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NS MAYPORT  
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REMEDIAL ACTION COMPLETION REPORT FOR INSTALLATION OF ASPHALT CAP AT  
SOLID WASTE MANAGEMENT UNIT 25 NS MAYPORT FL  
3/1/2007  
TN & ASSOCIATES

**INSTALLATION OF ASPHALT CAP  
SWMU 25  
REMEDIAL ACTION COMPLETION REPORT**

**NS MAYPORT  
MAYPORT, FLORIDA**

**N62467-02-D-0483/0014**



**Prepared for:  
Naval Facilities Engineering Command  
Southern Division  
Charleston, South Carolina**

**Prepared by:**



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**March 2007**

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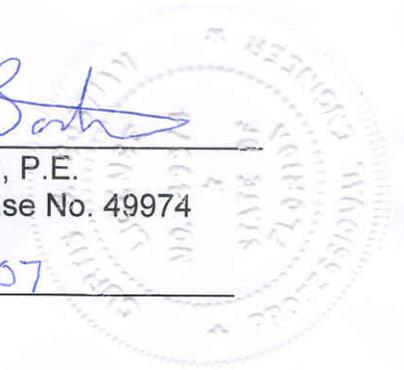
**LIST OF ACRONYMS**

NS	Naval Station
RACR	Remedial Action Completion Report
SOW	Scope of Work
SWMU	Solid Waste Management Unit
TN&A	T N & Associates, Inc.
TTNus	TetraTechNus

**PROFESSIONAL REVIEW CERTIFICATION**

This Removal Action Completion Report was prepared using sound engineering principles and judgment under the direction of the undersigned professional engineer. This document was prepared based on the available assessment documents and the cap installation and associated activities conducted by T N & Associates, Inc. at the SWMU 25 Naval Station (NS) Mayport, Florida.

  
\_\_\_\_\_  
Scott Bostian, P.E.  
Florida License No. 49974  
3/28/07  
\_\_\_\_\_  
Date



## **1. INTRODUCTION**

T N & Associates, Inc. (TN&A) performed removal and disposal of contaminated surface soils, asphalt cap installation and site restoration activities associated with the Solid Waste Management Unit 25 (SWMU) at Naval Station (NS) Mayport in Mayport, Florida. The cap installation and removal and disposal services were provided under Contract N62467-02-D-0483/0014 with Southern Division, Naval Facilities Engineering Command. Figure 1 depicts the site location at NS Mayport. The primary objective of this project was asphalt cap installation which included the excavation, transportation and offsite disposal of approximately 14.06 tons of contaminated soil. Contaminants of concern included aldrin, and dieldrin, which were deemed to be at non-hazardous concentrations based on data from the Corrective Measures Study for Solid Waste Management Units 1, 23, 24, and 25, dated November 10, 2004 by TetraTech NUS.

TN&A completed all surface and underground utility clearance requirements within SWMU 25 prior to initiating any intrusive activities. These activities included acquiring Florida Sunshine 1 and NS Mayport utility clearances. TN&A reviewed utility maps from NS Mayport Public Works Office and marked the proposed limits of intrusive activity and the utility lines in the immediate vicinity, using color-coded surveyor paint and marker flags. TN&A then notified Underground Service Alert and conducted a meeting with all interested parties that were to be potentially affected by intrusive activities. TN&A obtained all necessary permits prior to site work.

The designated excavation and cap area was located in the SWMU 25 area which is in the Atlantic Marine Parking Lot. The designated area was found to be well delineated with pin flags and generally accessible from existing roadways. During the site visit and examination, one monitoring well and one sewer clean-out were noted to be located within the cap and excavation area.

### **1.1 Site History**

SWMU 25 is occupied by the Atlantic Marine, Inc., which has been operational since 1980. NAVSTA Mayport leased this 1.5-acre property to Atlantic Marine to conduct maintenance and repair of Navy ships under contract to the SUPSHIPs. Activities at Atlantic Marine include abrasive media stripping, fabrication of metal parts, metal working, degreasing, paint stripping, welding, automotive maintenance and repair, as well as other ship support operations. Contaminants could have potentially been released from oils used in milling of parts, heavy metals in paints, solvents used in cleaning parts and fuel storage.

SWMU 25 is located in the southwestern part of the Station. The site is bordered to the north by SWMU 23, on the east by SWMU 24, on the south by Bailey Avenue, and on the west by a dirt road and parking lot. SWMU 25 is mostly paved and contains two large buildings (Buildings 1 and 2), two oil-water separators, and accumulation areas.

## **2. PROJECT SCOPE**

The scope of activities performed to address the removal efforts at SWMU 25 NS Mayport are listed below:

- Notice to Proceed
- Mobilization
- Temporary Facilities
- Utility Clearance
- Site Work
- Site Restoration
- Cleanup and Demobilization
- Draft/Final Remedial Action Completion Reports [RACR]

This RACR is the final scope activity for the project. It includes all Post-Construction Deliverables as required per the Contract. Section 4.0 describes Remedial Activities; Section 5.0 Transportation and Disposal; and Section 6.0 presents Conclusions. Additional submittal information including sampling results, manifests, and project photographs are presented in subsequent Appendices.

### 3. SAMPLING

No confirmation sampling was performed in accordance with the SOW. All lab data for waste characterization was provided in the TTNus report (Appendix B).

## **4. REMEDIAL ACTIVITIES**

Remedial activities began with delineating the areas of excavation for cap installation. Figure 2 illustrates the soil removal area. The remedial solution was the excavation and off-site disposal of 14.06 tons of contaminated soil followed by installation of an asphalt cap. Confirmation sampling of the excavated site was not required in accordance with the SOW. TN&A utilized a 310 JD backhoe to excavate soils to a depth of one and one-half (1.5) inches below ground surface. Vegetation adjacent to the limits of excavation was not impacted.

Access to the remediation site was gained through existing paved Naval Station roadways. Final grade and sloping was completed as close to the original grade to ensure storm water runoff away from the building. The asphalt cap was installed over the excavated area.

The entire site was cleared of all construction related debris. With completion of restoration and inspection activities, equipment and personnel were demobilized from the site.

Photographs depicting these activities are presented as an attachment.

Appendix B depicts laboratory analytical data for waste characterization.

## **5. TRANSPORTATION AND DISPOSAL**

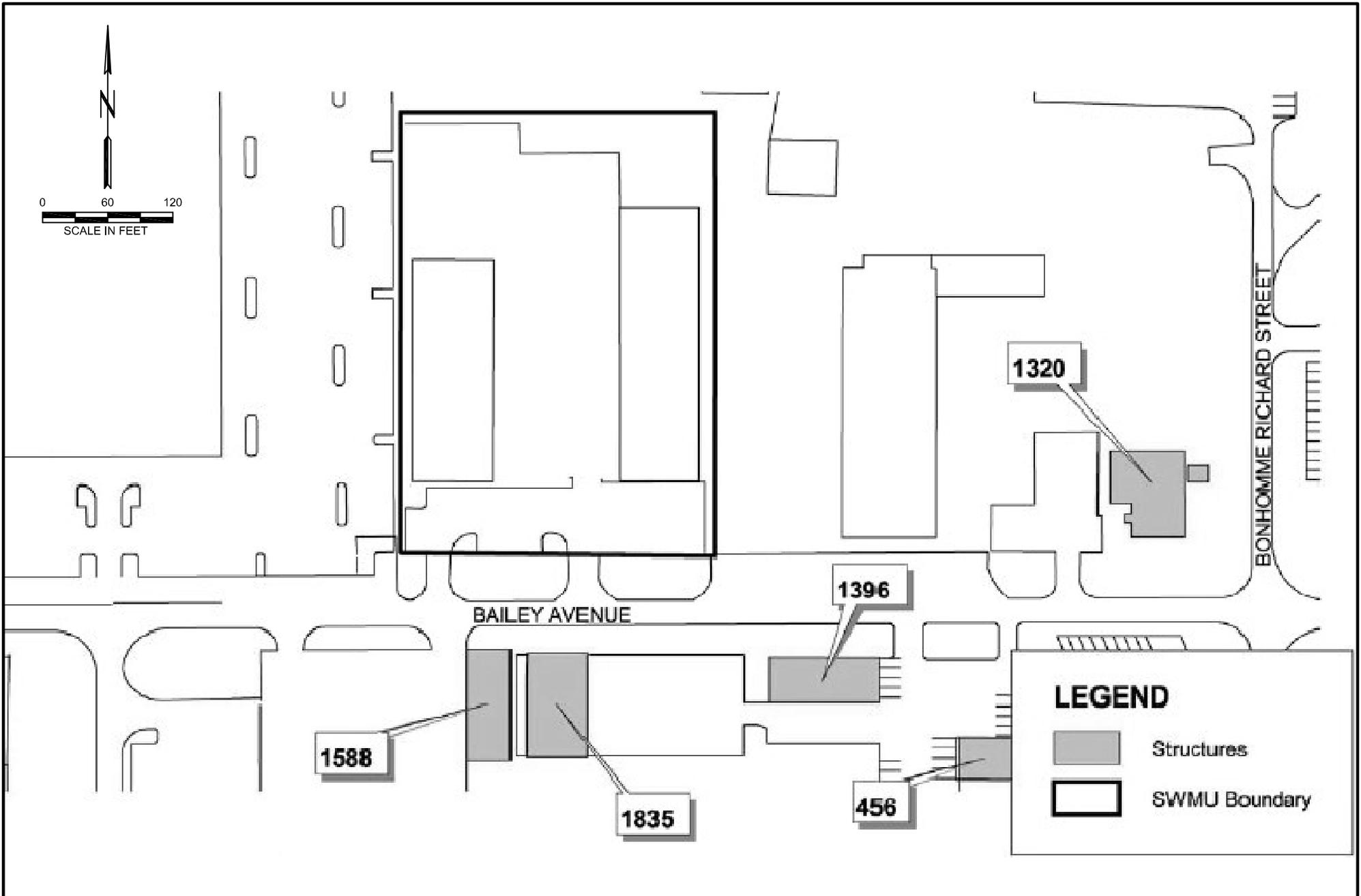
Pre-characterization of the waste streams allowed excavated non-hazardous soils to be loaded directly into transport vehicles for disposal at the licensed facility of Chesser Landfill, located in Folkston, GA. Waste manifests were prepared for each truck load and signed by the designated station representative for each load. Draft manifests were submitted for review in advance of field activities. Appendix A provides executed manifests for transportation and disposal. Note that the manifest lists the transportation company's minimum of 22 tons. The actual weight at the disposal facility was 14.06 tons.

Trucks leaving the site were cleaned of gross materials to avoid transfer to roadways. Haul routes were also monitored and cleaned of project-associated debris throughout the project duration.

## **6. CONCLUSIONS**

Cap installation with associated soil excavation at SWMU 25 at NS Mayport has been completed. Wastes generated from the site have been properly transported to the appropriate disposal facility. The asphalt cap was installed and the site restored. A final site inspection was conducted February 16, 2007 by TN&A and US Navy NS Mayport Resident Office in Charge of Construction personnel. No outstanding items of address were found.

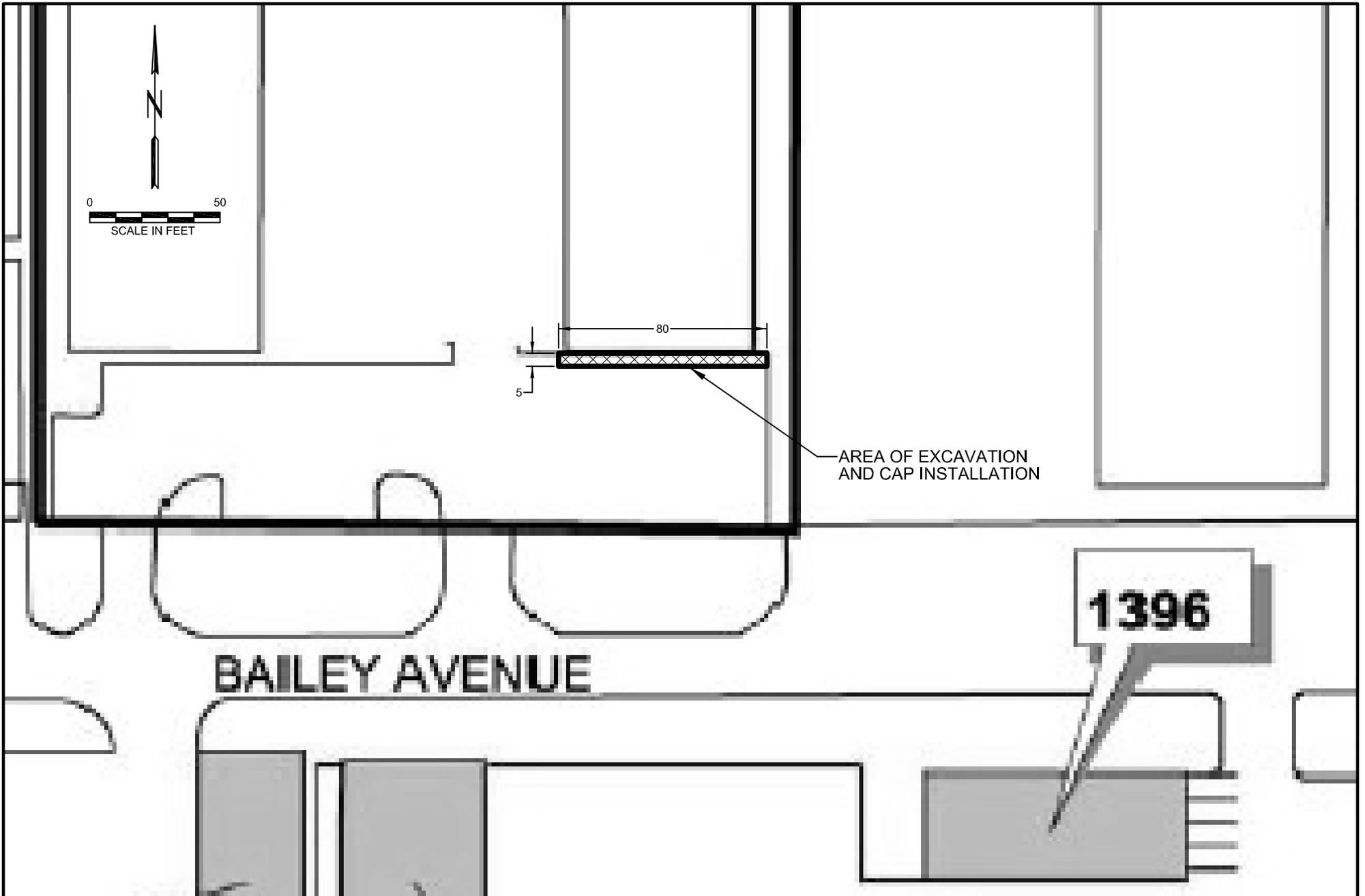
**Figure 1**  
**Site Location Map**



**FIGURE 1**  
**SITE LOCATION MAP**

## **Figure 2**

# **Soil Excavation and Cap Installation**



**FIGURE 2**  
**SOIL EXCAVATION AND CAP INSTALLATION**

# **Appendix A**

## **Manifests**



# NON-HAZARDOUS MANIFEST

L-280

Please print or type. (Form designed for use on either (12-pin) or (14-pin) typewriter.)

<b>NON-HAZARDOUS MANIFEST</b>		1. Generator's US EPA ID No.		Manifest Document No. <b>70216</b>		2. Page 1 of 1	
3. Generator's Name and Mailing Address				A. Manifest Number <b>WMNA 10481864</b>			
4. Generator's Phone				B. State Generator's ID			
5. Transporter 1 Company Name <b>Deave Bulk</b>		6. US EPA ID Number		C. State Transporter's ID		D. Transporter's Phone	
7. Transporter 2 Company Name		8. US EPA ID Number		E. State Transporter's ID		F. Transporter's Phone	
9. Designated Facility Name and Site Address				10. US EPA ID Number		G. State Facility's ID	
						H. Facility's Phone	
11. Description of Waste Materials:				12. Containers		13. Total Quantity	14. Unit Wt/Vol
				No. Type			Misc. Comments
a. WM Profile #				0101		000212	Ton
b. WM Profile #							
c. WM Profile #							
d. WM Profile #							
J. Additional Descriptions for Materials Listed Above				K. Disposal Location			
Landfill _____ Solidification _____				Cell _____ Level _____			
Bio Remediation _____				Crd _____			
15. Special Handling Instructions and Additional Information							
Purchase Order # _____ EMERGENCY CONTACT: _____							
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 <b>DAVE RACINE</b>				Signature "On behalf of" <i>Dave Racine</i>		Month Day Year <b>02/16/07</b>	
17. Transporter 1 Acknowledgement of Receipt of Materials							
Printed/Typed Name <b>Ronald T...</b>				Signature <i>Ronald T...</i>		Month Day Year <b>02/16/07</b>	
18. Transporter 2 Acknowledgement of Receipt of Materials							
Printed/Typed Name				Signature		Month Day Year	
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 <b>C. Jacobs</b>				Signature <i>C. Jacobs</i>		Month Day Year <b>02/16/07</b>	

## **Appendix B**

# **Laboratory Analytical Reports for Waste Characterization**

470503011

TABLE 5-13

SWMU 25, SURFACE SOIL COCs - INDUSTRIAL DIRECT CONTACT AND LEACHING (COMBINED)  
NAVSTA MAYPORT, FLORIDA

COCs	Chemical Abstract Number	Maximum Concentration (mg/kg)	Representative Concentration <sup>1</sup> (mg/kg)	Background Concentration <sup>2</sup> (mg/kg)	Site-Specific SCTL - Industrial Direct Exposure <sup>3</sup> (mg/kg)	Site-Specific SCTL - Leaching to Groundwater <sup>4</sup> (mg/kg)	Media Cleanup Standard <sup>5</sup> (mg/kg)	Media Cleanup Standard Basis <sup>6</sup>
<b>Pesticides/PCBs</b>								
Aldrin	309-00-2	0.52	0.179	-	0.1	0.5	0.1	Direct Contact
Dieldrin	60-57-1	3.1	1.80	-	0.1	0.004	0.004	Leaching
<b>Inorganics</b>								
Arsenic	7440-38-2	1.3	1.3	-	1.2	29	1.2	Direct Contact

## Notes:

- <sup>1</sup> - The representative concentration is the 95% UCL (where appropriate) or the maximum detected concentration, whichever is less.
- <sup>2</sup> - Mayport background concentration (Tetra Tech NUS, 2000).
- <sup>3</sup> - The Site specific SCTL - Direct Exposure is the Industrial SCTL divided by the Adjustment Divisor or the background concentration, whichever is greater.
- <sup>4</sup> - The Site Specific SCTL - Leaching to Groundwater is the Leaching to Groundwater SCTL or the background concentration, whichever is greater.
- <sup>5</sup> - Media Cleanup Standard is the Minimum of the Site Specific SCTL - Direct Exposure or Site Specific SCTL - Leaching to Groundwater.
- <sup>6</sup> - Media Cleanup Standard Basis is either Background, Direct Exposure or Leaching (Leaching to Groundwater or Leaching to Surface Water, if applicable).

*FDEP*  
*2.1 mg/kg based on April 2005 SCTL*  
*for residential direct exposure.*  
*∴ Arsenic would not be*  
*a COC for SWMU 25 new.*

5-24

CTO 0118

Rev. 1  
11/10/04

TABLE 5-15

SWMU 25, EXCEEDANCES OF COCs IN SOIL  
NAVSTA MAYPORT - MAYPORT, FLORIDA

*ug/kg*

COC <sup>1</sup>	Sample Locations	Sample ID <sup>2</sup>	Sample Date	Detected Concentration <sup>3</sup>	MCS <sup>4</sup>
<b>Surface Soil</b>					
Aldrin	MPT-25-SS10	25S01001	06/27/96	200	100
		25S01001D	06/27/96	520	
Dieldrin	MPT-25-SS03	25S00301	04/10/95	6.2	4
	MPT-25-SS07	25S00701	04/10/95	2200	
	MPT-25-SS08	25S00801	04/10/95	4.5 J	
	MPT-25-SS10	25S01001	06/27/96	2500	
		25S01001D	06/27/96	3100	
MPT-25-SS11	25S01101	06/27/96	86		
<del>Arsenic</del>	MPT-25-SS07	25S00701	04/10/95	1.3 J <i>mg/kg</i>	<i>122.1</i>
<b>Subsurface Soil</b>					
Dieldrin	MPT-25-SB07	25B00702	06/27/96	3000	4
	MPT-25-SB010	25B01002	06/27/96	890	
	MPT-25-SB011	25B01102	06/27/96	43	

*No longer a COC*

Notes:

- <sup>1</sup> - COC - contaminant of concern.
- <sup>2</sup> - "D" at end of sample ID indicates duplicate sample.
- <sup>3</sup> - All units are ug/kg, except arsenic that is mg/kg.
- <sup>4</sup> - MCS - Media Cleanup Standard.

**SWMU 25 Surface Soil**

SWMU 25 - Surface Soil

order	004	005	006	007	008	009	010	011
location	MPT-25-SS01	MPT-25-SS02	MPT-25-SS03	MPT-25-SS04	MPT-25-SS04	MPT-25-SS05	MPT-25-SS06	MPT-25-SS07
matrix	SO	SO	SO	SO	SO	SO	SO	SO
nsample	25S00101 [04/10/95]	25S00201 [04/10/95]	25S00301 [04/10/95]	25S00401 [04/10/95]	25S00401D [04/10/95]	25S00501 [04/10/95]	25S00601 [04/10/95]	25S00701 [04/10/95]
sample	25S00101	25S00201	25S00301	25S00401	25S00401D	25S00501	25S00601	25S00701
secode	NORMAL	NORMAL	NORMAL	DUP	DUP	NORMAL	NORMAL	NORMAL
top_depth	0	0	0	0	0	0	0	0
bottom_deep	0	0	0	0	0	0	0	0
status	04/10/95	04/10/95	04/10/95	04/10/95	04/10/95	04/10/95	04/10/95	04/10/95
sample_dat	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE
validated	FRED	FRED	FRED	FRED	FRED	FRED	FRED	FRED
cto_proc	c_004	c_005	c_006	c_007	c_008	c_009	c_010	c_011
sort								
<b>Volatile Organics (ug/kg)</b>								
1,1,2-TETRACHLOROETHANE	5 U	5 U	6 U	6 U	6 U	6 U	7 U	5 U
1,1,1-TRICHLOROETHANE	5 U	5 U	6 U	6 U	6 U	6 U	7 U	5 U
1,1,2,2-TETRACHLOROETHANE	5 U	5 U	6 U	6 U	6 U	6 U	7 U	5 U
1,1,2-TRICHLOROETHANE	5 U	5 U	6 U	6 U	6 U	6 U	7 U	5 U
1,1-DICHLOROETHANE	5 U	5 U	6 U	6 U	6 U	6 U	7 U	5 U
1,1-DICHLOROETHENE	5 U	5 U	6 U	6 U	6 U	6 U	7 U	5 U
1,2,3-TRICHLOROPROPANE	5 U	5 U	6 U	6 U	6 U	6 U	7 U	5 U
1,2-DIBROMO-3-CHLOROPROPANE	10 U	11 U	12 U	11 U	11 U	11 U	13 U	11 U
1,2-DICHLOROBENZENE	5 U	5 U	6 U	6 U	6 U	6 U	7 U	5 U
1,2-DICHLOROETHANE	5 U	5 U	6 U	6 U	6 U	6 U	7 U	5 U
1,2-DICHLOROETHENE (TOTAL)	5 U	5 U	6 U	6 U	6 U	6 U	7 U	5 U
1,2-DICHLOROPROPANE	5 U	5 U	6 U	6 U	6 U	6 U	7 U	5 U
1,3-DICHLOROBENZENE	5 U	5 U	6 U	6 U	6 U	6 U	7 U	5 U
1,4-DICHLOROBENZENE	5 U	5 U	6 U	6 U	6 U	6 U	7 U	5 U
1,4-DIOXANE	210 R	220 R	240 R	240 R	240 R	240 R	270 R	220 R
2-BUTANONE	10 U	4 J	11 U	6 J	7 J	10 J	13 U	11 U
2-CHLOROETHYL VINYL ETHER	10 U	11 U	11 U	12 U	11 U	11 U	13 U	11 U
2-HEXANONE	10 U	11 U	11 U	12 U	11 U	11 U	13 U	11 U
3-CHLOROPROPENE	5 U	5 U	6 U	6 U	6 U	6 U	7 U	5 U
4-CHLORO-3-METHYLPHENOL	350 U	720 U	750 U	800 U	740 U	1900 U	890 U	360 U
4-METHYL-2-PENTANONE	10 U	11 U	11 U	12 U	11 U	11 U	13 U	11 U
ACETONE	10 U	11 U	24 U	24 U	25 U	42 U	130 U	11 U
ACETONITRILE	100 U	110 U	110 U	120 U	110 U	110 U	130 U	110 U
ACROLEIN	100 U	110 U	110 U	120 U	110 U	110 U	130 U	110 U
ACRYLONITRILE	100 U	110 U	110 U	120 U	110 U	110 U	130 U	110 U
BENZENE	5 U	5 U	6 U	6 U	6 U	6 U	7 U	5 U
BROMODICHLOROMETHANE	5 U	5 U	6 U	6 U	6 U	6 U	7 U	5 U
BROMOFORM	5 U	5 U	6 U	6 U	6 U	6 U	7 U	5 U
BROMOMETHANE	10 U	11 U	11 U	12 U	11 U	11 U	13 U	11 U
CARBON DISULFIDE	1 J	5 U	1 J	2 J	1 J	6 U	7 U	1 J
CARBON TETRACHLORIDE	5 U	5 U	6 U	6 U	6 U	6 U	7 U	5 U
CHLOROBENZENE	5 U	5 U	6 U	6 U	6 U	6 U	7 U	5 U
CHLOROETHANE	5 U	5 U	6 U	6 U	6 U	6 U	7 U	5 U
CHLOROFORM	5 U	5 U	6 U	6 U	6 U	6 U	7 U	5 U
CHLOROMETHANE	10 U	11 U	11 U	12 U	11 U	11 U	13 U	11 U
CHLOROPRENE	210 U	220 U	240 U	240 U	220 U	230 U	270 U	220 U
CIS-1,3-DICHLOROPROPENE	5 U	5 U	6 U	6 U	6 U	6 U	7 U	5 U
DIBROMOCHLOROMETHANE	5 U	5 U	6 U	6 U	6 U	6 U	7 U	5 U
DIBROMOMETHANE	5 U	5 U	6 U	6 U	6 U	6 U	7 U	5 U
DICHLORODIFLUOROMETHANE	10 U	11 U	11 U	12 U	11 U	11 U	13 U	11 U
ETHYL METHACRYLATE	5 U	5 U	6 U	6 U	6 U	6 U	7 U	5 U
ETHYLBENZENE	5 U	5 U	6 U	6 U	6 U	6 U	7 U	5 U
ETHYLENE DIAMINE	5 U	5 U	6 U	6 U	6 U	6 U	7 U	5 U
ETHYLENE DIISOCYANATE	5 U	5 U	6 U	6 U	6 U	6 U	7 U	5 U

from swmu25ss\_sam.dbf  
 from swmu25ss\_res.dbf  
 from swmu25ss\_res.xls  
 from p.1

SWMU 25 - Surface Soil

order	004	005	006	007	008	009	010	011
location	MPT-25-SS01	MPT-25-SS02	MPT-25-SS03	MPT-25-SS04	MPT-25-SS04	MPT-25-SS05	MPT-25-SS06	MPT-25-SS07
matrix	SO	SO	SO	SO	SO	SO	SO	SO
nsample	25S00101 [04/10/95]	25S00201 [04/10/95]	25S00301 [04/10/95]	25S00401 [04/10/95]	25S00401D [04/10/95]	25S00501 [04/10/95]	25S00601 [04/10/95]	25S00701 [04/10/95]
sample	25S00101	25S00201	25S00301	25S00401	25S00401D	25S00501	25S00601	25S00701
sacode	NORMAL	NORMAL	NORMAL	DUP	DUP	NORMAL	NORMAL	NORMAL
top_depth		0	0	0	0	0	0	0
bottom_dep		0	0	0	0	0	0	0
status								
sample_dat	04/10/95	04/10/95	04/10/95	04/10/95	04/10/95	04/10/95	04/10/95	04/10/95
validated	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE
clo_proj	FRED	FRED	FRED	FRED	FRED	FRED	FRED	FRED
sort	c_004	c_005	c_006	c_007	c_008	c_009	c_010	c_011
IODOMETHANE	10 U	11 U	11 U	12 U	11 U	11 U	13 U	11 U
ISOBUTYL ALCOHOL	210 UJ	220 UJ	220 UJ	240 UJ	220 UJ	230 U	270 UJ	220 UJ
METHACRYLONITRILE	5 U	5 U	6 U	6 U	6 U	6 U	7 U	5 U
METHYL METHACRYLATE	10 U	11 U	11 U	12 U	11 U	11 U	13 U	11 U
METHYLENE CHLORIDE	10 U	10 U	13 U	18 U	14 U	16 U	13 U	10 U
PENTACHLOROETHANE	10 U	11 U	11 U	12 U	11 U	11 U	13 U	11 U
PROPIONITRILE	100 U	110 U	110 U	120 U	110 U	110 U	130 U	110 U
STYRENE	5 U	5 U	6 U	6 U	6 U	6 U	7 U	5 U
TETRACHLOROETHENE	5 U	5 U	6 U	6 U	6 U	6 U	7 U	5 U
TOLUENE	2 J	1 J	22	14	2 J	1 J	7 U	2 J
TRANS-1,3-DICHLOROPROPENE	5 U	5 U	6 U	6 U	6 U	6 U	7 U	5 U
TRANS-1,4-DICHLORO-2-BUTENE	5 U	5 U	6 U	8 U	6 U	6 U	7 U	5 U
TRICHLOROETHENE	5 U	5 U	6 U	6 U	6 U	6 U	7 U	5 U
TRICHLOROFLUOROMETHANE	5 U	5 U	6 U	6 U	6 U	6 U	7 U	5 U
VINYL ACETATE	10 U	11 U	11 U	12 U	11 U	11 U	13 U	11 U
VINYL CHLORIDE	10 U	11 U	11 U	12 U	11 U	11 U	13 U	11 U
XYLENES, TOTAL	2 J	5 J	81	43	4 J	2 J	1 J	5 J
<b>Semivolatile Organics (ug/kg)</b>								
1,2,4,5-TETRACHLOROBENZENE	1700 U	3600 U	3700 U	4000 U	3700 U	9400 U	4400 U	1800 U
1,2,4-TRICHLOROBENZENE	350 U	720 U	750 U	800 U	740 U	1900 U	890 U	360 U
1,2-DIPHENYLHYDRAZINE	350 U	720 U	750 U	800 U	740 U	1900 U	890 U	360 U
1,3,5-TRINITROBENZENE	350 U	720 U	750 U	800 U	740 U	1900 U	890 U	360 U
1,3-DINITROBENZENE	350 U	720 U	750 U	800 U	740 U	1900 U	890 U	360 U
1,4-NAPHTHOQUINONE	35000 U	72000 U	75000 U	80000 U	74000 U	190000 U	89000 U	36000 U
1-NAPHTHYLAMINE	1700 U	3600 U	3700 U	4000 U	3700 U	9400 U	4400 U	1800 U
2,3,4,6-TETRACHLOROPHENOL	350 U	720 U	750 U	800 U	740 U	1900 U	890 U	360 U
2,4,5-TRICHLOROPHENOL	1700 U	3600 U	3700 U	4000 U	3700 U	9400 U	4400 U	1800 U
2,4,6-TRICHLOROPHENOL	350 U	720 U	750 U	800 U	740 U	1900 U	890 U	360 U
2,4-DICHLOROPHENOL	350 U	720 U	750 U	800 U	740 U	1900 U	890 U	360 U
2,4-DIMETHYLPHENOL	350 U	720 U	750 U	800 U	740 U	1900 U	890 U	360 U
2,4-DINITROPHENOL	1700 U	3600 U	3700 U	4000 U	3700 U	9400 U	4400 U	1800 U
2,4-DINITROTOLUENE	350 U	720 U	750 U	800 U	740 U	1900 U	890 U	360 U
2,6-DICHLOROPHENOL	350 U	720 U	750 U	800 U	740 U	1900 U	890 U	360 U
2,6-DINITROTOLUENE	350 U	720 U	750 U	800 U	740 U	1900 U	890 U	360 U
2-ACETYLAMINOFLUORENE	350 U	720 U	750 U	800 U	740 U	1900 U	890 U	360 U
2-CHLORONAPHTHALENE	350 U	720 U	750 U	800 U	740 U	1900 U	890 U	360 U
2-CHLOROPHENOL	350 U	720 U	750 U	800 U	740 U	1900 U	890 U	360 U
2-METHYLNAPHTHALENE	350 U	720 U	750 U	800 U	740 U	1900 U	890 U	360 U
2-METHYLPHENOL	350 U	720 U	750 U	800 U	740 U	1900 U	890 U	360 U
2-NAPHTHYLAMINE	1700 U	3600 U	3700 U	4000 U	3700 U	9400 U	4400 U	1800 U
2-NITROANILINE	1700 U	3600 U	3700 U	4000 U	3700 U	9400 U	4400 U	1800 U
2-NITROPHENOL	350 U	720 U	750 U	800 U	740 U	1900 U	890 U	360 U
2-PICOLINE	1700 U	3600 U	3700 U	4000 U	3700 U	9400 U	4400 U	1800 U
3,8,4-METHYLPHENOL	350 U	720 U	750 U	800 U	740 U	1900 U	890 U	360 U

from swmu25ss\_sam.dbf  
 from swmu25ss\_res.dbf  
 from swmu25ss\_res.xls  
 from p.1

SWMU 25 - Surface Soil

order	004	005	006	007	008	009	010	011
location	MPT-25-SS01	MPT-25-SS02	MPT-25-SS03	MPT-25-SS04	MPT-25-SS04	MPT-25-SS05	MPT-25-SS06	MPT-25-SS07
matrix	SO	SO	SO	SO	SO	SO	SO	SO
nsample	25S00101 [04/10/95]	25S00201 [04/10/95]	25S00301 [04/10/95]	25S00401 [04/10/95]	25S00401D [04/10/95]	25S00501 [04/10/95]	25S00601 [04/10/95]	25S00701 [04/10/95]
sample	25S00101	25S00201	25S00301	25S00401	25S00401D	25S00501	25S00601	25S00701
sacode	NORMAL	NORMAL	NORMAL	DUP	DUP	NORMAL	NORMAL	NORMAL
top_depth		0	0	0	0	0	0	0
bottom_dep		0	0	0	0	0	0	0
status								
sample_dat	04/10/95	04/10/95	04/10/95	04/10/95	04/10/95	04/10/95	04/10/95	04/10/95
validated	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE
cto_proj	FRED	FRED	FRED	FRED	FRED	FRED	FRED	FRED
sort	c. 004	c. 005	c. 006	c. 007	c. 008	c. 009	c. 010	c. 011
3,3'-DICHLORO BENZIDINE	700 U	1400 U	1500 U	1600 U	1500 U	3800 U	1800 U	720 U
3,3'-DIMETHYL BENZIDINE	350 U	720 U	750 U	800 U	740 U	1900 U	890 U	360 U
3-METHYLCHOLANTHRENE	350 U	720 U	750 U	800 U	740 U	1900 U	890 U	360 U
3-NITROANILINE	1700 U	3600 U	3700 U	4000 U	3700 U	9400 U	4400 U	1800 U
4,6-DINITRO-2-METHYLPHENOL	1700 U	3600 U	3700 U	4000 U	3700 U	9400 U	4400 U	1800 U
4-AMINOBIPHENYL	1700 U	3600 U	3700 U	4000 U	3700 U	9400 U	4400 U	1800 U
4-BROMOPHENYL PHENYL ETHER	350 U	720 U	750 U	800 U	740 U	1900 U	890 U	360 U
4-CHLOROANILINE	350 U	720 U	750 U	800 U	740 U	1900 U	890 U	360 U
4-CHLOROPHENYL PHENYL ETHER	350 U	720 U	750 U	800 U	740 U	1900 U	890 U	360 U
4-NITROANILINE	1700 U	3600 U	3700 U	4000 U	3700 U	9400 U	4400 U	1800 U
4-NITROPHENOL	1700 U	3600 U	3700 U	4000 U	3700 U	9400 U	4400 U	1800 U
4-NITROQUINOLINE-1-OXIDE	17000 U	36000 U	37000 U	40000 U	37000 U	94000 U	44000 U	18000 U
5-NITRO-O-TOLUIDINE	350 U	720 U	750 U	800 U	740 U	1900 U	890 U	360 U
7,12-DIMETHYLBENZ(A)ANTHRACENE	350 U	720 U	750 U	800 U	740 U	1900 U	890 U	360 U
ACENAPHTHENE	350 U	720 U	750 U	800 U	740 U	1900 U	890 U	360 U
ACENAPHTHYLENE	350 U	720 U	750 U	800 U	740 U	1900 U	890 U	360 U
ACETOPHENONE	350 U	720 U	750 U	800 U	740 U	1900 U	890 U	360 U
ANILINE	350 U	720 U	750 U	800 U	740 U	1900 U	890 U	360 U
ANTHRACENE	350 U	720 U	750 U	800 U	740 U	1900 U	890 U	360 U
ARAMITE	1700 U	3600 U	3700 U	4000 U	3700 U	9400 U	4400 U	1800 U
BENZIDINE	1700 U	3600 U	3700 U	4000 U	3700 U	9400 U	4400 U	1800 U
BENZO(A)ANTHRACENE	350 U	720 U	750 U	800 U	740 U	1900 U	890 U	360 U
BENZO(A)PYRENE	350 U	720 U	750 U	800 U	740 U	1900 U	890 U	360 U
BENZO(B)FLUORANTHENE	350 U	720 U	750 U	800 U	740 U	1900 U	890 U	360 U
BENZO(G,H,I)PERYLENE	350 U	720 U	750 U	800 U	740 U	1900 U	890 U	360 U
BENZO(K)FLUORANTHENE	350 U	720 U	750 U	800 U	740 U	1900 U	890 U	360 U
BENZOIC ACID	1700 U	3600 U	3700 U	4000 U	3700 U	9400 U	4400 U	1800 U
BENZYL ALCOHOL	350 U	720 U	750 U	800 U	740 U	1900 U	890 U	360 U
BIS(2-CHLOROETHOXY)METHANE	350 U	720 U	750 U	800 U	740 U	1900 U	890 U	360 U
BIS(2-CHLOROETHYL)ETHER	350 U	720 U	750 U	800 U	740 U	1900 U	890 U	360 U
BIS(2-CHLOROISOPROPYL) ETHER	350 U	720 U	750 U	800 U	740 U	1900 U	890 U	360 U
BIS(2-ETHYLHEXYL)PHTHALATE	350 U	720 U	79 J	800 U	740 U	120 J	890 U	27 J
BUTYLBENZYL PHTHALATE	350 U	720 U	750 U	800 U	740 U	1900 U	890 U	360 U
CHLOROBENZILATE	42 U	43 U	45 U	48 U	44 U	45 U	53 U	2200 U
CHRYSENE	350 U	720 U	750 U	800 U	740 U	1900 U	890 U	360 U
DI-N-BUTYL PHTHALATE	66 J	130 J	750 U	800 U	740 U	1900 U	890 U	360 U
DI-N-OCTYL PHTHALATE	350 U	720 U	750 U	800 U	740 U	400 J	890 U	360 U
DIALATE	84 U	87 U	90 U	96 U	89 U	91 U	110 U	4300 U
DIBENZO(A,H)ANTHRACENE	350 U	720 U	750 U	800 U	740 U	1900 U	890 U	360 U
DIBENZOFURAN	350 U	720 U	750 U	800 U	740 U	1900 U	890 U	360 U
DIETHYL PHTHALATE	350 U	720 U	750 U	800 U	740 U	1900 U	890 U	360 U
DIMETHYL PHTHALATE	350 U	720 U	750 U	800 U	740 U	1900 U	890 U	360 U
ETHYL METHANESULFONATE	350 U	720 U	750 U	800 U	740 U	1900 U	890 U	360 U
FLUORANTHENE	350 U	720 U	750 U	800 U	740 U	1900 U	890 U	360 U

from swmu25ss\_sam.dbf  
 from swmu25ss\_res.dbf  
 from swmu25ss\_res.xls  
 from p.1

SWMU 25 - Surface Soil

order	004	005	006	007	008	009	010	011
location	MPT-25-SS01	MPT-25-SS02	MPT-25-SS03	MPT-25-SS04	MPT-25-SS04	MPT-25-SS05	MPT-25-SS06	MPT-25-SS07
matrix	SO	SO	SO	SO	SO	SO	SO	SO
nsample	25S00101 [04/10/95]	25S00201 [04/10/95]	25S00301 [04/10/95]	25S00401 [04/10/95]	25S00401D [04/10/95]	25S00501 [04/10/95]	25S00601 [04/10/95]	25S00701 [04/10/95]
sample	25S00101	25S00201	25S00301	25S00401	25S00401D	25S00501	25S00601	25S00701
sacode	NORMAL	NORMAL	NORMAL	DUP	DUP	NORMAL	NORMAL	NORMAL
top_depth		0	0	0	0	0	0	0
bottom_dep		0	0	0	0	0	0	0
status								
sample_dat	04/10/95	04/10/95	04/10/95	04/10/95	04/10/95	04/10/95	04/10/95	04/10/95
validated	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE
cto_proj	FRED	FRED	FRED	FRED	FRED	FRED	FRED	FRED
sort	c_004	c_005	c_006	c_007	c_008	c_009	c_010	c_011
FLUORENE	350 U	720 U	750 U	800 U	740 U	1900 U	890 U	360 U
HEXACHLOROBENZENE	350 U	720 U	750 U	800 U	740 U	1900 U	890 U	360 U
HEXACHLOROBUTADIENE	350 U	720 U	750 U	800 U	740 U	1900 U	890 U	360 U
HEXACHLOROCYCLOPENTADIENE	350 U	720 U	750 U	800 U	740 U	1900 U	890 U	360 U
HEXACHLOROETHANE	350 U	720 U	750 U	800 U	740 U	1900 U	890 U	360 U
HEXACHLOROPHENE	17000 U	36000 U	37000 U	40000 U	37000 U	94000 U	44000 U	18000 U
HEXACHLOROPROPENE	1700 U	3600 U	3700 U	4000 U	3700 U	9400 U	4400 U	1800 U
INDENO(1,2,3-CD)PYRENE	350 U	720 U	750 U	800 U	740 U	1900 U	890 U	360 U
ISODRIN	1.4 U	1.5 U	1.5 U	1.6 U	1.5 U	1.5 U	1.8 U	73 U
ISOPHORONE	350 U	720 U	750 U	800 U	740 U	1900 U	890 U	360 U
ISOSAFROLE	1700 U	3600 U	3700 U	4000 U	3700 U	9400 U	4400 U	1800 U
METHAPYRILENE	1700 U	3600 U	3700 U	4000 U	3700 U	9400 U	4400 U	1800 U
METHYL METHANESULFONATE	350 U	720 U	750 U	800 U	740 U	1900 U	890 U	360 U
N-NITROSO-DI-N-PROPYLAMINE	350 U	720 U	750 U	800 U	740 U	1900 U	890 U	360 U
N-NITROSODI-N-BUTYLAMINE	350 U	720 U	750 U	800 U	740 U	1900 U	890 U	360 U
N-NITROSODIETHYLAMINE	350 U	720 U	750 U	800 U	740 U	1900 U	890 U	360 U
N-NITROSODIMETHYLAMINE	350 U	720 U	750 U	800 U	740 U	1900 U	890 U	360 U
N-NITROSODIPHENYLAMINE	350 U	720 U	750 U	800 U	740 U	1900 U	890 U	360 U
N-NITROSOMETHYLETHYLAMINE	350 U	720 U	750 U	800 U	740 U	1900 U	890 U	360 U
N-NITROSOMORPHOLINE	350 U	720 U	750 U	800 U	740 U	1900 U	890 U	360 U
N-NITROSOPIPERIDINE	350 U	720 U	750 U	800 U	740 U	1900 U	890 U	360 U
N-NITROSOPYRROLIDINE	350 U	720 U	750 U	800 U	740 U	1900 U	890 U	360 U
NAPHTHALENE	350 U	720 U	750 U	800 U	740 U	1900 U	890 U	360 U
NITROBENZENE	350 U	720 U	750 U	800 U	740 U	1900 U	890 U	360 U
O-TOLUIDINE	350 U	720 U	750 U	800 U	740 U	1900 U	890 U	360 U
P-DIMETHYLAMINOAZOBENZENE	350 U	720 U	750 U	800 U	740 U	1900 U	890 U	360 U
P-PHENYLENEDIAMINE	17000 U	36000 U	37000 U	40000 U	37000 U	94000 U	44000 U	18000 U
PENTACHLOROBENZENE	1700 U	3600 U	3700 U	4000 U	3700 U	9400 U	4400 U	1800 U
PENTACHLORONITROBENZENE	1700 U	3600 U	3700 U	4000 U	3700 U	9400 U	4400 U	1800 U
PENTACHLOROPHENOL	1700 U	3600 U	3700 U	4000 U	3700 U	9400 U	4400 U	1800 U
PHENACETIN	350 U	720 U	750 U	800 U	740 U	1900 U	890 U	360 U
PHENANTHRENE	350 U	720 U	750 U	800 U	740 U	1900 U	890 U	360 U
PHENOL	350 U	720 U	750 U	800 U	740 U	1900 U	890 U	360 U
PHENYL-TERT-BUTYLAMINE	1700 U	3600 U	3700 U	4000 U	3700 U	9400 U	4400 U	1800 U
PRONAMIDE	350 U	720 U	750 U	800 U	740 U	1900 U	890 U	360 U
PYRENE	350 U	720 U	750 U	800 U	740 U	1900 U	890 U	360 U
PYRIDINE	1700 U	3600 U	3700 U	4000 U	3700 U	9400 U	4400 U	1800 U
SAFROLE	1700 U	3600 U	3700 U	4000 U	3700 U	9400 U	4400 U	1800 U
<b>Pesticides/PCBs (ug/kg)</b>								
4,4'-DDD	2.7 U	2.8 U	2.9 U	3.1 U	2.9 U	3 U	3.5 U	140 U
4,4'-DDE	1.4 U	1.5 U	1.5 U	1.6 U	1.5 U	1.5 U	1.8 U	73 U
4,4'-DDT	2.7 U	2.8 U	2.9 U	3.1 U	2.9 U	3 U	3.5 U	140 U
ALDRIN	1.4 U	1.5 U	1.5 U	0.81 J	1.6	2.7	1.8 U	73 U
ALPHA-BHC	1.4 U	1.5 U	1.5 U	1.6 U	1.5 U	1.5 U	1.8 U	73 U

from swmu25ss\_sam.dbf  
 from swmu25ss\_res.dbf  
 from swmu25ss\_res.xls  
 from p.1

SWMU 25 - Surface Soil

order	004	005	006	007	008	009	010	011
location	MPT-25-SS01	MPT-25-SS02	MPT-25-SS03	MPT-25-SS04	MPT-25-SS04	MPT-25-SS05	MPT-25-SS06	MPT-25-SS07
matrix	SO	SO	SO	SO	SO	SO	SO	SO
nsample	25S00101 [04/10/95]	25S00201 [04/10/95]	25S00301 [04/10/95]	25S00401 [04/10/95]	25S00401D [04/10/95]	25S00501 [04/10/95]	25S00601 [04/10/95]	25S00701 [04/10/95]
sample	25S00101	25S00201	25S00301	25S00401	25S00401D	25S00501	25S00601	25S00701
sacode	NORMAL	NORMAL	NORMAL	DUP	DUP	NORMAL	NORMAL	NORMAL
top_depth		0	0	0	0	0	0	0
bottom_dep		0	0	0	0	0	0	0
status								
sample_dat	04/10/95	04/10/95	04/10/95	04/10/95	04/10/95	04/10/95	04/10/95	04/10/95
validated	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE
cto_proj	FRED	FRED	FRED	FRED	FRED	FRED	FRED	FRED
sort	c_004	c_005	c_006	c_007	c_008	c_009	c_010	c_011
AROCLOR-1016	69 U	72 U	74 U	80 U	73 U	75 U	88 U	3600 U
AROCLOR-1221	140 U	150 U	150 U	160 U	150 U	150 U	180 U	7300 U
AROCLOR-1232	140 U	150 U	150 U	160 U	150 U	150 U	180 U	7300 U
AROCLOR-1242	69 U	72 U	74 U	80 U	73 U	75 U	88 U	3600 U
AROCLOR-1248	69 U	72 U	74 U	80 U	73 U	75 U	88 U	3600 U
AROCLOR-1254	36 U	37 U	38 U	41 U	38 U	39 U	45 U	1800 U
AROCLOR-1260	72 U	37 U	38 U	41 U	38 U	39 U	45 U	1800 U
BETA-BHC	2.7 U	2.8 U	2.9 U	3.1 U	2.9 U	3 U	3.5 U	140 U
CHLORDANE	24	14 U	15 U	18 U	15	15 U	24 J	730 U
DELTA-BHC	1.4 U	1.5 U	1.5 U	1.8 U	1.5 U	1.5 U	1.8 U	73 U
DIELDRIN	1.4 U	1.5 U	6.2	1.8 U	1.5 U	1.5 U	2.3 J	2200
ENDOSULFAN I	1.4 U	1.5 U	1.5 U	1.8 U	1.5 U	1.5 U	1.8 U	73 U
ENDOSULFAN II	2.7 U	2.8 U	2.9 U	3.1 U	2.9 U	3 U	3.5 U	140 U
ENDOSULFAN SULFATE	2.7 U	2.8 U	2.9 U	3.1 U	2.9 U	3 U	3.5 U	140 U
ENDRIN	2.7 U	2.8 U	2.9 U	3.1 U	2.9 U	3 U	3.5 U	140 U
ENDRIN ALDEHYDE	2.7 U	2.8 U	2.9 U	3.1 U	2.9 U	3 U	3.5 U	140 U
ENDRIN KETONE	2.7 U	2.8 U	2.9 U	3.1 U	2.9 U	3 U	3.5 U	140 U
GAMMA-BHC (LINDANE)	1.4 U	1.5 U	1.5 U	1.8 U	1.5 U	1.5 U	1.8 U	73 U
HEPTACHLOR	1.4 U	1.5 U	1.5 U	1.8 U	1.5 U	1.5 U	1.8 U	73 U
HEPTACHLOR EPOXIDE	1.4 U	1.5 U	1.5 U	1.8 U	1.5 U	1.5 U	1.8 U	73 U
KEPONE	84 UJ	43 UJ	45 UJ	48 UJ	44 UJ	45 UJ	110 UJ	220 UJ
METHOXYCHLOR	5.7 U	5.9 U	6.1 U	6.5 U	6 U	6.1 U	7.2 U	290 U
TOXAPHENE	69 U	72 U	74 U	80 U	73 U	75 U	88 U	3600 U
Inorganics (mg/kg)								
ALUMINUM	1120	2560	1450	924	2000	2220	1240	1740
ANTIMONY	0.95 J	0.46 R	0.46 R	0.53 R	0.53 R	0.47 R	0.77 J	0.45 R
ARSENIC	0.96 J	0.93 J	0.79 J	0.53 J	1.1 J	0.6 J	0.61 J	1.3 J
BARIUM	14.9 J	19.8 J	8.6 J	6.9 J	10.8 J	14.1 J	9.6 J	9 J
BERYLLIUM	0.18 J	0.3 J	0.13 J	0.08 J	0.16 J	0.26 J	0.09 J	0.1 J
CADMIUM	0.52 U	5.4 U	0.55 U	0.64 U	0.63 U	0.56 U	0.71 U	0.54 U
CALCIUM	37500	281000	128000	60300	56500	40000	156000	53900
CHROMIUM	9.9 J	16 J	5.5 J	3.9 J	3.9 J	11 J	4.7 J	4.1 J
COBALT	1.6 J	10.2 U	1.2 J	1.2 U	1.2 U	1.4 J	1.3 U	1 U
COPPER	23.9 J	10.4 J	7.6 J	8.1 J	10.8 J	34.4 J	10.1 J	7.2 J
CYANIDE	0.1 U	0.11 U	0.13 J	0.13 U	1.1 J	0.11 U	0.14 U	0.11 U
IRON	4630	2070	1010	753	1170	2060	827	1450
LEAD	39.2 J	17.5 J	6.6 J	9.6 J	9.4 J	9.8 J	6.6 J	5.5 J
MAGNESIUM	314 J	2050 J	1040 J	496 J	333 J	457 J	1340 J	470 J
MANGANESE	32.1	36.3	16.5	13.9	11.8	19.9	14.9	18
MERCURY	0.04 U	0.03 U	0.03 U	0.03 U	0.03 U	0.03 U	0.04 U	0.03 U
NICKEL	4 J	12.1 J	2.8 J	2.2 J	2.5 J	4.3 J	1.4 U	1.9 J
SELENIUM	0.23 U	0.24 U	0.24 U	0.28 U	0.27 U	0.27 J	0.31 U	0.23 U
SILVER	0.48 U	5 U	0.51 U	0.59 U	0.58 U	0.51 U	0.65 U	0.49 U
SODIUM	408 J	1040 J	210 J	556 J	1060 J	462 J	138 J	374 J

from swmu25ss\_sam.dbf  
 from swmu25ss\_res.dbf  
 from swmu25ss\_res.xls  
 from p:\

SWMU 25 - Surface Soil

order	004	005	006	007	008	009	010	011
location	MPT-25-SS01	MPT-25-SS02	MPT-25-SS03	MPT-25-SS04	MPT-25-SS04	MPT-25-SS05	MPT-25-SS06	MPT-25-SS07
matrix	SO	SO	SO	SO	SO	SO	SO	SO
rsample	25S00101 [04/10/95]	25S00201 [04/10/95]	25S00301 [04/10/95]	25S00401 [04/10/95]	25S00401D [04/10/95]	25S00501 [04/10/95]	25S00601 [04/10/95]	25S00701 [04/10/95]
sample	25S00101	25S00201	25S00301	25S00401	25S00401D	25S00501	25S00601	25S00701
sacode	NORMAL	NORMAL	NORMAL	DUP	DUP	NORMAL	NORMAL	NORMAL
top_depth		0	0	0	0	0	0	0
bottom_dep		0	0	0	0	0	0	0
status								
sample_dat	04/10/95	04/10/95	04/10/95	04/10/95	04/10/95	04/10/95	04/10/95	04/10/95
validated	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE
cto_prj	FRED	FRED	FRED	FRED	FRED	FRED	FRED	FRED
sort	c_004	c_005	c_006	c_007	c_008	c_009	c_010	c_011
THALLIUM	0.35 U	0.37 U	0.37 U	0.43 U	0.43 U	0.38 U	0.48 U	0.36 U
TIN	4.3 J	16.6 U	1.7 U	1.9 U	2.4 J	5.8 J	2.4 J	3 J
VANADIUM	4.3 J	16.6 J	5.9 J	3.1 J	4.1 J	8 J	4.8 J	3.8 J
ZINC	428 J	63.4 J	25.9 J	21.8 J	33.1 J	86.6 J	19 J	24.7 J

from swmu25ss\_sam.dbf  
 from swmu25ss\_res.dbf  
 from swmu25ss\_res.xls  
 from p1

SWMU 25 - Surface Soil

order	012	013	014	015	016	
location	MPT-25-SS08	MPT-25-SS09	UNDEFINED	UNDEFINED	UNDEFINED	
matrix	SO	SO	SO	SO	SO	
nrsample	25S00801 [04/10/95]	25S00901 [04/10/95]	25S01001 [06/27/96]	25S01001D [06/27/96]	25S01101 [06/27/96]	
sample	25S00801	25S00901	25S01001	25S01001D	25S01101	
sacode	NORMAL	NORMAL	DUP	DUP	NORMAL	
top_depth		0	0	0	0	0
bottom_dep		0	0	0	0	0
status						
sample_dat	04/10/95	04/10/95	06/27/96	06/27/96	06/27/96	
validated	FALSE	FALSE	FALSE	FALSE	FALSE	
cto_prj	FRED	FRED	FRED	FRED	FRED	
sort	c_012	c_013	c_014	c_015	c_016	count
<b>Volatile Organics (ug/kg)</b>						
1,1,1,2-TETRACHLOROETHANE	6 U	5 U				10
1,1,1-TRICHLOROETHANE	6 U	5 U				10
1,1,2,2-TETRACHLOROETHANE	6 U	5 U				10
1,1,2-TRICHLOROETHANE	6 U	5 U				10
1,1-DICHLOROETHANE	6 U	5 U				10
1,1-DICHLOROETHENE	6 U	5 U				10
1,2,3-TRICHLOROPROPANE	6 U	5 U				10
1,2-DIBROMO-3-CHLOROPROPANE	11 U	11 U				10
1,2-DICHLOROBENZENE	6 U	5 U				10
1,2-DICHLOROETHANE	6 U	5 U				10
1,2-DICHLOROETHENE (TOTAL)	6 U	5 U				10
1,2-DICHLOROPROPANE	6 U	5 U				10
1,3-DICHLOROBENZENE	6 U	5 U				10
1,4-DICHLOROBENZENE	6 U	5 U				10
1,4-DIOXANE	220 R	220 R				10
2-BUTANONE	4 J	11 U				10
2-CHLOROETHYL VINYL ETHER	11 U	11 U				10
2-HEXANONE	11 U	11 U				10
3-CHLOROPROPENE	6 U	5 U				10
4-CHLORO-3-METHYLPHENOL	740 U	1800 U				10
4-METHYL-2-PENTANONE	11 U	11 U				10
ACETONE	11 U	11 U				10
ACETONITRILE	110 U	110 U				10
ACROLEIN	110 U	110 U				10
ACRYLONITRILE	110 U	110 U				10
BENZENE	6 U	5 U				10
BROMODICHLOROMETHANE	6 U	5 U				10
BROMOFORM	6 U	5 U				10
BROMOMETHANE	11 U	11 U				10
CARBON DISULFIDE	3 J	4 J				10
CARBON TETRACHLORIDE	6 U	5 U				10
CHLOROBENZENE	6 U	5 U				10
CHLOROETHANE	11 U	11 U				10
CHLOROFORM	6 U	5 U				10
CHLOROMETHANE	11 U	11 U				10
CHLOROPRENE	220 U	220 U				10
CIS-1,3-DICHLOROPROPENE	6 U	5 U				10
DIBROMOCHLOROMETHANE	6 U	5 U				10
DIBROMOMETHANE	6 U	5 U				10
DICHLORODIFLUOROMETHANE	11 U	11 U				10
ETHYL METHACRYLATE	6 U	5 U				10
ETHYLBENZENE	6 U	5 U				10
ETHYLENE DIBROMIDE	6 U	5 U				10

from swmu25ss\_sam.dbf  
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SWMU 25 - Surface Soil

order	012	013	014	015	016	
location	MPT-25-SS08	MPT-25-SS09	UNDEFINED	UNDEFINED	UNDEFINED	
matrix	SO	SO	SO	SO	SO	
nsample	25S00801 [04/10/95]	25S00901 [04/10/95]	25S01001 [06/27/96]	25S01001D [06/27/96]	25S01101 [06/27/96]	
sample	25S00801	25S00901	25S01001	25S01001D	25S01101	
tsocde	NORMAL	NORMAL	DUP	DUP	NORMAL	
top_depth		0	0	0	0	0
bottom_dep		0	0	0	0	0
status						
sample_dat	04/10/95	04/10/95	06/27/96	06/27/96	06/27/96	
validated	FALSE	FALSE	FALSE	FALSE	FALSE	
cto_proj	FRED	FRED	FRED	FRED	FRED	
sort	c_012	c_013	c_014	c_015	c_016	count
IODOMETHANE	11 U	11 U				10
ISOBUTYL ALCOHOL	220 UJ	220 UJ				10
METHACRYLONITRILE	6 U	5 U				10
METHYL METHACRYLATE	11 U	11 U				10
METHYLENE CHLORIDE	15 U	12 U				10
PENTACHLOROETHANE	11 U	11 U				10
PROPIONITRILE	110 U	110 U				10
STYRENE	6 U	5 U				10
TETRACHLOROETHENE	6 U	5 U				10
TOLUENE	8	4 J				10
TRANS-1,3-DICHLOROPROPENE	6 U	5 U				10
TRANS-1,4-DICHLORO-2-BUTENE	6 U	5 U				10
TRICHLOROETHENE	6 U	5 U				10
TRICHLOROFLUOROMETHANE	6 U	5 U				10
VINYL ACETATE	11 U	11 U				10
VINYL CHLORIDE	11 U	11 U				10
XYLENES, TOTAL	18	4 J				10
<b>Semivolatile Organics (ug/kg)</b>						
1,2,4,5-TETRACHLOROBENZENE	3700 U	8900 U				10
1,2,4-TRICHLOROBENZENE	740 U	1800 U				10
1,2-DIPHENYLHYDRAZINE	740 U	1800 U				10
1,3,5-TRINITROBENZENE	740 U	1800 U				10
1,3-DINITROBENZENE	740 U	1800 U				10
1,4-NAPHTHOQUINONE	74000 U	180000 U				10
1-NAPHTHYLAMINE	3700 U	8900 U				10
2,3,4,6-TETRACHLOROPHENOL	740 U	1800 U				10
2,4,5-TRICHLOROPHENOL	3700 U	8900 U				10
2,4,6-TRICHLOROPHENOL	740 U	1800 U				10
2,4-DICHLOROPHENOL	740 U	1800 U				10
2,4-DIMETHYLPHENOL	740 U	1800 U				10
2,4-DINITROPHENOL	3700 U	8900 U				10
2,4-DINITROTOLUENE	740 U	1800 U				10
2,6-DICHLOROPHENOL	740 U	1800 U				10
2,6-DINITROTOLUENE	740 U	1800 U				10
2-ACETYLAMINOFLUORENE	740 U	1800 U				10
2-CHLORONAPHTHALENE	740 U	1800 U				10
2-CHLOROPHENOL	740 U	1800 U				10
2-METHYLNAPHTHALENE	740 U	1800 U				10
2-METHYLPHENOL	740 U	1800 U				10
2-NAPHTHYLAMINE	3700 U	8900 U				10
2-NITROANILINE	3700 U	8900 U				10
2-NITROPHENOL	740 U	1800 U				10
2-PICOLINE	3700 U	8900 U				10
3&4-METHYLPHENOL	740 U	1800 U				10

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 from swmu25sa\_res.xls  
 from p.1

SWMU 25 - Surface Soil

order	012	013	014	015	016	
location	MPT-25-SS08	MPT-25-SS09	UNDEFINED	UNDEFINED	UNDEFINED	
matrix	SO	SO	SO	SO	SO	
nsample	25S00801 [04/10/95]	25S00901 [04/10/95]	25S01001 [06/27/96]	25S01001D [06/27/96]	25S01101 [06/27/96]	
sample	25S00801	25S00901	25S01001	25S01001D	25S01101	
rcode	NORMAL	NORMAL	DUP	DUP	NORMAL	
top_depth		0	0	0	0	0
bottom_dep		0	0	0	0	0
status						
sample_dat	04/10/95	04/10/95	06/27/96	06/27/96	06/27/96	
validated	FALSE	FALSE	FALSE	FALSE	FALSE	
cto_proj	FRED	FRED	FRED	FRED	FRED	
sort	c_012	c_013	c_014	c_015	c_016	count
3,3-DICHLOROBENZIDINE	1500 U	3600 U				10
3,3-DIMETHYLBENZIDINE	740 U	1800 U				10
3-METHYLCHOLANTHRENE	740 U	1800 U				10
3-NITROANILINE	3700 U	8900 U				10
4,6-DINITRO-2-METHYLPHENOL	3700 U	8900 U				10
4-AMINOBIPHENYL	3700 U	8900 U				10
4-BROMOPHENYL PHENYL ETHER	740 U	1800 U				10
4-CHLOROANILINE	740 U	1800 U				10
4-CHLOROPHENYL PHENYL ETHER	740 U	1800 U				10
4-NITROANILINE	3700 U	8900 U				10
4-NITROPHENOL	3700 U	8900 U				10
4-NITROQUINOLINE-1-OXIDE	37000 U	89000 U				10
5-NITRO-O-TOLUIDINE	740 U	1800 U				10
7,12-DIMETHYLBENZ(A)ANTHRACENE	740 U	1800 U				10
ACENAPHTHENE	740 U	1800 U				10
ACENAPHTHYLENE	740 U	1800 U				10
ACETOPHENONE	740 U	1800 U				10
ANILINE	740 U	1800 U				10
ANTHRACENE	740 U	1800 U				10
ARAMITE	3700 U	8900 U				10
BENZIDINE	3700 U	8900 U				10
BENZO(A)ANTHRACENE	740 U	1800 U				10
BENZO(A)PYRENE	740 U	1800 U				10
BENZO(B)FLUORANTHENE	740 U	1800 U				10
BENZO(G,H,I)PERYLENE	740 U	1800 U				10
BENZO(K)FLUORANTHENE	740 U	1800 U				10
BENZOIC ACID	3700 U	8900 U				10
BENZYL ALCOHOL	740 U	1800 U				10
BIS(2-CHLOROETHOXY)METHANE	740 U	1800 U				10
BIS(2-CHLOROETHYL)ETHER	740 U	1800 U				10
BIS(2-CHLOROISOPROPYL) ETHER	740 U	1800 U				10
BIS(2-ETHYLHEXYL)PHTHALATE	63 J	1800 U				10
BUTYLBENZYL PHTHALATE	740 U	1800 U				10
CHLOROBENZILATE	44 U	43 U	4300 U	4500 U	180 U	16
CHRYSENE	740 U	1800 U				10
DI-N-BUTYL PHTHALATE	740 U	1800 U				10
DI-N-OCTYL PHTHALATE	740 U	1800 U				10
DIALATE	89 U	86 U	8700 U	9000 U	360 U	16
DIBENZO(A,H)ANTHRACENE	740 U	1800 U				10
DIBENZOFURAN	740 U	1800 U				10
DIETHYL PHTHALATE	740 U	1800 U				10
DIMETHYL PHTHALATE	740 U	1800 U				10
ETHYL METHANESULFONATE	740 U	1800 U				10
FLUORANTHENE	740 U	1800 U				10

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SWMU 25 - Surface Soil

order	012	013	014	015	016	
location	MPT-25-SS08	MPT-25-SS09	UNDEFINED	UNDEFINED	UNDEFINED	
matrix	SO	SO	SO	SO	SO	
nsample	25S00801 [04/10/95]	25S00901 [04/10/95]	25S01001 [06/27/96]	25S01001D [06/27/96]	25S01101 [06/27/96]	
sample	25S00801	25S00901	25S01001	25S01001D	25S01101	
sacode	NORMAL	NORMAL	DUP	DUP	NORMAL	
top_dept		0	0	0	0	0
bottom_dept		0	0	0	0	0
status						
sample_dat	04/10/95	04/10/95	06/27/96	06/27/96	06/27/96	
validated	FALSE	FALSE	FALSE	FALSE	FALSE	
cto_proj	FRED	FRED	FRED	FRED	FRED	
sort	c_012	c_013	c_014	c_015	c_016	count
FLUORENE	740 U	1800 U				10
HEXACHLOROBENZENE	740 U	1800 U				10
HEXACHLOROBUTADIENE	740 U	1800 U				10
HEXACHLOROCYCLOPENTADIENE	740 U	1800 U				10
HEXACHLOROETHANE	740 U	1800 U				10
HEXACHLOROPHENE	37000 U	89000 U				10
HEXACHLOROPROPENE	3700 U	8900 U				10
INDENO(1,2,3-CD)PYRENE	740 U	1800 U				10
ISODRIN	1.5 U	1.4 U	140 U	150 U	6 U	16
ISOPHORONE	740 U	1800 U				10
ISOSAFROLE	3700 U	8900 U				10
METHAPYRILENE	3700 U	8900 U				10
METHYL METHANE SULFONATE	740 U	1800 U				10
N-NITROSO-DI-N-PROPYLAMINE	740 U	1800 U				10
N-NITROSODI-N-BUTYLAMINE	740 U	1800 U				10
N-NITROSODIETHYLAMINE	740 U	1800 U				10
N-NITROSODIMETHYLAMINE	740 U	1800 U				10
N-NITROSODIPHENYLAMINE	740 U	1800 U				10
N-NITROSOMETHYLETHYLAMINE	740 U	1800 U				10
N-NITROSOMORPHOLINE	740 U	1800 U				10
N-NITROSOPIPERIDINE	740 U	1800 U				10
N-NITROSOPIRROLIDINE	740 U	1800 U				10
NAPHTHALENE	740 U	1800 U				10
NITROBENZENE	740 U	1800 U				10
O-TOLUIDINE	740 U	1800 U				10
P-DIMETHYLAMINOAZOBENZENE	740 U	1800 U				10
P-PHENYLENEDIAMINE	37000 U	89000 U				10
PENTACHLOROBENZENE	3700 U	8900 U				10
PENTACHLORONITROBENZENE	3700 U	8900 U				10
PENTACHLOROPHENOL	3700 U	8900 U				10
PHENACETIN	740 U	1800 U				10
PHENANTHRENE	740 U	1800 U				10
PHENOL	740 U	1800 U				10
PHENYL-TERT-BUTYLAMINE	3700 U	8900 U				10
PRONAMIDE	740 U	1800 U				10
PYRENE	740 U	1800 U				10
PYRIDINE	3700 U	8900 U				10
SAFROLE	3700 U	8900 U				10
<b>Pesticides/PCBs (ug/kg)</b>						
4,4'-DDD	2.9 U	2.8 U	280 U	290 U	12 U	16
4,4'-DDE	2.5	1.4 U	140 U	150 U	6 U	16
4,4'-DDT	2.9 U	2.8 U	280 U	290 U	12 U	16
ALDRIN	1.5 U	1.4 U	200	520	6 U	16
ALPHA-BHC	1.5 U	1.4 U	140 U	150 U	6 U	16

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SWMU 25 - Surface Soil

order	012	013	014	015	016	
location	MPT-25-SS08	MPT-25-SS09	UNDEFINED	UNDEFINED	UNDEFINED	
matrix	SO	SO	SO	SO	SO	
nsample	25S00801 [04/10/95]	25S00901 [04/10/95]	25S01001 [06/27/96]	25S01001D [06/27/96]	25S01101 [06/27/96]	
sample	25S00801	25S00901	25S01001	25S01001D	25S01101	
sacode	NORMAL	NORMAL	DUP	DUP	NORMAL	
top_depth		0	0	0	0	0
bottom_dep		0	0	0	0	0
status						
sample_dat	04/10/95	04/10/95	06/27/96	06/27/96	06/27/96	
validated	FALSE	FALSE	FALSE	FALSE	FALSE	
cto_proj	FRED	FRED	FRED	FRED	FRED	
sort	c_012	c_013	c_014	c_015	c_016	count
AROCLOR-1016	73 U	71 U				10
AROCLOR-1221	150 U	140 U				10
AROCLOR-1232	150 U	140 U				10
AROCLOR-1242	73 U	71 U				10
AROCLOR-1248	73 U	71 U				10
AROCLOR-1254	38 U	37 U				10
AROCLOR-1260	38 U	37 U				10
BETA-BHC	2.9 U	2.8 U	280 U	290 U	12 U	16
CHLORDANE	15 U	38	1400 U	1500 U	60 U	16
DELTA-BHC	1.5 U	1.4 U	140 U	150 U	6 U	16
DIELDRIN	4.5 J	1.4 U	2500	3100	86	16
ENDOSULFAN I	1.5 U	1.4 U	140 U	150 U	6 U	16
ENDOSULFAN II	2.9 U	2.8 U	280 U	290 U	12 U	16
ENDOSULFAN SULFATE	2.9 U	2.8 U	280 U	290 U	12 U	16
ENDRIN	2.9 U	2.8 U	280 U	290 U	12 U	16
ENDRIN ALDEHYDE	2.9 U	2.8 U	280 U	290 U	12 U	16
ENDRIN KETONE	2.9 U	2.8 U	280 U	290 U	12 U	16
GAMMA-BHC (LINDANE)	1.5 U	1.4 U	140 U	150 U	6 U	16
HEPTACHLOR	1.5 U	1.4 U	140 U	150 U	6 U	16
HEPTACHLOR EPOXIDE	1.5 U	1.6	140 U	150 U	6 U	16
KEPONE	44 UJ	43 UJ				10
METHOXYCHLOR	6 U	5.8 U	590 U	610 U	24 U	16
TOXAPHENE	73 U	71 U	7200 U	7400 U	290 U	16
<b>Inorganics (mg/kg)</b>						
ALUMINUM	2170	1760				10
ANTIMONY	0.46 J	0.45 R				10
ARSENIC	0.75 J	0.92 J				10
BARIUM	15.9 J	10.5 J				10
BERYLLIUM	0.29 U	0.1 J				10
CADMIUM	5.5 U	0.54 U				10
CALCIUM	183000	150000				10
CHROMIUM	14.2 J	6.6 J				10
COBALT	10.4 U	1 U				10
COPPER	16.9 J	4.1 J				10
CYANIDE	0.11 U	0.11 U				10
IRON	1610	985				10
LEAD	9.5 J	5.9 J				10
MAGNESIUM	1120 J	1370				10
MANGANESE	30.9 J	23.8				10
MERCURY	0.04 U	0.03 U				10
NICKEL	11.2 U	2.6 J				10
SELENIUM	0.24 U	0.23 U				10
SILVER	5.8 J	0.49 U				10
SODIUM	1350 J	599 J				10

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SWMU 25 - Surface Soil

order	012	013	014	015	016	
location	MPT-25-SS08	MPT-25-SS09	UNDEFINED	UNDEFINED	UNDEFINED	
matrix	SO	SO	SO	SO	SO	
nsample	25S00801 [04/10/95]	25S00901 [04/10/95]	25S01001 [06/27/96]	25S01001D [06/27/96]	25S01101 [06/27/96]	
sample	25S00801	25S00901	25S01001	25S01001D	25S01101	
secode	NORMAL	NORMAL	DUP	DUP	NORMAL	
top_depth		0	0	0	0	0
bottom_dep		0	0	0	0	0
status						
sample_dat	04/10/95	04/10/95	06/27/96	06/27/96	06/27/96	
validated	FALSE	FALSE	FALSE	FALSE	FALSE	
cto_proj	FRED	FRED	FRED	FRED	FRED	
sort	c_012	c_013	c_014	c_015	c_016	count
THALLIUM	0.37 U	0.36 U				10
TIN	16.8 U	1.7 J				10
VANADIUM	13.9 J	10.4 J				10
ZINC	31 J	35.3 J				10

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# **Attachments**

## Photographs of NSA Mayport SWMU 25



Figure 1.1. Photograph of NSA Mayport SWMU 25 asphalt cap facing east.



Figure 1.2. Photograph of NSA Mayport SWMU 25 asphalt cap facing north.



Figure 1.3. Photograph of NSA Mayport SWMU 25 asphalt cap facing west.



Figure 1.4. Photograph of NSA Mayport SWMU 25 asphalt cap facing west.



Figure 1.5. Photograph of NSA Mayport SWMU 25 asphalt cap facing east.



Figure 1.6. Photograph of NSA Mayport SWMU 25 asphalt cap placement facing north.



Figure 1.7. Photograph of NSA Mayport SWMU 25 asphalt cap placement facing north west.



Figure 1.8. Photograph of NSA Mayport SWMU 25 disposal load out facing south.



Figure 1.9. Photograph of NSA Mayport SWMU 25 post-excitation facing east.



Figure 1.10. Photograph of NSA Mayport SWMU 25 post-excitation facing west.



Figure 1.11. Photograph of NSA Mayport SWMU 25 pre-excitation facing north.



Figure 1.12. Photograph of NSA Mayport SWMU 25 pre-excitation facing north east.



Figure 1.13. Photograph of NSA Mayport SWMU 25 tack coat facing south.