

N60201.AR.000787
NS MAYPORT
5090.3a

PROJECT COMPLETION REPORT FOR A CONCRETE CAP DESIGN AND INSTALLATION
AT SOLID WASTE MANAGEMENT UNIT 17 NS MAYPORT FL
8/1/2005
WRS INFRASTRUCTURE & ENVIRONMENT

PROJECT COMPLETION REPORT

**A Concrete Cap Design and Installation at
Solid Waste Management Unit 17**

**Naval Station Mayport
Mayport, Florida**

**Prepared for:
Naval Facilities Engineering Command
South Division
2155 Eagle Drive
North Charleston, South Carolina 29406**

Prepared by:



**WRS Infrastructure & Environment, Inc.
1650 Summit Lake Drive, Suite 202
Tallahassee, Florida 32317
(850) 531-9860**

**WRS Project Number: 305610
Revision Number 1
August 2005**



WRS
Infrastructure & Environment, Inc.

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June 21, 2005

Ms. Adrienne Wilson, Code E531
Naval Facilities Engineering Command,
Southern Division
2155 Eagle Drive
North Charleston, SC 29519

**Subject: Response to NAVFAC Comments on the Project Completion Report
Cap Installation at SWMU 17, Rev. No. 0, May 2005
Naval Station Mayport, Florida
Contract Number N62467-02-0-0480**

Dear Ms. Wilson:

WRS Infrastructure & Environment, Inc. (WRS) has reviewed the Naval Facilities Engineering Command (NAVFAC) comments regarding the Draft Project Completion Report (PCR) for the above referenced site. A copy of the NAVFAC letter is attached and each NAVFAC comment is addressed below. NAVFAC comments are shown in italics.

Comment 1: *Section 1.1.1, page 1: The project description in this paragraph seems to be for SWMU 15, not SWMU 17. This is not a parking lot nor is there a retention pond. The description is not accurate for SWMU 17.*

Response 1: This is a cut and paste error. The project involved the design and installation of an impermeable, water resistant concrete cover to prevent direct contact of benzo(a) pyrene and infiltration from leaching dieldrin in surface soil.

Comment 2: *Section 2.0 page 3: Naval Station Mayport may be the third largest Naval Station, it is not a Naval Facility.*

Response 2: The Naval Station Mayport home page, from which this information was obtained, stated, "The Navy at Mayport covers 3,409 acres and is the third largest Naval Facility in the continental United States." This sentence has been corrected to reflect the above comment.

**TRANSMITTAL OF SHOP DRAWINGS, EQUIPMENT DATA, MATERIAL SAMPLES, OR
MANUFACTURER'S CERTIFICATES OF COMPLIANCE FOR APPROVAL**

(READ INSTRUCTIONS ON THE REVERSE SIDE PRIOR TO INITIATING THIS FORM)

I. REQUEST FOR APPROVAL OF THE FOLLOWING ITEMS (THIS SECTION TO BE INITIATED BY THE CONTRACTOR)

FROM WRS Infrastructure & Environment, Inc.	DATE 9/16/2005	CONTRACT NO. N62467-02-D-0480
TO Resident Officer In Charge of Construction, Mayport	<input checked="" type="checkbox"/> NEW SUBMITTAL	TRANSMITTAL NO. 6
VIA FedEx	<input type="checkbox"/> RESUBMITTAL	PREVIOUS TRANSMITTAL NO. (if any) 5

SPECIFICATION SECTION NO. (Cover only one section with each transmittal)	PROJECT TITLE AND LOCATION Asphalt Cap Installation at SWMU-17, Naval Station Mayport, Mayport, Florida
--	--

ADDITIONAL ENCLOSURES TO N/A	ADDITIONAL COPIES TO Jim Cason (FDEP) 1copy; Adrienne Wilson (South DivRMP) 4 Copies; Diane Racine (Mayport ENV) 1-copy;
---------------------------------	--

ITEM NO.	DESCRIPTION OF ITEM SUBMITTED (Type, size, model number, etc.)	MFG. OR CONTR. CAT., CURVE, DRAWING OR BROCHURE NO. (See instruction no. 7)	NO. OF COPIES	Y & D SPECIFICATION PARA. NO.	Y & D DRAWING SHEET, PLATE, OR FILE NO.	ROICC USE ONLY ACTION CODE
a.	b.	c.	d.	e.	f.	g.
1	SWMU-17 Project Completion Report N62467-02-D-0480		3			

DISTRIBUTION REQUESTED (Attach additional sheet, if necessary). N/A	NAME AND SIGNATURE OF CONTRACTOR Patrick Ordex for WRS Infrastructure & Environment 
--	--

II. ROICC ACTION (THIS SECTION WILL BE USED BY THE APPROVING AUTHORITY ONLY)

ACTION CODES: THE FOLLOWING ACTION CODES ARE GIVEN TO ITEMS SUBMITTED: (A code letter will be inserted for each item in column g, section I, above).

A - APPROVED AS SUBMITTED. C - APPROVED, EXCEPT AS NOTED ON DRAWINGS. REFER TO ATTACHED SHEET. RESUBMISSION REQUIRED. E - DISAPPROVED. SEE ATTACHED SHEET.

B - APPROVED, EXCEPT AS NOTED ON DRAWINGS. D - WILL BE RETURNED BY SEPARATE CORRESPONDENCE.

NOTE: Approval of items does not relieve the contractor from complying with all the requirements of the contract plans and specifications.

ENCLOSURES RETURNED (List by item No.)	NAME, TITLE AND SIGNATURE OF APPROVING AUTHORITY	DATE
--	--	------

Response to Comments
June 21, 2005
Page 2 of 2

Comment 3: *Section 4.4, page 7: Chapter 62-770 FAC is the Petroleum Cleanup regulation, which is not applicable to this site. Verify that the regulation citation is correct.*

Response 3: Characterization and disposal activities were in accordance with Chapter 62-730 FAC. Sampling activities were in accordance with FDEPs DEP-SOP-001/01.

If you have any questions or further comments, please call me at the WRS Tallahassee office - (850) 531-9860.

Sincerely,
WRS Infrastructure & Environment, Inc.



Dale Frierson
Assistant Program Manager

Attachments

cc: Project File
Dianne Racine – NS Mayport ROICC
Ron Cate – NS Mayport ROICC

PROJECT COMPLETION REPORT

A Concrete Cap Design and Installation at Solid Waste Management Unit 17

**Naval Station Mayport
Mayport, Florida**

**Prepared For:
Naval Facilities Engineering Command
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2155 Eagle Drive
North Charleston, South Carolina 29406**

Prepared by:



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Tallahassee, Florida 32317
(850) 531-9860
EMAC Contract No.: N62467-02-D-0480**

**WRS Project No.: 303620
Revision No. 1
June 2005**

Project Completion Report
for
CONCRETE CAP INSTALLATION AT SWMU 17

Submittal Date:	Rev. 0 May 9, 2005; Rev. 1 June 22, 2005
Project Name:	SWMU 17 Mayport
Project Location:	Naval Station Mayport – Jacksonville, Duval County, Florida
Contract Number	N62467-02-D-0480
Reference	Scope of Work, Section 2.2.3.3

Prepared by:


Joe Powers
Staff Scientist
WRS Infrastructure & Environment, Inc.

Date: 9/19/05

This document, Project Completion Report for Naval Station Mayport SWMU-17, has been prepared under the direction of a Florida Registered Professional Engineer. The work and professional opinions rendered in this report were developed and conducted in accordance with commonly accepted protocols and procedure.

If conditions are discovered or determined to exist that differ from those described, the undersigned engineer should be notified to evaluate the effects of any additional information on the assessment and recommendations in this document. This document was prepared to provide a Project Completion Report for Naval Station Mayport SWMU-17 in Mayport, Florida. It should not be construed to apply to any other site.

Reviewed by:


SEPTEMBER 28, 2005
Andrew W. Frost, P.E.
Project Engineer
State of Florida P.E. Number: 59323
WRS Infrastructure & Environment, Inc.

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APPENDICES

Appendix

- Appendix A Analytical Reports
- Appendix B Non-Hazardous Manifest
- Appendix C Site Photographs

ACRONYMS

Allpoints	All Points Logistics, Inc.
ACI	American Concrete Institute
ASTM	American Society of Testing Materials
CFB	Carbonaceous Fuel Boiler
CO	Contract Officer
COC	Chain of Custody
CRZ	Contamination Reduction Zones
EZ	Exclusion Zones
FAC	Florida Administrative Code
FDEP	Florida Department of Environmental Protection
ft	Feet
HSWA	Hazardous and Solid Waste Ammendments
NS	Naval Station
MDL	Method Detection Limit
NAVFAC	Naval Facilities Engineering Command
O&M	Operations and Maintenance
PCR	Project Completion Report
psi	Pounds per Square Inch
RCRA	Resource Conservation and Recovery Act
RFI	RCRA Facility Investigation
SCTL	Soil Cleanup Target Level
SJRWMD	St. John's River Water Management District
SOP	Standard Operating Procedure
SOB	Statement of Basis
SOW	Statement of Work
SWMU	Solid Waste Management Unit
SZ	Safety Zones
TRPH	Total Recoverable Petroleum Hydrocarbons
USGS	United States Geological Survey
USEPA	United States Environmental Protction Agency
USTs	Underground Storage Tanks
WRS	WRS Infrastructure & Environment, Inc

1.0 Introduction

WRS Infrastructure & Environment, Inc. (WRS) has prepared this Project Completion Report (PCR) to describe the completed construction and remedial activities for the Asphalt Cap Design and Installation at Solid Waste Management Unit (SWMU) 17 (Carbonaceous Fuel Boiler) at Naval Station (NS) Mayport, Mayport, Florida. This PCR has been prepared pursuant to the Statement of Work (SOW) and the Technical Solution report submitted to Naval Facilities Engineering Command Southern Division (NAVFAC) in May 2004.

WRS has completed the design, installation, and maintenance of two permanent concrete caps adjacent to Building 1430. The following sections summarize the remedial activities, baseline inspection results, and conclusions as to the effectiveness of remedial action and Monitoring Plan.

1.1 Environmental Compliance

1.1.1 Federal and State Regulations

The project involved the design and installation of an impermeable, water resistant concrete cover to prevent direct contact of benzo(a)pyrene and infiltration from leaching dieldrin in surface soil. The project is being regulated under the Resource Conservation and Recovery Act (RCRA) Hazardous and Solid Waste Amendments (HSWA) delegated authority to the Florida Department of Environmental Protection (FDEP) and per the Soil Cleanup Target Levels (SCTLs) established in Chapter 62-777, Florida Administrative Code (FAC), per the Statement of Basis (SOB).

WRS performed sampling activities in accordance with FDEP's revised Chapter 62-160, FAC, Standard Operating Procedures (SOPs) DEP-SOP-001/01.

1.1.2 Local Regulations

Excavation and construction activities were coordinated with NS Mayport Environmental Department and with local and regional regulatory agencies that include the St. John's River Water Management District (SJRWMD), the Duval County Building Department, and the Duval County Air and Water Quality Division.

WRS coordinated meetings with all local agencies to insure that proper notification and communication was maintained throughout the project. These meetings were directed by the Contracting Officer (CO) as described in the Work Plan.

1.1.3 Waste Management

All waste management activities occurred as stated in the Work Plan. Release prevention, engineering controls, regulatory compliance, and issues of impacts of contractor operations were addressed in the approved Waste Management Plan. All waste generated due to construction activities was properly characterized and disposed in accordance with the Waste Management Plan.

2.0 Site History

Naval Station (NS) Mayport is located in east Duval County in northeast Florida on the northeast side of Jacksonville, Florida. The Navy at Mayport covers 3,409 acres and is the third largest Naval Station in the continental United States, capable of accommodating 34 ships and an 8,000-foot runway. NS Mayport is host to more than 70 tenant commands including the aircraft carrier USS John F. Kennedy, 21 other naval ships, and Light Airborne Multi-purpose System Mark III helicopter squadrons. The Naval Facility also serves as the operational and training headquarters for the SH-60B Seahawk L MKIII with a primary mission of anti-submarine warfare (Naval Station Mayport Florida home page). NS Mayport was commissioned in December 1942. The project site lies near the St. Johns River and is located off of Massey Avenue adjacent to Building 1430.

Wastes generated and disposed at the station include waste oils, fuels, lubricants, solvents, paints, and general refuse associated with the ship, aircraft, vehicle, and building maintenance activities (U.S. Department of the Navy, 1995). NS Mayport provides all necessary support services for the surface fleet and aircraft stationed at or visiting Mayport. Industrial operations conducted at NS Mayport involve intermediate level maintenance for both ships and aircraft, and vehicle maintenance and repair [United States Geological Survey (USGS) Water-Resources Investigations Report 97-4262, 1998].

The Carbonaceous Fuel Boiler (CFB), is located in the north-central region of the Mayport NS and southwest of the Mayport Turning Basin (approximately 350 feet west of Echo Pier). The CFB was fueled by domestic solid waste and collected/recovered waste oil. Waste oil and diesel fuel were stored at the site in two 6,000-gallon and two 550-gallon underground storage tanks (USTs). From 1979 until mid-1994, the CFB was in operation 24 hours a day. The CFB was identified as a SWMU by the RCRA Facility Assessment report because fly ash was being stored on the north side of the CFB building and also piled on asphalt near a roll-off container. This fly ash was tested and noted not to exceed the Federal regulatory criteria for hazardous waste, but did exceed the Federal regulatory criteria for lead and cadmium using a toxicity test. A RCRA Facility Investigation (RFI) was conducted from March through October 1995, to define the nature and extent of contamination.

The site has been impacted by low concentrations of pesticides and arsenic in soils and groundwater. The final selected remedies include land use controls to insure the area remains industrial, monitored natural attenuation, and a permanent asphalt/concrete cap installation. The cap will be used to cover areas where soil concentrations exceed Florida's SCTLs for future industrial use. The cap will also help prevent contaminant leaching to groundwater and help prevent exposure to ecological receptors.

3.0 Work Approach

WRS performed work on two areas at the SWMU-17. Construction areas designated as “area #2” and “area #3” are addressed by this document.

Area #2 was a narrow grassy strip approximately 140 feet long by 2 feet wide which bisected the paved surfaces adjacent to Building 1430 and the water tank further to the east. A chain link fence roughly bisected the area of concern over its entire length. The excavation limits necessary for installation of the concrete cap were 140 feet long by 2 feet wide by 0.33 feet deep. The volume of soil removed from area #2 equates to approximately 93 cubic feet or 3.4 cubic yards.

Area #3 is a rectangular area immediately adjacent to the water tower east of Building 1430. This area is bounded by the fence mentioned in the Area #2 description to the west, the water tower to the east and paved surfaces to the north and south. The excavation limits necessary for installation of the concrete cap were 30 feet long by 20 feet wide by 0.33 feet deep. The volume of soil removed from area #3 equates to approximately 200 cubic feet or 7.4 cubic yards.

A map showing the site layout is included as Figure 1. A detail sheet showing the concrete cap design is included as Figure 2. A map showing work zones is included as Figure 3.

In the May 2004 Technical Solution submitted to NAVFAC, the following project objectives were identified:

- ◆ Disassemble the chain link fence east of Building 1430, leaving fence posts in-place;
- ◆ Implement the erosion control plan as specified;
- ◆ Remove grass cover in Areas #2 and #3;
- ◆ Construct impervious concrete cap;
- ◆ Reinstall, secure and re-stretch the chain link fence east of Building 1430;
- ◆ Properly dispose all waste materials generated during excavation and construction activities;
- ◆ Restore site to specified conditions in disturbed areas;
- ◆ Develop and implement an Operations & Maintenance (O&M) Plan for the caps following installation.

3.1 Subcontractors

Most of the services required for this project were completed using WRS’s existing personnel and equipment. Four specialty subcontractors were also utilized for their expertise in a given type of work. These subcontractors were carefully selected based on their quality of service, cost effective service, past working relationship with WRS, and their close proximity to NS Mayport. The utilized subcontractors are listed below in Table 1.

Table 1. Subcontracted Services

Subcontractor	Services to be Provided
Allpoints Logistics	Provide transport and disposal services for C&D and non-hazardous waste
Tarmac	Provide concrete for cap construction
Accutest-Southeast	Analytical laboratory services
Hertz	Provide heavy equipment

4.0 Work Completed

4.1 Site Preparation

Site preparation work was conducted on February 7, 2005. This work included mobilization of equipment and personnel, implementation of the erosion control plan, and work zone establishment. The chain link fence bisecting the area was carefully disassembled and rolled back for later reinstallation. The upright fence posts were left in place during excavation. All site preparation work was conducted in accordance with the Site Work Plan.

The excavation areas were designated exclusion zones (EZ) and included sufficient area to allow the safe operation of equipment and personnel access while minimizing the obstruction of traffic lanes and parking areas. Locations of Contamination Reduction Zones (CRZ) and Safety Zones (SZ), or laydown areas, were coordinated with the CO in order to minimize the impact to Building 1430 operations.

4.2 Excavation

Excavation of areas #2 and #3 was conducted on February 8 and 9, 2005. A backhoe was used to excavate the grass cover and 4 inches of surface soil (soil trapped within the root structures of the plants) in the areas between fence posts. Hand excavation was performed in the areas around the fence posts in order to make sure that the integrity of each post was not compromised. Excavation within areas #2 and #3 was completed to 4 inches below the grade of the existing asphalt surface on either side of the excavation and mimicked the existing grade over the length of the excavation.

Excavated materials were placed into a 20 cubic yard (yd³) roll-off located adjacent to the excavation area and within the designated EZ. The combined volume of material excavated from areas #2 and #3 is 293 cubic feet or 10.9 cubic yards. One characterization sample was collected from the excavated grass cover and surface soil. The characterization sample was analyzed for lead with United States Environmental Protection Agency (USEPA) Method 1311/6010B (TCLP-Lead).

Laboratory analytical data presented in the Corrective Measures Study (Tetra Tech, 2003) was used to characterize the excavated soil and obtain disposal approval from the landfill. This data was augmented by a characterization sample collected from excavated materials. Contaminated soil generated during excavation activities was disposed as non-hazardous media at the Chesser Island Landfill in Folkston, Georgia. All Points Logistics, Inc. (AllPoints) of Gainesville, Georgia coordinated the disposal and transportation activities. Laboratory analytical reports are presented in Appendix A. A copy of the non-hazardous manifest is included in Appendix B.

4.3 Concrete Cap Installation

Installation of the concrete cap occurred on February 9, 2005. The cap consists of 16 cubic yards of 4,000 pounds per square inch (psi) concrete. The concrete is approximately 5 inches thick at the center and tapers to match the existing grade of the asphalt to all sides of the excavation area. All concrete to asphalt seam edges were sealed to retard seepage along the edges. The slightly convex design ensures that runoff moves away from the cap and that no pooling of water occurs

along seam areas. WRS insured that concrete installation complied with all applicable American Concrete Institute (ACI) and American Society for Testing and Materials (ASTM) standards. A paving detail sheet showing cross sections of the cap is presented on Figure 2.

WRS discovered an area near the northeast corner of the site where asphalt was missing. The area was approximately 7' x 7' and was located just inside of the northeast corner of the fence. The area was covered with soil. WRS removed the soil and capped this extra area at no extra charge.

4.4 Waste Manifest

One characterization soil sample for lead was required in order to obtain disposal approval from the Chesser Island Landfill. Characterization and disposal activities were in accordance with Chapter 62-730, FAC. Sampling activities were in accordance with the FDEPs DEP-SOP-001/01. A copy of the non-hazardous manifest used for disposal is included in Appendix C.

4.5 Site Cleanup

Work at the site concluded on February 10, 2005. The chain link fence was reinstalled on this date and the site was swept and cleaned. All equipment was decontaminated in accordance with the Work Plan prior to demobilization from the site. On February 17, 2005, all construction debris was removed and final inspection took place.

Site photographs are included as Appendix C.

5.0 Sampling and Analysis Activities

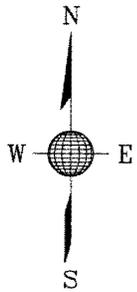
The characterization sample was analyzed by Accutest for the following analyses: USEPA Method 1311/6010B (TCLP-Lead). All analytical methods will adhere to USEPA SW-846 methodologies for the specified analyses. The composite sample collected for analysis by Accutest was below the laboratory Method Detection Limit (MDL) of 0.50 mg/L. The laboratory analytical report for this sample is presented in Appendix A.

All data and information required by Chapter 62-160.600, FAC, and FDEP's SOP (DEP-QA-001/92) will be maintained for a minimum of five years. This data and information will include all chain of custody records, field records (i.e. field books and sampling forms), shipping receipts, and original laboratory reports.

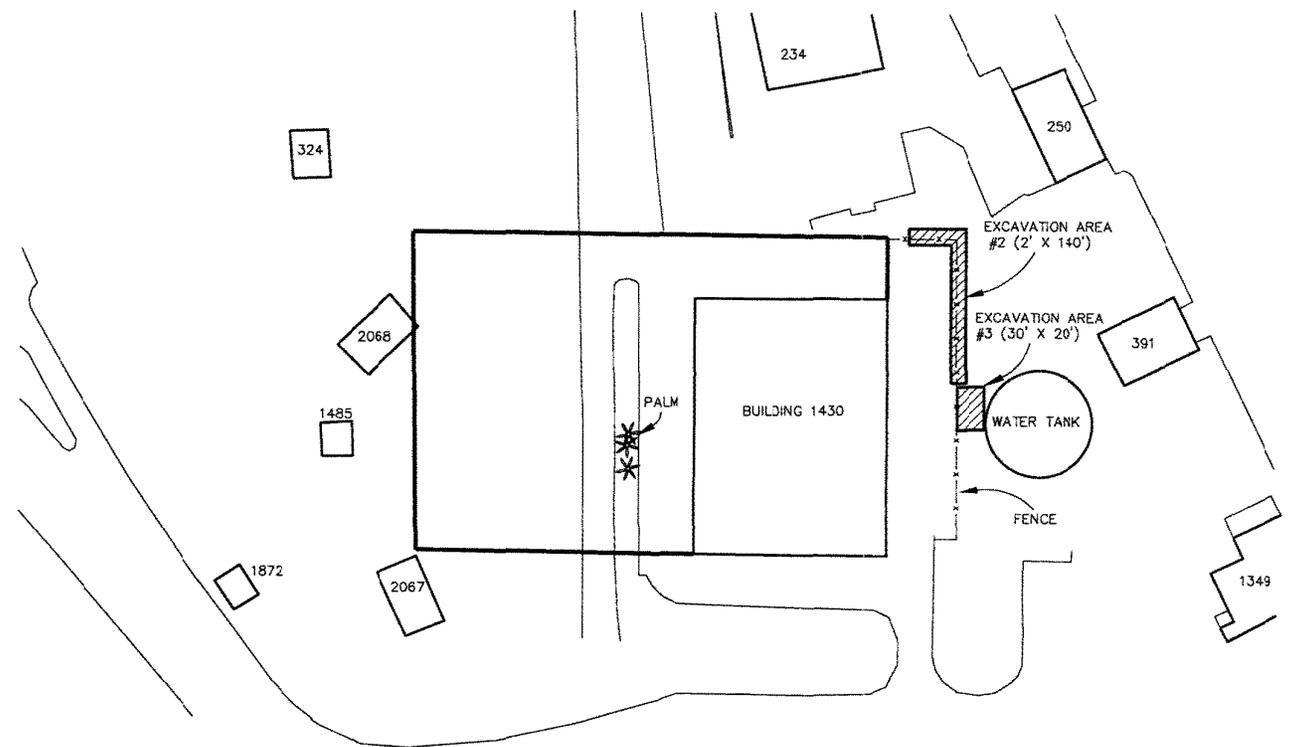
6.0 Operation and Maintenance Plan

With the installation of the concrete layers at the site, surface water infiltration through areas of contaminated soil should be minimized. To further ensure that surface waters do not impact areas of contamination beneath the newly installed concrete layers, the concrete cap should be periodically inspected for any cracks. In addition, the seams of the concrete should be inspected for growth of flora. Flora should be removed when identified and seam edges resealed. To maintain appearance, it is recommended that a light pressure wash (<3,000 psi) with water be conducted once a year.

Figures



0 --- 80' 120' 160'
 APPROXIMATE SCALE: 1" = 80'



LEGEND:	
	PALM TREE
	EXCAVATION AREA
	STRUCTURES
	SWMU BOUNDARY
	FENCELINE

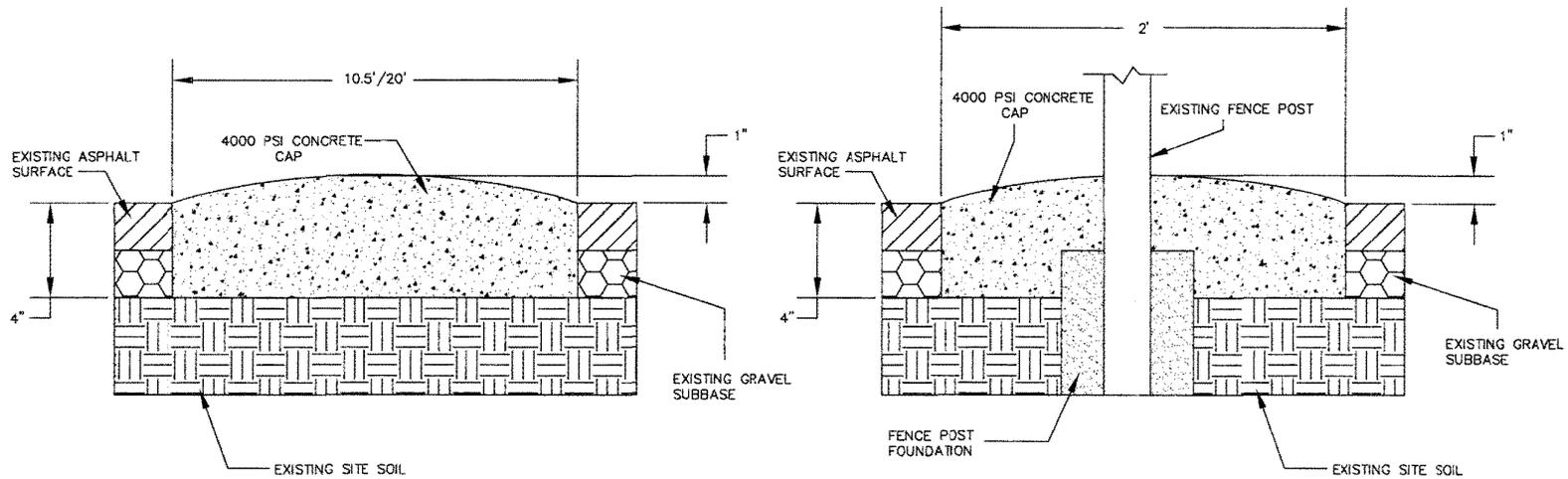
DRAWING STATUS	DRAFT	FINAL
PROJECT NO. :	303620	
PROJECT MANAGER:	DALE FRIERSON	
SCALE:	AS SHOWN	
REVISION NO. :	REV DATE:	
CADD ID: 303620A001	PLOT DATE:	03/22/05
DRN BY: D.B.H.	DRN DATE:	03/22/05
CHK BY: S.E.	CHK DATE:	03/22/05
APPVD BY: D.F.	APPVD DATE:	03/22/05



WRS Infrastructure & Environment, Inc.
 221 NORDO STREET, SUITE 106, TAMPA, FLORIDA 33619
 PH: (813) 684-4400 FAX: (813) 684-9177

Naval Facilities Engineering Command

FIGURE 1
PROPOSED SITE LAYOUT
SWMU 17 - CARBONACEOUS FUEL BOILER
NAVAL STATION MAYPORT
MAYPORT, DUVAL COUNTY, FLORIDA



EXCAVATION AREAS #1 AND #3

EXCAVATION AREA #2

DRAWING STATUS	DRAFT	FINAL <input checked="" type="checkbox"/>	
PROJECT NO. :	303620		
PROJECT MANAGER:	DALE FRIERSON		
SCALE:	AS SHOWN		
REVISION NO.:	0	REV DATE:	
CADD ID:	303620A003	PLOT DATE:	03/22/05
DRN BY:	D.F.	DRN DATE:	03/22/05
CHK BY:	D.F.	CHK DATE:	03/22/05
APPVD BY:	D.F.	APPVD DATE:	03/22/05



WRS Infrastructure & Environment, Inc.

221 HOEBBS STREET, SUITE 100, TAMPA, FLORIDA 33619
 PH: (813) 884-4400 FAX: (813) 884-9177

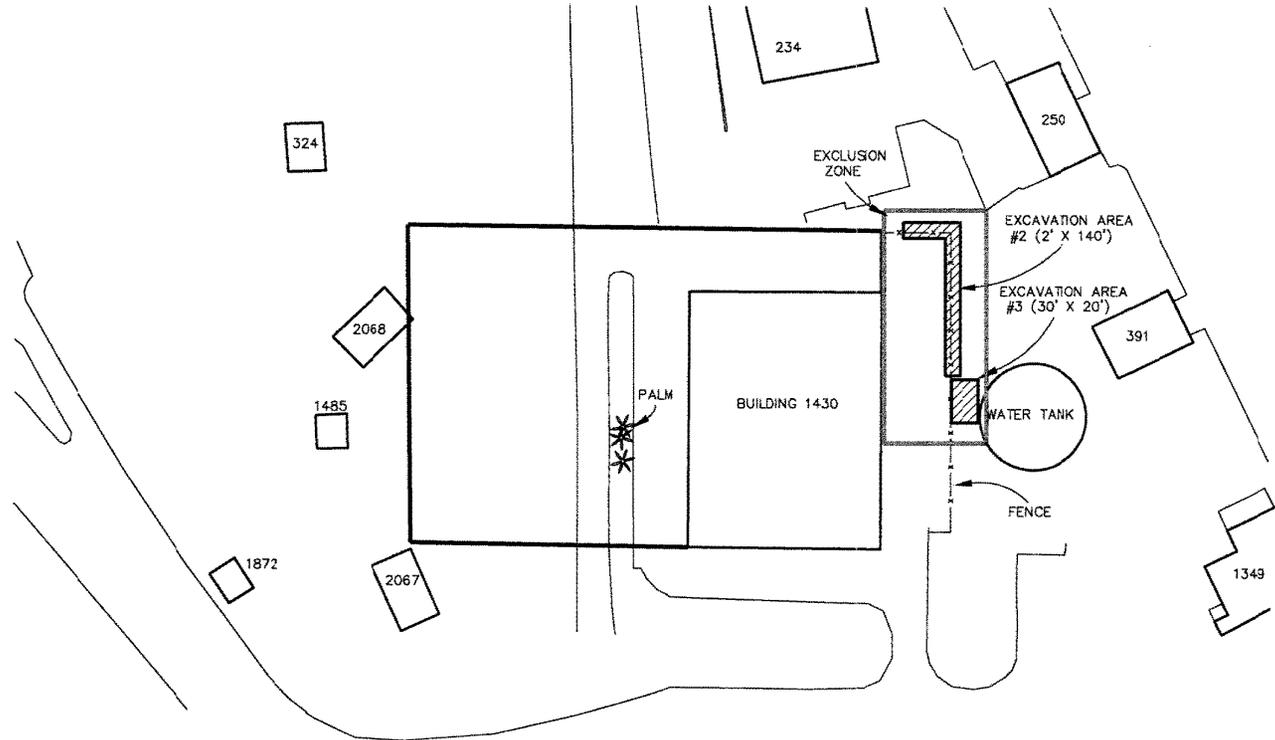
Naval Facilities Engineering Command



FIGURE 2
 DETAIL SHEET
 SWMU 17 - CARBONACEOUS FUEL BOILER
 NAVAL STATION MAYPORT
 MAYPORT, DUVAL COUNTY, FLORIDA



0 --- 80' 120' 160'
 APPROXIMATE SCALE: 1" = 80'



LEGEND:	
	PALM TREE
	EXCAVATION AREA
	STRUCTURES
	SWMJ BOUNDARY
	EXCLUSION ZONE
	FENCELINE

DRAWING STATUS	DRAFT	FINAL	<input checked="" type="checkbox"/>
PROJECT NO. :	303620		
PROJECT MANAGER:	DALZ FRIERSON		
SCALE:	AS SHOWN		
REVISION NO.:	0	REV DATE:	
CADD ID:	303620A002	PLOT DATE:	03/22/05
DRN BY:	D.B.H.	DRN DATE:	03/22/05
CHK BY:	D.F.	CHK DATE:	03/22/05
APPVD BY:	D.F.	APPVD DATE:	03/22/05



WRS Infrastructure & Environment, Inc.
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 PH: (813) 664-1400 FAX: (813) 684-9177

Naval Facilities Engineering Command

FIGURE 3
WORK ZONES
 SWMU 17 - CARBONACEOUS FUEL BOILER
 NAVAL STATION MAYPORT
 MAYPORT, DUVAL COUNTY, FLORIDA

**Appendix A
Analytical Reports**



09/16/05

Technical Report for

WRS Infrastructure and Environmental

Capping SWMU-17; Bldg 4310 Mayport Naval Station
303620

Accutest Job Number: F29530

Sampling Date: 01/27/05

Report to:

WRS Infrastructure and Environmental

pordetx@wrsic.com

ATTN: Pat Ordetx

Total number of pages in report: 14



Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Conference and/or state specific certification programs as applicable.

Harry Behzadi
Harry Behzadi, Ph.D.
Laboratory Director

Certifications: FL (DOH E83510), NC (573), NJ (FL002), MA (FL946), IA (366), LA (03051), KS (E-10327), SC, AK
This report shall not be reproduced, except in its entirety, without the written approval of Accutest Laboratories.

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Sample Summary

WRS Infrastructure and Environmental

Job No: F29530

Capping SWMU-17; Bldg 4310 Mayport Naval Station
Project No: 303620

Sample Number	Collected		Matrix			Client Sample ID
	Date	Time By	Received	Code	Type	
F29530-1	01/27/05	14:30 JF	01/28/05	SO	Soil	SS-01

Soil samples reported on a dry weight basis unless otherwise indicated on result page.

Report of Analysis

Client Sample ID: SS-01	Date Sampled: 01/27/05
Lab Sample ID: F29530-1	Date Received: 01/28/05
Matrix: SO - Soil	Percent Solids: n/a
Project: Capping SWMU-17; Bldg 4310 Mayport Naval Station	

Metals Analysis, TCLP Leachate SW846 1311

Analyte	Result	HW#	MCL	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Lead	< 0.050	D008	5.0	0.050	mg/l	1	02/02/05	02/04/05 DM	SW846 6010B ¹	SW846 3010A ²

(1) Instrument QC Batch: MA4197

(2) Prep QC Batch: MP7660

RL = Reporting Limit
MCL = Maximum Contamination Level (40 CFR 261 6/96)



Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody

ACCUTEST LABORATORIES SOUTHEAST SAMPLE RECEIPT CONFIRMATION

Accutest's Job Number: F29530

Client: WRS Project: Capping SWMV-17

Date Received: 1/28/05 Time Received: 9:00

of Coolers Received: 1 Cooler Temperatures: 1.2

Delivery Method: FedEx UPS Accutest Courier Greyhound Delivery Other

Air Bill Number: _____

- Cooler Custody Seals Intact ? Yes No
- Chain of Custody Provided ? Yes No
- COC Match Bottle Label ID's ? Yes No
- Sample Labels Present on all bottles ? Yes No
- All Analyses Marked On COC ? Yes No
- Are All Bottles Intact ? Yes No
- Samples Preserved Correctly ? Yes No
- Correct Number of Containers Used ? Yes No
- Sufficient Sample Volume ? Yes No
- Trip Blank Provided ? Yes No
- Trip Blank on COC ? Yes No
- Trip Blank Intact ? Yes No N/A
- Trip Blank Matrix ? Soil Water N/A

Number of Encores ? 0

Number of Soil Field Kits ? 0

Summary of Comments: _____

Signature: [Signature] Date: 1/28/05

Review Signature: _____

F29530: Chain of Custody Page 2 of 2



Metals Analysis

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Matrix Spike and Duplicate Summaries
- Blank Spike and Lab Control Sample Summaries
- Serial Dilution Summaries

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: F29530
Account: WRSFLTA - WRS Infrastructure and Environmental
Project: Capping SWMU-17; Bldg 4310 Mayport Naval Station

QC Batch ID: MP7660
Matrix Type: LEACHATE

Methods: SW846 6010B
Units: mg/l

Prep Date: 02/02/05 02/02/05 02/02/05

Metal	RL	IDL	MB raw	final	MB raw	final	MB raw	final
Aluminum	0.20	.0066						
Antimony	0.0050	.0015	anr					
Arsenic	0.010	.0028	anr					
Barium	1.0	.0005	anr					
Beryllium	0.0050	.0003	anr					
Cadmium	0.0050	.0003	anr					
Calcium	5.0	.0038						
Chromium	0.010	.0004	anr					
Cobalt	0.050	.0005						
Copper	0.025	.00044	anr					
Iron	0.30	.0071						
Lead	0.050	.0012	0.0023	<0.050	0.0020	<0.050	0.0020	<0.050
Magnesium	5.0	.0099						
Manganese	0.015	.00016						
Molybdenum	0.050	.00075						
Nickel	0.040	.0011	anr					
Potassium	5.0	.014						
Selenium	0.050	.002	anr					
Silver	0.010	.0006	anr					
Sodium	5.0	.15						
Thallium	0.010	.0015	anr					
Tin	0.050	.0015						
Vanadium	0.050	.00047						
Zinc	0.10	.00059	anr					

Associated samples MP7660: F29530-1

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

4.1.1

4

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: F29530
 Account: WRSFLTA - WRS Infrastructure and Environmental
 Project: Capping SWMU-17; Bldg 4310 Mayport Naval Station

QC Batch ID: MP7660
 Matrix Type: LEACHATE

Methods: SW846 6010B
 Units: mg/l

Prep Date: 02/02/05 02/02/05

Metal	F29502-5 Original	DUP	RPD	QC Limits	F29502-5 Original MS	SpikeInt MPFLICP	% Rec	QC Limits
Aluminum								
Antimony	anr							
Arsenic	anr							
Barium	anr							
Beryllium	anr							
Cadmium	anr							
Calcium								
Chromium	anr							
Cobalt								
Copper	anr							
Iron								
Lead	0.012	0.011	8.7	0-10	0.012	0.95	1.0	93.8 84-118
Magnesium								
Manganese								
Molybdenum								
Nickel	anr							
Potassium								
Selenium	anr							
Silver	anr							
Sodium								
Thallium	anr							
Tin								
Vanadium								
Zinc	anr							

Associated samples MP7660: F29530-1

Results < IDL are shown as zero for calculation purposes
 (*) Outside of QC limits
 (N) Matrix Spike Rec. outside of QC limits
 (anr) Analyte not requested

4.1.2
4

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: F29530
 Account: WRSFLTA - WRS Infrastructure and Environmental
 Project: Capping SWMU-17; Bldg 4310 Mayport Naval Station

QC Batch ID: MP7660
 Matrix Type: LEACHATE

Methods: SW846 6010B
 Units: mg/l

Prep Date: 02/02/05

Metal	F29502-5 Original MSD	Spikelot MPFLICP	% Rec	MSD RPD	QC Limit
-------	--------------------------	---------------------	-------	------------	-------------

Aluminum					
Antimony	anr				
Arsenic	anr				
Barium	anr				
Beryllium	anr				
Cadmium	anr				
Calcium					
Chromium	anr				
Cobalt					
Copper	anr				
Iron					
Lead	0.012	0.95	1.0	93.8	0.0 20
Magnesium					
Manganese					
Molybdenum					
Nickel	anr				
Potassium					
Selenium	anr				
Silver	anr				
Sodium					
Thallium	anr				
Tin					
Vanadium					
Zinc	anr				

Associated samples MP7660: F29530-1

Results < IDL are shown as zero for calculation purposes
 (*) Outside of QC limits
 (N) Matrix Spike Rec. outside of QC limits
 (anr) Analyte not requested

4.1.2
4

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: F29530
 Account: WRSFLTA - WRS Infrastructure and Environmental
 Project: Capping SWMU-17; Bldg 4310 Mayport Naval Station

QC Batch ID: MP7660
 Matrix Type: LEACHATE

Methods: SW846 6010B
 Units: mg/l

Prep Date: 02/02/05 02/02/05

Metal	BSP Result	SpikeLot MPFLICP	% Rec	QC Limits	BSP Result	SpikeLot MPFLICP	% Rec	QC Limits
Aluminum								
Antimony	anr							
Arsenic	anr							
Barium	anr							
Beryllium	anr							
Cadmium	anr							
Calcium								
Chromium	anr							
Cobalt								
Copper	anr							
Iron								
Lead	0.99	1.0	99.0	80-120	0.98	1.0	98.0	80-120
Magnesium								
Manganese								
Molybdenum								
Nickel	anr							
Potassium								
Selenium	anr							
Silver	anr							
Sodium								
Thallium	anr							
Tin								
Vanadium								
Zinc	anr							

Associated samples MP7660: F29530-1

Results < IDL are shown as zero for calculation purposes
 (*) Outside of QC limits
 (anr) Analyte not requested

4.1.3
4

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: F29530
 Account: WRSFLTA - WRS Infrastructure and Environmental
 Project: Capping SWMU-17; Bldg 4310 Mayport Naval Station

QC Batch ID: MP7660
 Matrix Type: LEACHATE

Methods: SW846 6010B
 Units: mg/l

Prep Date: 02/02/05

Metal	BSP Result	Spike lot MPFLICP	% Rec	QC Limits
Aluminum				
Antimony	anr			
Arsenic	anr			
Barium	anr			
Beryllium	anr			
Cadmium	anr			
Calcium				
Chromium	anr			
Cobalt				
Copper	anr			
Iron				
Lead	0.97	1.0	97.0	80 120
Magnesium				
Manganese				
Molybdenum				
Nickel	anr			
Potassium				
Selenium	anr			
Silver	anr			
Sodium				
Thallium	anr			
Tin				
Vanadium				
Zinc	anr			

Associated samples MP7660: F29530-1

Results < IDL are shown as zero for calculation purposes
 (*) Outside of QC limits
 (anr) Analyte not requested

4.1.3
4

SERIAL DILUTION RESULTS SUMMARY

Login Number: F29530
 Account: WRSFLTA - WRS Infrastructure and Environmental
 Project: Capping SWMU-17; Bldg 4310 Mayport Naval Station

QC Batch ID: MP7660
 Matrix Type: LEACHATE

Methods: SW846 6010B
 Units: ug/l

Prep Date: 02/02/05

Metal	F29502-5 Original	SDL 1:5	RPD	QC Limits
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Aluminum				
Antimony	anr			
Arsenic	anr			
Barium	anr			
Beryllium	anr			
Cadmium	anr			
Calcium				
Chromium	anr			
Cobalt				
Copper	anr			
Iron				
Lead	11.9	17.2	44.8 (a)	0 10
Magnesium				
Manganese				
Molybdenum				
Nickel	anr			
Potassium				
Selenium	anr			
Silver	anr			
Sodium				
Thallium	anr			
Tin				
Vanadium				
Zinc	anr			

Associated samples MP7660: F29530-1

Results < IDL are shown as zero for calculation purposes

(*) Outside of QC limits

(anr) Analyte not requested

(a) Percent difference acceptable due to low initial sample concentration (< 50 times IDL).

4.1.4
4

Appendix B
Non-Hazardous Manifest



NON-HAZARDOUS MANIFEST

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

NON-HAZARDOUS MANIFEST		1. Generator's US EPA ID No. FL9117010241216101	Manifest Document No.	2. Page 1 of 1
3. Generator's Name and Mailing Address NAVAL Station Mayport Env. Dept. NS Mayport, Building 20221 Mayport, FL 32228-0112			A. Manifest Number WMNA 320537	
4. Generator's Phone 904-270-10730			B. State Generator's ID	
5. Transporter 1 Company Name All Points Logistics, Inc.		6. US EPA ID Number		C. State Transporter's ID
7. Transporter 2 Company Name Waste Management		8. US EPA ID Number		D. Transporter's Phone 770-503-7474
9. Designated Facility Name and Site Address Chesser Island Landfill P.O. Box 128 Folkston, GA 31537		10. US EPA ID Number 10214-10061D(S14)		E. State Transporter's ID
				F. Transporter's Phone 404-289-9100
				G. State Facility's ID
				H. Facility's Phone 912-4910-7718
11. Description of Waste Materials		12. Containers No.	13. Total Quantity	14. Unit Wt./Vol.
a. surface soil/sod (95-98%) Asphalt Debris (2-5%) WM Profile # VB23105		01011	120 YDS	
b. WM Profile #				
c. WM Profile #				
d. WM Profile #				
j. Additional Descriptions for Materials Listed Above Landfill _____ Solidification _____ Bio Remediation _____			K. Disposal Location Cell _____ Level _____ Grid _____	
15. Special Handling Instructions and Additional Information Purchase Order # _____ EMERGENCY CONTACT: _____ BY: _____				
16. GENERATOR'S CERTIFICATION: I hereby certify that the above-described materials are not hazardous wastes as defined by 40 CFR Part 261 or any applicable state law, have been fully and accurately described, classified and packaged, and are in proper condition for transportation according to applicable regulations.				
Printed/Typed Name PATRICIA LOON		Signature "On Behalf of"		Month Day Year 10/21/05
17. Transporter 1 Acknowledgement of Receipt of Materials Printed/Typed Name		Signature		Month Day Year
18. Transporter 2 Acknowledgement of Receipt of Materials Printed/Typed Name Kerry Williams		Signature		Month Day Year 12/17/05
19. Certificate of Final Treatment/Disposal I certify, on behalf of the above listed treatment facility, that to the best of my knowledge, the above-described waste was managed in compliance with all applicable laws, regulations, permits and licenses on the dates listed above.				
20. Facility Owner or Operator: Certification of receipt of non-hazardous materials covered by this manifest.				
Printed/Typed Name P. LORIS		Signature		Month Day Year 12/17/05

GENERATOR

TRANSPORTER

FACILITY



**WASTE MANAGEMENT
CHESSER ISLAND ROAD LANDFILL, INC.**

P.O. Box 128
Folkston, GA 31537
(912) 496-7918

02/17/2005

7:09 AM

IN: 7:00 AM

Ticket: 054630

30

PRINTS LOGS 982365

STATION MAYPORT

ENVIRONMENTAL DEPT.

DAVENPORT FL 32218

BY: TERRY

Trucks: 408490

Lot #: 380537

Option	Quantity
WASTE	19.77 TON
DUVAL Type: SPW District: IN	
CHG PER LOAD NOT T	1.00 ERC
DUVAL Type: SPW District: IN	
REIMBURSEMENT	
SEE	
FUND	

Signature

Appendix C Site Photographs



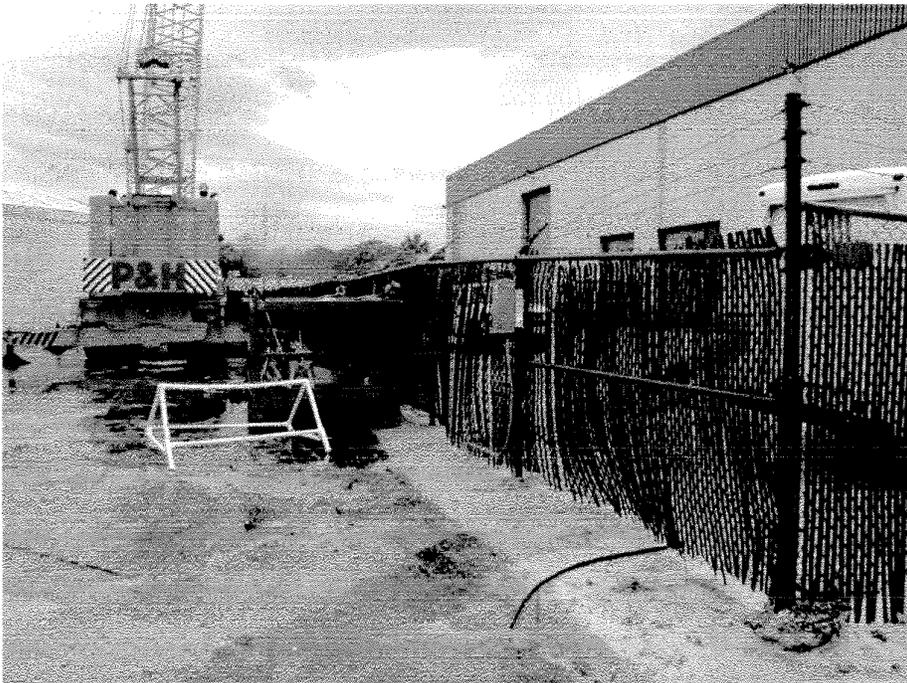
Excavation area #2 looking south along the fence; excavation in progress.



Excavation area #2 width



Looking east near excavation area #3



Excavation area #2, capped. Looking south along the fence.



Unpaved area (approximately 7' x 7') in NE corner of Area 2 that was cleared and capped at no extra cost.