulb.
6. Z-Bag should inflate as hand pumping continues, up to a height of about five inches (12 cm). Continue pumping gently to maintain bag interior pressure, until the MINIRAM displays off again.
7. Unzip Z-Bag and remove MINIRAM. MINIRAM is now ready for monitoring.
8. Place rubber bulb/filter assembly inside Z-Bag, and plug small plastic cap into flow fitting to close it. Zip close while flattening

FOSTER WHEELER ENVIRONMENTAL CORPORATION  
CALIBRATION RECORD FOR  
OVA MODEL 128  
SERIAL NO.: FW60043

Follow the start-up steps contained in the lid of the cover of the instrument for proper lighting and set-up of the instrument.

CALIBRATION range setting: X10

GAS SELECT control setting: 3.0

Calibration gas (methane) concentration: 100

Meter reading with calibration gas: 100

If the reading is greater than +/- 10% of the calibration gas concentration, a complete calibration is needed; otherwise the instrument can function as is. Follow the steps below, placing a check after each step, for complete calibration, if needed.

1. Set CALIBRATION to X10 and GAS SELECT control to 300.
2. Introduce zero air gas and use the CALIBRATE ADJUST knob to adjust the meter reading to zero.
3. Introduce a calibration gas standard of approximately 94 ppm methane and adjust trimpot R-32 on circuit board so that the meter reads the calibration gas concentration.
4. Turn off the H<sub>2</sub> SUPPLY VALVE to put out the flame.
5. Leave the CALIBRATE switch on X10 and use the CALIBRATE ADJUST knob to adjust the meter reading to 4 ppm.
6. Turn the CALIBRATE switch to X1. Using trimpot R-31 adjust the meter reading to 4ppm.
7. Set the CALIBRATE switch to X10 again and use the CALIBRATE ADJUST knob to set the meter reading to 40 ppm.
8. Set the CALIBRATE switch to X100 and use trimpot R-33 to adjust meter to 40 ppm.
9. Set the CALIBRATE switch to X10 and use the CALIBRATE

✓  
✓  
✓  
✓  
✓  
✓  
✓  
✓  
✓

FOSTER WHEELER ENVIRONMENTAL CORPORATION  
CALIBRATION RECORD FOR

HNU MODEL DL101  
SERIAL # 567048  
PROBE SERIAL # 4  
PROBE eV: 10.2

1. Turn unit on and let warm up a few minutes.
2. Check time, date and mode. Mode should be S-D for Survey Mode.
3. Check low battery indicator in upper right corner
4. Prepare Calibration tank, tubing and regulator.
5. Press the calibration key on the front panel. CALIBRATE ? appears.
6. Press enter key. ELEC ZERO ? YES appears.
7. Press enter. ZEROING UNIT appears
8. Next prompt will ask for gas concentration; enter proper PPM, press enter.
9. ATTACH GAS TO PROBE AND/ENTER will appear. start the flow and press enter.
10. PRESS ENTER WHEN READY; XXX PPM will appear, press enter when readings stabilize to complete the process.
11. If unit does not calibrate to correct PPM see manual for more information.
12. If unit goes to survey mode calibration is complete and ready.
13. Note any maintenance performed;  
a. bulb cleaned \_\_\_\_\_ b. filter changed \_\_\_\_\_ c. Ion Chamber cleaned \_\_\_\_\_

other OK

Name: J. MORNING

Date: 7-22-96

Time: 0628

FOSTER WHEELER ENVIRONMENTAL CORPORATION  
CALIBRATION RECORD FOR  
MONITOX SERIAL # 006800

1. Turn unit on test and let it warm up. /
2. Check battery condition by observing small red light on top of unit, if its on change battery. /
3. Prepare calibration gas cylinder by attaching regulator and tygon tubing and cap adapter. /
4. Turn switch to on position. /
5. Attach cap adapter to sample intake port on top right corner and turn calibration gas. /
6. Observe readings an screen, they should begin to increase. /
7. Alarm should begin at 5 PPM, continue to observe. /
8. Unit should continue to alarm until 10 PPM is reached and then the alarm tone should change. /
9. If unit fails to alarm at given PPM ranges go to manual for complete calibration procedures. /
10. If unit responds at given PPM concentrations , unit is ready for use. /

Comments: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Calibration Gas Concentration: 10 ppm

Brand/Type: \_\_\_\_\_

NAME: V. MORNING

DATE: 7-22-96

TIME: 0525



FOSTER WHEELER ENVIRONMENTAL CORPORATION

DAILY FIELD RADIATION SAFETY REPORT  
REPORT #: 107

Page of

Client: US Army Corps of Engineers, ERRO, Baltimore District Date: 7-22-96  
Project: Delivery Order #0001, 26th Street Disposal Site, Edgewood Area, APG FW Proj #: DACA31-94-D-0020  
Wind: / Temperature: (Low/Hi): /  
Sky: / Precipitation: /

LEVEL OF PROTECTION REQUIRED A B C D (circle) (required in work zone)

TIME	ACTIVITIES REMARKS/COMMENTS/ACCOMPLISHMENTS/DELAYS
0500	J. DEWANNEY WORKING ON REPORT FOR REEM EVENTS
0520	HEALTH AND SAFETY MEETING
0550	ENTERED SECURED AREA AT 26 <sup>TH</sup> STREET, SOURCE CHECKING OF INSTRUMENTS, REPAIRING INSTRUMENTS IN NEED OF REPAIR, FINISHING PAPER FROM 7-19-96, INVENTORY OF SOURCES, DOSIMETRY ISSUE AND QA OF PREVIOUS ACTIVITIES. FRESHEN INSTRUMENTS READY FOR USE.
0630	J. DEWANNEY REVIEWING SELF-READING POCKET DOSIMETER LOG BOOK.
0700	T. THORSEN FINISHED WITH SCALE SOURCE CHECK AND STARTS RUNNING CALCULATIONS OF AIR SAMPLES.
0720	T. PAEK IN TO DISCUSS CONTAMINATED SOIL REMOVAL IN ADAM SITE.
0830	RAD CREW TO ADAM SITE TO REMOVE CONTAMINATED SOIL FROM IDENTIFIED AREAS.
0917	HE-VOX AIR SAMPLE STARTED AT WORK AREA @ ADAM SITE. CONTACT READINGS AS HIGH AS 170 uR/hr WERE LOCATED AND REMOVED. FEWAL READINGS WERE $\leq 20$ uR/hr IN IDENTIFIED AREAS. ALL TOOLS STERILIZED AND FREEDS CLEAN.
1030	AIR SAMPLE AT ADAM SITE WAS TURNED OFF RAD CREW EVACUATED ADAM SITE.
1050	STARTED COUNTING AIR SAMPLES (HE-VOX AND PSP)
1110	T. DEWANNEY DOES SURVEY FOR ADAM SITE.
1130	FINISHED HALF-LIFE CALCULATIONS ON AIR SAMPLES.
200	WORKING ON PAPER WORK (ie AIR SAMPLE CALCULATIONS)
245	AIR SAMPLE TEST



# POSTER WHEELER ENVIRONMENTAL

Site: Off Adams Site - vaults

Date: 7-22-96

## SONNEL SAMPLING PUMP DATA

### PRE-CALIBRATION

DIA	PUMP #	1st	2nd	3rd	Average
	01	2833	2836	2839	2836
					L/min
					L/min
					L/min
					L/min
					L/min
					L/min

[Signature]  
Calibrator Signature

Flow 3

## SONNEL AIR SAMPLING DATA

DIA	SAMPLE #	TIME ON	TIME OFF	TOTAL MIN	PUMP #	AVG. FLOW	TOTAL VOL.
	F4072298-01	0800	1030	150	01	2816	422400
						L/min	Lit
						L/min	Lit
						L/min	Lit
						L/min	Lit
						L/min	Lit
						L/min	Lit

### POST-CALIBRATION

1st	2nd	3rd	Average
2796	2796	2796	2796
			L/min
			L/min
			L/min
			L/min
			L/min
			L/min

[Signature]  
Calibrator Signature

Avg. Flow
2816
L/min
L/min
L/min
L/min
L/min
L/min

Personnel: T. Thompson  
Name: John Dornaway  
Title: RAD TECH

Description of Work

RIF R-1 A0

REMARKS: Rad Safety Supervisor Performed Cont Check - Sec RAD Report.  
Of This Day - VERBAL FROM JOHN DORNAWAY @ 1330 WAS  
That Results were OK - NO CONTAMINATION

ES SENT FOR ANALYSIS

NO

YES

If Yes, write the Date Sent:

Collector: James Morawig

[Signature]  
Signature:

Date: 7-22-96



# Foster Wheeler Environmental Corporation

APG Environmental Remediation

## INITIAL INSPECTION CHECKLIST

Report No. 01 Contract No. DACA31-D-94-0020 Date 7.22.96

Project Title and location D0#003 Adamsite Storage Vaults

Work No.	Weather	Temperature		Rainfall inches	Work location (grid)
		Min.	Max.		
	<u>overcast - rain</u>				

Major definable feature of work Removal of Rad Soil at R-1, R-2 (w.P sec 4.3.3.1)

Reference contract drawings (if any) \_\_\_\_\_

A.

### Personnel Present

Name	Position	Organization
<u>John Devaney</u>	<u>Rad Tech Supervisor</u>	<u>DO Site</u>
<u>Tom Thorsen</u>	<u>Rad Tech</u>	<u>Kevin</u>
<u>James Morning</u>	<u>Health and Safety</u>	<u>Foster Wheeler</u>
<u>Todd Park</u>	<u>Acting Superintendent</u>	<u>Foster Wheeler</u>
<u>Tim Reese</u>	<u>Project Manager</u>	<u>Foster Wheeler</u>

(List additional personnel on reverse side)

B. Materials being used are in strict compliance with the contract plans and specifications

YES  NO

If not, explain \_\_\_\_\_

C. Procedures and/or work methods witnessed are in strict compliance with approved shop drawings, plans and specifications

YES  NO

If not, explain \_\_\_\_\_

D. Workmanship is acceptable YES  NO

Indicate areas where improvement is needed \_\_\_\_\_

E. Safety violations and corrective action taken none

Contractor's Quality Control Representative

Keith Branch

7.22.96

Keith Branch

Date

# Foster Wheeler Environmental Corporation

## APG Environmental Remediation

### INITIAL INSPECTION CHECKLIST

Report No. 01 Contract No. DACA31-D-94-0020 Date 22 July, 1996

Project Title and location DO#003 Adamsite Storage Vaults

Work No.	Weather	Temperature		Rainfall	Work location (grid)
	<u>OVERCAST/RAIN</u>	Min. <u>72°</u>	Max.	inches	

Major definable feature of work Removal of Rad Soil at R-1, R-2 (sec 4.3.3.1)

Reference contract drawings (if any) \_\_\_\_\_

A.

#### Personnel Present

Name	Position	Organization
<u>John Devaney</u>	<u>Rad Tech Supervisor</u>	<u>onsite</u>
<u>Tom Thorsen</u>	<u>Rad Tech</u>	<u>KEVAIC</u>
<u>James Morning</u>	<u>HEALTH AND SAFETY</u>	<u>FOSTER WHEELER</u>
<u>Todd Park</u>	<u>Acting Superintendent</u>	<u>FOSTER WHEELER</u>
<u>Tim Reese</u>	<u>Project Manager</u>	<u>FOSTER WHEELER</u>

(List additional personnel on reverse side)

B. Materials being used are in strict compliance with the contract plans and specifications

YES  NO

If not, explain \_\_\_\_\_

C. Procedures and/or work methods witnessed are in strict compliance with approved shop drawings, plans and specifications

YES  NO

If not, explain \_\_\_\_\_

D. Workmanship is acceptable YES  NO

Indicate areas where improvement is needed \_\_\_\_\_

E. Safety violations and corrective action taken NONE

✓ with Branch 7-22-96



# FOSTER WHEELER ENVIRONMENTAL CORPORATION

July 22, 1996

Mr. Keith Branch  
Foster Wheeler Environmental Corporation  
P.O. Box 104 Gunpowder Branch  
Aberdeen Proving Ground, Maryland 21010

Re: Aberdeen Proving Ground - Adamsite Storage Vaults Removal Action - QC Authorization

Dear Mr. Branch:

This letter appoints you as the Quality Control systems engineer for the Adamsite Storage Vaults Removal Action and confirms our reporting relationship with respect to the remediation activities at the USACE Aberdeen Proving Ground - Edgewood Area site. As QC systems engineer, you or your alternate will report to the QC Officer, Mr. Jessie B. Cabellon.

You or your alternate's responsibilities and authority as QC systems engineer are set forth below:

- Administer the QC program at the site location, as defined by the site specific work plan. You or your alternate will assist in assuring compliance with the work plan and contract requirements. The QC systems engineer or the alternate will remain onsite during all activities.
- Implement the system for assuring that all tests are performed and that the results of tests are evaluated by appropriate personnel, qualified in accordance with the appropriate project specifications.
- Establish or verify that recording forms, including all of the test documentation requirements, have been prepared and tests are performed in accordance with specifications.
- Report results of examinations, inspections or tests.
- Document and identify non-conforming items, as well as verify that non-conforming items have been corrected.

#5 Place concrete Rubble in vault  
Break up vault concrete in S.W. vault  
Break up N.E. vault and center well

#6 Fill SW vault with flowable fill  
Back fill SW vault with 6" stone  
Fill N.E. vault with flowable fill  
Back with N.E. vault with crushed stone  
Back fill contaminated soil areas

#7 Sample Decon water  
Demob site  
Remove PCM & sediment with DSHF  
Analyze Decon  
Remove Decon water

#8 Draft Technical Report  
USACE & DSHF  
Final Tech Report  
USACE Review and Approval Tech Report  
USACE ACCEPTANCE of ADAM site - project close out

**Foster Wheeler Environmental Corporation**  
*APG Environmental Remediation*

**DAILY CONSTRUCTION QUALITY CONTROL REPORT**

Daily Report No.: 02

Date: July 24, 1996 (WED.)

Contract No.: DACA31-94- D-0020

Project Title & Location: DO #0003, Adamsite Storage Vaults - Edgewood Area

Weather: Sunny and Clear Precipitation: 0.0 in. Temp: Min. 72°F Max. 89°F

Personnel On Site: USACE (1), ERDEC (0), FWENC (4), EA (1), HFA (0), KEVRIC (0), ONSITE (0)

Summary of Major Work Activities:

- Mobilization (Work Plan Section 2.2.1)
- Delineate work zone
- Stage Equipment and Materials
- Inspection of Daewoo Tracked Grappler and Misc Health and Safety items

1. Work Performed by Foster Wheeler Environmental Personnel: (Indicate location and description of work performed by prime and/or subcontractors. When network analysis is used, identify work by NAS activity number).

K. Branch, QC Engineer, provided oversight to ensure quality work would be performed according to the work plan (Work Plan Section 3.3.5). The APG Department of Public Works and ERDEC, arrived on site and disconnected to two electrical power lines adjacent to the Vaults. The lines were were rolled up and stored in the adjacent building. K. Branch conducted a Preparatory Inspection with the USACE Representative (Billy Sanders) on Mobilization for the Adamsite Storage Vaults First Definable Feature of work. Deficiencies were noted (see attached inspection check list). Paul Harvey (DSHE) arrived to view Storage Vaults and stated that Chem Waste would arrive on 30 July, 1996 at 0700 to pump out water. Also Mr Branch conducted a inspection checklist on a Tracked Grappler delivered today. The tracked Shear will be delivered around 01000 on 25 July and a inspection will be conducted to ensure its safety and operation ability.

J. Morning (Site Safety and Health Officer-SSHO) conducted a health and safety briefing (See Attached Daily Briefing Sign-In Sheet). During the briefing, all site personnel were briefed on site activities, and possible hazards associated with the site.

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The SSHO did not utilize chemical monitoring equipment today during mobilization activities.

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The SSHO monitored meteorological conditions including temperature (wet bulb global thermometer) and wind direction (with wind socks) (Work Plan Section 4.10.2)

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T. Reese, Project Manager, was on site during the Preparatory Inspection and Mobilization of the Adamsite Storage Vaults. Mr Reese returned to the site to discuss removal of liquids from the Vaults with Paul Harvey the DSHE representative.

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Work Performed by Subcontractors:

M. Fox, Superintendent, conducted a pre-operational meeting to review the planned site activities for Mobilization of Adamsite Storage Vaults. M. Fox directed site activities for Mobilization throughout the day. Mike also escorted and assisted in the inspection of Heavy equipment delivered on site, and staged drums for sediment removal. (Work Plan Add #1, Sect. 2.3.9).

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Fred Ansel, Keveric contact, provided names of three labors (Jeffers, Hunter, Woolford ) and one operator (Ashley).

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2. Operating Plant or Equipment Utilized, Mob. and/or Demo. (Not hand tools)

Equipment Utilized: (1) minivan, (1) full size 4x4 pick-up truck, and (1) small pick-up truck (4) 2way Radios.

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3. Control Activities Performed:

Preparatory Inspections: (Identify feature of work and attach minutes).

Initial Inspections: (Identify feature of work and attach minutes).

Daily QC of Health and Safety Instruments and Procedures Inspection Checklist (See Attached)

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Daily QC of Radiation Instruments and Procedures Inspection Checklist (See Attached)

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Preparatory/ Initial Inspection Checklist (See Attached)

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4. Tests performed and Test Results: (Identify test requirement by paragraph number in specifications and/or sheet number in plans).

N tests performed

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5. Material Received: (Note inspection results and storage provided)

Daewoo DH180LC Tracked Grappler, Misc Health and Safety Supplies, 55 Gallon Steel Drums, and a Drum lifting device.

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6. Waste Generated and/or Disposed:

No waste was generated on site today

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FOSTER WHEELER ENVIRONMENTAL CORPORATION

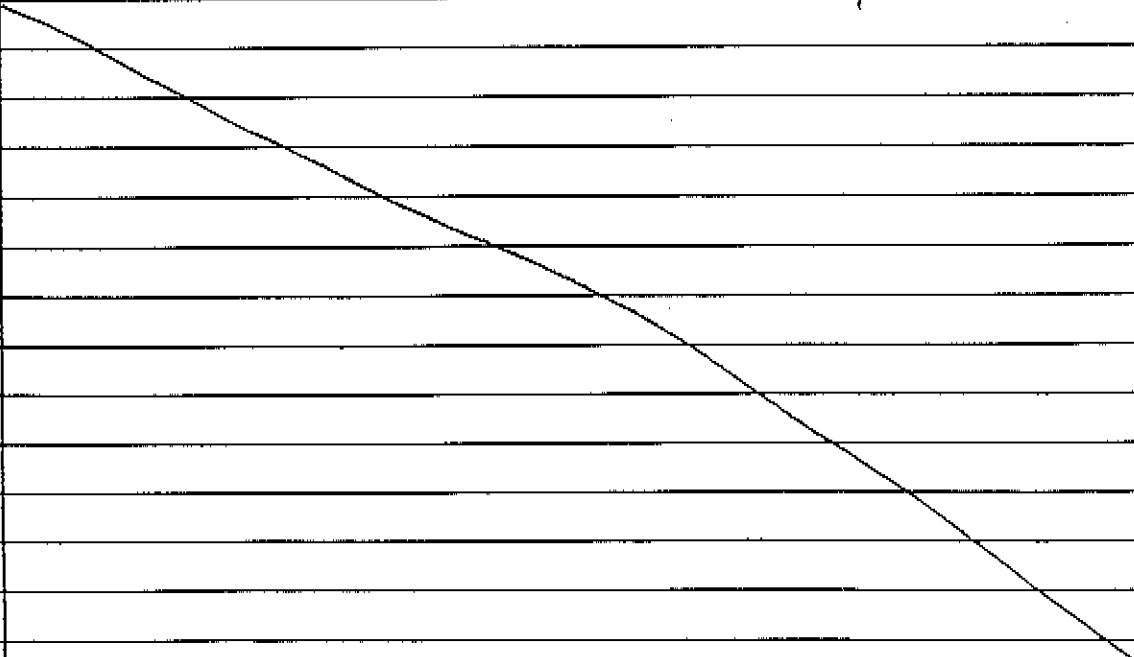
DAILY CONSTRUCTION LOG/MANPOWER REPORT  
DAILY REPORT #: 01

Client: US Army Corps of Engineers, ERRO, Baltimore District Date: 7-24-96  
 Project: Delivery Order #0003, Site 3, Adamsite Storage Vaults, Edgewood Area, APG FW Proj.#: DACA31-94-D-0020  
 Wind: 2-7 Temperature: (Hi/Low): 72 - 86  
 Sky: Clear / Sunny Precipitation: 0

LEVEL OF PROTECTION REQUIRED A B C  D (circle) (required in work zone)

REMEDIATION & SITE ACTIVITIES

TIME	REMARKS/COMMENTS/ACCOMPLISHMENTS/DELAYS
0700	Picked up Vehicle Pass
07:30	Travel out to Site unloaded equipment into Cuckoo box
08:30	Moved 55gal drums from 40th street to Adamsite (12)
	On site with PM, QA, QC Health Safety Corp Billy Sanchez
12:30	Picked up Vehicle Pass for equipment hauler escorted in/out
1300	Equipment delivery & Inspection (Daewoo w/Grapples)
1400	To HAR Ford Rental to pick up Mower
1430	Secured ADAMSite After Paul Harvey viewed vaults





Foster Wheeler Environmental Corporation  
 APG Environmental Remediation  
**EQUIPMENT/TRUCKING INSPECTION CHECKLIST**

CONTRACT NO.

PROJECT TITLE: Adamsite Storage Vaults

DATE: 7-24-96

TIME: 1300

S M T W T F S

This inspection form is to be filled out at the start of the work shift upon deliveries by the Equipment/Truck Operator to insure that the equipment/truck is safe to operate and is free from apparent damage which could cause failure while in use. Once completed, this form is to be given to the Site Superintendent and QC systems engineer to be kept on file on-site. In all cases, consult the manufacturer's data to ensure compliance with all inspection criteria which may not be indicated below.

Make/Description DaeWoo w/grapple Model/Serial DH18DL

\* Items denoted with an asterisk are items that must pass the inspection before the equipment can be used onsite.

EQUIPMENT	PASS	FAIL	COMMENTS AND ACTION TAKEN
Brakes*	✓		
Brake lights*	N/A		
Reverse signal alarm*	✓		
Horn/Air horn*		X	WE will Supply Air Horn
TRACKS <del>Tires</del> *	✓		Needs Grease
Steering*	✓		TRACK movement not totally sync
Seat belts*	✓		
Operating controls*	✓		
Fire extinguisher*		X	We will supply fire extinguisher
Lights*		X	1 WORKS
Defroster	N/A		
Mirrors*			(NOT on vehicle)
Instruments*	✓		
Coupling devices*			
Windshield/window glass	✓		Bottom Windshield missing/Passenger small glass work missing
Mud flaps/rock guards	N/A		
Exhaust system	✓		
Hitches and safety cables*	✓		
Hydraulic lines/air hoses*	✓		
Engine oil level*	✓		Low - needs more
Roll over equipment*	N/A		
First Aid kit*		X	we will supply Kit

ODOMETER \_\_\_\_\_

HOUR METER 14970

FUEL LEVEL 1/4

INSPECTOR'S NAME AND SIGNATURE

Keith Branch

SITE SUPERINTENDENT'S NAME AND SIGNATURE \_\_\_\_\_

# Foster Wheeler Environmental Corporation

APG Environmental Remediation

## PREPARATORY INSPECTION CHECKLIST

Report No. 02 Contract No. DACA31-D-94-0020 Date 24 July 1996

Project Title and location DO#003 Adamsite Storage Vaults

Work No.	Weather	Temperature		Rainfall inches	Work location (grid)
		Min.	Max.		
	<u>Clear and Sunny</u>	<u>72°</u>	<u>88°</u>	<u>0</u>	

Major definable feature of work Mobilization Government Rep. Notified A. Far / Billy Sanders

Person Responsible for conducting the work Mike Fox (Superintendent)

A.

### Personnel Present

Name	Position	Organization
<u>James Morning</u>	<u>Health and Safety</u>	<u>Foster Wheeler</u>
<u>Tim Reese</u>	<u>Project Manager</u>	<u>Foster Wheeler</u>
<u>Mike Fox</u>	<u>Superintendent</u>	<u>EA Engineering</u>
<u>Billy Sanders</u>	<u>Construction Safety Officer</u>	<u>USACE</u>

(List additional personnel on reverse side)

B. Submittals to be reviewed: Number: \_\_\_\_\_

Submittals reviewed and approved: Yes  No

If not, explain \_\_\_\_\_

C. Materials being used are in strict compliance with the contract plans and specifications Yes  No

If not, explain Equipment not present is Grapple / SKIDSTEERS, Roll offs, laborers, and 20' extension ladder

D. Procedures and/or work methods witnessed are in strict compliance with approved shop drawings, plans and/or specifications. Yes  No

If not, explain heavy equipment will be inspected. Staging area and CPZ will be delineated. All equipment inspected for safety and compliance with QC Plan

E. Identify testing to be performed, frequency and by whom. Base line Air monitoring

will be done by SHHO and daily monitoring will take place per QC work Plan

F. Workmanship is acceptable Yes  No

Indicate areas where improvement is needed N/A

G. Safety concerns reviewed: Yes  No

If not, explain DLW and BRDPC removed 2 Power line adjacent to vaults to allow machinery mobility on site. Hazard Analysis reviewed and satisfied. HIS Material - stored in secured container.

USACE Quality Control Representative

Keith Branch  
Keith Branch  
OC Systems Engineer

7.24.96  
Date

# Foster Wheeler Environmental Corporation

APG Environmental Remediation

## INITIAL INSPECTION CHECKLIST

Report No. 02 Contract No. DACA31-D-94-0020 Date 7-24-96

Project Title and location DO#003 Adamsite Storage Vaults

Work No.	Weather	Temperature		Rainfall inches	Work location (grid)
		Min.	Max.		
	<u>Clear and Sunny</u>				

Major definable feature of work Mobilization

Reference contract drawings (if any) \_\_\_\_\_

A.

### Personnel Present

Name	Position	Organization
<u>James Morning</u>	<u>Health &amp; Safety</u>	<u>Foster Wheeler</u>
<u>Mike Fox</u>	<u>Superintendent</u>	<u>EA Engineering</u>

(List additional personnel on reverse side)

B. Materials being used are in strict compliance with the contract plans and specifications

YES  NO

If not, explain Grappler needs some adjustments before start of usage.

Items not available noted on Preparatory. Electrical lines removed by ORW

C. Procedures and/or work methods witnessed are in strict compliance with approved shop drawings, plans and specifications

YES  NO

If not, explain Grappler inspected per QC Plan and Deficiencies noted in QC report

D. Workmanship is acceptable YES  NO

Indicate areas where improvement is needed N/A

E. Safety violations and corrective action taken all material on hand inspected  
and in compliance for use on site.

Health Branch 7-24-96



FOSTER WHEELER ENVIRONMENTAL CORPORATION

DAILY BRIEFING SIGN-IN SHEET

Date: 7-24-96

Project Name/Location: Alamste - AP6-MD

Shift/Department: DAY

Person Conducting Briefing: J MORNING

1. DAILY ACTIVITIES

TASKS	CONTROLS/PPE
1. Mobilization	OP
2. Heavy Equip Delivery	D/P
3.	
4.	
5.	

2. AWARENESS (e.g., special HS concerns, recent incidents, etc.):

WENT OVER HAZARD ANALYSIS for MOTB

3. OTHER ISSUES (HASP changes, attendee comments, etc.):

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

4. ATTENDEES (Print Name):

1. J. Morning	11.
2. K. Brown	12.
3. M. Fox	13.
4.	14.
5.	15.
6.	16.
7.	17.
8.	18.
9.	19.



Daily Health and Safety Report

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DAILY HEALTH AND SAFETY REPORT  
CONTRACT NUMBER DACA31-94-D-0020

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DELIVERY ORDER NO. Delivery Order No. 003 DATE: 7-24-96  
LOCATION OF WORK: Adamsite Storage Vaults

WEATHER: PC RAINFALL: 0 IN. TEMP. 69 min 89 max

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1. WORK PERFORMED BY FOSTER WHEELER ENVIRONMENTAL CORPORATION AND THE FOLLOWING SUBCONTRACTORS:

- HFA
- KEVRIC
- ONSITE
- GONZER
- EA

2. EQUIPMENT BEING UTILIZED:

- HNU
- OVA
- CGI
- Monitox
- Miniram
- W.B.G. Therm
- First Aid Kits
- ICADS
- MINICAMS
- Radios

3. PERSONAL PROTECTIVE EQUIPMENT DONNED:

Level B     Level C

- Supplied Air Resp.
- 5 min. Escape
- Overboots
- MSA Respirators (GMC-H Cartridges)
- Hard Hat/Safety Glasses
- Nitrile Gloves (surgical/overglove)
- Ice Vests
- Tyvek

4. AIR MONITORING DATE:

All readings at nominal background levels during operations.

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SITE SAFETY AND HEALTH OFFICER: J. MORNING DATE: 7-24-96



DAILY HEALTH AND SAFETY REPORT  
DAILY REPORT #: 02

Client: US Army Corps of Engineers, ERRO, Baltimore District Date: 7-24-96  
 Project: Delivery Order #0003, Site 3, Adamsite Storage Vaults, Edgewood Area, APG FW, Proj.#: DACA31-94-D-0020  
 Wind: Out of SE Temperature: (Hi/Low): 71-89  
 Sky: PC Precipitation: NONE

LEVEL OF PROTECTION REQUIRED A B C D (circle) (required in work zone)

TIME	REMEDATION & SITE ACTIVITIES REMARKS/COMMENTS/ACCOMPLISHMENTS/DELAYS
0745 <sup>h</sup>	Met w/ Site Supt Mike Fox DC Kent Branch WENT OVER SHERP & HAZARD ANALYSIS for Mobilization.
0750 <sup>h</sup>	Eddec Crew Shows up, disconnect OVER NEAR Power Lines and Rolled up wire
0809	Eddec Crew departs
0830 <sup>h</sup>	ACOE B. Sauters on site, discuss mobilization and Vault Entry Exit Procedures concerning UN PERMITTED CONTAINED SPACE (LOW HAZARD), Ladder Safety and Emergency Rescue OP'S - Will inform Edgewood <sup>Area</sup> Emergency Response Group of Vault Entry Dates and Equipment on Site. AM - T- Reese on site Go over DC & H+S Pre Mob
1100	Go back to Red Yard & DO #1
1300	Heavy Equipment - Grapple Excavator Shows up, DC, Site Supt inspect
1330	Depart Site to Admin, NO Air Monitoring was performed today.





FOSTER WHEELER ENVIRONMENTAL CORPORATION  
CALIBRATION RECORD FOR  
COMBUSTIBLE GAS INDICATOR  
SERIAL NUMBER: \_\_\_\_\_

NONE

1. Turn instrument on (HORN OFF position). Set % LEL meter pointer to zero by adjusting the ZERO LEL control. (do this within 30 seconds). Check when complete. \_\_\_\_\_
2. Use CALIBRATE O2 control to set it at 20.6%. If this can be done then replace the O2 cell. Check when complete. \_\_\_\_\_
3. Press the ALARM RESET button. If the alarm light does not go out and the green pilot light begins flashing then TAG OUT unit for repair and enter note below. Check when complete. \_\_\_\_\_
4. Check flow by placing finger momentarily over sample inlet. If indicator float does not drop to the no flow position then TAG OUT for repair and enter note below. Check, when complete. \_\_\_\_\_
5. Check battery, recharge if necessary. Check when complete. \_\_\_\_\_
6. Turn ON-OFF control to the ON position. If the pilot lamp does not light then TAG OUT unit for repair. Check when complete. \_\_\_\_\_
7. Note the calibration gas % LEL \_\_\_\_\_
8. Introduce calibration gas to instrument. If the meter pointer is not +/- LEL, stop the cal. gas flow and remove the right hand side (speaker panel). Turn on the flow and adjust the "S" control with a small screwdriver to obtain the reading specified for the cal. gas. When complete sign, date and record the time below.

NOTATIONS:

FOSTER WHEELER ENVIRONMENTAL CORPORATION  
CALIBRATION RECORD FOR  
MINIRAM AEROSOL MONITOR/SUNSHIELD/MODEL PDM-SNS  
SERIAL NO. \_\_\_\_\_

NONE

1. Turn instrument ON. Allow to warm up for several minutes. \_\_\_\_\_
2. MINIRAM has been factory-calibrated. To zero the unit, use a dust free office environment or employ the Z-bag calibrator. \_\_\_\_\_

The Z-Bag™ is a convenient kit for zeroing the MINIRAM in the field. It provides a clean-air environment inside a plastic bag into which the MINIRAM is placed for zeroing. The Z-Bag kit consists of a one-way flow rubber bulb for manual air pumping, a filter cartridge, a zippered plastic container, a connecting hardware.

To use Z-Bag for zeroing MINIRAM proceed as follows:

1. Remove rubber bulb filter assembly from Z-Bag. Place Z-Bag on flat surface with red flow fitting facing up. Flatten bag. Remove small plastic cap from flow fitting on bag. \_\_\_\_\_
2. Insert ribbed elbow connector (attached to filter cartridge) into red flow fitting of plastic bag, until connector is flush with bottom of red flow fitting. \_\_\_\_\_
3. MINIRAM should be in its OFF condition (observe display). If display is blanked, or if MINIRAM is in the MEAS mode, key OFF. \_\_\_\_\_
4. Open Z-Bag and place MINIRAM inside, approximately at its center. \_\_\_\_\_
5. Key ZERO through the open end of the Z-Bag. Immediately zip closed the Z-Bag and begin to pump hand bulb. \_\_\_\_\_
6. Z-Bag should inflate as hand pumping continues, up to a height of about five inches (12 cm). Continue pumping gently to maintain bag interior pressure, until the MINIRAM displays off again. \_\_\_\_\_
7. Unzip Z-Bag and remove MINIRAM. MINIRAM is now ready for monitoring. \_\_\_\_\_
8. Place rubber bulb/filter assembly inside Z-Bag, and plug small plastic cap into flow fitting to close it. Zip close while flattening Z-Bag to store it to ensure cleanliness of the bag interior. \_\_\_\_\_

FOSTER WHEELER ENVIRONMENTAL CORPORATION  
CALIBRATION RECORD FOR  
OVA MODEL 128  
SERIAL NO.: \_\_\_\_\_

*NONE*

Follow the start-up steps contained in the lid of the cover of the instrument for proper lighting and set-up of the instrument.

CALIBRATION range setting: \_\_\_\_\_

GAS SELECT control setting: \_\_\_\_\_

Calibration gas (methane) concentration: \_\_\_\_\_

Meter reading with calibration gas: \_\_\_\_\_

If the reading is greater than +/- 10% of the calibration gas concentration, a complete calibration is needed; otherwise the instrument can function as is. Follow the steps below, placing a check after each step, for complete calibration, if needed.

1. Set CALIBRATION to X10 and GAS SELECT control to 300. \_\_\_\_\_
2. Introduce zero air gas and use the CALIBRATE ADJUST knob to adjust the meter reading to zero. \_\_\_\_\_
3. Introduce a calibration gas standard of approximately 94 ppm methane and adjust trimpot R-32 on circuit board so that the meter reads the calibration gas concentration. \_\_\_\_\_
4. Turn off the H<sub>2</sub> SUPPLY VALVE to put out the flame. \_\_\_\_\_
5. Leave the CALIBRATE switch on X10 and use the CALIBRATE ADJUST knob to adjust the meter reading to 4 ppm. \_\_\_\_\_
6. Turn the CALIBRATE switch to X1. Using trimpot R-31 adjust the meter reading to 4ppm. \_\_\_\_\_
7. Set the CALIBRATE switch to X10 again and use the CALIBRATE ADJUST knob to set the meter reading to 40 ppm. \_\_\_\_\_
8. Set the CALIBRATE switch to X100 and use trimpot R-33 to adjust meter to 40 ppm. \_\_\_\_\_
9. Set the CALIBRATE switch to X10 and use the CALIBRATE \_\_\_\_\_

FOSTER WHEELER ENVIRONMENTAL CORPORATION  
CALIBRATION RECORD FOR  
FNU MODEL DL101  
SERIAL # \_\_\_\_\_  
PROBE SERIAL # \_\_\_\_\_  
PROBE eV; \_\_\_\_\_

*NONE*

1. Turn unit on and let warm up a few minutes. \_\_\_\_\_
2. Check time, date and mode. Mode should be S-D for Survey Mode. \_\_\_\_\_
3. Check low battery indicator in upper right corner \_\_\_\_\_
4. Prepare Calibration tank, tubing and regulator. \_\_\_\_\_
5. Press the calibration key on the front panel. CALIBRATE ? appears. \_\_\_\_\_
6. Press enter key. ELEC ZERO ? YES appears. \_\_\_\_\_
7. Press enter. ZEROING UNIT appears \_\_\_\_\_
8. Next prompt will ask for gas concentration, enter proper PPM, press enter. \_\_\_\_\_
9. ATTACH GAS TO PROBE AND/ENTER will appear. start the flow and press enter. \_\_\_\_\_
10. PRESS ENTER WHEN READY; XXX PPM will appear, press enter when readings stabilize to complete the process. \_\_\_\_\_
11. If unit does not calibrate to correct PPM see manual for more information. \_\_\_\_\_
12. If unit goes to survey mode calibration is complete and ready. \_\_\_\_\_
13. Note any maintenance performed;  
a. bulb cleaned \_\_\_\_\_ b. filter changed \_\_\_\_\_ c. Ion Chamber cleaned \_\_\_\_\_

other \_\_\_\_\_  
\_\_\_\_\_

Name; \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

FOSTER WHEELER ENVIRONMENTAL CORPORATION  
CALIBRATION RECORD FOR  
MONITOX SERIAL # \_\_\_\_\_

1. Turn unit on test and let it warm up. *NONE* \_\_\_\_\_
2. Check battery condition by observing small red light on top of unit, if its on change battery. \_\_\_\_\_
3. Prepare calibration gas cylinder by attaching regulator and tygon tubing and cap adapter. \_\_\_\_\_
4. Turn switch to on position. \_\_\_\_\_
5. Attach cap adapter to sample intake port on top right corner and turn calibration gas. \_\_\_\_\_
6. Observe readings an screen, they should begin to increase. \_\_\_\_\_
7. Alarm should begin at 5 PPM, continue to observe. \_\_\_\_\_
8. Unit should continue to alarm until 10 PPM is reached and then the alarm tone should change. \_\_\_\_\_
9. If unit fails to alarm at given PPM ranges go to manual for complete calibration procedures. \_\_\_\_\_
10. If unit responds at given PPM concentrations , unit is ready for use. \_\_\_\_\_

Comments: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Calibration Gas Concentration: \_\_\_\_\_ Brand/Type: \_\_\_\_\_

NAME: \_\_\_\_\_ DATE: \_\_\_\_\_ TIME: \_\_\_\_\_

# ACTIVITY HAZARD ANALYSIS

Project: Adamsville Storage Vaults

Activity: Mobilization

Location: Aberdeen, Maryland

MAJOR STEPS	POTENTIAL HAZARDS	PROTECTIVE MEASURES/CONTROLS
<ul style="list-style-type: none"> <li>• Mobilization of equipment, supplies and heavy equipment</li> <li>• Equipment staging</li> <li>• Establish barricades</li> <li>• Construct Contamination Reduction Zone (CRZ)</li> </ul>	<ol style="list-style-type: none"> <li>1. Manual lifting and material handling</li> <li>2. Biological hazards</li> <li>3. Heat/Cold Stress</li> <li>4. Slips, trips, and falls</li> <li>5. Inadvertent weather</li> <li>6. Electrocutation</li> <li>7. Underground hazards</li> <li>8. Noise</li> <li>9. Operating heavy equipment</li> <li>10. Pinch, Cut, and smash</li> <li>11. UXO</li> <li>12. Vehicular traffic</li> <li>13. Dropped objects</li> <li>14. Eye injury</li> <li>15. Head injury</li> </ol>	<ol style="list-style-type: none"> <li>1. Instruct personnel in proper lifting techniques</li> <li>2. In warm weather wear insect repellent; follow procedures for tick bites and snake bites; and be aware of poisonous plants</li> <li>3. During hot or cold weather monitor personnel for symptoms of heat or cold stress; Instruct personnel to recognize symptoms of heat or cold stress</li> <li>4. Maintain work areas safe and orderly; unloading areas should be on even terrain; muck and repair if possible tripping hazards; reduce slip hazards.</li> <li>5. Monitor weather conditions daily</li> <li>6. All electrical work will be done by licensed electricians in strict compliance with Section 11 of the USACE EM 385-1-1; Use lockout /tagout procedures; use ground fault circuit interrupters (GFCIs).</li> <li>7. Conduct utility clearance</li> <li>8. Conduct noise monitoring if deemed necessary by the SSHO; wear hearing protection</li> <li>9. Only trained personnel shall operate heavy equipment; personnel should remain in the site of the operator; Inspect equipment daily</li> <li>10. Use hand tools properly and wear appropriate protective equipment</li> <li>11. Be aware that UXO may be present; follow UXO plan</li> <li>12. Spotters will be used when backing up trucks and moving equipment.</li> <li>13. ANSI Z41.1 approved steel toe boots shall be worn (except during use of the magnetometer).</li> <li>14. ANSI Z87.1 approved safety glasses shall be worn.</li> <li>15. ANSI Z89.1 approved hard hats shall be worn.</li> </ol>
EQUIPMENT USED	INSPECTION REQUIREMENTS	TRAINING REQUIREMENTS
<p>Hand Tools, Magnetometer, Level D and/or Modified Level D PPE</p>	<p>Ensure hand tools are serviceable Function Check of Magnetometer</p>	<p>Knowledge of Proper Use of Hand Tools Proficiency with Magnetometer Personnel Have Read and Comply with SHERP Site Specific UXO Training Hazardous waste (29 CFR 1910.120) Training</p>

# FOSTER WHEELER ENVIRONMENTAL CORPORATION

## APG Environmental Remediation

### Quality Control of Health and Safety Instruments and Procedures Inspection Checklist

All QC inspections must be completed by a designated QC Engineer or alternate who is qualified in the operation and calibrations of health and safety instruments and procedures.

The QC Engineer should observe the calibration of health and safety instrumentation randomly, or at least once every five calibrations. The QC Engineer shall inspect the health and safety operations/forms listed below.

Quality Control No.: N/A

Date Started: 7-22-96

Date Completed: \_\_\_\_\_

Contract No.: DACA 31-94-D-0020

Project Site and Location: Adams Site Storage Vaults

QC Engineer(s): K. Branch

Site Health & Safety Officer(s): J. Morning

Operation/Form	1/22 1/24 Month/Day				Notes
Calibration Log Completed	✓	N/A			
Daily Briefing Log Completed		✓			
Daily Instrument Source/Background Check Form (for each instrument used)	✓	N/A			
Daily Health & Safety Report Form	✓	✓			
Sign In Log for Work Zones	N/A	✓			
Proper Donning and Doffing of PPE	✓	N/A			
Air Monitoring/Sampling Form	✓	✓			
In Compliance with SHERP & SOPs	✓	✓			
H & S Violations	NONE	NONE			
Heat and Cold Stress Monitoring	N/A	✓			
All OSHA Forms Up to Date	✓	✓			
SHERP Review for All Personnel	✓	✓			
Delineation of Work Zones	✓	✓			
Shower Trailer Inspection	N/A	N/A			



Foster Wheeler Environmental Corporation  
APG Environmental Remediation

DAILY CONSTRUCTION QUALITY CONTROL REPORT

Date: July 25, 1996 (THUR)

Daily Report No.: 03

Contract No.: DACA31-94- D-0020

Project Title & Location: DO #0003, Adamsite Storage Vaults - Edgewood Area

Weather: Sunny and Clear Precipitation: 0.0 in. Temp: Min. 70°F Max. 90°F

Personnel On Site: USACE (2), ERDEC (0), FWENC (3), EA (1), HFA (2), KEVRIC (0), ONSITE (1)

Summary of Major Work Activities:

- Mobilization (Work Plan Section 2.2.1).
- Delineate work zone and Caution off Vaults
- Stage Equipment and Materials
- Inspection of Cat 235 C Shear and Misc Health and Safety items

1. Work Performed by Foster Wheeler Environmental Personnel: (Indicate location and description of work performed by prime and/or subcontractors. When network analysis is used, identify work by NAS activity number).

K. Branch, QC Engineer, provided oversight to ensure quality work would be performed according to the work plan (Work Plan Section 3.3.5). Mr Branch oversaw the cautioning off of the adamsite storage vaults to prevent accidental falls into the area. The Army Corp of Engineers, Baltimore District Representative Billy Sanders, and Jamie Farr arrived on site to view work operations. Unassisted they walked the site to review the scope of work to be completed by Foster Wheeler Environmental Corporation and EA Engineering. Mr Branch inspected a CAT235C with Shears that arrived on site. No deficiencies were observed, but a side mirror will be installed on 26 July, 1996. The Renting company has a mechanic that will return on 26 July, 1996 to make any adjustments needed to the Daewoo Grappler or Cat 235c shear. HFA Inc, conducted a survey outside the Adamsite gate using a shonstat in order to install the site sign. The Rad technicians did a swipe of the delivered equipment.

J. Morning (Site Safety and Health Officer-SSHO) conducted a health and safety briefing (See Attached Daily Briefing Sign-In Sheet). During the briefing, all site personnel were briefed on site activities, and possible hazards associated with the site.

The SSHO utilized chemical monitoring equipment today during mobilization activities.

The SSHO monitored meteorological conditions including temperature (wet bulb global thermometer) and wind direction (with wind socks) (Work Plan Section 4.10.2)

T. Reese, Project Manager, was on site to monitor activities associated with Adamsite Mobilization. Mr Reese took photos of the mobilization and delivery of the heavy equipment.

Work Performed by Subcontractors:

M. Fox, Superintendent, conducted a pre-operational meeting to review the planned site activities for Mobilization of Adamsite Storage Vaults. M. Fox directed site activities for Mobilization throughout the day. Mike also escorted and assisted in the inspection of the CAT235C Shears delivered on site, the machinery was assembled and staged outside the Adamsite gate. Mike also requested a burn permit from the APG Fire Department who will issue on to the site around 01000 on 26 July, 1996. (Work Plan Add #1, Sect. 2.3.9).

The ONSITE Rad Technician (Supervisor) J. Devaney conducted a Radiation and Contamination survey on the Daewoo Grappler. (No reportable detection).

2. Operating Plant or Equipment Utilized, Mob. and/or Demo. (Not hand tools)

Equipment Utilized: (1) minivan, (1) full size 4x4 pick up truck (1) small pick-up truck (3) 2way Radios.

---

3. Control Activities Performed:

Preparatory Inspections: (Identify feature of work and attach minutes).

Initial Inspections: (Identify feature of work and attach minutes).

Daily QC of Health and Safety Instruments and Procedures Inspection Checklist (See Attached)

Daily QC of Radiation Instruments and Procedures Inspection Checklist (See Attached)

Follow-up Inspection check list(See Attached)

4. Tests performed and Test Results: (Identify test requirement by paragraph number in specifications and/or sheet number in plans).

Periodic air-monitoring data results were reported by the SSHO. No results were found above background. This information is recorded in the SSHO's Daily Health and Safety Report.

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5. Material Received: (Note inspection results and storage provided)

CAT 235C with 10,000lb Shears, 55 Gallon drums, and portable tent

6. Waste Generated and/or Disposed:

No waste was generated on site today

---

7. Off site Surveillance Activities, Including Action Taken:

No off site surveillance activities occurred this date.

8. Job Safety: (List items checked, results, instructions and corrective actions taken)

Total Manhours Worked to Date: 68 hours Total Number of Days Worked on Site: 3 days  
Total Manhours Worked with No Lost Time Accidents: 68 hours Total Number of Lost Time  
Accidents on the Site to Date: 0

Air monitoring readings were taken with the FID, PID, CGI, HCN sensor, and MINIRAM  
particulate/aerosol monitor.

9. Remarks: (Instructions received or given. Conflict(s) in Plans and/or specifications.  
Delays encountered.)

B. Sanders and J. Farr (USACE/ERRO-OSR) was on site to view Mobilization of Adamsite Storage  
Vaults. No Defeciencies were noted.

10. Attachments:

Daily Construction Log/Manpower Report (FWENC & EA)

Equipment/Trucking Inspection Checklist

Follow up Inspection Checklist (See Attached)

Daily H&S Report (SSHO Daily Log, Calibration Records (CGI, PID, Particulate monitor, HCN  
monitor, Activity Hazard Analysis), Air Monitoring Results

Radiation and Contamination Survey Form & Analysis Work Sheet

QC Health and Safety / Radiation Instrument & Procedures Inspection Check list

Flowable fill Ash Data Analysis (American Stone-Mix, Inc)

Contractor's Verification: On behalf of the Contractor, I certify that this report is complete and correct, and all materials and equipment used and work performed during this reporting are in compliance with the contract plans and specifications, to the best of my knowledge, except as may be noted above.

Keith Branch      7.25-96  
Keith Branch                      Date  
QC Systems Engineer

Contractor's Verification: On behalf of the Contractor, I certify that this report is complete and correct, and all materials and equipment used and work performed during this reporting are in compliance with the contract plans and specifications, to the best of my knowledge, except as may be noted above.

Keith Branch      7-25-96  
Keith Branch                      Date  
QC Systems Engineer



FOSTER WHEELER ENVIRONMENTAL CORPORATION

Page of

DAILY CONSTRUCTION LOG/MANPOWER REPORT  
DAILY REPORT #: 02

Client: US Army Corps of Engineers, ERRO, Baltimore District Date: 7-25-96

Project: Delivery Order #0003, Site 3, Adamsite Storage Vaults, Edgewood Area, APG FW Proj.#: DACA31-94-D-0020

Wind: 3-5 Temperature:(Hi/Low): 70-90

Sky: Clear/Sunny Precipitation: 0

LEVEL OF PROTECTION REQUIRED A B C (D) (circle) (required in work zone)

REMEDATION & SITE ACTIVITIES  
TIME REMARKS/COMMENTS/ACCOMPLISHMENTS/DELAYS

5:30 Health & Safety meeting (power tools)

6:00 unloaded more equipment & supplies to Coney box drums & tank

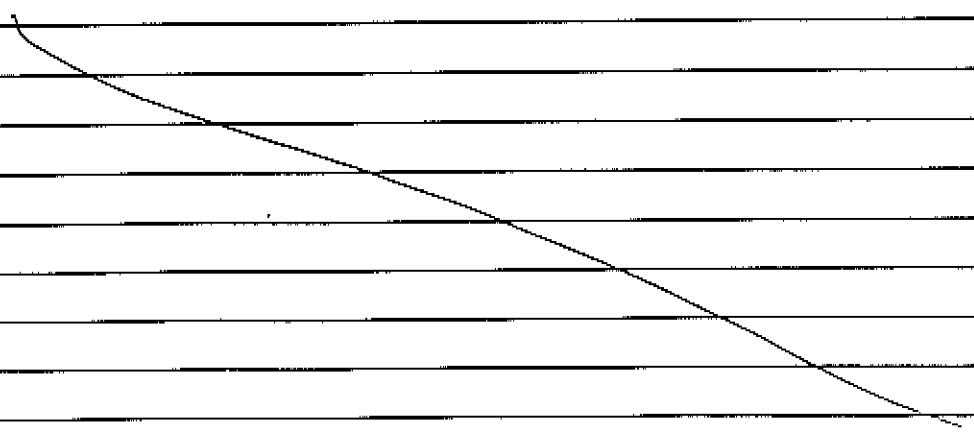
8:00 Used high weed mower to cut grass in areas around Job Site

10:00 Traveled out & Picked up Vehicle Passes for three equipment haulers, Bobby Jackson Inc. Once on site unloaded 235 CAT with shear assemble this unit went through equipment inspection

14:00 Coordinated work to be done next day to make repairs to these two units 235 CAT & Daewoo

14:30 Returned mower to Hartford Rental

Secured work area & all equipment Adamsite



Michael Fox

**EA RTI DAILY LOG**

Report Number 02 Project Name Adamsite  
 Location APG 60834/03  
 Date 7/25/96 Contract Officer \_\_\_\_\_

Description of Work Health & Safety meeting, unloaded drums & tent  
worked on getting up staging area. Used rented mower to cut  
grass in front of work area. 235 gal on site will need some cleaning  
Secured work area & equipment.

**PERSONNEL ONSITE**

Company Name	Employee	Time in	Time out	Total Hours
<u>EA</u>	<u>Michael</u>	<u>5:30</u>		<u>11</u>
<u>Foster Wheeler</u>				
<u>QA QC</u>	<u>Keith B</u>			
<u>Health Safety</u>	<u>Gary M</u>			
<u>PM</u>	<u>Tim R</u>			

**EQUIPMENT ONSITE**

Description	Date arrived	Date left	EA Owned	Rented	Total Days Used
<u>F550 Dozer</u>	<u>7/24</u>		<input checked="" type="checkbox"/>		<u>2</u>
<u>Daewoo w/extension</u>				<input checked="" type="checkbox"/>	<u>2</u>
<u>Drum lifts</u>			<input checked="" type="checkbox"/>		<u>2</u>

Any Inspections? yes If so, time and name of inspector. QA QC  
 What kind of inspection Equipment  
 Weather Conditions Clear  Cloudy \_\_\_\_\_ Rain \_\_\_\_\_ Temp 70-92  
 On Schedule? yes  no \_\_\_\_\_  
 Any lost time accidents on this date? yes \_\_\_\_\_ no   
 Have you had your daily safety meeting? yes  no \_\_\_\_\_  
 Safety concerns \_\_\_\_\_

Remarks \_\_\_\_\_

Michael [Signature] 7/25/96  
 Construction Superintendent Date

\_\_\_\_\_  
 Construction Manager Date



Foster Wheeler Environmental Corporation  
 APG Environmental Remediation  
 EQUIPMENT/TRUCKING INSPECTION CHECKLIST

CONTRACT NO. \_\_\_\_\_

DATE: 25 July 1996

S M T W T F S

PROJECT TITLE: ADAMSite Storage Vaults

TIME: 01100

This inspection form is to be filled out at the start of the work shift upon deliveries by the Equipment/Truck Operator to insure that the equipment/truck is safe to operate and is free from apparent damage which could cause failure while in use. Once completed, this form is to be given to the Site Superintendent and QC systems engineer to be kept on file on-site. In all cases, consult the manufacturer's data to ensure compliance with all inspection criteria which may not be indicated below.

Make/Description CAT 235C w/shears Model/Serial \_\_\_\_\_

\* Items denoted with an asterick are items that must pass the inspection before the equipment can be used onsite.

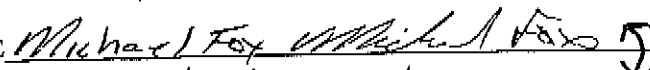
EQUIPMENT	PASS	FAIL	COMMENTS AND ACTION TAKEN
Brakes*	✓		N/A
Brake lights*	N/A		
Reverse signal alarm*	✓		
Horn/Air horn*	✓		
Tires*	N/A		TRACKS
Steering*	✓		
Seat belts*	✓		
Operating controls*	✓		
Fire extinguisher*	✓		FW will supply
Lights*		✓	
Defroster	N/A		
Mirrors*			Missing -> center will supply
Instruments*	✓		
Coupling devices*			adjust door latch
Windshield/window glass	✓		no wiper
Mud flaps/rock guards	N/A		
Exhaust system	✓		
Hitches and safety cables*	✓		
Hydraulic lines/air hoses*	✓		
Engine oil level*	✓		
Roll over equipment*	N/A		
First Aid kit*	✓		FW will supply

ODOMETER \_\_\_\_\_

hour meter 04963.5

FUEL LEVEL 1/4

INSPECTOR'S NAME AND SIGNATURE

Michael Fox 

# Foster Wheeler Environmental Corporation

APG Environmental Remediation

## FOLLOW-UP INSPECTION CHECKLIST

Report No. 21 Contract No. DACA31-D-94-0020 Date 7-25-96

Project Title and location 26th Street Disposal Site - Edgewood Area

Work No.	Weather	Temperature		Rainfall	Work location (grid)
	<u>Clear and sunny</u>	<u>Min. 70</u>	<u>Max. 90</u>	<u>0 inches</u>	<u>ADAMSITE</u>

Major definable feature of work Mobilization

A. Deficiencies noted: (1) Heavy equipment not on site 7-23-96.

(2) laborers not identified.

(3) 20' extension ladder not on site

B. Corrective action taken: (1) Heavy equipment returned and repaired. CAT 235C

(2) All laborers have been identified and will be on site 7-25-96 AT 0700

(3) Extension ladder on site 7-26-96

C. Pre-final Inspection (Attach Punch List)

Contractor's Quality Control Representative

Keith Branch 7-25-96  
Richard W. Evans Jr.  
QC Systems Engineer

Date



DAILY HEALTH AND SAFETY REPORT  
 DAILY REPORT #: 03

Client: US Army Corps of Engineers, ERRO, Baltimore District Date: 7-25-96  
 Project: Delivery Order #0003, Site 3, Adamsite Storage Vaults, Edgewood Area, APG FW, Proj.#: DACA31-94-D-0020  
 Wind: out of West Temperature: (Hi/Low): 71-85 °F  
 Sky: PC Precipitation: None

LEVEL OF PROTECTION REQUIRED      A   B   C   D (circle) (required in work zone)

TIME	REMEDICATION & SITE ACTIVITIES REMARKS/COMMENTS/ACCOMPLISHMENTS/DELAYS
0935	Met w/ QC, Site Supt discuss days events, Safety briefing, Sec Signin Sheets for Details, Activities
0635	Began Baseline Air Monitoring, Utilizing HHS Equipment, FID, PID, MWIRAM, CGI, See CAL Sheets
1010	Check AO, No Readings Above Action Levels, See LOG Sheet for Air Monitoring, Began Set up of Eyewash and Shower AO, James Farr + Billy Sanders was on Site
1100	Heavy Equipment Arrives, Site Supt, QC Begin Inspections, Inform Trucking Crew About Spills and Safety, CAT 935 w/ Shear Attachment.
1330	PM - T. Reese on Site, Checked Equipment.
1430	Site Secured + Depart Site.      JAC



FOSTER WHEELER ENVIRONMENTAL CORPORATION

DAILY BRIEFING SIGN-IN SHEET

Date: 7-25-96

Project Name/Location: 26th St APG-MD

Shift/Department: DAY

Person Conducting Briefing: J. MORNING

1. DAILY ACTIVITIES

TASKS	CONTROLS/PPE
1. Mobilization	D/D
2. Prep DRUM Storage AG	D/D
3. Mow Grass	D/D
4. BASE LINE Air Monitoring	D/D
5.	

2. AWARENESS (e.g., special HS concerns, recent incidents, etc.):

SLIP TRIP FALL  
MOWER SAFETY OP'S

3. OTHER ISSUES (HASP changes, attendee comments, etc.):

\_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

4. ATTENDEES (Print Name):

1. Mike Fox	11.
2. J. Morning	12.
3. K. Branch	13.
4.	14.
5.	15.
6.	16.
7.	17.
8.	18.
9.	19.
10.	20.



### Daily Health and Safety Report

\*\*\*\*\*

#### DAILY HEALTH AND SAFETY REPORT CONTRACT NUMBER DACA31-94-D-0020

\*\*\*\*\*

DELIVERY ORDER NO. Delivery Order No. 003      DATE: 7-25-96  
LOCATION OF WORK: Adamsite Storage Vaults  
WEATHER: PC      RAINFALL: 0      IN. TEMP: 72 min 85 max

\*\*\*\*\*

1. WORK PERFORMED BY FOSTER WHEELER ENVIRONMENTAL CORPORATION AND THE FOLLOWING SUBCONTRACTORS:

- HFA 15 min
- KEVRIC
- ONSITE 15 min
- GONZER
- EA

2. EQUIPMENT BEING UTILIZED:

- HNU
- OVA
- CGI
- Monitox
- Miniram
- W.B.G. Therm
- First Aid Kits
- ICADS
- MINICAMS
- Radios

3. PERSONAL PROTECTIVE EQUIPMENT DONNED:

Level B       Level C

- Supplied Air Resp.
- MSA Respirators/GMC-H Cartridges
- Ice Vests
- 5 min. Escape
- Hard Hat/Safety Glasses
- Tyvek
- Overboots
- Nitrile Gloves (surgical/overglove)



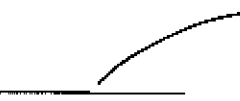
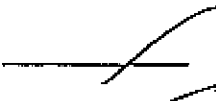
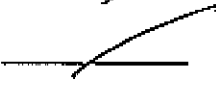
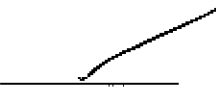
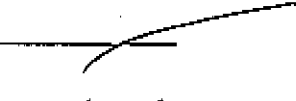
4. AIR MONITORING DATE:  All readings at nominal background levels during operations.

\*\*\*\*\*

SITE SAFETY AND HEALTH OFFICER: JAMES MORNING      DATE: 7-25-96



FOSTER WHEELER ENVIRONMENTAL CORPORATION  
CALIBRATION RECORD FOR  
COMBUSTIBLE GAS INDICATOR  
SERIAL NUMBER: 11069

1. Turn instrument on (HORN OFF position). Set % LEL meter pointer to zero by adjusting the ZERO LEL control. (do this within 30 seconds). Check when complete. 
2. Use CALIBRATE O2 control to set it at 20.6%. If this can be done then replace the O2 cell. Check when complete. 
3. Press the ALARM RESET button. If the alarm light does not go out and the green pilot light begins flashing then TAG OUT unit for repair and enter note below. Check when complete. 
4. Check flow by placing finger momentarily over sample inlet. If indicator float does not drop to the no flow position then TAG OUT for repair and enter note below. Check, when complete. 
5. Check battery, recharge if necessary. Check when complete. 
6. Turn ON-OFF control to the ON position. If the pilot lamp does not light then TAG OUT unit for repair. Check when complete. 
7. Note the calibration gas % LEL \* 
8. Introduce calibration gas to instrument. If the meter pointer is not +/- LEL, stop the cal. gas flow and remove the right hand side (speaker panel). Turn on the flow and adjust the "S" control with a small screwdriver to obtain the reading specified for the cal. gas. When complete sign, date and record the time below.

NOTATIONS: 50% Pentane

Name: J. McQuinn

Date: 7-25-86

Time: 0602



FOSTER WHEELER ENVIRONMENTAL CORPORATION  
CALIBRATION RECORD FOR  
MINIRAM AEROSOL MONITOR/SUNSHIELD/MODEL PDM-SNS  
SERIAL NO. F1108193

1. Turn instrument ON. Allow to warm up for several minutes.
2. MINIRAM has been factory-calibrated. To zero the unit, use a dust free office environment or employ the Z-bag calibrator.

The Z-Bag™ is a convenient kit for zeroing the MINIRAM in the field. It provides a clean-air environment inside a plastic bag into which the MINIRAM is placed for zeroing. The Z-Bag kit consists of a one-way flow rubber bulb for manual air pumping, a filter cartridge, a zippered plastic container, a connecting hardware.

To use Z-Bag for zeroing MINIRAM proceed as follows:

1. Remove rubber bulb filter assembly from Z-Bag. Place Z-Bag on flat surface with red flow fitting facing up. Flatten bag. Remove small plastic cap from flow fitting on bag.
2. Insert ribbed elbow connector (attached to filter cartridge) into red flow fitting of plastic bag, until connector is flush with bottom of red flow fitting.
3. MINIRAM should be in its OFF condition (observe display). If display is blanked, or if MINIRAM is in the MEAS mode, key OFF.
4. Open Z-Bag and place MINIRAM inside, approximately at its center.
5. Key ZERO through the open end of the Z-Bag. Immediately zip closed the Z-Bag and begin to pump hand bulb.
6. Z-Bag should inflate as hand pumping continues, up to a height of about five inches (12 cm). Continue pumping gently to maintain bag interior pressure, until the MINIRAM displays off again.
7. Unzip Z-Bag and remove MINIRAM. MINIRAM is now ready for monitoring.
8. Place rubber bulb/filter assembly inside Z-Bag, and plug small plastic cap into flow fitting to close it. Zip close while flattening Z-Bag to store it to ensure cleanliness of the bag interior.

FOSTER WHEELER ENVIRONMENTAL CORPORATION  
CALIBRATION RECORD FOR  
OVA MODEL 128  
SERIAL NO.: FW00047

Follow the start-up steps contained in the lid of the cover of the instrument for proper lighting and set-up of the instrument.

CALIBRATION range setting: X10

GAS SELECT control setting: 3.0

Calibration gas (methane) concentration: 100

Meter reading with calibration gas: 98

If the reading is greater than +/- 10% of the calibration gas concentration, a complete calibration is needed; otherwise the instrument can function as is. Follow the steps below, placing a check after each step, for complete calibration, if needed.

1. Set CALIBRATION to X10 and GAS SELECT control to 300.
2. Introduce zero air gas and use the CALIBRATE ADJUST knob to adjust the meter reading to zero.
3. Introduce a calibration gas standard of approximately 94 ppm methane and adjust trimpot R-32 on circuit board so that the meter reads the calibration gas concentration.
4. Turn off the H<sub>2</sub> SUPPLY VALVE to put out the flame.
5. Leave the CALIBRATE switch on X10 and use the CALIBRATE ADJUST knob to adjust the meter reading to 4 ppm.
6. Turn the CALIBRATE switch to XI. Using trimpot R-31 adjust the meter reading to 4ppm.
7. Set the CALIBRATE switch to X10 again and use the CALIBRATE ADJUST knob to set the meter reading to 40 ppm.
8. Set the CALIBRATE switch to X100 and use trimpot R-33 to adjust meter to 40 ppm.
9. Set the CALIBRATE switch to X10 and use the CALIBRATE ADJUST knob to adjust meter to zero.

NA

NA

NA

NA

NA

NA

NA

NA

NA

FOSTER WHEELER ENVIRONMENTAL CORPORATION  
CALIBRATION RECORD FOR  
HNU MODEL DL101  
SERIAL # 367048  
PROBE SERIAL # 11  
PROBE eV; 10.2

1. Turn unit on and let warm up a few minutes.
2. Check time, date and mode. Mode should be S-D for Survey Mode.
3. Check low battery indicator in upper right corner
4. Prepare Calibration tank, tubing and regulator.
5. Press the calibration key on the front panel. CALIBRATE ? appears.
6. Press enter key. ELEC ZERO ? YES appears.
7. Press enter. ZEROING UNIT appears
8. Next prompt will ask for gas concentration, enter proper PPM, press enter.
9. ATTACH GAS TO PROBE AND/ENTER will appear. start the flow and press enter.
10. PRESS ENTER WHEN READY; XXX PPM will appear, press enter when readings stabilize to complete the process.
11. If unit does not calibrate to correct PPM see <sup>the</sup> manual for more information.
12. If unit goes to survey mode calibration is complete and ready.
13. Note any maintenance performed;  
a. bulb cleaned \_\_\_\_\_ b. filter changed \_\_\_\_\_ c. Ion Chamber cleaned \_\_\_\_\_

other \_\_\_\_\_  
\_\_\_\_\_

Name: J. Moring

Date 7-25-88

Time 0618

FOSTER WHEELER ENVIRONMENTAL CORPORATION  
CALIBRATION RECORD FOR  
MONITOX SERIAL # \_\_\_\_\_

1. Turn unit on test and let it warm up. \_\_\_\_\_
2. Check battery condition by observing small red light on top of unit, if its on change battery. \_\_\_\_\_
3. Prepare calibration gas cylinder by attaching regulator and tygon tubing and cap adapter. \_\_\_\_\_
4. Turn switch to on position. \_\_\_\_\_
5. Attach cap adapter to sample intake port on top right corner and turn calibration gas. \_\_\_\_\_
6. Observe readings an screen, they should begin to increase. \_\_\_\_\_
7. Alarm should begin at 5 PPM, continue to observe. \_\_\_\_\_
8. Unit should continue to alarm until 10 PPM is reached and then the alarm tone should change. \_\_\_\_\_
9. If unit fails to alarm at given PPM ranges go to manual for complete calibration procedures. \_\_\_\_\_
10. If unit responds at given PPM concentrations , unit is ready for use. \_\_\_\_\_

Comments: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Calibration Gas Concentration: \_\_\_\_\_ Brand/Type: \_\_\_\_\_

NOT USED

NAME: J. MORNING DATE: 7-25-96 TIME: \_\_\_\_\_



96-07-24-35ms

Figure 2  
 Radiation and Contamination Survey Form

Area Surveyed: Heavy Equip. for Admsite Purpose of Survey: Incoming  
 Conducted by: D. Deuser Signature: [Signature] Completion Date: 1/27/96

Instrumentation/Detector

Make	Model	Serial No.	Contamination Cal. Due Date	Bksd	Eff./CFE
AB-4i Ludlum	2223/43-31	125726/12522	10/1/96	41cpm @ 150cpm	100%
budget	8989	See Next Page			

Exposure rate unit: NA Conversion factor/Efficiency from: CPM to DPM  
 (Enter units: cpm, uR/h, mR/h, mRad/h, dpm/100 cm<sup>2</sup>, pCi/g, uCi/100 cm<sup>2</sup>, pCi/smear, uCi/smear, percent (%), other: )

-- Survey Results: sketch or list results below --

Smear Locations

- ① Right Boom
- ② Right Track
- ③ R. Track
- ④ o/s Rig (Right)
- ⑤ Back of Rig
- ⑥ Left Track
- ⑦ L. Track
- ⑧ o/s Rig (Left)
- ⑨ L. Boom
- ⑩ Ifs Cab.

Reviewed by: [Signature] Date: 1/27/96



Figure 2

Analysis Work Sheet

-- Complete Items as is Needed or if Different than Cover Sheet --

Area Surveyed: Heavy Equip for Adverse Purpose: Incoming (verify no Contam.)  
 Analyzed by: TI Signature: John Thom

*dual scaler* Instr./Detector Model: 2929 143-0-1 Ser. No. 107555/114507 Eff. CF\* = 0.3% 80.119 (7/AS)

Instr./Detector Model: / Ser. No. / Eff./CF\*:

Instr./Detector Model: / Ser. No. / Eff./CF\*:

Instr./Detector Model: / Ser. No. / Eff./CF\*:

(\* Enter units: uCi/cpm, efficiency (%), other: \_\_\_\_\_)

No.	Description	Cntg Time	per 10min Counts		Net	Results	Units**	Notes
			Total	Bkgd				
712 1.	R Boom	1min	0	5	< 2.71cpm	< 8.07 dpm/100cm <sup>2</sup>		
2.	R Track		45	438	< 23.1cpm	< 194 dpm/100cm <sup>2</sup>		
3.	R Track		2	5				
4.	O/S Rig		34	438				
5.	Back of Rig		0	5				
6.	L Track		51	438				
7.	L Track		2	5				
8.	O/S Rig		37	437				
9.	L Boom		0	5				
10.	1/3 Cab		32	438	< 2.71cpm	< 8.07 dpm/100cm <sup>2</sup>		
			1	5	< 23.1cpm	< 194 dpm/100cm <sup>2</sup>		

\*\*Units in uCi/mL.

Reviewed by: John Devenney

Date: 7/25/96

96-07-24-3sms



APG Environmental Remediation  
Contract No. DACA31-94-D-0020  
26<sup>th</sup> Street - Field Radiological Control Procedure  
Air Sampling (4/95) (6/95)

Figure 2

Analysis Work Sheet

-- Complete Items as is Needed or if Different than Cover Sheet --

Area Surveyed: Heavy Equip for Adamsite Purpose: Incoming (30%)

Analyzed by: IT Signature: [Signature]

deal Scaler

Instr./Detector Model: 7129 143-10-1 Ser. No. 14555 114507  $\alpha$  0.336  $\beta$  0.119 7/25

Instr./Detector Model: / Ser. No. / Eff./CF\*:

Instr./Detector Model: / Ser. No. / Eff./CF\*:

Instr./Detector Model: / Ser. No. / Eff./CF\*:

(\* Enter units: uCi/cpm, efficiency (%), other: \_\_\_\_\_)

No.	Description	Cntg Time	per 10min Counts		Results	Units**	Notes
			Total	Bkgd Net			
③	R. Track	10min	8	5	<1.31 cpm	<3.90 dpm/100cm <sup>2</sup>	
		10min	403	438	<10.0cpm	<94.1 dpm/100cm <sup>2</sup>	
④	O/S Rig	10min	11	5			
		10min	422	438			
⑤	Li Track	10min	5	5			
		10min	431	438			

(7/25)

\*\*Units in uCi/mL.

Reviewed by: [Signature]

Date 7/25/96

# FOSTER WHEELER ENVIRONMENTAL CORPORATION

*APG Environmental Remediation*

## Quality Control of Health and Safety Instruments and Procedures Inspection Checklist

All QC inspections must be completed by a designated QC Engineer or alternate who is qualified in the operation and calibrations of health and safety instruments and procedures.

The QC Engineer should observe the calibration of health and safety instrumentation randomly, or at least once every five calibrations. The QC Engineer shall inspect the health and safety operations/forms listed below.

Quality Control No.: N/A Date Started: 7.22.96  
 Date Completed: \_\_\_\_\_  
 Contract No.: DACA31-94-D-0020 Project Site and Location: Adm Site Storage Vaults  
 QC Engineer(s): K. Branch  
 Site Health & Safety Officer(s): J. Morning

Operation/Form	1/22 <del>1/21</del> Mo/7/96 Day				Notes
	✓	N/A	✓		
Calibration Log Completed	✓	N/A	✓		
Daily Briefing Log Completed		✓	✓		
Daily Instrument Source/Background Check Form (for each instrument used)	✓	N/A	✓		
Daily Health & Safety Report Form	✓	✓	✓		
Sign In Log for Work Zones	N/A	✓	✓		
Proper Donning and Doffing of PPE	✓	N/A	N/A		
Air Monitoring/Sampling Form	✓	✓	✓		
In Compliance with SHERP & SOPs	✓	✓	✓		
H & S Violations	NONE	NONE	NONE		
Heat and Cold Stress Monitoring	N/A	✓	✓		
All OSHA Forms Up to Date	✓	✓	✓		
SHERP Review for All Personnel	✓	✓	✓		
Delineation of Work Zones	✓	✓	✓		
Shower Trailer Inspection	N/A	N/A	N/A		



# FOSTER WHEELER ENVIRONMENTAL CORPORATION

## APG Environmental Remediation

### Quality Control of Radiation Instruments and Procedures

#### Inspection Checklist

All QC inspections must be completed by a designated QC Engineer or alternate who is qualified in the operation and calibrations of radiation instruments and procedures.

The QC Engineer or alternate should observe the calibration of radiation instruments and procedures randomly, or at least once every five calibrations. The QC Engineer shall inspect the following radiation operations/forms.

Quality Control No.: N/A Date Started: 7-22-96  
 Date Completed: \_\_\_\_\_  
 Contract No.: QAC31-94-D-0020 Project Site and Location: ADAMS SITE STORAGE VAULTS  
 QC Engineer(s): Keith Branch  
 Radiation Instrument Technician(s): J. Devaney, T. Thorsen

Operation/Form	7/22-7/24 Month/Day				Notes
QC Observes Radiation Instruments Calibration Steps	N/A	N/A	N/A		
Daily Instrument Check Source Form Up to Date	✓	✓	✓		
Daily Instrument Source/Background Check Form for Each Instrument Used	✓	✓	✓		
Radiation and Contamination Survey Form/Package: <input type="checkbox"/> In progress	✓	✓	✓		
Radiation and Contamination Survey Form/Package: <input type="checkbox"/> Completed	N/A	N/A	N/A		
Daily Radiological Work Summary Form	✓	✓	✓		
Air Sampling Form/Package: <input type="checkbox"/> In progress	✓	✓	✓		
Air Sampling Form/Package: <input type="checkbox"/> Completed	✓	✓	✓		
Waste Characterization Activities Up to Date (see procedures)	N/A	N/A	N/A		
Areas Containing Radioactive Materials Properly Posted	✓	✓	✓		
Radioactive Waste Inventory Up to Date	N/A	N/A	N/A		
Containers Properly marked and Identified with Radioactive Labels and Inventory Sheets	N/A	N/A	N/A		

# FOSTER WHEELER ENVIRONMENTAL CORPORATION

## APG Environmental Remediation

### Quality Control of Radiation Instruments and Procedures

#### Inspection Checklist

All QC inspections must be completed by a designated QC Engineer or alternate who is qualified in the operation and calibrations of radiation instruments and procedures.

The QC Engineer or alternate should observe the calibration of radiation instruments and procedures randomly, or at least once every five calibrations. The QC Engineer shall inspect the following radiation operations/forms.

Quality Control No.: U/A Date Started: 7.22.96  
 Date Completed: \_\_\_\_\_  
 Contract No.: DAC 31-94-0-0020 Project Site and Location: ADAM Site Storage Vaults  
 QC Engineer(s): Keith Branch  
 Radiation Instrument Technician(s): J. Devaney, T. Thorsen

Operation/Form	Frequency					Notes
	1/22	1/24	1/26	1/28	1/30	
Film Badge/TLD Issue Form	N/A	N/A	N/A			
Pocket Dosimeter Issue Log	N/A	N/A	N/A			
Personnel Exposures Within Administrative and/or Regulatory Limits	✓	✓	✓			
In Compliance with Written Radiological Procedures	✓	✓	✓			
Pending Radiation Safety Issues	None	None	None			
Radiological Field Office Inspection	✓	✓	✓			



**American Stone-Mix, Inc.**  
MANUFACTURERS OF AMST®-M2

July 25, 1996

EA Engineering, Inc.  
ATTN: Carl Reitenbach  
15 Loveton Circle  
Sparks, MD 21152

Dear Mr. Reitenbach,

FLO-ASH® is a cement stabilized fill material that is used as a backfill or grout. The mix design of our material consists of Type F fly ash, portland cement and water. No toxic material, nor material which might decompose to allow subsidence will be permitted as a part of the mix.

Over the past seven years, the Brandon Shores power plant of BGE has been the sole supplier of fly ash which is used in our FLO-ASH®. A copy of the latest labs tests conducted on this fly ash is enclosed.

Should you have any questions, concerns or comments, please feel free to call 1-800-811-9888. Thank you for your time.

Sincerely,



Chris Baldauf  
Contractor Representative  
FLO-ASH® Services



JUL 25 1996 11:38AM

DAMES&MOORE

NO. 821 P. 1

DAMES & MOORE

7101 Wisconsin Avenue, Suite 700, Bethesda, Maryland 20814-4870  
(301)652-2215

TELECOPIER (301)656-8059

TELECOPY TRANSMITTAL SHEET

TO: Chris Baldauf

FROM: Barbara Cook

DATE: 7/25/96

TELECOPIER NO: 410-682-3357

CHARGE NO: 07300-111/5162

NUMBER OF PAGES (INCLUDING THIS ONE): 4

MESSAGE: BGE Brandon Shores fly ash - pH and TCLP results for most recent sample we tested that is Brandon Shores only (subsequent samples have been mixes with Wagner ash).

A June 1996 sample of Brandon Shores ash is currently being tested, but results are not yet available.

file copy

**TRANSMITTAL SHEET**

**DAMES & MOORE, INC.**

7101 Wisconsin Avenue, Suite 700 • Bethesda, Maryland 20814 • Phone (301) 652-2215

To: Baltimore Gas and Electric Co.  
Fossil Division  
1000 Brandon Shores Road  
Baltimore, Maryland 21226

Date: April 25, 1995  
Our Job No.: 07300-111-195

Attn: Mr. Glenn Nilzen

Subj: Fly Ash Test Data  
Brandon Shores Ash Management Project

We are sending you the following :

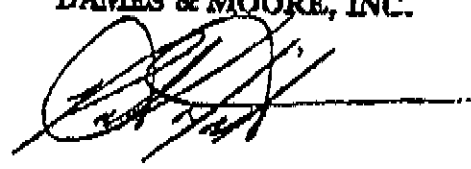
Test results on Brandon Shores (Units 1&2) coal fly ash mixture collected at the Brandon Woods fill site by Dames & Moore on March 8, 1995. Results include moisture content, pH, specific gravity, gradation, and Standard Proctor (ASTM-D698) compaction.

Leachate from this sample was tested for TCLP metals plus chloride, fluoride, sulfate, iron, and manganese (common coal ash constituents). The test results, which are enclosed, confirm that the fly ash is non-toxic according to TCLP criteria specified in 40 CFR 261.24.

Results of the compaction tests were forwarded earlier to D. Gateau.

**DAMES & MOORE, INC.**

By



Patrick S. Norton  
Project Manager

**Summary of Physical Properties of Monthly Fly Ash Samples  
BG&E Ash Management Program**

Site	Brandon Woods
Power Plant Source	Brandon Shores (Units 1 and 2)
Date of Ash Sampling	3/8/95
Field Moisture Content	23.7 %
Specific Gravity	2.24
Percent Finer Than #200 Sieve	91.3 %
pH of 1:1 Slurry	6.2
Compaction	
Method	ASTM D-698 Procedure A
Maximum Dry Density (pcf)	70.5
Optimum Moisture Content (%)	32.5

# Cascayne Laboratories, Inc.

Baltimore, MD 21224-6697

## REPORT OF ANALYSIS

(410) 822-1800  
(800) GAS-COYN  
FAX NO.  
(410) 822-6642



Report No. 95-03-208

Report Date: March 29, 1995


Report To: Dames & Moore

Page: 1 of 2

Sample I.D. Submitted Solid: BGE Brandon Woods III, Composite,  
dated 3/8/95 (0815)

<u>TCMP</u>	<u>Results</u>	<u>Detection Limits</u>	<u>EPA Method</u>
Arsenic (As)	0.035	0.005	7060
Barium (Ba)	ND	1	6010
Cadmium (Cd)	0.0047	0.0005	7131
Chromium (Cr)	0.085	0.002	7191
Lead (Pb)	0.012	0.005	7421
Mercury (Hg)	ND	0.0005	7470
Selenium (Se)	ND	0.005	7741
Silver (Ag)	ND	0.001	7761
Chloride (Cl)	25	10	8252
Fluoride (F)	0.1	0.1	340.2
Sulfate (SO <sub>4</sub> )	98	5	9038
Iron (Fe)	ND	0.1	6010
Manganese (Mn)	0.05	0.01	6010

- Notes: (1) Results expressed in mg/liter of TC extract.  
(2) Extraction Method 1311

  
William L. Leck  
Laboratory Director





EA Engineering, Science, and Technology  
15 Loveton Circle  
Sparks, Maryland 21152  
Telephone: 410-771-4950  
FAX: 410-771-4204

**PLEASE DELIVER TO:**

Name: Tim Reese

Company/Department: Foster Wheeler

Phone: (410) 671-6015

FAX: (410) 671-6018

If you do not receive all pages clearly, call Carl Reitenbach at Ext. 5107 as soon as possible.

**SENT BY:**

Name: Carl Reitenbach

Transmitting from: OMNIFAX G55

Number of Pages (including Transmittal Sheet): 4

Project No. 60834.03 task 3410

Date: 7/25/96

Time: 5:10 PM

**MESSAGE:**

Tim:

Here is the mix design and the MSDS for the flowable fill.

Carl

**American Stone-Mix, Inc.**  
MANUFACTURERS OF ASTON

This is to certify that FLO-ASH® meets requirements of Maryland State Specification Section 313. (Flowable Ash Backfill).

FLO-ASH® Services  
FLO-ASH® MIX DESIGN  
MIX F1

<u>Ingredient</u>	<u>% (dry basis)</u>
Ply ash	95
Portland Cement	5
Water	95 (wet basis)

Strength at 28 days.....Minimum 100 psi  
Coefficient of Permeability, cm/sec..... $1.78 \times 10^{-5}$

Manufactured by: American Stone-Mix, Inc.  
8320 Bellona Ave.  
Towson, MD 21284

Submitted by: Chris Baldauf  
Contractor Representative  
FLO-ASH® Services  
*Chris Baldauf*

# MATERIAL SAFETY DATA SHEET

MFCA 1-

## FOR COATINGS, RESINS AND RELATED MATERIALS

(Approved by U.S. Department of Labor - Estimated Similar to Form OSHA 20)

DATE OF PREPARE **March 3, 1966**

### Section I

**MANUFACTURER'S NAME**

American Stone-Mix, Inc.  
8320 Bellona Ave.  
Towson, MD 21204

**Trade Name:**

**FLO-ASH®**

### Section II - HAZARDOUS INGREDIENTS

INGREDIENT	CAS#	TLV		IDLH	HFP
		PPM	MG/M <sup>3</sup>		
Portland Cement Fly Ash Water					
Proportions are withheld on trade secret grounds.					

### Section III - PHYSICAL DATA

BOILING RANGE: Liquid component in water      VAPOR DENSITY:  HEAVIER,  LIGHTER THAN AIR

EVAPORATION RATE:  FASTER,  SLOWER THAN WATER      PERCENT VOLATILE BY WEIGHT:      WEIGHT PER GALLON: 12.7 lbs/gal

### Section IV - FIRE AND EXPLOSION HAZARD DATA

FLAMMABLE: N/A      CLASSIFIED: Non-combustible      LEL:

EXTINGUISHING MEDIA: N/A

UNUSUAL FIRE AND EXPLOSION HAZARDS: N/A

SPECIAL FIRE FIGHTING PROCEDURES: N/A

## Section V - HEALTH HAZARD DATA

### THRESHOLD LIMIT VALUE

### EFFECTS OF OVEREXPOSURE

It cause eye irritation.  
Prolonged contact with skin may cause irritation.

### EMERGENCY AND FIRST AID PROCEDURES

Wash exposed skin or eyes with water.

## Section VI - REACTIVITY DATA

STABILITY  UNSTABLE  STABLE

CONDITIONS TO AVOID

COMPATIBILITY (Materials to avoid)

HAZARDOUS DECOMPOSITION PRODUCTS

This material is intended to react with water. Reaction products are basic (High pH).

HAZARDOUS POLYMERIZATION  MAY OCCUR  WILL NOT OCCUR

CONDITIONS TO AVOID

## Section VII - SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED

Do or shovel into a suitable container.

DISPOSAL METHOD

Landfill

## Section VIII - SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION

None Required

VENTILATION

None Required

PROTECTIVE GLOVES Recommended

EYE PROTECTION Recommended

OTHER PROTECTIVE EQUIPMENT

## Section IX - SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING

FLO-ASH should be handled with the same precautions as freshly mixed portland cement concrete.

OTHER PRECAUTIONS

Keep freshly placed FLO-ASH isolated with suitable barricades until it develops enough strength to support body weight-approximately 4 hours.



**Foster Wheeler Environmental Corporation**  
*APG Environmental Remediation*

**DAILY CONSTRUCTION QUALITY CONTROL REPORT**

Daily Report No.: 04 Date: July 26, 1996 (FRI)

Contract No.: DACA31-94- D-0020

Project Title & Location: DO #0003, Adamsite Storage Vaults - Edgewood Area

Weather: Sunny and Clear Precipitation: 0.0 in. Temp: Min. 70°F Max. 90°F

Personnel On Site: USACE (1), ERDEC (0), FWENC (4), EA (1 ), HFA (0), KEVRIC (1),  
ONSITE (0)

Summary of Major Work Activities:

- Mobilization (Work Plan Section 2.2.1).
- Set up Decon area
- Measure Vaults and estimate volume of water inside
- Grappler and Shears operation checked by operator

1. Work Performed by Foster Wheeler Environmental Personnel: (Indicate location and description of work performed by prime and/or subcontractors. When network analysis is used, identify work by NAS activity number).

K. Branch, QC Engineer, provided oversight to ensure quality work would be performed according to the work plan (Work Plan Section 3.3.5). Mr Branch oversaw the completion of the Decon Area and the measuring and estimating of the volume of water in the storage vaults. Mr Billy Sanders (USACE) construction officer was on site to monitor operations. The Health and Safety officer completed decon of the emergency eyewash system and equipping the machinery with fire extinguishers and first aid kits. The Site superintendent went to rent a 20' extension ladder from a local equipment rental company. Mr Branch notified Mr. Sanders and Mr. Farr of a preparatory inspection on 29 July, 1996 at 01000, and 01000 on 30 July, 1996 for the next two definable features of work ( Water removal from Vaults, Sediment Removal) The Renting company for the equipment had a mechanic on site to make final adjustments to the Cat 235 and Daewoo Gappler.

J. Morning (Site Safety and Health Officer-SSHO) conducted a health and safety briefing (See Attached Daily Briefing Sign-In Sheet). During the briefing, all site personnel were briefed on site activities, and possible hazards associated with the site.

---

The SSHO utilized chemical monitoring equipment today during mobilization activities.

---

The SSHO monitored meteorological conditions including temperature (wet bulb global thermometer) and wind direction (with wind socks) (Work Plan Section 4.10.2)

---

T. Reese, Project Manager, was on site to monitor activities associated with Adamsite Mobilization. Mr Reese took photos of the Adamsite Storage Vaults, and the support zones.

---

Work Performed by Subcontractors:

M. Fox, Superintendent, conducted a pre-operational meeting to review the planned site activities for Mobilization of Adamsite Storage Vaults. M. Fox directed site activities for Mobilization throughout the day. Mike took measurements of the vaults and estimated the volume of water to be 18,200 gallons. Mike Fox contacted Paul Harvey (DSHE) to discuss the volume of water in the vaults enabling paul to schedule the amount of trucks needed for tuesdays (30 July, 1996) pickup by Chem Waste Management. (Work Plan Add #1, Sect. 2.3.9).

---

The ONSITE Rad Technician (Supervisor) J. Devaney conducted a Radiation and Contamination survey on the CAT 235C Shears. (No reportable detection).

---

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---

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---

2. Operating Plant or Equipment Utilized, Mob. and/or Demo. (Not hand tools)

Equipment Utilized: (1) minivan, (1) full size 4x4 pick up truck (1) small pick-up truck (4) 2way Radios.

---

3. Control Activities Performed:

Preparatory Inspections: (Identify feature of work and attach minutes).

Initial Inspections: (Identify feature of work and attach minutes).

Daily QC of Health and Safety Instruments and Procedures Inspection Checklist (See Attached)

---

Daily QC of Radiation Instruments and Procedures Inspection Checklist (See Attached)

---

Follow-up Inspection check list(See Attached)

---

4. Tests performed and Test Results: (Identify test requirement by paragraph number in specifications and/or sheet number in plans).

Periodic air-monitoring data results were reported by the SSHO. No results were found above background. This information is recorded in the SSHO's Daily Health and Safety Report.

---

5. Material Received: (Note inspection results and storage provided)

20' extension ladder, 20lb fire extinguishers, and first aid kits

---

6. Waste Generated and/or Disposed:

No waste was generated on site today

---



7. Off site Surveillance Activities, Including Action Taken:

No off site surveillance activities occurred this date.

8. Job Safety: (List items checked, results, instructions and corrective actions taken)

Total Manhours Worked to Date: 100 hours Total Number of Days Worked on Site: 3 days  
Total Manhours Worked with No Lost Time Accidents: 100 hours Total Number of Lost Time  
Accidents on the Site to Date: 0

Air monitoring readings were taken with the FID, PID, CGI, and MINIRAM particulate/aerosol monitor.

9. Remarks: (Instructions received or given. Conflict(s) in Plans and/or specifications. Delays encountered.)

B. Sanders (USACE/ERRO-OSR) was on site to view Mobilization of Adamsite Storage Vaults. No Defeciencies were noted.

10. Attachments:

Daily Construction Log/Manpower Report (FWENC & EA)

Vault measurements and water volume estimate

Follow up Inspection Checklist (See Attached)

Daily H&S Report (SSHO Daily Log, Calibration Records (CGI, PID, OVA, Particulate monitor, Activity Hazard Analysis), Air Monitoring Results

Telephone Conversation Record

QC Health and Safety / Radiation Instrument & Procedures Inspection Check list

Contractor's Verification: On behalf of the Contractor, I certify that this report is complete and correct, and all materials and equipment used and work performed during this reporting are in compliance with the contract plans and specifications, to the best of my knowledge, except as may be noted above.

<u>Keith Branch</u>	<u>7.26.96</u>
Keith Branch	Date
QC Systems Engineer	



FOSTER WHEELER ENVIRONMENTAL CORPORATION

DAILY CONSTRUCTION LOG/MANPOWER REPORT

DAILY REPORT #: 03

Client: US Army Corps of Engineers, ERRO, Baltimore District Date: 7-26-96  
 Project: Delivery Order #0003, Site 3, Adamsite Storage Vaults, Edgewood Area, APG FW Proj.#: DACA31-94-D-0020  
 Wind: 2 to 5 mph Temperature:(Hi/Low): 60-90  
 Sky: Cloudy Precipitation: Rain  
 LEVEL OF PROTECTION REQUIRED A B C D (circle) (required in work zone)

TIME	REMEDICATION & SITE ACTIVITIES REMARKS/COMMENTS/ACCOMPLISHMENTS/DELAYS
05:30	On site had health & safety meeting also went over work to be done on this day. Chesapeake equipment on site to make repairs to 235/CAT & Deere
07:00	Marked out fence post to be removed also moved equipment from 40 <sup>th</sup> street to Adamsite (snow fence) (fence post)
09:00	In contact with D K M C on transportation of steel  Will travel to equipment rental to pick up ladder & down truck  Secured equipment job site
12:00	Return to office Paper work

EA RTI DAILY LOG

Report Number 03 Project Name Adamsite  
 Location A.P.G 60834.03  
 Date 7/26/96 Contract Officer \_\_\_\_\_

Description of Work On site with Chesapeake equipment to make repairs to 235 & Deawoo. Moved max equipment from 40<sup>th</sup> street to Adamsite. Snow fence Marked out fence post to be removed. Made calls to DMRO will travel there & go over transportation of steel secured equipment & site

PERSONNEL ONSITE

Company Name	Employee	Time in	Time out	Total Hours
<u>EA</u>	<u>M Fox</u>	<u>5:30</u>		
<u>Foster Wheeler</u>				
<u>QAQC</u>	<u>Keith B.</u>			
<u>HS</u>	<u>James M.</u>			
<u>PM</u>	<u>Tim R.</u>			

Chesapeake Equipment

EQUIPMENT ONSITE

Description	Date arrived	Date left	EA Owned	Rented	Total Days Used
<u>F350</u>	<u>7/24</u>		<input checked="" type="checkbox"/>		<u>3</u>

Drumblasts (2)  
Ladder  
EZ up tent

Any Inspections? no If so, time and name of inspector. \_\_\_\_\_  
 What kind of inspection \_\_\_\_\_  
 Weather Conditions Clear \_\_\_\_\_ Cloudy  Rain  Temp 75  
 On Schedule? yes  no \_\_\_\_\_  
 Any lost time accidents on this date? yes \_\_\_\_\_ no   
 Have you had your daily safety meeting? yes  no \_\_\_\_\_  
 Safety concerns Wet areas, Power tools

Remarks \_\_\_\_\_

Michael Fox 7/26/96  
 Construction Superintendent Date

Construction Manager \_\_\_\_\_ Date

FOSTER WHEELER ENVIRONMENTAL CORPORATION

BY TAR DATE 7-26-96

SHEET 1 OF 1

CHKD. BY \_\_\_\_\_ DATE \_\_\_\_\_

OFS NO. \_\_\_\_\_ DEPT. NO. \_\_\_\_\_

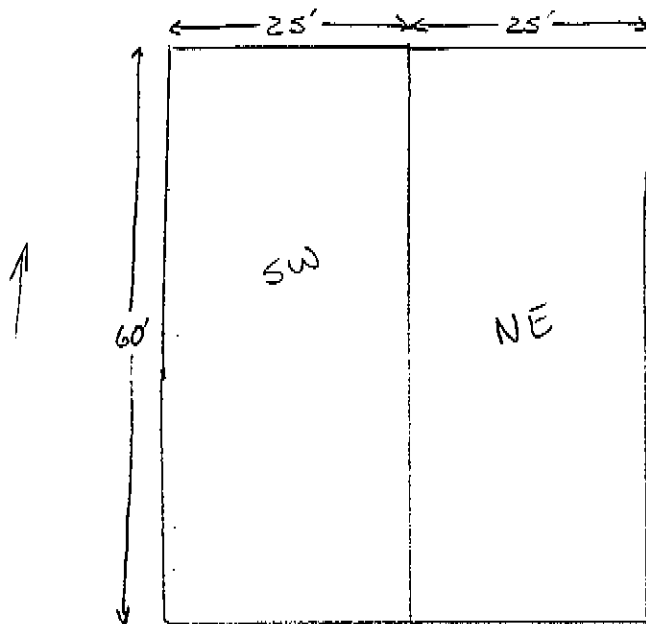
CLIENT ACOE - APG

PROJECT Adamsite Storage Vaults

SUBJECT Volumes of Vaults

Purpose:

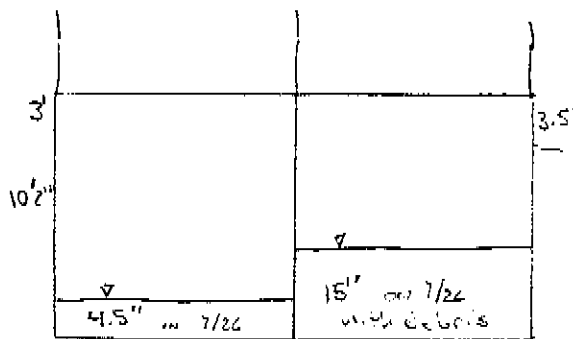
Determine Volume of Water in Vaults at Adamsite



Volume of Water

$$\begin{aligned} \text{SW Vault} &= L \times W \times H \\ &= 60' \times 25' \times 4.5'' \times \frac{1}{12} \\ &= 562.5 \text{ CF} \\ &= 562.5 \text{ CF} \times 7.48052 \frac{\text{gallons}}{\text{CF}} \\ &= 4,208 \text{ gallons} \end{aligned}$$

$$\begin{aligned} \text{NE Vault} &= L \times W \times H \\ &= 60' \times 25' \times 15'' \times \frac{1}{12} \\ &= 1875 \text{ CF} \\ &= 1875 \text{ CF} \times 7.48052 \frac{\text{gallons}}{\text{CF}} \\ &= 14,026 \text{ gallons} \end{aligned}$$



$$\begin{aligned} \text{Total liquid} &= 4,208 + 14,026 \\ &= 18,234 \text{ gallons} \end{aligned}$$

$$\begin{aligned} \text{SW Vault} &= L \times W \times H \\ &= 60' \times 25' \times (10'2'' - 3') \\ &= 10,750 \text{ CF or } 398 \text{ CY} \end{aligned}$$

$$\begin{aligned} \text{NE Vault} &= L \times W \times H \\ &= 60' \times 25' \times (10'2'' - 3.5') \\ &= 10,005 \text{ CF or } 371 \text{ CY} \end{aligned}$$

$$\text{Volume of 1' foot depth} = 60' \times 25' \times 1' = 1,500 \text{ CF or } 56 \text{ CY}$$

1' foot of stone is equal to 56 cy / 2 = 112 cy ≈ 6 truckloads (19 yds/truck)

# Foster Wheeler Environmental Corporation

APG Environmental Remediation

## FOLLOW-UP INSPECTION CHECKLIST

Report No. \_\_\_\_\_ Contract No. DACA31-D-94-0020 Date 7-26-96

Project Title and location Adams Site Storage Vents  
- Edgewood Area

Work No.	Weather	Temperature		Rainfall inches	Work location (grid)
		Min.	Max.		
	<u>Clear and Sunny</u>				

Major definable feature of work Mobilization

A. Deficiencies noted: - Heavy Equipment missing MIRROR

- Door latch needs Adjustment

- 20' extension ladder missing

- Fire Extinguishers needed on Heavy Equipment

B. Corrective action taken: - Mechanic From rental Company on Site

- MIRROR installed on CAT 235C Shovels

- door latch replaced

- 20' extension ladder on Site

- Extinguishers in place

C. Pre-final Inspection (Attach Punch List)

\_\_\_\_\_  
Contractor's Quality Control Representative

Keith Branch  
~~Richard G. Evans Jr.~~  
QC Systems Engineer

7-26-96  
Date



## DAILY HEALTH AND SAFETY REPORT

DAILY REPORT #: 04Client: US Army Corps of Engineers, ERRO, Baltimore DistrictDate: 7-26-96Project: Delivery Order #0003, Site 3, Adamsite Storage Vaults, Edgewood Area, APG FW, Proj.#: DACA31-94-D-0020Wind: 070 + SWTemperature: (Hi/Low): 72 - 85Sky: cloudyPrecipitation: Some Rain Early AM

LEVEL OF PROTECTION REQUIRED

A B C

D (circle) (required in work zone)

## REMEDATION &amp; SITE ACTIVITIES

TIME

REMARKS/COMMENTS/ACCOMPLISHMENTS/DELAYS

0600 <sup>z</sup>	Held Safety Briefing w/ QC - Site Supt and Vendor Mecho See Sign in Log for Details
0615	WENT to RAD YARD DO#1 to check AO
0630	Calibrated HHS EQUIPMENT, See CAL LOGS
0700	check AO @ Adamsite and Rad YARD NO READINGS ABOVE ACTION LEVELS AND ARE AT NORMAL BACKGROUND. RADIO Phon check OK
0730	Set UP CR2, AND TEMPORARY Decon Line. Sanitize Eye WASH, INSPECT fill w/ water + Ant Serp Solution. Finish mobilizing + Setup of EQUIPMENT + MATERIALS.
0900 <sup>z</sup>	Rec'd Billy Sanders on Site, observe OP'S
0930	Continue Set-UP OP'S AND checking Rad YARD
1130	Site Searched Go to Rad YARD



FOSTER WHEELER ENVIRONMENTAL CORPORATION

DAILY BRIEFING SIGN-IN SHEET

Date: 7-26-96

Project Name/Location: Adamside APG-MD

Shift/Department: DAY

Person Conducting Briefing: JAMES MORNING

1. DAILY ACTIVITIES

TASKS	CONTROLS/PPE
1. Mobilize	O/D
2.	
3.	
4.	
5.	

2. AWARENESS (e.g., special HS concerns, recent incidents, etc.):

SLIP TRIP FALL  
FIXED POINTS  
NO-SPILL Policy

3. OTHER ISSUES (HASP changes, attendee comments, etc.):

\_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

4. ATTENDEES (Print Name):

1. <u>M. [unclear]</u>	11.
2. <u>Kelth Branch</u>	12.
3.	13.
4.	14.
5.	15.
6.	16.
7.	17.
8.	18.
9.	19.
10.	20.





### Daily Health and Safety Report

\*\*\*\*\*

#### DAILY HEALTH AND SAFETY REPORT CONTRACT NUMBER DACA31-94-D-0020

\*\*\*\*\*

DELIVERY ORDER NO. Delivery Order No. 003 DATE: 7-26-96  
LOCATION OF WORK: Adamsite Storage Vaults

WEATHER: PC RAINFALL: 0.00 IN. TEMP: 72 min. 83 max.

\*\*\*\*\*

#### 1. WORK PERFORMED BY FOSTER WHEELER ENVIRONMENTAL CORPORATION AND THE FOLLOWING SUBCONTRACTORS:

- |                                 |   |
|---------------------------------|---|
| <input type="checkbox"/> HFA    | <input type="checkbox"/> ONSITE               |
| <input type="checkbox"/> KEVRIC | <input type="checkbox"/> GONZER               |
|                                 | <input checked="" type="checkbox"/> <u>EA</u> |

#### 2. EQUIPMENT BEING UTILIZED:

- |   |   |  |
|---|---|--|
| <input checked="" type="checkbox"/> HNU | <input checked="" type="checkbox"/> Miniram | <input type="checkbox"/> MNICAMS           |
| <input checked="" type="checkbox"/> OVA | <input type="checkbox"/> W.B.G. Therm       | <input checked="" type="checkbox"/> Radios |
| <input checked="" type="checkbox"/> CGI | <input type="checkbox"/> First Aid Kits     |  |
| <input type="checkbox"/> Monitox        | <input type="checkbox"/> ICADS              |  |

#### 3. PERSONAL PROTECTIVE EQUIPMENT DONNED: Level B Level C

- |   |  |                                    |
|---|--|------------------------------------|
| <input type="checkbox"/> Supplied Air Resp. | <input type="checkbox"/> MSA Respirators/GMC-H Cartridges    | <input type="checkbox"/> Ice Vests |
| <input type="checkbox"/> 5 min. Escape      | <input checked="" type="checkbox"/> Hard Hat/Safety Glasses  | <input type="checkbox"/> Tyvek     |
| <input type="checkbox"/> Overboots          | <input type="checkbox"/> Nitrile Gloves (surgical/overglove) |                                    |

#### 4. AIR MONITORING DATE: All readings at nominal background levels during operations.

\*\*\*\*\*

SITE SAFETY AND HEALTH OFFICER: J. MORRIS DATE: 7-26-96



FOSTER WHEELER ENVIRONMENTAL CORPORATION  
CALIBRATION RECORD FOR  
COMBUSTIBLE GAS INDICATOR  
SERIAL NUMBER: 11069

1. Turn instrument on (HORN OFF position). Set % LEL meter pointer to zero by adjusting the ZERO LEL control. (do this within 30 seconds). Check when complete. ✓
2. Use CALIBRATE O2 control to set it at 20.6%. If this can be done then replace the O2 cell. Check when complete. ✓
3. Press the ALARM RESET button. If the alarm light does not go out and the green pilot light begins flashing then TAG OUT unit for repair and enter note below. Check when complete. /
4. Check flow by placing finger momentarily over sample inlet. If indicator float does not drop to the no flow position then TAG OUT for repair and enter note below. Check, when complete. /
5. Check battery, recharge if necessary. Check when complete. /
6. Turn ON-OFF control to the ON position. If the pilot lamp does not light then TAG OUT unit for repair. Check when complete. /
7. Note the calibration gas % LEL ✓
8. Introduce calibration gas to instrument. If the meter pointer is not +/- LEL, stop the cal. gas flow and remove the right hand side (speaker panel). Turn on the flow and adjust the "S" control with a small screwdriver to obtain the reading specified for the cal. gas. When complete sign, date and record the time below.

NOTATIONS:

Name

J. M. ...

Date:

7-26-96

Time:

0630

FOSTER WHEELER ENVIRONMENTAL CORPORATION  
CALIBRATION RECORD FOR  
MINIRAM AEROSOL MONITOR/SUNSHIELD/MODEL PDM-SNS  
SERIAL NO. Fw00143

1. Turn instrument ON. Allow to warm up for several minutes.

2. MINIRAM has been factory-calibrated. To zero the unit, use a dust free office environment or employ the Z-bag calibrator.

The Z-Bag™ is a convenient kit for zeroing the MINIRAM in the field. It provides a clean-air environment inside a plastic bag into which the MINIRAM is placed for zeroing. The Z-Bag kit consists of a one-way flow rubber bulb for manual air pumping, a filter cartridge, a zippered plastic container, a connecting hardware.

To use Z-Bag for zeroing MINIRAM proceed as follows:

1. Remove rubber bulb filter assembly from Z-Bag. Place Z-Bag on flat surface with red flow fitting facing up. Flatten bag. Remove small plastic cap from flow fitting on bag.

2. Insert ribbed elbow connector (attached to filter cartridge) into red flow fitting of plastic bag, until connector is flush with bottom of red flow fitting.

3. MINIRAM should be in its OFF condition (observe display). If display is blanked, or if MINIRAM is in the MEAS mode, key OFF.

4. Open Z-Bag and place MINIRAM inside, approximately at its center.

5. Key ZERO through the open end of the Z-Bag. Immediately zip closed the Z-Bag and begin to pump hand bulb.

6. Z-Bag should inflate as hand pumping continues, up to a height of about five inches (12 cm). Continue pumping gently to maintain bag interior pressure, until the MINIRAM displays off again.

7. Unzip Z-Bag and remove MINIRAM. MINIRAM is now ready for monitoring.

8. Place rubber bulb/filter assembly inside Z-Bag, and plug small plastic cap into flow fitting to close it. Zip close while flattening Z-Bag to store it to ensure cleanliness of the bag interior.

FOSTER WHEELER ENVIRONMENTAL CORPORATION  
CALIBRATION RECORD FOR  
OVA MODEL 128  
SERIAL NO.: FW00042

Follow the start-up steps contained in the lid of the cover of the instrument for proper lighting and set-up of the instrument.

CALIBRATION range setting: X10

GAS SELECT control setting: 3.0

Calibration gas (methane) concentration: 100

Meter reading with calibration gas: 102

If the reading is greater than +/- 10% of the calibration gas concentration, a complete calibration is needed; otherwise the instrument can function as is. Follow the steps below, placing a check after each step, for complete calibration, if needed.

1. Set CALIBRATION to X10 and GAS SELECT control to 300. NA
2. Introduce zero air gas and use the CALIBRATE ADJUST knob to adjust the meter reading to zero. NA
3. Introduce a calibration gas standard of approximately 94 ppm methane and adjust trimpot R-32 on circuit board so that the meter reads the calibration gas concentration. NA
4. Turn off the H<sub>2</sub> SUPPLY VALVE to put out the flame. NA
5. Leave the CALIBRATE switch on X10 and use the CALIBRATE ADJUST knob to adjust the meter reading to 4 ppm. NA
6. Turn the CALIBRATE switch to XI. Using trimpot R-31 adjust the meter reading to 4 ppm. NA
7. Set the CALIBRATE switch to X10 again and use the CALIBRATE ADJUST knob to set the meter reading to 40 ppm. NA
8. Set the CALIBRATE switch to X100 and use trimpot R-33 to adjust meter to 40 ppm. NA
9. Set the CALIBRATE switch to X10 and use the CALIBRATE ADJUST knob to adjust meter to zero. NA

7-21-91

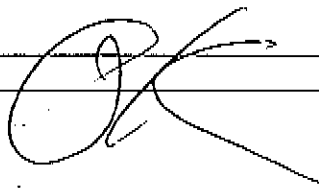
NA (110)

FOSTER WHEELER ENVIRONMENTAL CORPORATION  
CALIBRATION RECORD FOR

HNU MODEL DL101  
SERIAL # 567048  
PROBE SERIAL # 70.2  
PROBE eV: 10.2

1. Turn unit on and let warm up a few minutes.
2. Check time, date and mode. Mode should be S-D for Survey Mode.
3. Check low battery indicator in upper right corner
4. Prepare Calibration tank, tubing and regulator.
5. Press the calibration key on the front panel. CALIBRATE ? appears.
6. Press enter key. ELEC ZERO ? YES appears.
7. Press enter. ZEROING UNIT appears
8. Next prompt will ask for gas concentration, enter proper PPM, press enter.
9. ATTACH GAS TO PROBE AND/ENTER will appear, start the flow and press enter.
10. PRESS ENTER WHEN READY; XXX PPM will appear, press enter when readings stabilize to complete the process.
11. If unit does not calibrate to correct PPM see manual for more information.
12. If unit goes to survey mode calibration is complete and ready.
13. Note any maintenance performed;  
a. bulb cleaned \_\_\_\_\_ b. filter changed \_\_\_\_\_ c. Ion Chamber cleaned \_\_\_\_\_

other \_\_\_\_\_  
\_\_\_\_\_



Name:

J. Marlow

Date

7-26-96

Time

0643

FOSTER WHEELER ENVIRONMENTAL CORPORATION  
CALIBRATION RECORD FOR  
MONITOX SERIAL # \_\_\_\_\_

1. Turn unit on test and let it warm up. \_\_\_\_\_
2. Check battery condition by observing small red light on top of unit, if its on change battery. \_\_\_\_\_
3. Prepare calibration gas cylinder by attaching regulator and tygon tubing and cap adapter. \_\_\_\_\_
4. Turn switch to on position. \_\_\_\_\_
5. Attach cap adapter to sample intake port on top right corner and turn calibration gas. \_\_\_\_\_
6. Observe readings an screen, they should begin to increase. \_\_\_\_\_
7. Alarm should begin at 5 PPM, continue to observe. \_\_\_\_\_
8. Unit should continue to alarm until 10 PPM is reached and then the alarm tone should change. \_\_\_\_\_
9. If unit fails to alarm at given PPM ranges go to manual for complete calibration procedures. \_\_\_\_\_
10. If unit responds at given PPM concentrations , unit is ready for use. \_\_\_\_\_

Comments: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Calibration Gas Concentration: \_\_\_\_\_

Brand/Type: \_\_\_\_\_

NOT USED

NAME: \_\_\_\_\_

J. MORNING

DATE: \_\_\_\_\_

7-26-88

TIME: \_\_\_\_\_

0657





# FOSTER WHEELER ENVIRONMENTAL CORPORATION

## APG Environmental Remediation

### Quality Control of Health and Safety Instruments and Procedures Inspection Checklist

All QC inspections must be completed by a designated QC Engineer or alternate who is qualified in the operation and calibrations of health and safety instruments and procedures.

The QC Engineer should observe the calibration of health and safety instrumentation randomly, or at least once every five calibrations. The QC Engineer shall inspect the health and safety operations/forms listed below.

Quality Control No.: \_\_\_\_\_ Date Started: 7-22-96  
 Date Completed: \_\_\_\_\_  
 Contract No.: DACA 31-94-D-0020 Project Site and Location: ADAMS Site Storage Vaults  
 QC Engineer(s): Keith Branch  
 Site Health & Safety Officer(s): James Morning

Operation/Form	Month/Day				Notes
	7/22	7/24	7/25	7/26	
Calibration Log Completed	✓	✓	✓	✓	
Daily Briefing Log Completed	✓	✓	✓	✓	
Daily Instrument Source/Background Check Form (for each instrument used)	✓	✓	✓	✓	
Daily Health & Safety Report Form	✓	✓	✓	✓	
Sign In Log for Work Zones	N/A	N/A	N/A	N/A	
Proper Donning and Doffing of PPE	N/A	N/A	N/A	N/A	
Air Monitoring/Sampling Form	✓	✓	✓	✓	
In Compliance with SHERP & SOPs	✓	✓	✓	✓	
H & S Violations	NONE	NONE	NONE	NONE	
Heat and Cold Stress Monitoring	✓	✓	✓	✓	
All OSHA Forms Up to Date	✓	✓	✓	✓	
SHERP Review for All Personnel	✓	✓	✓	✓	
Delineation of Work Zones	✓	✓	✓	✓	
Shower Trailer Inspection	N/A	N/A	N/A	N/A	



**Foster Wheeler Environmental Corporation**  
*APG Environmental Remediation*

**DAILY CONSTRUCTION QUALITY CONTROL REPORT**

Daily Report No.: 05

Date: July 29, 1996 (MON)

Contract No.: DACA31-94- D-0020

Project Title & Location: DO #0003, Adamsite Storage Vaults - Edgewood Area

Weather: Overcast

with Rain Precipitation: 0.0 in. Temp: Min. 65°F Max. 82°F

Personnel On Site: USACE (2), ERDEC (0), FWENC (3), EA (2), HFA (0), KEVRIC (3),  
ONSITE (0) DSHE (3)

Summary of Major Work Activities:

- Mobilization (Work Plan Section 2.2.1).
- Remove 152' of chain link fencing, barb wire, and 7 posts ; replace with snow fencing
- Stage 4'x4'x4' Wooden Boxes
- Use "weed wacker" to remove brush from job site

1. Work Performed by Foster Wheeler Environmental Personnel: (Indicate location and description of work performed by prime and/or subcontractors. When network analysis is used, identify work by NAS activity number).

K. Branch, QC Engineer, provided oversight to ensure quality work would be performed according to the work plan (Work Plan Section 3.3.5). Mr Branch oversaw the removal of 152 feet of chain link fencing, barb wire and 7 posts. The fencing was replaced with snow fencing for easy access to and from the site by heavy equipment. The grass around the work area was cut to reduce slips and falls. As scheduled Paul Harvey (DSHE), Chem Waste Management, and USACE (J. Fair, B. Sanders), arrived on site to inspect the volume of water in the Storage Vaults to estimate the quantity of Vacuum trucks needed for water removal. The USACE representatives also conducted a Preparatory Inspection for the removal of water at Adamsite Storage Vaults (See attached Checklist). All preliminary work noted no deficiencies and all activities were in compliance with the Activity Hazard Analysis (See attached Sheet) and site Work Plan. Mr Reese and Mr Reitenbach (EA Engineering) were present during the walk thru with DSHE, Chem Waste Management, and the USACE.

J. Morning (Site Safety and Health Officer-SSHO) conducted a health and safety briefing (See Attached Daily Briefing Sign-In Sheet). During the briefing, all site personnel were briefed on site activities, and possible hazards associated with the site. A site specific training and SHERP review was conducted for all personnel working on site.

---

The SSHO utilized chemical monitoring equipment today during mobilization activities.

---

The SSHO monitored meteorological conditions including temperature (wet bulb global thermometer) and wind direction (with wind socks) (Work Plan Section 4.10.2)

---

T. Reese, Project Manager, was on site to monitor activities associated with Adamsite Mobilization. Mr Reese took photos of the Adamsite Storage Vaults, and the support zones. Mr Reese talked with Paul Have (DSHE) about the removal of the water from the Storage Vaults by Chem Waste Management.

---

#### Work Performed by Subcontractors:

M. Fox, Superintendent, conducted a pre-operational meeting to review the planned site activities for Mobilization of Adamsite Storage Vaults. M. Fox directed the laborers with the remove of 152' of chain link fencing and barb wire on site to enable easier access to the work zone. Mike replaced the metal fencing with snow fencing and also removed seven (7) posts enabling the heavy equipment access to the Vaults. Mike also had the site sign moved to a more viable location by the laborers. All equipment used was cleaned and stored in the site store container. (Work Plan Add #1, Sect. 2.3.9).

---

The Kevric laborers completed the following tasks: Removal of 152' of chain link fencing, barb wire and 7 posts, installed snow fencing, cut down weeds, restaged site sign, and completed final preparation for Storage Vaults water removal.

---

The Kevric equipment operator staged 4'x4'x4' wooden boxes with the John Deere 544G Loader. In addition, the operator also removed the chain link fencing, and re-tested the operating controls of the Cat 235 Shears and Daewoo Grappler.

---

Mr Carl Reitenbach (EA Engineering) Project Manager was on site to monitor activities.

---

2. Operating Plant or Equipment Utilized, Mob. and/or Demo. (Not hand tools)

Equipment Utilized: John Deere 544G Rubber Tire Loader, Air monitoring equipment (CGI,FID,PID,OVA, and MINIRAM), (1) minivan, (1) full size 4x4 pick up truck (1) small pick-up truck (3) 2way Radios (1) Cellular Phone

---

3. Control Activities Performed:

Preparatory Inspections: (Identify feature of work and attach minutes).

Initial Inspections: (Identify feature of work and attach minutes).

Daily QC of Health and Safety Instruments and Procedures Inspection Checklist (See Attached)

---

Preparatory Inspection Check list (See Attached)

---

Follow-up Inspection Check list (See Attached)

---

4. Tests performed and Test Results: (Identify test requirement by paragraph number in specifications and/or sheet number in plans).

Periodic air-monitoring data results were reported by the SSHO. No results were found above background. This information is recorded in the SSHO's Daily Health and Safety Report.

---

5. Material Received: (Note inspection results and storage provided)

Drum Dolly, Misc small tools, and Weed Wacker.

---

6. Waste Generated and/or Disposed:

No waste was generated on site today

---

7. Off site Surveillance Activities, Including Action Taken:

No off site surveillance activities occurred this date.

8. Job Safety: (List items checked, results, instructions and corrective actions taken)

Total Manhours Worked to Date: 156 hours Total Number of Days Worked on Site: 5 days  
Total Manhours Worked with No Lost Time Accidents: 156 hours Total Number of Lost Time  
Accidents on the Site to Date: 0

Air monitoring readings were taken with the FID, PID, CGI, and MINIRAM particulate/aerosol monitor.

9. Remarks: (Instructions received or given. Conflict(s) in Plans and/or specifications. Delays encountered.)

B. Sanders and J. Fair (USACE/ERRO-OSR) was on site to view Mobilization of Adamsite Storage Vaults and conducted a Preparatory Inspection on the Removal of water from the Adamsite Storage Vaults. No Deficiencies were noted.

10. Attachments:

Daily Construction Log/Manpower Report (FWENC & EA)

Daily H&S Report (SSHO Daily Log, Calibration Records (CGI, PID, OVA, Particulate monitor, Activity Hazard Analysis), Site Entry/ Exit Log, Air Monitoring Results

Follow up Inspection Checklist (See Attached)

Preparatory Inspection Checklist

QC Health and Safety Instrument & Procedures Inspection Check list

Contractor's Verification: On behalf of the Contractor, I certify that this report is complete and correct, and all materials and equipment used and work performed during this reporting are in compliance with the contract plans and specifications, to the best of my knowledge, except as may be noted above.

Keith Branch      7.30.96  
Keith Branch                      Date  
QC Systems Engineer





FOSTER WHEELER ENVIRONMENTAL CORPORATION

DAILY CONSTRUCTION LOG/MANPOWER REPORT  
DAILY REPORT #:

Client: US Army Corps of Engineers, ERRO, Baltimore District Date: 7-29-96  
 Project: Delivery Order #0003, Site 3, Adamsite Storage Vaults, Edgewood Area, APG FW Proj.#: DACA31-94-D-0020  
 Wind: 5-10 mph Temperature: (Hi/Low): 65-82  
 Sky: Cloudy Precipitation: Rain/Cloudy  
 LEVEL OF PROTECTION REQUIRED A · B · C (D) (circle) (required in work zone)

TIME	REMEDICATION & SITE ACTIVITIES REMARKS/COMMENTS/ACCOMPLISHMENTS/DELAYS
0200	40 <sup>th</sup> meeting with laborers went over work plan with QA & C. PM Carl R. Super M Fox. Travel to and pick-up M 40.
08.40	Health & safety briefing on Adamsite w/ H/S James M. QA & C Keith B. Site super M Fox & laborers.
09.30	Site walk through went work to be done removing fence, pumping of water from vaults & removing steel roof panels & beams.
10.30	Started with removing fence & post remove 152' fence & 7 posts.
11.30	Took break escorted Carl R. to gate. Still working fence area started using weed eater to cut grass inside fence line & work areas.
12.30	Lunch
13.00	Lunch
13.00	Finished with fence & started to install snow fence in this area was unable.
	Chem waste & Paul Harvey & Corp Billy Sanders on site for pumping of vaults.
	Cleaned up equipment hand tools. Secured all equipment & left site. Ruben to arrive (for removal) with a...





1. VERBAL/WRITTEN GUIDANCE (LIST INDIVIDUAL):

N/A

2. CONTROVERSIAL MATTERS:

N/A

3. SAFETY:

LEVEL OF PPE: Level D

SSHO:

4. SEC PLAN MEASURES INSTALLED: YES NO NONE REQUIRED

ADDITIONAL MEASURES TAKE TO STABILIZE SITE:

5. MINICAM STANDARDS REQUIRED/DATE:

N/A

MINICAM STANDARDS RECEIVED/DATE:

6. CSM SCREENING REQUIRED: YES NO HOLDING TIME:

SEND TO CTF: YES NO

DATE/TIME:

7. SAMPLES SENT TO LAB: YES NO NUMBER/TYPE

LAB USED: N/A

LAB APPROVED: YES NO

SAMPLING PERFORMED: (method, type, number taken, analysis expected and who was responsible for sampling/shipment)

AROUND TIME REQUIRED: N/A EXPECTED:

QA SAMPLES SENT TO COE LAB: YES NO DATE:

8. "DIAL 17" REQUIRED: (give details, times, reason, who called, debriefing, follow-up, include UXO receipt)

9. NUMBER DRUMS/CONTAINERS WASTE GENERATED THIS DAY:

CONTENTS:

NUMBER OF WOODEN BOXES/SKIDS/ETC. GENERATED THIS DAY:

CONTENTS:

TOTAL NUMBER AT SITE THIS DATE: N/A

BOXES

DRUMS

SKIDS

FWES REPRESENTATIVE:

Keith Branch

Name/Title

Date:

USACE SIGNATURE

Name/Title

Date:

EA RTI DAILY LOG

Report Number 04 Project Name Adamsite  
 Location HPG 60834/03  
 Date 7/29/96 Contract Officer \_\_\_\_\_

Description of Work On site Health & safety briefing. Onsite walk through great work to be done. Started removing fence line used weed eater to cut grass inside fence line all fencing will be stored out side fence line secured jobsite equipment for this day

PERSONNEL ONSITE

Company Name	Employee	Time in	Time out	Total Hours
EA	Mike	7:00	15:30	
"	Robert J	7:00		
"	Frederick A	7:00		
"	Francis H.	7:00		
EA	Carl R	7:00		

EQUIPMENT ONSITE

Description	Date arrived	Date left	EA Owned	Rented	Total Days Used
Esso Fuel	7/24		✓		4
235 cat	Shear			✓	
18h Deere	4/6/96			✓	
Two ladders			✓		
Two drum lifts			✓		
E-Zup Tent			✓		

Any Inspections? \_\_\_\_\_ If so, time and name of inspector. \_\_\_\_\_  
 What kind of inspection \_\_\_\_\_  
 Weather Conditions Clear \_\_\_\_\_ Cloudy  Rain  Temp 80  
 On Schedule? yes  no \_\_\_\_\_  
 Any lost time accidents on this date? yes \_\_\_\_\_ no   
 Have you had your daily safety meeting? yes  no \_\_\_\_\_  
 Safety concerns Wasp / yellow jackets

Remarks \_\_\_\_\_

Michael Fox  
 Construction Superintendent Date \_\_\_\_\_

Construction Manager Date \_\_\_\_\_

DAILY HEALTH AND SAFETY REPORT  
DAILY REPORT #: 05Client: US Army Corps of Engineers, ERRO, Baltimore DistrictDate: 7-29-96Project: Delivery Order #0003, Site 3, Adamsite Storage Vaults, Edgewood Area, APG FW, Proj. #: DACA31-94-D-0020Wind: Out of SWTemperature: (Hi/Low): 69-82Sky: OVERCASTPrecipitation: NoneLEVEL OF PROTECTION REQUIRED A B C D (circle) (required in work zone)

## REMEDIATION &amp; SITE ACTIVITIES

TIME

REMARKS/COMMENTS/ACCOMPLISHMENTS/DELAYS

0830 <sup>1/2</sup>	Crews Active @ Support Zone, After Receiving M-40's And Fit Test @ Mask Issued.
0840	Gather @ Trailer Gather work Rules And Site Activity of the Day, See Daily Sign in Log for Details
0845 <sup>1/2</sup>	Begin Site Specific TRNG, See attached copy of SHERP SIGN IN SHEET
0845 <sup>1/2</sup>	End TRAINING, Perform Site Walk
1000 <sup>1/2</sup>	Chem Waste & ACOE, DSHB ON SITE to Look @ Vaults & contents, Radio, phone check OK
1015	DSHB, Chem Waste Depart Site, Crews begin taking down Fence, went over safety requirements and discussed Hazard Analysis Attached as part of Site Access.
1130	ACOE, B Sanders Departs, Crews continue on Fence and Grass cutting
1230 <sup>1/2</sup>	Crews break for lunch, check AO - NO Readings Above Action Levels.
1300 <sup>1/2</sup>	Crews Return to work, check AO - NO Readings Above Action Levels.
1400 <sup>1/2</sup>	MOVE Sign to Fence
1500 <sup>1/2</sup>	Site Secured Go to Admin trailer



FOSTER WHEELER ENVIRONMENTAL CORPORATION

DAILY BRIEFING SIGN-IN SHEET

Date: 7-29-96

Project Name/Location: Adamside

Shift/Department: DAY

Person Conducting Briefing: J. MORNING

1. DAILY ACTIVITIES

TASKS	CONTROLS/PPE
1. <u>REMOVE FENCE, SITE ACCESS</u>	<u>D/D</u>
2.	
3.	
4.	
5.	

2. AWARENESS (e.g., special HS concerns, recent incidents, etc.):

SLIP TRIP FALL  
TRAINING - Site Specific  
BARB WIRE HAZARDS

3. OTHER ISSUES (HASP changes, attendee comments, etc.):

4. ATTENDEES (Print Name):

1. <u>James Woolford</u> JAMES Woolford	11.
2. <u>FRANCIS HUNTER</u>	12.
3. <u>Robert Jeffers</u> Robert Jeffers	13.
4. <u>Michael Fox</u> Michael Fox	14.
5. <u>CARL REITENBACH</u> Carl Reitenbach	15.
6. <u>Keith Bruncl</u>	16.
7.	17.
8.	18.
9.	19.
10.	20.

# ACTIVITY HAZARD ANALYSIS

Project: Adamsite Storage Vaults  
 Activity: Site Access

Location: Aberdeen, Maryland

MAJOR STEPS	POTENTIAL HAZARDS	PROTECTIVE MEASURES/CONTROLS
<ul style="list-style-type: none"> <li>• Remove vegetation and trees (if needed )</li> <li>• Build access roads (if needed)</li> <li>Remove Fence</li> <li>Put up temporary fence</li> </ul>	<ol style="list-style-type: none"> <li>1. Manual lifting and material handling</li> <li>2. Biological hazards</li> <li>3. Heat/Cold Stress</li> <li>4. Slips, trips, and falls</li> <li>5. Inclement weather</li> <li>6. Noise</li> <li>7. Operating heavy equipment</li> <li>8. Pinch, Cut, and smash</li> <li>9. UXO</li> <li>10. Chemical (from CWM)</li> <li>11. Dropped objects</li> <li>12. Eye injury</li> <li>13. Head injury</li> </ol>	<ol style="list-style-type: none"> <li>1. Instruct personnel in proper lifting techniques</li> <li>2. Wear insect repellent; follow procedures for tick bites and snake bites; and be aware of poisonous plants</li> <li>3. During hot or cold weather monitor personnel for symptoms of heat or cold stress; Instruct personnel to recognize symptoms of heat or cold stress</li> <li>4. Maintain work areas safe and orderly; unloading areas should be on even terrain; mark and repair if possible tripping hazards; reduce slip hazards.</li> <li>5. Monitor weather conditions daily</li> <li>6. Conduct noise monitoring if deemed necessary by the SSHO; wear hearing protection</li> <li>7. Only trained personnel shall operate heavy equipment; personnel should remain in the site of the operator; inspect equipment daily</li> <li>8. Use hand tools properly and wear appropriate protective equipment</li> <li>9. Be aware that UXO may be present; do not touch suspect UXO; mark area and call TEU; follow UXO plan</li> <li>10. Wear appropriate PPE designated in SHERP for each task; initial level of PPE shall be Level D.</li> <li>11. ANSI Z41.1 approved steel toe boots shall be worn (except during use of the magnetometer).</li> <li>12. ANSI Z87.1 approved safety glasses shall be worn.</li> <li>13. ANSI Z89.1 approved hard hats shall be worn.</li> </ol>
EQUIPMENT USED	INSPECTION REQUIREMENTS	TRAINING REQUIREMENTS
Backhoe, Loaders, Hand tools; Magnetometer, Level D and/or Modified Level D PPE	Inspect heavy equipment daily Ensure hand tools are serviceable Function Check of Magnetometer	Knowledge of Proper Use of Hand Tools Proficiency with Magnetometer Personnel Have Read and Comply with SHERP Site Specific UXO Training Hazardous waste (29 CFR 1910.120) Training





### Daily Health and Safety Report

DAILY HEALTH AND SAFETY REPORT  
CONTRACT NUMBER DACA31-94-D-0020

DELIVERY ORDER NO. Delivery Order No. 003 DATE: 7-29-96  
LOCATION OF WORK: Adamsite Storage Vaults

WEATHER: Overcast RAINFALL None IN. TEMP. 69 min. max.

1. WORK PERFORMED BY FOSTER WHEELER ENVIRONMENTAL CORPORATION AND THE FOLLOWING SUBCONTRACTORS:

- |  |                                 |   |
|--|---------------------------------|---|
| <input checked="" type="checkbox"/> HFA    | <input type="checkbox"/> ONSITE |   |
| <input checked="" type="checkbox"/> KEVRIC | <input type="checkbox"/> GONZER | <input checked="" type="checkbox"/> <u>EA</u> |

2. EQUIPMENT BEING UTILIZED:

- |   |   |  |
|---|---|--|
| <input checked="" type="checkbox"/> HNU | <input checked="" type="checkbox"/> Miniram | <input type="checkbox"/> MINICAMS          |
| <input checked="" type="checkbox"/> OVA | <input type="checkbox"/> W.B.G. Therm       | <input checked="" type="checkbox"/> Radios |
| <input checked="" type="checkbox"/> CGI | <input type="checkbox"/> First Aid Kits     |  |
| <input type="checkbox"/> Monitox        | <input type="checkbox"/> ICADS              |  |

3. PERSONAL PROTECTIVE EQUIPMENT DONNED:

- |   |  |                                    |                                  |  |
|---|--|------------------------------------|----------------------------------|--|
| <input type="checkbox"/> Supplied Air Resp. | <input type="checkbox"/> MSA Respirators/GMC-H Cartridges    | <input type="checkbox"/> Level B   | <input type="checkbox"/> Level C | <input checked="" type="checkbox"/> <u>0</u> |
| <input type="checkbox"/> 5 min. Escape      | <input checked="" type="checkbox"/> Hard Hat/Safety Glasses  | <input type="checkbox"/> Ice Vests |                                  |  |
| <input type="checkbox"/> Overboots          | <input type="checkbox"/> Nitrile Gloves (surgical/overglove) | <input type="checkbox"/> Tyvek     |                                  |  |

4. AIR MONITORING DATE:

All readings at nominal background levels during operations.

SITE SAFETY AND HEALTH OFFICER: J. MORNING DATE: 7-29-96



FOSTER WHEELER ENVIRONMENTAL CORPORATION  
CALIBRATION RECORD FOR  
COMBUSTIBLE GAS INDICATOR  
SERIAL NUMBER: 11069

1. Turn instrument on (HORN OFF position). Set % LEL meter pointer to zero by adjusting the ZERO LEL control. (do this within 30 seconds). Check when complete. ✓
2. Use CALIBRATE O2 control to set it at 20.6%. If this can be done then replace the O2 cell. Check when complete. ✓
3. Press the ALARM RESET button. If the alarm light does not go out and the green pilot light begins flashing then TAG OUT unit for repair and enter note below. Check when complete. ✓
4. Check flow by placing finger momentarily over sample inlet. If indicator float does not drop to the no flow position then TAG OUT for repair and enter note below. Check, when complete. ✓
5. Check battery, recharge if necessary. Check when complete. ✓
6. Turn ON-OFF control to the ON position. If the pilot lamp does not light then TAG OUT unit for repair. Check when complete. ✓
7. Note the calibration gas % LEL 50% Pentane 14.2 O<sub>2</sub> ✓
8. Introduce calibration gas to instrument. If the meter pointer is not +/- LEL, stop the cal. gas flow and remove the right hand side (speaker panel). Turn on the flow and adjust the "S" control with a small screwdriver to obtain the reading specified for the cal. gas. When complete sign, date and record the time below.

NOTATIONS: Alarms OK

Name: J. MORNING Date: 7-29-96 Time: 0601

FOSTER WHEELER ENVIRONMENTAL CORPORATION  
CALIBRATION RECORD FOR  
MINIRAM AEROSOL MONITOR/SUNSHIELD/MODEL PDM-SNS  
SERIAL NO. FW00143

1. Turn instrument ON. Allow to warm up for several minutes.

2. MINIRAM has been factory-calibrated. To zero the unit, use a dust free office environment or employ the Z-bag calibrator.

The Z-Bag™ is a convenient kit for zeroing the MINIRAM in the field. It provides a clean-air environment inside a plastic bag into which the MINIRAM is placed for zeroing. The Z-Bag kit consists of a one-way flow rubber bulb for manual air pumping, a filter cartridge, a zippered plastic container, a connecting hardware.

To use Z-Bag for zeroing MINIRAM proceed as follows:

1. Remove rubber bulb filter assembly from Z-Bag. Place Z-Bag on flat surface with red flow fitting facing up. Flatten bag. Remove small plastic cap from flow fitting on bag.

2. Insert ribbed elbow connector (attached to filter cartridge) into red flow fitting of plastic bag, until connector is flush with bottom of red flow fitting.

3. MINIRAM should be in its OFF condition (observe display). If display is blanked, or if MINIRAM is in the MEAS mode, key OFF.

4. Open Z-Bag and place MINIRAM inside, approximately at its center.

5. Key ZERO through the open end of the Z-Bag. Immediately zip closed the Z-Bag and begin to pump hand bulb.

6. Z-Bag should inflate as hand pumping continues, up to a height of about five inches (12 cm). Continue pumping gently to maintain bag interior pressure, until the MINIRAM displays off again.

7. Unzip Z-Bag and remove MINIRAM. MINIRAM is now ready for monitoring.

8. Place rubber bulb/filter assembly inside Z-Bag, and plug small plastic cap into flow fitting to close it. Zip close while flattening Z-Bag to store it to ensure cleanliness of the bag interior.

FOSTER WHEELER ENVIRONMENTAL CORPORATION  
CALIBRATION RECORD FOR  
OVA MODEL 128  
SERIAL NO.: FW00042

Follow the start-up steps contained in the lid of the cover of the instrument for proper lighting and set-up of the instrument.

CALIBRATION range setting: X 10

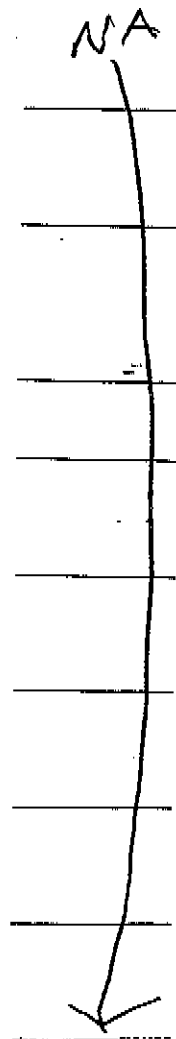
GAS SELECT control setting: 3.0

Calibration gas (methane) concentration: 100

Meter reading with calibration gas: 90

If the reading is greater than +/- 10% of the calibration gas concentration, a complete calibration is needed; otherwise the instrument can function as is. Follow the steps below, placing a check after each step, for complete calibration, if needed.

1. Set CALIBRATION to X10 and GAS SELECT control to 300.
2. Introduce zero air gas and use the CALIBRATE ADJUST knob to adjust the meter reading to zero.
3. Introduce a calibration gas standard of approximately 94 ppm methane and adjust trimpot R-32 on circuit board so that the meter reads the calibration gas concentration.
4. Turn off the H<sub>2</sub> SUPPLY VALVE to put out the flame.
5. Leave the CALIBRATE switch on X10 and use the CALIBRATE ADJUST knob to adjust the meter reading to 4 ppm.
6. Turn the CALIBRATE switch to X1. Using trimpot R-31 adjust the meter reading to 4ppm.
7. Set the CALIBRATE switch to X10 again and use the CALIBRATE ADJUST knob to set the meter reading to 40 ppm.
8. Set the CALIBRATE switch to X100 and use trimpot R-33 to adjust meter to 40 ppm.
9. Set the CALIBRATE switch to X10 and use the CALIBRATE ADJUST knob to adjust meter to zero.



FOSTER WHEELER ENVIRONMENTAL CORPORATION  
CALIBRATION RECORD FOR  
HNU MODEL DL101  
SERIAL # 567048  
PROBE SERIAL # 15  
PROBE eV: 10.2

1. Turn unit on and let warm up a few minutes. ✓
2. Check time, date and mode. Mode should be S-D for Survey Mode. ✓
3. Check low battery indicator in upper right corner ✓
4. Prepare Calibration tank, tubing and regulator. ✓
5. Press the calibration key on the front panel. CALIBRATE ? appears. ✓
6. Press enter key. ELEC ZERO ? YES appears. ✓
7. Press enter. ZEROING UNIT appears ✓
8. Next prompt will ask for gas concentration, enter proper PPM, press enter. ✓
9. ATTACH GAS TO PROBE AND/ENTER will appear. start the flow and press enter. ✓
10. PRESS ENTER WHEN READY; XXX PPM will appear, press enter when readings stabilize to complete the process. ✓
11. If unit does not calibrate to correct PPM see manual for more information. ✓
12. If unit goes to survey mode calibration is complete and ready. ✓
13. Note any maintenance performed;  
a. bulb cleaned \_\_\_\_\_ b. filter changed \_\_\_\_\_ c. Ion Chamber cleaned \_\_\_\_\_

other \_\_\_\_\_  
\_\_\_\_\_

Name: J. MORROW

Date: 7-29-96

Time: 0618

FOSTER WHEELER ENVIRONMENTAL CORPORATION  
CALIBRATION RECORD FOR  
MONITOX SERIAL # \_\_\_\_\_

1. Turn unit on test and let it warm up. \_\_\_\_\_
2. Check battery condition by observing small red light on top of unit, if its on change battery. \_\_\_\_\_
3. Prepare calibration gas cylinder by attaching regulator and tygon tubing and cap adapter. \_\_\_\_\_
4. Turn switch to on position. \_\_\_\_\_
5. Attach cap adapter to sample intake port on top right corner and turn calibration gas. \_\_\_\_\_
6. Observe readings an screen, they should begin to increase. \_\_\_\_\_
7. Alarm should begin at 5 PPM, continue to observe. \_\_\_\_\_
8. Unit should continue to alarm until 10 PPM is reached and then the alarm tone should change. \_\_\_\_\_
9. If unit fails to alarm at given PPM ranges go to manual for complete calibration procedures. \_\_\_\_\_
10. If unit responds at given PPM concentrations , unit is ready for use. \_\_\_\_\_

Comments: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Calibration Gas Concentration: \_\_\_\_\_ Brand/Type: \_\_\_\_\_

NOT USED

NAME: J. Morvay DATE: 7-29-96 TIME: 0622



# Foster Wheeler Environmental Corporation

APG Environmental Remediation

## FOLLOW-UP INSPECTION CHECKLIST

Report No. \_\_\_\_\_ Contract No. DACA31-D-94-0020 Date 7-29-96

Project Title and location Adamsite Storage - Edgewood Area  
VAVITS

Work No.	Weather	Temperature		Rainfall	Work location (grid)
	<u>Cloudy And Rain</u>	Min. <u>65°</u>	Max. <u>82°</u>	inches	

Major definable feature of work Mobilization

A. Deficiencies noted: -laborers not on site

-fencing not replaced with snow fencing

-not all material on site

B. Corrective action taken: - laborers on site

-fencing replaced with snow fencing

All work in mobilization is being performed in accordance

with the work plans

- all material for the next definable feature of work

now on site,

C. Pre-final Inspection (Attach Punch List)

Contractor's Quality Control Representative

Keith Branch

QC Systems Engineer

7-29-96

Date

# Foster Wheeler Environmental Corporation

APG Environmental Remediation

## PREPARATORY INSPECTION CHECKLIST

Report No. \_\_\_\_\_ Contract No. DACA31-D-94-0020 Date 7-29-96

Project Title and location DO#003 Adamsite Storage Vaults

Work No.	Weather	Temperature		Rainfall	Work location (grid)
	<u>OVERCAST-RAIN</u>	Min. <u>65°</u>	Max. <u>82°</u>	inches	

Major definable feature of work REMOVAL OF WATER FROM VAULTS Government Rep. Notified J. Fair, B. SANDERS

Person Responsible for conducting the work \_\_\_\_\_

A.

### Personnel Present

Name	Position	Organization
<u>JAMIE Fair</u>	<u>Project Engineer</u>	<u>USACE</u>
<u>Billy SANDERS</u>	<u>Construction Safety</u>	<u>USACE</u>
<u>MILE FOX</u>	<u>Site Superintendent</u>	<u>EA Engineering</u>
<u>JAMES Morning</u>	<u>Health and Safety</u>	<u>Foster Wheeler</u>

(List additional personnel on reverse side)

B. Submittals to be reviewed: Number: \_\_\_\_\_

Submittals reviewed and approved: Yes \_\_\_\_\_ No X

If not, explain \_\_\_\_\_

C. Materials being used are in strict compliance with the contract plans and specifications Yes X No \_\_\_\_\_

If not, explain DO INSPECTION OF VAC TRUCKS, GET INSPECTION DOCUMENTS ON TRUCK

D. Procedures and/or work methods witnessed are in strict compliance with approved shop drawings, plans and/or specifications. Yes X No \_\_\_\_\_

If not, explain DECON(ORY) VAC HOSEING FROM TRUCK, TRUCK USE SCREEN ON END OF HOSE.

E. Identify testing to be performed, frequency and by whom. N/A - WESTON PERFORMED TESTING ON WATER SAMPLES PRIOR TO FOSTER WHEELER CONTRACT.

F. Workmanship is acceptable Yes \_\_\_\_\_ No \_\_\_\_\_

Indicate areas where improvement is needed N/A

G. Safety concerns reviewed: Yes ✓ No \_\_\_\_\_

If not, explain SUBMIT ACTIVITY HAZARD ANALYSIS ON DEFINIBLE FEATURE OF WORK, OILSEAL ALL MACHINERY, ENSURE ALL SAFETY MATERIAL IS IN PLACE

H. Preliminary work: TAKE DOWN FENCING AND SOME POSTS & REPLACE WITH SNOW FENCING - SET UP DROOP CLOTHS TO CATCH AND DROPS FROM HOSE.

USACE Quality Control Representative

Keith Branch 7-29-96  
Keith Branch Date  
QC Systems Engineer

# FOSTER WHEELER ENVIRONMENTAL CORPORATION

## APG Environmental Remediation

### Quality Control of Health and Safety Instruments and Procedures Inspection Checklist

All QC inspections must be completed by a designated QC Engineer or alternate who is qualified in the operation and calibrations of health and safety instruments and procedures.

The QC Engineer should observe the calibration of health and safety instrumentation randomly, or at least once every five calibrations. The QC Engineer shall inspect the health and safety operations/forms listed below.

Quality Control No.: \_\_\_\_\_ Date Started: 7-22-96  
 Contract No.: DACA 31-94-D-0020 Project Site and Location: ADAMS Site Storage Vaults  
 QC Engineer(s): Keith Branch Date Completed: \_\_\_\_\_  
 Site Health & Safety Officer(s): James Morning

Operation/Form	Month/Day					Notes
	7/22	7/23	7/25	7/26	7/29	
Calibration Log Completed	✓	✓	✓	✓	✓	Activity hazard analysis prepared for all definable activities in work
Daily Briefing Log Completed	✓	✓	✓	✓	✓	
Daily Instrument Source/Background Check Form (for each instrument used)	✓	✓	✓	✓	✓	
Daily Health & Safety Report Form	✓	✓	✓	✓	✓	
Sign In Log for Work Zones	N/A	N/A	N/A	N/A	✓	
Proper Donning and Doffing of PPE	N/A	N/A	N/A	N/A	N/A	
Air Monitoring/Sampling Form	✓	✓	✓	✓	✓	
In Compliance with SHERP & SOPs	✓	✓	✓	✓	✓	
H & S Violations	None	None	None	None	None	
Heat and Cold Stress Monitoring	✓	✓	✓	✓	✓	
All OSHA Forms Up to Date	✓	✓	✓	✓	✓	
SHERP Review for All Personnel	✓	✓	✓	✓	✓	
Delineation of Work Zones	✓	✓	✓	✓	✓	
Shower Trailer Inspection	N/A	N/A	N/A	N/A	N/A	

**Foster Wheeler Environmental Corporation**  
**APG Environmental Remediation**

**DAILY CONSTRUCTION QUALITY CONTROL REPORT**

Daily Report No.: 074 Date: July 30, 1996 (Tues.)

Contract No.: DACA31-94- D-0020

Project Title & Location: DO #0003, Adamsite Storage Vaults - Edgewood Area

Weather: Overcast  
with Rain Precipitation: 1.0 in. Temp: Min. 71°F Max. 84°F

Personnel On Site: USACE (2), ERDEC (0), FWENC (3), EA (1), HFA (0), KEVRIC (3),  
DSHE (4), CHEM WASTE MANAGEMENT (1)

Summary of Major Work Activities:

- Sediment/Debris Removal (Work Plan Section 2.2.3)
- Removal of 15,000 + gallons of water from Vaults by vacuum Tanker truck
- Stage Roll off dumpsters on site
- Start sediment removal in vaults

1. Work Performed by Foster Wheeler Environmental Personnel: (Indicate location and description of work performed by prime and/or subcontractors. When network analysis is used, identify work by NAS activity number).

K. Branch, QC Engineer, provided oversight to ensure quality work would be performed according to the work plan (Work Plan Section 2.2.3). Mr Branch oversaw the removal of water from the vaults. Chem Waste Management (Contractor for DSHE) arrived on site at 0750 with a vacuum tanker trunk (5500 gal) to remove water from the vaults. The drivers daily inspection log was checked and was current. The volume of water required three (3), trucks to remove all the water from the storage Vaults. The first truck to arrive was #529, then 531, and finally 529 again. The total estimated volume of water sent for disposal was 15,900 gallons. The Kevric laborers manned the hose during the operation and started sediment removal in the drained northeast vault in modified "D" protection (Saranax, nitrile gloves, over boots, and face shields). For list of personnel on site during the operation see attached daily site/entry log. A Preparatory Inspection was conducted by Mr B. Sanders (USACE) on the Sediment removal during a break in the operation. Bel Air trash service delivered (2) roll off containers for the roofing structure metal (container #629,879).

J. Morning (Site Safety and Health Officer-SSHO) conducted a health and safety briefing (See Attached Daily Briefing Sign-In Sheet). During the briefing, all site personnel were briefed on site activities, and possible hazards associated with the removal of water and sediment from the vaults.

---

The SSHO utilized chemical monitoring equipment today during removal activities.

---

The SSHO monitored meteorological conditions including temperature (wet bulb global thermometer) and wind direction (with wind socks) (Work Plan Section 4.10.2)

---

T. Reese, Project Manager, was on site to monitor activities associated with Adamsite Water removal from the vaults by Chem Waste Management. Mr Reese took photos of the Adamsite Storage Vaults, and the support zones. Chem Waste Management mentioned that they could supply a roll off with absorbent that would catch any remaining water, and would allow a greater volume to be removed at once (vs 55 gallon drums). Mr Reese will discuss this with the USACE and inform Mr Fox (Site Superintendent) with a decision on 31 July, 1996.

---

#### Work Performed by Subcontractors:

M. Fox, Superintendent, conducted a pre-operational meeting to review the planned site activities for Water and Sediment removal at Adamsite Storage Vaults. Mike escorted Chesapeake rental on site at 0530 to replace cylinder on Daewoo Grappler, and to grease both machines. Mr Fox, coordinated the laborers work with Chem Waste Management to assist in the manning the hose used to retrieve the water from the vaults, and decon of the material used in the vaults. (Work Plan Add #1, Sect. 2.3.9).

---

The Kevric laborers completed the following tasks: Assisted Chem Waste Management in the manning of the hose used to draw water from the Adamsite Vaults. The laborers entered the N.E vault in modified level D (Saranax, gloves, over boots, and face shields) and began sweeping sediment into piles for pick up tomorrow.

---

The Kevric equipment operator assisted the Site Superintendent and Health and Safety Officer thru out the days activities.

---

Mr. Carl Reitenbach (EA Engineering) Project Manager was not on site to monitor activities.

---

2. Operating Plant or Equipment Utilized, Mob. and/or Demo. (Not hand tools)

Equipment Utilized: Vacuum Tanker Trucks (3 ), (2) 20' extension ladders , Air monitoring equipment (CGL,FID,PID,OVA), (1) minivan, (1) full size 4x4 pick up truck (1) small pick-up truck (3) 2way Radios (1) Cellular Phone

---

3. Control Activities Performed:

Preparatory Inspections: (Identify feature of work and attach minutes).

Initial Inspections: (Identify feature of work and attach minutes).

Daily QC of Health and Safety Instruments and Procedures Inspection Checklist (See Attached)

---

Preparatory Inspection Checklist (See Attached)

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Follow-up Inspection Checklist (See Attached)

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4. Tests performed and Test Results: (Identify test requirement by paragraph number in specifications and/or sheet number in plans).

Periodic air-monitoring data results were reported by the SSHO. No results were found above background. This information is recorded in the SSHO's Daily Health and Safety Report.

---

5. Material Received: (Note inspection results and storage provided)

(3) Chem Waste Management Contractor vacuum tanker trucks

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6. Waste Generated and/or Disposed:

15,000+ gallons of contaminated water (Transported for disposal)

---

PPE used by entry team into vaults was generated

---

7. Off site Surveillance Activities, Including Action Taken:

No off site surveillance activities occurred this date.

8. Job Safety: (List items checked, results, instructions and corrective actions taken)

Total Manhours Worked to Date: 221 hours Total Number of Days Worked on Site: 6 days  
Total Manhours Worked with No Lost Time Accidents: 221 hours Total Number of Lost Time  
Accidents on the Site to Date: 0

Air monitoring readings were taken with the FID, PID, and CGI.

9. Remarks: (Instructions received or given. Conflict(s) in Plans and/or specifications.  
Delays encountered.)

B. Sanders and J. Fair (USACE/ERRO-OSR) was on site to view removal of water from Adamsite  
Storage Vaults and conducted a Preparatory Inspection for sediment removal from the Adamsite  
Storage Vaults. No Deficiencies were noted.

10. Attachments:

Daily Construction Log/Manpower Report (FWENC & EA)

Daily H&S Report (SSHO Daily Log, Calibration Records (CGI, PID, OVA, Activity/Task Hazard  
Analysis), Site Entry/ Exit Log, Air Monitoring Results

Follow up Inspection Checklist (See Attached)

Preparatory Inspection Checklist

QC Health and Safety Instrument & Procedures Inspection Check list

Contractor's Verification: On behalf of the Contractor, I certify that this report is complete and correct, and all materials and equipment used and work performed during this reporting are in compliance with the contract plans and specifications, to the best of my knowledge, except as may be noted above.

Keith Branch                      7-30-96  
Keith Branch                              Date  
QC Systems Engineer





## FOSTER WHEELER ENVIRONMENTAL CORPORATION

Page of

DAILY CONSTRUCTION LOG/MANPOWER REPORT  
DAILY REPORT #: 05Client: US Army Corps of Engineers, ERRO, Baltimore DistrictDate: 7-30-96Project: Delivery Order #0003, Site 3, Adamsite Storage Vaults, Edgewood Area, APG FW Proj. #: DACA31-94-D-0020Wind: 5 to 10 mphTemperature: (Hi/Low): 60-80Sky: CloudyPrecipitation: Heavy Rain Am till noon

LEVEL OF PROTECTION REQUIRED

A B C

(D) (circle) (required in work zone)

TIME	REMEDICATION & SITE ACTIVITIES REMARKS/COMMENTS/ACCOMPLISHMENTS/DELAYS
0530	On site health & safety briefing also went over work to be done on this day. Chesapeake Supply on site to make repairs to grapple.
0600	Lower snow fence in front of work area, moved sand bags & 6mil & 40 mil plastic into this area.
0700	Set up area for Chem waste to be able to start pumping from NE vault.
0800	Chem waste on site w/TK #529 & trailer # VT23 went through health & safety briefing. Pumped this truck full took 45 min & lowered water 6" started at 16"
0900	Belair Tush on site with dumpster #879 (3044th) & Chesapeake Supply finished with repairs to grapple.
1000	Heavy rain at this time, waited out rain in convey box & trailer.
1035	Chem waste back on site with TK #531 trailer #322.
1115	This tanker is full with water from NE vault will have next truck finish this area & start SE vault.
1200	Heavy rain continues to fall was unable to accomplish very much at this time. Set up area with equipment to make entry in order to assist with vac truck hose.
1300	Chem waste back on site w/TK #529 & #191 finished with NE vault started SE vault. Two men entered SE vault moved
1400	d debris (wood, tin) into one end of vault also moved vac hose around to pump out last of water. Broomed water in this
1500	area finish pumping this area. Belair Tush on site with 2nd

EA RTI DAILY LOG

Report Number 05 Project Name Adams site  
 Location AP# 6083403  
 Date 7/30/96 Contract Officer \_\_\_\_\_

Description of Work Health Safety briefing, Chesapeake supply on site to repair generator. Belair truck with 30 yard dumpster #879, Chem waste on site to pump vaults started with NE Vault setup work area in order to to pump from vaults 2nd dumpster on site reset snow fence secured site

PERSONNEL ONSITE

Company Name	Employee	Time in	Time out	Total Hours
<u>EA</u>	<u>M Fox</u>	<u>5:30</u>	<u>5:00</u>	<u>11.5hrs</u>
<u>Keuric</u>				
<u>3 laborers</u>		<u>5:30</u>		
<u>1 Operator</u>		<u>5:30</u>		

EQUIPMENT ONSITE

Description	Date arrived	Date left	EA Owned	Rented	Total Days Used
<u>F350 Ford</u>	<u>7/24</u>		<input checked="" type="checkbox"/>		<u>5</u>
<u>235 CAT Shear</u>				<input checked="" type="checkbox"/>	
<u>180h Dacuso generator</u>				<input checked="" type="checkbox"/>	
<u>Drum lifts</u>			<input checked="" type="checkbox"/>		
<u>beds</u>			<input checked="" type="checkbox"/>		
<u>2 way tent</u>			<input checked="" type="checkbox"/>		

Any Inspections? NO If so, time and name of inspector. \_\_\_\_\_

What kind of inspection \_\_\_\_\_

Weather Conditions Clear \_\_\_\_\_ Cloudy  Rain  Temp 60

On Schedule? yes  no \_\_\_\_\_

Any lost time accidents on this date? yes \_\_\_\_\_ no

Have you had your daily safety meeting? yes  no \_\_\_\_\_

Safety concerns Insects (bees, ticks) & Snakes

Remarks 9:45 Heavy Rain

M. Fox 7/30/96  
 Construction Superintendent Date

\_\_\_\_\_  
 Construction Manager Date





1. VERBAL/Written GUIDANCE (LIST INDIVIDUAL):

2. CONTROVERSIAL MATTERS:

None

3. SAFETY:

LEVEL OF PPE: Modified level D for workers who SSHO: \_\_\_\_\_  
Entered site (Saxmax, gloves, overboots, Face shield)

4. SEC PLAN MEASURES INSTALLED: YES NO NONE REQUIRED

ADDITIONAL MEASURES TAKE TO STABILIZE SITE: N/A5. MINICAM STANDARDS REQUIRED/DATE: N/A

MINICAM STANDARDS RECEIVED/DATE: \_\_\_\_\_

6. CSM SCREENING REQUIRED: YES NO HOLDING TIME: \_\_\_\_\_

SEND TO CTF: YES NO

DATE/TIME: \_\_\_\_\_

N/A

7. SAMPLES SENT TO LAB: YES NO NUMBER/TYPE \_\_\_\_\_

LAB USED: N/A

LAB APPROVED: YES NO

SAMPLING PERFORMED: (method, type, number taken, analysis expected and who was responsible for sampling/shipment)

AROUND TIME REQUIRED: N/A EXPECTED: \_\_\_\_\_

QA SAMPLES SENT TO COE LAB: YES NO DATE: \_\_\_\_\_

N/A

8. "DIAL 17" REQUIRED: (give details, times, reason, who called, debriefing, follow-up, include UXO receipt)

9. NUMBER DRUMS/CONTAINERS WASTE GENERATED THIS DAY: (3) 5,900 Gallon TANKER TRUCKS  
CONTENTS: WATER FROM ADAM SITE VENTS FROM CHEM WASTE MGMT

NUMBER OF WOODEN BOXES/SKIDS/ETC. GENERATED THIS DAY:

CONTENTS:

TOTAL NUMBER AT SITE THIS DATE:

BOXES \_\_\_\_\_

DRUMS \_\_\_\_\_

SKIDS \_\_\_\_\_

FWES REPRESENTATIVE: Leith Branch QC Engineer

Name/Title

USACE SIGNATURE \_\_\_\_\_

Name/Title

Date: 7.30.96

Date: \_\_\_\_\_



FOSTER WHEELER ENVIRONMENTAL CORPORATION

DAILY BRIEFING SIGN-IN SHEET

Date: 7-30-96

Project Name/Location: Adams Site

Shift/Department: DAY

Person Conducting Briefing: JAMES MORUNG

1. DAILY ACTIVITIES

TASKS	SP CONTROLS/PPE
1. <u>OK</u>	<u>VAC work</u>
2. <u>VAC water from vaults</u>	<u>OK</u>
3. <u>Prep site</u>	<u>PID</u>
4.	
5.	

2. AWARENESS (e.g., special HS concerns, recent incidents, etc.):

SLIP TRIP FALL  
HAZARD ANALYSIS X2 Vault Entry - VAC water  
Pinch points  
NON-HAZARDOUS CONFINED SPACE

3. OTHER ISSUES (HASP changes, attendee comments, etc.):

\_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

4. ATTENDEES (Print Name):

1. <u>FRANCIS HUNTER LEWIS</u>	11.
2. <u>Keith Prunch KW</u>	12.
3. <u>Robert Jeffers Keuric</u>	13.
4. <u>Michael Fox EA</u>	14.
5. <u>KEN WAIRPEN DSHA</u>	15.
6.	16.
7.	17.
8.	18.
9.	19.
10.	20.



DAILY HEALTH AND SAFETY REPORT  
DAILY REPORT #: 06

Client: US Army Corps of Engineers, ERRO, Baltimore DistrictDate: 7-30-90Project: Delivery Order #0003, Site 3, Adamsite Storage Vaults, Edgewood Area, APG FW Proj.#: DACA31-94-D-0020Wind: Out of GTemperature: (Hi/Low): 71° - 81Sky: OVERCASTPrecipitation: RAINY

LEVEL OF PROTECTION REQUIRED

A

B

C

(D)

(circle) (required in work zone)

TIME	REMEDICATION & SITE ACTIVITIES REMARKS/COMMENTS/ACCOMPLISHMENTS/DELAYS
0530	Held Health & Safety Briefing @ Parking Lot, See Sign in Sheet for Details, ATTENDANCE.
0545	Bridged in Post 12 Gate, Go to Support Zone to Get EQUIP - See Col LOGS, Also, please check of
0610	Crews begin Daily Activity, MONITOR HAZARD ANALYSIS FOR LIQUID REMOVALS @ VAULTS.
0800	DSHE AND VAC TRUCK SHOW UP, GO OVER HAZARD ANALYSIS w/ entire crew, checked Background @ VAULT - Normal, See Air Monitoring LOG Sheet
0815	Containment & Equip Set-up Begin OP'S, Check AO - Got high readings @ VAC TRUCK EXHAUST, TAPED OFF AO AND INFORMED CREWS, Col - OK, ACOE B Sanders ON Site w/ Paul Harvey of DSITE w/ Chem WASTE VAC TRUCK CONTRACTOR, ALL THESE ANK FITTINGS APPEAR TIGHT.
0845	TRUCK FULL, DEPARTS
0900	Crews take break, checked AO - OK
0925	RAIN IS PICKING UP, CREWS ARE POLICING AO
0948	HARD DOWN POUR, CREWS SEEK COVER
	Standing by, waiting for VAC TRUCK TO RETURN.
1023 1/2	2nd VAC TRUCK ARRIVES, STILL RAINING, BEGIN OPERATION'S. Check AO - No readings above Action
1115	2nd TRK DEPARTS SITE, CREWS RETURN TO Prep AO
1330	3rd TRK ARRIVES, BEGIN Set-up, Check AO VAULT PORTS @ Medical BACK Ground



DAILY HEALTH AND SAFETY REPORT

DAILY REPORT #: 06

Client: US Army Corps of Engineers, ERRO, Baltimore District

Date: 7-30-96

Project: Delivery Order #0003, Site 3, Adamsite Storage Vaults, Edgewood Area, APG FW, Proj.#: DACA31-94-D-0020

Wind: out of SE

Temperature:(Hi/Low): 70-84

Sky: overcast

Precipitation: RAIN

LEVEL OF PROTECTION REQUIRED A B C D (circle) (required in work zone)

REMEDATION & SITE ACTIVITIES

TIME

REMARKS/COMMENTS/ACCOMPLISHMENTS/DELAYS

1341	check 52, 6R2, 57, and vaults interior No readings above Action Levels, Backgrounds Normal, call Edgewood Fire Dept - notified of Confined Space
1400	Crews ENTER E-2 (VAULT) J. Wolford, FRANCES, Level D MRO - Sarcos and Splash Shields.
1445	Crew Exits E-2 for Heat Stress Breaks
1500	Crew RE-Enters E-2 checked 132- NO Readings Above Action Levels
1530	Crew Exits and Decons, Begin Site Shut down
1545	Roll off Arrives, Secure Site
1600	Depart to Admin.

*[Handwritten signature]*







### Daily Health and Safety Report

DAILY HEALTH AND SAFETY REPORT  
CONTRACT NUMBER DACA31-94-D-0020

DELIVERY ORDER NO. Delivery Order No. 003  
LOCATION OF WORK: Adamsite Storage Vaults

DATE: 7-30-96

WEATHER: Overcast RAINFALL: 0.00x IN. TEMP: 71 min. 84 max.

1. WORK PERFORMED BY FOSTER WHEELER ENVIRONMENTAL CORPORATION AND THE FOLLOWING SUBCONTRACTORS:

- |  |                                 |   |
|--|---------------------------------|---|
| <input checked="" type="checkbox"/> HFA/NO | <input type="checkbox"/> ONSITE | <input checked="" type="checkbox"/> ChemWaste |
| <input checked="" type="checkbox"/> KEVRIC | <input type="checkbox"/> GONZER | <input checked="" type="checkbox"/> EA        |

2. EQUIPMENT BEING UTILIZED:

- |   |  |  |
|---|--|--|
| <input checked="" type="checkbox"/> HNU     | <input checked="" type="checkbox"/> Miniram        | <input type="checkbox"/> MINICAMS          |
| <input type="checkbox"/> OVA                | <input checked="" type="checkbox"/> W.B.G. Therm   | <input checked="" type="checkbox"/> Radios |
| <input checked="" type="checkbox"/> CGI     | <input checked="" type="checkbox"/> First Aid Kits |  |
| <input checked="" type="checkbox"/> Monitox | <input type="checkbox"/> ICADS                     |  |

3. PERSONAL PROTECTIVE EQUIPMENT DONNED:

Level B  Level C

- |   |   |   |
|---|---|---|
| <input type="checkbox"/> Supplied Air Resp.   | <input type="checkbox"/> MSA Respirators/GMC-H Cartridges               | <input type="checkbox"/> Ice Vests        |
| <input type="checkbox"/> 5 min. Escape        | <input checked="" type="checkbox"/> Hard Hat/Safety Glasses             | <input checked="" type="checkbox"/> Tyvek |
| <input checked="" type="checkbox"/> Overboots | <input checked="" type="checkbox"/> Nitrile Gloves (surgical/overglove) |   |





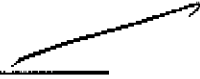
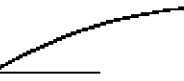
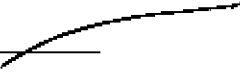
4. AIR MONITORING DATE:

All readings at nominal background levels during operations.

SITE SAFETY AND HEALTH OFFICER: J. MORNW6

DATE: 7-30-96

FOSTER WHEELER ENVIRONMENTAL CORPORATION  
CALIBRATION RECORD FOR  
COMBUSTIBLE GAS INDICATOR  
SERIAL NUMBER: 11069

1. Turn instrument on (HORN OFF position).. Set % LEL meter pointer to zero by adjusting the ZERO LEL control. (do this within 30 seconds). Check when complete. 
2. Use CALIBRATE O2 control to set it at 20.6%. If this can be done then replace the O2 cell. Check when complete. 
3. Press the ALARM RESET button. If the alarm light does not go out and the green pilot light begins flashing then TAG OUT unit for repair and enter note below. Check when complete. 
4. Check flow by placing finger momentarily over sample inlet. If indicator float does not drop to the no flow position then TAG OUT for repair and enter note below. Check, when complete. 
5. Check battery, recharge if necessary. Check when complete. 
6. Turn ON-OFF control to the ON position. If the pilot lamp does not light then TAG OUT unit for repair. Check when complete. 
7. Note the calibration gas % LEL 5.8% Pentane 44, 202 
8. Introduce calibration gas to instrument. If the meter pointer is not +/- LEL, stop the cal. gas flow and remove the right hand side (speaker panel). Turn on the flow and adjust the "S" control with a small screwdriver to obtain the reading specified for the cal. gas. When complete sign, date and record the time below.

NOTATIONS:

ALARMS OK

Name:

J. MORNING

Date:

7-30-76

Time:

0600

FOSTER WHEELER ENVIRONMENTAL CORPORATION  
CALIBRATION RECORD FOR  
MINIRAM AEROSOL MONITOR/SUNSHIELD/MODEL PDM-SNS  
SERIAL NO. FW 00143

1. Turn instrument ON. Allow to warm up for several minutes.
2. MINIRAM has been factory-calibrated. To zero the unit, use a dust free office environment or employ the Z-bag calibrator.

The Z-Bag™ is a convenient kit for zeroing the MINIRAM in the field. It provides a clean-air environment inside a plastic bag into which the MINIRAM is placed for zeroing. The Z-Bag kit consists of a one-way flow rubber bulb for manual air pumping, a filter cartridge, a zippered plastic container, a connecting hardware.

To use Z-Bag for zeroing MINIRAM proceed as follows:

1. Remove rubber bulb filter assembly from Z-Bag. Place Z-Bag on flat surface with red flow fitting facing up. Flatten bag. Remove small plastic cap from flow fitting on bag.
2. Insert ribbed elbow connector (attached to filter cartridge) into red flow fitting of plastic bag, until connector is flush with bottom of red flow fitting.
3. MINIRAM should be in its OFF condition (observe display). If display is blanked, or if MINIRAM is in the MEAS mode, key OFF.
4. Open Z-Bag and place MINIRAM inside, approximately at its center.
5. Key ZERO through the open end of the Z-Bag. Immediately zip closed the Z-Bag and begin to pump hand bulb.
6. Z-Bag should inflate as hand pumping continues, up to a height of about five inches (12 cm). Continue pumping gently to maintain bag interior pressure, until the MINIRAM displays off again.
7. Unzip Z-Bag and remove MINIRAM. MINIRAM is now ready for monitoring.
8. Place rubber bulb/filter assembly inside Z-Bag, and plug small plastic cap into flow fitting to close it. Zip close while flattening Z-Bag to store it to ensure cleanliness of the bag interior.

FOSTER WHEELER ENVIRONMENTAL CORPORATION  
CALIBRATION RECORD FOR  
OVA MODEL 128  
SERIAL NO.: FU00042

Follow the start-up steps contained in the lid of the cover of the instrument for proper lighting and set-up of the instrument.

CALIBRATION range setting: X10

GAS SELECT control setting: 3.0

Calibration gas (methane) concentration: 100

Meter reading with calibration gas: 98

If the reading is greater than +/- 10% of the calibration gas concentration, a complete calibration is needed; otherwise the instrument can function as is. Follow the steps below, placing a check after each step, for complete calibration, if needed.

1. Set CALIBRATION to X10 and GAS SELECT control to 300.
2. Introduce zero air gas and use the CALIBRATE ADJUST knob to adjust the meter reading to zero.
3. Introduce a calibration gas standard of approximately 94 ppm methane and adjust trimpot R-32 on circuit board so that the meter reads the calibration gas concentration.
4. Turn off the H<sub>2</sub> SUPPLY VALVE to put out the flame.
5. Leave the CALIBRATE switch on X10 and use the CALIBRATE ADJUST knob to adjust the meter reading to 4 ppm.
6. Turn the CALIBRATE switch to X1. Using trimpot R-31 adjust the meter reading to 4 ppm.
7. Set the CALIBRATE switch to X10 again and use the CALIBRATE ADJUST knob to set the meter reading to 40 ppm.
8. Set the CALIBRATE switch to X100 and use trimpot R-33 to adjust meter to 40 ppm.
9. Set the CALIBRATE switch to X10 and use the CALIBRATE ADJUST knob to adjust meter to zero.

NA



FOSTER WHEELER ENVIRONMENTAL CORPORATION  
CALIBRATION RECORD FOR

HNU MODEL DL101  
SERIAL # 5670178  
PROBE SERIAL # 71  
PROBE eV; 10.2

1. Turn unit on and let warm up a few minutes.
2. Check time, date and mode. Mode should be S-D for Survey Mode.
3. Check low battery indicator in upper right corner
4. Prepare Calibration tank, tubing and regulator.
5. Press the calibration key on the front panel. CALIBRATE ? appears.
6. Press enter key. ELEC ZERO ? YES appears.
7. Press enter. ZEROING UNIT appears
8. Next prompt will ask for gas concentration, enter proper PPM, press enter. 100
9. ATTACH GAS TO PROBE AND/ENTER will appear. start the flow and press enter.
10. PRESS ENTER WHEN READY; XXX PPM will appear, press enter when readings stabilize to complete the process. 91
11. If unit does not calibrate to correct PPM see manual for more information.
12. If unit goes to survey mode calibration is complete and ready.
13. Note any maintenance performed;  
a. bulb cleaned \_\_\_\_\_ b. filter changed \_\_\_\_\_ c. Ion Chamber cleaned

other OK

Name: J MORRIN G

Date: 7-30-88

Time: 06 20

FOSTER WHEELER ENVIRONMENTAL CORPORATION  
CALIBRATION RECORD FOR  
MONITOX SERIAL # \_\_\_\_\_

1. Turn unit on test and let it warm up. \_\_\_\_\_
2. Check battery condition by observing small red light on top of unit, if its on change battery. \_\_\_\_\_
3. Prepare calibration gas cylinder by attaching regulator and tygon tubing and cap adapter. \_\_\_\_\_
4. Turn switch to on position. \_\_\_\_\_
5. Attach cap adapter to sample intake port on top right corner and turn calibration gas. \_\_\_\_\_
6. Observe readings an screen, they should begin to increase. \_\_\_\_\_
7. Alarm should begin at 5 PPM, continue to observe. \_\_\_\_\_
8. Unit should continue to alarm until 10 PPM is reached and then the alarm tone should change. \_\_\_\_\_
9. If unit fails to alarm at given PPM ranges go to manual for complete calibration procedures. \_\_\_\_\_
10. If unit responds at given PPM concentrations , unit is ready for use. \_\_\_\_\_

Comments: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Calibration Gas Concentration: \_\_\_\_\_ Brand/Type: \_\_\_\_\_

*NOT USED*

NAME:

*J MORNING*

DATE:

*7-30-96*

TIME:

*0625*



## ACTIVITY HAZARD ANALYSIS

Project: ADAMSITE STORAGE VAULT  
 Activity: Remove Liquids from Vaults

Location: APG MD

MAJOR STEPS	POTENTIAL HAZARDS	PROTECTIVE MEASURES/CONTROLS
<p>Set up Exclusion Zone            Perform Baseline Air Monitoring            Inspect Vac Truck and equipment            Prep Containment for hoses and truck            Check Breathing Zone and Down Wind EZ Perimeter            Hook up hoses and place in vaults at wall in a safe manner away from open area            Place Containment under connections            Remove hoses from one vault and place in other without dripping water outside exclusion zone            Wipe/decon hoses and all contaminated equipment            Decon Equipment            Decon Personnel</p>	<p>Slip, Trip, Fall            Pinch Points            Exposure to possible contamination            Contamination of equipment            Splashing            Fall into vault-open            Spills            Heat/Cold Stress</p>	<p>Prepare Work Zones, Maintain House Keeping            Proper PPE            Good Demarcation            Poly barrier for hoses or truck            Decontamination supplies            Observe Weather Conditions            BUDDY system</p>
EQUIPMENT USED	INSPECTION REQUIREMENTS	TRAINING REQUIREMENTS
<p>CGI, OVA, Monitor, Level D mod, Sampling Equipment, Decon Equipment, Splash protection Containment, Vac Truck</p>	<p><i>see attached</i> Equipment Calibrations, EZ&amp;CRZ set up.</p>	<p>Knowledge of Equipment, Site Specific, HAZWOPER training, Level D Modified Training.</p>

## TASK SPECIFIC HAZARD ANALYSIS

Project: Adamsville Vaults Activity: Sediment Removal / Page 15		Location: Aberdeen, Maryland	
MAJOR STEPS	POTENTIAL HAZARDS	PROTECTIVE MEASURES/CONTROLS	
<p>Set up Exclusion Zone Set Up CRZ and Decon Line Place Ladders and secure Perform air monitoring Place Drums and equipment in vault Shovel materials in drum and secures lid Place drum in drum track and move to exit point Install drum removal apparatus Instruct operator on lifting movements clear the lifting area Decon drum and apparatus Go to next unit.</p>	<ol style="list-style-type: none"> <li>1. Manual lifting and material handling</li> <li>2. Biological hazards</li> <li>3. Head/Cold Stress</li> <li>4. Slips, trips, and falls</li> <li>5. Inclement weather</li> <li>6. Noise</li> <li>7. Operating heavy equipment</li> <li>8. Pinch, Cut, and smash</li> <li>9. Dropped objects</li> <li>10. Eye injury</li> <li>11. Head injury</li> <li>12. Back injury</li> </ol>	<ol style="list-style-type: none"> <li>1. Instruct personnel in proper lifting techniques</li> <li>2. Wear insect repellent; follow procedures for tick bites and snake bites; and be aware of poisonous plants</li> <li>3. During hot or cold weather monitor personnel for symptoms of heat or cold stress; Instruct personnel to recognize symptoms of heat or cold stress</li> <li>4. Maintain work areas safe and orderly; unloading areas should be on even terrain; mark and repair if possible tripping hazards; reduce slip hazards.</li> <li>5. Monitor weather conditions daily</li> <li>6. Conduct noise monitoring if deemed necessary by the SSHO; wear hearing protection</li> <li>7. Only trained personnel shall operate heavy equipment; personnel should remain in the site of the operator; inspect equipment daily</li> <li>8. Use hand tools properly and wear appropriate protective equipment</li> <li>9. ANSI Z41.1 approved steel toe boots shall be worn (except during use of the magnetometer).</li> <li>10. ANSI Z87.1 approved safety glasses shall be worn.</li> <li>11. ANSI Z89.1 approved hard hats shall be worn.</li> <li>12. Instruct personnel in proper lifting techniques</li> </ol>	
EQUIPMENT USED	INSPECTION REQUIREMENTS	TRAINING REQUIREMENTS	
<p>FID,PID,COI,PDM,Ladders,Rope,Shovels,Drum Truck,Drum Apparatus, Grapplet,Decon equipment,Level D Mod PPE,Drums,</p>	<p>All hand tools, Heavy Equipment, Calibration of instruments, PPE, Ladders, Drums</p>	<p>Knowledge of Proper Use of Hand Tools Personnel Have Read and Comply with SHERP Hazardous waste (29 CFR 1910.120) Training</p>	

## ACTIVITY HAZARD ANALYSIS

Project: Adamantite Storage Vaults  
 Activity: Entry/Exit of Storage Vaults

Location: Aberdeen, Maryland

MAJOR STEPS	POTENTIAL HAZARDS	PROTECTIVE MEASURES/CONTROLS
<ul style="list-style-type: none"> <li>● Prep decon exit</li> <li>● Inspect Equipment</li> <li>● Place ladders inside storage vault</li> <li>● Secure inside ladder</li> <li>● Place ladder or stairway outside of storage vault</li> <li>● Secure ladder or stairway</li> <li>● Enter storage vault</li> <li>● Shovel sediment into drums</li> <li>● Close/seal drum</li> <li>● Setup for lifting drums out of storage vault</li> <li>● Inspect sling</li> <li>● Place sling around drum</li> <li>● Exit storage vault</li> <li>● Lift drum out from storage vault</li> <li>● Decontaminate equipment</li> <li>● Decontaminate personnel</li> </ul>	<ol style="list-style-type: none"> <li>1. Manual lifting and material handling</li> <li>2. Heat/Cold Stress</li> <li>3. Slips, trips, and falls</li> <li>4. Pinch, Cut, and smash</li> <li>5. Dropped objects</li> <li>6. Eye injury</li> <li>7. Head injury</li> <li>8. Splashing</li> </ol>	<ol style="list-style-type: none"> <li>1. Instruct personnel in proper lifting techniques</li> <li>2. During hot or cold weather monitor personnel for symptoms of heat or cold stress; Instruct personnel to recognize symptoms of heat or cold stress</li> <li>3. Maintain work areas safe and orderly; unloading areas should be on even terrain; mark and repair if possible tripping hazards; reduce slip hazards.</li> <li>4. Use hand tools properly and wear appropriate protective equipment</li> <li>5. ANSI Z41.1 approved steel toe boots shall be worn (except during use of the magnetometer).</li> <li>6. ANSI Z87.1 approved safety glasses shall be worn.</li> <li>7. ANSI Z89.1 approved hard hats shall be worn.</li> <li>8. Wear appropriate PPE designated in SHERP for each task; initial level of PPE Modified D.</li> </ol>
EQUIPMENT USED	INSPECTION REQUIREMENTS	TRAINING REQUIREMENTS
<p>Hand Tools, Approved Ladder, Rope, Shovels,            55 Gallon Steel Drums, Drum Sling,            Decontamination Equipment, PFD/PID,            CG/FO2, Miniram, Modified Level D PPE</p>	<p>Ensure hand tools are serviceable            Inspect and calibrate detector daily            Inspect ladders daily            Insure ladders are secure prior to use            Inspect drum sling prior use</p>	<p>Knowledge of Proper Use of Hand Tools            Personnel Have Read and Comply with SHERP            Hazardous waste (29 CFR 1910.120) Training</p>

# Foster Wheeler Environmental Corporation

*APG Environmental Remediation*

## FOLLOW-UP INSPECTION CHECKLIST

Report No. #06 Contract No. DACA31-D-94-0020 Date 7-30-96

Project Title and location ADAMSITE VAULTS - Edgewood Area

Work No.	Weather	Temperature		Rainfall	Work location (grid)
		Min.	Max.		
	Rain			1+ inches	

Major definable feature of work SEDIMENT/WATER REMOVAL

A. Deficiencies noted: - Needed more hose on VAC Truck  
- workers in Vault in satamax were becoming  
exhausted and NOT coming out.

B. Corrective action taken: - TASK completed no Action required  
- Recommended a break and will require better  
Time Monitoring

C. Pre-final Inspection (Attach Punch List)

Contractor's Quality Control Representative

Keith Branch

QC Systems Engineer

7-30-96

Date

# Foster Wheeler Environmental Corporation

APG Environmental Remediation

## PREPARATORY INSPECTION CHECKLIST

Report No. 03 Contract No. DACA31-D-94-0020 Date 7-30-96

Project Title and location DO#003 Adamsite Storage Vaults

Work No.	Weather	Temperature		Rainfall inches	Work location (grid)
		Min.	Max.		
	<u>Overcast / Rain</u>				

Major definable feature of work Removal of Sediment / metal debris Government Rep. Notified J. Fair, B. Sanders

Person Responsible for conducting the work \_\_\_\_\_

A.

### Personnel Present

Name	Position	Organization
<u>Billy Sanders</u>	<u>Construction Rep</u>	<u>USACE</u>
<u>Mike Fox</u>	<u>Site Superintendent</u>	<u>EA</u>

(List additional personnel on reverse side)

B. Submittals to be reviewed: Number: \_\_\_\_\_

Submittals reviewed and approved: Yes \_\_\_\_\_ No X

If not, explain \_\_\_\_\_

C. Materials being used are in strict compliance with the contract plans and specifications Yes X No \_\_\_\_\_

If not, explain All material and equipment is in working condition and comply with the contract plans and specifications. (55 gallon drums, 20' extension ladder, Dism lifter, straps, shovels, hoes, etc.)

D. Procedures and/or work methods witnessed are in strict compliance with approved shop drawings, plans and/or specifications. Yes X No \_\_\_\_\_

If not, explain no established procedure to perform work in compliance with

E. Identify testing to be performed, frequency and by whom. N/A - Weston performed testing on the sediment prior to Foster Wheeler mobilization to site (1994) but will need head space only by ERBEC (Schedule 530P)

F. Workmanship is acceptable Yes \_\_\_\_\_ No \_\_\_\_\_

Indicate areas where improvement is needed All preliminary work has been acceptable.

G. Safety concerns reviewed: Yes ✓ No \_\_\_\_\_

If not, explain Safety has been reviewed and points in interest outlined in Activity / Task Analysis. <sup>next feature</sup> water removal

H. Preliminary work & ~~activity hazard analysis~~ to perform work. All health and safety issues addressed in activity hazard analysis

USACE Quality Control Representative

Keith Branch  
Keith Branch  
QC Systems Engineer

Date

# FOSTER WHEELER ENVIRONMENTAL CORPORATION

## APG Environmental Remediation

### Quality Control of Health and Safety Instruments and Procedures Inspection Checklist

All QC inspections must be completed by a designated QC Engineer or alternate who is qualified in the operation and calibrations of health and safety instruments and procedures.

The QC Engineer should observe the calibration of health and safety instrumentation randomly, or at least once every five calibrations. The QC Engineer shall inspect the health and safety operations/forms listed below.

Quality Control No.: 02 Date Started: 7.30.96  
 Date Completed: \_\_\_\_\_  
 Contract No.: DACA 31-94-D-0020 Project Site and Location: ADM SITE STORAGE VAULTS  
 QC Engineer(s): KENT BRANCH  
 Site Health & Safety Officer(s): JAMES MORNING

Operation/Form	7/30	Month/Day			Notes
Calibration Log Completed	✓				
Daily Briefing Log Completed	✓				
Daily Instrument Source/Background Check Form (for each instrument used)	✓				
Daily Health & Safety Report Form	✓				
Sign In Log for Work Zones	✓				
Proper Donning and Doffing of PPE	✓				
Air Monitoring/Sampling Form	✓				
In Compliance with SHERP & SOPs	✓				
H & S Violations	NONE				
Heat and Cold Stress Monitoring	None ✓ TEMP				
All OSHA Forms Up to Date	✓				
SHERP Review for All Personnel	✓				
Delineation of Work Zones	✓				
Shower Trailer Inspection	N/A				



**Foster Wheeler Environmental Corporation**  
*APG Environmental Remediation*

**DAILY CONSTRUCTION QUALITY CONTROL REPORT**

Daily Report No.: 07 Date: July 31, 1996 (Wed.)

Contract No.: DACA31-94- D-0020

Project Title & Location: DO #0003, Adamsite Storage Vaults - Edgewood Area

Weather: Overcast  
with Rain Precipitation: 0.5 in. Temp: Min. 71°F Max. 85°F

Personnel On Site: USACE (1), ERDEC (0), FWENC (2), EA (3), HFA (0), KEVRIC (4),

Summary of Major Work Activities:

- Sediment/Debris Removal (Work Plan Section 2.2.3)
- Place concrete rubble from outside vaults inside S.E. vault
- Roof/Panel Removal (Work Plan Sec 2.2.5 )
- Misc Metal piping placed in 4'x4'x4' wooden box

1. Work Performed by Foster Wheeler Environmental Personnel: (Indicate location and description of work performed by prime and/or subcontractors. When network analysis is used, identify work by NAS activity number)

K. Branch, QC Engineer, provided oversight to ensure quality work would be performed according to the work plan (Work Plan Section 2.2.3). Mr Branch oversaw the removal of rubble from outside the vaults that was place inside the southeast vault. The southeast vault was clear of sediment and the wood debris was cut up and staged to be disposed. The northeast vault is still full of sediment and debris so in order to gain access the steel above one corner was removed. The Cat 235c shears was used to cut down the structural steel. The steel was place inside the dumpster by the Cat 235c. Jamie Fair (USACE) was on site to observe todays operations and Mr Fair also coduct a Preparatory Inspection for Removal of Existing Roof Panels, Structural Steel, and Concrete. No defeciencies were noted. The heavy rain slowed down todays activities reducing the amount of work completed today. Metal debris collected near the concrete rubble was placed in a plastic lined 4'x4'x4' wooden box.



J. Morning (Site Safety and Health Officer-SSHO) conducted a health and safety briefing (See Attached Daily Briefing Sign-In Sheet). During the briefing, all site personnel were briefed on site activities, and possible hazards associated with the removal of debris and sediment from the vaults. J. Morning closely monitored all activities to ensure that all Health and Safety hazards were avoided.

---

The SSHO utilized chemical monitoring equipment today during removal activities.

---

The SSHO monitored meteorological conditions including temperature (wet bulb global /thermometer) and wind direction (with wind socks) (Work Plan Section 4.10.2)

---

T. Reese, Project Manager, was on site during the day to monitor site activities.

---

#### Work Performed by Subcontractors:

M. Fox, Superintendent, conducted a pre-operational meeting to review the planned site activities for Water and Sediment removal at Adamsite Storage Vaults. Mike directed the laborers to complete debris removal from the southeast vault and to place the metal items in the 4'x4'x4' wooden box. The wood was cut and wrapped in plastic until disposal. Mike had the operator use the Cat235c shears to remove structural steel roofing from a corner of the northeast vault and place inside the dumpster. Mike also conducted a site daily site cleanup and secured all equipment and supplies. (Work Plan Add #1, Sect. 2.3.9).

---

The Kevric laborers completed the following tasks: Placed metal debris inside 4'x4'x4' wooden box, clear debris from southeast vault, move vault entry steps and ladders, clear plastic and debris from around the site.

---

The Kevric equipment operator used the John Deere 544G Tire Loader to remove concrete rubble from around vault and place it inside cleared vault. The Kevric operator also operated the Cat 235c shears to cut and remove structural steel from on corner of the northeast vault which was then placed in side the dumpster..

---

Mr. Carl Reitenbach ( Project Manager) and H. Gonzer (EA Engineering) was on site to monitor activities.

---

2. Operating Plant or Equipment Utilized, Mob. and/or Demo. (Not hand tools)

Equipment Utilized: John Deere 544G Tire Loader, Cat 235C Shears, (2) 20' extension ladders , Air monitoring equipment (CGI,FID,PID,OVA), (1) minivan, (1) full size 4x4 pick up truck (1) small pick-up truck (3) 2way Radios (1) Cellular Phone

---

3. Control Activities Performed:

Preparatory Inspections: (Identify feature of work and attach minutes).

Initial Inspections: (Identify feature of work and attach minutes).

Daily QC of Health and Safety Instruments and Procedures Inspection Checklist (See Attached)

Preparatory Inspection Checklist (See Attached)

Follow-up Inspection Checklist (See Attached)

4. Tests performed and Test Results: (Identify test requirement by paragraph number in specifications and/or sheet number in plans).

Periodic air-monitoring data results were reported by the SSHO. No results were found above background. This information is recorded in the SSHO's Daily Health and Safety Report.

---

5. Material Received: (Note inspection results and storage provided)

Fuel was delivered for machinery

---

6. Waste Generated and/or Disposed:

Metal debris from structural roof was placed in roll off dumpster

Plastic and metal piping from southeast vault was placed in 4'x4'x4' wooden box

7. Off site Surveillance Activities, Including Action Taken:

No off site surveillance activities occurred this date.

8. Job Safety: (List items checked, results, instructions and corrective actions taken)

Total Manhours Worked to Date: 322 hours Total Number of Days Worked on Site: 8 days  
Total Manhours Worked with No Lost Time Accidents: 322 hours Total Number of Lost Time  
Accidents on the Site to Date: 0

Air monitoring readings were taken with the FID, PID, and CGI.

9. Remarks: (Instructions received or given. Conflict(s) in Plans and/or specifications.  
Delays encountered.)

Jamie Fair (USACE/ERRO-OSR) was on site to view the placing of concrete rubble outside the vaults to inside the S.E. vault. Mr Fair also conducted a Preparatory Inspection for Roof Structure/Panel removal at Adamsite Storage Vaults. One Deficiency was noted.

\* Error made on QC report #'s. Report for Tues 30 July should be number 6 not 7.\*

10. Attachments:

Daily Construction Log/Manpower Report (FWENC & EA)

Daily H&S Report (SSHO Daily Log, Calibration Records (CGI, PID, OVA, Activity/Task Hazard Analysis), Site Entry/ Exit Log, Air Monitoring Results

Follow up Inspection Checklist (See Attached)

Preparatory Inspection Checklist

QC Health and Safety Instrument & Procedures Inspection Check list

Contractor's Verification: On behalf of the Contractor, I certify that this report is complete and correct, and all materials and equipment used and work performed during this reporting are in compliance with the contract plans and specifications, to the best of my knowledge, except as may be noted above.

Keith Branch \_\_\_\_\_  
Keith Branch Date  
QC Systems Engineer



FOSTER WHEELER ENVIRONMENTAL CORPORATION

Page of

DAILY CONSTRUCTION LOG/MANPOWER REPORT

DAILY REPORT #: 06

Client: US Army Corps of Engineers, ERRO, Baltimore District Date: 7-31-96  
 Project: Delivery Order #0003, Site 3, Adamsite Storage Vaults, Edgewood Area, APG FW Proj.#: DACA31-94-D-0020  
 Wind: 5-10 Temperature: (Hi/Low): 60-70  
 Sky: Cloudy Precipitation: Heavy at times  
 LEVEL OF PROTECTION REQUIRED A B C **(D)** (circle) (required in work zone)

REMEDATION & SITE ACTIVITIES

TIME

REMARKS/COMMENTS/ACCOMPLISHMENTS/DELAYS

0530	Health & Safety meetings, went over work to be done. Set staging for cutting of wood removed from SE Vault also lined 4'x4' wood boxes in order to place tin, steel from this Vault
0650	Two men entered SE Vault moved sand & stone to one place also removed all debris steel, tin, steel placed in boxes or on skids Covered wood on skid with plastic
0740	Moved ladders & safety equipment from SE to NE Vault worked on cutting wood & removed framing from vault ledge. Fuel truck on site filled Grubber & Shear (Griffith Stewart)
8:40	On site meeting with Corp QA, QC site superintendent for a preliminary inspection to start removing roof roof panels & steel beams
10:00	Heavy rain fall thunder lightning. After rain stopped, started moving concrete debris from outside vault (NE) into SE Vault at this time set up for shearing roof panels.
11:00	Heavy rain has returned but still work on moving concrete to SE Vault
12:10	Started with Shear at South end of NE vault & removed first beams & roof sheets after cutting in this area moved to ground
13:00	and Shear cut smaller in order to fit into dumpster loaded into dumpster #879. by hand cleared up small pieces of tin place into dumpster
1400	Clean up job site secured equipment & job site exit. Site returned to office finish with paper talk with person next days work

# EA RTI DAILY LOG

Report Number 06 Project Name Adam site  
 Location APG 60834-03  
 Date 7/31/96 Contract Officer \_\_\_\_\_

Description of Work Health & Safety briefing. On site went over today's work. Removed all debris from SE vault. Staged in wood box & skid. Worked on backfilling SE vault with concrete from outside NE vault. As set snow fence. Secured equipment & left site exit site.

### PERSONNEL ONSITE

Company Name	Employee	Time in	Time out	Total Hours
EA	M Fox	5:30	2:00	9
	Kerric	11		
	1 operator	11		
	3 laborers	11		

### EQUIPMENT ONSITE

Description	Date arrived	Date left	EA Owned	Rented	Total Days Used
F350 Ford	7/24		✓		6
235 Cat. w/Shear				✓	
180w Dacwood w/Excavator				✓	
Draw lifts	2		✓		
Ladders	2		✓		
EZ up tent	12x12'		✓		

Any Inspections? yes If so, time and name of inspector. 8:30 CAMP  
 What kind of inspection Preparatory Removing steel from road NE  
 Weather Conditions Clear  Cloudy  Rain Heavy Temp 70  
 On Schedule? yes  no   
 Any lost time accidents on this date? yes  no   
 Have you had your daily safety meeting? yes  no   
 Safety concerns lighting heavy rain

Remarks One laborer out 11:00 AM

Michael Fox 7/31/96  
 Construction Superintendent Date

\_\_\_\_\_  
 Construction Manager Date







1. VERBAL/Written GUIDANCE (LIST INDIVIDUAL):

N/A

2. CONTROVERSIAL MATTERS:

N/A

3. SAFETY:

LEVEL OF PPE: Modified Level D

SSHO: \_\_\_\_\_

4. SEC PLAN MEASURES INSTALLED: YES NO NONE REQUIRED  
 ADDITIONAL MEASURES TAKE TO STABILIZE SITE: N/A

5. MINICAM STANDARDS REQUIRED/DATE: N/A  
 MINICAM STANDARDS RECEIVED/DATE: \_\_\_\_\_

6. CSM SCREENING REQUIRED: YES NO HOLDING TIME: \_\_\_\_\_  
 SEND TO CTF: YES NO DATE/TIME: \_\_\_\_\_

NMA will manage with CTF/ ER DEC

7. SAMPLES SENT TO LAB: YES NO NUMBER/TYPE \_\_\_\_\_

LAB USED: N/A

LAB APPROVED: YES NO

SAMPLING PERFORMED: (method, type, number taken, analysis expected and who was responsible for sampling/shipment)

AROUND TIME REQUIRED: \_\_\_\_\_ EXPECTED: \_\_\_\_\_

QA SAMPLES SENT TO COE LAB: YES NO DATE: \_\_\_\_\_

8. "DIAL 17" REQUIRED: (give details, times, reason, who called, debriefing, follow-up, include UXO receipt)

N/A

9. NUMBER DRUMS/CONTAINERS WASTE GENERATED THIS DAY: None

CONTENTS:

NUMBER OF WOODEN BOXES/SKIDS/ETC. GENERATED THIS DAY: 1/2

CONTENTS: METAL Debris

TOTAL NUMBER AT SITE THIS DATE:

BOXES 1/2

DRUMS \_\_\_\_\_

SKIDS \_\_\_\_\_

FWES REPRESENTATIVE:

Keith Branch

Name/Title

USACE SIGNATURE \_\_\_\_\_

Name/Title

Date: 7.31.96

Date: \_\_\_\_\_

DAILY HEALTH AND SAFETY REPORT  
DAILY REPORT #:

Client: US Army Corps of Engineers, ERRO, Baltimore District

Date: 7-31-96

Project: Delivery Order #0003, Site 3, Adamsite Storage Vaults, Edgewood Area, APG FW Proj.#: DACA31-94-D-0020

Wind: out of NE 15

Temperature: (Hi/Low): 71

Sky: overcast - A

Precipitation: Misty Foggy

LEVEL OF PROTECTION REQUIRED

A B C

(D) (circle) (required in work zone)

## REMEDATION &amp; SITE ACTIVITIES

TIME

REMARKS/COMMENTS/ACCOMPLISHMENTS/DELAYS

0530

Held Health + Safety @ Parking Lot See SIGN-IN Sheet for Attendance, Subjects Details.

0545

Badge in Post 12 Gate, Go to Support zone to CAL PHS EQUIPMENT: See CAL LOGS.

0630

Checked Support zone, NO Readings Above Action Levels and are @ Normal Backgrounds.

0645

Checked SE Vault @ Ground Level and BZ INTERIOR NO Readings Above Action Levels, See Air Monitor Log Sheet

0650

GIVE Vault crew another briefing on Vault Entry-Exit Decon Procedures.

0700

Crews Enter Vault, James Wolford + Frances Hunter Level 2 MOD w/ SARANEX, Splash Protect p.w. Re Check Vault BZ - OK

0730

Crew Exits Vault, take Heat Stress Break, OP'S completed, Debris on poly. in CRZ A0 =

0745<sup>~</sup>

Crews begin to cut up wood debris, Issue Kevlar Cut Resistant Gloves to Power Saw OPERATOR, WENT OVER SAW OP'S w/ crew

0840

ACOE - Jamie FAIR on site for Property Inspection Rain off and on. PM on site

0930

Hard RAIN starts w/ lightning - Stopped Heavy Equip and Crews begin Lunch Break in TRAILER Standing by due to inclement weather.

0950<sup>~</sup>

RESTART Loader OP'S - THUNDER MOVED ON, Dumping Concrete debris in to SE Vault.

1130

C. Reitenbach on site (EA), Mr. GUNTER (EA)

1230<sup>~</sup>

Began Steel Removal - EAST Vault, discuss OP'S

1245<sup>~</sup>

END OFF Began cut + Box up steel

1300<sup>~</sup>

Second Site trip from to Admin trailer =



FOSTER WHEELER ENVIRONMENTAL CORPORATION

DAILY BRIEFING SIGN-IN SHEET

Date: 7-31-96

Project Name/Location: Adamsite - APG - MD

Shift/Department: DAY

Person Conducting Briefing: J. Morning

1. DAILY ACTIVITIES

TASKS	CONTROLS/PPE
1. Debris Removal - Vaults	D/C MOD
2. Sediment Removal	D/C
3.	
4.	
5.	

2. AWARENESS (e.g., special HS concerns, recent incidents, etc.):

SLIP TRIP FALL  
LADDER SAFETY  
Decon Procedures - Vaults  
THUNDERSTORMS

3. OTHER ISSUES (HASP changes, attendee comments, etc.):

\_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

4. ATTENDEES (Print Name):

1. Robert C. Jeffers Kerrie	11.
2. James R. [unclear] Kerrie	12.
3. FRANCIS HUNTER	13.
4. Michael Fox	14.
5.	15.
6.	16.
7.	17.
8.	18.
9.	19.
10.	



### Daily Health and Safety Report

\*\*\*\*\*

#### DAILY HEALTH AND SAFETY REPORT CONTRACT NUMBER DACA31-94-D-0020

\*\*\*\*\*

DELIVERY ORDER NO. Delivery Order No. 003 DATE: 7-31-96  
LOCATION OF WORK: Adamsite Storage Vaults

WEATHER: Partly RAINFALL: 0.005 IN. TEMP: 71 min. 82 max.

\*\*\*\*\*

#### 1. WORK PERFORMED BY FOSTER WHEELER ENVIRONMENTAL CORPORATION AND THE FOLLOWING SUBCONTRACTORS:

- |  |   |
|--|---|
| <input type="checkbox"/> HFA               | <input type="checkbox"/> ONSITE               |
| <input checked="" type="checkbox"/> KEVRIC | <input type="checkbox"/> GONZER               |
|  | <input checked="" type="checkbox"/> <u>EA</u> |

#### 2. EQUIPMENT BEING UTILIZED:

- |   |  |  |
|---|--|--|
| <input checked="" type="checkbox"/> HNU | <input checked="" type="checkbox"/> Miniram        | <input type="checkbox"/> MINICAMS          |
| <input checked="" type="checkbox"/> OVA | <input type="checkbox"/> W.B.G. Therm              | <input checked="" type="checkbox"/> Radios |
| <input checked="" type="checkbox"/> CGI | <input checked="" type="checkbox"/> First Aid Kits |  |
| <input type="checkbox"/> Monitox        | <input type="checkbox"/> ICADS                     |  |

#### 3. PERSONAL PROTECTIVE EQUIPMENT DONNED:

Level B     Level C     Med D






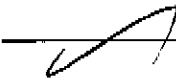
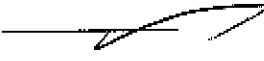
- |   |   |   |
|---|---|---|
| <input type="checkbox"/> Supplied Air Resp. | <input type="checkbox"/> MSA Respirators/GMC-H Cartridges               | <input type="checkbox"/> Ice Vests        |
| <input type="checkbox"/> 5 min. Escape      | <input checked="" type="checkbox"/> Hard Hat/Safety Glasses             | <input checked="" type="checkbox"/> Tyvek |
| <input type="checkbox"/> Overboots          | <input checked="" type="checkbox"/> Nitrile Gloves (surgical/overglove) |   |

#### 4. AIR MONITORING DATE: All readings at nominal background levels during operations.

\*\*\*\*\*

SITE SAFETY AND HEALTH OFFICER: J. MORNING DATE: 7-31-96

FOSTER WHEELER ENVIRONMENTAL CORPORATION  
CALIBRATION RECORD FOR  
COMBUSTIBLE GAS INDICATOR  
SERIAL NUMBER: 11062

1. Turn instrument on (HORN OFF position). Set % LEL meter pointer to zero by adjusting the ZERO LEL control. (do this within 30 seconds). Check when complete. 
2. Use CALIBRATE O2 control to set it at 20.6%. If this can be done then replace the O2 cell. Check when complete. 
3. Press the ALARM RESET button. If the alarm light does not go out and the green pilot light begins flashing then TAG OUT unit for repair and enter note below. Check when complete. 
4. Check flow by placing finger momentarily over sample inlet. If indicator float does not drop to the no flow position then TAG OUT for repair and enter note below. Check, when complete. 
5. Check battery, recharge if necessary. Check when complete. 
6. Turn ON-OFF control to the ON position. If the pilot lamp does not light then TAG OUT unit for repair. Check when complete. 
7. Note the calibration gas % LEL 5.3% Pentane 14.2 O2 
8. Introduce calibration gas to instrument. If the meter pointer is not +/- LEL, stop the cal. gas flow and remove the right hand side (speaker panel). Turn on the flow and adjust the "S" control with a small screwdriver to obtain the reading specified for the cal. gas. When complete sign, date and record the time below.

NOTATIONS:

Alarms OK

Name: J. MORNING

Date: 7-21-96

Time: 0600



FOSTER WHEELER ENVIRONMENTAL CORPORATION  
CALIBRATION RECORD FOR  
MINIRAM AEROSOL MONITOR/SUNSHIELD/MODEL PDM-SNS  
SERIAL NO. FW 00143

1. Turn instrument ON. Allow to warm up for several minutes.
2. MINIRAM has been factory-calibrated. To zero the unit, use a dust free office environment or employ the Z-bag calibrator.

The Z-Bag™ is a convenient kit for zeroing the MINIRAM in the field. It provides a clean-air environment inside a plastic bag into which the MINIRAM is placed for zeroing. The Z-Bag kit consists of a one-way flow rubber bulb for manual air pumping, a filter cartridge, a zippered plastic container, a connecting hardware.

To use Z-Bag for zeroing MINIRAM proceed as follows:

1. Remove rubber bulb filter assembly from Z-Bag. Place Z-Bag on flat surface with red flow fitting facing up. Flatten bag. Remove small plastic cap from flow fitting on bag.
2. Insert ribbed elbow connector (attached to filter cartridge) into red flow fitting of plastic bag, until connector is flush with bottom of red flow fitting.
3. MINIRAM should be in its OFF condition (observe display). If display is blanked, or if MINIRAM is in the MEAS mode, key OFF.
4. Open Z-Bag and place MINIRAM inside, approximately at its center.
5. Key ZERO through the open end of the Z-Bag. Immediately zip closed the Z-Bag and begin to pump hand bulb.
6. Z-Bag should inflate as hand pumping continues, up to a height of about five inches (12 cm). Continue pumping gently to maintain bag interior pressure, until the MINIRAM displays off again.
7. Unzip Z-Bag and remove MINIRAM. MINIRAM is now ready for monitoring.
8. Place rubber bulb/filter assembly inside Z-Bag, and plug small plastic cap into flow fitting to close it. Zip close while flattening Z-Bag to store it to ensure cleanliness of the bag interior.

T. A.

73601

0605



FOSTER WHEELER ENVIRONMENTAL CORPORATION  
CALIBRATION RECORD FOR  
OVA MODEL 128  
SERIAL NO.: FW00013

Follow the start-up steps contained in the lid of the cover of the instrument for proper lighting and set-up of the instrument.

CALIBRATION range setting: X10

GAS SELECT control setting: 3.0

Calibration gas (methane) concentration: 100

Meter reading with calibration gas: 96

If the reading is greater than +/- 10% of the calibration gas concentration, a complete calibration is needed; otherwise the instrument can function as is. Follow the steps below, placing a check after each step, for complete calibration, if needed.

1. Set CALIBRATION to X10 and GAS SELECT control to 300.
2. Introduce zero air gas and use the CALIBRATE ADJUST knob to adjust the meter reading to zero.
3. Introduce a calibration gas standard of approximately 94 ppm methane and adjust trimpot R-32 on circuit board so that the meter reads the calibration gas concentration.
4. Turn off the H<sub>2</sub> SUPPLY VALVE to put out the flame.
5. Leave the CALIBRATE switch on X10 and use the CALIBRATE ADJUST knob to adjust the meter reading to 4 ppm.
6. Turn the CALIBRATE switch to X1. Using trimpot R-31 adjust the meter reading to 4ppm.
7. Set the CALIBRATE switch to X10 again and use the CALIBRATE ADJUST knob to set the meter reading to 40 ppm.
8. Set the CALIBRATE switch to X100 and use trimpot R-33 to adjust meter to 40 ppm.
9. Set the CALIBRATE switch to X10 and use the CALIBRATE

NA

NA

NA

NA

NA

NA

NA

NA

NA

FOSTER WHEELER ENVIRONMENTAL CORPORATION  
CALIBRATION RECORD FOR

HNU MODEL DL101  
SERIAL # 567048  
PROBE SERIAL # 11  
PROBE eV: 10.2

1. Turn unit on and let warm up a few minutes. /
2. Check time, date and mode. Mode should be S-D for Survey Mode. /
3. Check low battery indicator in upper right corner /
4. Prepare Calibration tank, tubing and regulator. /
5. Press the calibration key on the front panel. CALIBRATE ? appears. /
6. Press enter key. ELEC ZERO ? YES appears. /
7. Press enter. ZEROING UNIT appears /
8. Next prompt will ask for gas concentration, enter proper PPM, press enter. 100  
/
9. ATTACH GAS TO PROBE AND/ENTER will appear. start the flow and press enter. /
10. PRESS ENTER WHEN READY; XXX PPM will appear, press enter when readings stabilize to complete the process. 91  
/
11. If unit does not calibrate to correct PPM see manual for more information. /
12. If unit goes to survey mode calibration is complete and ready. /
13. Note any maintenance performed;  
a. bulb cleaned \_\_\_\_\_ b. filter changed \_\_\_\_\_ c. Ion Chamber cleaned \_\_\_\_\_  
other OK within 10%

Name: Jc MORNING Date: 7-31-96 Time: 0618

FOSTER WHEELER ENVIRONMENTAL CORPORATION  
CALIBRATION RECORD FOR  
MONITOX SERIAL # \_\_\_\_\_

1. Turn unit on test and let it warm up. \_\_\_\_\_
2. Check battery condition by observing small red light on top of unit, if its on change battery. \_\_\_\_\_
3. Prepare calibration-gas cylinder by attaching regulator and tygon tubing and cap adapter. \_\_\_\_\_
4. Turn switch to on position. \_\_\_\_\_
5. Attach cap adapter to sample intake port on top right corner and turn calibration gas. \_\_\_\_\_
6. Observe readings an screen, they should begin to increase. \_\_\_\_\_
7. Alarm should begin at 5 PPM, continue to observe. \_\_\_\_\_
8. Unit should continue to alarm until 10 PPM is reached and then the alarm tone should change. \_\_\_\_\_
9. If unit fails to alarm at given PPM ranges go to manual for complete calibration procedures. \_\_\_\_\_
10. If unit responds at given PPM concentrations , unit is ready for use. \_\_\_\_\_

Comments: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Calibration Gas Concentration: \_\_\_\_\_ Brand/Type: \_\_\_\_\_

Not Used

NAME: J. MORNING DATE: 7-31-96 TIME: 0621

# Foster Wheeler Environmental Corporation

APG Environmental Remediation

## FOLLOW-UP INSPECTION CHECKLIST

Report No. #7 Contract No. DACA31-D-94-0020 Date 7.31.96

Project Title and location ADAMSITE STORAGE VENTS Edgewood Area

Work No.	Weather	Temperature		Rainfall	Work location (grid)
<u>N/A</u>	<u>OVERCAST / Rain</u>	<u>Min. 71°</u>	<u>Max. 83°</u>	<u>0.5 inches</u>	

Major definable feature of work Sediment / Steel Structural Removal

A. Deficiencies noted: - WORK would be completed faster  
IF Another operator were present  
TO operate 2ND piece of equipment

B. Corrective action taken:

C. Pre-final Inspection (Attach Punch List)

Contractor's Quality Control Representative

Keith Branch  
QC Systems Engineer

7.31.96  
Date

# Foster Wheeler Environmental Corporation

## APG Environmental Remediation

### PREPARATORY INSPECTION CHECKLIST

Report No. 04 Contract No. DACA31-D-94-0020 Date 7-31-96

Project Title and location DO#003 Adamsite Storage Vaults

Work No.	Weather	Temperature		Rainfall	Work location (grid)
N/A	OVERCAST / RAIN	Min. 71°	Max. 83°	0.5 inches	

Major definable feature of work Roof/Steel removal Government Rep. Notified Jamie Fair

Person Responsible for conducting the work MIKE FOX

A.

#### Personnel Present

Name	Position	Organization
<u>MIKE FOX</u>	<u>Site Superintendent</u>	<u>EAS Engineering</u>
<u>Jamie Fair</u>	<u>Project Engineer</u>	<u>USACE</u>

(List additional personnel on reverse side)

B. Submittals to be reviewed: Number: \_\_\_\_\_

Submittals reviewed and approved: Yes \_\_\_\_\_ No X

If not, explain \_\_\_\_\_

C. Materials being used are in strict compliance with the contract plans and specifications Yes  No \_\_\_\_\_

If not, explain CAT 235C SKIDERS has been inspected along with the DAWES grapples and Dumpsters

D. Procedures and/or work methods witnessed are in strict compliance with approved shop drawings, plans and/or specifications. Yes  No \_\_\_\_\_

If not, explain SEE ATTACHED PAGE

E. Identify testing to be performed, frequency and by whom. Continue with Daily Air monitoring

F. Workmanship is acceptable Yes \_\_\_\_\_ No \_\_\_\_\_

Indicate areas where improvement is needed N/A

G. Safety concerns reviewed: Yes  No \_\_\_\_\_

If not, explain Activity Task Analysis reviewed with SHC, while skidars in operation All personnel will be 75' AWAY. No work to be performed while structure is being removed.

USACE Quality Control Representative

Keith Branch  
1

Keith Branch  
QC Systems Engineer

7-31-96  
Date

# FOSTER WHEELER ENVIRONMENTAL CORPORATION

*APG Environmental Remediation*

## Quality Control of Health and Safety Instruments and Procedures Inspection Checklist

All QC inspections must be completed by a designated QC Engineer or alternate who is qualified in the operation and calibrations of health and safety instruments and procedures.

The QC Engineer should observe the calibration of health and safety instrumentation randomly, or at least once every five calibrations. The QC Engineer shall inspect the health and safety operations/forms listed below.

Quality Control No.: 02 Date Started: 7-30-96  
 Date Completed: \_\_\_\_\_  
 Contract No.: DACA 31-94-D-0020 Project Site and Location: ADM SITE STORAGE YARDS  
 QC Engineer(s): KENT BRANCH  
 Site Health & Safety Officer(s): James Morning

Operation/Form	7/30 7/31 Month/Day					Notes
Calibration Log Completed	✓	✓				
Daily Briefing Log Completed	✓	✓				
Daily Instrument Source/Background Check Form (for each instrument used)	✓	✓				
Daily Health & Safety Report Form	✓	✓				
Sign In Log for Work Zones	✓	✓				
Proper Donning and Doffing of PPE	✓	N/A				
Air Monitoring/Sampling Form	✓	✓				
In Compliance with SHERP & SOPs	✓	✓				
H & S Violations	0	0				
Heat and Cold Stress Monitoring	Weather TEMP ✓	Weather TEMP ✓				
All OSHA Forms Up to Date	✓	✓				
SHERP Review for All Personnel	✓	✓				
Delineation of Work Zones	✓	✓				
Shower Trailer Inspection	N/A	N/A				



**Foster Wheeler Environmental Corporation**  
*APG Environmental Remediation*

**DAILY CONSTRUCTION QUALITY CONTROL REPORT**

Daily Report No.:

08

Date: August 1, 1996  
(Thur.)

Contract No.:

DACA31-94- D-0020

Project Title & Location:

DO #0003, Adamsite Storage Vaults - Edgewood Area

Weather: Sunny and

Clear

Precipitation: 0.0 in.

Temp: Min.

71°F

Max.

84°F

Personnel On Site: USACE (1), ERDEC (0), FWENC (2), EA (), HFA (0), KEVRIC (4),

Summary of Major Work Activities:

- Sediment/Debris Removal (Work Plan Section 2.2.3)
- Cut up Metal piping
- Roof/Panel Removal (Work Plan Sec 2.2.5)
- Misc Metal piping placed in 4'x4'x4' wooden box

1. Work Performed by Foster Wheeler Environmental Personnel: (Indicate location and description of work performed by prime and/or subcontractors. When network analysis is used, identify work by NAS activity number)

K. Branch, QC Engineer, provided oversight to ensure quality work would be performed according to the work plan (Work Plan Section 2.2.3). Mr Branch oversaw the shearing and removal of the remaining structural steel from the vaults which was placed in the roll off dumpsters. Two labeled Dumpsters full of steel and tin were transported to DRMO by Bel Air Trash disposal for recycling utilizing a DD Form 1348-1. The total weight for todays shipments was 20,302 lbs. The remaining steel and tin will be delivered to DRMO on 5 Aug, 1996. Metal piping and debris from the northeast vault is being removed, cut and placed in labeled 4'x4'x4' wooden boxes to be disposed of at the Thermal treatment facility on post.



J. Morning (Site Safety and Health Officer-SSHO) conducted a health and safety briefing (See Attached Daily Briefing Sign-In Sheet). During the briefing, all site personnel were briefed on site activities, and possible hazards associated with the removal of debris and sediment from the vaults. J. Morning closely monitored all activities to ensure that all Health and Safety hazards were avoided.

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The SSHO utilized chemical monitoring equipment today during removal activities.

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The SSHO monitored meteorological conditions including temperature (wet bulb global /thermometer) and wind direction (with wind socks) (Work Plan Section 4.10.2)

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T. Reese, Project Manager, was on site during the day to monitor site activities.

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#### Work Performed by Subcontractors:

M. Fox, Superintendent, conducted a pre-operational meeting to review the planned site activities for Structural Steel and Sediment removal at Adamsite Storage Vaults. Mike directed the operator to dismantle the roof structure with the Cat 235c shears and place in the roll off dumpster. The laborers were directed to cut up the metal piping from the northeast vault with the chop saw. Bel Air trash disposal picked up two dumpsters with steel and tin and delivered it to Defense Reutilization Management Office(DRMO). The Kevric laborers were instructed to police the site and to secure all supplies. (Work Plan Add #1, Sect. 2.3.9).

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The Kevric laborers completed the following tasks: Cut and Placed metal debris inside 4'x4'x4' wooden box from the northeast vault. The laborers also removed wood from the roof fram structure and staged to be cut up.

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The Kevric equipment operator used the Daewoo Grappler to dismantle structural steel and tin roof at vaults. The operator also removed metal debris from the northeast vault and staged it for the operators to cut and place in 4'x4'x4' wooden boxes.

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Mr. Carl Reitenbach ( Project Manager, EA Engineering) was not on site.

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2. Operating Plant or Equipment Utilized, Mob. and/or Demo. (Not hand tools)

Equipment Utilized: John Deere 544G Tire Loader, Cat 235C Shears, Daewoo Grappler , Air monitoring equipment (CGI,FID,PID,OVA), (1) minivan, (1) full size 4x4 pick up truck (1) small pick-up truck (3) 2way Radios (1) Cellular Phone

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3. Control Activities Performed:

Preparatory Inspections: (Identify feature of work and attach minutes).

Initial Inspections: (Identify feature of work and attach minutes).

Daily QC of Health and Safety Instruments and Procedures Inspection Checklist (See Attached)

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Preparatory Inspection Checklist (See Attached)

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Follow-up Inspection Checklist (See Attached)

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4. Tests performed and Test Results: (Identify test requirement by paragraph number in specifications and/or sheet number in plans).

Periodic air-monitoring data results were reported by the SSHO. No results were found above background. This information is recorded in the SSHO's Daily Health and Safety Report.

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5. Material Received: (Note inspection results and storage provided)

40 tons of 1inch crushed stone

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6. Waste Generated and/or Disposed:

(2) roll off dumpsters were generated and sent to DRMO (#1 12,160 lbs, #2 8,160 lbs) via Bel Air Trash removal.

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(2) 4'x4'x4' wooden boxes with metal piping were generated (Box# 1&2)

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Total waste generated to date:

15,000 gallons of water (2) Dumpsters of Steel and Tin (2) 4'x4'x4' Wooden boxes of metal pipe (1) Bag of PPE (PPE being generated daily)

7. Off site Surveillance Activities, Including Action Taken:

No off site surveillance activities occurred this date.

8. Job Safety: (List items checked, results, instructions and corrective actions taken)

Total Manhours Worked to Date: 372 hours Total Number of Days Worked on Site: 9 days  
Total Manhours Worked with No Lost Time Accidents: 372 hours Total Number of Lost Time  
Accidents on the Site to Date: 0

Air monitoring readings were taken with the FID, PID, and CGI.

9. Remarks: (Instructions received or given. Conflict(s) in Plans and/or specifications.  
Delays encountered.)

Billy Sanders USACE was on site.

10. Attachments:

Daily Construction Log/Manpower Report (FWENC & EA)

Daily H&S Report (SSHO Daily Log, Calibration Records (CGI, PID, OVA, Activity/Task Hazard  
Analysis), Site Entry/ Exit Log, Air Monitoring Results

Follow up Inspection Checklist (See Attached)

DRMO turn in sheet for (2) dumpsters of steel and tin

QC Health and Safety Instrument & Procedures Inspection Check list

Box/Pallet Inventory sheet

Contractor's Verification: On behalf of the Contractor, I certify that this report is complete and correct, and all materials and equipment used and work performed during this reporting are in compliance with the contract plans and specifications, to the best of my knowledge, except as may be noted above.

Keith Branch      1 Aug 96  
Keith Branch      Date  
QC Systems Engineer



FOSTER WHEELER ENVIRONMENTAL CORPORATION

Page of

DAILY CONSTRUCTION LOG/MANPOWER REPORT  
DAILY REPORT #: 07

Client: US Army Corps of Engineers, ERRO, Baltimore District Date: 8-1-96  
Project: Delivery Order #0003, Site 3, Adamsite Storage Vaults, Edgewood Area, APG FW Proj.#: DACA31-94-D-0020  
Wind: 2-5 Temperature: (Hi/Low): 60 to 85  
Sky: Cloudy Precipitation: NA  
LEVEL OF PROTECTION REQUIRED A B C D (circle) (required in work zone)

TIME	REMEDATION & SITE ACTIVITIES REMARKS/COMMENTS/ACCOMPLISHMENTS/DELAYS
0530	Health & Safety briefing talked over work for this day Set up staging area for debris (Steel) removed from NE vault
0630	Started with Grapples removing this debris. Worked on Cutting & filling wood boxes
0730	Started with 235 CAT Shear working on removing roof panels & beams of NE vault.
0830	lined 2nd bay in order to fill from cutting/staging area. With Shear & Grapples loaded first dumpster
0930	Finish loading this dumpster Belair Trash on site to remove and transport to D.M.R.O 12.160 lbs all from NE vault
1030	With Shear worked removing steel beams & roof panels from SE vault loading into dumpster #2. Still working on filling wood boxes
1130	Stopped Shearing at this time worked these areas by hand loading small steel & tin placed wood on skid. GenStar on site w/stone MSHA #6 TR#1066 19.62 tons
1230	Belair Trash on site loaded dumpster & packed 2nd dumpster transported to D.M.R.O. Finished cutting loading steel from NE vault. GenStar on site with 2nd load #6 TR#1066 20.04 tons total for this day 39.66
1330	Talked over work for next day cleaned up equipment left site. Secured work areas & equipment exit site





1. VERBAL/Written GUIDANCE (LIST INDIVIDUAL):

None

2. CONTROVERSIAL MATTERS:

N/A

3. SAFETY:

LEVEL OF PPE: modified D (Tyvek, gloves, over boot) SSHO: \_\_\_\_\_

face shields, Chap for person using chop saw

4. SEC PLAN MEASURES INSTALLED: YES NO NONE REQUIRED

ADDITIONAL MEASURES TAKE TO STABILIZE SITE: N/A

5. MINICAM STANDARDS REQUIRED/DATE: N/A

MINICAM STANDARDS RECEIVED/DATE: \_\_\_\_\_

6. CSM SCREENING REQUIRED: YES NO HOLDING TIME: \_\_\_\_\_

SEND TO CTF: YES NO DATE/TIME: \_\_\_\_\_

N/A

7. SAMPLES SENT TO LAB: YES NO NUMBER/TYPE \_\_\_\_\_

LAB USED: N/A

LAB APPROVED: YES NO

SAMPLING PERFORMED: (method, type, number taken, analysis expected and who was responsible for sampling/shipment)

AROUND TIME REQUIRED: N/A EXPECTED: \_\_\_\_\_

QA SAMPLES SENT TO COE LAB: YES NO DATE: \_\_\_\_\_

8. "DIAL 17" REQUIRED: (give details, times, reason, who called, debriefing, follow-up, include UXO receipt)

9. NUMBER DRUMS/CONTAINERS WASTE GENERATED THIS DAY: 2

CONTENTS: Metal/Tin debris (sent to DRMO)

NUMBER OF WOODEN BOXES/SKIDS/ETC. GENERATED THIS DAY: 2

CONTENTS:

TOTAL NUMBER AT SITE THIS DATE:

BOXES 2 DRUMS \_\_\_\_\_ SKIDS \_\_\_\_\_

YES REPRESENTATIVE: \_\_\_\_\_

Name/Title

Date:

USACE SIGNATURE \_\_\_\_\_

Name/Title

Date:



EA RTI DAILY LOG

Report Number 07 Project Name Adamsite  
 Location APG 6083403  
 Date 8-1-96 Contract Officer \_\_\_\_\_

Description of Work Health & Safety meeting talked over work for this day  
Set up and removed steel debris from NE vault used Exciplex to do this  
work. Started with Shear to cut & remove steel panels & beams this was  
placed into dumpster #679 cleaned up job site & equipment Secured site

PERSONNEL ONSITE

Company Name	Employee	Time in	Time out	Total Hours
EA	530			
Kevin				
laborers 3				
Operator				
F.W. QA, QC, H.S.				

EQUIPMENT ONSITE

Description	Date arrived	Date left	EA Owned	Rented	Total Days Used
F350 Ford	7/24		✓		7
Grapple				✓	
Shear				✓	
Drum lifts 2			✓		
Ladders 2			✓		
Tent EZ up			✓		

Any Inspections? NO If so, time and name of inspector. \_\_\_\_\_

What kind of inspection \_\_\_\_\_

Weather Conditions Clear \_\_\_\_\_ Cloudy  Rain \_\_\_\_\_ Temp 80

On Schedule? yes  no \_\_\_\_\_

Any lost time accidents on this date? yes \_\_\_\_\_ no

Have you had your daily safety meeting? yes  no \_\_\_\_\_

Safety concerns Working around heavy equipment over head  
lines

Remarks \_\_\_\_\_

Mark Fox 8/1/96  
 Construction Superintendent Date

Construction Manager \_\_\_\_\_ Date \_\_\_\_\_



FOSTER WHEELER ENVIRONMENTAL CORPORATION

DAILY HEALTH AND SAFETY REPORT

DAILY REPORT #: 07

Client: US Army Corps of Engineers, ERRO, Baltimore District Date: 8-1-96  
 Project: Delivery Order #0003, Site 3, Adamsite Storage Vaults, Edgewood Area, APG FW Proj.#: DACA31-94-D-0020  
 Wind: OUT of NW Temperature:(Hi/Low): 71-84  
 Sky: PC Precipitation: NONE

LEVEL OF PROTECTION REQUIRED A B C D (circle) (required in work zone)

TIME	REMEDICATION & SITE ACTIVITIES REMARKS/COMMENTS/ACCOMPLISHMENTS/DELAYS
0530	Held Health + SAFETY Briefing @ PARKING LOT
	See SIGN IN SHEET FOR ATTENDANCE, SUBJECTS
0545	Go to Support zone AFTER BADGING IN Post 12 Gate.
0600	Start Calibration of HIS EQUIPMENT, See CAL LOGS FOR DETAILS. RADIO AND PHONE CHECK OK.
0630	Crews working on cutting up Debris and Demo Bldg - checked AO w/ HIS EQUIPMENT, NO Readings ABOVE Action Levels, See Air Monitoring LOG FOR DETAILS. WENT OVER HAZARD ANALYSIS.
0800	labor crew exits zone for break.
0815 <sup>z</sup>	Return to work, called FIRE Dept for cutting + Burn Permits. Informed crew on USE + SAFETY of Gas Chop SAW check AO - NO Readings ABOVE Action Levels CONTINUE w/ BLDG Demo
1000 <sup>z</sup>	AOE B.M.Y SANDERS ON SITE HERE AND RAD WARD. Roll off TRK coming and going.
1130 <sup>z</sup>	2nd Roll off FULL AND Reports
1200 <sup>z</sup>	Roof 100% off, OPERATOR TAKING Break. Checked AO - NO Readings ABOVE Action Levels.
1230	Crews Picking up debris
0330	Site Secured Report to Admin trailer



# FOSTER WHEELER ENVIRONMENTAL CORPORATION

## DAILY BRIEFING SIGN-IN SHEET

Date: 8-1-96

Project Name/Location: Adamsite - AP6 MID

Shift/Department: DAY

Person Conducting Briefing: J. MARWING

### 1. DAILY ACTIVITIES

TASKS	CONTROLS/PPE
1. Demo STEEL BLP6	D/D
2. Remove Debris - vaults	D/C Map
3. Box Debris 444	O/C
4.	
5.	

### 2. AWARENESS (e.g., special HS concerns, recent incidents, etc.):

SLIP TRIP FALL  
HOUSE KEEPING  
HEAVY EQUIP - BLIND SPOTS - BACK UP ALARMS  
75 FT BUFFER ZONE

### 3. OTHER ISSUES (HASP changes, attendee comments, etc.):

SAWINGS AP<sup>3</sup> - MUST USE KEVLAR GLOVES

### 4. ATTENDEES (Print Name):

1. Michael Fox	11.
2. B. Astley Kanwie	12.
3. FRANCIS HUNTER	13.
4. Keith Branch Foster Wheeler	14.
5. JAMES WOODFORD III	15.
6. ROBERT JEFFERS JR	16.
7.	17.
8.	18.
9.	19.



### Daily Health and Safety Report

DAILY HEALTH AND SAFETY REPORT  
CONTRACT NUMBER DACA31-94-D-0020

DATE: 8-1-96

DELIVERY ORDER NO. Delivery Order No. 003  
LOCATION OF WORK: Adamsite Storage Vaults

WEATHER: WPCAST RAINFALL: 0 IN. TEMP: 71 min. 82 max

1. WORK PERFORMED BY FOSTER WHEELER ENVIRONMENTAL CORPORATION AND THE FOLLOWING SUBCONTRACTORS:

- |  |   |
|--|---|
| <input type="checkbox"/> HFA               | <input type="checkbox"/> ONSITE               |
| <input checked="" type="checkbox"/> KEVRIC | <input type="checkbox"/> GONZER               |
|  | <input checked="" type="checkbox"/> <u>EA</u> |

2. EQUIPMENT BEING UTILIZED:

- |   |   |  |
|---|---|--|
| <input type="checkbox"/> HNU            | <input type="checkbox"/> Miniram        | <input type="checkbox"/> MNICAMS                       |
| <input checked="" type="checkbox"/> OVA | <input type="checkbox"/> W.B.G. Therm   | <input checked="" type="checkbox"/> Radios             |
| <input checked="" type="checkbox"/> CGI | <input type="checkbox"/> First Aid Kits |  |
| <input type="checkbox"/> Monitox        | <input type="checkbox"/> ICADS          |  |
|   | <input type="checkbox"/> Level B        | <input checked="" type="checkbox"/> <u>Mod</u> Level C |

3. PERSONAL PROTECTIVE EQUIPMENT DONNED:

- |   |   |   |
|---|---|---|
| <input type="checkbox"/> Supplied Air Resp.   | <input type="checkbox"/> MSA Respirators(GMC-H Cartridges)              | <input type="checkbox"/> Ice Vests        |
| <input type="checkbox"/> 5 min. Escape        | <input checked="" type="checkbox"/> Hard Hat/Safety Glasses             | <input checked="" type="checkbox"/> Tyvek |
| <input checked="" type="checkbox"/> Overboots | <input checked="" type="checkbox"/> Nitrile Gloves (surgical/overglove) |   |

4. AIR MONITORING DATE:  All readings at nominal background levels during operations.

SITE SAFETY AND HEALTH OFFICER: J. MORNING DATE: 8-1-96



# ACTIVITY HAZARD ANALYSIS

Project: Adamsite Storage Vaults  
 Activity: ~~Site Central~~ **Steel Removal & Relaying**

Location: Aberdeen, Maryland

MAJOR STEPS	POTENTIAL HAZARDS	PROTECTIVE MEASURES/CONTROLS
<ul style="list-style-type: none"> <li>• Establish site control and delineate project support zones</li> <li>• Establish site security, designating work zones and entry procedures</li> </ul>	<ol style="list-style-type: none"> <li>1. Manual lifting and material handling</li> <li>2. Biological hazards</li> <li>3. Head/Cold Stress</li> <li>4. Slips, trips, and falls</li> <li>5. Inclement weather</li> <li>6. Pinch, Cut, and smash</li> <li>7. <del>UXO</del> <b>OK</b></li> <li>8. Dropped objects</li> <li>9. Eye injury</li> <li>10. Head injury</li> <li>11. <del>Chemical (see GMM)</del></li> </ol> <p>• <b>Equipment Purge</b></p>	<ol style="list-style-type: none"> <li>1. Instruct personnel in proper lifting techniques</li> <li>2. Wear insect repellent; follow procedures for tick bites and snake bites; and be aware of poisonous plants</li> <li>3. During hot or cold weather monitor personnel for symptoms of heat or cold stress; Instruct personnel to recognize symptoms of heat or cold stress</li> <li>4. Maintain work areas safe and orderly; mark and repair if possible tripping hazards</li> <li>5. Monitor weather conditions daily</li> <li>6. Use hand tools properly and wear appropriate protective equipment</li> <li>7. Be aware that UXO may be present; do not touch suspect UXO; mark area and call TEU; follow UXO plan</li> <li>8. ANSI approved steel toe boots shall be worn (except during use of the magnetometer).</li> <li>9. ANSI approved safety glasses shall be worn.</li> <li>10. ANSI approved hard hats shall be worn.</li> <li>11. Wear appropriate PPE designated in SHERP for each task; initial level of PPE shall be level D. <i>PM 4/2</i></li> </ol>
EQUIPMENT USED	INSPECTION REQUIREMENTS	TRAINING REQUIREMENTS
<p>Hammer, Hand Tools, Magnetometer, Markers, Level D and/or Modified Level D PPE  <i>as Appropriate Shear, Saws</i></p>	<p>Ensure hand tools are serviceable  <del>Dust-free</del> <del>Check</del> <del>of</del> <del>magnetometer</del>  <i>Check Equipment</i>  <i>Saw Blades, Cords</i>  <i>PPE</i></p>	<p>Knowledge of Proper Use of Hand Tools              Personnel Have Read and Comply with SHERP Site Specific UXO Training  <del>Proficiency with Magnetometer</del>              Hazardous waste (29 CFR 1910.120) Training  <i>SPACING TECH'S</i></p>

Foster Wheeler Environmental Corporation  
APG Environmental Remediation

FOLLOW-UP INSPECTION CHECKLIST

Report No. #08 Contract No. DACA31-D-94-0020 Date 1 AUG, 96

Project Title and location ADAMITE STORAGE - Edgewood Area

Work No.	Weather	Temperature		Rainfall	Work location (grid)
<u>N/A</u>	<u>Sunny and clear</u>	<u>Min. 71°</u>	<u>Max. 84°</u>	<u>inches</u>	

Major definable feature of work Sediment/Structural Steel

A. Deficiencies noted: NONE AT THIS TIME

B. Corrective action taken:

C. Pre-final Inspection (Attach Punch List)

Contractor's Quality Control Representative

Keith Branch

QC Systems Engineer

1 AUG, 96

Date



1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80
DOC. IDENT.	NO. FROM	M	S	STOCK NUMBER	FSC	NIN	ADD	UNIT OF ISSUE	QUANTITY	DOCUMENT NUMBER	REQUISITIONER	DATE	SERIAL	SUPPLEMENTARY ADDRESS	SIGNAL	FUND	DISTRIBUTION	PROJ. ECT.	PRI. ORY.	REQ. DEL. DATE	ADVISE	N	N	S	UNIT PRICE	DOLLARS	CTS.																																																				
SHIP FROM	USACE BALTO	PO BOX 1715	BALTO 21203-1715	SHIP TO	DRMO ABERDEEN	APG MD SXC 213	21005	MARK FOR	PROJECT	FOSTER WHEELER	TIM REESE	TOTAL PRICE	DOLLARS	CTS.																																																																	
WAREHOUSE LOCATION	TYPE OF CARGO	UNIT PACK	UNIT WEIGHT	UNIT CUBE	UFC	NMFC	FREIGHT RATE	DOCUMENT DATE	MAT. COND.	QUANTITY	U	ITEM NOMENCLATURE	X	SCRAP METAL	RECEIVED BY AND DATE	INSPECTED BY AND DATE	WAREHOUSED BY AND DATE	WAREHOUSE LOCATION																																																													
SUBSTITUTE DATA (ITEM ORIGINALLY REQUESTED)	FREIGHT CLASSIFICATION NOMENCLATURE	U	ITEM NOMENCLATURE	X	SCRAP METAL	RECEIVED BY AND DATE	INSPECTED BY AND DATE	WAREHOUSED BY AND DATE	WAREHOUSE LOCATION																																																																						
SELECTED BY AND DATE	TYPE OF CONTAINER(S)	TOTAL WEIGHT	NO. OF CONTAINERS	TOTAL CUBE	RECEIVED BY AND DATE	INSPECTED BY AND DATE	WAREHOUSED BY AND DATE	WAREHOUSE LOCATION																																																																							
PACKED BY AND DATE	NO. OF CONTAINERS	TOTAL CUBE	RECEIVED BY AND DATE	INSPECTED BY AND DATE	WAREHOUSED BY AND DATE	WAREHOUSE LOCATION																																																																									
REMARKS	PROOF OF DELIVERY	This stamp indicates physical receipt of property at the DRMO which is subject to inspection and verification of quantity. It does not constitute acceptance of accountability. Your "official receipt copy" will be forwarded at a later date.	3																																																																												
DESTINATION ADDRESS	DATE SHIPPED	14 B/LADING, AVB, OR RECEIVER'S SIGNATURE (AND DATE)	15 RECEIVER'S DOCUMENT NUMBER																																																																												
TRANSPORTATION CHARGEABLE TO	DRM 1348-1 (4 PART)	1 MAR 74	GOD SINGLE LINE ITEM RELEASE/RECEIPT DOCUMENT																																																																												

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80
DOC. IDENT.	NO. FROM	M	S	STOCK NUMBER	FSC	NIN	ADD	UNIT OF ISSUE	QUANTITY	DOCUMENT NUMBER	REQUISITIONER	DATE	SERIAL	SUPPLEMENTARY ADDRESS	SIGNAL	FUND	DISTRIBUTION	PROJ. ECT.	PRI. ORY.	REQ. DEL. DATE	ADVISE	N	N	S	UNIT PRICE	DOLLARS	CTS.																																																				
SHIP FROM	USACE BALTO DISTRICT	PO BOX 1715	BALTO 21203-1715	SHIP TO	DRMO ABERDEEN	APG MD SXC 213	21005	MARK FOR	PROJECT	FOSTER WHEELER	TIM REESE	TOTAL PRICE	DOLLARS	CTS.																																																																	
WAREHOUSE LOCATION	TYPE OF CARGO	UNIT PACK	UNIT WEIGHT	UNIT CUBE	UFC	NMFC	FREIGHT RATE	DOCUMENT DATE	MAT. COND.	QUANTITY	U	ITEM NOMENCLATURE	X	SCRAP METAL (STEEL)	RECEIVED BY AND DATE	INSPECTED BY AND DATE	WAREHOUSED BY AND DATE	WAREHOUSE LOCATION																																																													
SUBSTITUTE DATA (ITEM ORIGINALLY REQUESTED)	FREIGHT CLASSIFICATION NOMENCLATURE	U	ITEM NOMENCLATURE	X	SCRAP METAL (STEEL)	RECEIVED BY AND DATE	INSPECTED BY AND DATE	WAREHOUSED BY AND DATE	WAREHOUSE LOCATION																																																																						
SELECTED BY AND DATE	TYPE OF CONTAINER(S)	TOTAL WEIGHT	NO. OF CONTAINERS	TOTAL CUBE	RECEIVED BY AND DATE	INSPECTED BY AND DATE	WAREHOUSED BY AND DATE	WAREHOUSE LOCATION																																																																							
PACKED BY AND DATE	NO. OF CONTAINERS	TOTAL CUBE	RECEIVED BY AND DATE	INSPECTED BY AND DATE	WAREHOUSED BY AND DATE	WAREHOUSE LOCATION																																																																									
REMARKS	PROOF OF DELIVERY	This stamp indicates physical receipt of property at the DRMO which is subject to	5																																																																												

**FOSTER WHEELER ENVIRONMENTAL CORPORATION**  
*APG Environmental Remediation*

**Quality Control of Health and Safety Instruments and Procedures**  
**Inspection Checklist**

All QC inspections must be completed by a designated QC Engineer or alternate who is qualified in the operation and calibrations of health and safety instruments and procedures.

The QC Engineer should observe the calibration of health and safety instrumentation randomly, or at least once every five calibrations. The QC Engineer shall inspect the health and safety operations/forms listed below.

Quality Control No.: 02 Date Started: 7.30.96  
 Date Completed: \_\_\_\_\_  
 Contract No.: DACA 31-94-D-0020 Project Site and Location: ADM SITE STORAGE YARD  
 QC Engineer(s): KENT BRANCH  
 Site Health & Safety Officer(s): JAMES MORNING

Operation/Form	7/31/96					Notes
	7/30	7/31	8/1	8/2	8/3	
Calibration Log Completed	✓	✓	✓			
Daily Briefing Log Completed	✓	✓	✓			
Daily Instrument Source/Background Check Form (for each instrument used)	✓	✓	✓			
Daily Health & Safety Report Form	✓	✓	✓			
Sign In Log for Work Zones	✓	✓	✓			
Proper Donning and Doffing of PPE	✓	N/A	✓			
Air Monitoring/Sampling Form	✓	✓	✓			
In Compliance with SHERP & SOPs	✓	✓	✓			
H & S Violations	None	None	None			
Heat and Cold Stress Monitoring	Wet Bulb Temp	Wet Bulb Temp	Wet Bulb Temp			
All OSHA Forms Up to Date	✓	✓	✓			
SHERP Review for All Personnel	✓	✓	✓			
Delineation of Work Zones	✓	✓	✓			
Shower Trailer Inspection	N/A	N/A	N/A			



**Foster Wheeler Environmental Corporation**  
*APG Environmental Remediation*

**DAILY CONSTRUCTION QUALITY CONTROL REPORT**

Daily Report No.: 09

Date: August 2, 1996 (Fri.)

Contract No.: DACA31-94- D-0020

Project Title & Location: DO #0003, Adamsite Storage Vaults - Edgewood Area

Weather: Sunny and Clear Precipitation: 0.0 in. Temp: Min. 60°F Max. 85°F

Personnel On Site: USACE (1), ERDEC (0), FWENC (2), EA (1), HFA, KEVRIC (4), DSHE (1)

Summary of Major Work Activities:

- Sediment/Debris Removal (Work Plan Section 2.2.3)
- Cut up Metal piping and place in 4'x4'x4' wooden boxes
- Roof/Panel Removal (Work Plan Sec 2.2.5 )
- Cut away concrete wall at southeast vault

1. Work Performed by Foster Wheeler Environmental Personnel: (Indicate location and description of work performed by prime and/or subcontractors. When network analysis is used, identify work by NAS activity number)

K. Branch, QC Engineer, provided oversight to ensure quality work would be performed according to the work plan (Work Plan Section 2.2.3). Mr Branch oversaw the removal of the remaining structural steel and the dismantling of the southeast vault wall to ground level. The concrete was then placed in side the vault which will be filled with Flowable Fill. The Kevric Laborers entered the northeast vault and removed wood and tin which they cut and placed in wooden 4'x4'x4' boxes. The boxes were labeled and covered with plastic sheeting awaiting a Head Space Analysis by ERDEC. Jamie Fair was on site to view todays work activities and conduct a Preparatory Inspection for removal of the vault walls. Brian Mcann (DSHE) was also on site to view work activities.

J. Morning (Site Safety and Health Officer-SSHO) conducted a health and safety briefing (See Attached Daily Briefing Sign-In Sheet). During the briefing, all site personnel were briefed on site activities, and possible hazards associated with the removal of steel, sediment and concrete wall at southeast vault. J. Morning closely monitored all activities to ensure that all Health and Safety hazards were avoided.

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The SSHO utilized chemical air monitoring equipment today during removal activities.

---

The SSHO monitored meteorological conditions including temperature (wet bulb global /thermometer) and wind direction (with wind socks) (Work Plan Section 4.10.2)

---

T. Reese, Project Manager, was on site during the day to monitor site activities.

---

Work Performed by Subcontractors: = =

M. Fox, Superintendent, conducted a pre-operational meeting to review the planned site activities for Structural Steel and Sediment removal at Adamsite Storage Vaults. Mike directed the operator to dismantle the remaining roof structure with the Cat 235c shears and place in the roll off dumpster. Mike also had the operator dismantle the southeast concrete wall to ground level and place the concrete back into the vault. The Kevric laborers were instructed to enter the northeast vault and pickup all wood and tin roofing then place inside wooden boxes. Mike called Carl Reitenbach (EA Project Manager), to schedule delivery of Flowable Fill on 5 Aug, 1996 for the southeast vault. (Work Plan Add #1, Sect. 2.3.9).

---

The Kevric laborers completed the following tasks: entered the northeast vault in modified level "D" protection and removed wood and tin roofing panels, (rinsed free of sediment), and placed in wooden boxes, used chop saw to cut metal piping then place inside 4'x4'x4' wooden boxes.

---

The Kevric equipment operator used the Cat235c to dismantle the remaining structural steel at the vaults. The operator also removed metal piping from the northeast with the Daewoo Grappler and staged the piping for the operators to cut and place in 4'x4'x4' wooden boxes. The operator using the Cat235c shears cut away the concrete walls on the southeast vault to ground level then backfilled the concrete inside the southeast vault.

---

Mr. Carl Reitenbach ( Project Manager, EA Engineering) was not on site.

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2. Operating Plant or Equipment Utilized, Mob. and/or Demo. (Not hand tools)

Equipment Utilized: John Deere 544G Tire Loader, Cat 235C Shears, Daewoo Grappler , Air monitoring equipment (CGI,FID,PID,OVA,Miniram), (1) minivan, (1) full size 4x4 pick up truck (1) small pick-up truck (3) 2way Radios (1) Cellular Phone

---

3. Control Activities Performed:

Preparatory Inspections: (Identify feature of work and attach minutes).

Initial Inspections: (Identify feature of work and attach minutes).

Daily QC of Health and Safety Instruments and Procedures Inspection Checklist (See Attached)

Preparatory Inspection Checklist (See Attached)

Follow-up Inspection Checklist (See Attached)

---

4. Tests performed and Test Results: (Identify test requirement by paragraph number in specifications and/or sheet number in plans).

Periodic air-monitoring data results were reported by the SSHO. No results were found above background. This information is recorded in the SSHO's Daily Health and Safety Report.

---

5. Material Received: (Note inspection results and storage provided)

40 tons of 1 inch crushed stone for road repair (1 Aug, 1996)

---

6. Waste Generated and/or Disposed:

(1) - Roll off dumpster of Structural steel staged for disposal on 5 Aug, 1996.

---

(2)- 4'x4'x4' wooden boxes with metal piping were generated (Box# 3&4)

---

Total waste generated to date:

15,000 gallons of water(Disposed of by Chem Waste), (2)- Dumpsters of Steel and Tin,

(4)- 4'x4'x4' Wooden boxes of metal pipe

7. Off site Surveillance Activities, Including Action Taken:

No off site surveillance activities occurred this date.

8. Job Safety: (List items checked, results, instructions and corrective actions taken)

Total Manhours Worked to Date: 428 hours Total Number of Days Worked on Site: 10 days  
Total Manhours Worked with No Lost Time Accidents: 428 hours Total Number of Lost Time  
Accidents on the Site to Date: 0

Air monitoring readings were taken with the FID, PID, CGI, and Miniram particulate monitor.

9. Remarks: (Instructions received or given. Conflict(s) in Plans and/or specifications. Delays encountered.).

Jamie FairUSACE was on site was on site to minitor steel and concrete removal from the southeast vault

10. Attachments:

Daily Construction Log/Manpower Report (FWENC & EA)

Daily H&S Report (SSHO Daily Log, Calibration Records (CGI, PID, OVA, Activity/Task Hazard Analysis), Site Entry/ Exit Log, Air Monitoring Results

Follow up Inspection Checklist (See Attached)

Preparatory Inspection Checklist (See Attached)

QC Health and Safety Instrument & Procedures Inspection Check list

Box/Pallet Inventory sheet

Contractor's Verification: On behalf of the Contractor, I certify that this report is complete and correct, and all materials and equipment used and work performed during this reporting are in compliance with the contract plans and specifications, to the best of my knowledge, except as may be noted above.

Keith Branch      2 AUG, 1996  
Keith Branch      Date  
QC Systems Engineer

= =





FOSTER WHEELER ENVIRONMENTAL CORPORATION

Page of

DAILY CONSTRUCTION LOG/MANPOWER REPORT  
DAILY REPORT #: 08

Client: US Army Corps of Engineers, ERRO, Baltimore District Date: 8-2-96  
Project: Delivery Order #0003, Site 3, Adamsite Storage Vaults, Edgewood Area, APG FW Proj.#: DACA31-94-D-0020  
Wind: 2-4 Temperature: (Hi/Low): 60-85  
Sky: Clear Precipitation: NA

LEVEL OF PROTECTION REQUIRED A B C D (circle) (required in work zone)

TIME	REMEDICATION & SITE ACTIVITIES REMARKS/COMMENTS/ACCOMPLISHMENTS/DELAYS
05:30	Safety briefing on site, went over work for this day
06:00	After getting safety equipment into place two men enter SE vault to remove all debris that had fallen into this area while roof panels were removed. Wood, tin, small steel placed into staging area
07:00	In staging area worked on cutting wood & placing into box also loaded tin steel into 3rd dumpster by hand.
08:00	Working with 235 CAT Shear removing last bit of steel & tin (roof panels) and loaded into 3rd dumpster
09:00	Two men into NE vault to pile tin into one area in order for grapple to remove & load into 3rd dumpster also started to remove wood to be cut & placed into box
10:00	Still removing steel debris from bottom of NE vault into staging area cut up placed into boxes. Moved 235 Shear into place in order to cut & shear at concrete wall of SE vault
11:00	Worked on shearing concrete wall off to grade. Still loading 4'x4' boxes with steel from NE vault, covering boxes with 6 mil plastic for seal.
12:00	Jamie of (COP) on site talked with O&A site super went over done. Placed orders for flowable fill for SE vault, change over of grapple to bucket, and fuel delivery for Monday 8-5-96
13:30	Covered wood boxes, reset snow fence cleaned up tools, equip. Secured job site, exited site returned to office paper work

EA RTI DAILY LOG

Report Number 08 Project Name Adams site  
 Location AP 6083403  
 Date 8-2-96 Contract Officer \_\_\_\_\_

Description of Work Safety meeting, went over work to be done. Removed debris from SE vault that fell into trench used with Sheen in work. On previous last of debris from roof panels & beams loaded to clamshell used laborers to move to ground to be Grappled loaded Secured site

PERSONNEL ONSITE

Company Name	Employee	Time in	Time out	Total Hours
EA	M. Fox	0530		
	Kevin	11		
	1 operator	11		
	3 laborers	11		
		11		

EQUIPMENT ONSITE

Description	Date arrived	Date left	EA Owned	Rented	Total Days Used
F350	7/24		✓		8
Ladders			✓		
Drum lifts			✓		
EZ up tent			✓		
235 w/Sheen				✓	
1806 Grappler				✓	

Any Inspections? \_\_\_\_\_ If so, time and name of inspector. \_\_\_\_\_

What kind of inspection \_\_\_\_\_

Weather Conditions Clear  Cloudy \_\_\_\_\_ Rain \_\_\_\_\_ Temp 83

On Schedule? yes  no \_\_\_\_\_

Any lost time accidents on this date? yes \_\_\_\_\_ no

Have you had your daily safety meeting? yes  no \_\_\_\_\_

Safety concerns Heat, working with power tools

Remarks Placed orders for fuel, flowable fill, bucket change over for grappler.

M. Fox 8-2-96  
 Construction Superintendent Date

\_\_\_\_\_  
 Construction Manager Date





1. VERBAL/Written GUIDANCE (LIST INDIVIDUAL):

N/A

2. CONTROVERSIAL MATTERS:

N/A

3. SAFETY:

LEVEL OF PPE: modified level "D"

SSHO: \_\_\_\_\_

4. SEC PLAN MEASURES INSTALLED: YES NO NONE REQUIRED

ADDITIONAL MEASURES TAKE TO STABILIZE SITE: N/A

5. MINICAM STANDARDS REQUIRED/DATE:

N/A

MINICAM STANDARDS RECEIVED/DATE: \_\_\_\_\_

6. CSM SCREENING REQUIRED: YES NO

HOLDING TIME: \_\_\_\_\_

SEND TO CTF: YES NO

DATE/TIME: \_\_\_\_\_

N/A

7. SAMPLES SENT TO LAB: YES NO

NUMBER/TYPE \_\_\_\_\_

N/A

LAB USED: \_\_\_\_\_

LAB APPROVED: YES NO

SAMPLING PERFORMED: (method, type, number taken, analysis expected and who was responsible for sampling/shipment)

AROUND TIME REQUIRED: N/A

EXPECTED: \_\_\_\_\_

QA SAMPLES SENT TO COE LAB: YES NO

DATE: \_\_\_\_\_

8. "DIAL 17" REQUIRED: (give details, times, reason, who called, debriefing, follow-up, include UXO receipt)

9. NUMBER DRUMS/CONTAINERS WASTE GENERATED THIS DAY:

CONTENTS:

NUMBER OF WOODEN BOXES/SKIDS/ETC. GENERATED THIS DAY: 2

CONTENTS: Metal Piping

TOTAL NUMBER AT SITE THIS DATE:

BOXES 4

DRUMS \_\_\_\_\_

SKIDS \_\_\_\_\_

FWES REPRESENTATIVE:

Keith Branch OC

Name/Title

USACE SIGNATURE \_\_\_\_\_

Name/Title

Date: 2/11/96

Date: \_\_\_\_\_



FOSTER WHEELER ENVIRONMENTAL CORPORATION

DAILY BRIEFING SIGN-IN SHEET

Date: 8-2-96

Project Name/Location: Adamsite

Shift/Department: O14

Person Conducting Briefing: J. MORNING

1. DAILY ACTIVITIES

TASKS	CONTROLS/PPE
1. <u>CUT - BOX UP Debris</u>	<u>D/C</u>
2. <u>DEMO BLDG</u>	<u>D/P</u>
3.	
4.	
5.	

2. AWARENESS (e.g., special HS concerns, recent incidents, etc.):

SAW SAFETY

WEEKEND SAFETY

HEAT STRESS

3. OTHER ISSUES (HASP changes, attendee comments, etc.):

4. ATTENDEES (Print Name):

1. <u>B. ASHLEY Harvie</u>	11.
2. <u>Richard G. Evans Jr. FWENC</u>	12.
3. <u>JAMES Woolford III</u>	13.
4. <u>FRANCIS HUNTER</u>	14.
5. <u>Kevin Brown ch Foster Wheeler</u>	15.
6. <u>Robert Jeffers</u>	16.
7. <u>Michael Fox</u>	17.
8.	18.
9.	19.
10.	20.



### Daily Health and Safety Report

DAILY HEALTH AND SAFETY REPORT  
CONTRACT NUMBER DACA31-94-D-0020

DELIVERY ORDER NO. Delivery Order No. 003  
LOCATION OF WORK: Adamsite Storage Vaults

DATE: 8-2-96

WEATHER: Clear RAINFALL: \_\_\_\_\_ IN. TEMP: 68° min. \_\_\_\_\_ max.

1. WORK PERFORMED BY FOSTER WHEELER ENVIRONMENTAL CORPORATION AND THE FOLLOWING SUBCONTRACTORS:

- |  |   |
|--|---|
| <input type="checkbox"/> HFA               | <input type="checkbox"/> ONSITE               |
| <input checked="" type="checkbox"/> KEVRIC | <input type="checkbox"/> GONZER               |
|  | <input checked="" type="checkbox"/> <u>EA</u> |

2. EQUIPMENT BEING UTILIZED:

- |   |  |  |
|---|--|--|
| <input checked="" type="checkbox"/> HNU | <input checked="" type="checkbox"/> Miniram        | <input type="checkbox"/> MINICAMS          |
| <input checked="" type="checkbox"/> OVA | <input checked="" type="checkbox"/> W.B.G. Therm   | <input checked="" type="checkbox"/> Radios |
| <input checked="" type="checkbox"/> CGI | <input checked="" type="checkbox"/> First Aid Kits |  |
| <input type="checkbox"/> Monitox        | <input type="checkbox"/> ICADS                     |  |

3. PERSONAL PROTECTIVE EQUIPMENT DONNED:

Level B     Level C     map D

- |   |   |   |
|---|---|---|
| <input type="checkbox"/> Supplied Air Resp.   | <input type="checkbox"/> MSA Respirators(GMC-H Cartridges)              | <input type="checkbox"/> Ice Vests        |
| <input type="checkbox"/> 5 min. Escape        | <input checked="" type="checkbox"/> Hard Hat/Safety Glasses             | <input checked="" type="checkbox"/> Tyvek |
| <input checked="" type="checkbox"/> Overboots | <input checked="" type="checkbox"/> Nitrile Gloves (surgical/overglove) |   |

4. AIR MONITORING DATE:  All readings at nominal background levels during operations.

SITE SAFETY AND HEALTH OFFICER: J. MORNING DATE: 8-2-96







## DAILY HEALTH AND SAFETY REPORT

DAILY REPORT #: 08

Client: US Army Corps of Engineers, ERRO, Baltimore District

Date: 8-2-96

Project: Delivery Order #0003, Site 3, Adamsite Storage Vaults, Edgewood Area, APG FW, Proj.#: DACA31-94-D-0020

Wind: out of N

Temperature:(Hi/Low): 69° 84°

Sky: Clear

Precipitation: NONE

LEVEL OF PROTECTION REQUIRED

A

B

C

D

(circle) (required in work zone)

## REMEDATION &amp; SITE ACTIVITIES

TIME	REMARKS/COMMENTS/ACCOMPLISHMENTS/DELAYS
0530	Held Health & Safety Briefing @ Parking lot. See SIGN-IN Sheet FOR ATTENDANCE SUBJECTS AND DETAILS.
0545	Badged in Post 12 Gate, GO to Support Zone to Calibrate H&S EQUIPMENT, See CAL LOGS FOR DETAILS.
0625	Check WEST VAULT B2 AND S-2 AD'S - NO READINGS Above Action Levels, See Air Monitoring Log Sheet
0630 <sup>2</sup>	Crews Enter VAULT to pick out wood & Debris. MOD Level D w/ SPASH Protection, Swanex, Face Shields, R. Jeffers, J. Wolford.
0655	Crews begin to Exit VAULTS, AND Decon out.
0700	Begin Shear on North wall of West Vault
0915	Crews prep to Enter East Vault, Checked B2 NO Readings Above Action Levels and are @ normal backgrounds
0920	Crews Enter VAULTS MOD w/ SPASH Protection F. Hunter, R. Jeffers
0930	Crew Exits VAULT Due to PPE BLOW OUT, OPERATOR Remaining. Some Tin Panels, After Decon
0935	PM + BRIAN MANN, ON Site (OSHE)
1030	Start Demo on East Vault
1040	Dust control put in place for operator
1045	Informed operator to move to upwind position.
1000 <sup>2</sup>	ACOE - JAMIE FAIR ON Site Observing (P)
1300 <sup>2</sup>	ACOE DEPARTS, WEST VAULT Demo 10070
1315	Begin tape off Hole and secure site
1335	Site Secured, Go to Admin Trailer

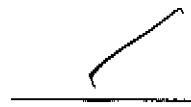
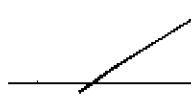

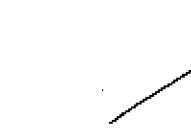
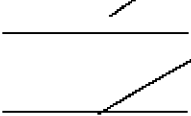
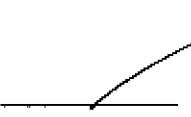
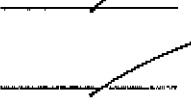
FOSTER WHEELER ENVIRONMENTAL CORPORATION

CALIBRATION RECORD FOR

COMBUSTIBLE GAS INDICATOR

SERIAL NUMBER: 11069

Passport

1. Turn instrument on (HORN OFF position). Set % LEL meter pointer to zero by adjusting the ZERO LEL control. (do this within 30 seconds). Check when complete. 
2. Use CALIBRATE O2 control to set it at 20.6%. If this can be done then replace the O2 cell. Check when complete. 
3. Press the ALARM RESET button. If the alarm light does not go out and the green pilot light begins flashing then TAG OUT unit for repair and enter note below. Check when complete. 
4. Check flow by placing finger momentarily over sample inlet. If indicator float does not drop to the no flow position then TAG OUT for repair and enter note below. Check, when complete. 
5. Check battery, recharge if necessary. Check when complete. 
6. Turn ON-OFF control to the ON position. If the pilot lamp does not light then TAG OUT unit for repair. Check when complete. 
7. Note the calibration gas % LEL 
8. Introduce calibration gas to instrument. If the meter pointer is not +/- LEL, stop the cal. gas flow and remove the right hand side (speaker panel). Turn on the flow and adjust the "S" control with a small screwdriver to obtain the reading specified for the cal. gas. When complete sign, date and record the time below.

NOTATIONS:

ALARMS OK  
50% Pentane / 4.2 O<sub>2</sub>

TU

8 2 9 6

0 1 1

FOSTER WHEELER ENVIRONMENTAL CORPORATION  
CALIBRATION RECORD FOR  
MINIRAM AEROSOL MONITOR/SUNSHIELD/MODEL PDM-SNS  
SERIAL NO. FW00143

1. Turn instrument ON. Allow to warm up for several minutes.

2. MINIRAM has been factory-calibrated. To zero the unit, use a dust free office environment or employ the Z-bag calibrator.

The Z-Bag™ is a convenient kit for zeroing the MINIRAM in the field. It provides a clean-air environment inside a plastic bag into which the MINIRAM is placed for zeroing. The Z-Bag kit consists of a one-way flow rubber bulb for manual air pumping, a filter cartridge, a zippered plastic container, a connecting hardware.

To use Z-Bag for zeroing MINIRAM proceed as follows:

1. Remove rubber bulb filter assembly from Z-Bag. Place Z-Bag on flat surface with red flow fitting facing up. Flatten bag. Remove small plastic cap from flow fitting on bag.

2. Insert ribbed elbow connector (attached to filter cartridge) into red flow fitting of plastic bag, until connector is flush with bottom of red flow fitting.

3. MINIRAM should be in its OFF condition (observe display). If display is blanked, or if MINIRAM is in the MEAS mode, key OFF.

4. Open Z-Bag and place MINIRAM inside, approximately at its center.

5. Key ZERO through the open end of the Z-Bag. Immediately zip closed the Z-Bag and begin to pump hand bulb.

6. Z-Bag should inflate as hand pumping continues, up to a height of about five inches (12 cm). Continue pumping gently to maintain bag interior pressure, until the MINIRAM displays off again.

7. Unzip Z-Bag and remove MINIRAM. MINIRAM is now ready for monitoring.

8. Place rubber bulb/filter assembly inside Z-Bag, and plug small plastic cap into flow fitting to close it. Zip close while flattening Z-Bag to store it to ensure cleanliness of the bag interior.



FOSTER WHEELER ENVIRONMENTAL CORPORATION  
CALIBRATION RECORD FOR  
HNU MODEL DL101  
SERIAL # 567048  
PROBE SERIAL # "  
PROBE eV: 10.2

1. Turn unit on and let warm up a few minutes.
2. Check time, date and mode. Mode should be S-D for Survey Mode.
3. Check low battery indicator in upper right corner
4. Prepare Calibration tank, tubing and regulator.
5. Press the calibration key on the front panel. CALIBRATE ? appears.
6. Press enter key. BLEC ZERO ? YES appears.
7. Press enter. ZEROING UNIT appears
8. Next prompt will ask for gas concentration, enter proper PPM, press enter 100
9. ATTACH GAS TO PROBE AND/ENTER will appear. start the flow and press enter.
10. PRESS ENTER WHEN READY; XXX PPM will appear, press enter when readings stabilize to complete the process. 94
11. If unit does not calibrate to correct PPM see manual for more information.
12. If unit goes to survey mode calibration is complete and ready.
13. Note any maintenance performed;  
a. bulb cleaned \_\_\_\_\_ b. filter changed \_\_\_\_\_ c. Ion Chamber cleaned \_\_\_\_\_

other \_\_\_\_\_  
\_\_\_\_\_

OK

Name: J. MORROW Date 8-2-96 Time 0618

# Foster Wheeler Environmental Corporation

*APG Environmental Remediation*

## FOLLOW-UP INSPECTION CHECKLIST

Report No. 09 Contract No. DACA31-D-94-0020 Date 2 Aug 96

Project Title and location \_\_\_\_\_ - Edgewood Area

Work No.	Weather	Temperature		Rainfall inches	Work location (grid)
		Min.	Max.		
N/A	Sunny				

Major definable feature of work Sediment / STRUCTURAL STEEL / concrete

A. Deficiencies noted: None at this time

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B. Corrective action taken:

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C. Pre-final Inspection (Attach Punch List)

\_\_\_\_\_  
Contractor's Quality Control Representative

Keith Branch 2 Aug, 1996  
QC Systems Engineer Date



FOSTER WHEELER ENVIRONMENTAL CORPORATION

Page of

DAILY CONSTRUCTION LOG/MANPOWER REPORT

DAILY REPORT #: 02

Client: US Army Corps of Engineers, ERRO, Baltimore District Date: 7-25-96  
 Project: Delivery Order #0003, Site 3, Adamsite Storage Vaults, Edgewood Area, APG FW Proj.#: DACA31-94-D-0020  
 Wind: 3-5 Temperature: (Hi/Low): 70-90  
 Sky: Clear / Sunny Precipitation: 0

LEVEL OF PROTECTION REQUIRED A B C (D) (circle) (required in work zone)

TIME	REMEDATION & SITE ACTIVITIES REMARKS/COMMENTS/ACCOMPLISHMENTS/DELAYS
5:30	Health & Safety meeting (power tools)
6:00	Unloaded more equipment & supplies to canopy bay drums tent
8:00	Used high weed mower to cut grass in areas around Job Site
10:00	Traveled out & picked up vehicle Passes for three equipment haulers, Bobby Jackson Inc. Once on site unloaded 235 CAT with shear assemble this unit went through equipment inspection
14:00	Coordinated work to be done next day to make repairs to these two units 235 CAT & Dacuro
14:30	Returned mower to Hartford Rental
	Secured work area & all equipment Adamsite

*Michael...*



# EA RTI DAILY LOG

Report Number 02 Project Name Adamsite  
 Location APG 60834/03  
 Date 7/25/96 Contract Officer \_\_\_\_\_

Description of Work Health & safety meeting unloaded drums & tent  
worked on getting up staging area. Used rented mower to cut  
grass in front of work area. 235 gal on site will need some cleaning  
Secured work area & equipment.

### PERSONNEL ONSITE

Company Name	Employee	Time in	Time out	Total Hours
<u>EA</u>	<u>Michael</u>	<u>5:30</u>		<u>11</u>
<u>Foster Wheeler</u>				
<u>QA QC</u>	<u>Keith B</u>			
<u>Health Safety</u>	<u>Gary M</u>			
<u>PM</u>	<u>Tim R</u>			

### EQUIPMENT ONSITE

Description	Date arrived	Date left	EA Owned	Rented	Total Days Used
<u>F550 Ford</u>	<u>7/24</u>		<input checked="" type="checkbox"/>		<u>2</u>
<u>Daewoo w/Generator</u>				<input checked="" type="checkbox"/>	<u>2</u>
<u>Drum Pallets</u>			<input checked="" type="checkbox"/>		<u>2</u>

Any Inspections? yes If so, time and name of inspector. QA QC  
 What kind of inspection Equipment  
 Weather Conditions Clear  Cloudy \_\_\_\_\_ Rain \_\_\_\_\_ Temp 70-92  
 On Schedule? yes  no \_\_\_\_\_  
 Any lost time accidents on this date? yes \_\_\_\_\_ no   
 Have you had your daily safety meeting? yes  no \_\_\_\_\_  
 Safety concerns \_\_\_\_\_

Remarks \_\_\_\_\_

Michael [Signature] 7/25/96  
 Construction Superintendent Date

\_\_\_\_\_  
 Construction Manager Date

Foster Wheeler Environmental Corporation  
 APG Environmental Remediation  
 EQUIPMENT/TRUCKING INSPECTION CHECKLIST

CONTRACT NO. \_\_\_\_\_

DATE: 25 July 1996

S M T W T F S

PROJECT TITLE: ADAMSite Storage Vaults

TIME: 01100

This inspection form is to be filled out at the start of the work shift upon deliveries by the Equipment/Truck Operator to insure that the equipment/truck is safe to operate and is free from apparent damage which could cause failure while in use. Once completed, this form is to be given to the Site Superintendent and QC systems engineer to be kept on file on-site. In all cases, consult the manufacturer's data to ensure compliance with all inspection criteria which may not be indicated below.

Make/Description CAT 235C w/shears Model/Serial \_\_\_\_\_

\* Items denoted with an asterick are items that must pass the inspection before the equipment can be used onsite.

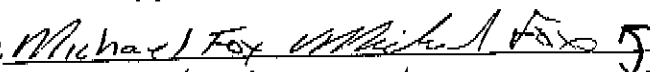
EQUIPMENT	PASS	FAIL	COMMENTS AND ACTION TAKEN
Brakes*	✓		N/A
Brake lights*	N/A		
Reverse signal alarm*	✓		
Horn/Air horn*	✓		
Tires*	N/A		TRACKS
Steering*	✓		
Seat belts*	✓		
Operating controls*	✓		
Fire extinguisher*	✓		FW will supply
Lights*		✓	
Defroster	N/A		
Mirrors*			missing → center will supply
Instruments*	✓		
Coupling devices*			Adjust door latch
Windshield/window glass	✓		NO wiper
Mud flaps/rock guards	N/A		
Exhaust system	✓		
Hitches and safety cables*	✓		
Hydraulic lines/air hoses*	✓		
Engine oil level*	✓		
Roll over equipment*	N/A		
First Aid kit*	✓		FW will supply

ODOMETER \_\_\_\_\_

HOUR METER 04963.5

FUEL LEVEL 1/4

INSPECTOR'S NAME AND SIGNATURE

Michael Fox 

# Foster Wheeler Environmental Corporation

APG Environmental Remediation

## PREPARATORY INSPECTION CHECKLIST

Report No. 25 Contract No. DACA31-D-94-0020 Date 2 Aug, 1996

Project Title and location DO#003 Adamsite Storage Vaults

Work No.	Weather	Temperature		Rainfall	Work location (grid)
	<u>Clear and Sunny</u>	Min. <u>60°</u>	Max. <u>85</u>	<u>inches</u>	

Major definable feature of work Break up Vault Government Rep. Notified Jamie Fair

Person Responsible for conducting the work Mike Fox

A.

### Personnel Present

Name	Position	Organization
<u>MIKE FOX</u>	<u>Site Superintendent</u>	<u>EA Engineering</u>
		<u>==</u>

(List additional personnel on reverse side)

B. Submittals to be reviewed: Number: N/A

Submittals reviewed and approved: Yes \_\_\_\_\_ No X

If not, explain \_\_\_\_\_

C. Materials being used are in strict compliance with the contract plans and specifications Yes Y No \_\_\_\_\_

If not, explain CAT 2350 SLAGS inspected.

D. Procedures and/or work methods witnessed are in strict compliance with approved shop drawings, plans and/or specifications. Yes ✓ No \_\_\_\_\_

If not, explain AT 2350 Slags will break up vault walls (S.E.) to ground level and place broken concrete back inside vault

E. Identify testing to be performed, frequency and by whom. Rad Space analysis by ERQC in wooden boxes

F. Workmanship is acceptable Yes ✓ No \_\_\_\_\_

Indicate areas where improvement is needed Vault cleaned to ground level

G. Safety concerns reviewed: Yes ✓ No \_\_\_\_\_

If not, explain Rad Analyses reviewed by QC's SSHC, personnel must be 75' away, once cleared area must be roped off to prevent fall in vault

USACE Quality Control Representative

Keith Branch  
Keith Branch  
QC Systems Engineer

Date

2 AUG, 1996

# FOSTER WHEELER ENVIRONMENTAL CORPORATION

## APG Environmental Remediation

### Quality Control of Health and Safety Instruments and Procedures Inspection Checklist

All QC inspections must be completed by a designated QC Engineer or alternate who is qualified in the operation and calibrations of health and safety instruments and procedures.

The QC Engineer should observe the calibration of health and safety instrumentation randomly, or at least once every five calibrations. The QC Engineer shall inspect the health and safety operations/forms listed below.

Quality Control No.: 02 Date Started: 7-30-96  
 Date Completed: \_\_\_\_\_  
 Contract No.: DAEA 31-94-D-0020 Project Site and Location: ADM SITE STORAGE VAULTS  
 QC Engineer(s): KEITH BRANCH  
 Site Health & Safety Officer(s): JAMES MORNING

Operation/Form	1/30 <sup>7/31/96</sup> / Month/Day				Notes
	1/30	7/31/96	1/30	7/31/96	
Calibration Log Completed	✓	✓	✓	✓	
Daily Briefing Log Completed	✓	✓	✓	✓	
Daily Instrument Source/Background Check Form (for each instrument used)	✓	✓	✓	✓	
Daily Health & Safety Report Form	✓	✓	✓	✓	
Sign In Log for Work Zones	✓	✓	✓	✓	
Proper Donning and Doffing of PPE	✓	N/A	✓	✓	
Air Monitoring/Sampling Form	✓	✓	✓	✓	
In Compliance with SHERP & SOPs	✓	✓	✓	✓	
H & S Violations	None	None	None	None	
Heat and Cold Stress Monitoring	Weather Temp ✓	Weather Temp ✓	Weather Temp ✓	Weather Temp ✓	
All OSHA Forms Up to Date	✓	✓	✓	✓	
SHERP Review for All Personnel	✓	✓	✓	✓	
Delineation of Work Zones	✓	✓	✓	✓	
Shower Trailer Inspection	N/A	N/A	N/A	N/A	



**Foster Wheeler Environmental Corporation**  
*APG Environmental Remediation*

**DAILY CONSTRUCTION QUALITY CONTROL REPORT**

Daily Report No.: 10 Date: August 3, 1996 (Mon.)

Contract No.: DACA31-94- D-0020

Project Title & Location: DO #0003, Adamsite Storage Vaults - Edgewood Area

Weather: Sunny and Clear Precipitation: 0.0 in. Temp: Min. 70°F Max. 85°F

Personnel On Site: USACE (2), ERDEC (0), FWENC (2), EA (2), KEVRIC (4),  
DSHE (2), CHEM WASTE (1)

Summary of Major Work Activities:

- Sediment/Metal Removal (Work Plan Section 2.2.3)
- Place metal piping in 4'x4'x4' wooden boxes
- Backfill Southwest vault with Flowable Fill (Work Plan Section 2.2.6)
- Install Bucket in place of Grappler on Daewoo

1. Work Performed by Foster Wheeler Environmental Personnel: (Indicate location and description of work performed by prime and/or subcontractors. When network analysis is used, identify work by NAS activity number)

K. Branch, QC Engineer, provided oversight to ensure quality work would be performed according to the work plan (Work Plan Section 2.2.3). Mr Branch oversaw the backfill of the southwest vault with Flowable Fill. American Stone Products delivered 205 yards of material with 19 trucks. The remaining fill for the southwest vault will be delivered on 6 Aug, 1996. Chem Waste Management will deliver two roll offs tomorrow for the sediment in the northeast vault. A smooth bucket attachment was delivered and installed on the Daewoo grappler for the sediment removal. The original plan to use 55 gallon drums has been replaced with the use of roll off dumpsters with absorbent at the bottom. Jamie Fair was on site to view today's work activities and conduct a Preparatory Inspection for backfill of the southwest vault. Brian Mccann (DSHE) was also on site to view work activities. The backfilled vault was secured with snow fencing and warning signs to avoid an accidental fall inside vault area.

J. Morning (Site Safety and Health Officer-SSHO) conducted a health and safety briefing (See Attached Daily Briefing Sign-In Sheet). During the briefing, all site personnel were briefed on site activities, and possible hazards associated with the removal of sediment, metal and backfill of the southwest vault with Flowable Fill. J. Morning closely monitored all activities to ensure that all Health and Safety hazards were avoided.

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The SSHO utilized chemical air monitoring equipment today during removal activities.

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The SSHO monitored meteorological conditions including temperature (wet bulb global /thermometer) and wind direction (with wind socks) (Work Plan Section 4.10.2)

---

T. Reese, Project Manager, was on site during the day to monitor site activities.

---

#### Work Performed by Subcontractors:

M. Fox, Superintendent, conducted a pre-operational meeting to review the planned site activities for Backfill of the southwest vault with Flowable Fill and the removal of metal from the northeast vault. Mike directed the placement of fill delivered to ensure even distribution. American Stone delivered the two hundred and five yards (205), and the remaining fill to be delivered on 6 Aug, 1996. The metal piping in the northeast vault was removed and placed in a wooden box labeled then covered. Chesapeake Rental replaced the grappler with a smooth bucket attachment for sediment removal in the northeast vault. Mike Fox scheduled Bel-Air Trash Services to pick up one (1), dumpster of Steel and Tin for disposal at DRMO on 6 Aug, 1996. Chem Waste Management and DSHE arrived on site to discuss the delivery of two roll off dumpsters for the sediment in the northeast vault. Chem Waste Management will make delivery of two dumpsters tomorrow. (Work Plan Add #1, Sect. 2.3.9).

---

The Kevric labor completed the following tasks: placed metal piping in labeled 4'x4'x4' wooden box, placed snow fencing around backfilled southwest vault, cleaned up around site.

---

The Kevric equipment operator used the Cat235c shears to cut metal piping in the northeast vault. The operator also worked at the 26th street rad yard during he day.

---

Mr. Carl Reitenbach ( Project Manager, EA Engineering) was on site to view work activities.

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2. Operating Plant or Equipment Utilized, Mob. and/or Demo. (Not hand tools)

Equipment Utilized: John Deere 544G Tire Loader, Cat 235C Shears, Daewoo Grappler , Air monitoring equipment (CGI,FID,PID,OVA,Miniram), (1) minivan, (1) full size 4x4 pick up truck (1) small pick-up truck (3) 2way Radios (1) Cellular Phone

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3. Control Activities Performed:

Preparatory Inspections: (Identify feature of work and attach minutes).

Initial Inspections: (Identify feature of work and attach minutes).

Daily QC of Health and Safety Instruments and Procedures Inspection Checklist (See Attached)

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Preparatory Inspection Checklist (See Attached)

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Follow-up Inspection Checklist (See Attached)

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4. Tests performed and Test Results: (Identify test requirement by paragraph number in specifications and/or sheet number in plans).

Periodic air-monitoring data results were reported by the SSHO. No results were found above background. This information is recorded in the SSHO's Daily Health and Safety Report.

---

5. Material Received: (Note inspection results and storage provide)

1- 205 yards of Flowable Fill for backfill of southwest vault.

2- Smooth Bucket Attachment for Daewoo Grappler.

3- Fuel for Operating Equipment.

---

6. Waste Generated and/or Disposed:

(1) - Roll off dumpster of Structural steel staged for disposal on 6 Aug, 1996.

---

(1)- 4'x4'x4' wooden box with metal piping was generated (Box# 5)

---

Total waste generated to date:

15,000 gallons of water(Disposed of by Chem Waste), (2)- Dumpsters of Steel and Tin sent to DRMO, (5)- 4'x4'x4' Wooden boxes of metal pipe(awaiting turn in)



7. Off site Surveillance Activities, Including Action Taken:

No off site surveillance activities occurred this date.

---

8. Job Safety: (List items checked, results, instructions and corrective actions taken)

Total Manhours Worked to Date: 473 hours Total Number of Days Worked on Site: 11 days  
Total Manhours Worked with No Lost Time Accidents: 473 hours Total Number of Lost Time  
Accidents on the Site to Date: 0

---

Air monitoring readings were taken with the FID, PID, CGI, and Miniram particulate monitor..

---

9. Remarks: (Instructions received or given. Conflict(s) in Plans and/or specifications. Delays encountered.)

Jamie Fair and Billy Sanders USACE was on site to monitor backfill of the southwest vault with Flowable Fill. Jamie Fair conducted a Preparatory Inspection for the backfill definable feature of work.

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10. Attachments:

Daily Construction Log/Manpower Report (FWENC & EA)

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Daily H&S Report (SSHO Daily Log, Calibration Records (CGI, PID, OVA, Activity/Task Hazard Analysis), Site Entry/ Exit Log, Air Monitoring Results)

---

Follow up/Initial Inspection Checklist (See Attached)

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Preparatory Inspection Checklist (See Attached)

---

QC Health and Safety Instrument & Procedures Inspection Check list

---

Box/Pallet Inventory sheet/Delivery trip tickets for Flowable Fill

---

Contractor's Verification: On behalf of the Contractor, I certify that this report is complete and correct, and all materials and equipment used and work performed during this reporting are in compliance with the contract plans and specifications, to the best of my knowledge, except as may be noted above.

<u>Keith Branch</u>	<u>5 AUG, 1990</u>
Keith Branch	Date
QC Systems Engineer	



DAILY CONSTRUCTION LOG/MANPOWER REPORT

DAILY REPORT #: 09

Client: US Army Corps of Engineers, ERRO, Baltimore District Date: 8-5-96  
 Project: Delivery Order #0003, Site 3, Adamsite Storage Vaults, Edgewood Area, APG FW Proj. #: DACA31-94-D-0020  
 Wind: 2-4 Temperature: (Hi/Low): 96/60  
 Sky: Cloud cover in AM Precipitation: 0  
 LEVEL OF PROTECTION REQUIRED A B C (D) (circle) (required in work zone)

TIME	REMEDICATION & SITE ACTIVITIES REMARKS/COMMENTS/ACCOMPLISHMENTS/DELAYS
0530	Health & Safety briefing went over work for this day
0600	With 544 loader cleared all area around SVV vault in order to put flowable fill
0715	Working w/235 CAT Shear finishing up with top of grade on concrete wall of SW vault removing rebar to grade. Camp Jamie F. on site for preparatory inspection in order to fill S vault with flowable fill upto 1' below grade
0800	Flowable fill on site of trucks #515 #516 #513 #500 duned all at same time 20mi (45 yards)
0900	Flowable on site 3 trucks #512 #511 #502 31 yards CAMP on site Jamie & Billy looked over work done
1000	Working with 235' cat Shear removing steel debris from NE vault, Truck with flowable fill on site #515 #500
1030	TK #516 #513 on site to unload flowable fill
1120	TK #511 #512 on site to unload flowable fill
1145	TK #515 #502 " " " " " " " "
1230	Chesapeake equipment supply on site to make grapple change over to bucket
1240	TK #516 on site
1330	Started to reset snow fence escorted personnel off site
1430	512 on site for flow fill also 511 on site #502 last
1500	Finished with snow fence around all of job site secured job and equipment exited site returned to office meet with A.M. Tim R. went over next days work

EA RTI DAILY LOG

Report Number 0 Project Name Adamsite  
 Location AP6 60834.05  
 Date 8-5-96 Contract Officer \_\_\_\_\_

Description of Work Health & safety prep time for starting to fill SW vault with flowable fill also restaged full wood boxes trucks on site

PERSONNEL ONSITE

Company Name	Employee	Time in	Time out	Total Hours
EA	M Fox	0530		
Kovick	laborer			

EQUIPMENT ONSITE

Description	Date arrived	Date left	EA Owned	Rented	Total Days Used
1350 Ford	7/24		✓		
2 loaders			✓		
2 Driver lifts			✓		
1 EZ up tool			✓		
235 CAT Shear				✓	
180 h Dressed Grapple				✓	

Any Inspections? yes If so, time and name of inspector. Jamie D  
 What kind of inspection preparatory (flowable fill)  
 Weather Conditions Clear Cloudy AM Rain ☐ Temp 75  
 On Schedule? yes ✓ no \_\_\_\_\_  
 Any lost time accidents on this date? yes \_\_\_\_\_ no ✓  
 Have you had your daily safety meeting? yes ✓ no \_\_\_\_\_  
 Safety concerns Working around concrete trucks & shear

Remarks 205 yards flowable fill (19 trucks)

M Fox 8-5/96  
 Construction Superintendent Date

\_\_\_\_\_  
 Construction Manager Date





## 1. VERBAL/WRITTEN GUIDANCE (LIST INDIVIDUAL):

## 2. CONTROVERSIAL MATTERS:

## 3. SAFETY:

LEVEL OF PPE: modified level "D" SSHO: \_\_\_\_\_4. SEC PLAN MEASURES INSTALLED: YES NO NONE REQUIRED  
ADDITIONAL MEASURES TAKE TO STABILIZE SITE: N/A5. MINICAM STANDARDS REQUIRED/DATE: N/A  
MINICAM STANDARDS RECEIVED/DATE: \_\_\_\_\_6. CSM SCREENING REQUIRED: YES NO HOLDING TIME: \_\_\_\_\_  
SEND TO CTF: YES NO DATE/TIME: \_\_\_\_\_7. SAMPLES SENT TO LAB: YES  NO NUMBER/TYPE \_\_\_\_\_  
LAB USED: N/A  
LAB APPROVED: YES NO  
SAMPLING PERFORMED: (method, type, number taken, analysis expected and who was responsible for sampling/shipment)  
AROUND TIME REQUIRED: N/A EXPECTED: \_\_\_\_\_  
QA SAMPLES SENT TO COE LAB: YES NO DATE: \_\_\_\_\_8. "DIAL 17" REQUIRED: (give details, times, reason, who called, debriefing, follow-up, include UXO receipt)  
N/A

9. NUMBER DRUMS/CONTAINERS WASTE GENERATED THIS DAY: 1

CONTENTS: Metal Piping

NUMBER OF WOODEN BOXES/SKIDS/ETC. GENERATED THIS DAY:

CONTENTS:

TOTAL NUMBER AT SITE THIS DATE:

BOXES 5 DRUMS \_\_\_\_\_ SKIDS \_\_\_\_\_2 - Roll off Dumpsters SENT to DYMO w/E 8-2-96 (Structural Steel)  
1 - Roll off Dumpster going to DYMO 8-6-96 ( " " )FWES REPRESENTATIVE: Keith Branch QC ENGINEER

Name/Title

USACE SIGNATURE \_\_\_\_\_

Name/Title

Date: 5 August, 1996

Date: \_\_\_\_\_

DAILY HEALTH AND SAFETY REPORT  
DAILY REPORT #:

Client: US Army Corps of Engineers, ERRO, Baltimore District Date: 8-5-96  
 Project: Delivery Order #0003, Site 3, Adamsite Storage Vaults, Edgewood Area, APG FW Proj.#: DACA31-94-D-0020  
 Wind: out of NE Temperature: (Hi/Low): 70 89°  
 Sky: OVERCAST Precipitation: NONE

LEVEL OF PROTECTION REQUIRED A B C (D) (circle) (required in work zone)

TIME	REMEDICATION & SITE ACTIVITIES REMARKS/COMMENTS/ACCOMPLISHMENTS/DELAYS
0530	Held Health & Safety Meeting @ Parking Lot, See Sign in Sheet for Attendance Subjects
0545	Badged in Post 12 Gate, Go to Support Zone (S-2) to Calibrate H&S Equipment. See CAI Logs for Details
0630	Crews Prep for Fill OP'S, Radio, phone check OK
0730	Checked Vault AO- NO Readings Above Action Levels, See Air Monitoring Log Sheet. ACOE Jamie Fair on Site
0747	TRUCKS Arrive, Give Drivers briefing, begin Dump OP
0815 ≈	TRUCKS DEPART
0845 ≈	Laborer Found a possible UXO ITEM, CALLED FW UXO Personnel, Cleared AO- STANDING BY
0900 ≈	TED, FW UXO, identified object - M60 TRAILER NON-HAZARDOUS, RESUME OP'S
0905 ≈	TRUCKS Arrive for 2nd Dump OP'S of fill material
0920 ≈	TRUCKS DEPART. ACOE J. Fair on site Check Site- NO READINGS ABOVE ACTION LEVELS.
1000	ON, GOING BACK FILL OP'S
1330	OPERATOR & LABORER DEPART SITE AWAITING LAST ROUND OF TRUCKS.
1500	Site Secured Depart to Admin. <span style="float: right;">JA</span>





FOSTER WHEELER ENVIRONMENTAL CORPORATION

DAILY BRIEFING SIGN-IN SHEET

Date: 8-5-96

Project Name/Location: Adamsite AP8-MD

Shift/Department: DAY

Person Conducting Briefing: J. MORNING

1. DAILY ACTIVITIES

TASKS	CONTROLS/PPE
1. Install Fill - WEST Vault	O/P
2. Remove Debris - Box up	O/C
3.	
4.	
5.	

2. AWARENESS (e.g., special HS concerns, recent incidents, etc.):

SLIP TRIP FALL  
 BACKING OF TRUCKS  
 VAULT FALL HAZARDS  
 PINCH POINTS

3. OTHER ISSUES (HASP changes, attendee comments, etc.):

DISCUSS HAZARDS OF BACKFILL OP'S

4. ATTENDEES (Print Name):

1. FREDERICK L. ADSEK KERRIC	11.
2. MICHAEL FOX EA	12.
3. FRANCIS HUNTER	13.
4. B. ASHLEY KERRIC	14.
5. HEATH BRANCH Foster Wheeler	15.
6.	16.
7.	17.
8.	18.
9.	19.
10.	20.





### Daily Health and Safety Report

DAILY HEALTH AND SAFETY REPORT  
CONTRACT NUMBER DACA31-94-D-0020

DELIVERY ORDER NO. Delivery Order No. 003  
LOCATION OF WORK: Adamsite Storage Vaults

DATE: 8-5-96

WEATHER: PC RAINFALL:        IN. TEMP: 70 min. 89 max.

1. WORK PERFORMED BY FOSTER WHEELER ENVIRONMENTAL CORPORATION AND THE FOLLOWING SUBCONTRACTORS:

- |  |   |
|--|---|
| <input type="checkbox"/> HFA               | <input type="checkbox"/> ONSITE               |
| <input checked="" type="checkbox"/> KEVRIC | <input type="checkbox"/> GONZER               |
|  | <input checked="" type="checkbox"/> <u>EA</u> |

2. EQUIPMENT BEING UTILIZED:

- |   |  |  |
|---|--|--|
| <input checked="" type="checkbox"/> HNU | <input checked="" type="checkbox"/> Miniram        | <input type="checkbox"/> MINICAMS          |
| <input checked="" type="checkbox"/> OVA | <input checked="" type="checkbox"/> W.B.G. Therm   | <input checked="" type="checkbox"/> Radios |
| <input checked="" type="checkbox"/> CGI | <input checked="" type="checkbox"/> First Aid Kits |  |
| <input type="checkbox"/> Monitox        | <input type="checkbox"/> ICADS                     |  |





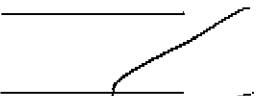

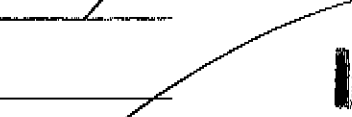
3. PERSONAL PROTECTIVE EQUIPMENT DONNED:

- |   |  |                                    |
|---|--|------------------------------------|
| <input type="checkbox"/> Supplied Air Resp. | <input type="checkbox"/> MSA Respirators (GMC-H Cartridges)  | <input type="checkbox"/> Ice Vests |
| <input type="checkbox"/> 5 min. Escape      | <input checked="" type="checkbox"/> Hard Hat/Safety Glasses  | <input type="checkbox"/> Tyvek     |
| <input type="checkbox"/> Overboots          | <input type="checkbox"/> Nitrile Gloves (surgical/overglove) |                                    |

4. AIR MONITORING DATE:  All readings at nominal background levels during operations.

SITE SAFETY AND HEALTH OFFICER: J. MURKIN 6 DATE: 8-5-96

FOSTER WHEELER ENVIRONMENTAL CORPORATION  
CALIBRATION RECORD FOR  
COMBUSTIBLE GAS INDICATOR  
SERIAL NUMBER: 11069

1. Turn instrument on (HORN OFF position). Set % LEL meter pointer to zero by adjusting the ZERO LEL control. (do this within 30 seconds). Check when complete. 
2. Use CALIBRATE O2 control to set it at 20.6%. If this can be done then replace the O2 cell. Check when complete. 
3. Press the ALARM RESET button. If the alarm light does not go out and the green pilot light begins flashing then TAG OUT unit for repair and enter note below. Check when complete. 
4. Check flow by placing finger momentarily over sample inlet. If indicator float does not drop to the no flow position then TAG OUT for repair and enter note below. Check, when complete. 
5. Check battery, recharge if necessary. Check when complete. 
6. Turn ON-OFF control to the ON position. If the pilot lamp does not light then TAG OUT unit for repair. Check when complete. 
7. Note the calibration gas % LEL 
8. Introduce calibration gas to instrument. If the meter pointer is not +/- LEL, stop the cal. gas flow and remove the right hand side (speaker panel). Turn on the flow and adjust the "S" control with a small screwdriver to obtain the reading specified for the cal. gas. When complete sign, date and record the time below.

NOTATIONS:

*50% Pentane*

*11/10/10 11:59 AM 100%*

FOSTER WHEELER ENVIRONMENTAL CORPORATION  
CALIBRATION RECORD FOR  
MINIRAM AEROSOL MONITOR/SUNSHIELD/MODEL PDM-SNS  
SERIAL NO. Fw00143

1. Turn instrument ON. Allow to warm up for several minutes.
2. MINIRAM has been factory-calibrated. To zero the unit, use a dust free office environment or employ the Z-bag calibrator.

The Z-Bag™ is a convenient kit for zeroing the MINIRAM in the field. It provides a clean-air environment inside a plastic bag into which the MINIRAM is placed for zeroing. The Z-Bag kit consists of a one-way flow rubber bulb for manual air pumping, a filter cartridge, a zippered plastic container, a connecting hardware.

To use Z-Bag for zeroing MINIRAM proceed as follows:

1. Remove rubber bulb filter assembly from Z-Bag. Place Z-Bag on flat surface with red flow fitting facing up. Flatten bag. Remove small plastic cap from flow fitting on bag.
2. Insert ribbed elbow connector (attached to filter cartridge) into red flow fitting of plastic bag, until connector is flush with bottom of red flow fitting.
3. MINIRAM should be in its OFF condition (observe display). If display is blanked, or if MINIRAM is in the MEAS mode, key OFF.
4. Open Z-Bag and place MINIRAM inside, approximately at its center.
5. Key ZERO through the open end of the Z-Bag. Immediately zip closed the Z-Bag and begin to pump hand bulb.
6. Z-Bag should inflate as hand pumping continues, up to a height of about five inches (12 cm). Continue pumping gently to maintain bag interior pressure, until the MINIRAM displays off again.
7. Unzip Z-Bag and remove MINIRAM. MINIRAM is now ready for monitoring.
8. Place rubber bulb/filter assembly inside Z-Bag, and plug small plastic cap into flow fitting to close it. Zip close while flattening Z-Bag to store it to ensure cleanliness of the bag interior.



FOSTER WHEELER ENVIRONMENTAL CORPORATION  
CALIBRATION RECORD FOR  
HNU MODEL DL101  
SERIAL # 567048  
PROBE SERIAL # 11  
PROBE eV; 10.2

1. Turn unit on and let warm up a few minutes. ✓
2. Check time, date and mode. Mode should be S-D for Survey Mode. ✓
3. Check low battery indicator in upper right corner ✓
4. Prepare Calibration tank, tubing and regulator. ✓
5. Press the calibration key on the front panel. CALIBRATE ? appears. ✓
6. Press enter key. ELEC ZERO ? YES appears. ✓
7. Press enter. ZEROING UNIT appears ✓
8. Next prompt will ask for gas concentration, enter proper PPM, press enter. ✓
9. ATTACH GAS TO PROBE AND/ENTER will appear. start the flow and press enter. ✓
10. PRESS ENTER WHEN READY; XXX PPM will appear, press enter when readings stabilize to complete the process. ✓
11. If unit does not calibrate to correct PPM see manual for more information. ✓
12. If unit goes to survey mode calibration is complete and ready. ✓
13. Note any maintenance performed;  
a. bulb cleaned \_\_\_\_\_ b. filter changed \_\_\_\_\_ c. Ion Chamber cleaned \_\_\_\_\_

other \_\_\_\_\_  
\_\_\_\_\_

Name; J. Manning

Date 8-5-96

Time 0621



# Foster Wheeler Environmental Corporation

APG Environmental Remediation

## FOLLOW-UP INSPECTION CHECKLIST

Report No. 10 Contract No. DACA31-D-94-0020 Date 5 AUGUST, 1996

Project Title and location ADAASite Storage - Edgewood Area

Work No.	Weather	Temperature		Rainfall	Work location (grid)
N/A	Sunny / Humid	Min. 70°	Max. 89°	— inches	

Major definable feature of work Break up Vault walls & Back fill Southwest Vault w/ Flow-<sup>2</sup>Fill

A. Deficiencies noted: - American Stone Products unable to deliver all material today.

- Only southwest vault concrete wall dismantled, because north east still has sediment to be removed.

- NO TASK ACTIVITY Hazard Analysis Available for preparatory inspection for Back fill of vaults

B. Corrective action taken: - will deliver remaining Flowable Fill on 6 Aug, 1996

C. Pre-final Inspection (Attach Punch List)

\_\_\_\_\_  
Contractor's Quality Control Representative

Kent Branch  
QC Systems Engineer

5 Aug 96  
Date

# Foster Wheeler Environmental Corporation

## APG Environmental Remediation

### INITIAL INSPECTION CHECKLIST

Report No. 05 Contract No. DACA31-D-94-0020 Date 2 Aug 96

Project Title and location D0#003 Adamsite Storage Vaults

Work No.	Weather	Temperature		Rainfall	Work location (grid)
		Min.	Max.		
<i>N/A</i>	<i>Sunny / Clear</i>			inches	

Major definable feature of work Break up Vault Wells

Reference contract drawings (if any) \_\_\_\_\_

A.

#### Personnel Present

Name	Position	Organization
<i>Mike Fox</i>	<i>Site Superintendent</i>	<i>Foster Wheeler</i>
<i>James Manning</i>	<i>Health and Safety</i>	<i>Foster Wheeler</i>

(List additional personnel on reverse side)

B. Materials being used are in strict compliance with the contract plans and specifications

YES  NO \_\_\_\_\_

If not, explain Lot 235C shows have been inspected and in good condition.

C. Procedures and/or work methods witnessed are in strict compliance with approved shop drawings, plans and specifications

YES  NO \_\_\_\_\_

If not, explain Machinery was operating at safe distance and the machinery was used breaking up vault according to work plan (ground level)

D. Workmanship is acceptable YES  NO \_\_\_\_\_

Indicate areas where improvement is needed \_\_\_\_\_

E. Safety violations and corrective action taken \_\_\_\_\_

# Foster Wheeler Environmental Corporation

## APG Environmental Remediation

### INITIAL INSPECTION CHECKLIST

Report No. 06 Contract No. DACA31-D-94-0020 Date 5/10/96

Project Title and location D0#003 Adamsite Storage Vaults

Work No.	Weather	Temperature		Rainfall inches	Work location (grid)
		Min.	Max.		
<u>N/A</u>	<u>Sunny / Clear</u>				

Major definable feature of work BACK FILL vaults

Reference contract drawings (if any) \_\_\_\_\_

A.

#### Personnel Present

Name	Position	Organization
<u>Alike Fox</u>		
<u>James Downing</u>		

(List additional personnel on reverse side)

B. Materials being used are in strict compliance with the contract plans and specifications

YES X NO \_\_\_\_\_

If not, explain Data on F.I. provided to Jimmie Fair, ASH content, and mix information

C. Procedures and/or work methods witnessed are in strict compliance with approved shop drawings, plans and specifications

YES ✓ NO \_\_\_\_\_

If not, explain mixer trucks were guided into position by site superintendent to evenly distribute flowable fill.

D. Workmanship is acceptable YES X NO \_\_\_\_\_

Indicate areas where improvement is needed delivery and placement oversight was done in an orderly fashion.

E. Safety violations and corrective action taken NOTE - only personnel assigned near vaults was allowed. Area sectioned off with snow fencing to avoid accidental falls

Brook Branch 6/10/96

# Foster Wheeler Environmental Corporation

## APG Environmental Remediation

### PREPARATORY INSPECTION CHECKLIST

Report No. 06 Contract No. DACA31-D-94-0020 Date 8/15/96

Project Title and location DO#003 Adamsite Storage Vaults

Work No.	Weather	Temperature		Rainfall inches	Work location (grid)
		Min.	Max.		
N/A	OVERCAST				

Major definable feature of work Backfill vaults with flowable fill Government Rep. Notified JAMIE FAIR

Person Responsible for conducting the work MIKE FOX

**A. Personnel Present**

Name	Position	Organization
MIKE FOX	Site Superintendent	FA ENGINEERING
JAMIE FAIR	Project Engineer	USACE

(List additional personnel on reverse side)

B. Submittals to be reviewed: Number: N/A

Submittals reviewed and approved: Yes   No  

If not, explain  

C. Materials being used are in strict compliance with the contract plans and specifications Yes  No  

If not, explain Analysis of flowable fill given to Jamie Fair reviewed and accepted. Material within limits of MOE. South west vault being filled

D. Procedures and/or work methods witnessed are in strict compliance with approved shop drawings, plans and/or specifications. Yes  No  

If not, explain Trucks will drop fill inside vaults at various locations. Full overze operations. Hand to be applied after fill has hardened only.

E. Identify testing to be performed, frequency and by whom. Testing information of fill was supplied by supplier, material has been accepted.

F. Workmanship is acceptable Yes  No  

Indicate areas where improvement is needed Ensure fill is 1' from top of vaults and facility level. Pushed zone to fill in remaining 12'.

G. Safety concerns reviewed: Yes  No  

If not, explain No activity task hazard analysis (Note Deficiency) Site Safety Plan reviewed by all personnel. Keep all personnel 2-3 feet from edge of vaults. Install snow fence over site to protect anything from falling inside vaults

James J. Am 8/15/96  
USACE Quality Control Representative
Keith Branch 8 Aug. 1996  
Keith Branch  
QC Systems Engineer Date

# FOSTER WHEELER ENVIRONMENTAL CORPORATION

## APG Environmental Remediation

### Quality Control of Health and Safety Instruments and Procedures Inspection Checklist

All QC inspections must be completed by a designated QC Engineer or alternate who is qualified in the operation and calibrations of health and safety instruments and procedures.

The QC Engineer should observe the calibration of health and safety instrumentation randomly, or at least once every five calibrations. The QC Engineer shall inspect the health and safety operations/forms listed below.

Quality Control No.: 02 Date Started: 7.30.96  
 Date Completed: \_\_\_\_\_  
 Contract No.: DA CA 31-94-D-0020 Project Site and Location: ADMUSITE STORAGE VAULTS  
 QC Engineer(s): KENT BRANCH  
 Site Health & Safety Officer(s): JAMES MORNING

Operation/Form	7/30 7/31/8/1/2 8/5					Notes
	7/30	7/31	8/1	8/2	8/5	
Calibration Log Completed	✓	✓	✓	✓	✓	
Daily Briefing Log Completed	✓	✓	✓	✓	✓	
Daily Instrument Source/Background Check Form (for each instrument used)	✓	✓	✓	✓	✓	
Daily Health & Safety Report Form	✓	✓	✓	✓	✓	
Sign In Log for Work Zones	✓	✓	✓	✓	✓	
Proper Donning and Doffing of PPE	✓	N/A	✓	✓	✓	
Air Monitoring/Sampling Form	✓	✓	✓	✓	✓	
In Compliance with SHERP & SOPs	✓	✓	✓	✓	✓	
H & S Violations	NONE	NONE	NONE	NONE	NONE	
Heat and Cold Stress Monitoring	WARM TEMP	WARM TEMP	WARM TEMP	WARM TEMP	WARM TEMP	
All OSHA Forms Up to Date	✓	✓	✓	✓	✓	
SHERP Review for All Personnel	✓	✓	✓	✓	✓	
Delineation of Work Zones	✓	✓	✓	✓	✓	
Shower Trailer Inspection	N/A	N/A	N/A	N/A	N/A	

Foster Wheeler Environmental Corporation  
APG Environmental Remediation

BOX/PALLET INVENTORY  
*ADAMSITE STORAGE UNITS*

Box ID #	Pallet ID #	Description of Contents	Date Filled	Analytical Requested	Date Sampled	Results, Remarks, and Disposition
001		Metal Piping / Plastic	1 Aug, 96			Will have lead trace analysis
002		Metal Piping	1 Aug, 96			" "
003		Metal Piping	2 Aug 96			" "
004		Metal Piping	2 Aug 96			" "
005		Metal Piping	5 Aug 96			" "

**Foster Wheeler Environmental Corporation**  
*APG Environmental Remediation*

**DAILY CONSTRUCTION QUALITY CONTROL REPORT**

Daily Report No.: 11

Date: August 6, 1996 (Tue.)

Contract No.: DACA31-94- D-0020

Project Title & Location: DO #0003, Adamsite Storage Vaults - Edgewood Area

Weather: Sunny and Clear Precipitation: 0.0 in. Temp: Min. 70°F Max. 90°F

Personnel On Site: USACE (1), ERDEC (0), FWENC (2), EA (1), KEVRIC (2),  
DSHE (2), CHEM WASTE (1)

Summary of Major Work Activities:

- Sediment/Metal Removal (Work Plan Section 2.2.5.1)
- Place metal piping in 4'x4'x4' wooden boxes
- Backfill Southwest vault with Flowable Fill (Work Plan Section 2.2.6)
- Turn in Steel and Tin to DRMO

1. Work Performed by Foster Wheeler Environmental Personnel: (Indicate location and description of work performed by prime and/or subcontractors. When network analysis is used, identify work by NAS activity number)

K. Branch, QC Engineer, provided oversight to ensure quality work would be performed according to the work plan (Work Plan Section 2.2.5.1/2.2.6). Mr Branch oversaw the backfill completion of the S.W. vault with the remaining seventy six yards of fill delivered today. Several inches of fill will be removed by the John Deere 544G Loader in order to place twelve (12) inches of #3 crushed stone on top. The stone was delivered late yesterday by Genstar. DSHE and Chem Waste Management delivered a 30 yard roll off dumpster lined with plastic and filled with 3 ton of absorbent for the sediment in the northeast vault. The Kevric operator utilized the Daewoo L180c to remove the sediment and the laborers entered the vault to remove the remaining metal. The vault is now clean of sediment and metal will be backfilled with Flowable Fill and crushed stone. A roll off dumpster of steel and tin was turned in to DRMO (APG), for recycling yesterday.

J. Morning (Site Safety and Health Officer-SSHO) conducted a health and safety briefing (See Attached Daily Briefing Sign-In Sheet). During the briefing, all site personnel were briefed on site activities, and possible hazards associated with the removal of sediment, metal and backfill of the southwest vault with Flowable Fill. J. Morning closely monitored all activities to ensure that all Health and Safety hazards were avoided.

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The SSHO utilized chemical air monitoring equipment today during removal activities.

---

The SSHO monitored meteorological conditions including temperature (wet bulb global/ thermometer) and wind direction (with wind socks) (Work Plan Section 4.10.2)

---

T. Reese, Project Manager, was on site during the day to monitor site activities. Mr. Reese spoke with Paul Harvey (DSHE), by telephone and it was decided that no sampling would be required of the sediment removed from the Adamsite Storage Vaults. The sampling done by Roy F. Weston will be sufficient and no additional testing will be required.

---

#### Work Performed by Subcontractors:

Mike Fox, Superintendent, conducted a pre-operational meeting to review the planned site activities for Backfill of the southwest vault with Flowable Fill and the removal of metal and sediment from the northeast vault. Mike directed the placement of the remaining fill that completed the southwest vault. Chem Waste Management and DSHE delivered a 30 cubic roll off dumpsters for the sediment in the northeast vault. The sediment in the northeast vault was removed by the Daewoo and placed inside the roll off lined with poly and absorbent. Mike entered the vault to pick up any remaining metal or tin and placed it inside the roll off. Mike also excepted one hundred and three (103) tons of #3 crushed stone to cover the southwest vault. Chem Waste Management will pick up filled dumpster on 9 Aug, 1996. (Work Plan Add #1, Sect. 2.3.9).

---

The Kevric labor completed the following tasks: placed metal piping in labeled 4'x4'x4' wooden box, entered the northeast vault in modified level "D" protection and removed metal piping and tin roofing, placed snow fencing around backfilled southwest vault, and cleaned up around site.

---

The Kevric equipment operator used the Daewoo L180c with smooth bucket attachment to remove sediment in the northeast vault. The sediment was placed inside a 30yd roll off dumpster filled with 3 ton of absorbent.

---

Mr. Carl Reitenbach ( Project Manager, EA Engineering) was not on site to view work activities but contacted the Site Superintendent to discuss todays activities.

---



2. Operating Plant or Equipment Utilized, Mob. and/or Demo. (Not hand tools)

Equipment Utilized: John Deere 544G Tire Loader, Daewoo Grappler, Air monitoring equipment (CGI,FID,PID,OVA,Miniram), (1) minivan, (1) full size 4x4 pick up truck (1) small pick-up truck (3) 2 way Radios (1) Cellular Phone

---

3. Control Activities Performed:

Preparatory Inspections: (Identify feature of work and attach minutes).

Initial Inspections: (Identify feature of work and attach minutes).

Daily QC of Health and Safety Instruments and Procedures Inspection Checklist (See Attached)

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Preparatory Inspection Checklist (See Attached)

---

Follow-up Inspection Checklist (See Attached)

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4. Tests performed and Test Results: (Identify test requirement by paragraph number in specifications and/or sheet number in plans).

Periodic air-monitoring data results were reported by the SSHO. No results were found above background. This information is recorded in the SSHO's Daily Health and Safety Report.

---

5. Material Received: (Note inspection results and storage provide)

1- Remaining 76 yards of Flowable Fill for southwest vault.

2- 103.62 tons of ASTM#3 crushed stone.

3- 30 yard roll off with absorbent

---

6. Waste Generated and/or Disposed:

(1) - Roll off dumpster of sediment staged for disposal on 9 Aug, 1996.

---

Total waste generated to date:

15,000 gallons of water (Disposed of by Chem Waste), (3)- Dumpsters of Steel and Tin sent to DRMO 26,160lbs, (5)- 4'x4'x4' Wooden boxes of metal pipe(awaiting turn in) (1) - 30yd roll off with sediment.

7. Off site Surveillance Activities, Including Action Taken:

No off site surveillance activities occurred this date.

8. Job Safety: (List items checked, results, instructions and corrective actions taken)

Total Manhours Worked to Date: 518 hours Total Number of Days Worked on Site: 12 days  
Total Manhours Worked with No Lost Time Accidents: 518 hours Total Number of Lost Time  
Accidents on the Site to Date: 0

Air monitoring readings were taken with the FID, PID, CGI, and Miniram particulate monitor..

9. Remarks: (Instructions received or given. Conflict(s) in Plans and/or specifications. Delays encountered.)

Jamie Fair USACE was on site to monitor backfill completion of the southwest vault with Flowable Fill and the removal of all sediment in the northeast vault.

10. Attachments:

Daily Construction Log/Manpower Report (FWENC & EA)

Daily H&S Report (SSHO Daily Log, Calibration Records (CGI, PID, OVA, Activity/Task Hazard Analysis), Site Entry/ Exit Log, Air Monitoring Results

Follow up/Initial Inspection Checklist (See Attached)

DD1348-1 Steel and Tin turned in to DRMO

QC Health and Safety Instrument & Procedures Inspection Check list

Delivery trip tickets for Flowable Fill & Crushed Stone

Telephone Conversation Log

Contractor's Verification: On behalf of the Contractor, I certify that this report is complete and correct, and all materials and equipment used and work performed during this reporting are in compliance with the contract plans and specifications, to the best of my knowledge, except as may be noted above.

Keith Branch                      8-6-96  
Keith Branch                      Date  
QC Systems Engineer



FOSTER WHEELER ENVIRONMENTAL CORPORATION

Page of

DAILY CONSTRUCTION LOG/MANPOWER REPORT  
DAILY REPORT #: 10

Client: US Army Corps of Engineers, ERRO, Baltimore District Date: 8-6-96  
Project: Delivery Order #0003, Site 3, Adamsite Storage Vaults, Edgewood Area, APG FW Proj. #: DACA31-94-D-0020  
Wind: L-3 Temperature: (Hi/Low): 70-90  
Sky: Clear Precipitation: 0  
LEVEL OF PROTECTION REQUIRED A B C D (circle) (required in work zone)

REMEDIATION & SITE ACTIVITIES

TIME	REMARKS/COMMENTS/ACCOMPLISHMENTS/DELAYS
0530	Briefing on Health & safety went over work for this day
0600	Flo-ash on site Tk #515 #500 #516
0700	Tk #513 #512 #502 Delivered Floash
0730	Working with shear & steel beam to clear bottom of NE vault
0800	Last truck from floash on site #511 moved dumpster from inside work area to where it will be picked up Begin Trash
0900	Working with Grapples & new bucket to move sediment to south end of NE vault
1000	Chem waste on site with 30 yard Dumpster for sediment from bottom of NE vault Dumpster #1
1030	Comp on site Service F. looked over work done & to be done Begin Trash on site picked 3 dumpsters
1130	Two men went into NE vault removed last of steel & wood from this area loaded into basket on DeWoo.
1230	loaded dumpster from Chem waste with debris & sediment from bottom of NE vault
1330	Trucks from Geostar with Stone MSHA #2s 103.62 Tons Picked Vehicle Pass. also escorted man out of this area
1400	Secured equipment & Job site exited site returned to office

*M. J. Har*

EA RTI DAILY LOG

Report Number 10 Project Name Adamsite  
 Location HPG 6083403  
 Date 8/6/96 Contract Officer \_\_\_\_\_

Description of Work Health & Safety. worked with grapples to remove last of debris from NE vault, also finish last of H2O table fill into SW vault. Genstar onsite w/stone 103.62 tons. Check waste on site w/dumpster for sediment, Belgin Trash removed 3rd & last dumpster.

PERSONNEL ONSITE

Company Name	Employee	Time in	Time out	Total Hours
EA	M. Boy	0550		9
	Kevin			
	1 operator			
	1 laborer			

EQUIPMENT ONSITE

Description	Date arrived	Date left	EA Owned	Rented	Total Days Used
F350 Ford	7/24		✓	✗	
Shear 235 cut			✗	✓	
Grapples Daewoo				✓	
Ladders			✓		
EZ up tent			✓		
Drum Mats			✓		

Any Inspections? no If so, time and name of inspector. \_\_\_\_\_

What kind of inspection \_\_\_\_\_

Weather Conditions Clear  Cloudy \_\_\_\_\_ Rain \_\_\_\_\_ Temp 89

On Schedule? yes  no \_\_\_\_\_

Any lost time accidents on this date? yes \_\_\_\_\_ no

Have you had your daily safety meeting? yes  no \_\_\_\_\_

Safety concerns Vehicles, Heavy equipment, Heat

Remarks Genstar on site 103.62 tons Stone

Michael Fox  
 Construction Superintendent Date 8/6/96

\_\_\_\_\_  
 Construction Manager Date





## 1. VERBAL/Written GUIDANCE (LIST INDIVIDUAL):

N/A

## 2. CONTROVERSIAL MATTERS:

## 3. SAFETY:

LEVEL OF PPE: in full - modified level "D"

SSHO: \_\_\_\_\_

## 4. SEC PLAN MEASURES INSTALLED: YES NO NONE REQUIRED

ADDITIONAL MEASURES TAKE TO STABILIZE SITE: N/A5. MINICAM STANDARDS REQUIRED/DATE: N/A

MINICAM STANDARDS RECEIVED/DATE: \_\_\_\_\_

## 6. CSM SCREENING REQUIRED: YES NO HOLDING TIME: \_\_\_\_\_

SEND TO CTF: YES NO

DATE/TIME: \_\_\_\_\_

## 7. SAMPLES SENT TO LAB: YES NO NUMBER/TYPE \_\_\_\_\_

LAB USED: \_\_\_\_\_

LAB APPROVED: YES NO

SAMPLING PERFORMED: (method, type, number taken, analysis expected and who was responsible for sampling/shipment)

AROUND TIME REQUIRED: \_\_\_\_\_

EXPECTED: \_\_\_\_\_

QA SAMPLES SENT TO COE LAB: YES NO DATE: \_\_\_\_\_

## 8. "DIAL 17" REQUIRED: (give details, times, reason, who called, debriefing, follow-up, include UXO receipt)

N/A

9. NUMBER DRUMS/CONTAINERS WASTE GENERATED THIS DAY: 1 30 cubic yard Roll offCONTENTS: sedimentNUMBER OF WOODEN BOXES/SKIDS/ETC. GENERATED THIS DAY: 0

CONTENTS: \_\_\_\_\_

TOTAL NUMBER AT SITE THIS DATE:

BOXES 5

DRUMS \_\_\_\_\_

SKIDS \_\_\_\_\_

FWES REPRESENTATIVE: Keith Branch / GC Engineer

Name/Title

Date: 6 August 1996

USACE SIGNATURE \_\_\_\_\_

Name/Title

Date: \_\_\_\_\_





## DAILY HEALTH AND SAFETY REPORT

DAILY REPORT #:

Client: US Army Corps of Engineers, ERRO, Baltimore District Date: 8-6-96

Project: Delivery Order #0003, Site 3, Adamsite Storage Vaults, Edgewood Area, APG FW, Proj #: DACA31-94-D-0020

Wind: out of East Temperature: (Hi/Low): 70-90

Sky: Clear Precipitation: NONE

LEVEL OF PROTECTION REQUIRED A B C (D) (circle) (required in work zone)

## REMEDIATION &amp; SITE ACTIVITIES

TIME

REMARKS/COMMENTS/ACCOMPLISHMENTS/DELAYS

0530	Held Health & Safety Briefing @ Parking Lot See Sign-in Sheet For Details, Attendance
0545 <sup>z</sup>	Badged in Post 12. Go to Support Zone to CALIBRATE H+S EQUIPMENT. See CAL LOGS FOR DETAILS. RADIO, PHONE CHECK OK
0549	ASH TRUCKS ON SITE, BEGIN BACKFILL OPS
0630	Checked VAULTS IAD + RADIATION - NO READINGS ABOVE ACTION LEVELS.
0753	J. Cabellon - ON SITE FW PUMPER observing OP'S
0815 <sup>z</sup>	BACKFILL OP'S COMPLETE EXCEPT GRAVEL
0930	BEGIN SITE CLEAN UP - STANDING BY AWAITING ROLL OFF FROM CHEM WASTE
1000 <sup>z</sup>	Paul Harvey & Roll off Show up.
1015	Visitors Depart BEGIN LOADING OF ROLL OFF FROM EAST VAULT.
1200	EAST VAULT COMPLETE, JAMIE FAIR CAME BY AND OBSERVE ACTIVITIES
1200	Secured Roll off
1330	Operator & Laborer H+S off site. QC / Site Supt Bringing in Gravel TRKS
1400	Site Secured Per QC



# FOSTER WHEELER ENVIRONMENTAL CORPORATION

## DAILY BRIEFING SIGN-IN SHEET

Date: 8-6-96

Project Name/Location: Adams X

Shift/Department: DAY

Person Conducting Briefing: J. MORNING

### 1. DAILY ACTIVITIES

TASKS	CONTROLS/PPE
1. Backfill West Vault	D/P
2. Remove Debris + Sludge East	R/C
3. Gravel Stockpile	D/P
4.	
5.	

### 2. AWARENESS (e.g., special HS concerns, recent incidents, etc.):

SLIP TRIP FALL  
BACK UP ALARMS  
Decon - PPE; Don't wipe face w/ party Hands  
Heat Stress

### 3. OTHER ISSUES (HASP changes, attendee comments, etc.):

### 4. ATTENDEES (Print Name):

1. FRANCIS HUNTER	11.
2. ASHLEY KENNEDY	12.
3. Michael Fay	13.
4. Keith Branch Foster Wheeler	14.
5.	15.
6.	16.
7.	17.
8.	18.
9.	19.



### Daily Health and Safety Report

\*\*\*\*\*

#### DAILY HEALTH AND SAFETY REPORT CONTRACT NUMBER DACA31-94-D-0020

\*\*\*\*\*

DELIVERY ORDER NO. Delivery Order No. 003      DATE: 8-6-96  
LOCATION OF WORK: Adamsite Storage Vaults

WEATHER: Clear      RAINFALL:           IN. TEMP: 70 min. 90 max.

\*\*\*\*\*

#### 1. WORK PERFORMED BY FOSTER WHEELER ENVIRONMENTAL CORPORATION AND THE FOLLOWING SUBCONTRACTORS:

- |  |                                 |           |
|--|---------------------------------|-----------|
| <input type="checkbox"/> HFA               | <input type="checkbox"/> ONSITE |           |
| <input checked="" type="checkbox"/> KEVRIC | <input type="checkbox"/> GONZER | <u>EA</u> |

#### 2. EQUIPMENT BEING UTILIZED:

- |   |  |   |
|---|--|---|
| <input checked="" type="checkbox"/> HNU | <input checked="" type="checkbox"/> Miniram      | <input type="checkbox"/> MNICAMS                    |
| <input checked="" type="checkbox"/> OVA | <input checked="" type="checkbox"/> W.B.G. Therm | <input checked="" type="checkbox"/> Radios          |
| <input checked="" type="checkbox"/> CGI | <input type="checkbox"/> First Aid Kits          |   |
| <input type="checkbox"/> Monitox        | <input type="checkbox"/> ICADS                   |   |
|   | <input type="checkbox"/> Level B                 | <input checked="" type="checkbox"/> Level <u>LD</u> |

#### 3. PERSONAL PROTECTIVE EQUIPMENT DONNED:

- |   |   |   |
|---|---|---|
| <input type="checkbox"/> Supplied Air Resp.   | <input type="checkbox"/> MSA Respirators/GMC-H Cartridges               | <input type="checkbox"/> Ice Vests        |
| <input type="checkbox"/> 5 min. Escape        | <input checked="" type="checkbox"/> Hard Hat/Safety Glasses             | <input checked="" type="checkbox"/> Tyvek |
| <input checked="" type="checkbox"/> Overboots | <input checked="" type="checkbox"/> Nitrile Gloves (surgical/overglove) |   |

4. AIR MONITORING DATE:  All readings at nominal background levels during operations.

\*\*\*\*\*

SITE SAFETY AND HEALTH OFFICER: J. MORNING      DATE: 8-6-96



FOSTER WHEELER ENVIRONMENTAL CORPORATION  
CALIBRATION RECORD FOR  
COMBUSTIBLE GAS INDICATOR  
SERIAL NUMBER: 11069

1. Turn instrument on (HORN OFF position). Set % LEL meter pointer to zero by adjusting the ZERO LEL control. (do this within 30 seconds). Check when complete. ✓  
\_\_\_\_\_
2. Use CALIBRATE O2 control to set it at 20.6%. If this can be done then replace the O2 cell. Check when complete. ✓  
\_\_\_\_\_
3. Press the ALARM RESET button. If the alarm light does not go out and the green pilot light begins flashing then TAG OUT unit for repair and enter note below. Check when complete. ✓  
\_\_\_\_\_
4. Check flow by placing finger momentarily over sample inlet. If indicator float does not drop to the no flow position then TAG OUT for repair and enter note below. Check, when complete. ✓  
\_\_\_\_\_  
\_\_\_\_\_
5. Check battery, recharge if necessary. Check when complete. \_\_\_\_\_  
\_\_\_\_\_
6. Turn ON-OFF control to the ON position. If the pilot lamp does not light then TAG OUT unit for repair. Check when complete. \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_
7. Note the calibration gas % LEL \_\_\_\_\_  
\_\_\_\_\_
8. Introduce calibration gas to instrument. If the meter pointer is not +/- LEL, stop the cal. gas flow and remove the right hand side (speaker panel). Turn on the flow and adjust the "S" control with a small screwdriver to obtain the reading specified for the cal. gas. When complete sign, date and record the time below.

NOTATIONS:

*ALARMS*

FOSTER WHEELER ENVIRONMENTAL CORPORATION  
CALIBRATION RECORD FOR  
MINIRAM AEROSOL MONITOR/SUNSHIELD/MODEL PDM-SNS  
SERIAL NO. Fwood#3

1. Turn instrument ON. Allow to warm up for several minutes.
2. MINIRAM has been factory-calibrated. To zero the unit, use a dust free office environment or employ the Z-bag calibrator.

The Z-Bag™ is a convenient kit for zeroing the MINIRAM in the field. It provides a clean-air environment inside a plastic bag into which the MINIRAM is placed for zeroing. The Z-Bag kit consists of a one-way flow rubber bulb for manual air pumping, a filter cartridge, a zippered plastic container, a connecting hardware.

To use Z-Bag for zeroing MINIRAM proceed as follows:

1. Remove rubber bulb filter assembly from Z-Bag. Place Z-Bag on flat surface with red flow fitting facing up. Flatten bag. Remove small plastic cap from flow fitting on bag.
2. Insert ribbed elbow connector (attached to filter cartridge) into red flow fitting of plastic bag, until connector is flush with bottom of red flow fitting.
3. MINIRAM should be in its OFF condition (observe display). If display is blanked, or if MINIRAM is in the MEAS mode, key OFF.
4. Open Z-Bag and place MINIRAM inside, approximately at its center.
5. Key ZERO through the open end of the Z-Bag. Immediately zip closed the Z-Bag and begin to pump hand bulb.
6. Z-Bag should inflate as hand pumping continues, up to a height of about five inches (12 cm). Continue pumping gently to maintain bag interior pressure, until the MINIRAM displays off again.
7. Unzip Z-Bag and remove MINIRAM. MINIRAM is now ready for monitoring.
8. Place rubber bulb/filter assembly inside Z-Bag, and plug small plastic cap into flow fitting to close it. Zip close while flattening Z-Bag to store it to ensure cleanliness of the bag interior.

T M

8/1/81

NOV

FOSTER WHEELER ENVIRONMENTAL CORPORATION  
CALIBRATION RECORD FOR  
OVA MODEL 128  
SERIAL NO.: FW00043

Follow the start-up steps contained in the lid of the cover of the instrument for proper lighting and set-up of the instrument.

CALIBRATION range setting: X10

GAS SELECT control setting: 3.0

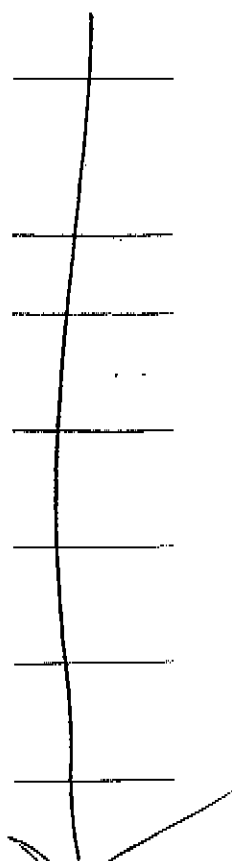
Calibration gas (methane) concentration: 100

Meter reading with calibration gas: 96

If the reading is greater than +/- 10% of the calibration gas concentration, a complete calibration is needed; otherwise the instrument can function as is. Follow the steps below, placing a check after each step, for complete calibration, if needed.

1. Set CALIBRATION to X10 and GAS SELECT control to 300.
2. Introduce zero air gas and use the CALIBRATE ADJUST knob to adjust the meter reading to zero.
3. Introduce a calibration gas standard of approximately 94 ppm methane and adjust trimpot R-32 on circuit board so that the meter reads the calibration gas concentration.
4. Turn off the H<sub>2</sub> SUPPLY VALVE to put out the flame.
5. Leave the CALIBRATE switch on X10 and use the CALIBRATE ADJUST knob to adjust the meter reading to 4 ppm.
6. Turn the CALIBRATE switch to X1. Using trimpot R-31 adjust the meter reading to 4ppm.
7. Set the CALIBRATE switch to X10 again and use the CALIBRATE ADJUST knob to set the meter reading to 40 ppm.
8. Set the CALIBRATE switch to X100 and use trimpot R-33 to adjust meter to 40 ppm.
9. Set the CALIBRATE switch to X10 and use the CALIBRATE

NA





FOSTER WHEELER ENVIRONMENTAL CORPORATION  
CALIBRATION RECORD FOR

HNU MODEL DL101  
SERIAL # 567048  
PROBE SERIAL # 7  
PROBE eV: 10.2

1. Turn unit on and let warm up a few minutes.
2. Check time, date and mode. Mode should be S-D for Survey Mode.
3. Check low battery indicator in upper right corner
4. Prepare Calibration tank, tubing and regulator.
5. Press the calibration key on the front panel. CALIBRATE ? appears.
6. Press enter key. ELEC ZERO ? YES appears.
7. Press enter. ZEROING UNIT appears
8. Next prompt will ask for gas concentration, enter proper PPM, press enter.
9. ATTACH GAS TO PROBE AND/ENTER will appear, start the flow and press enter.
10. PRESS ENTER WHEN READY; XXX PPM will appear, press enter when readings stabilize to complete the process.
11. If unit does not calibrate to correct PPM see manual for more information.
12. If unit goes to survey mode calibration is complete and ready.
13. Note any maintenance performed;  
a. bulb cleaned \_\_\_\_\_ b. filter changed \_\_\_\_\_ c. Ion Chamber cleaned \_\_\_\_\_

other \_\_\_\_\_

Name: J. MORNING

Date: 8-6-96

Time: 0613

# TASK SPECIFIC HAZARD ANALYSIS

Location: <u>Aberdeen, Maryland</u>	
Project: <u>Adamsite Vaults</u> Activity: <u>Gravel Installation</u>	
MAJOR STEPS	POTENTIAL HAZARDS
Prepare Work areas Brief Truck Drivers Brief Operators Dump and spot stock piles Spread piles Grade out to spec's Demobe trucks and equipment	<ol style="list-style-type: none"> <li>1. Manual lifting and material handling</li> <li>2. Biological hazards</li> <li>3. Heat/Cold Stress</li> <li>4. Slips, trips, and falls</li> <li>5. Inclement weather</li> <li>6. Noise</li> <li>7. Operating heavy equipment</li> <li>8. Pinch, Cut, and smash</li> <li>9. Dropped objects</li> <li>10. Eye injury</li> <li>11. Head injury</li> <li>12. Back injury</li> </ol>
EQUIPMENT USED	INSPECTION REQUIREMENTS
FID, PID, CCI, PDM, Loader, Dust control equipment Trucks, Level D PPE	All hand tools, Heavy Equipment, Calibration of instruments, PPE,
PROTECTIVE MEASURES/CONTROLS	TRAINING REQUIREMENTS
<ol style="list-style-type: none"> <li>1. Instruct personnel in proper lifting techniques</li> <li>2. Wear insect repellent; follow procedures for tick bites and snake bites; and be aware of poisonous plants</li> <li>3. During hot or cold weather monitor personnel for symptoms of heat or cold stress; Instruct personnel to recognize symptoms of heat or cold stress</li> <li>4. Maintain work areas safe and orderly; unloading areas should be on even terrain; mark and repair if possible tripping hazards; reduce slip hazards.</li> <li>5. Monitor weather conditions daily</li> <li>6. Conduct noise monitoring if deemed necessary by the SSHO; wear hearing protection</li> <li>7. Only trained personnel shall operate heavy equipment; personnel should remain in the site of the operator; inspect equipment daily, and only qualified drivers onsite.</li> <li>8. Use hand tools properly and wear appropriate protective equipment</li> <li>9. ANSI Z41.1 approved steel toe boots shall be worn (except during use of the magnetometer).</li> <li>10. ANSI Z87.1 approved safety glasses shall be worn.</li> <li>11. ANSI Z89.1 approved hard hats shall be worn.</li> <li>12. Instruct personnel in proper lifting techniques</li> </ol>	Knowledge of Proper Use of Hand Tools Personnel Have Read and Comply with SHERP Hazardous waste (29 CFR 1910.120) Training

# Foster Wheeler Environmental Corporation

## APG Environmental Remediation

### FOLLOW-UP INSPECTION CHECKLIST

Report No. 11 Contract No. DACA31-D-94-0020 Date 6 AUGUST, 1996

Project Title and location ADAM Site Storage Vault Edgewood Area

Work No.	Weather	Temperature		Rainfall inches	Work location (grid)
		Min.	Max.		
N/A	SUNNY / CLEAR	70°	90°		

Major definable feature of work BACKFILL OF S.W. VAULT - Sediment Removal N.E. Vault

A. Deficiencies noted: - TO MUCH FILL inside vault - (NOT 6-12' below grade)

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

B. Corrective action taken: - All fill delivered for S.W. Vault  
- All sediment removed from N.E. Vault  
- 4.5" of fill being removed to allow 12" of stone to be placed on  
TOP AS per WORK plan.

\_\_\_\_\_

\_\_\_\_\_

C. Pre-final Inspection (Attach Punch List)

Contractor's Quality Control Representative

Keith Branch 8.6.96  
 QC Systems Engineer Date

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
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STOCK NUMBER: 884  
 QUANTITY: 25000  
 REQUISITION NUMBER: 25000  
 DATE: 10/15/51  
 OCCURRENCE NUMBER: 1  
 DATE: 10/15/51  
 RECEIVING ADDRESS: 1000  
 DATE: 10/15/51  
 PROJECT: 1000  
 DATE: 10/15/51  
 UNIT PRICE: \$2.176  
 DOLLARS: 544.00  
 CTS: 00

DATE OF YOUR ORIGINAL REQUEST: 10/15/51  
 PRESENT CLASSIFICATION: UNCLASSIFIED  
 ITEM INFORMATION: 25000  
 TYPE OF CONTAINER: 1  
 TOTAL WEIGHT: 544.00  
 UNIT WEIGHT: 0.2176  
 UNIT CASE: 1  
 UNO: 1  
 NAME: 1000  
 FREIGHT RATE: 1  
 RECEIVED BY AND DATE: 10/15/51  
 INSPECTED BY AND DATE: 10/15/51  
 WAREHOUSE LOCATION: 1000

SELECTED BY AND DATE: 10/15/51  
 PACKED BY AND DATE: 10/15/51  
 RECEIVED BY AND DATE: 10/15/51  
 INSPECTED BY AND DATE: 10/15/51  
 WAREHOUSE LOCATION: 1000

**PROOF OF DELIVERY**  
 This stamp indicates physical receipt of property at the DOD which is subject to inspection and verification of quantity. It does not constitute acceptance of accountability. Your official receipt is forwarded as a label date.

3

Form 1348-1, JUL 51

PREVIOUS EDITION MAY BE USED

DOD SINGLE LINE ITEM RELEASE/RECEIPT DOCUMENT

# FOSTER WHEELER ENVIRONMENTAL CORPORATION

## APG Environmental Remediation

### Quality Control of Health and Safety Instruments and Procedures Inspection Checklist

All QC inspections must be completed by a designated QC Engineer or alternate who is qualified in the operation and calibrations of health and safety instruments and procedures.

The QC Engineer should observe the calibration of health and safety instrumentation randomly, or at least once every five calibrations. The QC Engineer shall inspect the health and safety operations/forms listed below.

Quality Control No.: 03 Date Started: 8-6-96  
 Contract No.: DACAS1-94-D-0020 Project Site and Location: ADAMSITE STORAGE VAULTS  
 QC Engineer(s): KEITH BRANCA  
 Site Health & Safety Officer(s): JAMES MORNING

Operation/Form	✓/✗	Month/Day				Notes
Calibration Log Completed	✓					
Daily Briefing Log Completed	✓					
Daily Instrument Source/Background Check Form (for each instrument used)	✓					
Daily Health & Safety Report Form	✓					
Sign In Log for Work Zones	✓					
Proper Donning and Doffing of PPE	✓					
Air Monitoring/Sampling Form	✓					
In Compliance with SHERP & SOPs	✓					
H & S Violations	NONE					
Heat and Cold Stress Monitoring	✓					
All OSHA Forms Up to Date	✓					
SHERP Review for All Personnel	✓					
Delineation of Work Zones	✓					
Shower Trailer Inspection	N/A					

# FLO-ASH® SERVICES

410-682-5462

05373

DELIVERY DATE	QUANTITY
8-6-96	9 Yds TOTAL 281

SOLD TO

*E. A. Engineering*

DELIVERED TO

*Edgewood Arsenal*

TRUCK	MIX NO.
511	F-1

TIME START	TIME COMPLETED

DRIVER

*Nick*

*M. H. [Signature]*

RECEIVED BY

**Genstar Stone Products Company**  
Executive Plaza IV, Hunt Valley, MD 21031-1091

## PLANT NAME AND NUMBER

CHURCHVILLE QUARRY PHONE: 410-679-9151	PLANT 73	The operator of this truck is allowed a maximum of <u>15</u> minutes in which to unload. Trucks held at jobsite longer will be billed at the current holding time rate.
MSDS AVAILABLE AT SCALE HOUSE		
INSPECTORS SIGNATURE	RECEIVED AND ACCEPTED MATERIAL	
	X	
SOLD TO	SHIP TO	
FOSTER WHEELER, U. S. A CORP. ABERDEEN PROVIN MD 21010	EDGEWOOD ARSENAL	

GO IN AT 24 GATE TO GATE 12 TO ADAMS STORAGE VAULT.

ANY ROUTE NOTED HEREON IS SUGGESTED ONLY AND ACTUAL ROUTE TRAVERSED IS AT THE DISCRETION OF THE VEHICLE OPERATOR.

GSP ORDER NO.	SCALE	TICKET TIME	DELIVERY DATE	CUSTOMER I.D.	JOB SITE I.D.	ZONE
952	1	12:52	06-Aug-94	1270058	A730909	508A
PRODUCT I.D.			PRODUCT DESCRIPTION			
A1000010			MSHA#2/AST#3 CRUSHED STONE			

JOB PHONE NUMBER	TICKET NO.	JOB NUMBER	CUSTOMER REQUIRED NUMBERS	
671-6015	72535		7102955-4605	
VEHICLE	CARRIER/DRIVERS NAME		TYPE OF SALE	DELIVERY
8173	CHT465 WALTER L. HOLDER		CHARGE	PREPAID
CODE	DESCRIPTION	UOM	QUANTITY	PRICE
	<i>Alfred [Signature]</i>			

FOR OPEN THE ROCK SHOP, FOR ALL YOUR LANDSCAPING NEEDS

GROSS WEIGHT POUNDS	TOTAL QUANTITY ORDERED	JOB DEPARTURE TIME	PRODUCT	\$
64,300	0.00		TRANSPORTATION	\$
TARE WEIGHT POUNDS	TODAY'S JOB TOTAL	JOB ARRIVAL TIME	ADDITIONAL CHARGES	\$
21,700	103.60		TAXES	\$
NET WEIGHT POUNDS	NET TONS		TOTAL PRICE OF THIS LOAD	\$
42,600	21.32		ACCUMULATIVE CASH SALE	\$
			HOLDING TIME	\$
			FINAL TOTAL	\$

THIS TICKET SUBJECT TO CONDITIONS ON REVERSE SIDE.







**Foster Wheeler Environmental Corporation**  
*APG Environmental Remediation*

**DAILY CONSTRUCTION QUALITY CONTROL REPORT**

Daily Report No.: 12 Date: August 7, 1996 (Wed.)

Contract No.: DACA31-94- D-0020

Project Title & Location: DO #0003, Adamsite Storage Vaults - Edgewood Area

Weather: Sunny and Clear Precipitation: 0.0 in. Temp: Min. 70°F Max. 92°F

Personnel On Site: USACE (1), ERDEC (2), FWENC (2), EA (1), KEVRIC (2),  
DSHE (4), CHEM WASTE (1)

Summary of Major Work Activities:

- Concrete Reduction of Northeast Vault (Work Plan Section 2.2.5.)
- Remove Several inches of Flowable Fill from Southwest Vault
- Head Space Analysis of Wooden 4'x4'x4' Boxes with Metal Piping
- Remove two Concrete Tank Holders and place inside Northeast Vault

1. Work Performed by Foster Wheeler Environmental Personnel: (Indicate location and description of work performed by prime and/or subcontractors. When network analysis is used, identify work by NAS activity number)

K. Branch, QC Engineer, provided oversight to ensure quality work would be performed according to the work plan (Work Plan Section 2.2.5.1/2.2.6). Mr Branch oversaw the removal of several inches of Flowable Fill on the southwest vault to bring the depth 6-12" below grade. The #3 crushed stone will be placed on top of the fill bringing the level to grade. The Kevric operator began reduction of the northeast vault wall with the Cat235C shears. Ed Newell, Brian Mccann, Bob Krause (DSHE), and MDE was on site to view work activities. Ed Newell directed Foster Wheeler to remove two concrete tank holders near the vaults and place them inside of vault. Chem Waste Management was on site and determined that a second 30cu yd dumpster would be needed for the sediment from the northeast vault. The sediment is scheduled to be shipped on 9 Aug, 1996. ERDEC was on site to conduct Head Space Analysis on the 5 wooden boxes of metal piping awaiting disposal at the Thermal Treatment Facility.

J. Morning (Site Safety and Health Officer-SSHO) conducted a health and safety briefing (See Attached Daily Briefing Sign-In Sheet). During the briefing, all site personnel were briefed on site activities, and possible hazards associated with the concrete reduction of the northeast vault. J. Morning closely monitored all activities to ensure that all Health and Safety hazards were avoided.

---

The SSHO utilized chemical air monitoring equipment today during removal activities.

---

The SSHO monitored meteorological conditions including temperature (wet bulb global/ thermometer) and wind direction (with wind socks) (Work Plan Section 4.10.2)

---

T. Reese, Project Manager, was on site during the day to monitor site activities. Mr. Reese spoke with DSHE, and MDE who was on site to view the status of the site conditions.

---

#### Work Performed by Subcontractors:

Mike Fox, Superintendent, conducted a pre-operational meeting to review the planned site activities for reduction of the concrete wall of the northeast vault. Mike directed the Kevric operator to reduce the concrete wall to ground level and to remove the protruding rebar. The Kevric laborer was directed to drill holes in the fencing posts that Mike delivered on site today for repair of the damaged ones. Mike called American Stone Products and requested delivery of Flowable Fill for Friday (9 Aug, 1996), to backfill the northeast vault. (Work Plan Add #1, Sect. 2.3.9).

---

The Kevric labor completed the following tasks: Drilled holes in new fencing poles to replace damaged ones, cleaned up break trailer, and cleaned up around site.

---

The Kevric equipment operator used the Cat235C Shears to start reduction of the concrete wall of the northeast vault. The operator also removed several inches of fill from the southwest vault to comply with the specifications of the contract.

---

Mr. Carl Reitenbach (Project Manager, EA Engineering) was not on site to view work activities but contacted the Site Superintendent to discuss today's activities.

---

2. Operating Plant or Equipment Utilized, Mob. and/or Demo. (Not hand tools)

Equipment Utilized: John Deere 544G Tire Loader, Daewoo Grappler , Cat 235C Shears, Air monitoring equipment (CGI,FID,PID,OVA,Miniram), (1) minivan, (1) full size 4x4 pick up truck (1) small pick-up truck (3) 2 way Radios (1) Cellular Phone

---

3. Control Activities Performed:

Preparatory Inspections: (Identify feature of work and attach minutes).

Initial Inspections: (Identify feature of work and attach minutes).

Daily QC of Health and Safety Instruments and Procedures Inspection Checklist (See Attached)

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Preparatory Inspection Checklist (See Attached)

---

Follow-up Inspection Checklist (See Attached)

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4. Tests performed and Test Results: (Identify test requirement by paragraph number in specifications and/or sheet number in plans).

Periodic air-monitoring data results were reported by the SSHO. No results were found above background. This information is recorded in the SSHO's Daily Health and Safety Report.

---

5. Material Received: (Note inspection results and storage provide)

1- Replacement fencing poles (ea.) 2- Roll of Geotextile Liner (1ea.)

---

6. Waste Generated and/or Disposed:

No waste was generated today

---

Total waste generated to date:

15,000 gallons of water (Disposed of by Chem Waste), (3)- Dumpsters of Steel and Tin sent to DRMO 26,160lbs, (5)- 4'x4'x4' Wooden boxes of metal pipe(awaiting turn in) (1) - 30cuyd roll off with sediment (a second roll is off expected).

7. Off site Surveillance Activities, Including Action Taken:

No off site surveillance activities occurred this date.

---

8. Job Safety: (List items checked, results, instructions and corrective actions taken)

Total Manhours Worked to Date: 563 hours Total Number of Days Worked on Site: 13 days  
Total Manhours Worked with No Lost Time Accidents: 563 hours Total Number of Lost Time  
Accidents on the Site to Date: 0

---

Air monitoring readings were taken with the FID, PID, CGI, and Miniram particulate monitor..

---

9. Remarks: (Instructions received or given. Conflict(s) in Plans and/or specifications. Delays encountered.).

Joe Brutsman (USACE/ERRO) was on site to monitor concrete reduction of the northeast vault walls, and the backfill of the concrete into the vault. Joe Brutsman informed Mr. Tim Reese (Project Manager) that the USACE wanted the Flowable Fill to have a few days to set before placing heavy equipment on top. Any machinery going over the vaults must have swamp pads in place.

---

Ed Newell (DSHE) directed Foster Wheeler to remove two concrete tank holders near vaults, and place inside northeast vault which is currently being backfilled.

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10. Attachments:

Daily Construction Log/Manpower Report (FWENC & EA)

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Daily H&S Report (SSHO Daily Log, Calibration Records (CGI, PID, OVA, Activity/Task Hazard Analysis), Site Entry/ Exit Log, Air Monitoring Results)

---

Follow up/Initial Inspection Checklist (See Attached)

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EPA Form 8700-22 Uniform Hazardous Waste Manifest (Vault Water)

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QC Health and Safety Instrument & Procedures Inspection Check list

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Contractor's Verification: On behalf of the Contractor, I certify that this report is complete and correct, and all materials and equipment used and work performed during this reporting are in compliance with the contract plans and specifications, to the best of my knowledge, except as may be noted above.

Keith Branch      7 Aug 96  
Keith Branch      Date  
QC Systems Engineer



FOSTER WHEELER ENVIRONMENTAL CORPORATION

DAILY CONSTRUCTION LOG/MANPOWER REPORT  
DAILY REPORT #: 11

Client: US Army Corps of Engineers, ERRO, Baltimore District Date: 8-7-96  
Project: Delivery Order #0003, Site 3, Adamsite Storage Vaults, Edgewood Area, APG FW Proj. #: DACA31-94-D-0020  
Wind: 1-2 mph Temperature: (Hi/Low): 65-90  
Sky: Clear Precipitation: 0

LEVEL OF PROTECTION REQUIRED A B C D (circle) (required in work zone)

REMEDATION & SITE ACTIVITIES	
TIME	REMARKS/COMMENTS/ACCOMPLISHMENTS/DELAYS
0530	Health & safety meeting went over working with heavy equipment dust control.
0630	Removed snow fence from around work areas removed all equipment not needed for this days work
0730	with 235 CAT Shear working on walls of NE vault will shear off A to grade
0830	Travel to 40 <sup>th</sup> street Picked up roll of geotex to be rolled out under 2" stone over flowable fill
09:30	Started drilling fence post in order to be reinstalled at later date
10:00	DSHE onsite Bob C. (on site) MDE Joe B. Tim R & other visitors
10:30	Still working with Shear on NE vault walls to grade placing all concrete debris inside this vault
1100	Removed tank saddle concrete from behind adamsite vaults per Tim R. DSHE. Ed. N
1200	Made calls on flowable & fence repair equipment Pick up talked over work done with PM Carl R.
1300	Reset snow fence Secured equipment & left site
1330	Exited job site returned to office to work

EA RTI DAILY LOG

Report Number 11 Project Name Adamsite  
 Location APG  
 Date 8-7-96 Contract Officer \_\_\_\_\_

Description of Work Health & Safety, work plan, travel to 40th street pick up Gortex in order to put under stone. Drilled fence post for install. Worked with Sheer & Deawoo. Sheered at walls of NE vault. Removed tank saddles from behind vaults per Tim R. EdN. Secured site

PERSONNEL ONSITE

Company Name	Employee	Time in	Time out	Total Hours
EA	MESY	0530		9
Keuric				
1 Ksbauer				
1 Odenwiler				

EQUIPMENT ONSITE

Description	Date arrived	Date left	EA Owned	Rented	Total Days Used
F350	7/24		✓		
Saddles			✓		
Drumlights			✓		
EZ up tent				✓	
235 CAT				✓	
1866 Deawoo				✓	

Any Inspections? no If so, time and name of inspector. \_\_\_\_\_

What kind of inspection \_\_\_\_\_

Weather Conditions Clear  Cloudy \_\_\_\_\_ Rain \_\_\_\_\_ Temp 90

On Schedule? yes  no \_\_\_\_\_

Any lost time accidents on this date? yes \_\_\_\_\_ no

Have you had your daily safety meeting? yes  no \_\_\_\_\_

Safety concerns Heat, dust, working with power tools

Remarks Will walk on back hill with stone on 8/7/96 after set time on flowable fill

Muhle  
 Construction Superintendent Date 8/7/96

Construction Manager \_\_\_\_\_ Date \_\_\_\_\_







## 1. VERBAL/Written GUIDANCE (LIST INDIVIDUAL):

USACE - requested NO heavy equipment on top of Flowable F. 11 for a few days. USACE wants the fill to Harden More.  
 ED Newell wanted (FW) to remove and place in vaults two concrete tank holders

## 2. CONTROVERSIAL MATTERS:

## 3. SAFETY:

LEVEL OF PPE: modified level "D"

SSHO: \_\_\_\_\_

4. SEC PLAN MEASURES INSTALLED: YES NO NONE REQUIRED  
 ADDITIONAL MEASURES TAKE TO STABILIZE SITE: N/A5. MINICAM STANDARDS REQUIRED/DATE: N/A  
 MINICAM STANDARDS RECEIVED/DATE: \_\_\_\_\_6. CSM SCREENING REQUIRED: YES NO HOLDING TIME: \_\_\_\_\_  
 SEND TO CTF: YES NO DATE/TIME: 7 Aug, 1996 / 14007. SAMPLES SENT TO LAB: YES NO NUMBER/TYPE N/A

LAB USED: \_\_\_\_\_

LAB APPROVED: YES NO

SAMPLING PERFORMED: (method, type, number taken, analysis expected and who was responsible for sampling/shipment)

AROUND TIME REQUIRED: \_\_\_\_\_ EXPECTED: \_\_\_\_\_

QA SAMPLES SENT TO COE LAB: YES NO DATE: \_\_\_\_\_

8. "DIAL 17" REQUIRED: (give details, times, reason, who called, debricing, follow-up, include UXO receipt)

N/A

9. NUMBER DRUMS/CONTAINERS WASTE GENERATED THIS DAY: \_\_\_\_\_

CONTENTS: \_\_\_\_\_

NUMBER OF WOODEN BOXES/SKIDS/ETC. GENERATED THIS DAY: \_\_\_\_\_

CONTENTS: \_\_\_\_\_

TOTAL NUMBER AT SITE THIS DATE:

BOXES 5 EA 4x4x4'

DRUMS \_\_\_\_\_

SKIDS \_\_\_\_\_

FWES REPRESENTATIVE: Keith Branch

Name/Title

Date: 7 August, 1996

USACE SIGNATURE \_\_\_\_\_

Name/Title

Date: \_\_\_\_\_



# FOSTER WHEELER ENVIRONMENTAL CORPORATION

## DAILY BRIEFING SIGN-IN SHEET

Date: 8-7-96

Project Name/Location: <sup>SN</sup> ADAMSITE

Shift/Department: DAY

Person Conducting Briefing: J. MORNING

### 1. DAILY ACTIVITIES

TASKS	CONTROLS/PPE
1. <u>INSTALL GRAVEL</u>	<u>O/D</u>
2. <u>DEMO WALLS - EAST</u>	<u>O/D</u>
3.	
4.	
5.	

### 2. AWARENESS (e.g., special HS concerns, recent incidents, etc.):

DISCUSSED HAZARD ANALYSIS OF TASK #1  
SLIP TRIP FALL - DEPRESSIONS  
DUST CONTROLS

### 3. OTHER ISSUES (HASP changes, attendee comments, etc.):

### 4. ATTENDEES (Print Name):

1. <u>FRANCIS HUNTER</u>	11.
2. <u>Michael Fox</u>	12.
3. <u>Keith Branch Foster Wheeler</u>	13.
4. <u>Ashtley Kendall</u>	14.
5.	15.
6.	16.
7.	17.
8.	18.
9.	19.
10.	20.



### Daily Health and Safety Report

DAILY HEALTH AND SAFETY REPORT  
CONTRACT NUMBER DACA31-94-D-0020

DELIVERY ORDER NO. Delivery Order No. 003  
LOCATION OF WORK: Adamsite Storage Vaults

DATE: 8-6-96

WEATHER: Clear RAINFALL: \_\_\_\_\_ IN. TEMP: 70 min. \_\_\_\_\_ max.

1. WORK PERFORMED BY FOSTER WHEELER ENVIRONMENTAL CORPORATION AND THE FOLLOWING SUBCONTRACTORS:

- |  |                                 |   |
|--|---------------------------------|---|
| <input type="checkbox"/> HFA               | <input type="checkbox"/> ONSITE |   |
| <input checked="" type="checkbox"/> KEVRJC | <input type="checkbox"/> GONZER | <input checked="" type="checkbox"/> <u>EA</u> |

2. EQUIPMENT BEING UTILIZED:

- |   |  |  |
|---|--|--|
| <input checked="" type="checkbox"/> HNU | <input checked="" type="checkbox"/> Miniram      | <input type="checkbox"/> MINICAMS          |
| <input checked="" type="checkbox"/> OVA | <input checked="" type="checkbox"/> W.B.G. Therm | <input checked="" type="checkbox"/> Radios |
| <input checked="" type="checkbox"/> CGI | <input type="checkbox"/> First Aid Kits          |  |
| <input type="checkbox"/> Monitox        | <input type="checkbox"/> ICADS                   |  |

3. PERSONAL PROTECTIVE EQUIPMENT DONNED:

- |   |   |   |  |
|---|---|---|--|
| <input type="checkbox"/> Supplied Air Resp.   | <input type="checkbox"/> MSA Respirators/GMC-H Cartridges               | <input type="checkbox"/> Level B          | <input checked="" type="checkbox"/> Level C <u>MOD D</u> |
| <input type="checkbox"/> 5 min. Escape        | <input checked="" type="checkbox"/> Hard Hat/Safety Glasses             | <input type="checkbox"/> Ice Vests        |  |
| <input checked="" type="checkbox"/> Overboots | <input checked="" type="checkbox"/> Nitrile Gloves (surgical/overglove) | <input checked="" type="checkbox"/> Tyvek |  |

4. AIR MONITORING DATE:

All readings at nominal background levels during operations.

SITE SAFETY AND HEALTH OFFICER: J. Morning

DATE: \_\_\_\_\_



DAILY HEALTH AND SAFETY REPORT  
DAILY REPORT #: \_\_\_\_\_

Client: US Army Corps of Engineers, ERRO, Baltimore District

Date: 8-7-96

Project: Delivery Order #0003, Site 3, Adamsite Storage Vaults, Edgewood Area, APG FW Proj.#: DACA31-94-D-0020

Wind: NW at SE

Temperature:(Hi/Low): 70 - 92

Sky: Clear

Precipitation: NONE

LEVEL OF PROTECTION REQUIRED A B C D (circle) (required in work zone)

TIME	REMEDICATION & SITE ACTIVITIES REMARKS/COMMENTS/ACCOMPLISHMENTS/DELAYS
0530	Held Health & Safety Briefing @ Parking Lot, see sign in sheet for Attendance, Subjects
0549	Barged in Post 12 Gate Go to Support Zone to CALIBRATE HTS EQUIPMENT. see CAL LOGS FOR DETAILS.
0630	Checked RAD WARD & ADAMSITE Work Areas - NO READINGS ABOVE ACTION LEVELS Crews Working on Gravel Installation and Fence Repair Prep.
0715	Stop Gravel Op's; Begin Concrete Demo EAST VAULT
0800	Implement Dust Control, PPM Readings beginning to reach Action Levels.
0816	Dust Levels back to acceptable levels Continue Op's Radio, Phone Check - OK
0930	RSHE Bob Crouse on site for Inspections NO Problems Noted Per Mr. Crouse
1015	Ed Newell, PSHE Ben McCain, MAE Rep's on site - NO Problems Noted. Pmonsite
1035	Visitors Depart Site Checked AO - NO READINGS ABOVE ACTION LEVELS.
1300	Begin Site Shut Down.
1330	Site Secured, Depart to Admin Trailer etc.



FOSTER WHEELER ENVIRONMENTAL CORPORATION  
CALIBRATION RECORD FOR  
COMBUSTIBLE GAS INDICATOR  
SERIAL NUMBER: 11069

1. Turn instrument on (HORN OFF position). Set % LEL meter pointer to zero by adjusting the ZERO LEL control. (do this within 30 seconds). Check when complete. ✓
2. Use CALIBRATE O2 control to set it at 20.6%. If this can be done then replace the O2 cell. Check when complete. ✓
3. Press the ALARM RESET button. If the alarm light does not go out and the green pilot light begins flashing then TAG OUT unit for repair and enter note below. Check when complete. ✓
4. Check flow by placing finger momentarily over sample inlet. If indicator float does not drop to the no flow position then TAG OUT for repair and enter note below. Check, when complete. ✓
5. Check battery, recharge if necessary. Check when complete. ✓
6. Turn ON-OFF control to the ON position. If the pilot lamp does not light then TAG OUT unit for repair. Check when complete. ✓
7. Note the calibration gas % LEL ✓
8. Introduce calibration gas to instrument. If the meter pointer is not +/- LEL, stop the cal. gas flow and remove the right hand side (speaker panel). Turn on the flow and adjust the "S" control with a small screwdriver to obtain the reading specified for the cal. gas. When complete sign, date and record the time below.

NOTATIONS:

50% Pentane 14.2  
Alarms OK<sup>O2</sup>

T.M. 10/10/91

8-7-91

0600

FOSTER WHEELER ENVIRONMENTAL CORPORATION  
CALIBRATION RECORD FOR  
MINIRAM AEROSOL MONITOR/SUNSHIELD/MODEL PDM-SNS  
SERIAL NO. FW00143

1. Turn instrument ON. Allow to warm up for several minutes.

2. MINIRAM has been factory-calibrated. To zero the unit, use a dust free office environment or employ the Z-bag calibrator.

The Z-Bag™ is a convenient kit for zeroing the MINIRAM in the field. It provides a clean-air environment inside a plastic bag into which the MINIRAM is placed for zeroing. The Z-Bag kit consists of a one-way flow rubber bulb for manual air pumping, a filter cartridge, a zippered plastic container, a connecting hardware.

To use Z-Bag for zeroing MINIRAM proceed as follows:

1. Remove rubber bulb filter assembly from Z-Bag. Place Z-Bag on flat surface with red flow fitting facing up. Flatten bag. Remove small plastic cap from flow fitting on bag.
2. Insert ribbed elbow connector (attached to filter cartridge) into red flow fitting of plastic bag, until connector is flush with bottom of red flow fitting.
3. MINIRAM should be in its OFF condition (observe display). If display is blanked, or if MINIRAM is in the MEAS mode, key OFF.
4. Open Z-Bag and place MINIRAM inside, approximately at its center.
5. Key ZERO through the open end of the Z-Bag. Immediately zip closed the Z-Bag and begin to pump hand bulb.
6. Z-Bag should inflate as hand pumping continues, up to a height of about five inches (12 cm). Continue pumping gently to maintain bag interior pressure, until the MINIRAM displays off again.
7. Unzip Z-Bag and remove MINIRAM. MINIRAM is now ready for monitoring.
8. Place rubber bulb/filter assembly inside Z-Bag, and plug small plastic cap into flow fitting to close it. Zip close while flattening Z-Bag to store it to ensure cleanliness of the bag interior.

J. M. ...

8-2-97

01105

FOSTER WHEELER ENVIRONMENTAL CORPORATION  
CALIBRATION RECORD FOR  
OVA MODEL 128  
SERIAL NO.: FW20043

Follow the start-up steps contained in the lid of the cover of the instrument for proper lighting and set-up of the instrument.

CALIBRATION range setting: X10

GAS SELECT control setting: 3-0

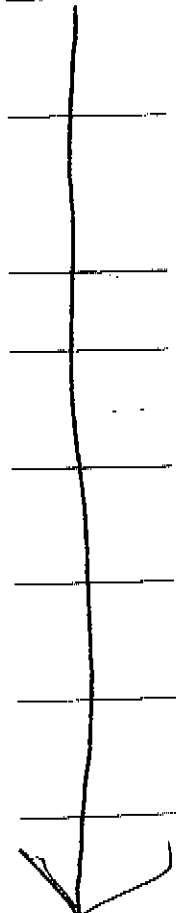
Calibration gas (methane) concentration: 200

Meter reading with calibration gas: 98

If the reading is greater than +/- 10% of the calibration gas concentration, a complete calibration is needed; otherwise the instrument can function as is. Follow the steps below, placing a check after each step, for complete calibration, if needed.

1. Set CALIBRATION to X10 and GAS SELECT control to 300.
2. Introduce zero air gas and use the CALIBRATE ADJUST knob to adjust the meter reading to zero.
3. Introduce a calibration gas standard of approximately 94 ppm methane and adjust trimpot R-32 on circuit board so that the meter reads the calibration gas concentration.
4. Turn off the H<sub>2</sub> SUPPLY VALVE to put out the flame.
5. Leave the CALIBRATE switch on X10 and use the CALIBRATE ADJUST knob to adjust the meter reading to 4 ppm.
6. Turn the CALIBRATE switch to X1. Using trimpot R-31 adjust the meter reading to 4ppm.
7. Set the CALIBRATE switch to X10 again and use the CALIBRATE ADJUST knob to set the meter reading to 40 ppm.
8. Set the CALIBRATE switch to X100 and use trimpot R-33 to adjust meter to 40 ppm.
9. Set the CALIBRATE switch to X10 and use the CALIBRATE

NA



FOSTER WHEELER ENVIRONMENTAL CORPORATION  
CALIBRATION RECORD FOR  
HNU MODEL DL101  
SERIAL # 567048  
PROBE SERIAL # 11  
PROBE eV; 10.2

1. Turn unit on and let warm up a few minutes. ✓
2. Check time, date and mode. Mode should be S-D for Survey Mode. ✓
3. Check low battery indicator in upper right corner ✓
4. Prepare Calibration tank, tubing and regulator. ✓
5. Press the calibration key on the front panel. CALIBRATE ? appears. ✓
6. Press enter key. ELEC ZERO ? YES appears. ✓
7. Press enter. ZEROING UNIT appears ✓
8. Next prompt will ask for gas concentration, enter proper PPM, press enter. ✓
9. ATTACH GAS TO PROBE AND/ENTER will appear. start the flow and press enter. ✓
10. PRESS ENTER WHEN READY; XXX PPM will appear, press enter when readings stabilize to complete the process. ✓
11. If unit does not calibrate to correct PPM see manual for more information. ✓
12. If unit goes to survey mode calibration is complete and ready. ✓
13. Note any maintenance performed;  
a. bulb cleaned \_\_\_\_\_ b. filter changed \_\_\_\_\_ c. Ion Chamber cleaned \_\_\_\_\_

other \_\_\_\_\_  
\_\_\_\_\_

Name; J. MORRIS

Date 8-7-96

Time 06 21

# Foster Wheeler Environmental Corporation

*APG Environmental Remediation*

## FOLLOW-UP INSPECTION CHECKLIST

Report No. 102 Contract No. DACA31-D-94-0020 Date 7 August, 96

Project Title and location Adam Site Storage Vault - Edgewood Area

Work No.	Weather	Temperature		Rainfall inches	Work location (grid)
		Min.	Max.		
N/A	Sunny	70°	92°		

Major definable feature of work Concrete Reduction / Sediment Removal

A. Deficiencies noted: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

B. Corrective action taken: - Several inches of fill was remove for S.W Vault  
in order to comply with specifications of the contract. The crushed  
stone will be placed on top.  
 \_\_\_\_\_  
 \_\_\_\_\_

C. Pre-final Inspection (Attach Punch List)

\_\_\_\_\_  
 Contractor's Quality Control Representative

Keith Branch  
 QC Systems Engineer

7 Aug. 1996  
 Date



State of New Jersey  
 Department of Environmental Protection  
 Hazardous Waste Regulation Program  
 Manifest Section  
 CN 121, Trenton, NJ 08625-0421

\* 2 2 8 9 5 9 6 \*

CAP6

Use type or print in block letters. (Form designed for use on 11lb (12-ounce) typewriter.) Form Approved by GSA for use on 1250-030 Expires 1-1-88

UNIFORM HAZARDOUS WASTE MANIFEST Generator: US EPA ID No. NJ D 0 3 2 1 0 6 2 1 3 5 5 Manifest Document No. 91 6 2 2 0

1. Generator Name and Mailing Address: Aberdeen Proving Ground RCRA/TSCA Operations, P.O. Box 105, APG MD 21010-0105, 410.671-2157  
 A. State Manifest Document Number: NJA 2289596  
 B. State Generator EID No. and Address: Bldg. 85863

2. Transporter 1 Company Name: Freehold Cartage, Inc. 9. US EPA ID Number: NJ D 0 5 4 1 2 6 1 6 4  
 C. State Trans. ID-NUDEPE: V 5 9 3 0 X  
 Decal No.: 2 3 1 2 9 X

3. Transporter 2 Company Name: 8. US EPA ID Number: 10. US EPA ID Number: 11. Designated Facility Name and Site Address: E. I. Dupont de Nemours & Co., Inc., Chambersworks Route 130, Deepwater NJ 08023, NJ D 0 0 2 3 8 5 7 3 0  
 D. Transporter 1 Phone: 302 658-2773  
 E. State Trans. ID-NUDEPE: Decal No.: F. Transporter 2 Phone: G. State Facility EID: Same H. Facility's Phone: 609 540-2773

11. US DOT Description (including Proper Shipping Name, Hazard Class or Division, ID Number and Packing Group): Non-Regulated Material, Not Hazardous by D.O.T., BM3085  
 12. Containers: No. 1, Type X, Total Quantity 1, Unit Wt/ct 5500, Waste No. 6 I D 7 2

11. US DOT Description (including Proper Shipping Name, Hazard Class or Division, ID Number and Packing Group)	12. Containers	13. Total Quantity	14. Unit Wt/ct	15. Waste No.
Non-Regulated Material Not Hazardous by D.O.T. BM3085	1	X	5500	6 I D 7 2

Additional Descriptions for Materials Listed Above: Aquifer Wastewater 100% HM63949 (1 of 2)  
 Handling Codes for Wastes Listed Above: T O I

Contract: DAAD 05-91-D-7040. Project 69222. PC 766. OW# 4320  
 Emergency Response Information: HWH-N/A 96A-N/A DC-N/A (800) 353-2387 REL# 64 D.O. 38-5

16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations.  
 If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.

Printed/Typed Name: Ken WARREN Signature: K Warren Month Day Year: 07 13 09 6

17. Transporter 1 Acknowledgement of Receipt of Materials  
 Printed/Typed Name: ROBERT J. KERRIGAN Signature: Robert J. Kerrigan Month Day Year: 07 13 09 6

18. Transporter 2 Acknowledgement of Receipt of Materials  
 Printed/Typed Name: Signature: Month Day Year:

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.  
 Printed/Typed Name: Signature: Month Day Year:

TRANSPORTER ACCEPTANCE





State of New Jersey  
 Department of Environmental Protection  
 Hazardous Waste Regulation Program  
 Manifest Section  
 CN 421, Trenton, NJ 08625-0421

Form Approved OMB No. 2050-0039 Expires 9-30  
 \* 2 2 8 9 5 9 8  
 CAPG

Please type or print in block letters. (Form designed for use on elite (12-pitch) typewriter.)

Form Approved OMB No. 2050-0039 Expires 9-30

UNIFORM HAZARDOUS WASTE MANIFEST  
 Generator - US EPA ID No. **MD3210021355** Manifest Document No. **96237**  
 1. Title: **1** Information in the shaded areas is not required by Federal law.

Generator's Name and Site Address:  
**Aberdeen Proving Ground RCRA/TSCA Operations**  
**P.O. Box 105**  
**APG MD 21010-0105**  
 Generator's Phone: **410.671-2157**  
 2. State Manifest Document Number: **NJA 2289598**  
 3. State Generator's ID Number (Site Address): **Bldg. B5863**

Transporter 1 Company Name: **Freehold Cartage, Inc.** 9. US EPA ID Number: **NJD054126164**  
 C. State Trans. ID-NJDEPE: **X15936**  
 Decal No.: **X23013**

Transporter 2 Company Name: \_\_\_\_\_ 9. US EPA ID Number: \_\_\_\_\_  
 D. Transporter's Phone: **302.658-2773**  
 E. State Trans. ID-NJDEPE: \_\_\_\_\_  
 Decal No.: \_\_\_\_\_

Designated Facility Name and Site Address:  
**E. I. DuPont de Nemours & Co., Inc.**  
**Chambersworks Route 130**  
**Deepwater NJ 08023**  
 10. US EPA ID Number: **NJD0002385730**  
 F. Transporter's Phone: \_\_\_\_\_

G. State Facility's ID: **Same**  
 H. Facility's Phone: **609.540-2773**

11. US DOT Description (Including Proper Shipping Name, Hazard Class or Division, HM)	12. Containers		13. Total Quantity	14. Unit (Wt/Vol)	15. Waste No.
	No.	Type			
1. <b>Non-Regulated Material</b> <b>Not Hazardous by D.O.T.</b> <b>BM3085</b>	<b>XX1TT</b>	<b>X4750</b>	<b>G</b>	<b>I D 7 2</b>	

Additional Descriptions for Materials Listed Above:  
**Aquifer Wastewater 100%**  
**HM63949 (3 of 3)**  
 K. Handling Codes for Wastes Listed Above:  
 a. **T O I** c. \_\_\_\_\_  
 b. \_\_\_\_\_ d. \_\_\_\_\_

Contract: **DAAD 05-91-D-7040** Project **69222**, PC **766**.  
 Emergency Response Information: **CHEMTREC (800) 424-9300**  
**HWH-N/A** **96A-N/A** **DC-N/A** **353-2387**  
**OW# 4320**  
**REL# 66**  
**D.O. 38-5**

16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations.  
 If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.

Printed/Typed Name: **KEN WARREN** Signature: *[Signature]* Month Day Year: **07/31/96**

17. Transporter 1 Acknowledgement of Receipt of Materials  
 Printed/Typed Name: **WENNIS M. RICHARDVILLE** Signature: *[Signature]* Month Day Year: **07/31/96**

18. Transporter 2 Acknowledgement of Receipt of Materials  
 Printed/Typed Name: \_\_\_\_\_ Signature: \_\_\_\_\_ Month Day Year: \_\_\_\_\_

19. Discrepancy Indication Space: \_\_\_\_\_

20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.  
 Printed/Typed Name: \_\_\_\_\_ Signature: \_\_\_\_\_ Month Day Year: \_\_\_\_\_

in case of emergency, spill, or release, immediately call the state emergency response center at 1-800-452-3333. For more information, call the Department of Environmental Protection at 609-292-3333.



# FOSTER WHEELER ENVIRONMENTAL CORPORATION

## APG Environmental Remediation

### Quality Control of Health and Safety Instruments and Procedures Inspection Checklist

All QC inspections must be completed by a designated QC Engineer or alternate who is qualified in the operation and calibrations of health and safety instruments and procedures.

The QC Engineer should observe the calibration of health and safety instrumentation randomly, or at least once every five calibrations. The QC Engineer shall inspect the health and safety operations/forms listed below.

Quality Control No.: 03

Date Started: 8-6-96

Date Completed: \_\_\_\_\_

Contract No.: DACA31-94-D-0020 Project Site and Location: ADAMSITE STORAGE VAULTS

QC Engineer(s): KETH BRANCA

Site Health & Safety Officer(s): James Morning

Operation/Form	4/6	8/7	Month/Day			Notes
Calibration Log Completed	✓	✓				
Daily Briefing Log Completed	✓	✓				
Daily Instrument Source/Background Check Form (for each instrument used)	✓	✓				
Daily Health & Safety Report Form	✓	✓				
Sign In Log for Work Zones	✓	✓				
Proper Donning and Doffing of PPE	✓	✓				
Air Monitoring/Sampling Form	✓	✓				
In Compliance with SHERP & SOPs	✓	✓				
H & S Violations	None	None				
Heat and Cold Stress Monitoring	✓	✓				
All OSHA Forms Up to Date	✓	✓				
SHERP Review for All Personnel	✓	✓				
Delineation of Work Zones	✓	✓				
Shower Trailer Inspection	N/A	N/A				

**Foster Wheeler Environmental Corporation**  
*APG Environmental Remediation*

**DAILY CONSTRUCTION QUALITY CONTROL REPORT**

Daily Report No.:

13

Date: August 8, 1996

(Thur.)

Contract No.:

DACA31-94- D-0020

Project Title & Location:

DO #0003, Adamsite Storage Vaults - Edgewood Area

Weather: Sunny and

Clear

Precipitation:

0.0

in.

Temp:

Min. 68°F

Max. 90°F

Personnel On Site: USACE (1), ERDEC (0), FWENC (2), EA (1), KEVRIC (2),

Summary of Major Work Activities:

- Concrete Reduction of Northeast Vault (Work Plan Section 2.2.5.)
- Remove Several inches of Flowable Fill from Southwest Vault
- Place Twelve inches (12) of #3 Crushed Stone on top of SW Vault
- Backfill Northeast Vault with concrete

1. Work Performed by Foster Wheeler Environmental Personnel: (Indicate location and description of work performed by prime and/or subcontractors. When network analysis is used, identify work by NAS activity number)

K. Branch, QC Engineer, provided oversight to ensure quality work would be performed according to the work plan (Work Plan Section 2.2.5.1/2.2.6). Mr Branch oversaw the removal of twelve inches of fill from the southwest vault and the placement of a geotextile membrane with twelve inches of #3 crushed stone placed on top. The Kevric operator dismantled the walls of the northeast vault and the center wall with the Cat 235C shears and backfilled the material inside the vault. The walls were reduced to grade level. The two concrete tank cradles that were placed inside the vault were frisked for RAD by the Foster Wheeler technician and found to be clear for Alpha, Beta, and Gamma. Paul Harvey (DSHE), called to inform Foster Wheeler that Chem Waste Management would not be able to deliver an additional 30cu yd dumpster today and that it may take a few days before the filled dumpster could be turned in for disposal. The Northeast vault is ready to be backfilled with Flowable Fill which will be delivered on 9 Aug, 1996.

J. Morning (Site Safety and Health Officer-SSHO) conducted a health and safety briefing (See Attached Daily Briefing Sign-In Sheet). During the briefing, all site personnel were briefed on site activities, and possible hazards associated with the concrete reduction of the northeast vault. J. Morning closely monitored all activities to ensure that all Health and Safety hazards were avoided.

---

The SSHO utilized chemical air monitoring equipment today during removal activities.

---

The SSHO monitored meteorological conditions including temperature (wet bulb global/ thermometer) and wind direction (with wind socks) (Work Plan Section 4.10.2)

---

T. Reese, Project Manager, was on site during the day to monitor site activities. Mr. Reese spoke with the USACE who was on site to view the status of the site conditions.

---

#### Work Performed by Subcontractors:

Mike Fox, Superintendent, conducted a pre-operational meeting to review the planned site activities for reduction of the concrete wall of the northeast vault. Mike directed the Kevric operator to reduce the remaining Northeast vault concrete wall and place the dismantled concrete back into the vault. Mike directed the Kevric operator to move the 30cuyd dumpster with the John Deere 544G loader, but was unsuccessful because the weight of the dumpster was too heavy. Chem Waste Management called Mr. Fox and stated that they were unable to secure a vehicle to come and remove the 30cuyd dumpster. (Work Plan Add #1, Sect. 2.3.9).

---

The Kevric labor cleaned up around the site and assisted the Health and Safety Officer.

---

The Kevric equipment operator used the Cat235C Shears to finish reduction of the concrete wall of the northeast vault. The operator also removed the remaining inches of fill from the southwest vault which was then covered with a geotextile membrane. The Kevric operator then utilized the John Deere 544G Loader to place twelve (12), inches of #3 crushed stone on top completing the backfill of the southwest vault.

---

Mr. Carl Reitenbach ( Project Manager, EA Engineering) was not on site to view work activities but contacted the Site Superintendent to discuss today's activities.

---

2. Operating Plant or Equipment Utilized, Mob. and/or Demo. (Not hand tools)

Equipment Utilized: John Deere 544G Tire Loader, Daewoo Grappler , Cat 235C Shears, Air monitoring equipment (CGI,FID,PID,OVA,Miniram), (1) minivan, (1) full size 4x4 pick up truck (1) small pick-up truck (3) 2 way Radios (1) Cellular Phone

---

3. Control Activities Performed:

Preparatory Inspections: (Identify feature of work and attach minutes).

Initial Inspections: (Identify feature of work and attach minutes).

Daily QC of Health and Safety Instruments and Procedures Inspection Checklist (See Attached)

---

Preparatory Inspection Checklist (See Attached)

---

Follow-up Inspection Checklist (See Attached)

---

4. Tests performed and Test Results: (Identify test requirement by paragraph number in specifications and/or sheet number in plans).

Periodic air-monitoring data results were reported by the SSHO. No results were found above background. This information is recorded in the SSHO's Daily Health and Safety Report.

---

5. Material Received: (Note inspection results and storage provide)

---

6. Waste Generated and/or Disposed:

No waste was generated today

---

Total waste generated to date:

15,000 gallons of water (Disposed of by Chem Waste), (3)- Dumpsters of Steel and Tin sent to DRMO 26,160lbs, (5)- 4'x4'x4' Wooden boxes of metal pipe(awaiting turn in) (1) - 30cuyd roll off with sediment (a second roll is off expected).

7. Off site Surveillance Activities, Including Action Taken:

No off site surveillance activities occurred this date.

8. Job Safety: (List items checked, results, instructions and corrective actions taken)

Total Manhours Worked to Date: 614 hours Total Number of Days Worked on Site: 14 days  
Total Manhours Worked with No Lost Time Accidents: 614 hours Total Number of Lost Time  
Accidents on the Site to Date: 0

Air monitoring readings were taken with the FID, PID, CGI, and Miniram particulate monitor..

9. Remarks: (Instructions received or given. Conflict(s) in Plans and/or specifications.  
Delays encountered.)

Joe Brutsman (USACE/ERRO) was on site to monitor final concrete reduction of the northeast vault walls, and the backfill of the concrete into the vault.

Paul Harvey (DSHE) called the site and informed Foster Wheeler that Chem Waste Management was unable to deliver a second 30cuyd dumpster and that the filled dumpster on site may no be disposed of until early next week.

10. Attachments:

Daily Construction Log/Manpower Report (FWENC & EA)

Daily H&S Report (SSHO Daily Log, Calibration Records (CGI, PID, OVA, Activity/Task Hazard Analysis), Site Entry/ Exit Log, Air Monitoring Results

Follow up Inspection Checklist (See Attached)

QC Health and Safety Instrument & Procedures Inspection Check list



DAILY CONSTRUCTION LOG/MANPOWER REPORT  
DAILY REPORT #: 12

Client: US Army Corps of Engineers, ERRO, Baltimore District Date: 8-8-96  
 Project: Delivery Order #0003, Site 3, Adamsite Storage Vaults, Edgewood Area, APG FW Proj.#: DACA31-94-D-0020  
 Wind: 1-3 Temperature: (Hi/Low): 68-90  
 Sky: Clear Precipitation: 0  
 LEVEL OF PROTECTION REQUIRED A B C (D) (circle) (required in work zone)

## REMEDATION &amp; SITE ACTIVITIES

TIME

REMARKS/COMMENTS/ACCOMPLISHMENTS/DELAYS

0530 Health & Safety meeting went over work for this day  
 working around overhead lines & equipment.

0630 Working with 544 loader involved to put 2" stone into place  
 on south end of SVV vault will be able to run Deewoo in this area.

07:30 Started work left off with shearing of NE vault. With shearer &  
 Deewoo placed all debris from walls of vault into this vault

0830 P.M. Tim R. Corp. Joe B. on site to look over stoned area where  
 to move Deewoo onto this area worked with Deewoo to remove top 6" of  
 bluish

09:30 Layed out Gortex on area cleared by Deewoo & also pushed stone into  
 this area (12' at a time)

10:30 Cleared last of SVV vault bluish fill 6" frontiers put down  
 Gortex and covered with stone.

11:30 Picked up work left off with shearing of NE vault center &  
 outer walls

12:30 Finished with shearing at center wall of NE & SW vaults

13:30 Reset snow fence around work site Secured work area &  
 equipment exited site

# EA RTI DAILY LOG

Report Number 12 Project Name Adams site  
 Location APG 60834/03  
 Date 8/8/96 Contract Officer \_\_\_\_\_

Description of Work Safety briefing, talked over work for this day  
worked on Sheeting last at concrete wall of NE vault. Back filled  
with stone over SW vault to set snow fence. Secured walk area  
exit site ordered Stone & blowable fill for next day

### PERSONNEL ONSITE

Company Name	Employee	Time in	Time out	Total Hours
EA	M Fox	0530		
	Kevin			
	10 Denator			
	1 Laboreu			

### EQUIPMENT ONSITE

Description	Date arrived	Date left	EA Owned	Rented	Total Days Used
E350 forklift	7/24		<input checked="" type="checkbox"/>		
Ladders			<input checked="" type="checkbox"/>		
Overhead lights			<input checked="" type="checkbox"/>		
EZ up Tent			<input checked="" type="checkbox"/>		
Jackwells				<input checked="" type="checkbox"/>	
235 CAT Shovel				<input checked="" type="checkbox"/>	

Any Inspections? NO If so, time and name of inspector. \_\_\_\_\_

What kind of inspection \_\_\_\_\_

Weather Conditions Clear  Cloudy \_\_\_\_\_ Rain \_\_\_\_\_ Temp 90

On Schedule? yes  no \_\_\_\_\_

Any lost time accidents on this date? yes \_\_\_\_\_ no

Have you had your daily safety meeting? yes  no \_\_\_\_\_

Safety concerns Overhead lines, dust, heavy equipment

Remarks Chem waste unable to move dumpster on this day

M. Michael Fox 8/8/96  
 Construction Superintendent Date

\_\_\_\_\_  
 Construction Manager Date







## 1. VERBAL/Written GUIDANCE (LIST INDIVIDUAL):

N/A

## 2. CONTROVERSIAL MATTERS:

Dont use Cat 235C DN top on S.W VaulT with ind SWamp pads

## 3. SAFETY:

LEVEL OF PPE: Modified level D

SSHO: \_\_\_\_\_

## 4. SEC PLAN MEASURES INSTALLED: YES NO NONE REQUIRED

ADDITIONAL MEASURES TAKE TO STABILIZE SITE: \_\_\_\_\_

N/A

## 5. MINICAM STANDARDS REQUIRED/DATE: \_\_\_\_\_

N/A

MINICAM STANDARDS RECEIVED/DATE: \_\_\_\_\_

## 6. CSM SCREENING REQUIRED: YES NO HOLDING TIME: \_\_\_\_\_

SEND TO CTF: YES NO

DATE/TIME: \_\_\_\_\_

CRDEC conducted head space on 7 drums awaiting analysis.

## 7. SAMPLES SENT TO LAB: YES NO NUMBER/TYPE \_\_\_\_\_

LAB USED: \_\_\_\_\_

N/A

LAB APPROVED: YES NO

SAMPLING PERFORMED: (method, type, number taken, analysis expected and who was responsible for sampling/shipment)

AROUND TIME REQUIRED: \_\_\_\_\_

EXPECTED: \_\_\_\_\_

QA SAMPLES SENT TO COE LAB: YES NO

DATE: \_\_\_\_\_

## 8. "DIAL 17" REQUIRED: (give details, times, reason, who called, debriefing, follow-up, include UXO receipt)

N/A

## 9. NUMBER DRUMS/CONTAINERS WASTE GENERATED THIS DAY:

CONTENTS: 0

NUMBER OF WOODEN BOXES/SKIDS/ETC. GENERATED THIS DAY:

CONTENTS: 0

TOTAL NUMBER AT SITE THIS DATE:

BOXES

5

DRUMS

SKIDS

FWES REPRESENTATIVE: Hynd Branch QC Engineer

Name/Title

Date: 8 August 1991

USACE SIGNATURE \_\_\_\_\_

Name/Title

Date:



DAILY HEALTH AND SAFETY REPORT  
DAILY REPORT #:

Client: US Army Corps of Engineers, ERRO, Baltimore District Date: 8-8-96  
 Project: Delivery Order #0003, Site 3, Adamsite Storage Vaults, Edgewood Area, APG FW, Proj.#: DACA31-94-D-0020  
 Wind: out of SE Temperature: (Hi/Low): 70° 90  
 Sky: Cloudy Precipitation: none

LEVEL OF PROTECTION REQUIRED A B C D (circle) (required in work zone)

TIME	REMEDICATION & SITE ACTIVITIES REMARKS/COMMENTS/ACCOMPLISHMENTS/DELAYS
0530	Held Health + Safety Briefing @ Parking Lot, See Sign in Sheet for Attendance, Subjects, Details.
0545 <sup>z</sup>	Badged in Post 12 Gate, Go to Support Zone to Calibrate H+S EQUIPMENT. SEE CAL LOGS FOR DETAILS.
0630	Check Support Zone, RADYARD, ADAMSITE, NO READINGS ABOVE ACTION LEVELS. Crews prep for GRAVEL DEMO OPERATIONS.
0800	ACOE - JOE BRUTMAN, PM ONSITE OBSERVING ACTIVITIES. Demo continues
0850 <sup>z</sup>	ACOE, PM DEPART SITE, CONTINUE O.P.'S.
1035 <sup>z</sup>	Checked AO - NO READINGS ABOVE ACTION LEVELS
1200	LAST OF MIDDLE WALL SECTION DEMO COMPLETE.
1215	ACOE REPS ON SITE - BEGIN TO TAPE OFF AND FENCE AO.
1300	Site Secured Go to upper Support Zone
1330 <sup>z</sup>	Site Secured Go to Admin trailers.
	<i>[Signature]</i>



FOSTER WHEELER ENVIRONMENTAL CORPORATION

DAILY BRIEFING SIGN-IN SHEET

Date: 8-8-96

Project Name/Location: ADAMSITE APG-MD

Shift/Department: DAY

Person Conducting Briefing: J. MORROW

1. DAILY ACTIVITIES

TASKS	CONTROLS/PPE
1. Demo Walls - Vaults	D/O
2. Gravel Installation	D/O
3.	
4.	
5.	

2. AWARENESS (e.g., special HS concerns, recent incidents, etc.):

SLIP TRIP FALL  
Heavy equipment and you  
HEAT STRESS

3. OTHER ISSUES (HASP changes, attendee comments, etc.):

4. ATTENDEES (Print Name):

1. F. Hunter	11.
2. K. Branch	12.
3. M. Fox	13.
4.	14.
5.	15.
6.	16.
7.	17.
8.	18.
9.	19.
10.	20.



### Daily Health and Safety Report

DAILY HEALTH AND SAFETY REPORT  
CONTRACT NUMBER DACA31-94-D-0020

\*\*\*\*\*  
DELIVERY ORDER NO. Delivery Order No. 003 DATE: 8-8-96  
LOCATION OF WORK: Adamsite Storage Vaults  
WEATHER: Cloudy RAINFALL: \_\_\_\_\_ IN. TEMP: 70 min 90 max  
\*\*\*\*\*

1. WORK PERFORMED BY FOSTER WHEELER ENVIRONMENTAL CORPORATION AND THE FOLLOWING SUBCONTRACTORS:

- |  |                                 |
|--|---------------------------------|
| <input type="checkbox"/> HFA               | <input type="checkbox"/> ONSITE |
| <input checked="" type="checkbox"/> KEVRIC | <input type="checkbox"/> GONZER |
- EA

2. EQUIPMENT BEING UTILIZED:

- |   |  |  |
|---|--|--|
| <input checked="" type="checkbox"/> HNU | <input checked="" type="checkbox"/> Miniram      | <input type="checkbox"/> MINICAMS          |
| <input checked="" type="checkbox"/> OVA | <input checked="" type="checkbox"/> W.B.G. Therm | <input checked="" type="checkbox"/> Radios |
| <input checked="" type="checkbox"/> CGI | <input type="checkbox"/> First Aid Kits          |  |
| <input type="checkbox"/> Monitox        | <input type="checkbox"/> ICADS                   |  |
3. PERSONAL PROTECTIVE EQUIPMENT DONNED:  Level B  Level C  D

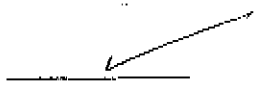
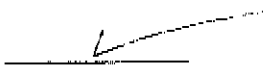
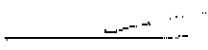
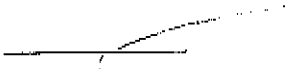

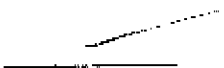
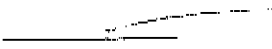
- |   |   |                                    |
|---|---|------------------------------------|
| <input type="checkbox"/> Supplied Air Resp.   | <input type="checkbox"/> MSA Respirators (GMC-H Cartridges)             | <input type="checkbox"/> Ice Vests |
| <input type="checkbox"/> 5 min. Escape        | <input checked="" type="checkbox"/> Hard Hat/Safety Glasses             | <input type="checkbox"/> Tyvek     |
| <input checked="" type="checkbox"/> Overboots | <input checked="" type="checkbox"/> Nitrile Gloves (surgical/overglove) |                                    |
4. AIR MONITORING DATE:  All readings at nominal background levels during operations.

\*\*\*\*\*  
SITE SAFETY AND HEALTH OFFICER: J. MORNING DATE: 8-8-96  
\*\*\*\*\*





FOSTER WHEELER ENVIRONMENTAL CORPORATION  
CALIBRATION RECORD FOR  
COMBUSTIBLE GAS INDICATOR *Passer*  
SERIAL NUMBER: 11069

1. Turn instrument on (HORN OFF position). Set % LEL meter pointer to zero by adjusting the ZERO LEL control. (do this within 30 seconds). Check when complete. 
2. Use CALIBRATE O2 control to set it at 20.6%. If this can be done then replace the O2 cell. Check when complete. 
3. Press the ALARM RESET button. If the alarm light does not go out and the green pilot light begins flashing then TAG OUT unit for repair and enter note below. Check when complete. 
4. Check flow by placing finger momentarily over sample inlet. If indicator float does not drop to the no flow position then TAG OUT for repair and enter note below. Check, when complete. 
5. Check battery, recharge if necessary. Check when complete. 
6. Turn ON-OFF control to the ON position. If the pilot lamp does not light then TAG OUT unit for repair. Check when complete. 
7. Note the calibration gas % LEL *5.0% Pentane* 
8. Introduce calibration gas to instrument. If the meter pointer is not +/- LEL, stop the cal. gas flow and remove the right hand side (speaker panel). Turn on the flow and adjust the "S" control with a small screwdriver to obtain the reading specified for the cal. gas. When complete sign, date and record the time below.

*ALARMS OK*

NOTATIONS:

*J. MORNING*

*8-8-96* Time: *0600*

FOSTER WHEELER ENVIRONMENTAL CORPORATION  
CALIBRATION RECORD FOR  
MINIRAM AEROSOL MONITOR/SUNSHIELD/MODEL PDM-SNS  
SERIAL NO. F 400143

1. Turn instrument ON. Allow to warm up for several minutes.
2. MINIRAM has been factory-calibrated. To zero the unit, use a dust free office environment or employ the Z-bag calibrator.

The Z-Bag™ is a convenient kit for zeroing the MINIRAM in the field. It provides a clean-air environment inside a plastic bag into which the MINIRAM is placed for zeroing. The Z-Bag kit consists of a one-way flow rubber bulb for manual air pumping, a filter cartridge, a zippered plastic container, a connecting hardware.

To use Z-Bag for zeroing MINIRAM proceed as follows:

1. Remove rubber bulb filter assembly from Z-Bag. Place Z-Bag on flat surface with red flow fitting facing up. Flatten bag. Remove small plastic cap from flow fitting on bag.
2. Insert ribbed elbow connector (attached to filter cartridge) into red flow fitting of plastic bag, until connector is flush with bottom of red flow fitting.
3. MINIRAM should be in its OFF condition (observe display). If display is blanked, or if MINIRAM is in the MEAS mode, key OFF.
4. Open Z-Bag and place MINIRAM inside, approximately at its center.
5. Key ZERO through the open end of the Z-Bag. Immediately zip closed the Z-Bag and begin to pump hand bulb.
6. Z-Bag should inflate as hand pumping continues, up to a height of about five inches (12 cm). Continue pumping gently to maintain bag interior pressure, until the MINIRAM displays off again.
7. Unzip Z-Bag and remove MINIRAM. MINIRAM is now ready for monitoring.
8. Place rubber bulb/filter assembly inside Z-Bag, and plug small plastic cap into flow fitting to close it. Zip close while flattening Z-Bag to store it to ensure cleanliness of the bag interior.

T M = 11

R - E - G /

2/15

FOSTER WHEELER ENVIRONMENTAL CORPORATION  
CALIBRATION RECORD FOR  
OVA MODEL 128  
SERIAL NO.: FW00043

Follow the start-up steps contained in the lid of the cover of the instrument for proper lighting and set-up of the instrument.

CALIBRATION range setting: X10

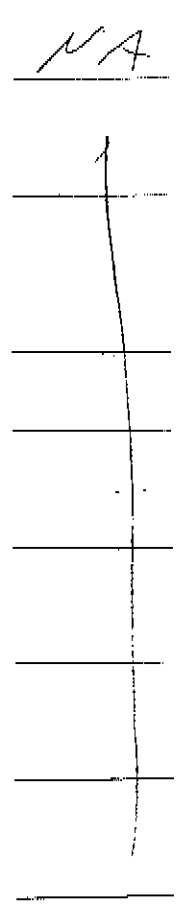
GAS SELECT control setting: 3.0

Calibration gas (methane) concentration: 100

Meter reading with calibration gas: 92

If the reading is greater than +/- 10% of the calibration gas concentration, a complete calibration is needed; otherwise the instrument can function as is. Follow the steps below, placing a check after each step, for complete calibration, if needed.

1. Set CALIBRATION to X10 and GAS SELECT control to 300.
2. Introduce zero air gas and use the CALIBRATE ADJUST knob to adjust the meter reading to zero.
3. Introduce a calibration gas standard of approximately 94 ppm methane and adjust trimpot R-32 on circuit board so that the meter reads the calibration gas concentration.
4. Turn off the H<sub>2</sub> SUPPLY VALVE to put out the flame.
5. Leave the CALIBRATE switch on X10 and use the CALIBRATE ADJUST knob to adjust the meter reading to 4 ppm.
6. Turn the CALIBRATE switch to X1. Using trimpot R-31 adjust the meter reading to 4 ppm.
7. Set the CALIBRATE switch to X10 again and use the CALIBRATE ADJUST knob to set the meter reading to 40 ppm.
8. Set the CALIBRATE switch to X100 and use trimpot R-33 to adjust meter to 40 ppm.
9. Set the CALIBRATE switch to X10 and use the CALIBRATE



FOSTER WHEELER ENVIRONMENTAL CORPORATION  
CALIBRATION RECORD FOR  
HNU MODEL DL101  
SERIAL # 567048  
PROBE SERIAL # 11  
PROBE eV: 10.2

1. Turn unit on and let warm up a few minutes.
2. Check time, date and mode. Mode should be S-D for Survey Mode.
3. Check low battery indicator in upper right corner
4. Prepare Calibration tank, tubing and regulator.
5. Press the calibration key on the front panel. CALIBRATE ? appears.
6. Press enter key. ELEC ZERO ? YES appears.
7. Press enter. ZEROING UNIT appears
8. Next prompt will ask for gas concentration, enter proper PPM, press enter.
9. ATTACH GAS TO PROBE AND/ENTER will appear. start the flow and press enter.
10. PRESS ENTER WHEN READY; XXX PPM will appear, press enter when readings stabilize to complete the process.
11. If unit does not calibrate to correct PPM see manual for more information.
12. If unit goes to survey mode calibration is complete and ready.
13. Note any maintenance performed;  
a. bulb cleaned \_\_\_\_\_ b. filter changed \_\_\_\_\_ c. Ion Chamber cleaned \_\_\_\_\_

other \_\_\_\_\_  
\_\_\_\_\_

Name: J. MORNING

Date: 8-8-91

Time: 0621

# Foster Wheeler Environmental Corporation

APG Environmental Remediation

## FOLLOW-UP INSPECTION CHECKLIST

Report No. 13 Contract No. DACA31-D-94-0020 Date 8 Aug. 1996

Project Title and location AmSite Storage - Edgewood Area

Work No.	Weather	Temperature		Rainfall	Work location (grid)
<u>N/A</u>	<u>Sunny and Clear</u>	<u>Min. 68°</u>	<u>Max. 90°</u>	<u>inches</u>	

Major definable feature of work concrete reduction / Back fill of Vault

A. Deficiencies noted: - unable to move 30cu yd Dumpster

B. Corrective action taken: - 12 inches of fill removed from S.W. vault as per  
(work plan Sec 2.2.6) and 12 inches of #3 crushed stone placed on top.

C. Pre-final Inspection (Attach Punch List)

Contractor's Quality Control Representative

Keith Branch 8 August 1996  
QC Systems Engineer Date

**FOSTER WHEELER ENVIRONMENTAL CORPORATION**  
**APG Environmental Remediation**

**Quality Control of Health and Safety Instruments and Procedures**  
**Inspection Checklist**

All QC inspections must be completed by a designated QC Engineer or alternate who is qualified in the operation and calibrations of health and safety instruments and procedures.

The QC Engineer should observe the calibration of health and safety instrumentation randomly, or at least once every five calibrations. The QC Engineer shall inspect the health and safety operations/forms listed below.

Quality Control No.: 03 Date Started: 8-6-96  
 Date Completed: \_\_\_\_\_  
 Contract No.: DACA31-94-D-0020 Project Site and Location: ADAMSITE SURFACE VAULTS  
 QC Engineer(s): KETA BRANCH  
 Site Health & Safety Officer(s): JAMES MORNING

Operation/Form	8/6			8/7		Notes
	1/6	2/6	3/6	1/7	2/7	
Calibration Log Completed	✓	✓	✓			
Daily Briefing Log Completed	✓	✓	✓			
Daily Instrument Source/Background Check Form (for each instrument used)	✓	✓	✓			
Daily Health & Safety Report Form	✓	✓	✓			
Sign In Log for Work Zones	✓	✓	✓			
Proper Donning and Doffing of PPE	✓	✓	✓			
Air Monitoring/Sampling Form	✓	✓	✓			
In Compliance with SHERP & SOPs	✓	✓	✓			
H & S Violations	DOSE	N/A	N/A			
Heat and Cold Stress Monitoring	✓	✓	✓			
All OSHA Forms Up to Date	✓	✓	✓			
SHERP Review for All Personnel	✓	✓	✓			
Delineation of Work Zones	✓	✓	✓			
Shower Trailer Inspection	N/A	N/A	N/A			

**Foster Wheeler Environmental Corporation**  
*APG Environmental Remediation*

**DAILY CONSTRUCTION QUALITY CONTROL REPORT**

Daily Report No.: 14

Date: August 9, 1996 (Fri.)

Contract No.: DACA31-94- D-0020

Project Title & Location: DO #0003, Adamsite Storage Vaults - Edgewood Area

Weather: Overcast  
and Rain      Precipitation: 0.5 in.      Temp:      Min. 65°F      Max. 89°F

Personnel On Site: USACE (1), ERDEC (0), FWENC (2), EA (1), KEVRIC (2),

Summary of Major Work Activities:

- Backfill Northeast Vault with Flowable Fill (Work Plan Sec 2.2.6)
- Schedule Delivery of #3 Crushed Stone
- Dry Decon of Heavy Equipment

1. Work Performed by Foster Wheeler Environmental Personnel: (Indicate location and description of work performed by prime and/or subcontractors. When network analysis is used, identify work by NAS activity number)

K. Branch, QC Engineer, provided oversight to ensure quality work would be performed according to the work plan (Work Plan Section 2.2.6). Mr Branch oversaw the backfill of the Northeast vault with two hundred and two (202) yards of Flowable Fill. The vault was filled to about twelve (12) inches below grade level. Billy Sanders (USACE/ERRO) was on site to monitor the backfill operations. Paul Harvey (DSHE) called and informed me that the dumpster of sediment will be picked up for disposal by Chem Waste Management next week. Mr. Tim Reese ordered the #3 crushed stone for the northeast vault which will be delivered on 12 Aug, 1996.

J. Morning (Site Safety and Health Officer-SSHO) conducted a health and safety briefing (See Attached Daily Briefing Sign-In Sheet). During the briefing, all site personnel were briefed on site activities, and possible hazards associated with the backfill of the northeast vault. J. Morning closely monitored all activities to ensure that all Health and Safety hazards were avoided.

The SSHO utilized chemical air monitoring equipment today during removal activities.

The SSHO monitored meteorological conditions including temperature (wet bulb global/ thermometer) and wind direction (with wind socks) (Work Plan Section 4.10.2)

T. Reese, Project Manager, was on site during the day to monitor site activities.

**Work Performed by Subcontractors:**

Mike Fox, Superintendent, conducted a pre-operational meeting to review the planned site activities for backfill of the Northeast vaults. Mike directed the mixer trucks where to place their load of Flowable Fill in the Northeast vault. The fill delivery was completed today and #3 crushed stone will be delivered on 12 Aug, 1996. Mike also directed the Kevric laborer to decon the Cat 235C and the Daewoo Grapppler. The operator assisted the Health and Safety Officer during the day. Mr. Fox scheduled Cat 235C shears and the Daewoo Grapppler to be taken off rental today and picked up on 12 Aug, 1996. (Work Plan Add #1, Sect. 2.3.9).

The Kevric labor did a dry decon of the Heavy Equipment and cleaned up around the site.

The Kevric equipment operator assisted the Health and Safety Officer.

Mr. Carl Reitenbach ( Project Manager, EA Engineering) was not on site to view work activities but contacted the Site Superintendent to discuss todays activities.

**2. Operating Plant or Equipment Utilized, Mob. and/or Demo. (Not hand tools)**

Equipment Utilized: Air monitoring equipment (CGI,FID,PID,OVA,Miniram), (1) minivan, (1) full size 4x4 pick up truck (1) small pick-up truck (3) 2 way Radios (1) Cellular Phone

**3. Control Activities Performed:**

Preparatory Inspections: (Identify feature of work and attach minutes).

Initial Inspections: (Identify feature of work and attach minutes).

Daily QC of Health and Safety Instruments and Procedures Inspection Checklist (See Attached)

Preparatory Inspection Checklist (See Attached)

Follow-up Inspection Checklist (See Attached)



4. Tests performed and Test Results: (Identify test requirement by paragraph number in specifications and/or sheet number in plans).

Periodic air-monitoring data results were reported by the SSHO. No results were found above background. This information is recorded in the SSHO's Daily Health and Safety Report.

---

5. Material Received: (Note inspection results and storage provide)

202 yards of Flowable Fill

---

6. Waste Generated and/or Disposed:

No waste was generated today

---

Total waste generated to date:

15,000 gallons of water (Disposed of by Chem Waste), (3)- Dumpsters of Steel and Tin sent to DRMO 26,160lbs, (5)- 4'x4'x4' Wooden boxes of metal pipe(awaiting turn in) (1) - 30cuyd roll off with sediment (a second roll off is expected).

7. Off site Surveillance Activities, Including Action Taken:

No off site surveillance activities occurred this date.

---

8. Job Safety: (List items checked, results, instructions and corrective actions taken)

Total Manhours Worked to Date: 659 hours Total Number of Days Worked on Site: 15 days  
Total Manhours Worked with No Lost Time Accidents: 659 hours Total Number of Lost Time Accidents on the Site to Date: 0

---

Air monitoring readings were taken with the FID, PID, CGI, and Miniram particulate monitor..

---

9. Remarks: (Instructions received or given. Conflict(s) in Plans and/or specifications. Delays encountered.).

Billy Sanders (USACE/ERRO) was on site to monitor backfill of the northeast vault with Flowable Fill..

---

Paul Harvey (DSHE) called the site and informed Foster Wheeler that Chem Waste Management will pick up the 30cuyd dumpster of sediment until next week for disposal.

---

10. Attachments:

Daily Construction Log/Manpower Report (FWENC & EA)

Daily H&S Report (SSHO Daily Log, Calibration Records (CGI, PID, OVA, Activity/Task Hazard Analysis), Site Entry/ Exit Log, Air Monitoring Results

Follow up Inspection Checklist (See Attached)

QC Health and Safety Instrument & Procedures Inspection Check list

Flowable Fill delivery Tickets

Contractor's Verification: On behalf of the Contractor, I certify that this report is complete and correct, and all materials and equipment used and work performed during this reporting are in compliance with the contract plans and specifications, to the best of my knowledge, except as may be noted above.

Keith Branch      9 Aug. 1990

Keith Branch  
QC Systems Engineer

Date



FOSTER WHEELER ENVIRONMENTAL CORPORATION

DAILY CONSTRUCTION LOG/MANPOWER REPORT  
DAILY REPORT #: \_\_\_\_\_

Client: US Army Corps of Engineers, ERRO, Baltimore District Date: 8-9-96  
 Project: Delivery Order #0003, Site 3, Adamsite Storage Vaults, Edgewood Area, APG FW Proj.#: DACA31-94-D-0020  
 Wind: 1-3 Temperature: (Hi/Low): 65-89  
 Sky: Clear Precipitation: Rain started 1100  
 LEVEL OF PROTECTION REQUIRED A B C (D) (circle) (required in work zone)

REMEDATION & SITE ACTIVITIES

TIME	REMARKS/COMMENTS/ACCOMPLISHMENTS/DELAYS
05:30	Health-Safety briefing, went over filling NE vault with Flowable Fill (Flowash)
06:30	Working with Daewoo to spread out debris (concrete from wall(s)) in bottom area of this vault, also trucks from Flowash on site. Started with pouring NE vault
07:30	Working with 544 loader to grade out all areas around vaults NE&SW
08:30	Started work on dry decon of Daewoo 180LC
09:30	Still working with Flowash fill into NE vault. Flowash having problem with ASH will do what can to work with us.
10:30	Started decon on 235 CAT Shear (dry) will also use water to remove dust from this area of decon. (see onsite Billy S. looked
11:30	area work done. Waiting for trucks from Flowash. has started to rain
12:30	Trucks #515 #516 on site dumped at south end of this will complete this area
13:30	Last 3 trucks will be dumped at north end of vault. Tr #511 #502 #512 Total for this day 202 yards. Secured all equipment for weekend Secured snow fence around jobsite exited site returned to office
14:30	

Michael Fox

# EA RTI DAILY LOG

Report Number \_\_\_\_\_ Project Name Adams site  
 Location AP6 60834 03  
 Date 8/9/96 Contract Officer \_\_\_\_\_

Description of Work Health & Safety went over work to be done  
Started with Hoash filling NE vault upto 1' below grade, Also  
Worked on Decen. of 235 CAT & 180hc Deewoo (dry) used 544 loads  
to start grading work around vault areas Secured equipment & Site

### PERSONNEL ONSITE

Company Name	Employee	Time in	Time out	Total Hours
<u>EA</u>	<u>M. Cox</u>	<u>053</u>		
<u>Keonic</u>				
<u>1 laborer</u>		<u>0530</u>		
<u>1 operator</u>		<u>0530</u>		

### EQUIPMENT ONSITE

Description	Date arrived	Date left	EA Owned	Rented	Total Days Used
<u>Ladders</u>	<u>7-24</u>		<input checked="" type="checkbox"/>		
<u>Drum lifts</u>			<input checked="" type="checkbox"/>		
<u>EZUP test</u>			<input checked="" type="checkbox"/>		
<u>F350 back</u>			<input checked="" type="checkbox"/>		
<u>235 CAT Sheer</u>				<input checked="" type="checkbox"/>	
<u>180hc Deewoo</u>				<input checked="" type="checkbox"/>	

Any Inspections? NO If so, time and name of inspector. \_\_\_\_\_

What kind of inspection \_\_\_\_\_

Weather Conditions Clear \_\_\_\_\_ Cloudy  Rain  Temp 80

On Schedule? yes  no \_\_\_\_\_

Any lost time accidents on this date? yes \_\_\_\_\_ no

Have you had your daily safety meeting? yes  no \_\_\_\_\_

Safety concerns Working around Hoash trucks, wet areas

Remarks Started with trucks from Hoash 0630 & finished at  
Total yards for this day 202

M. Cox 8-9-96  
 Construction Superintendent Date

\_\_\_\_\_  
 Construction Manager Date





1. VERBAL/WRITTEN GUIDANCE (LIST INDIVIDUAL):

N/A

2. CONTROVERSIAL MATTERS:

N/A

3. SAFETY:

LEVEL OF PPE: modified level D

SSHO: \_\_\_\_\_

4. SEC PLAN MEASURES INSTALLED: YES NO NONE REQUIRED

ADDITIONAL MEASURES TAKE TO STABILIZE SITE: N/A

5. MINICAM STANDARDS REQUIRED/DATE:

N/A

MINICAM STANDARDS RECEIVED/DATE: \_\_\_\_\_

6. CSM SCREENING REQUIRED: YES NO HOLDING TIME: \_\_\_\_\_

SEND TO CTF: YES NO

DATE/TIME: \_\_\_\_\_

7. SAMPLES SENT TO LAB: YES NO NUMBER/TYPE \_\_\_\_\_

N/A

LAB USED: \_\_\_\_\_

LAB APPROVED: YES NO

SAMPLING PERFORMED: (method, type, number taken, analysis expected and who was responsible for sampling/shipment)

AROUND TIME REQUIRED: \_\_\_\_\_ EXPECTED: \_\_\_\_\_

QA SAMPLES SENT TO COE LAB: YES NO DATE: \_\_\_\_\_

8. "DIAL 17" REQUIRED: (give details, times, reason, who called, debriefing, follow-up, include UXO receipt)

9. NUMBER DRUMS/CONTAINERS WASTE GENERATED THIS DAY:  $\ominus$

CONTENTS: \_\_\_\_\_

NUMBER OF WOODEN BOXES/SKIDS/ETC. GENERATED THIS DAY:  $\ominus$

CONTENTS: \_\_\_\_\_

TOTAL NUMBER AT SITE THIS DATE:

BOXES

5

DRUMS

.

SKIDS

\_\_\_\_\_

WES REPRESENTATIVE: Health Branch, QC Engineer

USACE SIGNATURE \_\_\_\_\_

Name/Title

Name/Title

Date: 9 August, 1996

Date: \_\_\_\_\_



FOSTER WHEELER ENVIRONMENTAL CORPORATION

DAILY BRIEFING SIGN-IN SHEET

Date: 8-9-96

Project Name/Location: ADAMSITE-AP6-MD

Shift/Department: DAY

Person Conducting Briefing: J. MURNING

1. DAILY ACTIVITIES

TASKS	CONTROLS/PPE
1. INSTALL FLD ASH - EAST VAULT	D/P
2. Prep Heavy Equip - Demob	D/P
3.	
4.	
5.	

2. AWARENESS (e.g., special HS concerns, recent incidents, etc.):

TRUCK BACKING OP'S - Keep Away from Hole 3 Ft  
SLIP TRIP FALL  
HAND SIGNALS.

3. OTHER ISSUES (HASP changes, attendee comments, etc.):

4. ATTENDEES (Print Name):

1. <u>Michael Ego</u>	11.
2. <u>FRANCIS HUNTER</u>	12.
3. <u>LS - F. STALEY</u>	13.
4. <u>Keith Brunch</u>	14.
5.	15.
6.	16.
7.	17.
8.	18.
9.	19.





### Daily Health and Safety Report

\*\*\*\*\*

#### DAILY HEALTH AND SAFETY REPORT CONTRACT NUMBER DACA31-94-D-0020

\*\*\*\*\*

DELIVERY ORDER NO. Delivery Order No. 003 DATE: 8-9-96  
LOCATION OF WORK: Adamsite Storage Vaults

WEATHER: PC RAINFALL: \_\_\_\_\_ IN. TEMP: 70 min. 83 max.

\*\*\*\*\*

1. WORK PERFORMED BY FOSTER WHEELER ENVIRONMENTAL CORPORATION AND THE FOLLOWING SUBCONTRACTORS:

- |  |                                 |   |
|--|---------------------------------|---|
| <input type="checkbox"/> HFA               | <input type="checkbox"/> ONSITE |   |
| <input checked="" type="checkbox"/> KEVRIC | <input type="checkbox"/> GONZER | <input checked="" type="checkbox"/> <u>EA</u> |

2. EQUIPMENT BEING UTILIZED:

- |   |  |  |
|---|--|--|
| <input checked="" type="checkbox"/> HNU | <input checked="" type="checkbox"/> Miniram      | <input type="checkbox"/> MINICAMS          |
| <input checked="" type="checkbox"/> OVA | <input checked="" type="checkbox"/> W.B.G. Therm | <input checked="" type="checkbox"/> Radios |
| <input checked="" type="checkbox"/> CGI | <input type="checkbox"/> First Aid Kits          |  |
| <input type="checkbox"/> Monitox        | <input type="checkbox"/> ICADS                   |  |
|   | <input type="checkbox"/> Level B                 | <input type="checkbox"/> Level C           |

3. PERSONAL PROTECTIVE EQUIPMENT DONNED:

- |   |  |                                    |
|---|--|------------------------------------|
| <input type="checkbox"/> Supplied Air Resp. | <input type="checkbox"/> MSA Respirators (GMC-H Cartridges)  | <input type="checkbox"/> Ice Vests |
| <input type="checkbox"/> 5 min. Escape      | <input type="checkbox"/> Hard Hat/Safety Glasses             | <input type="checkbox"/> Tyvek     |
| <input type="checkbox"/> Overboots          | <input type="checkbox"/> Nitrile Gloves (surgical/overglove) |                                    |

4. AIR MONITORING DATE:  All readings at nominal background levels during operations.

\*\*\*\*\*

SITE SAFETY AND HEALTH OFFICER: J. Moroney DATE: 8-9-96





FOSTER WHEELER ENVIRONMENTAL CORPORATION

Page of

DAILY HEALTH AND SAFETY REPORT  
DAILY REPORT #:






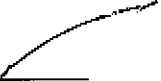

Client: US Army Corps of Engineers, ERRO, Baltimore District Date: 8-7-96  
 Project: Delivery Order #0003, Site 3, Adamsite Storage Vaults, Edgewood Area, APG FW, Proj.#: DACA31-94-D-0020  
 Wind: out of SW Temperature: (Hi/Low): 70 - 83  
 Sky: PC to cloudy Precipitation: RAIN

LEVEL OF PROTECTION REQUIRED A B C D (circle) (required in work zone)

TIME	REMEDATION & SITE ACTIVITIES REMARKS/COMMENTS/ACCOMPLISHMENTS/DELAYS
0530	Held Health & Safety Briefing @ Parking Lot, See
0545	Scan-in sheet for Attendance, Subject, Details. Backed in Post 12 Gate Go to Support Zone TO CALIBRATE HHS EQUIPMENT, See CAL LOG SHEETS FOR DETAILS. Radio, phone check OK.
0630	Checked Support Zone, Rail Yard, ADAMSITE AO's NO READINGS ABOVE ACTION levels. Begin Back fill OP's ON EAST VAULT Briefed crew ON RACKING OF TRUCKS - SAFETY.
0830	ACOE B. Sanders on site observing OP's. TRUCKS coming 1 to 2 @ A TIME.
0915	Collected Sample at P10 Ash-2 - 1 Lt Glass JARS TRUCK # 513 @ Beginning of Dump.
0944	Starting to RAIN
1030	RAIN off on Site Supt/QC, Awaiting LAST 3-TRUCKS - TAKE Laborer/OPERATORS to Parking lot and Cars to Admin

JK

FOSTER WHEELER ENVIRONMENTAL CORPORATION  
CALIBRATION RECORD FOR  
COMBUSTIBLE GAS INDICATOR  
SERIAL NUMBER: 11069

1. Turn instrument on (HORN OFF position). Set % LEL meter pointer to zero by adjusting the ZERO LEL control. (do this within 30 seconds). Check when complete. 
2. Use CALIBRATE O2 control to set it at 20.6%. If this can be done then replace the O2 cell. Check when complete. 
3. Press the ALARM RESET button. If the alarm light does not go out and the green pilot light begins flashing then TAG OUT unit for repair and enter note below. Check when complete. 
4. Check flow by placing finger momentarily over sample inlet. If indicator float does not drop to the no flow position then TAG OUT for repair and enter note below. Check, when complete. 
5. Check battery, recharge if necessary. Check when complete. 
6. Turn ON-OFF control to the ON position. If the pilot lamp does not light then TAG OUT unit for repair. Check when complete. 
7. Note the calibration gas % LEL 
8. Introduce calibration gas to instrument. If the meter pointer is not +/- LEL, stop the cal. gas flow and remove the right hand side (speaker panel). Turn on the flow and adjust the "S" control with a small screwdriver to obtain the reading specified for the cal. gas. When complete sign, date and record the time below.

NOTATIONS: 50% Pentane 14.2 O2  
ALARMS - OK

Name: J Morvink

Date: 8-9-96

Time: 0600

FOSTER WHEELER ENVIRONMENTAL CORPORATION  
CALIBRATION RECORD FOR  
MINIRAM AEROSOL MONITOR/SUNSHIELD/MODEL PDM-SNS  
SERIAL NO. FW00143

1. Turn instrument ON. Allow to warm up for several minutes.
2. MINIRAM has been factory-calibrated. To zero the unit, use a dust free office environment or employ the Z-bag calibrator.

The Z-Bag™ is a convenient kit for zeroing the MINIRAM in the field. It provides a clean-air environment inside a plastic bag into which the MINIRAM is placed for zeroing. The Z-Bag kit consists of a one-way flow rubber bulb for manual air pumping, a filter cartridge, a zippered plastic container, a connecting hardware.

To use Z-Bag for zeroing MINIRAM proceed as follows:

1. Remove rubber bulb filter assembly from Z-Bag. Place Z-Bag on flat surface with red flow fitting facing up. Flatten bag. Remove small plastic cap from flow fitting on bag.
2. Insert ribbed elbow connector (attached to filter cartridge) into red flow fitting of plastic bag, until connector is flush with bottom of red flow fitting.
3. MINIRAM should be in its OFF condition (observe display). If display is blanked, or if MINIRAM is in the MEAS mode, key OFF.
4. Open Z-Bag and place MINIRAM inside, approximately at its center.
5. Key ZERO through the open end of the Z-Bag. Immediately zip closed the Z-Bag and begin to pump hand bulb.
6. Z-Bag should inflate as hand pumping continues, up to a height of about five inches (12 cm). Continue pumping gently to maintain bag interior pressure, until the MINIRAM displays off again.
7. Unzip Z-Bag and remove MINIRAM. MINIRAM is now ready for monitoring.
8. Place rubber bulb/filter assembly inside Z-Bag, and plug small plastic cap into flow fitting to close it. Zip close while flattening Z-Bag to store it to ensure cleanliness of the bag interior.



# Foster Wheeler Environmental Corporation

## APG Environmental Remediation

### FOLLOW-UP INSPECTION CHECKLIST

Report No. 14 Contract No. DACA31-D-94-0020 Date 9 August 1996

Project Title and location ADA Site Storage Vaults - Edgewood Area

Work No.	Weather	Temperature		Rainfall	Work location (grid)
		Min.	Max.		
N/A	overcast & Rain	65°	89°	0.5 inches	

Major definable feature of work Backfill of Vaults (D-E) with Flowable Fill

A. Deficiencies noted: - Still awaiting Disposal of 30 cu yd Roll off Dumpster

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B. Corrective action taken: - spoke w/ D.M. Harvey (SITE) Chem Waste Mgmts <sup>new</sup> Contract  
For APG (FY97) approved but working out minor details. Pick up disposal next  
week or within 2 weeks

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C. Pre-final Inspection (Attach Punch List)

\_\_\_\_\_  
 Contractor's Quality Control Representative

Keith Branch 9 Aug, 1996  
 QC Systems Engineer Date



# FOSTER WHEELER ENVIRONMENTAL CORPORATION

## APG Environmental Remediation

### Quality Control of Health and Safety Instruments and Procedures Inspection Checklist

All QC inspections must be completed by a designated QC Engineer or alternate who is qualified in the operation and calibrations of health and safety instruments and procedures.

The QC Engineer should observe the calibration of health and safety instrumentation randomly, or at least once every five calibrations. The QC Engineer shall inspect the health and safety operations/forms listed below.

Quality Control No.: 03

Date Started: 8-6-96

Date Completed: \_\_\_\_\_

Contract No.: DACA31-94-D-0020 Project Site and Location: ADAMSITE SHELBYVILLE

QC Engineer(s): KEITH BRANCA

Site Health & Safety Officer(s): James Manning

Operation/Form	8/6 Month/Day				Notes
	8/6	8/7	8/8	8/9	
Calibration Log Completed	✓	✓	✓	✓	
Daily Briefing Log Completed	✓	✓	✓	✓	
Daily Instrument Source/Background Check Form (for each instrument used)	✓	✓	✓	✓	
Daily Health & Safety Report Form	✓	✓	✓	✓	
Sign In Log for Work Zones	✓	✓	✓	✓	
Proper Donning and Doffing of PPE	✓	✓	✓	N/A	
Air Monitoring/Sampling Form	✓	✓	✓	✓	
In Compliance with SHERP & SOPs	✓	✓	✓	✓	
H & S Violations	None	None	None	None	
Heat and Cold Stress Monitoring	✓	✓	✓	✓	
All OSHA Forms Up to Date	✓	✓	✓	✓	
SHERP Review for All Personnel	✓	✓	✓	✓	
Delineation of Work Zones	✓	✓	✓	✓	
Shower Trailer Inspection	N/A	N/A	N/A	N/A	

**American Stone-Mix, Inc.**

8320 Bellona Avenue, Towson, Maryland 21204-2086

# FLO-ASH® SERVICES

410-682-5462

05452

DELIVERY DATE	QUANTITY
8-8-90	11 Yds TOTAL 202

SOLD TO

*E.H. Engineering*

DELIVERED TO

*Edgewood Arsenal*

TRUCK	MIX NO.
512	F-1

TIME START	TIME COMPLETED

DRIVER
<i>RT</i> <i>M. H. [Signature]</i>

RECEIVED BY

Foster Wheeler Environmental Corporation  
APG Environmental Remediation

DAILY CONSTRUCTION QUALITY CONTROL REPORT

Daily Report No.:

15

Date: August 12, 1996  
(Mon.)

Contract No.:

DACA31-94- D-0020

Project Title & Location: DO #0003, Adamsite Storage Vaults - Edgewood Area

Weather: Overcast Precipitation: 0.0 in. Temp: Min. 64°F Max. 75°F

Personnel On Site: USACE (1), ERDEC (0), FWENC (2), EA (1), KEVRIC (2),

Summary of Major Work Activities:

- Backfill Northeast Vault with #3 Crushed Stone (Work Plan Sec 2.2.6)
- Turn-in Daewoo Grappler and Cat235C Shears
- Repair Access Road around site

1. Work Performed by Foster Wheeler Environmental Personnel: (Indicate location and description of work performed by prime and/or subcontractors. When network analysis is used, identify work by NAS activity number)

K. Branch, QC Engineer, provided oversight to ensure quality work would be performed according to the work plan (Work Plan Section 2.2.6). Mr Branch oversaw the backfill of the Northeast vault with one hundred and sixty six tons of #3 crushed stone. The area around the vaults will be leveled with the John Deere 544G and covered with #3 crushed stone. The access road around the site that was damaged by the heavy equipment was covered with 1 inch stone. Billy Sanders (USACE/ERRO) was on site to conduct a Preparatory Inspection for Demobilization. No deficiencies were noted. The Cat235C and the Daewoo Grappler was scanned for Alpha, Beta, and Gamma before leaving site yesterday by the RAD Technician.

J. Morning (Site Safety and Health Officer-SSHO) conducted a health and safety briefing (See Attached Daily Briefing Sign-In Sheet). During the briefing, all site personnel were briefed on site activities, and possible hazards associated with the backfill of the northeast vault. J. Morning closely monitored all activities to ensure that all Health and Safety hazards were avoided.

J. Morning (Site Safety and Health Officer-SSHO) conducted a health and safety briefing (See Attached Daily Briefing Sign-In Sheet). During the briefing, all site personnel were briefed on site activities, and possible hazards associated with the backfill of the northeast vault. J. Morning closely monitored all activities to ensure that all Health and Safety hazards were avoided.

The SSHO utilized chemical air monitoring equipment today during removal activities.

The SSHO monitored meteorological conditions including temperature (wet bulb global/ thermometer) and wind direction (with wind socks) (Work Plan Section 4.10.2)

T. Reese, Project Manager, was on site during the day to monitor site activities.

#### Work Performed by Subcontractors:

Mike Fox, Superintendent, conducted a pre-operational meeting to review the planned site activities for backfill of the Northeast vaults. Mike excepted the delivery of ## crushed stone for the backfill of the Northeast Vault. Mike placed a layer of geotextile on top of the hardened Flowable fill then directed the Kevric laborer to place #3 crushed stone on top to grade. The Kevric operator then used the one (1) inch crushed stone to repair road around site. (Work Plan Add #1, Sect. 2.3.9).

The Kevric labor called in sick today.

The Kevric equipment operator used the John Deere 544G Tire Loader to backfill stone in the Northeast Vault. The operator also placed crushed stone on the access road near the site to repair asphalt damaged by the heavy equipment.

Mr. Carl Reitenbach ( Project Manager, EA Engineering) was not on site to view work activities but contacted the Site Superintendent to discuss todays activities.

#### 2. Operating Plant or Equipment Utilized, Mob. and/or Demo. (Not hand tools)

Equipment Utilized: John Deere 544G Loader, Air monitoring equipment (CGI, FID, PID, OVA, Miniram), (1) minivan, (1) full size 4x4 pick up truck (1) small pick-up truck (3) 2 way Radios (1) Cellular Phone

#### 3. Control Activities Performed:

Preparatory Inspections: (Identify feature of work and attach minutes).  
Initial Inspections: (Identify feature of work and attach minutes).

Daily QC of Health and Safety Instruments and Procedures Inspection Checklist (See Attached)

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Preparatory Inspection Checklist (See Attached)

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Follow-up Inspection Checklist (See Attached)

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4. Tests performed and Test Results: (Identify test requirement by paragraph number in specifications and/or sheet number in plans).

Periodic air-monitoring data results were reported by the SSHO. No results were found above background. This information is recorded in the SSHO's Daily Health and Safety Report.

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5. Material Received: (Note inspection results and storage provide)

166.06 tons of #3 Crushed Stone

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6. Waste Generated and/or Disposed:

No waste was generated today

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Total waste generated to date:

15,000 gallons of water (Disposed of by Chem Waste), (3)- Dumpsters of Steel and Tin sent to DRMO 26,160lbs, (5)- 4'x4'x4' Wooden boxes of metal pipe(awaiting turn in) (1) - 30cu yd roll off with sediment (a second roll off is expected).

7. Off site Surveillance Activities, Including Action Taken:

No off site surveillance activities occurred this date.

---

8. Job Safety: (List items checked, results, instructions and corrective actions taken)

Total Manhours Worked to Date: 696 hours Total Number of Days Worked on Site: 16 days  
Total Manhours Worked with No Lost Time Accidents: 696 hours Total Number of Lost Time Accidents on the Site to Date: 0

---

Air monitoring readings were taken with the FID, PID, CGI, and Miniram particulate monitor.

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9. Remarks: (Instructions received or given. Conflict(s) in Plans and/or specifications. Delays encountered.).





EA RTI DAILY LOG

Report Number \_\_\_\_\_ Project Name Adams site  
 Location APB 60834 03  
 Date 8/12/96 Contract Officer \_\_\_\_\_

Description of Work: Health Safety briefing, talked over work for the day  
Worked with 544 loader to grade areas & spreaded stone over vaults  
Bobby Jackson Inc on site Picked up Daewoo with extra bucket. Asst  
Snow fence around work area. Secured job site returned to office

PERSONNEL ONSITE

Company Name	Employee	Time in	Time out	Total Hours
<u>EA</u>	<u>M Fox</u>	<u>0530</u>		
<u>Keuric</u>				
<u>1 Operator</u>				

EQUIPMENT ONSITE

Description	Date arrived	Date left	EA Owned	Rented	Total Days Used
<u>F350</u>	<u>7/24</u>		<input checked="" type="checkbox"/>		
<u>loaders (2)</u>			<input checked="" type="checkbox"/>		
<u>EZ up tent</u>			<input checked="" type="checkbox"/>		
<u>Dinner table (2)</u>			<input checked="" type="checkbox"/>		

Any Inspections? no If so, time and name of inspector. \_\_\_\_\_

What kind of inspection \_\_\_\_\_

Weather Conditions Clear \_\_\_\_\_ Cloudy  Rain \_\_\_\_\_ Temp 75

On Schedule? yes  no \_\_\_\_\_

Any lost time accidents on this date? yes \_\_\_\_\_ no

Have you had your daily safety meeting? yes  no \_\_\_\_\_

Safety concerns Working with dump trucks over head wires

Remarks \_\_\_\_\_

M Fox 8/12/96  
 Construction Superintendent Date

Construction Manager Date







1. VERBAL/WRITTEN GUIDANCE (LIST INDIVIDUAL):

N/A

2. CONTROVERSIAL MATTERS:

N/A

3. SAFETY:

LEVEL OF PPE:

MODIFIED LEVEL "D"

SSHO:

4. SEC PLAN MEASURES INSTALLED: YES NO NONE REQUIRED

ADDITIONAL MEASURES TAKE TO STABILIZE SITE:

N/A

5. MINICAM STANDARDS REQUIRED/DATE:

N/A

MINICAM STANDARDS RECEIVED/DATE:

6. CSM SCREENING REQUIRED:  YES  NO

HOLDING TIME:

SEND TO CTF: YES NO

DATE/TIME:

ON BOX #4

7. SAMPLES SENT TO LAB: YES NO

NUMBER/TYPE

LAB USED:

N/A

LAB APPROVED:

YES NO

SAMPLING PERFORMED: (method, type, number taken, analysis expected and who was responsible for sampling/shipment)

AROUND TIME REQUIRED:

EXPECTED:

QA SAMPLES SENT TO COE LAB:

YES

NO

DATE:

8. "DIAL 17" REQUIRED: (give details, times, reason, who called, debriefing, follow-up, include UXO receipt)

N/A

9. NUMBER DRUMS/CONTAINERS WASTE GENERATED THIS DAY:

CONTENTS:

NUMBER OF WOODEN BOXES/SKIDS/ETC. GENERATED THIS DAY:

CONTENTS:

TOTAL NUMBER AT SITE THIS DATE:

BOXES

5

DRUMS

SKIDS

Box #4 sampled by GROVE WAS positive for VX, MUST  
BE RE-SAMPLEDYES REPRESENTATIVE: Vpoin Branch, WENGINEER

USACE SIGNATURE

Name/Title

Name/Title

Date: 12 August, 1995

Date:

DAILY HEALTH AND SAFETY REPORT  
DAILY REPORT #:

Client: US Army Corps of Engineers, ERRO, Baltimore District

Date: 8-12-96

Project: Delivery Order #0003, Site 3, Adamsite Storage Vaults, Edgewood Area, APG FW, Proj. #: DACA31-94-D-0020

Wind: out of East

Temperature: (Hi/Low): 63-74

Sky: Cloudy

Precipitation: NONE

LEVEL OF PROTECTION REQUIRED A B C D (circle) (required in work zone)

## REMEDIATION &amp; SITE ACTIVITIES

TIME

REMARKS/COMMENTS/ACCOMPLISHMENTS/DELAYS

0530

Held Health + Safety Briefing @ Parking Lot

0600

Badger in Post 12 Gate and Go to Support Zone to Calibrate H+S Equipment.

See CAL LOGS FOR DETAILS.

0630

Checked Rad Yard + ADAMSITE AREAS, NO Readings Above Action Levels.

0700<sup>+</sup>

GRAVEL TRUCKS COMING IN.

0730

Demobing Area + Health + Safety Equipment

1030

Checked Area - NO Readings Above Action Levels. Small Excavator Demobed, RAD TECH Smear + Frisked

1100

Standing by for 2nd Excavator to BE Picked up.

1330

Site Secured - 2nd Excavator GONE Go to Admin trailer

SK



### Daily Health and Safety Report

DAILY HEALTH AND SAFETY REPORT  
CONTRACT NUMBER DACA31-94-D-0020

DELIVERY ORDER NO. Delivery Order No. 003 DATE: 8-12-96  
LOCATION OF WORK: Adamsite Storage Vaults  
WEATHER: Cloudy RAINFALL:        IN. TEMP: 63 min 74 max.

1. WORK PERFORMED BY FOSTER WHEELER ENVIRONMENTAL CORPORATION AND THE FOLLOWING SUBCONTRACTORS:

- |   |                                 |                                |
|---|---------------------------------|--------------------------------|
| <input type="checkbox"/> HFA                            | <input type="checkbox"/> ONSITE |                                |
| <input checked="" type="checkbox"/> KEVRIC <i>Ne SA</i> | <input type="checkbox"/> GONZER | <input type="checkbox"/> _____ |

2. EQUIPMENT BEING UTILIZED:

- |   |  |  |
|---|--|--|
| <input checked="" type="checkbox"/> HNU | <input checked="" type="checkbox"/> Miniram        | <input type="checkbox"/> MINICAMS          |
| <input checked="" type="checkbox"/> OVA | <input type="checkbox"/> W.B.G. Therm              | <input checked="" type="checkbox"/> Radios |
| <input checked="" type="checkbox"/> CGI | <input checked="" type="checkbox"/> First Aid Kits |  |
| <input type="checkbox"/> Monitox        | <input type="checkbox"/> ICADS                     |  |


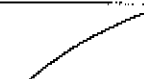
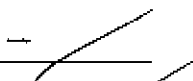
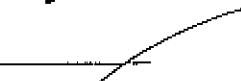
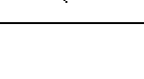

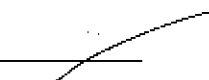
3. PERSONAL PROTECTIVE EQUIPMENT DONNED:

- |   |  |                                    |                                  |
|---|--|------------------------------------|----------------------------------|
| <input type="checkbox"/> Supplied Air Resp. | <input type="checkbox"/> MSA Respirators/GMC-H Cartridges    | <input type="checkbox"/> Level B   | <input type="checkbox"/> Level C |
| <input type="checkbox"/> 5 min. Escape      | <input checked="" type="checkbox"/> Hard Hat/Safety Glasses  | <input type="checkbox"/> Ice Vests |                                  |
| <input type="checkbox"/> Overboots          | <input type="checkbox"/> Nitrile Gloves (surgical/overglove) | <input type="checkbox"/> Tyvek     |                                  |

4. AIR MONITORING DATE:  All readings at nominal background levels during operations.

SITE SAFETY AND HEALTH OFFICER: J. MARVIN DATE: 8-12-96

FOSTER WHEELER ENVIRONMENTAL CORPORATION  
CALIBRATION RECORD FOR  
COMBUSTIBLE GAS INDICATOR  
SERIAL NUMBER: 11069

1. Turn instrument on (HORN OFF position). Set % LEL meter pointer to zero by adjusting the ZERO LEL control. (do this within 30 seconds). Check when complete. 
2. Use CALIBRATE O2 control to set it at 20.6%. If this can be done then replace the O2 cell. Check when complete. 
3. Press the ALARM RESET button. If the alarm light does not go out and the green pilot light begins flashing then TAG OUT unit for repair and enter note below. Check when complete. 
4. Check flow by placing finger momentarily over sample inlet. If indicator float does not drop to the no flow position then TAG OUT for repair and enter note below. Check, when complete. 
5. Check battery, recharge if necessary. Check when complete. 
6. Turn ON-OFF control to the ON position. If the pilot lamp does not light then TAG OUT unit for repair. Check when complete. 
7. Note the calibration gas % LEL 
8. Introduce calibration gas to instrument. If the meter pointer is not +/- LEL, stop the cal. gas flow and remove the right hand side (speaker panel). Turn on the flow and adjust the "S" control with a small screwdriver to obtain the reading specified for the cal. gas. When complete sign, date and record the time below.

NOTATIONS:

Name: C. Moen

Date: 8-12-96

Time: 0601

FOSTER WHEELER ENVIRONMENTAL CORPORATION  
CALIBRATION RECORD FOR  
MINIRAM AEROSOL MONITOR/SUNSHIELD/MODEL PDM-SNS  
SERIAL NO. FW00143

1. Turn instrument ON. Allow to warm up for several minutes.
2. MINIRAM has been factory-calibrated. To zero the unit, use a dust free office environment or employ the Z-bag calibrator.

The Z-Bag™ is a convenient kit for zeroing the MINIRAM in the field. It provides a clean-air environment inside a plastic bag into which the MINIRAM is placed for zeroing. The Z-Bag kit consists of a one-way flow rubber bulb for manual air pumping, a filter cartridge, a zippered plastic container, a connecting hardware.

To use Z-Bag for zeroing MINIRAM proceed as follows:

1. Remove rubber bulb filter assembly from Z-Bag. Place Z-Bag on flat surface with red flow fitting facing up. Flatten bag. Remove small plastic cap from flow fitting on bag.
2. Insert ribbed elbow connector (attached to filter cartridge) into red flow fitting of plastic bag, until connector is flush with bottom of red flow fitting.
3. MINIRAM should be in its OFF condition (observe display). If display is blanked, or if MINIRAM is in the MEAS mode, key OFF.
4. Open Z-Bag and place MINIRAM inside, approximately at its center.
5. Key ZERO through the open end of the Z-Bag. Immediately zip closed the Z-Bag and begin to pump hand bulb.
6. Z-Bag should inflate as hand pumping continues, up to a height of about five inches (12 cm). Continue pumping gently to maintain bag interior pressure, until the MINIRAM displays off again.
7. Unzip Z-Bag and remove MINIRAM. MINIRAM is now ready for monitoring.
8. Place rubber bulb/filter assembly inside Z-Bag, and plug small plastic cap into flow fitting to close it. Zip close while flattening Z-Bag to store it to ensure cleanliness of the bag interior.



FOSTER WHEELER ENVIRONMENTAL CORPORATION  
CALIBRATION RECORD FOR  
OVA MODEL 128  
SERIAL NO.: FW00043

Follow the start-up steps contained in the lid of the cover of the instrument for proper lighting and set-up of the instrument.

CALIBRATION range setting: X10

GAS SELECT control setting: 3.0

Calibration gas (methane) concentration: 100

Meter reading with calibration gas: 92

If the reading is greater than +/- 10% of the calibration gas concentration, a complete calibration is needed; otherwise the instrument can function as is. Follow the steps below, placing a check after each step, for complete calibration, if needed.

1. Set CALIBRATION to X10 and GAS SELECT control to 300.
2. Introduce zero air gas and use the CALIBRATE ADJUST knob to adjust the meter reading to zero.
3. Introduce a calibration gas standard of approximately 94 ppm methane and adjust trimpot R-32 on circuit board so that the meter reads the calibration gas concentration.
4. Turn off the H<sub>2</sub> SUPPLY VALVE to put out the flame.
5. Leave the CALIBRATE switch on X10 and use the CALIBRATE ADJUST knob to adjust the meter reading to 4 ppm.
6. Turn the CALIBRATE switch to X1. Using trimpot R-31 adjust the meter reading to 4ppm.
7. Set the CALIBRATE switch to X10 again and use the CALIBRATE ADJUST knob to set the meter reading to 40 ppm.
8. Set the CALIBRATE switch to X100 and use trimpot R-33 to adjust meter to 40 ppm.
9. Set the CALIBRATE switch to X10 and use the CALIBRATE ADJUST knob to adjust meter to zero

✓  
✓  
✓  
✓  
✓  
✓  
✓  
✓  
✓

FOSTER WHEELER ENVIRONMENTAL CORPORATION  
CALIBRATION RECORD FOR

HNU MODEL DLI01  
SERIAL # 567048  
PROBE SERIAL # 41  
PROBE eV: 10.5

1. Turn unit on and let warm up a few minutes.
2. Check time, date and mode. Mode should be S-D for Survey Mode.
3. Check low battery indicator in upper right corner.
4. Prepare Calibration tank, tubing and regulator.
5. Press the calibration key on the front panel. CALIBRATE ? appears.
6. Press enter key. ELEC ZERO ? YES appears.
7. Press enter. ZEROING UNIT appears
8. Next prompt will ask for gas concentration, enter proper PPM, press enter.
9. ATTACH GAS TO PROBE AND/ENTER will appear. start the flow and press enter.
10. PRESS ENTER WHEN READY; XXX PPM will appear, press enter when readings stabilize to complete the process.
11. If unit does not calibrate to correct PPM see manual for more information.
12. If unit goes to survey mode calibration is complete and ready.
13. Note any maintenance performed;  
a. bulb cleaned \_\_\_\_\_ b. filter changed \_\_\_\_\_ c. Ion Chamber cleaned \_\_\_\_\_

other \_\_\_\_\_  
\_\_\_\_\_

Name;

J. MORNING

Date

8-12-96

Time

0621





# FOSTER WHEELER ENVIRONMENTAL CORPORATION

## DAILY BRIEFING SIGN-IN SHEET

Date: 8-12-96

Project Name/Location: 26<sup>th</sup> ST / ADAMSITE

Shift/Department: DAY

Person Conducting Briefing: J. MORNING

### 1. DAILY ACTIVITIES

TASKS	CONTROLS/PPE
1. Demob RAD YARD	D/C
2. Demob Adamsite	D/D
3.	
4.	
5.	

### 2. AWARENESS (e.g., special HS concerns, recent incidents, etc.):

SLIP TRIP FALL  
FRISKING OF BOXES

### 3. OTHER ISSUES (HASP changes, attendee comments, etc.):

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

### 4. ATTENDEES (Print Name):

1. FREDERICK L. FUSSEL KENRIC	11.
2. TOM PARK	12.
3. KEITH BRADY Foster Wheeler	13.
4. B. Ashley Kenric	14.
5. Richard G. Wynn Jr. FWENT	15.
6. Mike Fox EA	16.
7.	17.
8.	18.
9.	19.

Date: Fri, 9 Aug 96 17:05:15 EDT  
From: Sandra D. Smith <sdsmith@cbddcom.apgea.army.mil>  
fglattin@cbddcom.apgea.army.mil  
jasnyder@cbddcom.apgea.army.mil, sdsmith@cbddcom.apgea.army.mil,  
axdean@cbddcom.apgea.army.mil  
Subject: Clearances  
Message-ID: <9608091705.aa23536@cbddcom.apgea.army.mil>

POC: Reese, 671-6015 BRA  
Item# GVH XXX (08/07/96)  
ADAM-BOX1 9608070102-M01 Clear for GB,GD,VX and HD  
ADAM-BOX2 9608070103-M01 Clear for GB,GD,VX and HD  
ADAM-BOX3 9608070104-M01 Clear for GB,GD,VX and HD  
ADAM-BO4 xxxr NOT CLEAR for VX confirmed by Mass Spec  
Clear for GB,GD and HD  
ADAM-BO5 9608070106-M01 Clear for GB,GD,VX and HD

# Foster Wheeler Environmental Corporation

## APG Environmental Remediation

### PREPARATORY INSPECTION CHECKLIST

Report No. \_\_\_\_\_ Contract No. DAC331-D-94-0020 Date 12 Aug 1994

Project Title and location IX#003 Adamsite Storage Vaults

Work No.	Weather	Temperature		Rainfall inches	Work location (grid)
		Min.	Max.		
<u>N/A</u>	<u>2-3 / 60-65</u>				

Major definable feature of work Decontamination Government Rep. Notified J. J. ...

Person Responsible for conducting the work \_\_\_\_\_

A. Personnel Present

Name	Position	Organization
<u>A. Morrison</u>	<u>Health Safety</u>	<u>F W</u>

(List additional personnel on reverse side)

B. Submittals to be reviewed Number N/A  
 Submittals reviewed and approved Yes \_\_\_\_\_ No ✓  
 If not, explain \_\_\_\_\_

C. Materials being used are in strict compliance with the contract plans and specifications Yes ✓ No \_\_\_\_\_  
 If not, explain Debris will utilize a Dry Debris, metal damaged items replaced with like item.

D. Procedures and/or work methods witnessed are in strict compliance with approved shop drawings, plans and/or specifications Yes ✓ No \_\_\_\_\_  
 If not, explain None. All work performed in accordance with approved plans and specifications.

E. Identify testing to be performed, frequency, and by whom. N/A

F. Workmanship is acceptable Yes ✓ No \_\_\_\_\_  
 Indicate areas where improvement is needed None. All workmanship is acceptable.

G. Safety concerns reviewed Yes ✓ No \_\_\_\_\_  
 If not, explain None. All safety concerns reviewed and addressed.

H. Preliminary 2 backfill completed. A backfill plan is being developed.

# Foster Wheeler Environmental Corporation

APC Environmental Remediation

## FOLLOW-UP INSPECTION CHECKLIST

Report No. 15 Contract No. DACA31-D-94-0020 Date 12/26/96

Project Title and location APAM 3760 Storage - Idlewood Area

Work No.	Weather	Temperature		Rainfall inches	Work location (grid)
		Min	Max		
N/A	overcast	64°	75°		

Major definable feature of work BACKFILL OF N.E. VAULT WITH CRUSHED STONE

A. Deficiencies noted: NONE AT THIS TIME

- Repair AREA around vaults damaged by heavy equipment
- Repair fencing around site (posts damaged)
- Bring stone to level grade

B. Corrective action taken: REMOVE STONE TO BRING UP TOP

C. Pre final Inspection (Attach Punch List)

Contractor's Quality Control Representative

Kevin Branch

QC Systems Engineer

2-12-96

Date

# FOSTER WHEELER ENVIRONMENTAL CORPORATION

## APG Environmental Remediation

### Quality Control of Health and Safety Instruments and Procedures Inspection Checklist

All QC inspections must be completed by a designated QC Engineer or alternate who is qualified in the operation and calibrations of health and safety instruments and procedures.

The QC Engineer should observe the calibration of health and safety instrumentation randomly, at least once every five calibrations. The QC Engineer shall inspect the health and safety operations in the areas below.

Quality Control No.: 03

Date Started: 8-6-02

Date Completed: 8-12-02

Contract No.: DACAB1-94-D-0020 Project Site and Location: ADAMS SITE STOR. 023 VANDERBILT

QC Engineer(s): KETH BRANCH

Site Health & Safety Officer(s): James Morning

Operation/Form	8/6					Notes
	8/6	8/7	8/8	8/9	8/12	
Calibration Log Completed	✓	✓	✓	✓	✓	
Daily Briefing Log Completed	✓	✓	✓	✓	✓	
Daily Instrument Source/Background Check Form (for each instrument used)	✓	✓	✓	✓	✓	
Daily Health & Safety Report Form	✓	✓	✓	✓	✓	
Sign In Log for Work Zones	✓	✓	✓	✓	✓	
Proper Donning and Doffing of PPE	✓	✓	✓	11/11	11/11	
Air Monitoring/Sampling Form	✓	✓	✓	✓	✓	
In Compliance with SHERP & SOPs	✓	✓	✓	✓	✓	
H & S Violations	None	None	None	None	None	
Heat and Cold Stress Monitoring	✓	✓	✓	✓	✓	
All OSHA Forms Up to Date	✓	✓	✓	✓	✓	
SHERP Review for All Personnel	✓	✓	✓	✓	✓	
Delineation of Work Zones	✓	✓	✓	✓	✓	
Showup Trailer Inspection	11/11	11/11	11/11	11/11	11/11	



**Genstar Stone Products Company**  
Executive Plaza IV, Hunt Valley, MD 21031-1091

PLANT NAME AND NUMBER

<p>Plant Name: _____ Plant Number: _____</p>	<p>The operator of this truck is allowed a maximum of _____ minutes in which to unload. Trucks held at jobsite longer will be billed at the current holding time rate.</p>
--	--

MSDS AVAILABLE AT SCALE HOUSE

<b>INSPECTORS SIGNATURE</b>	<b>RECEIVED AND ACCEPTED MATERIAL</b>
	X
<b>SOLD TO</b>	<b>SHIP TO</b>

ANY ROUTE NOTED HEREON IS SUGGESTED ONLY AND ACTUAL ROUTE TRAVERSED IS AT THE DISCRETION OF THE VEHICLE OPERATOR.

GSP ORDER NO.	SCALE	TICKET TIME	DELIVERY DATE	CUSTOMER I.D.	JOB SITE I.D.	ZONE
JOB PHONE NUMBER			TICKET NO.	JOB NUMBER	CUSTOMER REQUIRED NUMBERS	
VEHICLE	CARRIER/DRIVERS NAME			TYPE OF SALE	DELIVERY	
CODE	DESCRIPTION			UOM	QUANTITY	PRICE

THIS TICKET IS FOR TO BE PAID ON REVERSE SIDE

GROSS WEIGHT POUNDS	TOTAL QUANTITY ORDERED	<b>JOB DEPARTURE TIME</b>	PRODUCT	\$
			TRANSPORTATION	\$
TARE WEIGHT POUNDS	TODAY'S JOB TOTAL	<b>JOB ARRIVAL TIME</b>	ADDITIONAL CHARGES	\$
			TAXES	\$
NET WEIGHT POUNDS			TOTAL PRICE OF THIS LOAD	\$
			ACCUMULATIVE CASH SALE	\$
			HOLDING TIME	\$
			FINAL TOTAL	\$

**Genstar Stone Products Company**  
Executive Plaza IV, Hunt Valley, MD 21031-1091

PLANT NAME AND NUMBER

<p>PLANT NAME AND NUMBER</p>	<p>The operator of this truck is allowed a maximum of _____ minutes in which to unload. Trucks held at jobsite longer will be billed at the current holding time rate.</p>
------------------------------	--

MSDS AVAILABLE AT SCALE HOUSE

<b>INSPECTORS SIGNATURE</b>	<b>RECEIVED AND ACCEPTED MATERIAL</b>
	X
<b>SOLD TO</b>	<b>SHIP TO</b>

ANY ROUTE NOTED HEREON IS SUGGESTED ONLY AND ACTUAL ROUTE TRAVERSED IS AT THE DISCRETION OF THE VEHICLE OPERATOR

GSP ORDER NO.	SCALE	TICKET TIME	DELIVERY DATE	CUSTOMER I.D.	JOB SITE I.D.	ZONE

PRODUCT I.D.	PRODUCT DESCRIPTION

JOB PHONE NUMBER	TICKET NO.	JOB NUMBER	CUSTOMER REQUIRED NUMBERS

VEHICLE	CARRIER/DRIVERS NAME	TYPE OF SALE	DELIVERY

CODE	DESCRIPTION	UOM	QUANTITY	PRICE

GROSS WEIGHT POUNDS	TOTAL QUANTITY ORDERED	<b>JOB DEPARTURE TIME</b>	PRODUCT	\$	
			TRANSPORTATION	\$	
TARE WEIGHT POUNDS	TODAY'S JOB TOTAL	<b>JOB ARRIVAL TIME</b>	ADDITIONAL CHARGES	\$	
			TAXES	\$	
NET WEIGHT POUNDS	NET TONS	TOTAL PRICE OF THIS LOAD			\$
		ACCUMULATIVE CASH SALE			\$
		HOLDING TIME			\$
		FINAL TOTAL			\$

THIS TICKET IS PART OF THE PRODUCT



FOSTER WHEELER ENVIRONMENTAL CORPORATION

CERTIFICATE OF RELEASE  
FROM RADIOLOGICAL CONTROLS

MATERIAL/EQUIPMENT RELEASE TO: Chemurone

ADDRESS: (From E/A)

PHONE NO.: \_\_\_\_\_

MATERIAL/EQUIPMENT: Tracked Excavator

SERIAL NUMBER: \_\_\_\_\_

SURVEY DATE: 8/12/96 TECHNICIAN: Richard L. Tracy

DIRECT SCAN INSTRUMENT/DETECTOR: Ludlum 22231 Ludlum 43-81  
SERIAL # 105976/1125053 CALIBRATION DATE: 5/15/96

SURFACE CONTAMINATION - INSTRUMENT/DETECTOR: N/A  
SERIAL # \_\_\_\_\_ CALIBRATION DATE: ---

The above referenced material/equipment has been surveyed for radioactivity and radioactivity levels were found to be non-detectable or within levels specified by the U.S. Nuclear Regulatory Commission given in Guidelines for Decontamination of Facilities and Equipment Prior to Release for Unrestricted Use or Termination of Licenses for Byproduct, Source, or Special Nuclear Material, August 1987.

Very truly yours,

Date of Release: 8/12/96

Richard L. Tracy  
FWENC Representative

Comments:

Equipment was not used in a radioactive  
controlled area but was surveyed as a precaution



FOSTER WHEELER ENVIRONMENTAL CORPORATION

CERTIFICATE OF RELEASE  
FROM RADIOLOGICAL CONTROLS

MATERIAL/EQUIPMENT RELEASE TO: Cherawoke Plant

ADDRESS: (TRU EA)

PHONE NO.: \_\_\_\_\_

MATERIAL/EQUIPMENT: TRACKED Equipment (SLEPERS)

SERIAL NUMBER: \_\_\_\_\_

SURVEY DATE: 8/12/96 TECHNICIAN: Richard Story

DIRECT SCAN INSTRUMENT/DETECTOR: Ludlum 227-31 Ludlum 93-87  
SERIAL # 105476 1125053 CALIBRATION DATE: 5/15/96

SURFACE CONTAMINATION - INSTRUMENT/DETECTOR: N/A  
SERIAL # 1 CALIBRATION DATE: 1/1

The above referenced material/equipment has been surveyed for radioactivity and radioactivity levels were found to be non-detectable or within levels specified by the U.S. Nuclear Regulatory Commission given in Guidelines for Decontamination of Facilities and Equipment Prior to Release for Unrestricted Use or Termination of Licenses for Byproduct, Source, or Special Nuclear Material, August 1987.

Very truly yours,

Date of Release: 8/12/96

Richard Story  
FWENC Representative

Comments:

Equipment was not used in a Radioactive Controlled

Area but was surveyed as a precaution.

Foster Wheeler Environmental Corporation  
*APG Environmental Remediation*

DAILY CONSTRUCTION QUALITY CONTROL REPORT

Daily Report No.:

16

Date: August 13, 1996  
(Tues.)

Contract No.:

DACA31-94- D-0020

Project Title & Location:

DO #0003, Adamsite Storage Vaults - Edgewood Area

Weather: Overcast

and Rain

Precipitation:

0.5

in.

Temp:

Min. 64°F

Max. 75°F

Personnel On Site: USACE (1), ERDEC (0), FWENC (2), EA (1), KEVRIC (1),

Summary of Major Work Activities:

- Onsite activities cancelled due to rain/some activities done off site
- Turn in of Warm up trailer

1. Work Performed by Foster Wheeler Environmental Personnel: (Indicate location and description of work performed by prime and/or subcontractors. When network analysis is used, identify work by NAS activity number)

K. Branch, QC Engineer, provided oversight to ensure quality work would be performed according to the work plan. The site Demobilization was initiated with the removal of temporary barriers and general site clean up. Mike Fox Site Superintendent returned equipment and tools to EA Engineering warehouse used at Adamsite. Mike also picked up material for repairing site fence damaged during mobilization.

J. Morning (Site Safety and Health Officer-SSHO) conducted a health and safety briefing (See Attached Daily Briefing Sign-In Sheet). During the briefing, all site personnel were briefed on site activities, and possible hazards associated with the site demobilization.

The SSHO did not utilize chemical air monitoring equipment today during demobilization activities.

---

The SSHO cancelled work operations due to inclement weather.

---

T. Reese, Project Manager, was on site during the day to monitor site activities.

---

Work Performed by Subcontractors:

Mike Fox, Superintendent, conducted a pre-operational meeting to review the planned site activities for demobilization of the Adamsite Storage Vaults. Mike returned equipment to EA Engineering and picked up supplies to repair damaged fencing. (Work Plan Add #1, Sect. 2.3.9).

---

The Kevric labor was not scheduled for work today.

---

The Kevric equipment operator was not used but attended a meeting for Kevric personnel.

---

Mr. Carl Reitenbach (Project Manager, EA Engineering) was not on site to view work activities but contacted the Site Superintendent to discuss today's activities.

---

2. Operating Plant or Equipment Utilized, Mob. and/or Demo. (Not hand tools)

Equipment Utilized: (1) minivan, (1) full size 4x4 pick up truck (1) small pick-up truck (3) 2 way Radios (1) Cellular Phone

---

3. Control Activities Performed:

Preparatory Inspections: (Identify feature of work and attach minutes).

Initial Inspections: (Identify feature of work and attach minutes).

Daily QC of Health and Safety Instruments and Procedures Inspection Checklist (See Attached)

---

Preparatory Inspection Checklist (See Attached)

---

Follow-up Inspection Checklist (See Attached)

---

4. Tests performed and Test Results: (Identify test requirement by paragraph number in specifications and/or sheet number in plans).

No periodic air-monitoring data results were taken by the SSHO.

---

5. Material Received: (Note inspection results and storage provide)

No material delivered today

6. Waste Generated and/or Disposed:

No waste was generated today

Total waste generated to date:

15,000 gallons of water (Disposed of by Chem Waste), (3)- Dumpsters of Steel and Tin sent to DRMO 26,160lbs, (5)- 4'x4'x4' Wooden boxes of metal pipe(awaiting turn in) (1) - 30cu yd roll off with sediment (a second roll off is expected).

7. Off site Surveillance Activities, Including Action Taken:

No off site surveillance activities occurred this date.

8. Job Safety: (List items checked, results, instructions and corrective actions taken)

Total Manhours Worked to Date: 720 hours Total Number of Days Worked on Site: 17 days  
Total Manhours Worked with No Lost Time Accidents: 720 hours Total Number of Lost Time Accidents on the Site to Date: 0

No Air monitoring readings were taken with the FID, PID, CGI, and Miniram particulate monitor.

9. Remarks: (Instructions received or given. Conflict(s) in Plans and/or specifications. Delays encountered.)

USACE was not on site today.

10. Attachments:

Daily Construction Log/Manpower Report (FWENC & EA)

Initial Inspection Checklist (See Attached)

Follow up Inspection Checklist (See Attached)

---

Contractor's Verification: On behalf of the Contractor, I certify that this report is complete and correct, and all materials and equipment used and work performed during this reporting are in compliance with the contract plans and specifications, to the best of my knowledge, except as may be noted above.

Keith Branch      13 Aug. 1990  
Keith Branch      Date  
QC Systems Engineer





DAILY CONSTRUCTION LOG/MANPOWER REPORT

DAILY REPORT #: \_\_\_\_\_

Client: US Army Corps of Engineers, ERRO, Baltimore District Date: \_\_\_\_\_

Project: Delivery Order #0003, Site 3, Adamsite Storage Vaults, Edgewood Area, APG FW Proj.#: DACA31-94-D-0020

Wind: 1-5 Temperature:(Hi/Low): 60-70

Sky: Cloudy Precipitation: Heavy Rain

LEVEL OF PROTECTION REQUIRED A B C (D) (circle) (required in work zone)

REMEDIATION & SITE ACTIVITIES

TIME

REMARKS/COMMENTS/ACCOMPLISHMENTS/DELAYS

05:30 Health & Safety meeting Heavy Rain AM till Noon.

Started work on demob of equipment from job site to EA Shop. Also picked up equipment needed to work on Fence line

Bobby Jackson inc on site to pick up 2 35 CAT Shear

03:30 Secured job site

14:30 Returned to office went over work needed to complete demob & work on site

*M. M. Fox*

EA RTI DAILY LOG

Report Number \_\_\_\_\_ Project Name Adams site  
 Location APG 60834/03  
 Date 8/13/96 Contract Officer \_\_\_\_\_

Description of Work Health & Safety Heavy Rain in AM. started work on demob of equipment back to EA Shop. Also check out & Bobby Jackson on site to pick up 235 cat

PERSONNEL ONSITE

Company Name	Employee	Time in	Time out	Total Hours
EA	M. Fay	0530	1430	9

EQUIPMENT ONSITE

Description	Date arrived	Date left	EA Owned	Rented	Total Days Used
F350	7/24		<input checked="" type="checkbox"/>		

Any Inspections? no If so, time and name of inspector. \_\_\_\_\_

What kind of inspection \_\_\_\_\_

Weather Conditions Clear \_\_\_\_\_ Cloudy  Rain  Temp \_\_\_\_\_

On Schedule? yes  no \_\_\_\_\_

Any lost time accidents on this date? yes \_\_\_\_\_ no

Have you had your daily safety meeting? yes  no \_\_\_\_\_

Safety concerns Heavy Rain

Remarks Unable to work in field do to heavy rain

M. Fay Construction Superintendent Date 8-13/96

Construction Manager \_\_\_\_\_ Date \_\_\_\_\_

1. VERBAL/Written GUIDANCE (LIST INDIVIDUAL):

N/A

2. CONTROVERSIAL MATTERS:

N/A

3. SAFETY:

LEVEL OF PPE: Modified D SSHO: \_\_\_\_\_4. SEC PLAN MEASURES INSTALLED: YES NO NONE REQUIRED  
ADDITIONAL MEASURES TAKE TO STABILIZE SITE: N/A5. MINICAM STANDARDS REQUIRED/DATE: N/A

MINICAM STANDARDS RECEIVED/DATE: \_\_\_\_\_

6. CSM SCREENING REQUIRED: YES NO HOLDING TIME: \_\_\_\_\_

SEND TO CTF: YES NO DATE/TIME: \_\_\_\_\_

N/A

SAMPLES SENT TO LAB: YES NO NUMBER/TYPE \_\_\_\_\_

LAB USED: N/A

LAB APPROVED: YES NO

SAMPLING PERFORMED: (method, type, number taken, analysis expected and who was responsible for sampling/shipment)

AROUND TIME REQUIRED: \_\_\_\_\_ EXPECTED: \_\_\_\_\_

QA SAMPLES SENT TO COE LAB: YES NO DATE: \_\_\_\_\_

8. "DIAL 17" REQUIRED: (give details, times, reason, who called, debriefing, follow-up, include UXO receipt)

9. NUMBER DRUMS/CONTAINERS WASTE GENERATED THIS DAY: 0

CONTENTS:

NUMBER OF WOODEN BOXES/SKIDS/ETC. GENERATED THIS DAY: 0

CONTENTS: ---

TOTAL NUMBER AT SITE THIS DATE:

BOXES 5

DRUMS \_\_\_\_\_

SKIDS 130 cu yd roll of GExemptVES REPRESENTATIVE: Keith Branch, QC Engineer

Name/Title

USACE SIGNATURE \_\_\_\_\_

Name/Title

Date: 13 August, 1996

Date: \_\_\_\_\_

# Foster Wheeler Environmental Corporation

APG Environmental Remediation

## INITIAL INSPECTION CHECKLIST

Report No. 07 Contract No. DACA31-D-94-0020 Date 13 August, 1996

Project Title and location 26th Street Disposal Site - Edgewood Area

Work No.	Weather	Temperature		Rainfall	Work location (grid)
		Min.	Max.		
<u>N/A</u>	<u>Rain</u>	<u>64°</u>	<u>75°</u>	<u>0.5 inches</u>	

Major definable feature of work Demobilization

Reference contract drawings (if any) \_\_\_\_\_

A.

### Personnel Present

Name	Position	Organization
<u>Mike Fox</u>	<u>Site Superintendent</u>	<u>EA</u>

(List additional personnel on reverse side)

B. Materials being used are in strict compliance with the contract plans and specifications

YES  NO

If not, explain \_\_\_\_\_

C. Procedures and/or work methods witnessed are in strict compliance with approved shop drawings, plans and specifications

YES  NO

If not, explain Will repair all fencing and remove caution tape, neon area, snow fencing, and all misc supplies.

D. Workmanship is acceptable YES  NO

Indicate areas where improvement is needed Must regrade area around vaults and level crushed stone to grade.

E. Safety violations and corrective action taken no violations, but personnel on site

must wear heavy equipment, Personnel to avoid near railroad vaults still has construction signs around 13/6/96.

Foster Wheeler Environmental Corporation  
APG Environmental Remediation

BOX/PALLET INVENTORY

*ADAMSITE STORAGE RESULTS*

ID #	Pallet ID #	Description of Contents	Date Filled	Analytical Requested	Date Sampled	Results, Remarks, and Disposition
1		Metal Piping / Plastic	1 Aug, 96	31 July 96	31 July 96	Will have lead trace analysis by OREC - Disposed 8-14-96
2		Metal Piping	1 Aug, 96	"	"	" Disposed 8-14-96
3		Metal Piping	2 Aug 96	"	"	Disposed 8-14-96
4		Metal Piping	2 Aug 96	"	"	Disposed 8-14-96
5		Metal Piping	2 Aug 96	"	"	Disposed 8-14-96



# Foster Wheeler Environmental Corporation

APG Environmental Remediation

## FOLLOW-UP INSPECTION CHECKLIST

Report No. 17 Contract No. DACA31-D-94-0020 Date 14 August 1996

Project Title and location ADAM Side Storage Vials Edgewood Area

Work No.	Weather	Temperature		Rainfall	Work location (grid)
		Min.	Max.		
<u>N/A</u>	<u>Sunny</u>			<u>—</u> inches	

Major definable feature of work Demobilization

A. Deficiencies noted: none

B. Corrective action taken:

C. Pre-final Inspection (Attach Punch List)

Contractor's Quality Control Representative

Keith Foran ch  
QC Systems Engineer

8-14-96  
Date

## 1. VERBAL/WRITTEN GUIDANCE (LIST INDIVIDUAL):

N/A

## 2. CONTROVERSIAL MATTERS:

N/A

## 3. SAFETY:

LEVEL OF PPE:

Modified Level "D"

SSH0:

## 4. SEC PLAN MEASURES INSTALLED: YES NO NONE REQUIRED

ADDITIONAL MEASURES TAKE TO STABILIZE SITE:

N/A

## 5. MINICAM STANDARDS REQUIRED/DATE:

N/A

MINICAM STANDARDS RECEIVED/DATE:

6. CSM SCREENING REQUIRED:  YES NO HOLDING TIME:

SEND TO CTF: YES NO

DATE/TIME:

1 Box to be resampled

## 7. SAMPLES SENT TO LAB: YES NO NUMBER/TYPE

LAB USED:

LAB APPROVED: YES NO

SAMPLING PERFORMED: (method, type, number taken, analysis expected and who was responsible for sampling/shipment)

AROUND TIME REQUIRED:

EXPECTED:

QA SAMPLES SENT TO COE LAB: YES NO

DATE:

## 8. "DIAL 17" REQUIRED: (give details, times, reason, who called, debriefing, follow-up, include UXO receipt)

N/A

## 9. NUMBER DRUMS/CONTAINERS WASTE GENERATED THIS DAY:

CONTENTS:

NUMBER OF WOODEN BOXES/SKIDS/ETC. GENERATED THIS DAY:

CONTENTS:

TOTAL NUMBER AT SITE THIS DATE:

BOXES

1

DRUMS

SKIDS

4 turned in to ERDEC for disposal

VES REPRESENTATIVE: Keith Branch QC Engineer

Name/Title

USACE SIGNATURE

Name/Title

Date: 15 August, 1996

Date:



# Foster Wheeler Environmental Corporation

APG Environmental Remediation

## FOLLOW-UP INSPECTION CHECKLIST

Report No. 16 Contract No. DACA31-D-94-0020 Date 13 Aug, 1996

Project Title and location ADAMS 7 - Edgewood Area

Work No.	Weather	Temperature		Rainfall	Work location (grid)
		Min.	Max.		
N/A	OVERCAST/RAIN	64°	75°	0.5 inches	

Major definable feature of work DEMILITARIZATION

A. Deficiencies noted: - fencing being repaired  
- stone on vaults onto grade  
- area around vaults need to be graded.

B. Corrective action taken: - fencing still being repaired  
- stone on vaults to grade

C. Pre-final inspection (Attach Punch List)

Contractor's Quality Control Representative

Keith Branch 13 Aug, 1996  
 QC Systems Engineer Date



file

**Foster Wheeler Environmental Corporation**  
*APG Environmental Remediation*

**DAILY CONSTRUCTION QUALITY CONTROL REPORT**

Daily Report No.:

17

Date: August 14, 1996  
(Wed.)

Contract No.:

DACA31-94- D-0020

Project Title & Location:

DO #0003, Adamsite Storage Vaults - Edgewood Area

Weather: Sunny and

Clear

Precipitation: 0.0 in.

Temp:

Min. 64°F

Max. 85°F

Personnel On Site: USACE (1), ERDEC (1), FWENC (2), EA (1), KEVRIC (2),  
CHEM WASTE MANAGEMENT (1)

Summary of Major Work Activities:

- Demobilization of Adamsite Storage Vaults
- Repair Fencing around site
- Turn in 30cuyd dumpster of Sediment and Wooden Boxes for disposal

1. Work Performed by Foster Wheeler Environmental Personnel: (Indicate location and description of work performed by prime and/or subcontractors. When network analysis is used, identify work by NAS activity number)

K. Branch, QC Engineer, provided oversight to ensure quality work would be performed according to the work plan (Work Plan Section 2.2.6). Mr Branch was not on site today because of a training commitment, so site activity was limited. Mike Fox, Site Superintendent did repair to the fencing posts and started reinstalling the fence around the site. Chem Waste Management Picked up the 30cuyd dumpster for disposal and ERDEC picked up (4) boxes of metal piping for disposal. Jason Parks (USACE/ERRO) was on site to view Demobilization and sign the DD-1911 for turn in of the Metal piping to ERDEC.

J. Ennis (Site Safety and Health Officer-SSHO) conducted a health and safety briefing (See Attached Daily Briefing Sign-In Sheet). During the briefing, all site personnel were briefed on site activities, and possible hazards associated with the backfill of the northeast vault. J. Morning closely monitored all activities to ensure that all Health and Safety hazards were avoided.

---

No Air monitoring was needed due to site Demobilization.

---

T. Reese, Project Manager, was on site during the day to monitor site activities.

---

Work Performed by Subcontractors:

Mike Fox, Superintendent, conducted a pre-operational meeting to review the planned site activities for Demobilization of the Adamsite Storage Vaults. Mike started repair of the fence posts and reinstalling of the fencing and barb wire. Mike also resealed box #4 which was positive for VX, to be resampled by ERDEC. Chem Waste Management was on site to pick up the 30cuyd dumpster. The dumpster was taken for disposal but was 15,000lbs over weight, so Chem Waste removed it from site and transferred 15,000 lbs to 2nd dumpster. (Work Plan Add #1, Sect. 2.3.9).

---

The Kevric equipment operator used the John Deere 544G Tire Loader to bring the crushed stone to grade on the vaults.

---

Mr. Carl Reitenbach ( Project Manager, EA Engineering) was not on site to view work activities but contacted the Site Superintendent to discuss todays activities.

---

2. Operating Plant or Equipment Utilized, Mob. and/or Demo. (Not hand tools)

Equipment Utilized: John Deere 544G Loader, (1) minivan, (1) full size 4x4 pick up truck (1) small pick-up truck (3) 2 way Radios (1) Cellular Phone

---

3. Control Activities Performed:

Preparatory Inspections: (Identify feature of work and attach minutes).

Initial Inspections: (Identify feature of work and attach minutes).

---

Preparatory Inspection Checklist (See Attached)

---

Follow-up Inspection Checklist (See Attached)

---

4. Tests performed and Test Results: (Identify test requirement by paragraph number in specifications and/or sheet number in plans).

---

5. Material Received: (Note inspection results and storage provide)

No Material was received on site.

---

6. Waste Generated and/or Disposed:

No waste was generated today

---

Total waste generated to date:

15,000 gallons of water (Disposed of by Chem Waste), (3)- Dumpsters of Steel and Tin sent to DRMO 26,160lbs, (5)- 4'x4'x4' Wooden boxes of metal pipe(awaiting turn in) (1) - 30cuyd roll off with sediment.

Dean Smith (ERDEC) picked up (4) 4'x4'x4' wooden boxes of metal piping cleared for CSM Chem Waste Management picked up the 30cuyd dumpster of sediment from the N.E. vault.

7. Off site Surveillance Activities, Including Action Taken:

No off site surveillance activities occurred this date.

---

8. Job Safety: (List items checked, results, instructions and corrective actions taken)

Total Manhours Worked to Date: 744 hours Total Number of Days Worked on Site: 18 days  
Total Manhours Worked with No Lost Time Accidents: 744 hours Total Number of Lost Time Accidents on the Site to Date: 0

---

9. Remarks: (Instructions received or given. Conflict(s) in Plans and/or specifications. Delays encountered.)

Jason R. (USACE/ERRO) was on site to monitor Demobilization and to sign 1911 for disposal of Metal piping to ERDEC.

---

10. Attachments:

Daily Construction Log/Manpower Report (FWENC & EA)

DD-1911 for Disposal of Metal Piping

Follow up/Initial Inspection Checklist (See Attached)

Box/Pallet Inventory

Contractor's Verification: On behalf of the Contractor, I certify that this report is complete and correct, and all materials and equipment used and work performed during this reporting are in compliance with the contract plans and specifications, to the best of my knowledge, except as may be noted above.

Keith Branch  
Keith Branch  
QC Systems Engineer

14 Aug 1996  
Date



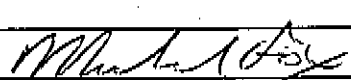
# FOSTER WHEELER ENVIRONMENTAL CORPORATION

Page of

## DAILY CONSTRUCTION LOG/MANPOWER REPORT DAILY REPORT #: \_\_\_\_\_

Client: US Army Corps of Engineers, ERRO, Baltimore District Date: 8-14-96  
 Project: Delivery Order #0003, Site 3, Adamsite Storage Vaults, Edgewood Area, APG FW Proj #: DACA31-94-D-0020  
 Wind: 1-3 Temperature: (Hi/Low): 85  
 Sky: Clear Precipitation: 0

LEVEL OF PROTECTION REQUIRED      A    B    C    D (circle) (required in work zone)

TIME	REMEDICATION & SITE ACTIVITIES REMARKS/COMMENTS/ACCOMPLISHMENTS/DELAYS
0530	Health safety meeting went over working with fence. Started work on re-installing fence around work site
0800	Chem waste on site to remove dumpster that was filled with debris from vault (NE)
10:00	Resealed wood box # if in order to be retested
12:00	Still working on re-installing fence post & fence
1330	Reset snow fence on out site fence line secured job site exit site returned to office talked with PM. Tom R & Carl R.
	

EA RTI DAILY LOG

Report Number \_\_\_\_\_ Project Name Adamsite

Location AP6

Date 8-14-76 Contract Officer \_\_\_\_\_

Description of Work Health & Safety, worked on re-installing fence post & fence. Clean waste on site to remove dumpster filled with sediment from vaults. 2 sealed box #4 intended to be re-tested

PERSONNEL ONSITE

Company Name	Employee	Time in	Time out	Total Hours
<u>EA</u>	<u>M Fox</u>	<u>0530</u>		

Keene / Operator

EQUIPMENT ONSITE

Description	Date arrived	Date left	EA Owned	Rented	Total Days Used
<u>F350 Ford</u>	<u>7/24</u>	<u>8/1</u>	<input checked="" type="checkbox"/>		

Any Inspections? no If so, time and name of inspector. \_\_\_\_\_

What kind of inspection \_\_\_\_\_

Weather Conditions Clear  Cloudy \_\_\_\_\_ Rain \_\_\_\_\_ Temp 85

On Schedule? yes  no \_\_\_\_\_

Any lost time accidents on this date? yes \_\_\_\_\_ no

Have you had your daily safety meeting? yes  no \_\_\_\_\_

Safety concerns Working with fence & power tools

Remarks To wet to spread stone

M. Fox  
Construction Superintendent

8/14/76  
Date

Construction Manager

Date







**Foster Wheeler Environmental Corporation**  
*APG Environmental Remediation*

**DAILY CONSTRUCTION QUALITY CONTROL REPORT**

Daily Report No.:

18

Date: August 15, 1996  
(Thur.)

Contract No.:

DACA31-94- D-0020

Project Title & Location:

DO #0003, Adamsite Storage Vaults - Edgewood Area

Weather: Sunny and

Clear

Precipitation: 0.0

in.

Temp: Min.

64°F

Max.

85°F

Personnel On Site: USACE (0), ERDEC (0), FWENC (2), EA (1), KEVRIC (1)

Summary of Major Work Activities:

- Demobilization of Adamsite Storage Vaults
- Reinstall Fencing around site
- Repackage Wood and PPE into 4'x4'x4' Wooden boxes

1. Work Performed by Foster Wheeler Environmental Personnel: (Indicate location and description of work performed by prime and/or subcontractors. When network analysis is used, identify work by NAS activity number)

K. Branch, QC Engineer, provided oversight to ensure quality work would be performed according to the work plan. Mr Branch and Mr Fox completed reinstalling the fencing around the site. The wood removed from the frame structure and the used PPE was placed inside wooden boxes, sealed and staged to be sampled for CWM by ERDEC.

J. Ennis (Site Safety and Health Officer-SSHO) conducted a health and safety briefing (See Attached Daily Briefing Sign-In Sheet). During the briefing, all site personnel were briefed on site activities, and possible hazards associated with the backfill of the northeast vault. J. Morning closely monitored all activities to ensure that all Health and Safety hazards were avoided.

No Air monitoring was needed due to site Demobilization.

T. Reese, Project Manager, was on site during the day to monitor site activities.

---

Work Performed by Subcontractors:

Mike Fox, Superintendent, conducted a pre-operational meeting to review the planned site activities for Demobilization of the Adamsite Storage Vaults. Mike started repair of the fence posts and reinstalling of the fencing and barb wire. Mike also assisted Mr Branch with the repackaging of the wood from the vaults frame structure already disposed. Mike also assisted Mr Branch in removing all support equipment off site and preparing the site for Final Inspection. (Work Plan Add #1, Sect. 2.3.9).

---

The Kevric equipment operator used the John Deere 544G Tire Loader to bring the crushed stone to grade on the vaults, and stage the additional wooden boxes to be sampled and disposed.

---

Mr. Carl Reitenbach ( Project Manager, EA Engineering) was not on site to view work activities but contacted the Site Superintendent to discuss todays activities.

---

2. Operating Plant or Equipment Utilized, Mob. and/or Demo. (Not hand tools)

Equipment Utilized: John Deere 544G Loader, (1) minivan, (1) full size 4x4 pick up truck (1) small pick-up truck (3) 2 way Radios (1) Cellular Phone

---

3. Control Activities Performed:

Preparatory Inspections: (Identify feature of work and attach minutes).

Initial Inspections: (Identify feature of work and attach minutes).

---

Preparatory Inspection Checklist (See Attached)

---

Follow-up Inspection Checklist (See Attached)

---

4. Tests performed and Test Results: (Identify test requirement by paragraph number in specifications and/or sheet number in plans).

---

5. Material Received: (Note inspection results and storage provide)

No Material was received on site.

---

6. Waste Generated and/or Disposed:

3- 4'x4'x4' Wooden boxes with wood 1- 4'x4'x4' Wooden box with PPE

---

Total waste generated to date:

15,000 gallons of water (Disposed of by Chem Waste), (3)- Dumpsters of Steel and Tin sent to DRMO 26,160lbs, (5)- 4'x4'x4' Wooden boxes of metal pipe (1) - 30cu yd roll off with sediment. (3)- 4'x4'x4' Wooden box of wood from vaults (1)- 4'x4'x4' Wooden box with PPE

7. Off site Surveillance Activities, Including Action Taken:

No off site surveillance activities occurred this date.

---

8. Job Safety: (List items checked, results, instructions and corrective actions taken)

Total Manhours Worked to Date: 768 hours Total Number of Days Worked on Site: 19 days  
Total Manhours Worked with No Lost Time Accidents: 768 hours Total Number of Lost Time Accidents on the Site to Date: 0

---

9. Remarks: (Instructions received or given. Conflict(s) in Plans and/or specifications. Delays encountered.).

Note: Report #17 stated "Box #4 Positive" for VX, should have stated "Not Cleared for VX".  
ERDEC will redo CWM screening/ Head Space Analysis.

The USACE was not on site today

---

10. Attachments:

Daily Construction Log/Manpower Report (FWENC & EA)

---

Follow up Inspection Checklist

---

Box/Pallet Inventory

---

---

---

Contractor's Verification: On behalf of the Contractor, I certify that this report is complete and correct, and all materials and equipment used and work performed during this reporting are in compliance with the contract plans and specifications, to the best of my knowledge, except as may be noted above.

Keith Branch                      17 Aug, 1996  
Keith Branch                      Date  
QC Systems Engineer



# FOSTER WHEELER ENVIRONMENTAL CORPORATION

Page of

## DAILY CONSTRUCTION LOG/MANPOWER REPORT DAILY REPORT #: \_\_\_\_\_

Client: US Army Corps of Engineers, ERRO, Baltimore District Date: 8/  
 Project: Delivery Order #0003, Site 3, Adamsite Storage Vaults, Edgewood Area, APG FW Proj.#: DACA31-94-D-0020  
 Wind: 1-3 Temperature:(Hi/Low): 65/85  
 Sky: Clear Precipitation: 0

LEVEL OF PROTECTION REQUIRED      A   B   C   D (circle) (required in work zone)

### REMEDIATION & SITE ACTIVITIES

TIME

REMARKS/COMMENTS/ACCOMPLISHMENTS/DELAYS

0530

Health & Safety Meeting

Worked on re-installing fence drilling & bolting posts into place that were removed in order to complete work. Re-installed barbed wire on top of this fence. Worked on site clean up also had move wood 4'x4' boxes moved on to site for loading of wood debris, PPE

13:30

Secured equipment & job site exited site

*M. H. Top*

EA RTI DAILY LOG

Report Number \_\_\_\_\_ Project Name Adams site  
 Location APG 60834 03  
 Date 8/15/96 Contract Officer \_\_\_\_\_

Description of Work Health & safety briefing,  
Worked on re-stalling fence & darning fence post & barbwire  
Cleaned up work area & secured sub site

PERSONNEL ONSITE

Company Name	Employee	Time in	Time out	Total Hours
<u>EA</u>	<u>M Fox</u>	<u>0530</u>		
<u>Kevin O Perator</u>				

EQUIPMENT ONSITE

Description	Date arrived	Date left	EA Owned	Rented	Total Days Used
<u>F350 Dond</u>	<u>7/24</u>		<input checked="" type="checkbox"/>		<u>14</u>

Any Inspections? no If so, time and name of inspector. \_\_\_\_\_

What kind of inspection \_\_\_\_\_

Weather Conditions Clear  Cloudy \_\_\_\_\_ Rain \_\_\_\_\_ Temp 89

On Schedule? yes  no \_\_\_\_\_

Any lost time accidents on this date? yes \_\_\_\_\_ no

Have you had your daily safety meeting? yes  no \_\_\_\_\_

Safety concerns working with barbwire & equipment

Remarks finished with re-stalling fence

Mark [Signature] 8/15/96  
 Construction Superintendent Date

Construction Manager \_\_\_\_\_ Date \_\_\_\_\_







1. VERBAL/Written GUIDANCE (LIST INDIVIDUAL):

N/A

2. CONTROVERSIAL MATTERS:

N/A

3. SAFETY:

LEVEL OF PPE: Modified D SSHO: \_\_\_\_\_4. SEC PLAN MEASURES INSTALLED: YES NO NONE REQUIRED  
ADDITIONAL MEASURES TAKE TO STABILIZE SITE: N/A5. MINICAM STANDARDS REQUIRED/DATE: N/A

MINICAM STANDARDS RECEIVED/DATE: \_\_\_\_\_

6. CSM SCREENING REQUIRED:  YES NO HOLDING TIME: \_\_\_\_\_  
SEND TO CTF: YES NO DATE/TIME: \_\_\_\_\_

7. SAMPLES SENT TO LAB: YES NO NUMBER/TYPE \_\_\_\_\_

LAB USED: N/A

LAB APPROVED: YES NO

SAMPLING PERFORMED: (method, type, number taken, analysis expected and who was responsible for sampling/shipment)

AROUND TIME REQUIRED: \_\_\_\_\_ EXPECTED: \_\_\_\_\_

QA SAMPLES SENT TO COE LAB: YES NO DATE: \_\_\_\_\_

8. "DIAL 17" REQUIRED: (give details, times, reason, who called, debriefing, follow-up, include UXO receipt)

N/A

9. NUMBER DRUMS/CONTAINERS WASTE GENERATED THIS DAY:

CONTENTS:

NUMBER OF WOODEN BOXES/SKIDS/ETC. GENERATED THIS DAY: 4CONTENTS: WOOD, PPE, site debris

TOTAL NUMBER AT SITE THIS DATE:

BOXES 5 DRUMS \_\_\_\_\_ SKIDS \_\_\_\_\_(1) Awaiting RE samplingES REPRESENTATIVE: Keith Branch QC Engineer

Name/Title

USACE SIGNATURE \_\_\_\_\_

Name/Title

Date: 15 August, 1996

Date: \_\_\_\_\_

# Foster Wheeler Environmental Corporation

APG Environmental Remediation

## FOLLOW-UP INSPECTION CHECKLIST

Report No. 18 Contract No. DACA31-D-94-0020 Date 15 Aug 96

Project Title and location - Edgewood Area

Work No.	Weather	Temperature		Rainfall	Work location (grid)
<u>N/A</u>	<u>Sunny</u>	Min. <u>64°</u>	Max. <u>85°</u>	<u>inches</u>	

Major definable feature of work Demobilization

A. Deficiencies noted: \_\_\_\_\_

None

B. Corrective action taken: Demobilization Complete

Site in accordance with work plan

C. Pre-final Inspection (Attach Punch List)

\_\_\_\_\_  
Contractor's Quality Control Representative

Keith Branch 8-15-96  
QC Systems Engineer Date

Foster Wheeler Environmental Corporation  
 APG Environmental Remediation

BOX/PALLET INVENTORY  
 AARMSITE STORAGE VENTS

Box ID #	Pallet ID #	Description of Contents	Date Filled	Analytical Requested	Date Sampled	Results, Remarks, and Disposition
001		Metal piping / Plastic	1 Aug, 96	31 July 96	31 July 96	Will have lead space analysis by CRDEC - Disposed 8-14-96
002		Metal Piping	1 Aug, 96	"	"	" " Disposed 8-14-96
003		Metal Piping	2 Aug 96	"	"	" Disposed 8-14-96
004		Metal Piping	2 Aug 96	"	"	" Disposed 8-14-96
005		Metal Piping	2 Aug 96	"	"	" Disposed 8-14-96
006		Site Debris	15 Aug 96	15 Aug 96		To be held spaced analysis by CRDEC
007		WOOD	15 Aug 96	"		
008		WOOD	15 Aug 96	"		
009		WOOD / PPE	15 Aug 96	"		

**Foster Wheeler Environmental Corporation**  
*APG Environmental Remediation*

**DAILY CONSTRUCTION QUALITY CONTROL REPORT**

Daily Report No.:

19

Date: September 20, 1996  
(Fri..)

Contract No.:

DACA31-94- D-0020

Project Title & Location:

DO #0003, Adamsite Storage Vaults - Edgewood Area

Weather: Sunny and

Clear

Precipitation: 0.0 in.

Temp: Min. 64°F

Max. 85°F

Personnel On Site: USACE (0), ERDEC (0), FWENC (0), EA (0), KEVRIC (0)

Summary of Major Work Activities:

- Completion of Demobilization for Adamsite Storage Vaults
- Head Space Analysis of Generated Waste/ Turn in for Disposal
- Final Inspection

1. Work Performed by Foster Wheeler Environmental Personnel: (Indicate location and description of work performed by prime and/or subcontractors. When network analysis is used, identify work by NAS activity number)

K. Branch, QC Engineer, provided oversight to ensure quality work would be performed according to the work plan. Mr Branch changed the support wire on the site fence to number nine galvanized steel. The Final Inspection was conducted on 21 August, 1996 with the USACE-ERRO representative Jamie Fair. The outstanding issue of tapering off the crushed stone was completed. The final three (3) wooden 4'x4'x4' box's of metal piping and wood sampled for CWM by ERDEC was cleared for VX, HD, GD, and GB on 17 September, 1996. The box's were picked up for disposal by Dean Smith(ERDEC) on 17 September 1996. All waste associated with this site has been disposed of. The shipping manifest for the sediment removed from the northeast vault and disposed by Chemical Waste Management was received from Paul Harvey (DSHE).

---

2. Control Activities Performed:  
Preparatory Inspections: (Identify feature of work and attach minutes).  
Initial Inspections: (Identify feature of work and attach minutes).

#### Final Inspection

---

3. Tests performed and Test Results: (Identify test requirement by paragraph number in specifications and/or sheet number in plans).

Head space analysis completed on box's # 4,6,7, 9, and 8. All boxes clear for CWM

---

4. Waste Generated and/or Disposed:

3- 4'x4'x4' Wooden boxes with wood and metal

---

Total waste generated to date:

15,000 gallons of water (Disposed of by Chem Waste), (3)- Dumpsters of Steel and Tin sent to DRMO 26,160lbs, (5)- 4'x4'x4' Wooden boxes of metal pipe (1) - 30cuyd roll off with sediment. (3)- 4'x4'x4' Wooden box of wood from vaults (1)- 4'x4'x4' Wooden box with PPE

5. Off site Surveillance Activities, Including Action Taken:

No off site surveillance activities occurred this date.

---

6. Job Safety: (List items checked, results, instructions and corrective actions taken)

Total Manhours Worked to Date: 778 hours Total Number of Days Worked on Site: 20 days  
Total Manhours Worked with No Lost Time Accidents: 778 hours Total Number of Lost Time  
Accidents on the Site to Date: 0

---

Remarks: (Instructions received or given. Conflict(s) in Plans and/or specifications.  
Delays encountered.).

Note: Remaining box's cleared for CWM on 17 September, 1996. Box #4 was not clear for  
VX on two head space analysis delaying turn-in for disposal.

---

7. Attachments:

Final Inspection Checklist

---

DD-1911 Turn in of Wood and Metal Piping to Thermal Treatment Facility

---

Box/Pallet Inventory-Telephone Conversation Log

---

Clarence for Disposal of Wood and Metal from ERDEC

---

Non-Hazardous Residual Waste Manifest

---



Contractor's Verification: On behalf of the Contractor, I certify that this report is complete and correct, and all materials and equipment used and work performed during this reporting are in compliance with the contract plans and specifications, to the best of my knowledge, except as may be noted above.

Keith Branch      20 Sept 1996  
Keith Branch                      Date  
QC Systems Engineer

MODERN LANDFILL  
R.D. #9  
York, PA 17402

Site Permit No. 100113

Document Refer **No** 95 03567

(717) 755-2199 (Laboratory)

**NON-HAZARDOUS RESIDUAL WASTE MANIFEST** Doc. No. 96249

1. Generator of Waste (must be filled in by producer) EPA I.D. NO. MD3210021355  
Company Name: (Print or Type) Aberdeen Proving Ground RCRA/TSCA Operations  
Pick-up Address: STEAP-SH-EWE, Bldg. B5863, APG, MD 21010-5425  
(No.) (Street) (City) (State) (Zip Code)  
Telephone Number: (410) 671-2157 SIC No. \_\_\_\_\_  
Waste Stream Identification: This manifest represents a non-hazardous waste as per  
E.P.A. and PA D.E.R. regulations. Non-Regulated Material, Not Hazardous by D.O.T.  
Tons: 10 Cubic Yards: \_\_\_\_\_ Other (Specify): Estimated Weights  
Special Handling Instructions, if any: DAAD 05-91-D-7040, Project 69222, PC 766.  
Mail C.O.D. to: P.O. Box 105, APG, MD 21010-0105. Emergency Response: (800) 353-2387  
HM63966 (2 of 2)

MODERN ID #: 2200565

This is to certify that the above named materials are properly classified, described, packaged, marked, and labeled and are in proper condition for transportation according to applicable state and federal law. The wastes were consigned to the transporter named. I certify that the foregoing is true and correct to the best of my knowledge.

Date: 15-Aug-96

Signature: Paul R. Harvey IR WASTE COORD  
(Name and Title)

2. Contractor: Advanced Environmental Technical Services (AETS)  
Address: P.O. Box 96, Sealston, VA 22547  
Contact: Anthony Hudson Phone: (540) 775-9000

3. Hauler of Waste (must be filled-in by hauler) EPA I.D. No. PAD146714878  
COMPANY NAME: Horwith Trucks, Inc. PHONE: (610) 261-2220  
ADDRESS: P.O. Box 7, Northampton, PA 18067  
Pick-up Date: 8-15-96 Truck No. 268 Vehicle Lic. No. 301-PA  
The above described waste was picked up and hauled by me to the disposal facility named below and was accepted. I certify under penalty of perjury that the foregoing is true and correct.  
Signature of authorized agent and title: [Signature] Date: 8/15/96

4. Disposer of Waste (must be filled-in by disposer)  
Company Name: (Print or Type): Modern Landfill  
Site Location: R.D. #9 Prospect Rd., York, Pennsylvania 17402  
Waste subject to this manifest was delivered by the above hauler to this disposal facility and accepted on \_\_\_\_\_  
(DISPOSAL DATE)  
Signature of authorized agent and title: \_\_\_\_\_

MODERN LANDFILL  
R.D. #9  
York, PA 17402

Site Permit No. 100110

(717) 755-2199 (Laboratory)

Document Refer **No 95 03506**

**NON-HAZARDOUS RESIDUAL WASTE MANIFEST**

Doc. No. 96246

1. Generator of Waste (must be filled in by producer) EPA I.D. NO. MD3210021355  
Company Name: (Print or Type) Aberdeen Proving Ground RCRA/TSCA Operations  
Pick-up Address: STEAP-SH-EWR, Bldg. R5863, APG, MD 21010-5425  
(No.) (Street) (City) (State) (Zip Code)  
Telephone Number: (410) 671-2157 SIC No. \_\_\_\_\_  
Waste Stream Identification: This manifest represents a non-hazardous waste as per  
E.P.A. and PA D.E.R. regulations. Non-Regulated Material, Not Hazardous by D.O.T.  
Tons: \_\_\_\_\_ Cubic Yards: \_\_\_\_\_ Other (Specify): Estimated Weight  
Special Handling Instructions, if any: Contract: DAAD 05-91-D-7040, Project 69222. PC 766.  
Mail C.O.D. to: P.O. Box 105, APG, MD 21010-0105. Emergency Response: (800) 353-3866 (1 of 2)  
MODERN ID #: 2200565

This is to certify that the above named materials are properly classified, described, packaged, marked, and labeled and are in proper condition for transportation according to applicable state and federal law. The wastes were consigned to the transporter named. I certify that the foregoing is true and correct to the best of my knowledge.

Date: 8/14/96

Signature: Roger Calvert Env. Protect  
(Name and Title)

2. Contractor: Advanced Environmental Technical Services (AETS)  
Address: P.O. Box 96, Sealston, VA 22547  
Contact: Anthony Hudson Phone: (540) 775-9000

3. Hauler of Waste (must be filled-in by hauler) EPA I.D. No. PAD146714878  
COMPANY NAME: Horwith Trucks, Inc. PHONE: (610) 261-2220  
ADDRESS: P.O. Box 7, Northampton, PA 18067  
Pick-up Date: 8-14-96 Truck No. 295 Vehicle Lic. No. AB59211 PA  
The above described waste was picked up and hauled by me to the disposal facility named below and was accepted. I certify under penalty of perjury that the foregoing is true and correct.  
Signature of authorized agent and title: Harry Johnson Date: 8-14-96

4. Disposer of Waste (must be filled-in by disposer)  
Company Name: (Print or Type): Modern Landfill  
Site Location: R.D. #9 Prospect Rd., York, Pennsylvania 17402  
Waste subject to this manifest was delivered by the above hauler to this disposal facility and accepted on \_\_\_\_\_ (DISPOSAL DATE)  
Signature of authorized agent and title: \_\_\_\_\_

White, Green, Canary - Landfill

Pink - Hauler

Golden Rod - Generator

Exhibit 8.  
 FOSTER WHEELER ENVIRONMENTAL SERVICES

8 PEACH TREE HILL ROAD • LIVINGSTON, NEW JERSEY 07039 • PHONE 201-535-2400

FINAL INSPECTION CHECKLIST

S M T W T F S

DATE 8-21-96

ADAMSITE STORAGE VENTS

WORK NUMBER	WEATHER	TEMPERATURE		RAINFALL Inches	WORK LOCATION (GRID)
		Min.	Max.		
N/A	OVERCAST				

Time: Start 1000 Stop 1040

Persons Attending:

Name	Representing
Jeanie Davis	USACE
Tim Reex	FW
Keith Branch	FW

Topics Discussed: Power line (RD, tag)? (see phone log with DPW) attached

Outstanding Issues: none of stone near edge of line, remove sign  
Completed on 22 August.

Action to be taken: make sure connections and WASTE is disposed

Remarks: turn in final check list when all of site work has been turned in for disposal  
boxes of waste disposed.

CONTRACTORS QUALITY CONTROL REPRESENTATIVE

Keith Branch 20 Sept 1996  
 QC SYSTEMS ENGINEER

**TELEPHONE CONVERSATION  
RECORD  
ABERDEEN PROVING GROUND PROJECT  
CONTRACT NO. DACA-31-94-D-0020  
PROJECT Adamsite D.O. 03**

TO: Phil Rice COMPANY: ERDEL	FROM: Tim Reese COMPANY: FWENC	DATE: 8/19/96 TIME: 10:30
PHONE NUMBER: 671 4202	PHONE NUMBER: 671 6015	TELECON LOG NO: FILE NO:

I called Phil Rice to ask him if he wanted FWENC to restring the power lines at the Adamsite storage vaults. He indicated that he did not need them restring. He indicated he had DPW cut the power lines down permanently. He also indicated that he did not need anything else at the Adamsite vaults.

DISTRIBUTION	ACTION	INFO	DISTRIBUTION	ACTION	INFO	SIGNATURE BLOCK

^A^A^A^A

Date: Tue, 17 Sep 96 8:49:40 EDT  
From: Nita Snyder <jasnyder@cbdcom.apgea.army.mil>  
joseph\_brutsman\_at\_zzerro@ccmail.nab.usace.army.mil,  
eric\_brandt\_at\_zzerro@ccmail.nab.usace.army.mil  
fglattin@cbdcom.apgea.army.mil, jamuelle@cbdcom.apgea.army.mil,  
jasnyder@cbdcom.apgea.army.mil, sdsmith@cbdcom.apgea.army.mil,  
rdmoore@cbdcom.apgea.army.mil, axdean@cbdcom.apgea.army.mil,  
rcwilson@cbdcom.apgea.army.mil, jtmaclin@cbdcom.apgea.army.mil,  
ujmehta@cbdcom.apgea.army.mil, djsnyder@cbdcom.apgea.army.mil,  
jefranch@cbdcom.apgea.army.mil, tablades@cbdcom.apgea.army.mil,  
rglaye@cbdcom.apgea.army.mil

Subject: Clearances

Message-ID: <9609170849.aa07254@cbdcom.apgea.army.mil>

POC: Reese, x6015 26th Street

Item GVh

BOX004 9609050094-M01 Clear for GB GD VX & HD

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Item	GVH	
ADAM08	9608190335-M01	Clear for GB GD VX & HD
ADAM09	9608190336-M01	Clear for GB GD VX & HD
OX001	9608200361-M01	Clear for GB GD VX & HD



FOSTER WHEELER ENVIRONMENTAL CORPORATION

*Interoffice Correspondence*

DATE: September 23, 1996

TO: File - D.O. No. 003 Site 03 - Adamsite Storage Vaults, APG, MD

FROM: Timothy Reese, P.E.

SUBJECT: Quantities of material volumes disposed and placed at the Adamsite Storage Vaults

cc: Jamie Fair

The following material volumes were disposed during the Adamsite Storage Vault removal action:

<u>Material</u>	<u>Volume</u>	<u>Disposal Method</u>
Water (from vaults)	15,000 gallons	Chem. Waste Mgt.-waste water treatment
PCM (from vaults and PPE)	9 boxes (16 CY)	Thermal Treatment
Sediment (from vaults)	30 CY Dumpster	Chem. Waste Mgt.-landfilled
Radiological Contaminated Soil	10 gallons	To Be Landfilled-Envirocare
Scrap Metal	26,160 lbs (25 CY)	DMRO-recycled

The following material volumes were placed during the Adamsite Storage Vault removal action:

<u>Material</u>	<u>Volume</u>
Flowable Fill/Concrete	499 CY
Stone	198 CY



**MATERIAL COURIER RECEIPT**

SHIPPER'S CONTROL/DOCUMENT NO.  
 SUPPLY ACCOUNT NUMBER  
 SUPPLY ACCOUNT NUMBER

**PRIVACY ACT STATEMENT**

AUTHORITY: 5 U.S.C. Sec. 552a (PL 93-579)  
 PRINCIPLE PURPOSES: To provide a receipt for transfer of controlled material. The use of the SSAN is required and is necessary to provide positive identification of the individuals receiving for the material.  
 ROUTINE USES: To document transfer of material from a shipper to a courier, courier to courier, or courier to receiver.  
 DISCLOSURE IS VOLUNTARY: Since the SSAN must be used, refusal to provide SSAN may be grounds for action to remove the individual concerned from duties involving the material transferred by use of this form.

I certify by my signature that I have received the material listed on this form and am aware of the applicable safety and security requirements.

**SHIPMENT TRANSFERS**

LINE NUMBER	QUANTITY	SERIAL NUMBERS	SHIPMENT DESCRIPTION	REMARKS
FIRST	1	100	100	100
RECIPIENT'S PRINTED NAME (LAST, FIRST, M.I.)	DATE (YR/MO/DAY)	ORGAN. OR ACCOUNT NO.	SOCIAL SECURITY NUMBER	
SIGNATURE				
SECOND				
RECIPIENT'S PRINTED NAME (LAST, FIRST, M.I.)	DATE (YR/MO/DAY)	ORGAN. OR ACCOUNT NO.	SOCIAL SECURITY NUMBER	
SIGNATURE				
THIRD				
RECIPIENT'S PRINTED NAME (LAST, FIRST, M.I.)	DATE (YR/MO/DAY)	ORGAN. OR ACCOUNT NO.	SOCIAL SECURITY NUMBER	
SIGNATURE				
FOURTH				
RECIPIENT'S PRINTED NAME (LAST, FIRST, M.I.)	DATE (YR/MO/DAY)	ORGAN. OR ACCOUNT NO.	SOCIAL SECURITY NUMBER	
SIGNATURE				
FIFTH				
RECIPIENT'S PRINTED NAME (LAST, FIRST, M.I.)	DATE (YR/MO/DAY)	ORGAN. OR ACCOUNT NO.	SOCIAL SECURITY NUMBER	
SIGNATURE				

**MATERIEL COURIER RECEIPT**

SHIPPER'S CONTROL/DOCUMENT NO.  
 SUPPLY ACCOUNT NUMBER  
 SUPPLY ACCOUNT NUMBER

**PRIVACY ACT STATEMENT**

AUTHORITY: 5 U.S.C. Sec 552a (PL 93-579)  
 PRINCIPLE PURPOSES: To provide a receipt for transfer of controlled material. The use of the SSAN required and is necessary to provide positive identification of the individuals receiving for the materiel.  
 ROUTINE USES: To document transfer of materiel from a shipper to a courier, courier to courier, or courier to receiver.  
 DISCLOSURE IS VOLUNTARY: Since the SSAN must be used, refusal to provide SSAN may be grounds for action to remove the individual concerned from duties involving the materiel transferred by use of this form.

ORIGINATOR  
 DESTINATION  
 I certify by my signature that I have received the materiel listed on this form and am aware of the applicable safety and security requirements.

**SHIPMENT TRANSFERS**

**SHIPMENT DESCRIPTION**

LINE NUMBER	QUANTITY	SERIAL NUMBERS	REMARKS
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11			
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**MATERIEL COURIER RECEIPT**

SHIPPER'S CONTROL/DOCUMENT NO.

SUPPLY ACCOUNT NUMBER

SUPPLY ACCOUNT NUMBER

certify by my signature that I have received the materiel listed on this form and am aware of the applicable safety and security requirements.

**SHIPMENT TRANSFERS**

**PRIVACY ACT STATEMENT**  
 AUTHORITY 5 U.S.C. Sec 552a (PL 93-579)  
 PRINCIPAL PURPOSES: To provide a receipt for transfer of controlled materiel. The use of the SSAN is required and is necessary to provide positive identification of the individuals receiving for the materiel. ROUTINE USES: To document transfer of materiel from a shipper to a courier, courier to courier and/or receiver.  
 DISCLOSURE IS VOLUNTARY: Since the SSAN must be used, refusal to provide SSAN may be grounds for action to remove the individual concerned from duties involving the materiel transferred by use of this form.

**SHIPMENT DESCRIPTION**

LINE NUMBER	QUANTITY	SERIAL NUMBERS	REMARKS
1	1 box	18-16 ✓	9608190725-101
2	1 box	18-19 ✓	9608190725-101
3			
4			
5			
6			
7			
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30			

LOCATION OF TRANSFER

DATE (YR/MO/DAY)

ORGAN. OR ACCOUNT NO.

SOCIAL SECURITY NUMBER

LOCATION OF TRANSFER

DATE (YR/MO/DAY)

ORGAN. OR ACCOUNT NO.

SOCIAL SECURITY NUMBER

LOCATION OF TRANSFER

DATE (YR/MO/DAY)

ORGAN. OR ACCOUNT NO.

SOCIAL SECURITY NUMBER

LOCATION OF TRANSFER

DATE (YR/MO/DAY)

ORGAN. OR ACCOUNT NO.

SOCIAL SECURITY NUMBER

LOCATION OF TRANSFER

DATE (YR/MO/DAY)

ORGAN. OR ACCOUNT NO.

SOCIAL SECURITY NUMBER

PREVIOUS EDITION MAY BE USED UNTIL 31 DEC 82.



**APPENDIX I**

**DAAMS TUBES RESULTS**

Date: Fri, 9 Aug 96 17:05:15 EDT  
From: Sandra D. Smith <sdsmith@cbdcom.apgea.army.mil>  
fglattin@cbdcom.apgea.army.mil  
jasnyder@cbdcom.apgea.army.mil, sdsmith@cbdcom.apgea.army.mil,  
axdean@cbdcom.apgea.army.mil  
Subject: Clearances  
Message-ID: <9608091705.aa23536@cbdcom.apgea.army.mil>

POC: Reese, 671-6015 BRA  
Item# GVH XXX (08/07/96)  
ADAM-BOX1 9608070102-M01 Clear for GB,GD,VX and HD 1  
ADAM-BOX2 9608070103-M01 Clear for GB,GD,VX and HD 2  
ADAM-BOX3 9608070104-M01 Clear for GB,GD,VX and HD 3  
ADAM-BO4 xxxr NOT CLEAR for VX confirmed by Mass Spec  
Clear for GB,GD and HD  
ADAM-BO5 9608070106-M01 Clear for GB,GD,VX and HD 4

POC: Reese, x671-6015 26th Street

Item GVH

ADAM004R	xxxxr	NOT CLEAR for GB
ADAM06	9608190333-M01	Clear for GB GD VX & HD 6
ADAM07	9608190334-M01	Clear for GB GD VX & HD 5

*Return not clear*

^A^A^A^A

Date:

Tue, 17 Sep 96 8:49:40 EDT

From:

Nita Snyder <jasnyder@cbdcom.apgea.army.mil>

cc:

joseph\_brutsman\_at\_zzerro@ccmail.nab.usace.army.mil,  
eric\_brandt\_at\_zzerro@ccmail.nab.usace.army.mil  
fglattin@cbdcom.apgea.army.mil, jamuelle@cbdcom.apgea.army.mil,  
jasnyder@cbdcom.apgea.army.mil, sdsmith@cbdcom.apgea.army.mil,  
rdmoore@cbdcom.apgea.army.mil, axdean@cbdcom.apgea.army.mil,  
rcwilson@cbdcom.apgea.army.mil, jtmaclin@cbdcom.apgea.army.mil,  
ujmehta@cbdcom.apgea.army.mil, djsnyder@cbdcom.apgea.army.mil,  
jefranch@cbdcom.apgea.army.mil, tablades@cbdcom.apgea.army.mil,  
rglaye@cbdcom.apgea.army.mil

Subject: Clearances

Message-ID: <9609170849.aa07254@cbdcom.apgea.army.mil>

POC: Reese, x6015 26th Street

Item GVh

BOX004 9609050094-M01 Clear for GB GD VX & HD h

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POC: Reese, x671-6015 26th Street

Item GVH

ADAM08 9608190335-M01 Clear for GB GD VX & HD *8*

AM09 9608190336-M01 Clear for GB GD VX & HD *9*

~~OK001 9608200361-M01 Clear for GB GD VX & HD~~