N60201.AR.000654
NS MAYPORT
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LETTER REPORT REGARDING SOIL SAMPLING AT SOLID WASTE MANAGEMENT UNIT 16 NS MAYPORT FL

5/2/2003

TETRA TECH NUS

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May 2, 2003

Project Number N4231

Commander, Southern Division
Naval Facilities Engineering Command
ATTN: Ms. Adrienne Wilson (Code ES31)
2155 Eagle Drive
North Charleston, South Carolina 29406

Reference: CLEAN Contract Number N62467-94-D-0888
Contract Task Order Number 0245

Subject: Soil Sampling Letter Report – Solid Waste Management Unit (SWMU) 16
Naval Station (NS) Mayport
Mayport, Florida

Dear Ms. Wilson:

Tetra Tech NUS, Inc. (TtNUS) is pleased to present the Soil Sampling Letter Report for the referenced Contract Task Order (CTO). This report was prepared for the United States Navy (Navy) Southern Division, Naval Facilities Engineering Command under CTO 0245 for the Comprehensive Long-term Environmental Action Navy (CLEAN) Contract Number N62467-94-D-0888. This report has been prepared to provide a brief summary of past sampling activities and document the results of the soil sample collection and analysis performed at SWMU 16, the former Old Transformer Storage Yard, in May 2002.

Background Information

SWMU 16 is located in the northern part of NS Mayport, approximately 75 feet (ft) east of the Fleet Industrial Supply Center (FISC) Fuel Farm and 280 ft south of the St. Johns River. The location of SWMU 16, within the boundaries of NS Mayport, is presented on Figure 1. The site was part of an abandoned asphalt runway that was used for transformer storage from 1981 to 1987. SWMU 16 and surrounding site features are presented on Figure 2, the Site Location Map.

According to the Resource Conservation and Recovery Act Remedial Feasibility Investigation (RFI) conducted at SWMU 16, it is not known if any transformers containing polychlorinated biphenyls (PCBs) were stored at the storage yard. However, minor spills and leaks of transformer oils were reported to have occurred while transformers were stored at the site [ABB Environmental Services (ABB-ES), 1996]. The asphalt at the site was reportedly cracked or broken-up, and potential contamination could have reached the underlying soil.

The area was covered with pulverized clayey limestone in 1987 for use as a long-term parking lot and was no longer used for transformer storage. In 1995, the surface soil and pavement at SWMU 16 were removed to prepare the area prior to paving for use as a parking lot. In 2001, an extension and rerouting of Patrol Road was completed and the new Patrol Road runs parallel to SWMU 16.

Previous Investigations

The Old Transformer Storage Yard was identified during the Initial Assessment Study (IAS) and designated as Navy Installation Restoration Program IAS Site 16 after a 1985 site visit (ABB-ES, 1996). The Old Transformer Storage Yard was identified as a SWMU requiring an RFI in the NS Mayport Hazardous and Solid Waste Amendments of 1984 permit (A. T. Kearny, 1989).

ABB-ES conducted RFI field activities during two events in 1993 and 1994 at SWMU 16. In 1993, three groundwater monitoring wells were installed, and 37 surface soil samples, 6 subsurface soil samples, and 3 groundwater samples were collected and analyzed. In 1994, an additional groundwater monitoring well was installed, and groundwater samples were collected from the existing and newly installed monitoring wells for analysis. Sample locations during the RFI for SWMU 16 are depicted on the Historical Document labeled Figure 7-2 and presented in Attachment A.

Results of the surface soil assessment did not indicate the presence of PCBs when soils were tested with field test kits. However, the PCB arochlor-1260 was detected in all the confirmation surface soil samples at concentrations below 200 micrograms per kilogram (µg/kg). The PCB arochlor-1248 was detected in one surface soil sample at a concentration of 69 µg/kg. The concentration of PCBs detected in surface soil during the RFI investigation was less than the Florida Department of Environmental Protection industrial (FDEP) soil cleanup target level (SCTL) of 2,100 µg/kg. However, concentrations of arochlor-1260 in three surface soil samples from locations MPT-16-SSD04, MPT-16-SSB07, and MPT-16-SSA04 exceeded the United States Environmental Protection Agency (USEPA) Region III Risk-based Concentration (RBC) of 72 µg/kg (ABB-ES, 1996).

Results of the subsurface soil assessment performed during monitoring well installation indicated the presence of volatile organic compounds, semivolatile organic compounds, pesticides, and PCBs. None of the compounds were detected at concentrations greater than their respective benchmark standards (ABB-ES, 1996). Petroleum related compounds in the subsurface soil were detected just above the water table. The petroleum related compounds were believed to have migrated laterally onto the site from the adjacent FISC Fuel Farm and were not related to a release from SWMU 16. The detected pesticide, chlordane, was attributed to historical pesticide application. The PCB arochlor-1260 was detected at 17 µg/kg in the subsurface soil sample collected from the 3 to 4 ft interval from the soil boring for monitoring well MPT-16-MW03S. Two inorganic analytes, beryllium and arsenic, were detected at concentrations exceeding benchmark standards; however, the two constituents were detected in an area outside the transformer storage area, and the analytes are suspected to have been from dredge material.

As explained in the RFI groundwater assessment, no chemical constituents were detected in exceedance of both background screening concentrations and FDEP groundwater cleanup target levels (ABB-ES, 1996).

In 1995, the surface soil and pavement (approximately 18 inches beneath the land surface) at SWMU 16 were removed to prepare the area prior to paving for use as a parking lot. The excavated materials were temporarily stockpiled approximately 250 ft southwest of SWMU 16. On July 19, 1995, Navy personnel collected four composite samples of the materials excavated from SWMU 16 and analyzed the samples with a field immunoassay test kit. The composite samples results suggested that PCB concentrations were less than the human health-based residential and industrial FDEP SCTLs (ABB-ES, 1996).

Based on the results of the field investigation and excavation work conducted at SWMU 16, it was recommended in the RFI that no further investigation was necessary for SWMU 16.

TtNUS Field Activities

On May 15, 2002, TtNUS mobilized to SWMU 16 to collect additional (confirmation) soil samples. The soil samples were collected to confirm the results of the RFI Field Investigation for SWMU 16. Three soil samples were collected at the approximate locations where PCBs were detected in excess of the USEPA Region III RBCs during the RFI. The three soil borings were advanced with a stainless steel hand auger and were identified as MPT-16-SSE7, MPT-16-SSF2, and MPT-16-SSG7.

Soil sample MPT-16-SSE7 was collected at the RFI location of MPT-16-SSB07, soil sample MPT-16-SSF2 was collected at the RFI location of MPT-16-SSA04, and soil sample MPT-16-SSG7 was collected at the RFI location of MPT-16-SSD04. The soil boring locations are depicted on Figure 3. The three sampling locations were selected from the original PCB soil sampling grid used by ABB-ES and depicted on the Historical Document labeled Figure 7-2 and presented in Attachment A.

During the field activities, soil samples were collected from the native soil at 1-, 2-, and 3-ft intervals below the existing pavement and fill at each boring location. The soil samples were shipped to Severn Trent Laboratories in Pittsburgh, Pennsylvania and were analyzed for PCBs by USEPA Method 8082.

The laboratory was requested to hold the 2-ft and 3-ft samples until the results from the 1-ft samples could be reviewed. If results for the 1-ft interval indicated the presence of PCBs, the laboratory would be requested to analyze the 2-ft and 3-ft interval samples.

Results of the soil analysis for PCBs are presented on Table 1. Based on the results of the 1-ft sample intervals, the 2- and 3-ft sample intervals were not analyzed. Field Data Forms are included as Attachment B.

Discussion of Soil Analytical Results

The three soil samples were analyzed for arochlor-1016, arochlor-1221, arochlor-1232, arochlor-1242, arochlor-1248, arochlor-1254, and arochlor-1260. The analytical results indicated that PCBs were not present in the 1-ft interval soil samples from soil borings MPT-16-SSE7, MPT-16-SSF2, and MPT-16-SSG7. Analytical Results are included as Attachment C.

Conclusions and Recommendations

The RFI field investigations performed in 1993 and 1994 detected PCBs in the surface soils at concentrations below the FDEP SCTLs at the time, but at concentrations greater than the USEPA Region III RBCs. In April 1995, the surface soil at SWMU 16 was excavated and removed from the site during the building of a new parking lot on the site.

Based on the results of the soil sampling and analysis activities conducted in May 2002, PCBs are not present in surface soil at SWMU 16. As a result, TtNUS recommends the preparation of a "No Further Action Statement of Basis" for SWMU 16.

If you have any questions with regard to this submittal, please contact me at (850) 385-9860 or via e-mail at hansent@ttnus.com.

Sincerely,

Terry Hansen P.G.
Task Order Manager
02May03

Alan Pate
Deputy Task Order Manager

Attachments (7)

pc: Mr. J. Cason P.G., FDEP (2 copies)
Ms. C. Mitchell, NS Mayport
Ms. D. Lancaster, NS Mayport
Mr. C. Benedikt, USEPA
Mr. M. Halil, P.E., J. A. Jones
Mr. M. Albert, P.E., TtNUS
Mr. M. Perry, TtNUS (unbound copy)
Ms. D. Wroblewski, TtNUS (cover letter only)
Project File

TABLE

TABLE 1
Summary of Organic Compounds Detected in Soil Samples at SWMU 16

Soil Sampling Letter Report - SWMU 16
Naval Station Mayport
Mayport, Florida

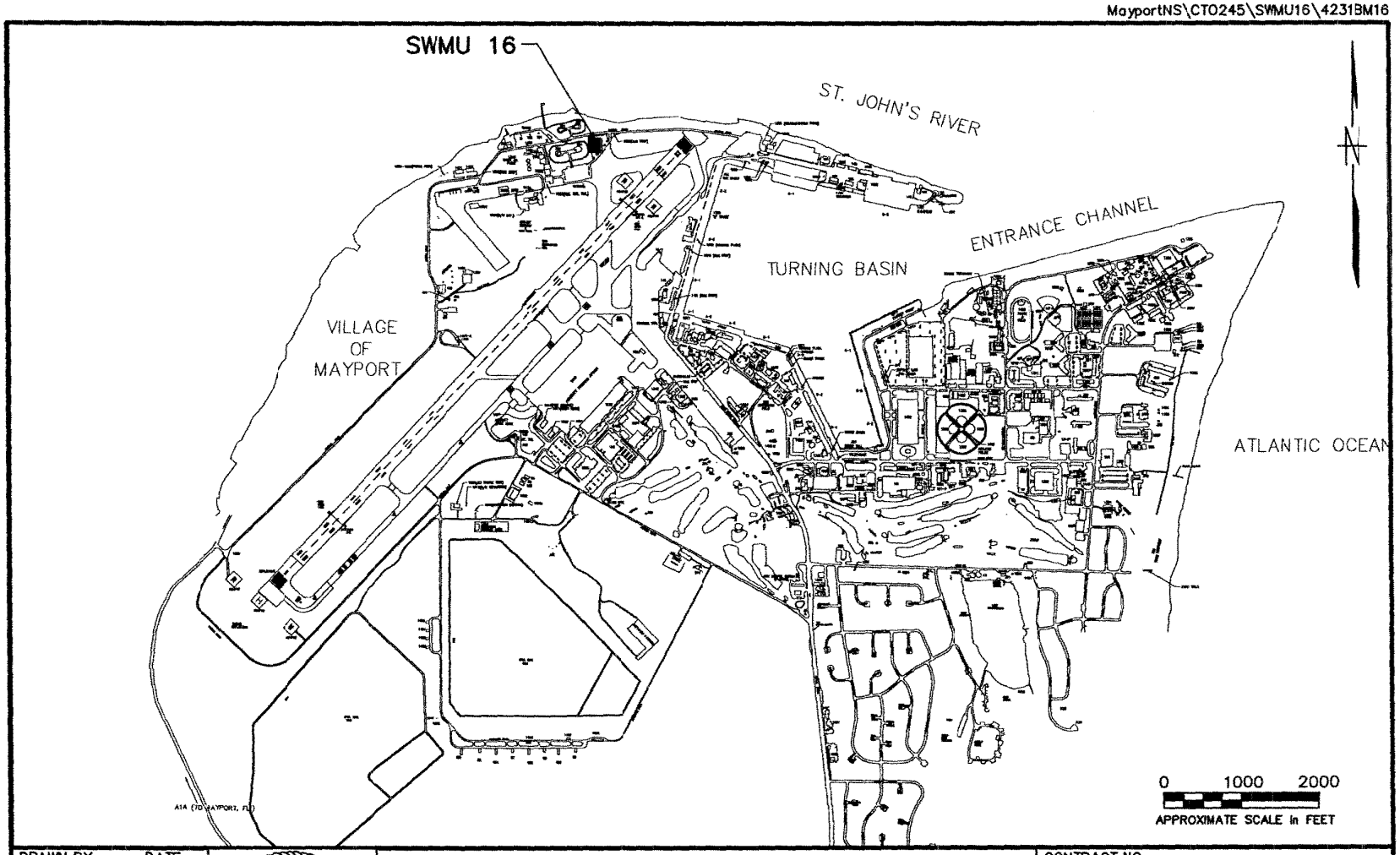
Parameter	DE1	DE2	LEG	Sample Number MPT-16-		
				SSE7	SSF2-01	SSG7-1.5
				Date Sampled		
				5/15/2002	5/15/2002	5/15/2002
USEPA Method 8082	**µg/kg**	**µg/kg**	**µg/kg**			
Aroclor-1016	500	2100	17000	40 U	41 U	42 U
Aroclor-1221	500	2100	17000	40 U	41 U	42 U
Aroclor-1232	500	2100	17000	40 U	41 U	42 U
Aroclor-1242	500	2100	17000	40 U	41 U	42 U
Aroclor-1248	500	2100	17000	40 U	41 U	42 U
Aroclor-1254	500	2100	17000	40 U	41 U	42 U
Aroclor-1260	500	2100	17000	40 U	41 U	42 U

Notes:

DE1 = Direct Wxposure limit for residential area from Chapter 62-777, FAC
DE2 = Direct Exposure limit for industrial area from Chapter 62-777, FAC
LEG = Leachability for groundwater limit from Chapter 62-777, FAC
FAC = Florida Administrative Code
U = Compound not detected

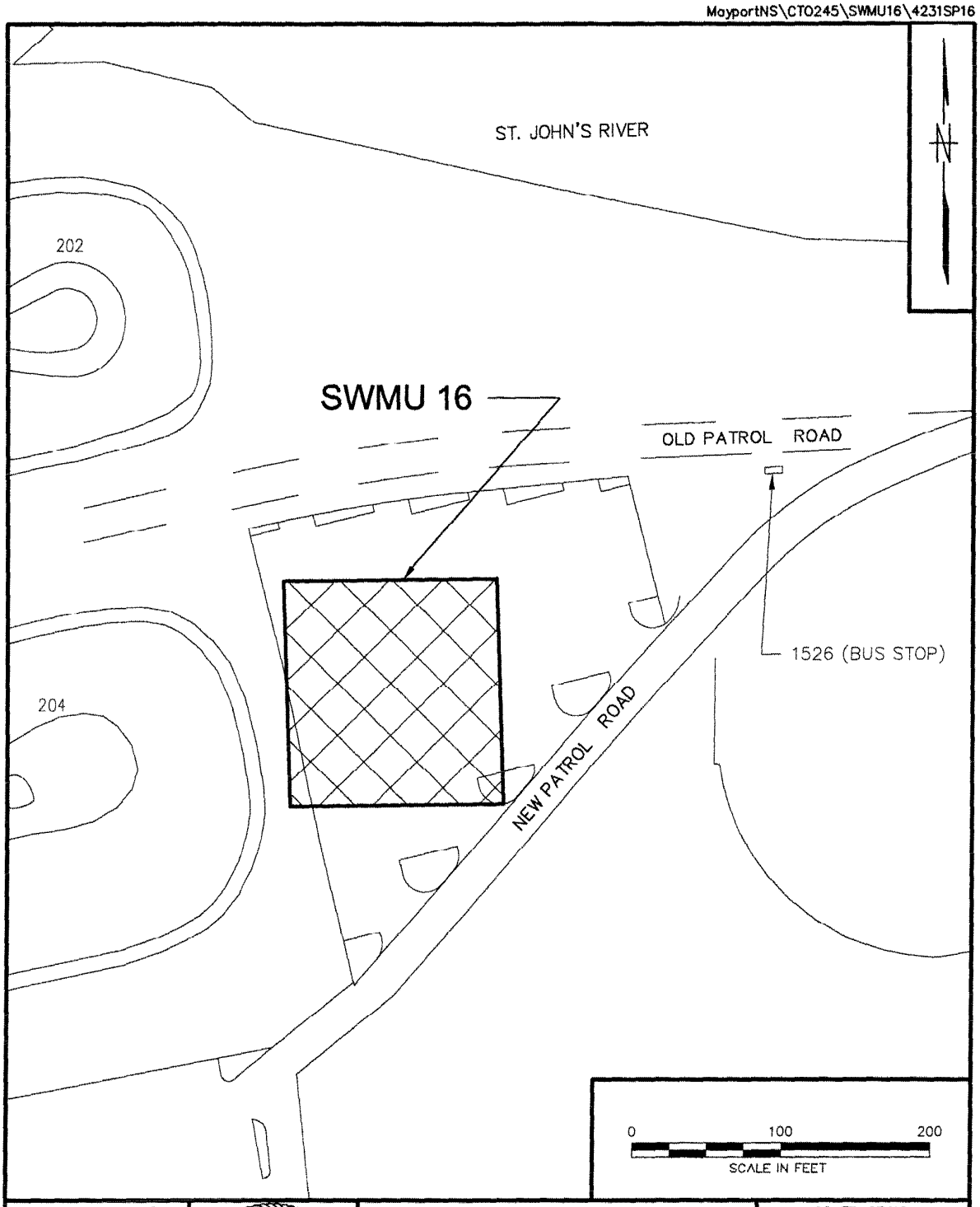
FIGURES

MayportNS\CTO245\SWMU16\4231BM16



DRAWN BY MCF DATE 10/4/2002	DEPARTMENT OF THE NAVY SOUTHERN DIV FACILITIES ENGINEERING COMD	SITE VICINITY MAP SWMU 16 MAYPORT NAVAL STATION MAYPORT, FLORIDA	CONTRACT NO. 0000
CHECKED BY DATE			APPROVED BY DATE
COST/SCHED–AREA			APPROVED BY DATE
SCALE AS NOTED			DRAWING NO. FIGURE 1 REV. 0

MayportNS\CTO245\SWMU16\4231SP16

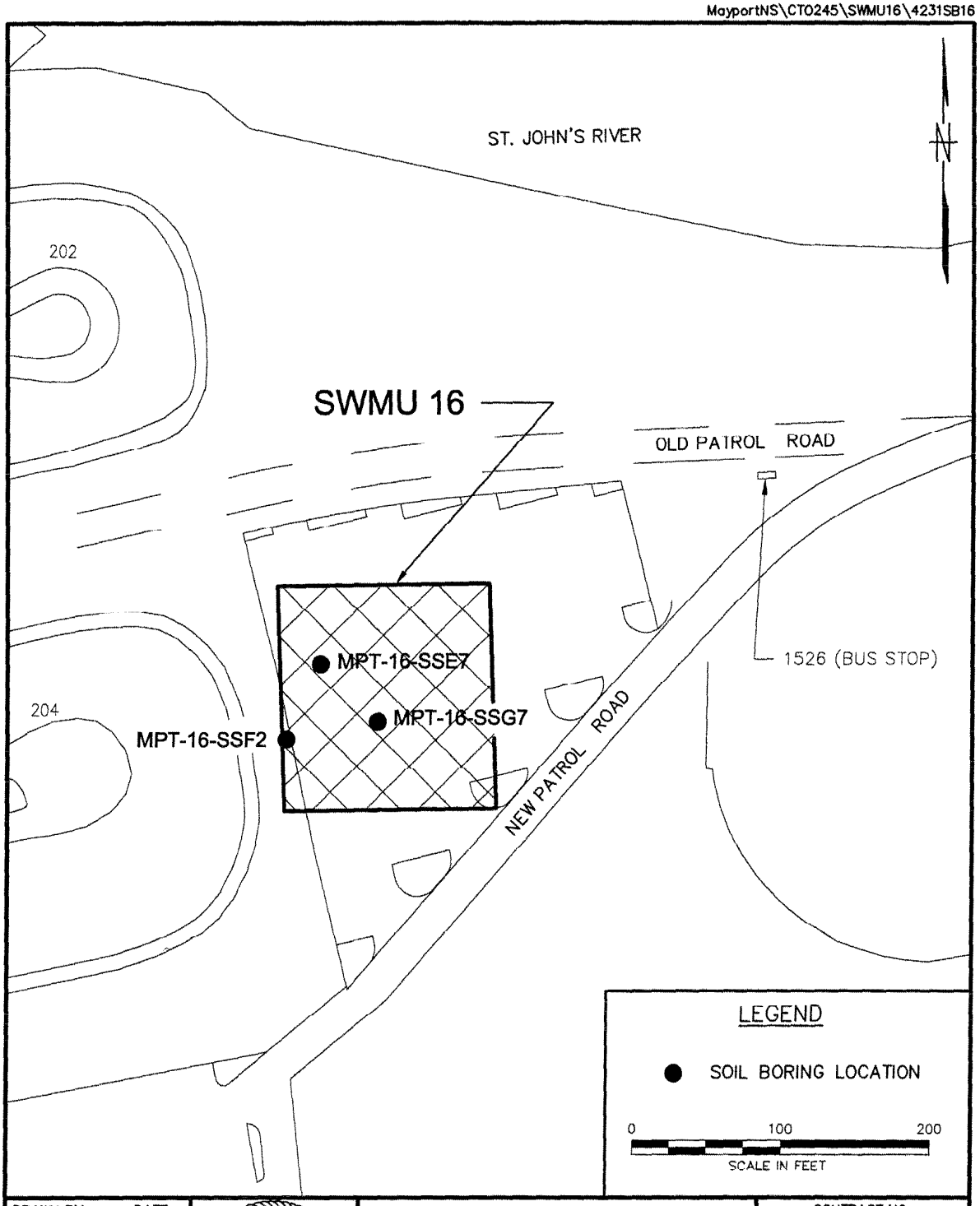


DRAWN BY DM 9/30/02	DATE	SITE LOCATION MAP SWMU 16 MAYPORT NAVAL STATION MAYPORT, FLORIDA	CONTRACT NO. 4231
CHECKED BY	DATE		APPROVED BY DATE
COST/SCHED–AREA			APPROVED BY DATE
SCALE AS NOTED			DRAWING NO. FIGURE 2 REV. 0

DEPARTMENT OF THE NAVY ★ NAVFAC ★ SOUTHERN DIV FACILITIES ENGINEERING COMD

FORM CADD NO. SDIV_AV.DWG – REV 0 – 1/20/98

MayportNS\CTO245\SWMU16\4231SB16



DRAWN BY LLK DATE 10/23/02	DEPARTMENT OF THE NAVY SOUTHERN DIV FACILITIES ENGINEERING COMD	SOIL BORING LOCATIONS SWMU 16 MAYPORT NAVAL STATION MAYPORT, FLORIDA	CONTRACT NO. 4231
CHECKED BY DATE			APPROVED BY DATE
COST/SCHED-AREA			APPROVED BY DATE
SCALE AS NOTED			DRAWING NO. FIGURE 3 REV. 0

FORM CADD NO. SDIV_AV.DWG – REV 0 – 1/20/98

ATTACHMENT A

HISTORICAL DOCUMENT FIGURE

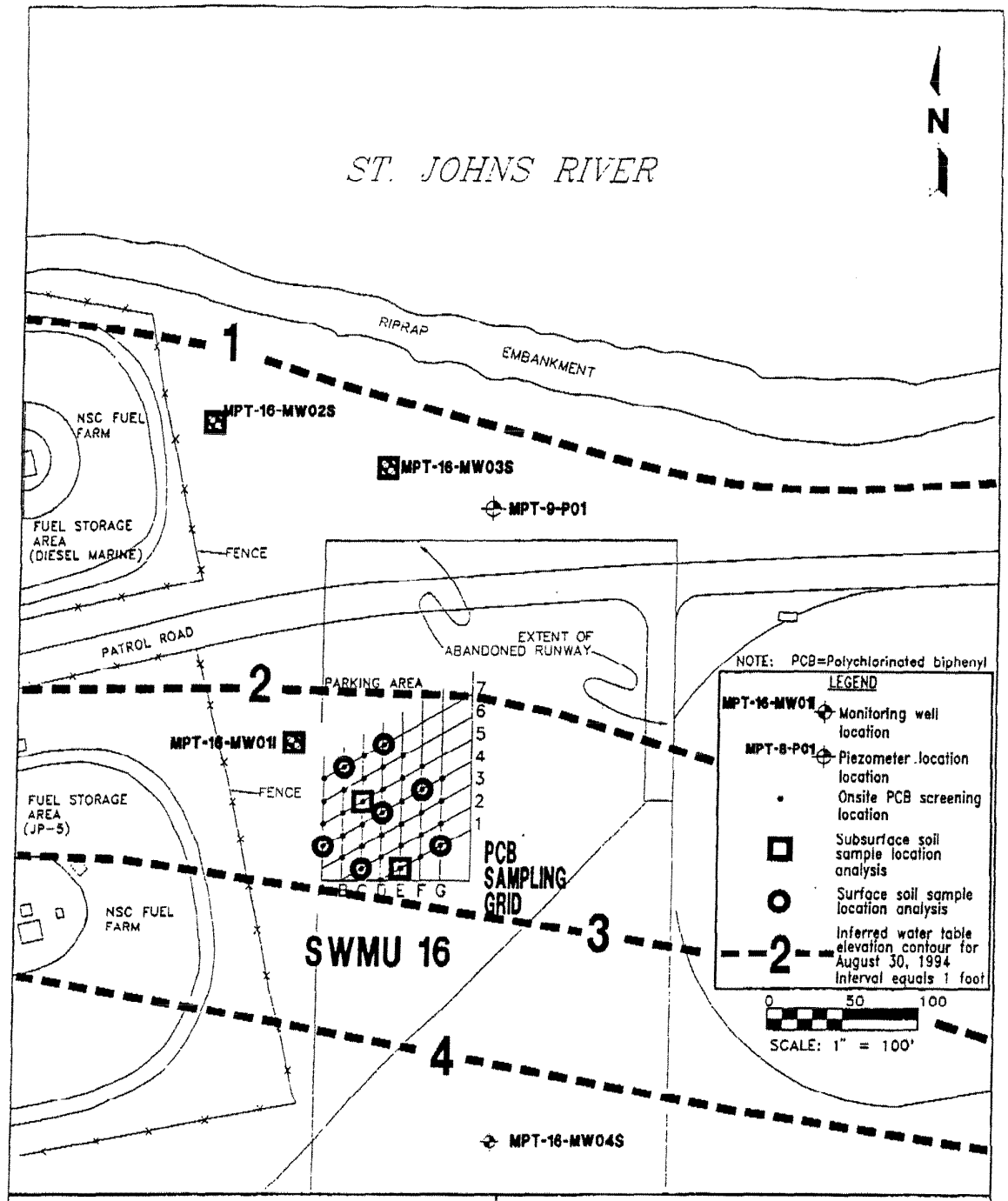


FIGURE 7-2

SUBSURFACE SOIL, SURFACE SOIL, GROUNDWATER SAMPLE LOCATIONS, AND POTENTIOMETRIC SURFACE MAP, SOLID WASTE MANAGEMENT UNIT (SWMU) 16

H:\95301.000\GPI\GLC-SR\5-25-95

RCRA FACILITY INVESTIGATION REPORT, GROUP II SWMUs

U.S. NAVAL STATION MAYPORT, FLORIDA

ATTACHMENT B

FIELD DATA FORMS

Tetra Tech NUS, Inc.

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: SWMU 16
Project No.: N4231

Sample ID No.: MPT-16-SSG7-0305
Sample Location: MPT-16-SBG7
Sampled By: LM/LK
C.O.C. No.:

[] Surface Soil
[] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Type of Sample:
[] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

Date: 5/14/02	Depth	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Time: 0850	1.5	LT BROWN	SAND, F&M, DRY
Method: HAND AUGER	2.5	"	SAND W/ TRACE CLAY, F&M, DRY
Monitor Reading (ppm):	3	"	SHELLY SAND, M, DRY

COMPOSITE SAMPLE DATA:

Date: NA	Time	Depth	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Method: NA				
Monitor Readings (Range in ppm): NA				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	LAB
PCBs	1-4oz Glass Jar	3	

OBSERVATIONS / NOTES:

MAP:

Circle if Applicable:
MS/MSD
Duplicate ID No.:

Signature(s):

Tetra Tech NUS, Inc.

BORING LOG

PROJECT NAME: SWMU 16 | BORING NUMBER: MPT-16-SBG7
PROJECT NUMBER: N4231 | DATE: 5/15/02
DRILLING COMPANY: N/A | GEOLOGIST: L. KNIGHT
DRILLING RIG: N/A | DRILLER: N/A

Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness	Color	Material Classification	USCS *	Remarks	PID/FID Reading (ppm): Sample	Sampler BZ	Borehole**	Driller BZ**
				0.5			ASPHALT						
				1.0			ROADBASE						
							SAND, lt. brown, fine, medium w/ trace clay.						
				2.8			SHELLY SAND; f. m/dry lt. brown						
				3.0									

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Drilling Area Background (ppm): ____

Remarks: ____

Converted to Well: Yes ____ No ✓ Well I.D. #: N/A

Tetra Tech NUS, Inc.

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: SWMU 16
Project No.: N4231

Sample ID No.: MPT-16-SSFB-01 -02 -03
Sample Location: MPT-16-SSFB
Sampled By: LM/LR
C.O.C. No.:

[] Surface Soil
[] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Type of Sample:
[] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

	Depth	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date: 5/15/02	1'	LT BROWN	DRY, MED. TO FINE SHELLY SAND
Time: 0930	2'	GREENISH GRAY	STIFF, DRY, CLAY
Method: HAND AUGER	3'	LT BROWN	DRY, MED F SAND W/ SOME SHELL
Monitor Reading (ppm):			

COMPOSITE SAMPLE DATA:

Date: NA	Time	Depth	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Method: NA				
Monitor Readings (Range in ppm): NA				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	LAB
PCB's	1-4oz Glass Jar	3	

OBSERVATIONS / NOTES:

MAP:

Circle if Applicable:

MS/MSD | Duplicate ID No.:

Signature(s):

Tetra Tech NUS, Inc.

BORING LOG

PROJECT NAME: SWMU 16 | BORING NUMBER: MPT-16-SBFQ
PROJECT NUMBER: N4231 | DATE: 5/15/02
DRILLING COMPANY: N/A | GEOLOGIST: C. KNIGHT
DRILLING RIG: N/A | DRILLER: N/A

Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness	Color	Material Classification	USCS *	Remarks	PID/FID Reading (ppm): Sample	Sampler BZ	Borehole**	Drillers BZ**
				0.2			ASPHALT						
							LIMEROCK ROADBASE & FILL SAND; brown						
				0.8			SHELLY SAND; lt brown; fine & medium; dry..						
				2.0			CLAY; greenish gray trace yellow. orange. STIFF						
				2.3			SAND w/ some shell; fine; lt brown						
				3.0			EOB = 3 ft bls						

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Drilling Area Background (ppm): ____

Remarks: ____

Converted to Well: Yes ____ No X Well I.D. #: ____

Tetra Tech NUS, Inc.

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: SWMU 16
Project No.: N4231

Sample ID No.: MPT-16-SSE7-01 -02 -03
Sample Location: MPT-16-SBE7
Sampled By: LM/LK
C.O.C. No.:

[] Surface Soil
[] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Type of Sample:
[] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

Date: 5/15/02	Depth	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Time: 0915	1'	LT BROWN	DRY, SANDY SHELLY CLAY
Method: HAND AUGER	2'	"	DRY SAND W/ SOME SHELL, M&F
Monitor Reading (ppm):	3'	"	"

COMPOSITE SAMPLE DATA:

Date: NA	Time	Depth	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Method: NA				
Monitor Readings (Range in ppm): NA				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	LAB
PCB's	1-4OZ GLASS JAR	3	

OBSERVATIONS / NOTES:

MAP:

Circle if Applicable:
MS/MSD
Duplicate ID No.:

Signature(s):

Tetra Tech NUS, Inc.

BORING LOG

PROJECT NAME: SWMU 16 BORING NUMBER: MPT-16-SB07
PROJECT NUMBER: N4231 DATE: 5/15/02
DRILLING COMPANY: N/A GEOLOGIST: L. KNIGHT
DRILLING RIG: N/A DRILLER: N/A

Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness	Color	Material Classification	USCS *	Remarks	PID/FID Reading (ppm): Sample	Sampler BZ	Borehole**	Driller BZ**
				0.2			ASPHALT						
							LIMEROCK ROADBASE & FILL SAND						
				0.8									
							SANDY SHELLY CLAY, greenish gray						
				1.6									
							SAND w/ some SHELL & pebbles; dry						
				3.0									
							EOB = 3' bls						

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Drilling Area Background (ppm): ____

Remarks: ____

Converted to Well: Yes ____ No X Well I.D. #: ____

TETRA TECH NUS, INC. CHAIN OF CUSTODY | NUMBER MPT-051602 | PAGE 1 OF 1

PROJECT NO: 112231	SITE NAME: SWMU 13/16	PROJECT MANAGER AND PHONE NUMBER: JERRY HANSON (850) 385-9899	LABORATORY NAME AND CONTACT: STL
SAMPLERS (SIGNATURE):		FIELD OPERATIONS LEADER AND PHONE NUMBER: LANE MIDDLETON (909) 281-0400	ADDRESS: 450 WILLIAM PITT WAY
		CARRIER/WAYBILL NUMBER: FEDEX	CITY, STATE: PITTSBURGH, PA

STANDARD TAT ☒
RUSH TAT ☐
☐ 24 hr. ☐ 48 hr. ☐ 72 hr. ☐ 7 day ☐ 14 day

CONTAINER TYPE PLASTIC (P) or GLASS (G): P G G
PRESERVATIVE USED: HNO3 NONE NONE

TYPE OF ANALYSIS: METALS (TCL, MN, Na, Sn) | SW-846 6010 B (TRACE ICP) | SVOC SW-846 8270C | PCB SW-846 8082

DATE YEAR	TIME	SAMPLE ID	MATRIX	GRAB (G) COMP (C)	No. OF CONTAINERS	METALS	SVOC	PCB						COMMENTS
5/16	0945	MPT-13-MW06S-01	GW	G	2		2							COOL TO 4°C
5/16	1130	MPT-13-MW08S-01	GW	G	1	1								
5/16	1040	MPT-13-MW09S-01	GW	G	1	1								* ~~DO NOT~~ HOLD
5/16	0830	MPT-16-SSF2-01	SS	G	1			1						FOR ANALYSES
5/16	0832	MPT-16-SSF2-02	SS	G	1			1*						AFTER RESULTS
5/16	0834	MPT-16-SSF2-03	SS	G	1			1*						OF 1' SAMPLES
5/16	0910	MPT-16-SSE7-01	SS	G	1			1						ARE RECEIVED.
5/16	0917	MPT-16-SSE7-02	SS	G	1			1*						TTNUS WILL
5/16	0919	MPT-16-SSE7-03	SS	G	1			1*						GIVE NOTICE
5/16	0850	MPT-16-SSG7-~~01~~ 05	SS	G	1			1						TO PROCEED.
5/16	0851	MPT-16-SSG7-02	SS	G	1			1*						
5/16	0853	MPT-16-SSG7-03	SS	G	1			1*						
5/16	1420	MPT-13-EB-01	GW	G	3	1	2							

1. RELINQUISHED BY	DATE 5/16/07	TIME 1600	1. RECEIVED BY	DATE	TIME
2. RELINQUISHED BY	DATE	TIME	2. RECEIVED BY	DATE	TIME
3. RELINQUISHED BY	DATE	TIME	3. RECEIVED BY	DATE	TIME

COMMENTS

DISTRIBUTION: WHITE (ACCOMPANIES SAMPLE) YELLOW (FIELD COPY) PINK (FILE COPY)

3/99

FORM NO. TINUS-001

ATTACHMENT C

ANALYTICAL REPORT

Tetra Tech NUS **INTERNAL CORRESPONDENCE**

TO:	**T. HANSEN**	**DATE:**	**JULY 12, 2002**
FROM:	**EDWARD SEDLMYER**	**COPIES:**	**DV FILE**
SUBJECT:	**ORGANIC DATA VALIDATION- SVOA/PCB** **CTO 245, NS MAYPORT** **SDG MP050 and MP051**		

SAMPLES: 4 / Aqueous

MPT-13-DUP01-01	MPT-13-MW02S-01	MPT-13-MW06S-01	MPT-13-EB-01

3 / Solid

MPT-16-SSE7-01	MPT-16-SSF2-01	MPT-16-SSG7-1.5

OVERVIEW

The sample set for NS MAYPORT, SDG MP050 consists of one (1) equipment blank, three (3) aqueous environmental samples, and three (3) solid environmental samples. The samples were analyzed for 3&4-methylphenol, bis(2-ethylhexyl)phthalate, and PCBs. One (1) field duplicate pair was included in this SDG: MPT-13-DUP-01-01 / MPT-13-MW02S-01.

The samples were collected by TetraTech NUS on May 14, 15, and 16 2002 and analyzed by Severn Trent Laboratories Inc. All analyses were conducted in accordance with Naval Facilities Engineering Service Center (NFESC) Quality Assurance/Quality Control (QA/QC) criteria using SW-846 Methods 8270C and 8082 analysis and reporting protocols. The data contained in this SDG were validated with regard to the following parameters:

*	Data completeness
*	Holding times
*	Initial/continuing calibrations
	Laboratory method blank results
*	Surrogate Recoveries
*	Blank Spike/Blank Spike Duplicate Results
*	Matrix Spike/Matrix Spike Duplicate Results
*	Internal Standards
*	Field Duplicates
*	Compound Quantitation
*	Compound Identification
*	Detection Limits

The symbol (*) indicates that quality control criteria were met for this parameter. Problems affecting data quality are discussed below; documentation supporting these findings is presented in Appendix C. Qualified Analytical results are presented in Appendix A.

Semivolatiles

The following compound was detected in the method blank:

Compound	Maximum Concentration	Blank Action Level
Bis(2-ethylhexyl)phthalate	2.5 ug/L	25 ug/L

- Value < Reporting Limit (RL); report RL followed by a U.
- Value > RL and < Action level; report value followed by a U.

Sample aliquot and dilution factors were taken into consideration when applying the blank action level. Bis(2-ethylhexyl)phthalate was not detected in any associated samples so no qualification of the data was necessary.

PCBs

Data qualification was not necessary.

Additional Comments: None.

EXECUTIVE SUMMARY

Laboratory Performance Issues: Bis(2-ethylhexyl)phthalate was detected in the method blank.

Other Factors Affecting Data Quality: None.

The data for these analyses were reviewed with reference to the EPA Functional Guidelines for Organic Data Validation (10/99), and the NFESC guidelines IRCDQM (Sept., 1999). The text of this report has been formulated to address only those problem areas affecting data quality.

"I attest that the data referenced herein were validated according to the agreed upon validation criteria as specified in the NFESC guidelines and the Quality Assurance Project Plan (QAPP)."

Tetra Tech NUS

Edward Sedlmyer
Chemist/Data Validator

TetraTech NUS

Joseph A. Samchuck
Data Validation Quality Assurance Officer

Attachments:

Appendix A – Qualified Analytical Results
Appendix B – Results as Reported by the Laboratory
Appendix C – Support Documentation

APPENDIX A

QUALIFIED ANALYTICAL RESULTS

PROJ_NO: 4231

SDG: MP051 MEDIA: SOIL DATA FRACTION: PEST/PCB

nsample	MPT-16-SSE7-01
samp_date	5/15/2002
lab_id	C2E170169005
qc_type	NM
units	UG/KG
Pct_Solids	82
DUP_OF:	

Parameter	Result	ValQual	QualCode
AROCLOR-1016	40	U	
AROCLOR-1221	40	U	
AROCLOR-1232	40	U	
AROCLOR-1242	40	U	
AROCLOR-1248	40	U	
AROCLOR-1254	40	U	
AROCLOR-1260	40	U	

nsample	MPT-16-SSF2-01
samp_date	5/15/2002
lab_id	C2E170169004
qc_type	NM
units	UG/KG
Pct_Solids	81
DUP_OF:	

Parameter	Result	ValQual	QualCode
AROCLOR-1016	41	U	
AROCLOR-1221	41	U	
AROCLOR-1232	41	U	
AROCLOR-1242	41	U	
AROCLOR-1248	41	U	
AROCLOR-1254	41	U	
AROCLOR-1260	41	U	

nsample	MPT-16-SSG7-1.5
samp_date	5/15/2002
lab_id	C2E170169006
qc_type	NM
units	UG/KG
Pct_Solids	78
DUP_OF:	

Parameter	Result	ValQual	QualCode
AROCLOR-1016	42	U	
AROCLOR-1221	42	U	
AROCLOR-1232	42	U	
AROCLOR-1242	42	U	
AROCLOR-1248	42	U	
AROCLOR-1254	42	U	
AROCLOR-1260	42	U	

PROJ_NO: 4231

SDG: MP050 MEDIA: WATER DATA FRACTION: OS

nsample	MPT-13-DUP01-01
samp_date	5/14/2002
lab_id	C2E150174004
qc_type	NM
units	UG/L
Pct_Solids	0
DUP_OF:	MPT-13-MW02S-01

Parameter	Result	ValQual	QualCode
3&4-METHYLPHENOL	9.8	U	
BIS(2-ETHYLHEXYL)PHTHALAT	9.8	U	

nsample	MPT-13-MW02S-01
samp_date	5/14/2002
lab_id	C2E150174005
qc_type	NM
units	UG/L
Pct_Solids	0
DUP_OF:	

Parameter	Result	ValQual	QualCode
3&4-METHYLPHENOL	9.6	U	
BIS(2-ETHYLHEXYL)PHTHALAT	9.6	U	

PROJ_NO: 4231

SDG: MP051 MEDIA: WATER DATA FRACTION: OS

nsample	MPT-13-EB-01
samp_date	5/16/2002
lab_id	C2E170169007
qc_type	NM
units	UG/L
Pct_Solids	0
DUP_OF:	

Parameter	Result	ValQual	QualCode
3&4-METHYLPHENOL	9.6	U	
BIS(2-ETHYLHEXYL)PHTHALAT	9.6	U	

nsample	MPT-13-MW06S-01
samp_date	5/16/2002
lab_id	C2E170169001
qc_type	NM
units	UG/L
Pct_Solids	0
DUP_OF:	

Parameter	Result	ValQual	QualCode
3&4-METHYLPHENOL	9.6	U	
BIS(2-ETHYLHEXYL)PHTHALAT	9.6	U	

APPENDIX B

RESULTS AS REPORTED BY THE LABORATORY

TETRA TECH NUS INC

Client Sample ID: MPT-13-DUP01-01

GC/MS Semivolatiles

Lot-Sample #...:	C2E150174-004	Work Order #...:	E1FPH1AA	Matrix.....:	WATER
Date Sampled...:	05/14/02	Date Received..:	05/15/02	MS Run #.....:	
Prep Date.....:	05/16/02	Analysis Date..:	05/31/02		
Prep Batch #...:	2136333	Analysis Time..:	00:27		
Dilution Factor:	0.98	Initial Wgt/Vol:	1020 mL	Final Wgt/Vol..:	1 mL
Analyst ID.....:	045183	Instrument ID..:	71		
		Method.....:	SW846 8270C		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
bis(2-Ethylhexyl) phthalate	ND	9.8	ug/L	0.89
3&4 Methylphenol total	ND	9.8	ug/L	3.4

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Phenol-d5	57	(10 - 113)
2-Fluorobiphenyl	73	(30 - 110)
Nitrobenzene-d5	68	(32 - 112)
Terphenyl-d14	69	(10 - 144)
2-Fluorophenol	51	(13 - 110)
2,4,6-Tribromophenol	78	(21 - 122)

TETRA TECH NUS INC

Client Sample ID: MPT-13-MW02S-01

GC/MS Semivolatiles

Lot-Sample #...:	C2E150174-005	**Work Order #...:**	E1FPJ1AA	**Matrix.....:**	WATER
Date Sampled...:	05/14/02	**Date Received..:**	05/15/02	**MS Run #.....:**	
Prep Date.....:	05/16/02	**Analysis Date..:**	05/31/02		
Prep Batch #...:	2136333	**Analysis Time..:**	00:55		
Dilution Factor:	0.96	**Initial Wgt/Vol:**	1040 mL	**Final Wgt/Vol..:**	1 mL
Analyst ID.....:	045183	**Instrument ID..:**	71		
		Method.....:	SW846 8270C		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
bis(2-Ethylhexyl) phthalate	ND	9.6	ug/L	0.87
3&4 Methylphenol total	ND	9.6	ug/L	3.4

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Phenol-d5	60	(10 - 113)
2-Fluorobiphenyl	69	(30 - 110)
Nitrobenzene-d5	71	(32 - 112)
Terphenyl-d14	63	(10 - 144)
2-Fluorophenol	55	(13 - 110)
2,4,6-Tribromophenol	75	(21 - 122)

TETRA TECH NUS INC

Client Sample ID: MPT-13-EB-01

GC/MS Semivolatiles

Lot-Sample #...:	C2E170169-007	Work Order #...:	E1LG11AA	Matrix.....:	WATER
Date Sampled...:	05/16/02	Date Received..:	05/17/02	MS Run #.....:	
Prep Date.....:	05/20/02	Analysis Date..:	06/03/02		
Prep Batch #...:	2140372	Analysis Time..:	13:38		
Dilution Factor:	0.96	Initial Wgt/Vol:	1040 mL	Final Wgt/Vol..:	1 mL
Analyst ID.....:	003200	Instrument ID..:	731		
		Method.....:	SW846 8270C		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
bis(2-Ethylhexyl) phthalate	ND	9.6	ug/L	0.87
3&4 Methylphenol total	ND	9.6	ug/L	3.4

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Phenol-d5	76	(10 - 113)
2-Fluorobiphenyl	74	(30 - 110)
Nitrobenzene-d5	77	(32 - 112)
Terphenyl-d14	95	(10 - 144)
2-Fluorophenol	68	(13 - 110)
2,4,6-Tribromophenol	86	(21 - 122)

TETRA TECH NUS INC

Client Sample ID: MPT-13-MW06S-01

GC/MS Semivolatiles

Lot-Sample #...:	C2E170169-001	Work Order #...:	E1LFJ1AA	Matrix.....:	WATER
Date Sampled...:	05/16/02	Date Received..:	05/17/02	MS Run #.....:	
Prep Date.....:	05/20/02	Analysis Date..:	06/03/02		
Prep Batch #...:	2140372	Analysis Time..:	13:09		
Dilution Factor:	0.96	Initial Wgt/Vol:	1040 mL	Final Wgt/Vol..:	1 mL
Analyst ID.....:	003200	Instrument ID..:	731		
		Method.....:	SW846 8270C		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
bis(2-Ethylhexyl) phthalate	ND	9.6	ug/L	0.87
3&4 Methylphenol total	ND	9.6	ug/L	3.4

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Phenol-d5	69	(10 - 113)
2-Fluorobiphenyl	75	(30 - 110)
Nitrobenzene-d5	72	(32 - 112)
Terphenyl-d14	43	(10 - 144)
2-Fluorophenol	64	(13 - 110)
2,4,6-Tribromophenol	80	(21 - 122)

TETRA TECH NUS INC

Client Sample ID: MPT-16-SSE7-01

GC Semivolatiles

Lot-Sample #...:	C2E170169-005	Work Order #...:	E1LGR1AC	Matrix.....:	SOLID
Date Sampled...:	05/15/02	Date Received..:	05/17/02	MS Run #.....:	2140041
Prep Date.....:	05/20/02	Analysis Date..:	05/21/02		
Prep Batch #...:	2140154	Analysis Time..:	13:23		
Dilution Factor:	1	Initial Wgt/Vol:	30 g	Final Wgt/Vol..:	10 mL
% Moisture.....:	18	Analyst ID.....:	010139	Instrument ID..:	M/N
		Method.....:	SW846 8082		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Aroclor 1016	ND	40	ug/kg	6.3
Aroclor 1221	ND	40	ug/kg	2.3
Aroclor 1232	ND	40	ug/kg	9.6
Aroclor 1242	ND	40	ug/kg	5.7
Aroclor 1248	ND	40	ug/kg	5.2
Aroclor 1254	ND	40	ug/kg	2.5
Aroclor 1260	ND	40	ug/kg	6.6

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	73	(31 - 127)
Decachlorobiphenyl	99	(23 - 141)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

TETRA TECH NUS INC

Client Sample ID: MPT-16-SSF2-01

GC Semivolatiles

Lot-Sample #...:	C2E170169-004	Work Order #...:	E1LF81AC	Matrix.....:	SOLID
Date Sampled...:	05/15/02	Date Received..:	05/17/02	MS Run #.....:	2140041
Prep Date.....:	05/20/02	Analysis Date..:	05/21/02		
Prep Batch #...:	2140154	Analysis Time..:	13:03		
Dilution Factor:	1	Initial Wgt/Vol:	30 g	Final Wgt/Vol..:	10 mL
% Moisture.....:	19	Analyst ID.....:	010139	Instrument ID..:	M/N
		Method.....:	SW846 8082		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Aroclor 1016	ND	41	ug/kg	6.5
Aroclor 1221	ND	41	ug/kg	2.4
Aroclor 1232	ND	41	ug/kg	9.8
Aroclor 1242	ND	41	ug/kg	5.9
Aroclor 1248	ND	41	ug/kg	5.3
Aroclor 1254	ND	41	ug/kg	2.6
Aroclor 1260	ND	41	ug/kg	6.7

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	74	(31 - 127)
Decachlorobiphenyl	96	(23 - 141)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

TETRA TECH NUS INC

Client Sample ID: MPT-16-SSG7-1.5

GC Semivolatiles

Lot-Sample #...:	C2E170169-006	Work Order #...:	E1LGV1AC	Matrix.....:	SOLID
Date Sampled...:	05/15/02	Date Received..:	05/17/02	MS Run #.....:	2140041
Prep Date.....:	05/20/02	Analysis Date..:	05/21/02		
Prep Batch #...:	2140154	Analysis Time..:	13:44		
Dilution Factor:	1	Initial Wgt/Vol:	30 g	Final Wgt/Vol..:	10 mL
% Moisture.....:	22	Analyst ID.....:	010139	Instrument ID..:	M/N
		Method.....:	SW846 8082		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Aroclor 1016	ND	42	ug/kg	6.7
Aroclor 1221	ND	42	ug/kg	2.4
Aroclor 1232	ND	42	ug/kg	10
Aroclor 1242	ND	42	ug/kg	6.0
Aroclor 1248	ND	42	ug/kg	5.5
Aroclor 1254	ND	42	ug/kg	2.7
Aroclor 1260	ND	42	ug/kg	6.9

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	88	(31 - 127)
Decachlorobiphenyl	122	(23 - 141)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

APPENDIX C

SUPPORT DOCUMENTATION

MP050

HOLDING TIME
06/06/02

Units	Nsample	Lab Id	Qc Type	Sdg	Sort	Samp Date	Extr Date	Anal Date	SAMP_DATE TO EXTR_DATE	EXTR_DATE TO ANAL_DATE	SAMP_DATE TO ANAL_DATE
UG/L	MPT-13-DUP01-01	C2E150174004	NORMAL	MP050	M	05/14/02	05/16/02	05/18/02	2	2	4
UG/L	MPT-13-MW01S-01	C2E150174006	NORMAL	MP050	M	05/14/02	05/16/02	05/18/02	2	2	4
UG/L	MPT-13-MW02S-01	C2E150174005	NORMAL	MP050	M	05/14/02	05/16/02	05/18/02	2	2	4
UG/L	MPT-13-MW04S-01	C2E150174002	NORMAL	MP050	M	05/13/02	05/16/02	05/18/02	3	2	5
UG/L	MPT-13-MW05S-01	C2E150174001	NORMAL	MP050	M	05/13/02	05/16/02	05/18/02	3	2	5
UG/L	MPT-13-MW07S-01	C2E150174003	NORMAL	MP050	M	05/13/02	05/16/02	05/18/02	3	2	5
UG/L	MPT-13-MW10S-01	C2E150174007	NORMAL	MP050	M	05/14/02	05/16/02	05/18/02	2	2	4
%	MPT-13-DUP01-01	C2E150174004	NORMAL	MP050	OS	05/14/02	05/16/02	05/31/02	2	15	17
%	MPT-13-MW02S-01	C2E150174005	NORMAL	MP050	OS	05/14/02	05/16/02	05/31/02	2	15	17

MP051

HOLDING TIME
06/06/02

Units	Nsample	Lab Id	Qc Type	Sdg	Sort	Samp Date	Extr Date	Anal Date	SAMP_DATE TO EXTR_DATE	EXTR_DATE TO ANAL_DATE	SAMP_DATE TO ANAL_DATE
%	MPT-16-SSE7-01	C2E170169005	NORMAL	MP051		05/15/02	05/28/02	05/29/02	13	1	14
%	MPT-16-SSF2-01	C2E170169004	NORMAL	MP051		05/15/02	05/24/02	05/25/02	9	1	10
%	MPT-16-SSG7-1.5	C2E170169006	NORMAL	MP051		05/15/02	05/28/02	05/29/02	13	1	14
UG/L	MPT-13-EB-01	C2E170169007	NORMAL	MP051	M	05/16/02	05/21/02	05/24/02	5	3	8
UG/L	MPT-13-MW08S-01	C2E170169002	NORMAL	MP051	M	05/16/02	05/21/02	05/24/02	5	3	8
UG/L	MPT-13-MW09S-01	C2E170169003	NORMAL	MP051	M	05/16/02	05/21/02	05/24/02	5	3	8
%	MPT-13-EB-01	C2E170169007	NORMAL	MP051	OS	05/16/02	05/20/02	06/03/02	4	14	18
%	MPT-13-MW06S-01	C2E170169001	NORMAL	MP051	OS	05/16/02	05/20/02	06/03/02	4	14	18
%	MPT-16-SSE7-01	C2E170169005	NORMAL	MP051	PCB	05/15/02	05/20/02	05/21/02	5	1	6
%	MPT-16-SSF2-01	C2E170169004	NORMAL	MP051	PCB	05/15/02	05/20/02	05/21/02	5	1	6
%	MPT-16-SSG7-1.5	C2E170169006	NORMAL	MP051	PCB	05/15/02	05/20/02	05/21/02	5	1	6

FIELD DUPLICATE PRECISION

ANALYTE	MPT-13-MW02S-01	MPT-13-DUP01-01	RPD	DIFFERENCE
4-Methylphenol	ND	ND	#VALUE!	#VALUE!
bis(2-ethylhexyl)phthalate	ND	ND	#VALUE!	#VALUE!

SEVERN TRENT SERVICES

STL Pittsburgh
450 William Pitt Way
Pittsburgh, PA 15238-1330

Tel: 412 820 8380
Fax: 412 820 2080
www.stl-inc.com

ANALYTICAL REPORT

PROJECT NO. CTO245

NAS Mayport

Lot #: C2E150174
SDG #: MP050

Terry Hanson

Tetra Tech NUS Inc

SEVERN TRENT LABORATORIES, INC.

Veronica Bortot
Project Manager

June 4, 2002

CASE NARRATIVE
ENSR
NAS Mayport, FL

CTO #245
SDG: MP050
STL Lot#: C2E150174

The following report contains the analytical results for samples submitted to STL Pittsburgh by Tetra Tech from the NAS Mayport site in Mayport, FL. The samples were received May 15, 2002, according to documented sample acceptance procedures.

STL-Pittsburgh utilizes only USEPA approved methods and instrumentation in all analytical work. The samples presented in this report were analyzed for the parameters listed on the method reference page in accordance with the methods indicated.

SAMPLE RECEIVING:
The SDG closed on May 15, 2002.

GCMS Semivolatiles:
The reporting limits for the samples have been adjusted to reflect the amount of sample used in the extraction procedure.

The method blank for batch 2136333 had bis (2-ethylhexyl) phthalate detected below the reporting limit but above the MDL. The result was flagged with a "J" qualifier. Any sample associated with this blank that had bis (2-ethylhexyl) phthalate detected had the result flagged with a "B" qualifier.

Metals:
Samples MPT-13-MW04S-01 and MPT-13-MW02S-01 were over the instrument's linear range for sodium and required a dilution.

For the matrix spike and matrix spike duplicate, sodium recoveries were not calculated due to the concentration of analyte in the sample being >4 times the concentration of spike added.

METHODS SUMMARY

C2E150174

PARAMETER	ANALYTICAL METHOD	PREPARATION METHOD
Semivolatile Organic Compounds by GC/MS	SW846 8270C	SW846 3520C
Trace Inductively Coupled Plasma (ICP) Metals	SW846 6010B	SW846 3010A

References:

SW846 "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 and its updates.

SAMPLE SUMMARY

C2E150174

WO #	SAMPLE#	CLIENT SAMPLE ID	SAMPLED DATE	SAMP TIME
E1FN3	001	MPT-13-MW05S-01	05/13/02	13:55
E1FPA	002	MPT-13-MW04S-01	05/13/02	12:50
E1FPG	003	MPT-13-MW07S-01	05/13/02	11:00
E1FPH	004	MPT-13-DUP01-01	05/14/02	
E1FPJ	005	MPT-13-MW02S-01	05/14/02	10:50
E1FPL	006	MPT-13-MW01S-01	05/14/02	10:00
E1FPP	007	MPT-13-MW10S-01	05/14/02	09:25

NOTE(S):

- The analytical results of the samples listed above are presented on the following pages.
- All calculations are performed before rounding to avoid round-off errors in calculated results.
- Results noted as "ND" were not detected at or above the stated limit.
- This report must not be reproduced, except in full, without the written approval of the laboratory.
- Results for the following parameters are never reported on a dry weight basis: color, corrosivity, density, flashpoint, ignitability, layers, odor, paint filter test, pH, porosity pressure, reactivity, redox potential, specific gravity, spot tests, solids, solubility, temperature, viscosity, and weight.

SEVERN TRENT SERVICES

STL Pittsburgh
450 William Pitt Way
Pittsburgh, PA 15238-1330

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Fax: 412 820 2080
www.stl-inc.com

ANALYTICAL REPORT

PROJECT NO. CTO245

NAS Mayport,Flordia SWMU13&16

Lot #: C2E170169
SDG #: MP051

Terry Hanson

Tetra Tech NUS Inc

SEVERN TRENT LABORATORIES, INC.

Veronica Bortot
Project Manager

June 4, 2002

CASE NARRATIVE
ENSR
NAS Mayport, FL

CTO #245
SDG: MP051
STL Lot#: C2E170169

The following report contains the analytical results for samples submitted to STL Pittsburgh by Tetra Tech from the NAS Mayport site in Mayport, FL. The samples were received May 17, 2002, according to documented sample acceptance procedures.

STL-Pittsburgh utilizes only USEPA approved methods and instrumentation in all analytical work. The samples presented in this report were analyzed for the parameters listed on the method reference page in accordance with the methods indicated.

SAMPLE RECEIVING:
The SDG closed on May 17, 2002.

GCMS Semivolatiles:
The reporting limits were adjusted according to the initial volume extracted.

PCBs:
There were no problems associated with the analysis.

Metals:
Sample MPT-13-MW08S-01 was over the instrument's linear range for sodium and required a dilution.

For the matrix spike and matrix spike duplicate, sodium recoveries were not calculated due to the concentration of analyte in the sample being >4 times the concentration of spike added.

General Chemistry:
There were no problems associated with the analysis.

SAMPLE SUMMARY

C2E170169

WO #	SAMPLE#	CLIENT SAMPLE ID	SAMPLED DATE	SAMP TIME
E1LFJ	001	MPT-13-MW06S-01	05/16/02	09:45
E1LF2	002	MPT-13-MW08S-01	05/16/02	11:30
E1LF5	003	MPT-13-MW09S-01	05/16/02	10:40
E1LF8	004	MPT-16-SSF2-01	05/15/02	09:30
E1LGR	005	MPT-16-SSE7-01	05/15/02	09:15
E1LGV	006	MPT-16-SSG7-1.5	05/15/02	08:50
E1LG1	007	MPT-13-EB-01	05/16/02	14:20

NOTE(S):

- The analytical results of the samples listed above are presented on the following pages.
- All calculations are performed before rounding to avoid round-off errors in calculated results.
- Results noted as "ND" were not detected at or above the stated limit.
- This report must not be reproduced, except in full, without the written approval of the laboratory.
- Results for the following parameters are never reported on a dry weight basis: color, corrosivity, density, flashpoint, ignitability, layers, odor, paint filter test, pH, porosity pressure, reactivity, redox potential, specific gravity, spot tests, solids, solubility, temperature, viscosity, and weight.

STL Pittsburgh

TETRA TECH NUS, INC. CHAIN OF CUSTODY | NUMBER MPT-051402 | PAGE 1 OF 1

PROJECT NO:	SITE NAME:	PROJECT MANAGER AND PHONE NUMBER	LABORATORY NAME AND CONTACT:
N4231	SWMU 13	TERRY HANSEN	STL
SAMPLERS (SIGNATURE)		FIELD OPERATIONS LEADER AND PHONE NUMBER	ADDRESS
		LANE MIDDLETON 904-281-0400	450 WILLIAM PITT WAY
		CARRIER/WAYBILL NUMBER	CITY, STATE
		FEDEX	PITTSBURGH, PA

STANDARD TAT ☒
RUSH TAT ☐
☒ 24 hr. ☐ 48 hr. ☐ 72 hr. ☐ 7 day ☐ 14 day

DATE YEAR 2002	TIME	SAMPLE ID	MATRIX	GRAB (G) COMP (C)	No. OF CONTAINERS	CONTAINER TYPE PLASTIC (P) or GLASS (G)	P	G							
						PRESERVATIVE USED			NONE						
						TYPE OF ANALYSIS	METALS (FE, MN, NA, TOTAL) HNO3	SW-846 6010 B/CLP-METALS	SW-846 8270C						COMMENTS
5/13	1355	MPT-13-MW05S-01	GW	G	1		1								COOL TO 4°C
5/13	1250	MPT-13-MW14S-01	GW	G	1		1								
5/13	1100	MPT-13-MW07S-01	GW	G	1		1								
5/14	0000	MPT-13-DUP01-01	GW	G	3		1	2							
5/14	1050	MPT-13-MW08S-01	GW	G	3		1	2							
5/14	1000	MPT-13-MW01S-01	GW	G	1		1								
5/14	0925	MPT-13-MW10S-01	GW	G	1		1								

	DATE	TIME		DATE	TIME
1. RELINQUISHED BY	5/14/02	1600	1. RECEIVED BY		
2. RELINQUISHED BY	DATE	TIME	2. RECEIVED BY Patrick R Faust	5/17/02	1030
3. RELINQUISHED BY	DATE	TIME	3. RECEIVED BY	DATE	TIME

COMMENTS

DISTRIBUTION: WHITE (ACCOMPANIES SAMPLE) YELLOW (FIELD COPY) PINK (FILE COPY)

3/99
FORM NO. TtNUS-001

5

STL Pittsburgh

TETRA TECH NUS, INC. CHAIN OF CUSTODY | NUMBER MPT-051602 | PAGE 1 OF 1

PROJECT NO: N4231	SITE NAME: SWMU 13/16	PROJECT MANAGER AND PHONE NUMBER: JERRY HANSON (850) 385-9899	LABORATORY NAME AND CONTACT: S.T.L
SAMPLERS (SIGNATURE): [signature]		FIELD OPERATIONS LEADER AND PHONE NUMBER: LANE MIDDLETON (709) 281-0400	ADDRESS: 450 WILLIAM PITT WAY
		CARRIER/WAYBILL NUMBER: FEDEX	CITY, STATE: PITTSBURGH, PA

STANDARD TAT ☒
RUSH TAT ☐
☐ 24 hr. ☐ 48 hr. ☐ 72 hr. ☐ 7 day ☐ 14 day

DATE YEAR 2002	TIME	SAMPLE ID	MATRIX	GRAB (G) COMP (C)	No. OF CONTAINERS	CONTAINER TYPE PLASTIC (P) or GLASS (G)	P	G	G							
						PRESERVATIVE USED		HNO3	NONE	NONE						
						TYPE OF ANALYSIS	METALS (Fe, Mn, Na, Sb)	SW-846 6010 B (TARGET)	SW-846 8270 C	SW-846 8082 PCB						COMMENTS
5/16	0945	MPT-13-MW06S-01	GW	G	2			2								COOL TO 4°C
5/16	1130	MPT-13-MW08S-01	GW	G	1	1										
5/16	1040	MPT-13-MW09S-01	GW	G	1	1										* DO NOT HOLD
5/15	0930	MPT-16-SSF2-01	SS	G	1				1							FOR ANALYSES
5/15	0932	MPT-16-SSF2-02	SS	G	1				1*							AFTER RESULTS
5/15	0934	MPT-16-SSF2-03	SS	G	1				1*							OF 1' SAMPLES
5/15	0915	MPT-16-SSE7-01	SS	G	1				1							ARE RECEIVED.
5/15	0917	MPT-16-SSE7-02	SS	G	1				1*							TTNUS WILL
5/15	0919	MPT-16-SSE7-03	SS	G	1				1*							GIVE NOTICE
5/15	0850	MPT-16-SSG7-15	SS	G	1				1							TO PROCEED.
5/15	0851	MPT-16-SSG7-02	SS	G	1				1*							
5/15	0853	MPT-16-SSG7-03	SS	G	1				1*							
5/16	1420	MPT-13-EB-01	GW	G	3	1		2								

	DATE	TIME		DATE	TIME
1. RELINQUISHED BY [signature]	5/16/02	1600	1. RECEIVED BY		
2. RELINQUISHED BY	DATE	TIME	2. RECEIVED BY	DATE	TIME
3. RELINQUISHED BY	DATE	TIME	3. RECEIVED BY [signature]	5-17-02	1000

COMMENTS

DISTRIBUTION: WHITE (ACCOMPANIES SAMPLE) YELLOW (FIELD COPY) PINK (FILE COPY)

3/99
FORM NO. TINUS-001

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