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NS MAYPORT
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COMPLETION REPORT FOR THE OXYGEN RELEASING COMPOUND DEMONSTRATION AT SOLID WASTE MANAGEMENT UNIT 14 NS MAYPORT FL

1/1/2000

BECHTEL ENVIRONMENTAL

COMPLETION REPORT

for the

OXYGEN RELEASING COMPOUND DEMONSTRATION AT SOLID WASTE MANAGEMENT UNIT 14 NAVAL STATION MAYPORT, FLORIDA

Prepared for

DEPARTMENT OF THE NAVY
SOUTHERN DIVISION
NAVAL FACILITIES ENGINEERING COMMAND

Under Contract No. N62467-93-D-0936

Bechtel Job No. 22567

Prepared by

BECHTEL ENVIRONMENTAL, INC.

151 LAFAYETTE DR.

OAK RIDGE, TENNESSEE

January 2000

Z10.14B 2374.1

016674

Mrs. Adrienne Wilson - Code 1852
Remedial Project Manager
Naval Facilities Command Southern Division
2155 Eagle Drive, P.O. Box 190010
Charleston, SC 29419-9010

January 4, 2000

SUBJECT: Bechtel Job No. 22567
Department of the Navy Contract No. N62467-93-D-0936
DO 0110 Completion Report for the Oxygen Releasing Compound Demonstration at Solid Waste management Unit 14, Naval Station Mayport, Florida

Dear Mrs. Wilson:

Enclosed please find one bound copy of the Completion Report for the Oxygen Releasing Compound Demonstration at Solid Waste management Unit 14, Naval Station Mayport, Florida.

It has been a pleasure assisting you and the Navy with this project. If you have any questions or need additional information please call me at 904-771-5314. Mark Gage may address any technical questions at 865-220-2889.

Respectfully yours,

M. A. Gage

for V. Hermann Bauer
Project Manager

Enclosure: As stated

CC: C. Benedikt (USEPA) - 1 copy
R. Bishop (NS Mayport) - 1 copy
J. Cason (FDEP) - 2 copies
T. Hansen (TTNUS) - 1 copy
H. Bauer (BEI) - w/o enclosure
M. Gage (BEI) - w/o enclosure

016674

COMPLETION REPORT

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OXYGEN RELEASING COMPOUND DEMONSTRATION AT SOLID WASTE MANAGEMENT UNIT 14

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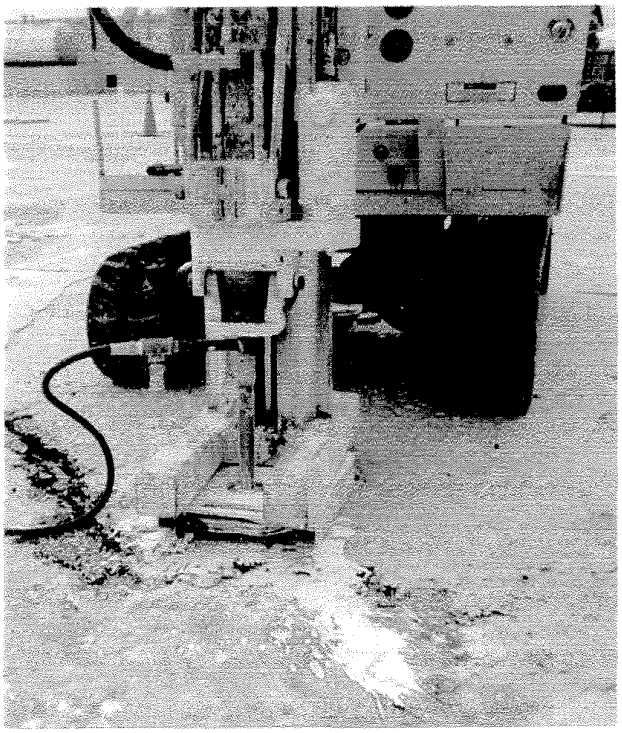
PROJECT DATA SHEET

NAVFAC South Div.



Project: Oxygen Releasing Compound Demonstration at SWMU 14

Location: NS Mayport, Florida

Navy Contact: Adrienne Wilson
Phone: (843) 820-5582

Bechtel Contact: Hermann Bauer
Phone: (904) 779-8900

Project Description:

Bechtel performed a demonstration of an Oxygen Releasing Compound (ORC) technology at Solid Waste Management Unit (SWMU) 14 to evaluate the technology and its effectiveness of promoting the natural attentuation of semi-volatile organic materials.

Project Innovations:

Utilized Geo-probe unit to inject the ORC at 42 site locations.

Scheduled Completion: Febraury 1999

Actual Completion: July 1999

ENGINEERS CERTIFICATION

The engineering work described and professional opinions rendered in this document, Completion Report for the Oxygen Releasing Compound Demonstration at Solid Waste Management Unit 14, Naval Station Mayport, Florida, December 1999, were conducted or developed using commonly accepted engineering practices standards. This report is a summary of a demonstration project to evaluate the effectiveness of in situ treatment of groundwater, using an oxygen-releasing compound to accelerate natural attenuation of semi-volatile organic compounds. The report has been prepared under the responsible charge of the undersigned professional engineer and, based on such engineer's knowledge, information, and belief, accurately summarizes the work performed.

J. R. Mann
12/23/99

J. R. Manning
Project Engineer
Florida P.E. No. 51803
Expires February 28, 2001

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ACRONYMS AND INITIALISMS

Bechtel	Bechtel Environmental, Inc.
DO	Delivery Order
EPA	Environmental Protection Agency
FDEP	Florida Department of Environmental Protection
FTC	Fleet Training Center
LNAPL	light non-aqueous phase liquid
ORC	oxygen-reducing compound
PPE	personal protective equipment
QA	quality assurance
QC	quality control
QCP	quality control plan
QCPA	quality control plan addendum
RAC	Remedial Action Contractor
SWMU	Solid Waste Management Unit
UST	underground storage tank

UNITS OF MEASURE

ft	foot
gal	gallon
in.	inch
lb	pound
mg/L	milligrams per liter

1.0 INTRODUCTION

Bechtel Environmental, Inc. (Bechtel) has been contracted by the Department of the Navy, Naval Facilities Command, Southern Division, to provide remedial services as the Navy's Environmental Response Action Contractor (RAC). Under Delivery Order (DO) 0110, Task 1, of the Prime Contract N62467-93-D-0936, Bechtel has been contracted to conduct a demonstration of an Oxygen Releasing Compound (ORC) technology at Solid Waste Management Unit (SWMU) 14. The purpose is to evaluate the technology and its effectiveness on promoting the natural attenuation of semi-volatile organic compounds in the groundwater at SWMU 14. This report discusses the activities involved in the injection of the ORC at SWMU 14.

1.1 SITE DESCRIPTION

SWMU 14 is located in the northeast area of Naval Station Mayport, in the vicinity of the Fleet Training Center (FTC). The area consists of drains connected to an oil-water separator, a storm water collection system, a petroleum storage area, and an area that reportedly was used for storage of mercuric nitrates. Activities at FTC include classroom instruction and outdoor live fire fighting demonstrations. The Fire Fighting Training Facility at FTC Mayport currently uses environmentally friendly propane to simulate aircraft and shipboard fires; however, in the past the training facility used open pit oil burning for fire training.

The contamination of the area resulted from the over-flowing of the oil-water separator. This overflow allowed wastewater to flow into an open stormwater drainage ditch. Also, in 1986 two underground storage tanks (USTs) were removed from the area. While no documentation was found detailing the condition of the tanks, it is possible the tanks leaked. The area of concern at the site is a 50 ft by 30 ft area near an abandoned concrete fire mat as shown in Figure 1. Monitoring well samples have indicated high concentrations of naphthalene, phenanthrene, 2-methylnaphthalene compounds, and total organic carbon.

1.2 TECHNOLOGY

It is anticipated that the ORC technology will enhance the natural attenuation of the contaminants of concern at SWMU 14. The increased oxygen injected into the subsurface is expected to increase the mass destruction rates by maximizing the microbial metabolism.

2.0 ACTIVITIES

This section provides a description of the tasks and activities preformed during the ORC demonstration. These include mobilization, baseline groundwater sampling and analyses, ORC treatment, and performance sampling and analyses.

2.1 MOBILIZATION

Bechtel and its subcontractor, ZEBRA Environmental, mobilized a work force, support equipment, and materials necessary to complete the work. Initial mobilization also involved securing an equipment staging area and establishing lay down and decontamination areas.

ZEBRA Environmental was responsible for the ORC injection and recommended a grid pattern consisting of six parallel rows each with seven direct push injection points. Bechtel staked locations for 42 injection points. Bechtel then performed utility location surveys using active/passive utility detection

equipment. Potential interferences were marked on the ground surface using pin flags or paint, as appropriate. No drilling was initiated until this clearance procedure was completed. Bechtel obtained and provided the required ORC injection permits to comply with state and federal regulations.

2.2 BASELINE SAMPLING

Before implementing the ORC technology demonstration, baseline groundwater sampling and analyses was conducted by Bechtel. Data collected from this baseline included field measurements and chemical analyses to determine the groundwater quality prior to treatment. Groundwater samples were collected from six of the seven monitoring wells (Figure 2) using the low flow purging and sampling technique. Monitoring well MPT-14-MW-17S was not sampled due to the presence of light non-aqueous phase liquid (LNAPL) in the well. All samples were submitted to ENCO Laboratories (state-certified) of Jacksonville, Florida, for chemical analyses. All samples were analyzed for selected dissolved gases, and organic and inorganic compounds. Results from this initial sampling event are summarized in Tables 1 and 2. Complete analytical reports are provided in Appendix A. These data provide a baseline for evaluating the effectiveness of the ORC technology demonstration.

2.3 ORC TREATMENT

ZEBRA Environmental mobilized a Geoprobe unit, Geoprobe operator, and all equipment necessary to implement this technology demonstration. The subcontractor installed 42 injection points spaced on 6-ft centers, injected the ORC slurry, and sealed the injection points after the ORC application. Figure 1 shows the approximate location of the 42 injection points. Site photographs are provided in Appendix B.

The ORC slurry, which contained magnesium peroxide, magnesium oxide, and magnesium hydroxide as the active ingredients, was injected into the 42 injector points utilizing a Geoprobe unit and direct push equipment. A Geoprobe injector point was pushed to an approximate depth of 13 ft below grade (10 ft below the water level) and the slurry was injected. The injector point was then slowly removed while the slurry injection continued. ZEBRA ensured that the required ORC solids content of 30% was injected into each injection point.

Based on groundwater velocity, total organic carbon concentration, thickness of saturated treatment zone, and soil porosity, a total of approximately 2,500 lb (dry weight) of ORC was required. Approximately 60 lb of ORC and 16.5 gal of water were required per injection point. The water that was required to mix the ORC was obtained from the FTC.

The ORC installation process was conducted in accordance with the following procedure:

A. The Geoprobe unit was set up over each specific point, following the manufacturer's recommended procedures.
B. Penetrated surface pavement following standard Geoprobe procedures. Once concrete surface had been removed, used a hand auger for the first 3 ft to ensure the location was free of unknown objects/utilities.
C. Drove the 1½-in. pre-probe with the expendable tip to the desired maximum depth. Standard 1-in. drive rods were used after the pre-probe.
D. Disconnected the drive rods from the expendable tip, following standard Geoprobe procedures.
E. Mixed the appropriate quantity of ORC slurry for the current drive point.
F. Set up and operated an appropriate slurry pump according to manufacturer's directions. Connected the pump to the probe grout pull cap by a 1-in. diameter delivery hose. Attached hose to the 1-in.

drive rod with its quick connector fitting. Upon confirmation of all connections, the ORC slurry was added to the pump hopper/tank.

G. While slowly withdrawing the pre-probe and drive stem, the predetermined amount of ORC slurry was pumped into the aquifer.

H. Pumped the predetermined quantity of ORC slurry 10 ft below the water table. Observed pump pressure levels for indications of slurry dispersion or refusal into the aquifer.

I. Removed 1-in. drive rod. The drive rod contained slurry. This slurry was returned to the ORC slurry container for reuse.

J. Installed an appropriate seal above the ORC slurry through the entire vadose zone. Removed and decontaminated the drive rods and pre-probe.

K. Finished the probe hole at surface with concrete patch.

Upon completion of the construction phase, all equipment and material was demobilized from the site. All injection points were sealed with a cement/bentonite grout. All openings in concrete created as a result of this work received a concrete patch. The site was restored as close to the pre-construction condition as practical.

2.4 PERFORMANCE SAMPLING

Eleven post-injection field monitoring events and six post-injection sampling events were performed to evaluate the effectiveness of the ORC technology demonstration.

Field monitoring parameters were measured biweekly and included air and groundwater measurements. Air measurements consisted of percent oxygen, percent carbon dioxide, and total methane and total organic vapors. Table 3 summarizes the results the field monitoring parameters.

Groundwater samples were collected monthly and occurred on the day of a biweekly field event. The monitoring wells that were sampled and the parameters analyzed were identified in *Execution Plan for Oxygen Releasing Compound at Solid Waste Management Unit 14* (Bechtel 1998) and were the same as that of the baseline sampling event. Results are summarized in Table 4. Additionally, during the July sampling event, EPA Method 8310 for poly-aromatic hydrocarbons was used to achieve lower detection limits to verify the attainment of the Florida Department of Environmental Protection (FDEP) cleanup goals for SWMU 14. Results for the Environmental Protection Agency (EPA) Method 8310 analysis are provided in Table 5. All results from the post-injection monitoring were compared to the baseline sampling results to determine the effectiveness of the ORC treatment. Conclusions are provided in Section 5.0.

3.0 WASTE MANAGEMENT

All wastes generated during slurry injection, field measurements, and well sampling were managed in accordance with applicable federal and state laws and regulations, as well as the *Environmental Response Action Contract Waste Management Plan* (Bechtel 1995).

No hazardous wastes were generated during the construction activities surrounding this scope of work.

Several non-hazardous wastes, such as general construction waste, decontaminated personal protective equipment (PPE), and investigation derived waste, were generated during this project. PPE that had been decontaminated was disposed of by placing the materials in double plastic garbage bags. Non-hazardous construction waste generated as a result of construction activities at the site was properly disposed of as

construction debris in a dumpster as directed by the Naval Environmental Officer. Bechtel assumed overall responsibility for the disposal of all non-hazardous wastes related to this project.

4.0 QUALITY CONTROL

Appropriate Quality Control (QC) criteria were developed and included in the site-specific addendum to the Quality Control Program Plan (QCP). This site-specific plan, called the Quality Control Program Plan Addendum (QCPA), was based on the Navy-approved QCP for the basic contract. The QCPA was issued under separate cover and approved by the Navy. Bechtel implemented, maintained, and complied with the Navy-approved basic contract QCP and the site-specific QCPA and provided a trained, qualified Quality Assurance (QA) Representative who performed the function of QA.

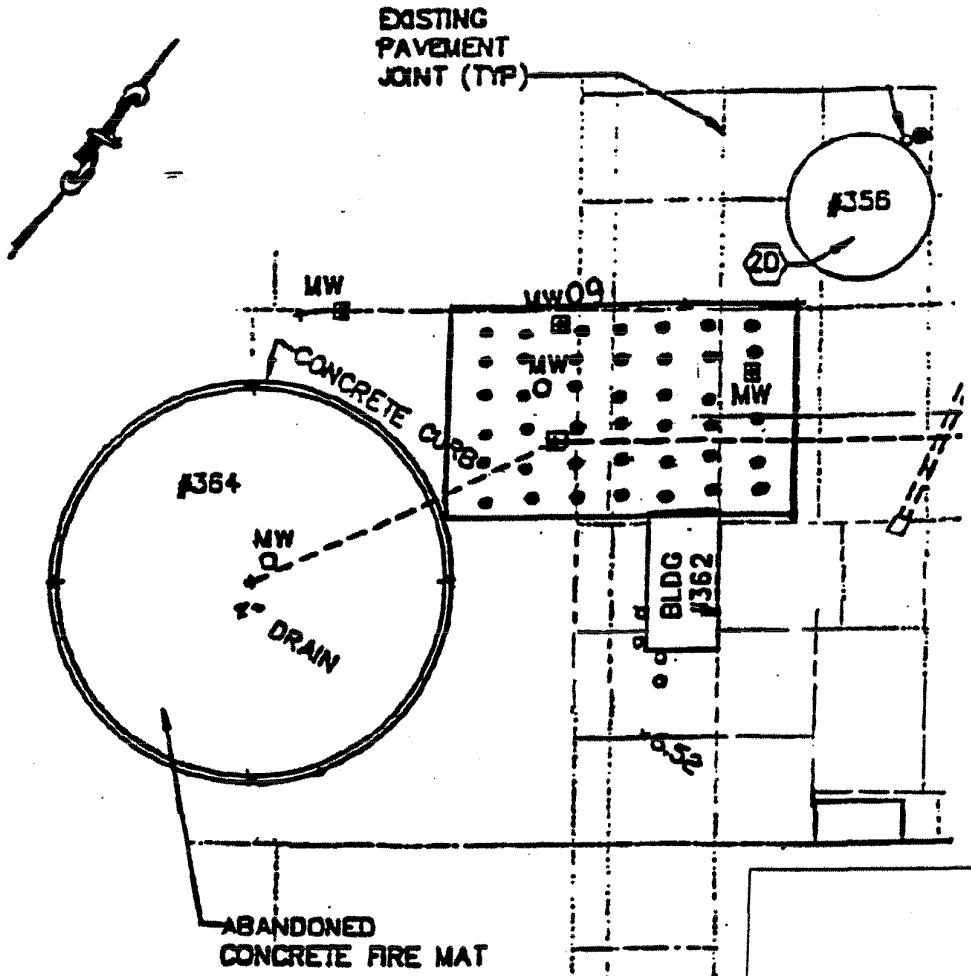
5.0 CONCLUSIONS

To properly evaluate this technology demonstration, Bechtel focused on data from the monitoring wells located within the area of the ORC injection (MPT-14-MW-09S, MPT-14-MW-18S, and MPT-14-MW-19S). Methane levels decreased in all three wells—3.80 mg/L to 1.40 mg/L at MPT-14-MW-09S, 2.10 mg/L to 0.15 mg/L at MPT-14-MW18S, and 0.29 mg/L to 0.015 mg/L at MPT-14-MW-19S. Also, at MPT-14-MW-18S, the 2-Methylnapthalene that was detected during the pretreatment sampling event at 33.0 μg/L was non-detectable at the detection limits for the following four months and only reappeared during the final sampling event on July 17,1999.

Further evidence can be seen in the dissolved oxygen readings taken during the biweekly field monitoring events. During the first six biweekly (3 months) field monitoring events, the dissolved oxygen readings of the monitoring wells within the injection area were substantially higher than the monitoring wells outside the injection area. After these field events, the dissolved oxygen readings in the affected wells returned to a level consistent with those wells outside the injection area, which corresponds with the time of influence that was expected from the ORC.

In conclusion, the ORC successfully increased micro-metabolism and resulted in the reduction of semi-volatile contamination in the subsurface groundwater. This is shown by the reduction in methane in all three affected monitoring wells, and the reduction of 2-methylnapthalene in monitoring well MPT-14-MW-18S. All constituents analyzed for were below the FDEP groundwater cleanup goal at the end of this demonstration.

FIGURES



LEGEND

- microwell injection point

— treatment boundary

Note: The treatment area shall be approximately 50 ft x 30 ft with 42 microwell injection points

Dale Obenauer
6/17/98

Dale F. Obenauer
Florida PE #0052303
Expires February 28,1999

REV.	DATE	REVISIONS MADE	BY	CHECK	DESIGN SUPV.	PROJ. ENGR.
0	6/17/98	ISSUE FOR USE	RAW			

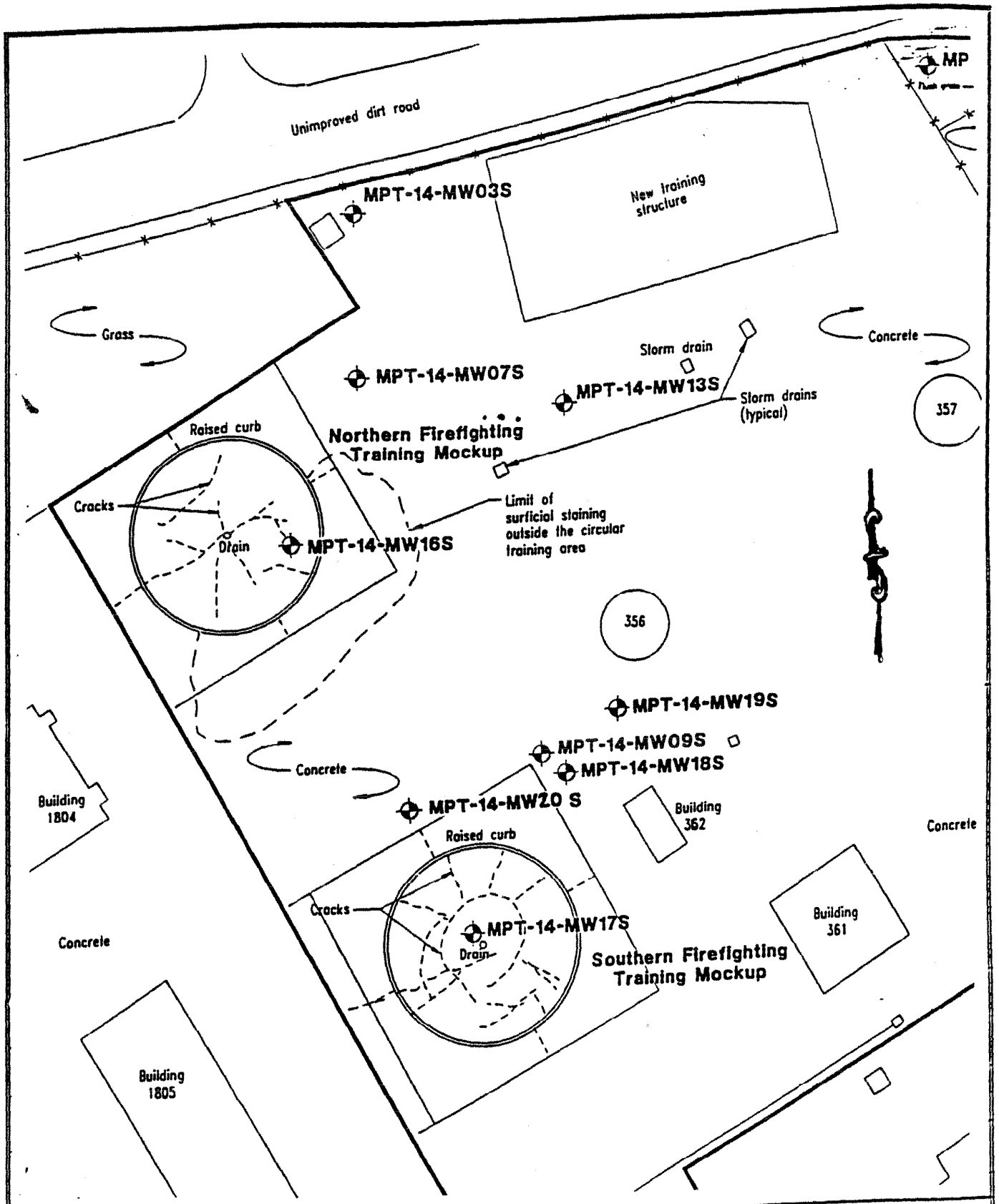
SCALE : 1 in = 28 ft

BECHTEL

FIGURE 1
SWMU 14 - ORC MICROWELL LAYOUT
NAVAL STATION MAYPORT
JACKSONVILLE, FLORIDA

JOB NO. 22567

SKETCH NO.	REV.
605-SK-001	0



BECHTEL	FIGURE 2 MONITORING WELL LAYOUT NAVAL STATION MAYPORT JACKSONVILLE, FLORIDA	JOB NO. 22567	
		SKETCH NO.	REV.
		605-SK-002	0

TABLES

TABLE 1
BASELINE GROUNDWATER ANALYSES SUMMARY
SWMU 14, NAVAL STATION MAYPORT, FL

Location	Date	Sample ID	Parameters								
			BOD	COD	Fe, Ferrous	Nitrate-N	Nitrite-N	Sulfate-Total	Sulfide-Total	TOC	Nitrate-Nitrite-N
			Units (mg/L)								
MPT-14-MW-07S	2/2/99	MP06788	**7.0**	**150.0**	4.0 U	0.10 U	0.10 U	**2.0 I**	**300.0**	**14.0**	0.020 U
MPT-14-MW-09S*	2/2/99	MP06784	**4.0**	**49.0**	4.0 U	0.10 U	0.10 U	**1.0 I**	**9.0**	**14.0**	0.020 U
MPT-14-MW-16S	2/2/99	MP06787	**7.0**	**57.0**	4.0 U	0.10 U	0.10 U	**21.0**	**220.0**	**12.0**	0.020 U
MPT-14-MW-17S	2/2/99		Sample Not Taken - Free Product in Well								
MPT-14-MW-18S*	2/2/99	MP06783	**14.0**	**71.0**	4.0 U	0.10 U	0.10 U	**23.0**	**58.0**	**21.0**	0.020 U
MPT-14-MW-19S*	2/2/99	MP06785	**3.0 I**	**25.0**	4.0 U	0.10 U	0.10 U	**20.0**	**280.0**	**10.0**	0.020 U
MPT-14-MW-20S	2/2/99	MP06786	**13.0**	**86.0**	4.0 U	0.10 U	0.10 U	**1.0 I**	**250.0**	1.0 U	**0.110**

Location	Date	Sample ID	Semi-volatiles		Dissolved Gases		Total Petroleum
			compound(s)	(µg/L)	compound(s)	(mg/L)	Hydrocarbons (mg/L)
MPT-14-MW-07S	2/2/99	MP06788	ND		**Methane**	**3.20**	1.0 U
MPT-14-MW-09S*	2/2/99	MP06784	ND		**Methane**	**3.80**	1.0 U
MPT-14-MW-16S	2/2/99	MP06787	ND		**Methane**	**0.62**	1.0 U
MPT-14-MW-17S	2/2/99		Sample Not Taken - Free Product in Well				
MPT-14-MW-18S*	2/2/99	MP06783	**2-Methylnapthalene**	**33.0**	**Methane**	**2.10**	1.0 U
MPT-14-MW-19S*	2/2/99	MP06785	ND		**Methane**	**0.29**	1.0 U
MPT-14-MW-20S	2/2/99	MP06786	ND		**Methane**	**0.73**	1.0 U

Notes:
1. ND - Compound(s) non-detectable at dection limits
2. U - All compounds non-detectable to detection limit shown
3. * - Wells located directly within ORC injection area
4. ORC injection was completed on 2/3/99

TABLE 2
FIELD PARAMETER MEASUREMENTS
SWMU 14, NAVAL STATION MAYPORT, FL

		AIR				GROUNDWATER				
Location	**Date**	**O2 (%)**	**CO2 (%)**	**CH4 (ppm)**	**OVA (ppm)**	**Water Level (Ft bls)**	**pH**	**Temp. (C)**	**Conductivity (mS/cm)**	**Dissolved Oxygen (mg/L)**
MPT-14-MW-07S	2/22/99	18.5	4.0	7800.0	5500.0	3.09	7.31	21.5	0.533	0.21
	3/4/99	8.2	13.0	F.O.	F.O.	3.34	7.58	18.9	0.550	0.62
	3/29/99	3.0	8.5	F.O.	F.O.	3.75	7.25	21.6	0.538	0.36
	4/15/99	0.5	9.0	8440.0	8310.0	3.56	7.19	23.6	0.516	0.65
	4/27/99	2.0	9.0	9070.0	9340.0	3.73	7.00	23.3	0.519	0.50
	5/12/99	12.0	1.0	12350.0	12350.0	5.49	7.02	23.4	0.593	0.27
	5/26/99	0.5	10.2	50.5	1550.0	3.46	7.11	24.4	0.658	0.54
	6/9/99	3.0	9.0	NR	NR	3.85	7.59	25.1	0.643	0.41
	6/24/99	0.0	11.0	15200.0	15900.0	3.30	7.56	25.9	0.546	0.47
	7/15/99	1.0	11.0	1500.0	1550.0	3.22	7.50	26.3	0.425	0.30
	7/29/99	2.0	11.0	1020.0	1020.0	3.59	7.57	26.9	0.419	0.10
MPT-14-MW-09S*	2/22/99	22.5	0.4	21.5	28.0	3.26	7.43	22.0	0.701	3.15
	3/4/99	21.0	3.0	2.3	169.0	3.42	7.41	20.7	0.682	4.35
	3/29/99	18.0	5.0	F.O.	3.3	3.96	7.20	22.3	0.709	0.90
	4/15/99	9.0	12.0	0.9	1.2	3.86	7.05	23.8	0.654	0.97
	4/27/99	12.0	8.0	0.0	8.0	4.00	7.05	24.5	0.713	0.50
	5/12/99	10.5	11.5	6.0	4.0	3.73	7.03	24.1	0.728	0.66
	5/26/99	19.0	11.9	9.2	9.3	3.63	7.04	25.7	0.645	0.80
	6/9/99	8.0	11.5	NR	NR	3.96	7.47	26.1	0.595	0.53
	6/24/99	7.5	12.0	5.0	16.5	4.51	7.47	26.8	0.700	0.63
	7/15/99	6.5	12.0	80.0	84.0	3.36	7.23	26.9	0.569	0.76
	7/29/99	6.5	12.5	26.0	56.0	3.75	7.22	27.7	0.603	0.28
MPT-14-MW-16S	2/22/99	18.0	1.1	7.0	7.1	5.52	7.19	18.9	0.645	0.33
	3/4/99	14.5	2.5	F.O.	F.O.	5.73	7.42	17.5	0.665	0.82
	3/29/99	6.0	4.0	F.O.	F.O.	6.20	7.00	20.8	0.676	0.29
	4/15/99	5.5	4.0	6.6	10.4	6.01	6.83	23.9	0.724	0.43
	4/27/99	9.0	3.0	3750.0	3940.0	6.20	6.79	24.7	0.747	0.29
	5/12/99	4.5	6.0	222.0	215.0	5.92	6.87	23.7	0.776	0.24
	5/26/99	0.0	6.5	585.0	606.0	5.91	6.90	25.7	0.748	0.41
	6/9/99	0.0	7.0	NR	NR	6.24	7.34	27.4	0.719	0.41
	6/24/99	1.0	7.0	13500.0	24750.0	5.71	7.37	27.4	0.716	0.51
	7/15/99	4.0	6.0	3000.0	36850.0	5.67	7.05	28.3	0.755	0.39
	7/29/99	1.5	7.5	34700.0	35000.0	6.00	7.02	29.4	0.756	0.14
MPT-14-MW-17S	2/22/99	9.0	3.0	F.O.	F.O.	5.88	7.56	19.2	0.687	0.10
	3/4/99	FREE PRODUCT IN WELL								
	3/29/99	10.0	2.0	F.O.	F.O.	6.57	7.41	21.1	0.786	1.67
	4/15/99	FREE PRODUCT IN WELL - LNAPL 0.01 ft								
	4/27/99	FREE PRODUCT IN WELL - LNAPL 0.03 ft								
	5/12/99	FREE PRODUCT IN WELL - LNAPL 0.05 ft								
	5/26/99	FREE PRODUCT IN WELL - LNAPL 0.06 ft								
	6/9/99	FREE PRODUCT IN WELL - LNAPL 0.02 ft								
	6/24/99	FREE PRODUCT IN WELL - LNAPL 0.04 ft								
	7/15/99	FREE PRODUCT IN WELL - LNAPL 0.02 ft								
	7/29/99	FREE PRODUCT IN WELL - LNAPL 0.01 ft								
MPT-14-MW-18S*	2/22/99	17.5	5.0	1.6	2.1	5.95	7.54	20.6	1.800	7.78
	3/4/99	16.1	9.5	0.0	6.4	6.12	7.33	18.9	1.260	7.26
	3/29/99	8.0	4.0	F.O.	F.O.	6.64	6.90	21.7	0.973	7.09
	4/15/99	12.0	10.0	3.1	2.8	6.54	6.79	25.8	0.969	6.20
	4/27/99	6.0	16.0	6.0	7.0	6.70	6.95	26.0	1.280	3.88
	5/12/99	11.0	12.5	9.6	9.4	6.41	6.88	25.1	1.480	6.22
	5/26/99	7.5	11.5	0.5	1.8	6.33	6.87	27.6	1.450	5.23
	6/9/99	6.0	12.5	NR	NR	6.65	7.30	28.9	1.320	3.91
	6/24/99	6.0	14.5	6.0	16.0	6.22	7.38	28.8	1.320	6.43
	7/15/99	6.5	11.0	0.0	0.0	6.06	7.09	30.2	1.310	7.37
	7/29/99	8.0	10.5	0.0	16.1	6.46	6.94	31.3	0.927	4.01

TABLE 2
FIELD PARAMETER MEASUREMENTS
SWMU 14, NAVAL STATION MAYPORT, FL

	AIR					GROUNDWATER				
Location	**Date**	**O2 (%)**	**CO2 (%)**	**CH4 (ppm)**	**OVA (ppm)**	**Water Level (Ft bls)**	**pH**	**Temp. (C)**	**Conductivity (mS/cm)**	**Dissolved Oxygen (mg/L)**
MPT-14-MW-19S*	2/22/99	19.5	2.5	0.0	0.0	X	7.50	20.3	0.468	5.82
	3/4/99	19.0	3.0	0.0	3.1	X	7.69	19.9	0.487	3.81
	3/29/99	18.0	3.0	2.0	4.0	X	7.25	21.4	0.771	4.62
	4/15/99	13.0	5.0	3.1	4.8	X	7.16	24.4	0.716	5.92
	4/27/99	12.0	6.0	0.0	1.0	X	7.22	24.4	0.631	6.11
	5/12/99	12.0	6.5	9.0	10.5	X	7.10	24.1	0.535	5.32
	5/26/99	10.9	6.5	0.2	6.7	X	7.35	27.3	0.488	6.37
	6/9/99	11.5	6.5	NR	NR	X	7.65	27.6	0.465	5.26
	6/24/99	12.0	7.0	4.0	13.5	X	7.80	27.6	0.543	7.95
	7/15/99	10.0	8.0	0.0	10.0	X	7.43	28.5	0.577	6.24
	7/29/99	10.0	7.5	3.0	24.9	X	7.13	29.9	0.555	1.51
MPT-14-MW-20S	2/22/99	8.2	15.5	F.O.	F.O.	X	7.46	20.2	0.518	2.50
	3/4/99	10.0	7.0	F.O.	F.O.	X	7.37	19.9	0.487	5.10
	3/29/99	6.0	7.5	F.O.	F.O.	X	7.27	21.2	0.556	5.69
	4/15/99	2.5	9.5	10.1	7.4	X	6.96	24.8	0.626	8.15
	4/27/99	3.0	10.0	1.0	2.5	X	7.05	25.1	0.659	5.10
	5/12/99	2.0	11.0	16.5	35.0	X	7.06	23.9	0.769	2.52
	5/26/99	1.0	11.0	1.0	19.2	X	6.89	26.3	0.769	2.43
	6/9/99	2.0	11.0	NR	NR	X	7.34	27.7	0.672	3.33
	6/24/99	1.5	11.5	7.0	14.6	X	7.41	27.4	0.554	5.10
	7/15/99	0.5	11.5	0.0	10.0	X	7.00	28.2	0.438	0.55
	7/29/99	2.0	11.0	30.0	75.0	X	7.09	29.3	0.459	0.51

Notes:
1. F.O. - Instrument Flameout due to low O2
2. X - Unable to take measurement due to small diameter well
3. * - Wells located directly within ORC injection area
4. ORC injection completed on 2/4/99
5. NR - Not Read

TABLE 3
POST TREATMENT GROUNDWATER ANALYSES
SWMU 14, NAVAL STATION MAYPORT, FL

		Sample MP06788 2/2/99	Sample MP06816 3/4/99	Sample MP06855 4/15/99	Sample MP06878 5/12/99	Sample MP06901 6/9/99	Sample MP06949 7/15/99
Compound	Units	MPT-14-MW-07S	MPT-14-MW-07S	MPT-14-MW-07S	MPT-14-MW-07S	MPT-14-MW-07S	MPT-14-MW-07S
Semivolatile Organics (EPA Method 625)							
Acenaphthene	µg/L	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U
Acenphthylene	µg/L	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U
Benzidine	µg/L	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U
Benzo(a) anthracene	µg/l	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U
Benzo(b) fluoranthene	µg/L	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U
Benzo(k) fluoranthene	µg/L	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U
Benzo(g,h,I)perylene	µg/L	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U
Benzo(a)pyrene	µg/L	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U
Benzylbutyl Phthalate	µg/L	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U
Bis(2-chloroethoxy)methane	µg/L	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U
Bis(2-chloroethyl)ether	µg/L	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U
Bis(2-chloroisopropyl)ether	µg/L	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U
Bis(2-ethylhexyl)phthalate	µg/L	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U
4-Bromophenylphenyl ether	µg/L	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U
2-Chloronaphthalene	µg/L	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U
4-Chlorophenyl phenyl ether	µg/L	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U
Chrysen	µg/L	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U
Dibenzo(a,h)anthracene	µg/L	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U
1,2-Dichlorobenzene	µg/L	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U
1,3-Dichlorobenzene	µg/L	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U
1,4-Dichlorobenzene	µg/L	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U
3,3'-Dichlorobenzidine	µg/L	20.00 U	20.00 U	20.00 U	20.00 U	20.00 U	20.00 U
Diethyl phthalate	µg/L	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U
Dimethyl phthalate	µg/L	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U
Di-n-butyl phthalate	µg/L	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U
Di-n-octyl phthalate	µg/L	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U
2,4-Dinitrotoluene	µg/L	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U
2,6-Dinitrotoluene	µg/L	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U
Fluoranthene	µg/L	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U
Flourene	µg/L	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U
Hexachlorobenzene	µg/L	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U
Hexachlorobutadiene	µg/L	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U
Hexachlorocyclopentadiene	µg/L	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U
Hexachloroethane	µg/L	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U
Indeno(1,2,3-cd)pyrene	µg/L	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U
Isophorone	µg/L	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U
1-Methylnaphthalene	µg/L	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U
2-Methylnaphthalene	µg/L	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U
Naphthalene	µg/L	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U
Nitrobenzene	µg/L	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U
N-Nitrosodimethylamine	µg/L	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U
N-Nitrosodi-n-propylamine	µg/L	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U
N-Nitrosodiphenylamine	µg/L	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U
Phenanthrene	µg/L	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U
Pyrene	µg/L	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U
1,2,4-Trichlorobenzene	µg/L	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U
4-Chloro-3-methylphenol	µg/L	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U
2-Chlorophenol	µg/L	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U
2,4-Dichlorophenol	µg/L	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U
2,4-Dimethylphenol	µg/L	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U
2,4-Dinitrophenol	µg/L	50.00 U	50.00 U	50.00 U	50.00 U	50.00 U	50.00 U
2-Methyl-4,6-dinitrophenol	µg/L	30.00 U	30.00 U	30.00 U	30.00 U	30.00 U	30.00 U
2-Nitrophenol	µg/L	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U
4-Nitrophenol	µg/L	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U
Pentachlorophenol	µg/L	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U
Phenol	µg/L	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U
2,4,6-Trichlorophenol	µg/L	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U
Dissloved Gases (EPA Method RSK 175)							
Methane	mg/L	**3.20**	**3.40**	**4.80**	**4.10**	**2.90**	**2.00**
Ethene	mg/L	0.00 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U
Ethane	mg/L	0.00 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U
BOD (EPA Method 405.1	mg/L	**7.00**	**8.00**	**5.00**	4.00	**6.00**	**8.00**
COD (EPA Method 410.4)	mg/L	**150.00**	**53.00**	10.00 U	63.00	**120.00**	**53.00**
Ferrous Iron (Standard Method 3500D)	mg/L	4.00 U	4.00 U	4.00 U	4.00 U	4.00 U	4.00 U
Nitrate (EPA Method 353.3)	mg/L	0.10 U	0.10 U	0.10 U	0.1 U	0.10 U	0.10 U
Nitrite (EPA Method 354.1)	mg/L	0.10 U	0.10 U	0.10 U	0.1 U	0.10 U	0.10 U
Sulfate (EPA Method 375.4)	mg/L	**2.00 I**	**1.00 I**	5.00 U	**16.00**	**21.00**	**9.00**
Sulfide (EPA Method 376)	mg/L	**300.00**	**340.00**	**5.00**	1.00 U	1.00 U	**2.00 I**
TOC (EPA Method 415.1)	mg/L	**14.00**	**13.00**	**10.00**	**15.00**	**18.00**	**5.00**
Nitrate-Nitrite-N (EPA Method 353.1)	mg/L	0.020 U	0.020 U	0.020 U	0.02 U	0.02 U	0.020 U
FL Method FLPRO - Hydrocarbons	mg/L	1.00 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U

U-compound was analyzed for but not detected to the level shown.
I-analyte detected; value is between MDL and PQL.
Well MPT-14-MW-17S not sampled due to product in well

TABLE 3
POST TREATMENT GROUNDWATER ANALYSES
SWMU 14, NAVAL STATION MAYPORT, FL

		Sample MP06784 2/2/99	Sample MP06817 3/4/99	Sample MP06852 4/15/99	Sample MP06875 5/12/99	Sample MP06898 6/9/99	Sample MP06947 7/15/99
Compound	**Units**	**MPT-14-MW-09S**	**MPT-14-MW-09S**	**MPT-14-MW-09S**	**MPT-14-MW-09S**	**MPT-14-MW-09S**	**MPT-14-MW-09S**
Semivolatile Organics (EPA Method 625)							
Acenaphthene	µg/L	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U
Acenphthylene	µg/L	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U
Benzidine	µg/L	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U
Benzo(a) anthracene	µg/L	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U
Benzo(b) fluoranthene	µg/L	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U
Benzo(k) fluoranthene	µg/L	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U
Benzo(g,h,I)perylene	µg/L	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U
Benzo(a)pyrene	µg/L	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U
Benzylbutyl Phthalate	µg/L	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U
Bis(2-chloroethoxy)methane	µg/L	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U
Bis(2-chloroethyl)ether	µg/L	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U
Bis(2-chloroisopropyl)ether	µg/L	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U
Bis(2-ethylhexyl)phthalate	µg/L	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U
4-Bromophenylphenyl ether	µg/L	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U
2-Chloronaphthalene	µg/L	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U
4-Chlorophenyl phenyl ether	µg/L	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U
Chrysen	µg/L	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U
Dibenzo(a,h)anthracene	µg/L	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U
1,2-Dichlorobenzene	µg/L	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U
1,3-Dichlorobenzene	µg/L	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U
1,4-Dichlorobenzene	µg/L	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U
3,3'-Dichlorobenzidine	µg/L	20.00 U	20.00 U	20.00 U	20.00 U	20.00 U	20.00 U
Diethyl phthalate	µg/L	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U
Dimethyl phthalate	µg/L	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U
Di-n-butyl phthalate	µg/L	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U
Di-n-octyl phthalate	µg/L	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U
2,4-Dinitrotoluene	µg/L	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U
2,6-Dinitrotoluene	µg/L	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U
Fluoranthene	µg/L	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U
Flourene	µg/L	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U
Hexachlorobenzene	µg/L	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U
Hexachlorobutadiene	µg/L	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U
Hexachlorocyclopentadiene	µg/L	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U
Hexachloroethane	µg/L	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U
Indeno(1,2,3-cd)pyrene	µg/L	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U
Isophorone	µg/L	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U
1-Methylnaphthalene	µg/L	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U
2-Methylnaphthalene	µg/L	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U
Naphthalene	µg/L	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U
Nitrobenzene	µg/L	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U
N-Nitrosodimethylamine	µg/L	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U
N-Nitrosodi-n-propylamine	µg/L	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U
N-Nitrosodiphenylamine	µg/L	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U
Phenanthrene	µg/L	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U
Pyrene	µg/L	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U
1,2,4-Trichlorobenzene	µg/L	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U
4-Chloro-3-methylphenol	µg/L	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U
2-Chlorophenol	µg/L	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U
2,4-Dichlorophenol	µg/L	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U
2,4-Dimethylphenol	µg/L	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U
2,4-Dinitrophenol	µg/L	50.00 U	50.00 U	50.00 U	50.00 U	50.00 U	50.00 U
2-Methyl-4,6-dinitrophenol	µg/L	30.00 U	30.00 U	30.00 U	30.00 U	30.00 U	30.00 U
2-Nitrophenol	µg/L	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U
4-Nitrophenol	µg/L	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U
Pentachlorophenol	µg/L	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U
Phenol	µg/L	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U
2,4,6-Trichlorophenol	µg/L	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U
Dissloved Gases (EPA Method RSK 175)							
Methane	mg/L	**3.80**	**1.20**	**1.90**	**1.40**	**1.30**	**1.40**
Ethene	mg/L	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U
Ethane	mg/L	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U
BOD (EPA Method 405.1	mg/L	**4.00**	**39.00**	2.00 U	**4.00 I**	**2.00 I**	**5.00**
COD (EPA Method 410.4)	mg/L	**49.00**	**79.00**	10.00 U	**32.00**	**30.00**	**38.00**
Ferrous Iron (Standard Method 3500D)	mg/L	4.00 U	4.00 U	4.00 U	4.00 U	4.00 U	4.00 U
Nitrate (EPA Method 353.3)	mg/L	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U
Nitrite (EPA Method 354.1)	mg/L	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U
Sulfate (EPA Method 375.4)	mg/L	**1.00 I**	**56.00**	**71.00**	**73.00**	**55.00**	**30.00**
Sulfide (EPA Method 376)	mg/L	**9.00**	**360.00**	**3.00 I**	1.00 U	1.00 U	1.00 U
TOC (EPA Method 415.1)	mg/L	**14.00**	**21.00**	**8.00**	**10.00**	**8.00**	**7.00**
Nitrate-Nitrite-N (EPA Method 353.1)	mg/L	0.020 U	0.10	0.020 U	0.02 U	0.02 U	0.020 U
FL Method FLPRO - Hydrocarbons	mg/L	1.00 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U

U-compound was analyzed for but not detected to the level shown.
I-analyte detected, value is between MDL and PQL.
Well MPT-14-MW-17S not sampled due to product in we

TABLE 3
POST TREATMENT GROUNDWATER ANALYSES
SWMU 14, NAVAL STATION MAYPORT, FL

		Sample MP06787 2/2/99	Sample MP06818 3/4/99	Sample MP06856 4/15/99	Sample MP06879 5/12/99	Sample MP06902 6/9/99	Sample MP06950 7/15/99
Compound	**Units**	**MPT-14-MW-16S**	**MPT-14-MW-16S**	**MPT-14-MW-16S**	**MPT-14-MW-16S**	**MPT-14-MW-16S**	**MPT-14-MW-16S**
Semivolatile Organics (EPA Method 625)							
Acenaphthene	µg/L	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U
Acenphthylene	µg/L	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U
Benzidine	µg/L	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U
Benzo(a) anthracene	µg/L	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U
Benzo(b) fluoranthene	µg/L	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U
Benzo(k) fluoranthene	µg/L	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U
Benzo(g,h,I)perylene	µg/L	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U
Benzo(a)pyrene	µg/L	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U
Benzylbutyl Phthalate	µg/L	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U
Bis(2-chloroethoxy)methane	µg/L	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U
Bis(2-chloroethyl)ether	µg/L	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U
Bis(2-chloroisopropyl)ether	µg/L	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U
Bis(2-ethylhexyl)phthalate	µg/L	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U
4-Bromophenylphenyl ether	µg/L	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U
2-Chloronaphthalene	µg/L	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U
4-Chlorophenyl phenyl ether	µg/L	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U
Chrysen	µg/L	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U
Dibenzo(a,h)anthracene	µg/L	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U
1,2-Dichlorobenzene	µg/L	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U
1,3-Dichlorobenzene	µg/L	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U
1,4-Dichlorobenzene	µg/L	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U
3,3'-Dichlorobenzidine	µg/L	20.00 U	20.00 U	20.00 U	20.00 U	20.00 U	20.00 U
Diethyl phthalate	µg/L	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U
Dimethyl phthalate	µg/L	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U
Di-n-butyl phthalate	µg/L	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U
Di-n-octyl phthalate	µg/L	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U
2,4-Dinitrotoluene	µg/L	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U
2,6-Dinitrotoluene	µg/L	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U
Fluoranthene	µg/L	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U
Flourene	µg/L	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U
Hexachlorobenzene	µg/L	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U
Hexachlorobutadiene	µg/L	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U
Hexachlorocyclopentadiene	µg/L	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U
Hexachloroethane	µg/L	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U
Indeno(1,2,3-cd)pyrene	µg/L	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U
Isophorone	µg/L	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U
1-Methylnaphthalene	µg/L	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U
2-Methylnaphthalene	µg/L	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U
Naphthalene	µg/L	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U
Nitrobenzene	µg/L	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U
N-Nitrosodimethylamine	µg/L	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U
N-Nitrosodi-n-propylamine	µg/L	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U
N-Nitrosodiphenylamine	µg/L	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U
Phenanthrene	µg/L	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U
Pyrene	µg/L	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U
1,2,4-Trichlorobenzene	µg/L	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U
4-Chloro-3-methylphenol	µg/L	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U
2-Chlorophenol	µg/L	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U
2,4-Dichlorophenol	µg/L	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U
2,4-Dimethylphenol	µg/L	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U
2,4-Dinitrophenol	µg/L	50.00 U	50.00 U	50.00 U	50.00 U	50.00 U	50.00 U
2-Methyl-4,6-dinitrophenol	µg/L	30.00 U	30.00 U	30.00 U	30.00 U	30.00 U	30.00 U
2-Nitrophenol	µg/L	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U
4-Nitrophenol	µg/L	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U
Pentachlorophenol	µg/L	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U
Phenol	µg/L	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U
2,4,6-Trichlorophenol	µg/L	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U
Dissloved Gases (EPA Method RSK 175)							
Methane	mg/L	**0.62**	**0.52**	**0.55**	**0.68**	**0.55**	**0.15**
Ethene	mg/L	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U
Ethane	mg/L	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U
BOD (EPA Method 405.1	mg/L	**7.00**	**8.00**	2.00 U	**2.00 I**	2.00 U	**5.00**
COD (EPA Method 410.4)	mg/L	**57.00**	**62.00**	**33.00**	**63.00**	**180.00**	**120.00**
Ferrous Iron (Standard Method 3500D)	mg/L	4.00 U	4.00 U	4.00 U	4 U	4.00 U	4.00 U
Nitrate (EPA Method 353.3)	mg/L	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U
Nitrite (EPA Method 354.1)	mg/L	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U
Sulfate (EPA Method 375.4)	mg/L	**21.00**	**2.00 I**	**15.00 I**	**94.00**	**31.00**	**9.00**
Sulfide (EPA Method 376)	mg/L	**220.00**	**310.00**	**3.00 I**	1.00 U	1.00 U	1.00 U
TOC (EPA Method 415.1)	mg/L	**12.00**	**14.00**	**22.00**	**31.00**	**24.00**	**5.00**
Nitrate-Nitrite-N (EPA Method 353.1)	mg/L	**0.020**	**0.020**	0.020 U	0.020 U	0.020 U	0.020 U
FL Method FLPRO - Hydrocarbons	mg/L	1.00 U	0.20 U	0.20 U	**0.64**	0.20 U	**0.56**

U-compound was analyzed for but not detected to the level shown.
I-analyte detected; value is between MDL and PQL.
Well MPT-14-MW-17S not sampled due to product in we

TABLE 3
POST TREATMENT GROUNDWATER ANALYSES
SWMU 14, NAVAL STATION MAYPORT, FL

		Sample MP06783 2/2/99	Sample MP06820 3/4/99	Sample MP06853 4/15/99	Sample MP06880 5/12/99	Sample MP06899 6/9/99	Sample MP06948 7/15/99
Compound	**Units**	**MPT-14-MW-18S**	**MPT-14-MW-18S**	**MPT-14-MW-18S**	**MPT-14-MW-18S**	**MPT-14-MW-18S**	**MPT-14-MW-18S**
Semivolatile Organics (EPA Method 625)							
Acenaphthene	µg/L	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U
Acenphthylene	µg/L	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U
Benzidine	µg/L	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U
Benzo(a) anthracene	µg/L	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U
Benzo(b) fluoranthene	µg/L	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U
Benzo(k) fluoranthene	µg/L	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U
Benzo(g,h,I)perylene	µg/L	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U
Benzo(a)pyrene	µg/L	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U
Benzylbutyl Phthalate	µg/L	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U
Bis(2-chloroethoxy)methane	µg/L	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U
Bis(2-chloroethyl)ether	µg/L	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U
Bis(2-chloroisopropyl)ether	µg/L	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U
Bis(2-ethylhexyl)phthalate	µg/L	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U
4-Bromophenylphenyl ether	µg/L	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U
2-Chloronaphthalene	µg/L	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U
4-Chlorophenyl phenyl ether	µg/L	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U
Chrysen	µg/L	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U
Dibenzo(a,h)anthracene	µg/L	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U
1,2-Dichlorobenzene	µg/L	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U
1,3-Dichlorobenzene	µg/L	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U
1,4-Dichlorobenzene	µg/L	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U
3,3'-Dichlorobenzidine	µg/L	20.00 U	20.00 U	20.00 U	20.00 U	20.00 U	20.00 U
Diethyl phthalate	µg/L	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U
Dimethyl phthalate	µg/L	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U
Di-n-butyl phthalate	µg/L	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U
Di-n-octyl phthalate	µg/L	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U
2,4-Dinitrotoluene	µg/L	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U
2,6-Dinitrotoluene	µg/L	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U
Fluoranthene	µg/L	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U
Flourene	µg/L	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U
Hexachlorobenzene	µg/L	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U
Hexachlorobutadiene	µg/L	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U
Hexachlorocyclopentadiene	µg/L	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U
Hexachloroethane	µg/L	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U
Indeno(1,2,3-cd)pyrene	µg/L	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U
Isophorone	µg/L	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U
1-Methylnaphthalene	µg/L	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U	**11.00**
2-Methylnaphthalene	µg/L	**33.00**	10.00 U	10.00 U	10.00 U	10.00 U	**10.00**
Naphthalene	µg/L	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U
Nitrobenzene	µg/L	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U
N-Nitrosodimethylamine	µg/L	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U
N-Nitrosodi-n-propylamine	µg/L	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U
N-Nitrosodiphenylamine	µg/L	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U
Phenanthrene	µg/L	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U
Pyrene	µg/L	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U
1,2,4-Trichlorobenzene	µg/L	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U
4-Chloro-3-methylphenol	µg/L	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U
2-Chlorophenol	µg/L	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U
2,4-Dichlorophenol	µg/L	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U
2,4-Dimethylphenol	µg/L	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U
2,4-Dinitrophenol	µg/L	50.00 U	50.00 U	50.00 U	50.00 U	50.00 U	50.00 U
2-Methyl-4,6-dinitrophenol	µg/L	30.00 U	30.00 U	30.00 U	30.00 U	30.00 U	30.00 U
2-Nitrophenol	µg/L	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U
4-Nitrophenol	µg/L	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U
Pentachlorophenol	µg/L	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U
Phenol	µg/L	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U
2,4,6-Trichlorophenol	µg/L	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U
Dissloved Gases (EPA Method RSK 175)							
Methane	mg/L	**2.10**	**0.80**	**0.081**	**0.034**	**0.21**	**0.15**
Ethene	mg/L	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U
Ethane	mg/L	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U
BOD (EPA Method 405.1	mg/L	**14.00**	**24.00**	2.00 U	**4.00**	**4.00 I**	**7.00**
COD (EPA Method 410.4)	mg/L	**71.00**	**100.00**	**24.00**	**87.00**	**90.00**	**80.00**
Ferrous Iron (Standard Method 3500D)	mg/L	4.00 U	4.00 U	4.00 U	4.00 U	4.00 U	4.00 U
Nitrate (EPA Method 353.3)	mg/L	0.10 U	0.10 U	**0.55**	0.10 U	**0.47**	**0.64**
Nitrite (EPA Method 354.1)	mg/L	0.10 U	0.10 U	**0.42**	**0.41**	0.10 U	0.10 U
Sulfate (EPA Method 375.4)	mg/L	**23.00**	**160.00**	**85.00**	**180.0**	**66.00**	**98**
Sulfide (EPA Method 376)	mg/L	**58.00**	**320.00**	**4.00**	1.0 U	1.00 U	1.00 U
TOC (EPA Method 415.1)	mg/L	**21.00**	**30.00**	**19.00**	**28.0**	**26.00**	**22**
Nitrate-Nitrite-N (EPA Method 353.1)	mg/L	0.02 U	0.02 U	**0.92**	**0.43**	**0.49**	**0.68**
FL Method FLPRO - Hydrocarbons	mg/L	1.00 U	1.50	0.20 U	0.20 U	0.20 U	0.20 U

U-compound was analyzed for but not detected to the level shown.
I-analyte detected; value is between MDL and PQL.
Well MPT-14-MW-17S not sampled due to product in we

TABLE 3
POST TREATMENT GROUNDWATER ANALYSES
SWMU 14, NAVAL STATION MAYPORT, FL

		Sample MP06785 2/2/99	Sample MP06821 3/4/99	Sample MP06858 4/15/99	Sample MP06881 5/12/99	Sample MP06904 6/9/99	Sample MP06952 7/15/99
Compound	Units	MPT-14-MW-19S	MPT-14-MW-19S	MPT-14-MW-19S	MPT-14-MW-19S	MPT-14-MW-19S	MPT-14-MW-19S
Semivolatile Organics (EPA Method 625)							
Acenaphthene	µg/L	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U
Acenphthylene	µg/L	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U
Benzidine	µg/L	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U
Benzo(a) anthracene	µg/L	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U
Benzo(b) fluoranthene	µg/L	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U
Benzo(k) fluoranthene	µg/L	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U
Benzo(g,h,I)perylene	µg/L	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U
Benzo(a)pyrene	µg/L	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U
Benzylbutyl Phthalate	µg/L	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U
Bis(2-chloroethoxy)methane	µg/L	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U
Bis(2-chloroethyl)ether	µg/L	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U
Bis(2-chloroisopropyl)ether	µg/L	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U
Bis(2-ethylhexyl)phthalate	µg/L	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U
4-Bromophenylphenyl ether	µg/L	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U
2-Chloronaphthalene	µg/L	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U
4-Chlorophenyl phenyl ether	µg/L	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U
Chrysen	µg/L	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U
Dibenzo(a,h)anthracene	µg/L	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U
1,2-Dichlorobenzene	µg/L	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U
1,3-Dichlorobenzene	µg/L	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U
1,4-Dichlorobenzene	µg/L	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U
3,3'-Dichlorobenzidine	µg/L	20.00 U	20.00 U	20.00 U	20.00 U	20.00 U	10.00 U
Diethyl phthalate	µg/L	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U	20.00 U
Dimethyl phthalate	µg/L	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U
Di-n-butyl phthalate	µg/L	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U
Di-n-octyl phthalate	µg/L	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U
2,4-Dinitrotoluene	µg/L	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U
2,6-Dinitrotoluene	µg/L	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U
Fluoranthene	µg/L	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U
Flourene	µg/L	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U
Hexachlorobenzene	µg/L	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U
Hexachlorobutadiene	µg/L	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U
Hexachlorocyclopentadiene	µg/L	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U
Hexachloroethane	µg/L	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U
Indeno(1,2,3-cd)pyrene	µg/L	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U
Isophorone	µg/L	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U
1-Methylnaphthalene	µg/L	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U
2-Methylnaphthalene	µg/L	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U
Naphthalene	µg/L	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U
Nitrobenzene	µg/L	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U
N-Nitrosodimethylamine	µg/L	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U
N-Nitrosodi-n-propylamine	µg/L	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U
N-Nitrosodiphenylamine	µg/L	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U
Phenanthrene	µg/L	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U
Pyrene	µg/L	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U
1,2,4-Trichlorobenzene	µg/L	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U
4-Chloro-3-methylphenol	µg/L	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U
2-Chlorophenol	µg/L	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U
2,4-Dichlorophenol	µg/L	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U
2,4-Dimethylphenol	µg/L	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U
2,4-Dinitrophenol	µg/L	50.00 U	50.00 U	50.00 U	50.00 U	50.00 U	10.00 U
2-Methyl-4,6-dinitrophenol	µg/L	30.00 U	30.00 U	30.00 U	30.00 U	30.00 U	50.00 U
2-Nitrophenol	µg/L	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U	30.00 U
4-Nitrophenol	µg/L	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U
Pentachlorophenol	µg/L	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U
Phenol	µg/L	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U
2,4,6-Trichlorophenol	µg/L	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U	10.00 U
Dissloved Gases (EPA Method RSK 175)							
Methane	mg/L	**0.29**	**0.04**	**0.6 D1**	**0.020**	0.0010 U	**0.011**
Ethene	mg/L	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U
Ethane	mg/L	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U
BOD (EPA Method 405.1	mg/L	**3.00 I**	**2.00** U	2.00 U	**5.00**	2.00 U	**4.00**
COD (EPA Method 410.4)	mg/L	**25.00**	**37.00**	10.00 U	**29.00**	**10.00**	**37.00**
Ferrous Iron (Standard Method 3500D)	mg/L	4.00 U	4.00 U	4.00 U	4.00 U	4.00 U	4.00 U
Nitrate (EPA Method 353.3)	mg/L	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U
Nitrite (EPA Method 354.1)	mg/L	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U
Sulfate (EPA Method 375.4)	mg/L	**20.00**	**33.00**	**76.00**	**67.00**	**71.00**	**92.00**
Sulfide (EPA Method 376)	mg/L	**280.00**	**380.00**	**3.00 I**	1.00 U	1.00 U	1.00 U
TOC (EPA Method 415.1)	mg/L	**10.00**	**6.00**	**16.00**	**6.00**	**4.00**	**5.00**
Nitrate-Nitrite-N (EPA Method 353.1)	mg/L	0.02 U	0.02 U	0.020 U	0.020 U	0.020 U	0.020 U
FL Method FLPRO - Hydrocarbons	mg/L	1.00 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U

U-compound was analyzed for but not detected to the level shown.
I-analyte detected; value is between MDL and PQL.
Well MPT-14-MW-17S not sampled due to product in we

TABLE 4
POST TREATMENT GROUNDWATER ANALYSES USING EPA METHOD 8310
SWMU 14, NAVAL STATION MAYPORT, FL

	FDEP GW Cleanup Goal		Sample MP06949 7/15/99		Sample MP06947 7/15/99		Sample MP06950 7/15/99		Sample MP06948 7/15/99		Sample MP06952 7/15/99		Sample MP06951 7/15/99	
Compound		Units	MPT-14-MW-07S		MPT-14-MW-09S		MPT-14-MW-16S		MPT-14-MW-18S		MPT-14-MW-19S		MPT-14-MW-20S	
PAH by HPLC (EPA Method 8310)														
Naphthalene	20	µg/L	0.50	U	0.50	U	1.00	U	0.50	U	0.50	U	0.50	U
Acenaphthylene	210	µg/L	1.00	U	1.00	U	2.00	U	1.00	U	1.00	U	1.00	U
1-Methylnaphthalene	na	µg/L	1.00	U	**3.90**		2.00	U	1.00	U	1.00	U	1.00	U
2-Methylnaphthalene	na	µg/L	**3.20**		**1.40**		**3.20**		**11.00**		1.00	U	**3.30**	
Acenaphthrene	20	µg/L	**0.90**		**1.60**		1.00	U	0.50	U	0.50	U	**0.90**	
Fluorene	280	µg/L	**1.20**		**0.75**		**3.70**		0.10	U	**0.17**		**0.99**	
Phenanthrene	210	µg/L	1.00	U	1.00	U	2.00	U	1.00	U	1.00	U	1.00	U
Anthracene	2100	µg/L	**0.32**		**0.13**		**0.22**		0.05	U	0.05	U	**0.09**	
Fluoranthene	280	µg/L	0.10	U	0.10	U	0.20	U	0.10	U	0.10	U	0.10	U
Pyrene	210	µg/L	0.050	U	0.050	U	0.100	U	0.050	U	0.050	U	0.050	U
Benzo (a) anthracene	0.2	µg/L	0.050	U	0.050	U	0.100	U	0.050	U	0.050	U	0.050	U
Chrysene	4.8	µg/L	0.050	U	0.050	U	0.100	U	0.050	U	0.050	U	0.050	U
Benzo (b) floranthene	0.2	µg/L	0.10	U	0.10	U	0.20	U	0.10	U	0.10	U	0.10	U
Benzo(k) fluoranthene	0.5	µg/L	0.050	U	0.050	U	0.100	U	0.050	U	0.050	U	0.050	U
Benzo (a) pyrene	0.2	µg/L	0.050	U	0.050	U	0.100	U	0.050	U	0.050	U	0.050	U
Dibenzo(a,h)anthracene	0.2	µg/L	0.10	U	0.10	U	0.20	U	0.10	U	0.10	U	0.10	U
Benzo (g,h,I) perylene	210	µg/L	0.10	U	0.10	U	0.20	U	0.10	U	0.10	U	0.10	U
Indeno (1,2,3-cd)pyrene	0.2	µg/L	0.050	U	0.050	U	0.100	U	0.050	U	0.050	U	0.050	U

Note: This analysis was used to achieve lower detection limits to verify extent of remediation at the site.

APPENDIX A

ANALYTICAL REPORTS

A-1 BASELINE RESULTS
A-2 PERFORMANCE RESULTS

CLIENT : Bechtel Environmental, Inc.
ADDRESS: NAS Cecil Field
P.O. Box 171
Jacksonville, FL 32215

REPORT # : JR5286
DATE SUBMITTED: February 4, 1999
DATE REPORTED : February 19, 1999

ATTENTION: Mr. Rod Padgett

SAMPLE IDENTIFICATION

Samples submitted and
identified by client as:

PROJECT #: WO # JX046

SMWU-14 Mayport

#1 - MP06783 @ 13:50 (02/02/99)
#2 - MP06784 @ 14:15 (02/02/99)
#3 - MP06785 @ 14:30 (02/02/99)
#4 - MP06786 @ 10:30 (02/03/99)
#5 - MP06787 @ 10:00 (02/03/99)
#6 - MP06788 @ 11:00 (02/03/99)

PROJECT MANAGER Scott D Martin
Scott D. Martin

ENCO LABORATORIES
REPORT # : JR5286
DATE REPORTED: February 19, 1999
REFERENCE : WO # JX046
PROJECT NAME : SMWU-14 Mayport

RESULTS OF ANALYSIS

EPA METHOD 8270 - TCL Semivolatiles	MP06783	MP06784	Units
Acenaphthene	10 U	10 U	µg/L
Acenaphthylene	10 U	10 U	µg/L
Anthracene	10 U	10 U	µg/L
Benzo(a)anthracene	10 U	10 U	µg/L
Benzo(b)fluoranthene	10 U	10 U	µg/L
Benzo(k)fluoranthene	10 U	10 U	µg/L
Benzo(g,h,i)perylene	10 U	10 U	µg/L
Benzo(a)pyrene	10 U	10 U	µg/L
Benzylbutyl phthalate	10 U	10 U	µg/L
Bis(2-chloroethoxy)methane	10 U	10 U	µg/L
Bis(2-chloroethyl)ether	10 U	10 U	µg/L
Bis(2-chloroisopropyl)ether	10 U	10 U	µg/L
Bis(2-ethylhexyl)phthalate	10 U	10 U	µg/L
4-Bromophenylphenyl ether	10 U	10 U	µg/L
2-Chloronaphthalene	10 U	10 U	µg/L
Carbazole	10 U	10 U	µg/L
4-Chlorophenyl phenyl ether	10 U	10 U	µg/L
Chrysene	10 U	10 U	µg/L
Dibenzo(a,h)anthracene	10 U	10 U	µg/L
1,2-Dichlorobenzene	10 U	10 U	µg/L
1,3-Dichlorobenzene	10 U	10 U	µg/L
1,4-Dichlorobenzene	10 U	10 U	µg/L
3,3'-Dichlorobenzidine	20 U	20 U	µg/L

Compound was analyzed for but not detected to the level shown.

ENCO LABORATORIES
REPORT # : JR5286
DATE REPORTED: February 19, 1999
REFERENCE : WO # JX046
PROJECT NAME : SMWU-14 Mayport

RESULTS OF ANALYSIS

EPA METHOD 8270 (cont.) - TCL Semivolatiles	MP06783	MP06784	Units
Diethyl phthalate	10 U	10 U	µg/L
Dimethyl phthalate	10 U	10 U	µg/L
Di-n-butyl phthalate	10 U	10 U	µg/L
Di-n-octyl phthalate	10 U	10 U	µg/L
2,4-Dinitrotoluene	10 U	10 U	µg/L
2,6-Dinitrotoluene	10 U	10 U	µg/L
Fluoranthene	10 U	10 U	µg/L
Fluorene	10 U	10 U	µg/L
Hexachlorobenzene	10 U	10 U	µg/L
Hexachlorobutadiene	10 U	10 U	µg/L
Hexachlorocyclopentadiene	10 U	10 U	µg/L
Hexachloroethane	10 U	10 U	µg/L
Indeno(1,2,3-cd)pyrene	10 U	10 U	µg/L
Isophorone	10 U	10 U	µg/L
2-Methylnaphthalene	33	10 U	µg/L
Naphthalene	10 U	10 U	µg/L
Nitrobenzene	10 U	10 U	µg/L
N-Nitrosodi-n-propylamine	10 U	10 U	µg/L
N-Nitrosodiphenylamine	10 U	10 U	µg/L
Phenanthrene	10 U	10 U	µg/L
Pyrene	10 U	10 U	µg/L
1,2,4-Trichlorobenzene	10 U	10 U	µg/L
4-Chloroaniline	10 U	10 U	µg/L
2-Nitroaniline	10 U	10 U	µg/L

U - Compound was analyzed for but not detected to the level shown.

ENCO LABORATORIES
REPORT # : JR5286
DATE REPORTED: February 19, 1999
REFERENCE : WO # JX046
PROJECT NAME : SMWU-14 Mayport

RESULTS OF ANALYSIS

EPA METHOD 8270 (cont.) - CL Semivolatiles	MP06783	MP06784	Units
3-Nitroaniline	10 U	10 U	µg/L
-Nitroaniline	10 U	10 U	µg/L
ibenzofuran	10 U	10 U	µg/L
4-Chloro-3-methylphenol	10 U	10 U	µg/L
-Chlorophenol	10 U	10 U	µg/L
,4-Dichlorophenol	10 U	10 U	µg/L
2,4-Dimethylphenol	10 U	10 U	µg/L
2,4-Dinitrophenol	50 U	50 U	µg/L
-Methyl-4,6-dinitrophenol	30 U	30 U	µg/L
2-Nitrophenol	10 U	10 U	µg/L
4-Nitrophenol	10 U	10 U	µg/L
entachlorophenol	10 U	10 U	µg/L
henol	10 U	10 U	µg/L
2,4,6-Trichlorophenol	10 U	10 U	µg/L
Methylphenol	10 U	10 U	µg/L
& 4-Methylphenol	10 U	10 U	µg/L
2,4,5-Trichlorophenol	10 U	10 U	µg/L
rrogate:	**% RECOV**	**% RECOV**	**LIMITS**
Nitrobenzene -D5	59	60	30-106
2-Fluorobiphenyl	50	58	38-107
rphenyl -D14	56	55	29-131
henol -D5	40	40	12-87
-Fluorophenol	43	45	19-115
4,6-Tribromophenol	72	79	35-126
te Extracted	02/08/99	02/08/99	
ate Analyzed	02/09/99	02/09/99	

Compound was analyzed for but not detected to the level shown.

ENCO LABORATORIES
REPORT # : JR5286
DATE REPORTED: February 19, 1999
REFERENCE : WO # JX046
PROJECT NAME : SMWU-14 Mayport

RESULTS OF ANALYSIS

EPA METHOD RSK 175 - Dissolved Gases	MP06783		MP06784		Units
Methane	2.1	D1	3.8	D1	mg/L
Ethene	0.0010 U		0.0010 U		mg/L
Ethane	0.0010 U		0.0010 U		mg/L
Date Analyzed	02/11/99		02/11/99		

EPA METHOD 418.1 - TOTAL PETR. HYDROCARBONS	MP06783	MP06784	Units
Total Petr. Hydrocarbons	1.0 U	1.0 U	mg/L
Date Analyzed	02/11/99	02/11/99	

U = Compound was analyzed for but not detected to the level shown.
D1 = Analyte value determined from a 1:50 dilution.

ENCO LABORATORIES
REPORT # : JR5286
DATE REPORTED: February 19, 1999
REFERENCE : WO # JX046
PROJECT NAME : SMWU-14 Mayport

RESULTS OF ANALYSIS

MISCELLANEOUS	METHOD	MP06783	MP06784	Units
COD	405.1	**14**	**4.0**	mg/L
Date Prepared		02/05/99	02/05/99	
Date Analyzed		02/10/99	02/10/99	
COD	410.4	**71**	**49**	mg/L
Date Analyzed		02/09/99	02/09/99	
Fe, Ferrous	SM3500Fe	4.0 U	4.0 U	mg/L
Date Analyzed		02/05/99	02/05/99	
Nitrate-N	353.3	0.10 U	0.10 U	mg/L
Date Analyzed				
Nitrite-N	354.1	0.10 U	0.10 U	mg/L
Date Analyzed		02/05/99	02/05/99	
Sulfate, Total	375.4	**23**	**1.0** I	mg/L
Date Analyzed		02/08/99	02/08/99	
Sulfide, Total	376.1	**58**	**9.0**	mg/L
Date Analyzed		02/09/99	02/09/99	
Total Org. Carbon	415.1	**21**	**14**	mg/L
Date Analyzed		02/09/99	02/09/99	
Nitrate-Nitrite-N	353.1	0.020 U	0.020 U	mg/L
Date Analyzed		02/08/99	02/08/99	

U = Compound was analyzed for but not detected to the level shown.
I = Analyte detected; value is between the Method Detection Level (MDL) and the Practical Quantitation Level (PQL).

ENCO LABORATORIES
REPORT # : JR5286
DATE REPORTED: February 19, 1999
REFERENCE : WO # JX046
PROJECT NAME : SMWU-14 Mayport

RESULTS OF ANALYSIS

EPA METHOD 8270 - TCL Semivolatiles	MP06785	MP06786	Units
Acenaphthene	10 U	10 U	µg/L
Acenaphthylene	10 U	10 U	µg/L
Anthracene	10 U	10 U	µg/L
Benzo(a)anthracene	10 U	10 U	µg/L
Benzo(b)fluoranthene	10 U	10 U	µg/L
Benzo(k)fluoranthene	10 U	10 U	µg/L
Benzo(g,h,i)perylene	10 U	10 U	µg/L
Benzo(a)pyrene	10 U	10 U	µg/L
Benzylbutyl phthalate	10 U	10 U	µg/L
Bis(2-chloroethoxy)methane	10 U	10 U	µg/L
Bis(2-chloroethyl)ether	10 U	10 U	µg/L
Bis(2-chloroisopropyl)ether	10 U	10 U	µg/L
Bis(2-ethylhexyl)phthalate	10 U	10 U	µg/L
4-Bromophenylphenyl ether	10 U	10 U	µg/L
2-Chloronaphthalene	10 U	10 U	µg/L
Carbazole	10 U	10 U	µg/L
4-Chlorophenyl phenyl ether	10 U	10 U	µg/L
Chrysene	10 U	10 U	µg/L
Dibenzo(a,h)anthracene	10 U	10 U	µg/L
1,2-Dichlorobenzene	10 U	10 U	µg/L
1,3-Dichlorobenzene	10 U	10 U	µg/L
1,4-Dichlorobenzene	10 U	10 U	µg/L
3,3'-Dichlorobenzidine	20 U	20 U	µg/L

U - Compound was analyzed for but not detected to the level shown.

ENCO LABORATORIES
REPORT # : JR5286
DATE REPORTED: February 19, 1999
REFERENCE : WO # JX046
PROJECT NAME : SMWU-14 Mayport

RESULTS OF ANALYSIS

EPA METHOD 8270 (cont.) -

CL Semivolatiles	MP06785	MP06786	Units
Diethyl phthalate	10 U	10 U	µg/L
imethyl phthalate	10 U	10 U	µg/L
i-n-butyl phthalate	10 U	10 U	µg/L
Di-n-octyl phthalate	10 U	10 U	µg/L
,4-Dinitrotoluene	10 U	10 U	µg/L
,6-Dinitrotoluene	10 U	10 U	µg/L
Fluoranthene	10 U	10 U	µg/L
luorene	10 U	10 U	µg/L
exachlorobenzene	10 U	10 U	µg/L
Hexachlorobutadiene	10 U	10 U	µg/L
Hexachlorocyclopentadiene	10 U	10 U	µg/L
exachloroethane	10 U	10 U	µg/L
ndeno(1,2,3-cd)pyrene	10 U	10 U	µg/L
Isophorone	10 U	10 U	µg/L
-Methylnaphthalene	10 U	10 U	µg/L
aphthalene	10 U	10 U	µg/L
Nitrobenzene	10 U	10 U	µg/L
Nitrosodi-n-propylamine	10 U	10 U	µg/L
Nitrosodiphenylamine	10 U	10 U	µg/L
Phenanthrene	10 U	10 U	µg/L
rene	10 U	10 U	µg/L
2,4-Trichlorobenzene	10 U	10 U	µg/L
4-Chloroaniline	10 U	10 U	µg/L
2-Nitroaniline	10 U	10 U	µg/L

J = Compound was analyzed for but not detected to the level shown.

ENCO LABORATORIES
REPORT # : JR5286
DATE REPORTED: February 19, 1999
REFERENCE : WO # JX046
PROJECT NAME : SMWU-14 Mayport

RESULTS OF ANALYSIS

EPA METHOD 8270 (cont.) - TCL Semivolatiles	MP06785	MP06786	Units
3-Nitroaniline	10 U	10 U	µg/L
4-Nitroaniline	10 U	10 U	µg/L
Dibenzofuran	10 U	10 U	µg/L
4-Chloro-3-methylphenol	10 U	10 U	µg/L
2-Chlorophenol	10 U	10 U	µg/L
2,4-Dichlorophenol	10 U	10 U	µg/L
2,4-Dimethylphenol	10 U	10 U	µg/L
2,4-Dinitrophenol	50 U	50 U	µg/L
4-Methyl-4,6-dinitrophenol	30 U	30 U	µg/L
2-Nitrophenol	10 U	10 U	µg/L
4-Nitrophenol	10 U	10 U	µg/L
Pentachlorophenol	10 U	10 U	µg/L
Phenol	10 U	10 U	µg/L
2,4,6-Trichlorophenol	10 U	10 U	µg/L
3-Methylphenol	10 U	10 U	µg/L
3 & 4-Methylphenol	10 U	10 U	µg/L
2,4,5-Trichlorophenol	10 U	10 U	µg/L
Surrogate:	**% RECOV**	**% RECOV**	**LIMITS**
Nitrobenzene -D5	74	67	30-106
2-Fluorobiphenyl	65	56	38-107
Terphenyl -D14	72	54	29-131
Phenol -D5	49	42	12-87
2-Fluorophenol	55	48	19-115
2,4,6-Tribromophenol	84	77	35-126
Date Extracted	02/08/99	02/08/99	
Date Analyzed	02/09/99	02/09/99	

U: Compound was analyzed for but not detected to the level shown.

ENCO LABORATORIES
REPORT # : JR5286
DATE REPORTED: February 19, 1999
REFERENCE : WO # JX046
PROJECT NAME : SMWU-14 Mayport

RESULTS OF ANALYSIS

EPA METHOD RSK 175 - Dissolved Gases	MP06785		MP06786		Units
Methane	0.29	D1	0.73	D2	mg/L
Ethene	0.0010 U		0.0010 U		mg/L
Ethane	0.0010 U		0.0010 U		mg/L
Date Analyzed	02/11/99		02/11/99		

EPA METHOD 418.1 - TOTAL PETR. HYDROCARBONS	MP06785	MP06786	Units
Total Petr. Hydrocarbons	1.0 U	1.0 U	mg/L
Date Analyzed	02/11/99	02/11/99	

U = Compound was analyzed for but not detected to the level shown.
J = Analyte detected; value is between the Method Detection Level (MDL) and the Practical Quantitation Level (PQL).
D1 = Analyte value determined from a 1:50 dilution.
D2 = Analyte value determined from a 1:20 dilution.

ENCO LABORATORIES
REPORT # : JR5286
DATE REPORTED: February 19, 1999
REFERENCE : WO # JX046
PROJECT NAME : SMWU-14 Mayport

RESULTS OF ANALYSIS

MISCELLANEOUS	METHOD	MP06785	MP06786	Units
BOD	405.1	**3.0** I	**13**	mg/L
Date Prepared		02/05/99	02/05/99	
Date Analyzed		02/10/99	02/10/99	
COD	410.4	**25**	**86**	mg/L
Date Analyzed		02/09/99	02/09/99	
Fe, Ferrous	SM3500Fe	4.0 U	4.0 U	mg/L
Date Analyzed		02/05/99	02/05/99	
Nitrate-N	353.3	0.10 U	0.10 U	mg/L
Date Analyzed				
Nitrite-N	354.1	0.10 U	0.10 U	mg/L
Date Analyzed		02/05/99	02/05/99	
Sulfate, Total	375.4	**20**	**1.0** I	mg/L
Date Analyzed		02/08/99	02/08/99	
Sulfide, Total	376.1	**280**	**250**	mg/L
Date Analyzed		02/09/99	02/09/99	
Total Org. Carbon	415.1	**10**	1.0 U	mg/L
Date Analyzed		02/09/99	02/12/99	
Nitrate-Nitrite-N	353.1	0.020 U	**0.11**	mg/L
Date Analyzed		02/08/99	02/08/99	

U = Compound was analyzed for but not detected to the level shown.
I = Analyte detected; value is between the Method Detection Level (MDL) and the Practical Quantitation Level (PQL).

ENCO LABORATORIES
REPORT # : JR5286
DATE REPORTED: February 19, 1999
REFERENCE : WO # JX046
PROJECT NAME : SMWU-14 Mayport

RESULTS OF ANALYSIS

EPA METHOD 8270 - TCL Semivolatiles	MP06787	MP06788	Units
Acenaphthene	10 U	10 U	µg/L
Acenaphthylene	10 U	10 U	µg/L
Anthracene	10 U	10 U	µg/L
Benzo(a)anthracene	10 U	10 U	µg/L
Benzo(b)fluoranthene	10 U	10 U	µg/L
Benzo(k)fluoranthene	10 U	10 U	µg/L
Benzo(g,h,i)perylene	10 U	10 U	µg/L
Benzo(a)pyrene	10 U	10 U	µg/L
Benzylbutyl phthalate	10 U	10 U	µg/L
Bis(2-chloroethoxy)methane	10 U	10 U	µg/L
Bis(2-chloroethyl)ether	10 U	10 U	µg/L
Bis(2-chloroisopropyl)ether	10 U	10 U	µg/L
Bis(2-ethylhexyl)phthalate	10 U	10 U	µg/L
4-Bromophenylphenyl ether	10 U	10 U	µg/L
2-Chloronaphthalene	10 U	10 U	µg/L
Carbazole	10 U	10 U	µg/L
4-Chlorophenyl phenyl ether	10 U	10 U	µg/L
Chrysene	10 U	10 U	µg/L
Dibenzo(a,h)anthracene	10 U	10 U	µg/L
1,2-Dichlorobenzene	10 U	10 U	µg/L
1,3-Dichlorobenzene	10 U	10 U	µg/L
1,4-Dichlorobenzene	10 U	10 U	µg/L
3,3'-Dichlorobenzidine	20 U	20 U	µg/L

U - Compound was analyzed for but not detected to the level shown.

RESULTS OF ANALYSIS

EPA METHOD 8270 (cont.) - PCL Semivolatiles	MP06787	MP06788	Units
Diethyl phthalate	10 U	10 U	µg/L
Dimethyl phthalate	10 U	10 U	µg/L
Di-n-butyl phthalate	10 U	10 U	µg/L
Di-n-octyl phthalate	10 U	10 U	µg/L
2,4-Dinitrotoluene	10 U	10 U	µg/L
2,6-Dinitrotoluene	10 U	10 U	µg/L
Fluoranthene	10 U	10 U	µg/L
Fluorene	10 U	10 U	µg/L
Hexachlorobenzene	10 U	10 U	µg/L
Hexachlorobutadiene	10 U	10 U	µg/L
Hexachlorocyclopentadiene	10 U	10 U	µg/L
Hexachloroethane	10 U	10 U	µg/L
Indeno(1,2,3-cd)pyrene	10 U	10 U	µg/L
Isophorone	10 U	10 U	µg/L
1-Methylnaphthalene	10 U	10 U	µg/L
Naphthalene	10 U	10 U	µg/L
Nitrobenzene	10 U	10 U	µg/L
N-Nitrosodi-n-propylamine	10 U	10 U	µg/L
N-Nitrosodiphenylamine	10 U	10 U	µg/L
Phenanthrene	10 U	10 U	µg/L
Pyrene	10 U	10 U	µg/L
1,2,4-Trichlorobenzene	10 U	10 U	µg/L
4-Chloroaniline	10 U	10 U	µg/L
2-Nitroaniline	10 U	10 U	µg/L

U = Compound was analyzed for but not detected to the level shown.

ENCO LABORATORIES
REPORT # : JR5286
DATE REPORTED: February 19, 1999
REFERENCE : WO # JX046
PROJECT NAME : SMWU-14 Mayport

RESULTS OF ANALYSIS

EPA METHOD 8270 (cont.) - TCL Semivolatiles	MP06787	MP06788	Units
3-Nitroaniline	10 U	10 U	µg/L
4-Nitroaniline	10 U	10 U	µg/L
Dibenzofuran	10 U	10 U	µg/L
4-Chloro-3-methylphenol	10 U	10 U	µg/L
2-Chlorophenol	10 U	10 U	µg/L
2,4-Dichlorophenol	10 U	10 U	µg/L
2,4-Dimethylphenol	10 U	10 U	µg/L
2,4-Dinitrophenol	50 U	50 U	µg/L
4-Methyl-4,6-dinitrophenol	30 U	30 U	µg/L
2-Nitrophenol	10 U	10 U	µg/L
4-Nitrophenol	10 U	10 U	µg/L
Pentachlorophenol	10 U	10 U	µg/L
Phenol	10 U	10 U	µg/L
2,4,6-Trichlorophenol	10 U	10 U	µg/L
2-Methylphenol	10 U	10 U	µg/L
3 & 4-Methylphenol	10 U	10 U	µg/L
2,4,5-Trichlorophenol	10 U	10 U	µg/L
Surrogate:	**% RECOV**	**% RECOV**	**LIMITS**
Nitrobenzene -D5	58	61	30-106
2-Fluorobiphenyl	56	56	38-107
Terphenyl -D14	62	61	29-131
Phenol -D5	41	43	12-87
2-Fluorophenol	44	49	19-115
2,4,6-Tribromophenol	87	80	35-126
Date Extracted	02/08/99	02/08/99	
Date Analyzed	02/09/99	02/09/99	

U = Compound was analyzed for but not detected to the level shown.

ENCO LABORATORIES
REPORT # : JR5286
DATE REPORTED: February 19, 1999
REFERENCE : WO # JX046
PROJECT NAME : SMWU-14 Mayport

RESULTS OF ANALYSIS

EPA METHOD RSK 175 - Dissolved Gases	MP06787		MP06788		Units
Methane	0.62	D3	3.2	D1	mg/L
Ethene	0.0010 U		0.0010 U		mg/L
Ethane	0.0010 U		0.0010 U		mg/L
Date Analyzed	02/11/99		02/11/99		

EPA METHOD 418.1 - TOTAL PETR. HYDROCARBONS	MP06787	MP06788	Units
Total Petr. Hydrocarbons	1.0 U	1.0 U	mg/L
Date Analyzed	02/11/99	02/11/99	

U = Compound was analyzed for but not detected to the level shown.
D1 = Analyte value determined from a 1:50 dilution.
D3 = Analyte value determined from a 1:10 dilution.

ENCO LABORATORIES
REPORT # : JR5286
DATE REPORTED: February 19, 1999
REFERENCE : WO # JX046
PROJECT NAME : SMWU-14 Mayport

RESULTS OF ANALYSIS

MISCELLANEOUS	METHOD	MP06787	MP06788	Units
BOD	405.1	**7.0**	**7.0**	mg/L
Date Prepared		02/05/99	02/05/99	
Date Analyzed		02/10/99	02/10/99	
COD	410.4	**57**	**150**	mg/L
Date Analyzed		02/09/99	02/09/99	
Fe, Ferrous	SM3500Fe	4.0 U	4.0 U	mg/L
Date Analyzed		02/05/99	02/05/99	
Nitrate-N	353.3	0.10 U	0.10 U	mg/L
Date Analyzed				
Nitrite-N	354.1	0.10 U	0.10 U	mg/L
Date Analyzed		02/05/99	02/05/99	
Sulfate, Total	375.4	**21**	**2.0** I	mg/L
Date Analyzed		02/08/99	02/08/99	
Sulfide, Total	376.1	**220**	**300**	mg/L
Date Analyzed		02/09/99	02/09/99	
Total Org. Carbon	415.1	**12**	**14**	mg/L
Date Analyzed		02/12/99	02/12/99	
Nitrate-Nitrite-N	353.1	0.020 U	0.020 U	mg/L
Date Analyzed		02/08/99	02/08/99	

= Compound was analyzed for but not detected to the level shown.
= Analyte detected; value is between the Method Detection Level (MDL) and the Practical Quantitation Level (PQL).

ENCO LABORATORIES
REPORT # : JR5286
DATE REPORTED: February 19, 1999
REFERENCE : WO # JX046
PROJECT NAME : SMWU-14 Mayport

RESULTS OF ANALYSIS

EPA METHOD 8270 - TCL Semivolatiles	LAB BLANK	Units
Acenaphthene	10 U	µg/L
Acenaphthylene	10 U	µg/L
Anthracene	10 U	µg/L
Benzo(a)anthracene	10 U	µg/L
Benzo(b)fluoranthene	10 U	µg/L
Benzo(k)fluoranthene	10 U	µg/L
Benzo(g,h,i)perylene	10 U	µg/L
Benzo(a)pyrene	10 U	µg/L
Benzylbutyl phthalate	10 U	µg/L
Bis(2-chloroethoxy)methane	10 U	µg/L
Bis(2-chloroethyl)ether	10 U	µg/L
Bis(2-chloroisopropyl)ether	10 U	µg/L
Bis(2-ethylhexyl)phthalate	10 U	µg/L
4-Bromophenylphenyl ether	10 U	µg/L
2-Chloronaphthalene	10 U	µg/L
Carbazole	10 U	µg/L
4-Chlorophenyl phenyl ether	10 U	µg/L
Chrysene	10 U	µg/L
Dibenzo(a,h)anthracene	10 U	µg/L
1,2-Dichlorobenzene	10 U	µg/L
1,3-Dichlorobenzene	10 U	µg/L
1,4-Dichlorobenzene	10 U	µg/L
3,3'-Dichlorobenzidine	20 U	µg/L

U = Compound was analyzed for but not detected to the level shown.

ENCO LABORATORIES
REPORT # : JR5286
DATE REPORTED: February 19, 1999
REFERENCE : WO # JX046
PROJECT NAME : SMWU-14 Mayport

RESULTS OF ANALYSIS

EPA METHOD 8270 (cont.) - TCL Semivolatiles	LAB BLANK	Units
Diethyl phthalate	10 U	µg/L
Dimethyl phthalate	10 U	µg/L
Di-n-butyl phthalate	10 U	µg/L
Di-n-octyl phthalate	10 U	µg/L
2,4-Dinitrotoluene	10 U	µg/L
2,6-Dinitrotoluene	10 U	µg/L
Fluoranthene	10 U	µg/L
Fluorene	10 U	µg/L
Hexachlorobenzene	10 U	µg/L
Hexachlorobutadiene	10 U	µg/L
Hexachlorocyclopentadiene	10 U	µg/L
Hexachloroethane	10 U	µg/L
Indeno(1,2,3-cd)pyrene	10 U	µg/L
Isophorone	10 U	µg/L
2-Methylnaphthalene	10 U	µg/L
Naphthalene	10 U	µg/L
Nitrobenzene	10 U	µg/L
N-Nitrosodi-n-propylamine	10 U	µg/L
N-Nitrosodiphenylamine	10 U	µg/L
Phenanthrene	10 U	µg/L
Pyrene	10 U	µg/L
1,2,4-Trichlorobenzene	10 U	µg/L
4-Chloroaniline	10 U	µg/L
2-Nitroaniline	10 U	µg/L

U - Compound was analyzed for but not detected to the level shown.

ENCO LABORATORIES
REPORT # : JR5286
DATE REPORTED: February 19, 1999
REFERENCE : WO # JX046
PROJECT NAME : SMWU-14 Mayport

RESULTS OF ANALYSIS

EPA METHOD 8270 (cont.) -

CL Semivolatiles	LAB BLANK	Units
3-Nitroaniline	10 U	µg/L
-Nitroaniline	10 U	µg/L
ibenzofuran	10 U	µg/L
4-Chloro-3-methylphenol	10 U	µg/L
-Chlorophenol	10 U	µg/L
,4-Dichlorophenol	10 U	µg/L
2,4-Dimethylphenol	10 U	µg/L
,4-Dinitrophenol	50 U	µg/L
-Methyl-4,6-dinitrophenol	30 U	µg/L
2-Nitrophenol	10 U	µg/L
4-Nitrophenol	10 U	µg/L
entachlorophenol	10 U	µg/L
henol	10 U	µg/L
2,4,6-Trichlorophenol	10 U	µg/L
-Methylphenol	10 U	µg/L
& 4-Methylphenol	10 U	µg/L
2,4,5-Trichlorophenol	10 U	µg/L

rrogate:	% RECOV	LIMITS
Nitrobenzene -D5	53	30-106
2-Fluorobiphenyl	39	38-107
rphenyl -D14.	62	29-131
Phenol -D5	35	12-87
2-Fluorophenol	40	19-115
4,6-Tribromophenol	64	35-126
ate Extracted	02/08/99	
Date Analyzed	02/09/99	

J : Compound was analyzed for but not detected to the level shown.

ENCO LABORATORIES
REPORT # : JR5286
DATE REPORTED: February 19, 1999
REFERENCE : WO # JX046
PROJECT NAME : SMWU-14 Mayport

RESULTS OF ANALYSIS

MISCELLANEOUS	METHOD	LAB BLANK	Units
BOD	405.1	2.0 U	mg/L
Date Prepared		02/05/99	
Date Analyzed		02/10/99	
COD	410.4	10 U	mg/L
Date Analyzed		02/09/99	
Fe, Ferrous	SM3500Fe	4.0 U	mg/L
Date Analyzed		02/05/99	
Nitrite-N	354.1	0.10 U	mg/L
Date Analyzed		02/05/99	
Sulfate, Total	375.4	1.0 U	mg/L
Date Analyzed		02/08/99	
Sulfide, Total	376.1	1.0 U	mg/L
Date Analyzed		02/09/99	
Total Org. Carbon	415.1	1.0 U	mg/L
Date Analyzed		02/09/99	
Nitrate-Nitrite-N	353.1	0.020 U	mg/L
Date Analyzed		02/08/99	

U = Compound was analyzed for but not detected to the level shown.

ENCO LABORATORIES
REPORT # : JR5286
DATE REPORTED: February 19, 1999
REFERENCE : WO # JX046
PROJECT NAME : SMWU-14 Mayport

QUALITY CONTROL DATA

arameter	% RECOVERY MS/MSD/LCS	ACCEPT LIMITS	% RPD MS/MSD	ACCEPT LIMITS
PA Method 8270				
henol	57/ 48/ 49	29-102	17	44
1,4-Dichlorobenzene	54/ 46/ 38	D-127	16	43
N-Nitrosodi-N-Propylamine	77/ 67/ 66	72-118	14	22
,2,4-Trichlorobenzene	57/ 52/ 44	18-129	9	43
-Chloro-3-methylphenol	88/ 82/ 83	75-126	7	22
Acenaphthene	* 71/ 68/ 64	63-122	4	28
-Nitrophenol	65/ 59/ 60	D-168	10	52
,4-Dinitrotoluene	89/ 85/ 91	81-151	4	21
Pentachlorophenol	94/ 91/ 88	27-154	3	42
rene	85/ 79/ 84	54-146	7	32
EPA Method RSK175				
Methane	NA/ NA/ 88	80-120	NA	NA
hene	NA/ NA/ 81	80-120	NA	NA
thane	NA/ NA/ 85	80-120	NA	NA
A Method 418.1				
tal Petr. Hydrocarbons	102/101/101	63-126	<1	16
scellaneous				
D, 405.1	NA/ NA/ 97	-	NA	
COD, 410.4	109/107/107	82-124	2	8
trite-N, 354.1	106/106/104	69-124	<1	13
lfate, Total, 375.4	105/105/105	61-138	<1	22
Total Org. Carbon, 415.1	111/110/ 96	69-132	<1	13
Nitrate-Nitrite-N, 353.1	107/128/124	61-144	18	21

vironmental Conservation Laboratories Comprehensive QA Plan #960038

= The associated value failed to meet laboratory established limits for accuracy.
= Less Than
= Matrix Spike
= Matrix Spike Duplicate
CS = Laboratory Control Standard
PD = Relative Percent Difference

his report shall not be reproduced except in full, without the written pproval of the laboratory. Results for these procedures apply only to samples as submitted.

APPENDIX A-2

PERFORMANCE RESULTS

CLIENT : Bechtel Environmental, Inc.
ADDRESS: NAS Cecil Field
P.O. Box 171
Jacksonville, FL 32215

REPORT # : JR5725
DATE SUBMITTED: March 4, 1999
DATE REPORTED : March 24, 1999

ATTENTION: Mr. Dane Cutshaw

SAMPLE IDENTIFICATION

Samples submitted and
identified by client as:

WO# JX059

SWMU-14 Monthly

03/04/99

#1 - MP6816 @ 09:00
#2 - MP6817 @ 10:05
#3 - MP6818 @ 09:30
#5 - MP6820 @ 10:30
#6 - MP6821 @ 10:50
#7 - MP6822 @ 11:20

PROJECT MANAGER _____
Scott D. Martin

ENCO LABORATORIES
REPORT # : JR5725
DATE REPORTED: March 24, 1999
REFERENCE : WO# JX059
PROJECT NAME : SWMU-14 Monthly

RESULTS OF ANALYSIS

EPA METHOD 625 - SEMIVOLATILE ORGANICS	MP6816	MP6817	Units
Acenaphthene	10 U	10 U	µg/L
Acenaphthylene	10 U	10 U	µg/L
Anthracene	10 U	10 U	µg/L
Benzidine	10 U	10 U	µg/L
Benzo(a)anthracene	10 U	10 U	µg/L
Benzo(b)fluoranthene	10 U	10 U	µg/L
Benzo(k)fluoranthene	10 U	10 U	µg/L
Benzo(g,h,i)perylene	10 U	10 U	µg/L
Benzo(a)pyrene	10 U	10 U	µg/L
Benzylbutyl phthalate	10 U	10 U	µg/L
Bis(2-chloroethoxy)methane	10 U	10 U	µg/L
Bis(2-chloroethyl)ether	10 U	10 U	µg/L
Bis(2-chloroisopropyl)ether	10 U	10 U	µg/L
Bis(2-ethylhexyl)phthalate	10 U	10 U	µg/L
4-Bromophenylphenyl ether	10 U	10 U	µg/L
2-Chloronaphthalene	10 U	10 U	µg/L
4-Chlorophenyl phenyl ether	10 U	10 U	µg/L
Chrysene	10 U	10 U	µg/L
Dibenzo(a,h)anthracene	10 U	10 U	µg/L
1,2-Dichlorobenzene	10 U	10 U	µg/L
1,3-Dichlorobenzene	10 U	10 U	µg/L
1,4-Dichlorobenzene	10 U	10 U	µg/L
3,3'-Dichlorobenzidine	20 U	20 U	µg/L
Diethyl phthalate	10 U	10 U	µg/L
Dimethyl phthalate	10 U	10 U	µg/L
Di-n-butyl phthalate	10 U	10 U	µg/L
Di-n-octyl phthalate	10 U	10 U	µg/L
2,4-Dinitrotoluene	10 U	10 U	µg/L
2,6-Dinitrotoluene	10 U	10 U	µg/L
Fluoranthene	10 U	10 U	µg/L
Fluorene	10 U	10 U	µg/L
Hexachlorobenzene	10 U	10 U	µg/L
Hexachlorobutadiene	10 U	10 U	µg/L
Hexachlorocyclopentadiene	10 U	10 U	µg/L

U = Compound was analyzed for but not detected to the level shown.

ENCO LABORATORIES
REPORT # : JR5725
DATE REPORTED: March 24, 1999
REFERENCE : WO# JX059
PROJECT NAME : SWMU-14 Monthly

RESULTS OF ANALYSIS

EPA METHOD 625 (cont.) - SEMIVOLATILE ORGANICS	MP6816	MP6817	Units
Hexachloroethane	10 U	10 U	µg/L
Indeno(1,2,3-cd)pyrene	10 U	10 U	µg/L
Isophorone	10 U	10 U	µg/L
1-Methylnaphthalene	10 U	10 U	µg/L
2-Methylnaphthalene	10 U	10 U	µg/L
Naphthalene	10 U	10 U	µg/L
Nitrobenzene	10 U	10 U	µg/L
N-Nitrosodimethylamine	10 U	10 U	µg/L
N-Nitrosodi-n-propylamine	10 U	10 U	µg/L
N-Nitrosodiphenylamine	10 U	10 U	µg/L
Phenanthrene	10 U	10 U	µg/L
Pyrene	10 U	10 U	µg/L
1,2,4-Trichlorobenzene	10 U	10 U	µg/L
4-Chloro-3-methylphenol	10 U	10 U	µg/L
2-Chlorophenol	10 U	10 U	µg/L
2,4-Dichlorophenol	10 U	10 U	µg/L
2,4-Dimethylphenol	10 U	10 U	µg/L
2,4-Dinitrophenol	50 U	50 U	µg/L
4-Methyl-4,6-dinitrophenol	30 U	30 U	µg/L
2-Nitrophenol	10 U	10 U	µg/L
4-Nitrophenol	10 U	10 U	µg/L
Pentachlorophenol	10 U	10 U	µg/L
Phenol	10 U	10 U	µg/L
2,4,6-Trichlorophenol	10 U	10 U	µg/L
Surrogate:	**% RECOV**	**% RECOV**	**LIMITS**
Nitrobenzene -D5	60	64	30-106
2-Fluorobiphenyl	56	51	38-107
Terphenyl -D14	58	61	29-131
Phenol -D5	40	42	12-87
2-Fluorophenol	46	62	19-115
2,4,6-Tribromophenol	84	94	43-126
Date Analyzed	03/10/99	03/10/99	

U = Compound was analyzed for but not detected to the level shown.

ENCO LABORATORIES
REPORT # : JR5725
DATE REPORTED: March 24, 1999
REFERENCE : WO# JX059
PROJECT NAME : SWMU-14 Monthly

RESULTS OF ANALYSIS

EPA METHOD RSK 175 - Dissolved Gases	MP6816		MP6817		Units
Methane	3.4	D1	1.2	D2	mg/L
Ethene	0.0010 U		0.0010 U		mg/L
Ethane	0.0010 U		0.0010 U		mg/L
Date Analyzed	03/17/99		03/17/99		

FL METHOD FLPRO - PETROL. RESIDUAL ORG.	MP6816	MP6817	Units
drocarbons (C8-C40)	0.20 U	0.20 U	mg/L
Surrogate:	**% RECOV**	**% RECOV**	**LIMITS**
-Terphenyl	94	57*	65-140
ate Extracted	03/08/99	03/08/99	
Date Analyzed	03/10/99	03/10/99	

= Surrogate recovery outside of laboratory established limits.
= Compound was analyzed for but not detected to the level shown.
= Analyte value determined from a 1:50 dilution.
= Analyte value determined from a 1:20 dilution.

ENCO LABORATORIES
REPORT # : JR5725
DATE REPORTED: March 24, 1999
REFERENCE : WO# JX059
PROJECT NAME : SWMU-14 Monthly

RESULTS OF ANALYSIS

Ferrous Iron	METHOD	MP6816	MP6817	Units
Fe, Ferrous	3500Fe	4.0 U	4.0 U	mg/L
Date Prepared		03/05/99	03/05/99	
Date Analyzed		03/05/99	03/05/99	

MISCELLANEOUS	METHOD	MP6816	MP6817	Units
BOD	405.1	**8.0**	**39**	mg/L
Date Prepared		03/05/99	03/05/99	
Date Analyzed		03/10/99	03/10/99	
COD	410.4	**53**	**79**	mg/L
Date Analyzed		03/11/99	03/11/99	
Nitrate-N	353.3	0.10 U	0.10 U	mg/L
Date Analyzed		03/06/99	03/06/99	
Nitrite-N	354.1	0.10 U	**0.31**	mg/L
Date Prepared		03/06/99	03/06/99	
Date Analyzed		03/06/99	03/06/99	
Sulfate, Total	375.4	**1.0** I	**56**	mg/L
Date Analyzed		03/12/99	03/12/99	
Sulfide, Total	376.1	**340**	**360**	mg/L
Date Analyzed		03/08/99	03/08/99	
Total Org. Carbon	415.1	**13**	**21**	mg/L
Date Analyzed		03/10/99	03/10/99	
Nitrate-Nitrite-N	353.1	0.020 U	**0.10**	mg/L
Date Analyzed		03/11/99	03/11/99	

U = Compound was analyzed for but not detected to the level shown.
I = Analyte detected; value is between the Method Detection Level (MDL) and the Practical Quantitation Level (PQL).

ENCO LABORATORIES
REPORT # : JR5725
DATE REPORTED: March 24, 1999
REFERENCE : WO# JX059
PROJECT NAME : SWMU-14 Monthly

RESULTS OF ANALYSIS

EPA METHOD 625 - SEMIVOLATILE ORGANICS	MP6818	MP6820	Units
Acenaphthene	10 U	10 U	µg/L
Acenaphthylene	10 U	10 U	µg/L
Anthracene	10 U	10 U	µg/L
Benzidine	10 U	10 U	µg/L
Benzo(a)anthracene	10 U	10 U	µg/L
Benzo(b)fluoranthene	10 U	10 U	µg/L
Benzo(k)fluoranthene	10 U	10 U	µg/L
Benzo(g,h,i)perylene	10 U	10 U	µg/L
Benzo(a)pyrene	10 U	10 U	µg/L
Benzylbutyl phthalate	10 U	10 U	µg/L
Bis(2-chloroethoxy)methane	10 U	10 U	µg/L
Bis(2-chloroethyl)ether	10 U	10 U	µg/L
Bis(2-chloroisopropyl)ether	10 U	10 U	µg/L
Bis(2-ethylhexyl)phthalate	10 U	10 U	µg/L
4-Bromophenylphenyl ether	10 U	10 U	µg/L
2-Chloronaphthalene	10 U	10 U	µg/L
4-Chlorophenyl phenyl ether	10 U	10 U	µg/L
Chrysene	10 U	10 U	µg/L
Dibenzo(a,h)anthracene	10 U	10 U	µg/L
1,2-Dichlorobenzene	10 U	10 U	µg/L
1,3-Dichlorobenzene	10 U	10 U	µg/L
1,4-Dichlorobenzene	10 U	10 U	µg/L
3,3'-Dichlorobenzidine	20 U	20 U	µg/L
Diethyl phthalate	10 U	10 U	µg/L
Dimethyl phthalate	10 U	10 U	µg/L
Di-n-butyl phthalate	10 U	10 U	µg/L
Di-n-octyl phthalate	10 U	10 U	µg/L
2,4-Dinitrotoluene	10 U	10 U	µg/L
2,6-Dinitrotoluene	10 U	10 U	µg/L
Fluoranthene	10 U	10 U	µg/L
Fluorene	10 U	10 U	µg/L
Hexachlorobenzene	10 U	10 U	µg/L
Hexachlorobutadiene	10 U	10 U	µg/L
Hexachlorocyclopentadiene	10 U	10 U	µg/L

U = Compound was analyzed for but not detected to the level shown.

ENCO LABORATORIES
REPORT # : JR5725
DATE REPORTED: March 24, 1999
REFERENCE : WO# JX059
PROJECT NAME : SWMU-14 Monthly

RESULTS OF ANALYSIS

EPA METHOD 625 (cont.) - SEMIVOLATILE ORGANICS	MP6818	MP6820	Units
Hexachloroethane	10 U	10 U	µg/L
Indeno(1,2,3-cd)pyrene	10 U	10 U	µg/L
Isophorone	10 U	10 U	µg/L
1-Methylnaphthalene	10 U	10 U	µg/L
2-Methylnaphthalene	10 U	10 U	µg/L
Naphthalene	10 U	10 U	µg/L
Nitrobenzene	10 U	10 U	µg/L
N-Nitrosodimethylamine	10 U	10 U	µg/L
N-Nitrosodi-n-propylamine	10 U	10 U	µg/L
N-Nitrosodiphenylamine	10 U	10 U	µg/L
Phenanthrene	10 U	10 U	µg/L
Pyrene	10 U	10 U	µg/L
1,2,4-Trichlorobenzene	10 U	10 U	µg/L
4-Chloro-3-methylphenol	10 U	10 U	µg/L
2-Chlorophenol	10 U	10 U	µg/L
2,4-Dichlorophenol	10 U	10 U	µg/L
2,4-Dimethylphenol	10 U	10 U	µg/L
2,4-Dinitrophenol	50 U	50 U	µg/L
2-Methyl-4,6-dinitrophenol	30 U	30 U	µg/L
2-Nitrophenol	10 U	10 U	µg/L
4-Nitrophenol	10 U	10 U	µg/L
Pentachlorophenol	10 U	10 U	µg/L
Phenol	10 U	10 U	µg/L
2,4,6-Trichlorophenol	10 U	10 U	µg/L
Surrogate:	**% RECOV**	**% RECOV**	**LIMITS**
Nitrobenzene -D5	47	53	30-106
2-Fluorobiphenyl	40	39	38-107
Terphenyl -D14	34	45	29-131
Phenol -D5	42	32	12-87
2-Fluorophenol	51	40	19-115
2,4,6-Tribromophenol	68	72	43-126
Date Extracted	03/09/99	03/10/99	
Date Analyzed	03/10/99	03/11/99	

U = Compound was analyzed for but not detected to the level shown.

ENCO LABORATORIES
REPORT # : JR5725
DATE REPORTED: March 24, 1999
REFERENCE : WO# JX059
PROJECT NAME : SWMU-14 Monthly

RESULTS OF ANALYSIS

EPA METHOD RSK 175 - Dissolved Gases	MP6818		MP6820		Units
Methane	**0.52**	D3	**0.80**	D3	mg/L
Ethene	0.0010 U		0.0010 U		mg/L
Ethane	0.0010 U		0.0010 U		mg/L
Date Analyzed	03/17/99		03/17/99		

FL METHOD FLPRO - PETROL. RESIDUAL ORG.	MP6818	MP6820	Units
ydrocarbons (C8-C40)	0.20 U	**1.5**	mg/L
Surrogate:	% RECOV	% RECOV	LIMITS
o-Terphenyl	91	106	65-140
Date Extracted	03/08/99	03/08/99	
Date Analyzed	03/10/99	03/10/99	

= Compound was analyzed for but not detected to the level shown.
3 = Analyte value determined from a 1:10 dilution.

ENCO LABORATORIES
REPORT # : JR5725
DATE REPORTED: March 24, 1999
REFERENCE : WO# JX059
PROJECT NAME : SWMU-14 Monthly

RESULTS OF ANALYSIS

EPA METHOD 625 - SEMIVOLATILE ORGANICS	MP6821	MP6822	Units
Acenaphthene	10 U	10 U	µg/L
Acenaphthylene	10 U	10 U	µg/L
Anthracene	10 U	10 U	µg/L
Benzidine	10 U	10 U	µg/L
Benzo(a)anthracene	10 U	10 U	µg/L
Benzo(b)fluoranthene	10 U	10 U	µg/L
Benzo(k)fluoranthene	10 U	10 U	µg/L
Benzo(g,h,i)perylene	10 U	10 U	µg/L
Benzo(a)pyrene	10 U	10 U	µg/L
Benzylbutyl phthalate	10 U	10 U	µg/L
Bis(2-chloroethoxy)methane	10 U	10 U	µg/L
Bis(2-chloroethyl)ether	10 U	10 U	µg/L
Bis(2-chloroisopropyl)ether	10 U	10 U	µg/L
Bis(2-ethylhexyl)phthalate	10 U	10 U	µg/L
4-Bromophenylphenyl ether	10 U	10 U	µg/L
2-Chloronaphthalene	10 U	10 U	µg/L
4-Chlorophenyl phenyl ether	10 U	10 U	µg/L
Chrysene	10 U	10 U	µg/L
Dibenzo(a,h)anthracene	10 U	10 U	µg/L
1,2-Dichlorobenzene	10 U	10 U	µg/L
1,3-Dichlorobenzene	10 U	10 U	µg/L
1,4-Dichlorobenzene	10 U	10 U	µg/L
3,3'-Dichlorobenzidine	20 U	20 U	µg/L
Diethyl phthalate	10 U	10 U	µg/L
Dimethyl phthalate	10 U	10 U	µg/L
Di-n-butyl phthalate	10 U	10 U	µg/L
Di-n-octyl phthalate	10 U	10 U	µg/L
2,4-Dinitrotoluene	10 U	10 U	µg/L
2,6-Dinitrotoluene	10 U	10 U	µg/L
Fluoranthene	10 U	10 U	µg/L
Fluorene	10 U	10 U	µg/L
Hexachlorobenzene	10 U	10 U	µg/L
Hexachlorobutadiene	10 U	10 U	µg/L
Hexachlorocyclopentadiene	10 U	10 U	µg/L

U = Compound was analyzed for but not detected to the level shown.

ENCO LABORATORIES
REPORT # : JR5725
DATE REPORTED: March 24, 1999
REFERENCE : WO# JX059
PROJECT NAME : SWMU-14 Monthly

RESULTS OF ANALYSIS

EPA METHOD 625 (cont.) - SEMIVOLATILE ORGANICS	MP6821	MP6822	Units
Hexachloroethane	10 U	10 U	µg/L
Indeno(1,2,3-cd)pyrene	10 U	10 U	µg/L
Isophorone	10 U	10 U	µg/L
1-Methylnaphthalene	10 U	10 U	µg/L
2-Methylnaphthalene	10 U	10 U	µg/L
Naphthalene	10 U	10 U	µg/L
Nitrobenzene	10 U	10 U	µg/L
N-Nitrosodimethylamine	10 U	10 U	µg/L
N-Nitrosodi-n-propylamine	10 U	10 U	µg/L
N-Nitrosodiphenylamine	10 U	10 U	µg/L
Phenanthrene	10 U	10 U	µg/L
Pyrene	10 U	10 U	µg/L
1,2,4-Trichlorobenzene	10 U	10 U	µg/L
4-Chloro-3-methylphenol	10 U	10 U	µg/L
2-Chlorophenol	10 U	10 U	µg/L
2,4-Dichlorophenol	10 U	10 U	µg/L
2,4-Dimethylphenol	10 U	10 U	µg/L
2,4-Dinitrophenol	50 U	50 U	µg/L
4-Methyl-4,6-dinitrophenol	30 U	30 U	µg/L
2-Nitrophenol	10 U	10 U	µg/L
4-Nitrophenol	10 U	10 U	µg/L
Pentachlorophenol	10 U	10 U	µg/L
Phenol	10 U	10 U	µg/L
2,4,6-Trichlorophenol	10 U	10 U	µg/L
Surrogate:	**% RECOV**	**% RECOV**	**LIMITS**
Nitrobenzene -D5	61	62	30-106
2-Fluorobiphenyl	50	56	38-107
Terphenyl -D14	60	51	29-131
Phenol -D5	46	43	12-87
2-Fluorophenol	60	58	19-115
2,4,6-Tribromophenol	72	74	43-126
Date Extracted	03/10/99	03/10/99	
Date Analyzed	03/11/99	03/12/99	

U = Compound was analyzed for but not detected to the level shown.

ENCO LABORATORIES
REPORT # : JR5725
DATE REPORTED: March 24, 1999
REFERENCE : WO# JX059
PROJECT NAME : SWMU-14 Monthly

RESULTS OF ANALYSIS

EPA METHOD RSK 175 - Dissolved Gases	MP6821	MP6822		Units
Methane	0.043	0.37	D4	mg/L
Ethene	0.0010 U	0.0010 U		mg/L
Ethane	0.0010 U	0.0010 U		mg/L
Date Analyzed	03/16/99	03/17/99		

FL METHOD FLPRO - PETROL. RESIDUAL ORG.	MP6821	MP6822	Units
Hydrocarbons (C8-C40)	0.20 U	0.20 U	mg/L
Surrogate:	**% RECOV**	**% RECOV**	**LIMITS**
O-Terphenyl	91	74	65-140
Date Extracted	03/08/99	03/08/99	
Date Analyzed	03/10/99	03/10/99	

U = Compound was analyzed for but not detected to the level shown.
D4 = Analyte value determined from a 1:5 dilution.

ENCO LABORATORIES
REPORT # : JR5725
DATE REPORTED: March 24, 1999
REFERENCE : WO# JX059
PROJECT NAME : SWMU-14 Monthly

RESULTS OF ANALYSIS

Ferrous Iron	METHOD	MP6821	MP6822	Units
Fe, Ferrous	3500Fe	4.0 U	4.0 U	mg/L
Date Prepared		03/05/99	03/05/99	
Date Analyzed		03/05/99	03/05/99	

MISCELLANEOUS	METHOD	MP6821	MP6822	Units
BOD	405.1	2.0 U	**5.0**	mg/L
Date Prepared		03/05/99	03/05/99	
Date Analyzed		03/10/99	03/10/99	
COD	410.4	**37**	**39**	mg/L
Date Analyzed		03/12/99	03/12/99	
Nitrate-N	353.3	0.10 U	0.10 U	mg/L
Date Analyzed		03/06/99	03/06/99	
Nitrite-N	354.1	0.10 U	0.10 U	mg/L
Date Prepared		03/06/99	03/06/99	
Date Analyzed		03/06/99	03/06/99	
Sulfate, Total	375.4	**33**	1.0 U	mg/L
Date Analyzed		03/12/99	03/12/99	
Sulfide, Total	376.1	**380**	**370**	mg/L
Date Analyzed		03/08/99	03/08/99	
Total Org. Carbon	415.1	**6.0**	**10**	mg/L
Date Analyzed		03/10/99	03/10/99	
Nitrate-Nitrite-N	353.1	0.020 U	0.020 U	mg/L
Date Analyzed		03/11/99	03/11/99	

U = Compound was analyzed for but not detected to the level shown.

ENCO LABORATORIES
REPORT # : JR5725
DATE REPORTED: March 24, 1999
REFERENCE : WO# JX059
PROJECT NAME : SWMU-14 Monthly

RESULTS OF ANALYSIS

EPA METHOD 625 - SEMIVOLATILE ORGANICS	LAB BLANK	LAB BLANK	Units
Acenaphthene	10 U	10 U	µg/L
Acenaphthylene	10 U	10 U	µg/L
Anthracene	10 U	10 U	µg/L
Benzidine	10 U	10 U	µg/L
Benzo(a)anthracene	10 U	10 U	µg/L
Benzo(b)fluoranthene	10 U	10 U	µg/L
Benzo(k)fluoranthene	10 U	10 U	µg/L
Benzo(g,h,i)perylene	10 U	10 U	µg/L
Benzo(a)pyrene	10 U	10 U	µg/L
Benzylbutyl phthalate	10 U	10 U	µg/L
Bis(2-chloroethoxy)methane	10 U	10 U	µg/L
Bis(2-chloroethyl)ether	10 U	10 U	µg/L
Bis(2-chloroisopropyl)ether	10 U	10 U	µg/L
Bis(2-ethylhexyl)phthalate	10 U	10 U	µg/L
4-Bromophenylphenyl ether	10 U	10 U	µg/L
2-Chloronaphthalene	10 U	10 U	µg/L
4-Chlorophenyl phenyl ether	10 U	10 U	µg/L
Chrysene	10 U	10 U	µg/L
Dibenzo(a,h)anthracene	10 U	10 U	µg/L
1,2-Dichlorobenzene	10 U	10 U	µg/L
1,3-Dichlorobenzene	10 U	10 U	µg/L
1,4-Dichlorobenzene	10 U	10 U	µg/L
3,3'-Dichlorobenzidine	20 U	20 U	µg/L
Diethyl phthalate	10 U	10 U	µg/L
Dimethyl phthalate	10 U	10 U	µg/L
Di-n-butyl phthalate	10 U	10 U	µg/L
Di-n-octyl phthalate	10 U	10 U	µg/L
2,4-Dinitrotoluene	10 U	10 U	µg/L
2,6-Dinitrotoluene	10 U	10 U	µg/L
Fluoranthene	10 U	10 U	µg/L
Fluorene	10 U	10 U	µg/L
Hexachlorobenzene	10 U	10 U	µg/L
Hexachlorobutadiene	10 U	10 U	µg/L
Hexachlorocyclopentadiene	10 U	10 U	µg/L

U = Compound was analyzed for but not detected to the level shown.

ENCO LABORATORIES
REPORT # : JR5725
DATE REPORTED: March 24, 1999
REFERENCE : WO# JX059
PROJECT NAME : SWMU-14 Monthly

RESULTS OF ANALYSIS

EPA METHOD 625 (cont.) - SEMIVOLATILE ORGANICS	LAB BLANK	LAB BLANK	Units
Hexachloroethane	10 U	10 U	µg/L
Indeno(1,2,3-cd)pyrene	10 U	10 U	µg/L
Isophorone	10 U	10 U	µg/L
1-Methylnaphthalene	10 U	10 U	µg/L
2-Methylnaphthalene	10 U	10 U	µg/L
Naphthalene	10 U	10 U	µg/L
Nitrobenzene	10 U	10 U	µg/L
N-Nitrosodimethylamine	10 U	10 U	µg/L
N-Nitrosodi-n-propylamine	10 U	10 U	µg/L
N-Nitrosodiphenylamine	10 U	10 U	µg/L
Phenanthrene	10 U	10 U	µg/L
rene	10 U	10 U	µg/L
1,2,4-Trichlorobenzene	10 U	10 U	µg/L
4-Chloro-3-methylphenol	10 U	10 U	µg/L
2-Chlorophenol	10 U	10 U	µg/L
2,4-Dichlorophenol	10 U	10 U	µg/L
2,4-Dimethylphenol	10 U	10 U	µg/L
2,4-Dinitrophenol	50 U	50 U	µg/L
2-Methyl-4,6-dinitrophenol	30 U	30 U	µg/L
2-Nitrophenol	10 U	10 U	µg/L
4-Nitrophenol	10 U	10 U	µg/L
Pentachlorophenol	10 U	10 U	µg/L
Phenol	10 U	10 U	µg/L
2,4,6-Trichlorophenol	10 U	10 U	µg/L
Surrogate:	**% RECOV**	**% RECOV**	**LIMITS**
Nitrobenzene -D5	56	81	30-106
2-Fluorobiphenyl	52	54	38-107
Terphenyl -D14	88	75	29-131
Phenol -D5	34	48	12-87
2-Fluorophenol	43	60	19-115
2,4,6-Tribromophenol	68	66	43-126
Date Extracted	03/10/99	03/10/99	
Date Analyzed	03/10/99	03/11/99	

= Compound was analyzed for but not detected to the level shown.

ENCO LABORATORIES
REPORT # : JR5725
DATE REPORTED: March 24, 1999
REFERENCE : WO# JX059
PROJECT NAME : SWMU-14 Monthly

RESULTS OF ANALYSIS

EPA METHOD RSK 175 - Dissolved Gases	LAB BLANK	Units
Methane	0.0010 U	mg/L
Ethene	0.0010 U	mg/L
Ethane	0.0010 U	mg/L
Date Analyzed	03/16/99	

FL METHOD FLPRO - PETROL. RESIDUAL ORG.	LAB BLANK	Units
drocarbons (C8-C40)	0.20 U	mg/L
Surrogate:	**% RECOV**	**LIMITS**
o-Terphenyl	78	65-140
Date Extracted	03/08/99	
Date Analyzed	03/10/99	

= Compound was analyzed for but not detected to the level shown.

ENCO LABORATORIES
REPORT # : JR5725
DATE REPORTED: March 24, 1999
REFERENCE : WO# JX059
PROJECT NAME : SWMU-14 Monthly

RESULTS OF ANALYSIS

Ferrous Iron	METHOD	LAB BLANK	Units
Fe, Ferrous	SM	4.0 U	mg/L
Date Extracted		03/05/99	
Date Analyzed		03/05/99	

MISCELLANEOUS	METHOD	LAB BLANK	Units
BOD	405.1	2.0 U	mg/L
Date Prepared		03/05/99	
Date Analyzed		03/10/99	
COD	410.4	10 U	mg/L
Date Analyzed		03/11/99	
Nitrate-N	353.3	0.10 U	mg/L
Date Analyzed		03/06/99	
Nitrite-N	354.1	0.10 U	mg/L
Date Prepared		03/06/99	
Date Analyzed		03/06/99	
Sulfate, Total	375.4	1.0 U	mg/L
Date Analyzed		03/12/99	
Sulfide, Total	376.1	1.0 U	mg/L
Date Analyzed		03/08/99	
Total Org. Carbon	415.1	1.0 U	mg/L
Date Analyzed		03/10/99	
Nitrate-Nitrite-N	353.1	0.020 U	mg/L
Date Analyzed		03/11/99	

U = Compound was analyzed for but not detected to the level shown.

ENCO LABORATORIES
REPORT # : JR5725
DATE REPORTED: March 24, 1999
REFERENCE : WO# JX059
PROJECT NAME : SWMU-14 Monthly

QUALITY CONTROL DATA

Parameter	% RECOVERY MS/MSD/LCS	ACCEPT LIMITS	% RPD MS/MSD	ACCEPT LIMITS
EPA Method 625 (MP6816,MP6817,MP6818)				
Phenol	58/ 46/ 47	29-102	23	44
2-Chlorophenol	89/ 71/ 71	58-124	22	41
1,4-Dichlorobenzene	82/ 60/ 52	D-127	31	43
N-Nitrosodi-N-Propylamine	94/ 72/ 74	72-118	#26	22
1,2,4-Trichlorobenzene	88/ 70/ 50	18-129	23	43
4-Chloro-3-Methylphenol	93/ 88/ 70	75-126	6	22
Acenaphthene	83/ 73/ 60	63-122	13	28
4-Nitrophenol	50/ 53/ 40	D-168	6	52
2,4-Dinitrotoluene	94/ 86/ 79	81-151	9	21
ntachlorophenol	95/ 91/ 74	27-154	4	42
rene	86/ 75/ 98	54-146	14	32

Environmental Conservation Laboratories Comprehensive QA Plan #960038

= The associated value failed to meet laboratory established criteria for precision.
< = Less Than
MS = Matrix Spike
MSD = Matrix Spike Duplicate
LCS = Laboratory Control Standard
RPD = Relative Percent Difference

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ENCO LABORATORIES
REPORT # : JR5725
DATE REPORTED: March 24, 1999
REFERENCE : WO# JX059
PROJECT NAME : SWMU-14 Monthly

QUALITY CONTROL DATA

Parameter	% RECOVERY MS/MSD/LCS	ACCEPT LIMITS	% RPD MS/MSD	ACCEPT LIMITS
EPA Method 625 (MP6820,MP6821,MP6822)				
Phenol	50/ 53/ 27	29-102	6	44
2-Chlorophenol	72/ 76/ 39	58-124	5	41
1,4-Dichlorobenzene	59/ 62/ 31	D-127	5	43
N-Nitrosodi-N-Propylamine	66/ 69/ 38	72-118	4	22
1,2,4-Trichlorobenzene	64/ 67/ 28	18-129	4	43
4-Chloro-3-Methylphenol	70/ 76/ 34	75-126	8	22
Acenaphthene	67/ 73/ 36	63-122	8	28
4-Nitrophenol	43/ 46/ 20	D-168	7	52
2,4-Dinitrotoluene	72/ 75/ 34	81-151	4	21
Pentachlorophenol	77/ 84/ 32	27-154	9	42
Pyrene	92/ 93/ 22	54-146	1	32
EPA Method RSK175				
Methane	NA/ NA/ 92	85-115	NA	NA
Ethene	NA/ NA/ 85	85-115	NA	NA
Ethane	NA/ NA/ 86	85-115	NA	NA

Environmental Conservation Laboratories Comprehensive QA Plan #960038

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MSD = Matrix Spike Duplicate
LCS = Laboratory Control Standard
RPD = Relative Percent Difference

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ENCO LABORATORIES
REPORT # : JR5725
DATE REPORTED: March 24, 1999
REFERENCE : WO# JX059
PROJECT NAME : SWMU-14 Monthly

QUALITY CONTROL DATA

Parameter	% RECOVERY MS/MSD/LCS	ACCEPT LIMITS	% RPD MS/MSD	ACCEPT LIMITS
Miscellaneous				
BOD, 405.1	NA/ NA/102	NA	NA	NA
COD, 410.4	101/102/107	82-124	<1	8
COD, 410.4	101/102/106	82-124	<1	8
Nitrate-N, 353.3	101/103/108	56-129	2	20
Nitrite-N, 354.1	101/103/108	69-124	2	13
Sulfate, Total, 375.4	105/105/110	61-138	<1	22
Sulfide, Total, 376.1	NA/ NA/100	NA	NA	NA
Total Org. Carbon, 415.1	88/ 89/101	69-132	1	13
Nitrate-Nitrite-N, 353.1	65/ 65/119	61-144	<1	21
TROL. RESIDUAL ORG.				
Hydrocarbons (C8-C40)	96/ 94/ 84	51-163	2	27

Environmental Conservation Laboratories Comprehensive QA Plan #960038

< = Less Than
MS = Matrix Spike
MSD = Matrix Spike Duplicate
LCS = Laboratory Control Standard
RPD = Relative Percent Difference

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CLIENT : Bechtel Environmental, Inc.
ADDRESS: NAS Cecil Field
P.O. Box 171
Jacksonville, FL 32215

REPORT # : JR6335
DATE SUBMITTED: April 15, 1999
DATE REPORTED : May 3, 1999

ATTENTION: Mr. Dane Cutshaw

SAMPLE IDENTIFICATION

Samples submitted and
identified by client as:

WO# JX078

SWMU-14 Monthly

04/15/99

#1 - MP06858 @ 12:40
#2 - MP06852 @ 12:40
#3 - MP06853 @ 12:40
#4 - MP06855 @ 12:40
#5 - MP06856 @ 12:40
#6 - MP06857 @ 12:40

OJECT MANAGER _____
Scott D. Martin

ENCO LABORATORIES
REPORT # : JR6335
DATE REPORTED: May 3, 1999
REFERENCE : WO# JX078
PROJECT NAME : SWMU-14 Monthly

RESULTS OF ANALYSIS

EPA METHOD 625 - SEMIVOLATILE ORGANICS	MP06858	MP06852	Units
Acenaphthene	10 U	10 U	µg/L
Acenaphthylene	10 U	10 U	µg/L
Anthracene	10 U	10 U	µg/L
Benzidine	10 U	10 U	µg/L
Benzo(a)anthracene	10 U	10 U	µg/L
Benzo(b)fluoranthene	10 U	10 U	µg/L
Benzo(k)fluoranthene	10 U	10 U	µg/L
Benzo(g,h,i)perylene	10 U	10 U	µg/L
Benzo(a)pyrene	10 U	10 U	µg/L
Benzylbutyl phthalate	10 U	10 U	µg/L
Bis(2-chloroethoxy)methane	10 U	10 U	µg/L
Bis(2-chloroethyl)ether	10 U	10 U	µg/L
Bis(2-chloroisopropyl)ether	10 U	10 U	µg/L
Bis(2-ethylhexyl)phthalate	10 U	10 U	µg/L
4-Bromophenylphenyl ether	10 U	10 U	µg/L
2-Chloronaphthalene	10 U	10 U	µg/L
4-Chlorophenyl phenyl ether	10 U	10 U	µg/L
Chrysene	10 U	10 U	µg/L
Dibenzo(a,h)anthracene	10 U	10 U	µg/L
1,2-Dichlorobenzene	10 U	10 U	µg/L
1,3-Dichlorobenzene	10 U	10 U	µg/L
1,4-Dichlorobenzene	10 U	10 U	µg/L
3,3'-Dichlorobenzidine	20 U	20 U	µg/L
Diethyl phthalate	10 U	10 U	µg/L
Dimethyl phthalate	10 U	10 U	µg/L
Di-n-butyl phthalate	10 U	10 U	µg/L
Di-n-octyl phthalate	10 U	10 U	µg/L
2,4-Dinitrotoluene	10 U	10 U	µg/L
2,6-Dinitrotoluene	10 U	10 U	µg/L
Fluoranthene	10 U	10 U	µg/L
Fluorene	10 U	10 U	µg/L
Hexachlorobenzene	10 U	10 U	µg/L
Hexachlorobutadiene	10 U	10 U	µg/L
Hexachlorocyclopentadiene	10 U	10 U	µg/L

U = Compound was analyzed for but not detected to the level shown.

ENCO LABORATORIES
REPORT # : JR6335
DATE REPORTED: May 3, 1999
REFERENCE : WO# JX078
PROJECT NAME : SWMU-14 Monthly

RESULTS OF ANALYSIS

EPA METHOD 625 (cont.) - SEMIVOLATILE ORGANICS	MP06858	MP06852	Units
Hexachloroethane	10 U	10 U	µg/L
Indeno(1,2,3-cd)pyrene	10 U	10 U	µg/L
Isophorone	10 U	10 U	µg/L
1-Methylnaphthalene	10 U	10 U	µg/L
2-Methylnaphthalene	10 U	10 U	µg/L
Naphthalene	10 U	10 U	µg/L
Nitrobenzene	10 U	10 U	µg/L
N-Nitrosodimethylamine	10 U	10 U	µg/L
N-Nitrosodi-n-propylamine	10 U	10 U	µg/L
N-Nitrosodiphenylamine	10 U	10 U	µg/L
Phenanthrene	10 U	10 U	µg/L
Pyrene	10 U	10 U	µg/L
1,2,4-Trichlorobenzene	10 U	10 U	µg/L
4-Chloro-3-methylphenol	10 U	10 U	µg/L
2-Chlorophenol	10 U	10 U	µg/L
2,4-Dichlorophenol	10 U	10 U	µg/L
2,4-Dimethylphenol	10 U	10 U	µg/L
2,4-Dinitrophenol	50 U	50 U	µg/L
2-Methyl-4,6-dinitrophenol	30 U	30 U	µg/L
2-Nitrophenol	10 U	10 U	µg/L
4-Nitrophenol	10 U	10 U	µg/L
Pentachlorophenol	10 U	10 U	µg/L
Phenol	10 U	10 U	µg/L
2,4,6-Trichlorophenol	10 U	10 U	µg/L
Surrogate:	**% RECOV**	**% RECOV**	**LIMITS**
Nitrobenzene -D5	73	67	30-106
2-Fluorobiphenyl	61	61	38-107
Terphenyl -D14	59	50	29-131
Phenol -D5	46	47	12-87
2-Fluorophenol	42	45	19-115
2,4,6-Tribromophenol	#156	#150	43-126
Date Extracted	04/21/99	04/21/99	
Date Analyzed	04/22/99	04/22/99	

= Surrogate recovery is outside laboratory established limits.
= Compound was analyzed for but not detected to the level shown.

ENCO LABORATORIES
REPORT # : JR6335
DATE REPORTED: May 3, 1999
REFERENCE : WO# JX078
PROJECT NAME : SWMU-14 Monthly

RESULTS OF ANALYSIS

EPA METHOD RSK 175 - Dissolved Gases	MP06858		MP06852		Units
Methane	0.60	D1	1.9	D2	mg/L
Ethene	0.0010 U		0.0010 U		mg/L
Ethane	0.0010 U		0.0010 U		mg/L
Date Analyzed	04/27/99		04/27/99		

FL METHOD FLPRO - PETROL. RESIDUAL ORG.	MP06858	MP06852	Units
Hydrocarbons (C8-C40)	0.20 U	0.20 U	mg/L
Surrogate:	**% RECOV**	**% RECOV**	**LIMITS**
o-Terphenyl	85	92	65-140
Date Extracted	04/19/99	04/19/99	
Date Analyzed	04/21/99	04/21/99	

U = Compound was analyzed for but not detected to the level shown.
D1 = Analyte value determined from a 1:10 dilution.
D2 = Analyte value determined from a 1:50 dilution.

ENCO LABORATORIES
REPORT # : JR6335
DATE REPORTED: May 3, 1999
REFERENCE : WO# JX078
PROJECT NAME : SWMU-14 Monthly

RESULTS OF ANALYSIS

MISCELLANEOUS	METHOD	MP06858	MP06852	Units
BOD	405.1	2.0 U	2.0 U	mg/L
Date Analyzed		04/21/99	04/21/99	
COD	410.4	10 U	10 U	mg/L
Date Analyzed		04/20/99	04/20/99	
Nitrate-N	353.3	0.10 U	0.10 U	mg/L
Date Analyzed		05/03/99	05/03/99	
Nitrite-N	354.1	0.10 U	0.10 U	mg/L
Date Analyzed		04/17/99	04/17/99	
.lfate, Total	375.4	**76**	**71**	mg/L
Date Analyzed		04/23/99	04/23/99	
Sulfide, Total	376.1	**3.0** I	**3.0** I	mg/L
Date Analyzed		04/18/99	04/18/99	
Total Org. Carbon	415.1	**16**	**8.0**	mg/L
Date Analyzed		04/20/99	04/20/99	
Nitrate-Nitrite-N	353.1	0.020 U	0.020 U	mg/L
Date Analyzed		04/19/99	04/19/99	

Ferrous Iron	METHOD	MP06858	MP06852	Units
Fe, Ferrous	3500 Fe	4.0 U	4.0 U	mg/L
Date Analyzed		04/16/99	04/16/99	

= Compound was analyzed for but not detected to the level shown.
= Analyte detected; value is between the Method Detection Level (MDL) and the Practical Quantitation Level (PQL).

ENCO LABORATORIES
REPORT # : JR6335
DATE REPORTED: May 3, 1999
REFERENCE : WO# JX078
PROJECT NAME : SWMU-14 Monthly

RESULTS OF ANALYSIS

EPA METHOD 625 - SEMIVOLATILE ORGANICS	MP06853	MP06855	Units
Acenaphthene	10 U	10 U	µg/L
Acenaphthylene	10 U	10 U	µg/L
Anthracene	10 U	10 U	µg/L
Benzidine	10 U	10 U	µg/L
Benzo(a)anthracene	10 U	10 U	µg/L
Benzo(b)fluoranthene	10 U	10 U	µg/L
Benzo(k)fluoranthene	10 U	10 U	µg/L
Benzo(g,h,i)perylene	10 U	10 U	µg/L
Benzo(a)pyrene	10 U	10 U	µg/L
Benzylbutyl phthalate	10 U	10 U	µg/L
Bis(2-chloroethoxy)methane	10 U	10 U	µg/L
Bis(2-chloroethyl)ether	10 U	10 U	µg/L
Bis(2-chloroisopropyl)ether	10 U	10 U	µg/L
Bis(2-ethylhexyl)phthalate	10 U	10 U	µg/L
4-Bromophenylphenyl ether	10 U	10 U	µg/L
2-Chloronaphthalene	10 U	10 U	µg/L
4-Chlorophenyl phenyl ether	10 U	10 U	µg/L
Chrysene	10 U	10 U	µg/L
Dibenzo(a,h)anthracene	10 U	10 U	µg/L
1,2-Dichlorobenzene	10 U	10 U	µg/L
1,3-Dichlorobenzene	10 U	10 U	µg/L
1,4-Dichlorobenzene	10 U	10 U	µg/L
3,3'-Dichlorobenzidine	20 U	20 U	µg/L
Diethyl phthalate	10 U	10 U	µg/L
Dimethyl phthalate	10 U	10 U	µg/L
Di-n-butyl phthalate	10 U	10 U	µg/L
Di-n-octyl phthalate	10 U	10 U	µg/L
2,4-Dinitrotoluene	10 U	10 U	µg/L
2,6-Dinitrotoluene	10 U	10 U	µg/L
Fluoranthene	10 U	10 U	µg/L
Fluorene	10 U	10 U	µg/L
Hexachlorobenzene	10 U	10 U	µg/L
Hexachlorobutadiene	10 U	10 U	µg/L
Hexachlorocyclopentadiene	10 U	10 U	µg/L

U = Compound was analyzed for but not detected to the level shown.

RESULTS OF ANALYSIS

EPA METHOD 625 (cont.) - SEMIVOLATILE ORGANICS	MP06853	MP06855	Units
Hexachloroethane	10 U	10 U	µg/L
Indeno(1,2,3-cd)pyrene	10 U	10 U	µg/L
Isophorone	10 U	10 U	µg/L
1-Methylnaphthalene	10 U	10 U	µg/L
2-Methylnaphthalene	10 U	10 U	µg/L
Naphthalene	10 U	10 U	µg/L
Nitrobenzene	10 U	10 U	µg/L
N-Nitrosodimethylamine	10 U	10 U	µg/L
N-Nitrosodi-n-propylamine	10 U	10 U	µg/L
N-Nitrosodiphenylamine	10 U	10 U	µg/L
Phenanthrene	10 U	10 U	µg/L
Pyrene	10 U	10 U	µg/L
1,2,4-Trichlorobenzene	10 U	10 U	µg/L
4-Chloro-3-methylphenol	10 U	10 U	µg/L
2-Chlorophenol	10 U	10 U	µg/L
2,4-Dichlorophenol	10 U	10 U	µg/L
2,4-Dimethylphenol	10 U	10 U	µg/L
2,4-Dinitrophenol	50 U	50 U	µg/L
2-Methyl-4,6-dinitrophenol	30 U	30 U	µg/L
2-Nitrophenol	10 U	10 U	µg/L
4-Nitrophenol	10 U	10 U	µg/L
Pentachlorophenol	10 U	10 U	µg/L
Phenol	10 U	10 U	µg/L
2,4,6-Trichlorophenol	10 U	10 U	µg/L
Surrogate:	**% RECOV**	**% RECOV**	**LIMITS**
Nitrobenzene -D5	79	57	30-106
2-Fluorobiphenyl	63	46	38-107
Terphenyl -D14	46	49	29-131
Phenol -D5	46	38	12-87
2-Fluorophenol	41	34	19-115
2,4,6-Tribromophenol	154#	120	43-126
Date Extracted	04/21/99	04/21/99	
Date Analyzed	04/22/99	04/22/99	

# = Surrogate recovery outside of laboratory established limits.
U = Compound was analyzed for but not detected to the level shown.

ENCO LABORATORIES
REPORT # : JR6335
DATE REPORTED: May 3, 1999
REFERENCE : WO# JX078
PROJECT NAME : SWMU-14 Monthly

RESULTS OF ANALYSIS

EPA METHOD RSK 175 - Dissolved Gases	MP06853		MP06855		Units
Methane	**0.081**	D3	**4.8**	D2	mg/L
Ethene	0.0010 U		0.0010 U		mg/L
Ethane	0.0010 U		0.0010 U		mg/L
Date Analyzed	04/27/99		04/27/99		

FL METHOD FLPRO - PETROL. RESIDUAL ORG.	MP06853	MP06855	Units
drocarbons (C8-C40)	0.20 U	0.20 U	mg/L
Surrogate:	**% RECOV**	**% RECOV**	**LIMITS**
o-Terphenyl	78	89	65-140
Date Extracted	04/19/99	04/19/99	
Date Analyzed	04/21/99	04/21/99	

T = Compound was analyzed for but not detected to the level shown.
= Analyte value determined from a 1:50 dilution.
D3 = Analyte value determined from a 1:5 dilution.

ENCO LABORATORIES
REPORT # : JR6335
DATE REPORTED: May 3, 1999
REFERENCE : WO# JX078
PROJECT NAME : SWMU-14 Monthly

RESULTS OF ANALYSIS

MISCELLANEOUS	METHOD	MP06853	MP06855	Units
BOD	405.1	2.0 U	**5.0**	mg/L
Date Analyzed		04/21/99	04/21/99	
COD	410.4	**24**	10 U	mg/L
Date Analyzed		04/20/99	04/20/99	
Nitrate-N	353.3	**0.55**	0.10 U	mg/L
Date Analyzed		05/03/99	05/03/99	
Nitrite-N	354.1	**0.42**	0.10 U	mg/L
Date Analyzed		04/17/99	04/17/99	
lfate, Total	375.4	**85**	5.0 U	mg/L
Date Analyzed		04/23/99	04/23/99	
Sulfide, Total	376.1	**4.0**	**5.0**	mg/L
Date Analyzed		04/18/99	04/18/99	
Total Org. Carbon	415.1	**19**	**10**	mg/L
Date Analyzed		04/20/99	04/20/99	
Nitrate-Nitrite-N	353.1	**0.92**	0.020 U	mg/L
Date Analyzed		04/19/99	04/19/99	

Ferrous Iron	METHOD	MP06853	MP06855	Units
Fe, Ferrous	SM	4.0 U	4.0 U	mg/L
Date Analyzed		04/16/99	04/16/99	

= Compound was analyzed for but not detected to the level shown.

ENCO LABORATORIES
REPORT # : JR6335
DATE REPORTED: May 3, 1999
REFERENCE : WO# JX078
PROJECT NAME : SWMU-14 Monthly

RESULTS OF ANALYSIS

EPA METHOD 625 - SEMIVOLATILE ORGANICS	MP06856	MP06857	Units
Acenaphthene	10 U	10 U	µg/L
Acenaphthylene	10 U	10 U	µg/L
Anthracene	10 U	10 U	µg/L
Benzidine	10 U	10 U	µg/L
Benzo(a)anthracene	10 U	10 U	µg/L
Benzo(b)fluoranthene	10 U	10 U	µg/L
Benzo(k)fluoranthene	10 U	10 U	µg/L
Benzo(g,h,i)perylene	10 U	10 U	µg/L
Benzo(a)pyrene	10 U	10 U	µg/L
Benzylbutyl phthalate	10 U	10 U	µg/L
Bis(2-chloroethoxy)methane	10 U	10 U	µg/L
Bis(2-chloroethyl)ether	10 U	10 U	µg/L
Bis(2-chloroisopropyl)ether	10 U	10 U	µg/L
Bis(2-ethylhexyl)phthalate	10 U	10 U	µg/L
4-Bromophenylphenyl ether	10 U	10 U	µg/L
2-Chloronaphthalene	10 U	10 U	µg/L
4-Chlorophenyl phenyl ether	10 U	10 U	µg/L
Chrysene	10 U	10 U	µg/L
Dibenzo(a,h)anthracene	10 U	10 U	µg/L
1,2-Dichlorobenzene	10 U	10 U	µg/L
1,3-Dichlorobenzene	10 U	10 U	µg/L
1,4-Dichlorobenzene	10 U	10 U	µg/L
3,3'-Dichlorobenzidine	20 U	20 U	µg/L
Diethyl phthalate	10 U	10 U	µg/L
Dimethyl phthalate	10 U	10 U	µg/L
Di-n-butyl phthalate	10 U	10 U	µg/L
Di-n-octyl phthalate	10 U	10 U	µg/L
2,4-Dinitrotoluene	10 U	10 U	µg/L
2,6-Dinitrotoluene	10 U	10 U	µg/L
Fluoranthene	10 U	10 U	µg/L
Fluorene	10 U	10 U	µg/L
Hexachlorobenzene	10 U	10 U	µg/L
Hexachlorobutadiene	10 U	10 U	µg/L
Hexachlorocyclopentadiene	10 U	10 U	µg/L

U = Compound was analyzed for but not detected to the level shown.

RESULTS OF ANALYSIS

EPA METHOD 625 (cont.) - SEMIVOLATILE ORGANICS	MP06856	MP06857	Units
Hexachloroethane	10 U	10 U	µg/L
Indeno(1,2,3-cd)pyrene	10 U	10 U	µg/L
Isophorone	10 U	10 U	µg/L
1-Methylnaphthalene	10 U	10 U	µg/L
2-Methylnaphthalene	10 U	10 U	µg/L
Naphthalene	10 U	10 U	µg/L
Nitrobenzene	10 U	10 U	µg/L
N-Nitrosodimethylamine	10 U	10 U	µg/L
N-Nitrosodi-n-propylamine	10 U	10 U	µg/L
N-Nitrosodiphenylamine	10 U	10 U	µg/L
[illegible]enanthrene	10 U	10 U	µg/L
[illegible]rene	10 U	10 U	µg/L
1,2,4-Trichlorobenzene	10 U	10 U	µg/L
4-Chloro-3-methylphenol	10 U	10 U	µg/L
2-Chlorophenol	10 U	10 U	µg/L
2,4-Dichlorophenol	10 U	10 U	µg/L
2,4-Dimethylphenol	10 U	10 U	µg/L
2,4-Dinitrophenol	50 U	50 U	µg/L
2-Methyl-4,6-dinitrophenol	30 U	30 U	µg/L
2-Nitrophenol	10 U	10 U	µg/L
4-Nitrophenol	10 U	10 U	µg/L
Pentachlorophenol	10 U	10 U	µg/L
Phenol	10 U	10 U	µg/L
2,4,6-Trichlorophenol	10 U	10 U	µg/L
Surrogate:	**% RECOV**	**% RECOV**	**LIMITS**
Nitrobenzene -D5	68	50	30-106
2-Fluorobiphenyl	57	43	38-107
Terphenyl -D14	47	42	29-131
Phenol -D5	45	30	12-87
2-Fluorophenol	43	28	19-115
2,4,6-Tribromophenol	158#	115	43-126
Date Extracted	04/21/99	04/21/99	
Date Analyzed	04/22/99	04/23/99	

# = Surrogate recovery outside laboratory established limits.
U = Compound was analyzed for but not detected to the level shown.

ENCO LABORATORIES
REPORT # : JR6335
DATE REPORTED: May 3, 1999
REFERENCE : WO# JX078
PROJECT NAME : SWMU-14 Monthly

RESULTS OF ANALYSIS

EPA METHOD RSK 175 - Dissolved Gases	MP06856		MP06857		Units
Methane	**0.55**	D2	**0.32**	D1	mg/L
Ethene	0.0010 U		0.0010 U		mg/L
Ethane	0.0010 U		0.0010 U		mg/L
Date Analyzed	04/27/99		04/27/99		

Ferrous Iron	METHOD	MP06856	MP06857	Units
Fe, Ferrous	SM	4.0 U	4.0 U	mg/L
Date Analyzed		04/16/99	04/16/99	

TL METHOD FLPRO - PETROL. RESIDUAL ORG.	MP06856	MP06857	Units
Hydrocarbons (C8-C40)	0.20 U	**2.3**	mg/L
Surrogate:	**% RECOV**	**% RECOV**	**LIMITS**
o-Terphenyl	97	90	65-140
Date Extracted	04/19/99	04/19/99	
Date Analyzed	04/21/99	04/21/99	

U = Compound was analyzed for but not detected to the level shown.
J = Analyte detected; value is between the Method Detection Level (MDL) and the Practical Quantitation Level (PQL).
D1 = Analyte value determined from a 1:10 dilution.
D2 = Analyte value determined from a 1:50 dilution.

ENCO LABORATORIES
REPORT # : JR6335
DATE REPORTED: May 3, 1999
REFERENCE : WO# JX078
PROJECT NAME : SWMU-14 Monthly

RESULTS OF ANALYSIS

MISCELLANEOUS	METHOD	MP06856	MP06857	Units
BOD	405.1	2.0 U	**3.0** I	mg/L
Date Analyzed		04/21/99	04/21/99	
COD	410.4	**33**	**54**	mg/L
Date Analyzed		04/20/99	04/20/99	
Nitrate-N	353.3	0.10 U	0.10 U	mg/L
Date Analyzed		05/03/99	05/03/99	
Nitrite-N	354.1	0.10 U	0.10 U	mg/L
Date Analyzed		04/17/99	04/17/99	
lfate, Total	375.4	**15** I	**6.0** I	mg/L
Date Analyzed		04/23/99	04/23/99	
Sulfide, Total	376.1	**3.0** I	**5.0**	mg/L
Date Analyzed		04/18/99	04/18/99	
Total Org. Carbon	415.1	**22**	**34**	mg/L
Date Analyzed		04/20/99	04/20/99	
Nitrate-Nitrite-N	353.1	0.020 U	0.020 U	mg/L
Date Analyzed		04/19/99	04/19/99	

J = Compound was analyzed for but not detected to the level shown.
= Analyte detected; value is between the Method Detection Level (MDL) and the Practical Quantitation Level (PQL).

ENCO LABORATORIES
REPORT # : JR6335
DATE REPORTED: May 3, 1999
REFERENCE : WO# JX078
PROJECT NAME : SWMU-14 Monthly

RESULTS OF ANALYSIS

EPA METHOD 625 - SEMIVOLATILE ORGANICS	LAB BLANK	Units
Acenaphthene	10 U	µg/L
Acenaphthylene	10 U	µg/L
Anthracene	10 U	µg/L
Benzidine	10 U	µg/L
Benzo(a)anthracene	10 U	µg/L
Benzo(b)fluoranthene	10 U	µg/L
Benzo(k)fluoranthene	10 U	µg/L
Benzo(g,h,i)perylene	10 U	µg/L
Benzo(a)pyrene	10 U	µg/L
Benzylbutyl phthalate	10 U	µg/L
Bis(2-chloroethoxy)methane	10 U	µg/L
Bis(2-chloroethyl)ether	10 U	µg/L
Bis(2-chloroisopropyl)ether	10 U	µg/L
Bis(2-ethylhexyl)phthalate	10 U	µg/L
4-Bromophenylphenyl ether	10 U	µg/L
2-Chloronaphthalene	10 U	µg/L
4-Chlorophenyl phenyl ether	10 U	µg/L
Chrysene	10 U	µg/L
Dibenzo(a,h)anthracene	10 U	µg/L
1,2-Dichlorobenzene	10 U	µg/L
1,3-Dichlorobenzene	10 U	µg/L
1,4-Dichlorobenzene	10 U	µg/L
3,3'-Dichlorobenzidine	20 U	µg/L
Diethyl phthalate	10 U	µg/L
Dimethyl phthalate	10 U	µg/L
Di-n-butyl phthalate	10 U	µg/L
Di-n-octyl phthalate	10 U	µg/L
2,4-Dinitrotoluene	10 U	µg/L
2,6-Dinitrotoluene	10 U	µg/L
Fluoranthene	10 U	µg/L
Fluorene	10 U	µg/L
Hexachlorobenzene	10 U	µg/L
Hexachlorobutadiene	10 U	µg/L
Hexachlorocyclopentadiene	10 U	µg/L

U = Compound was analyzed for but not detected to the level shown.
-- = Analysis not requested for this sample.

ENCO LABORATORIES
REPORT # : JR6335
DATE REPORTED: May 3, 1999
REFERENCE : WO# JX078
PROJECT NAME : SWMU-14 Monthly

RESULTS OF ANALYSIS

EPA METHOD 625 (cont.) - SEMIVOLATILE ORGANICS	LAB BLANK	Units
Hexachloroethane	10 U	µg/L
Indeno(1,2,3-cd)pyrene	10 U	µg/L
Isophorone	10 U	µg/L
1-Methylnaphthalene	10 U	µg/L
2-Methylnaphthalene	10 U	µg/L
Naphthalene	10 U	µg/L
Nitrobenzene	10 U	µg/L
N-Nitrosodimethylamine	10 U	µg/L
N-Nitrosodi-n-propylamine	10 U	µg/L
N-Nitrosodiphenylamine	10 U	µg/L
Phenanthrene	10 U	µg/L
rene	10 U	µg/L
1,2,4-Trichlorobenzene	10 U	µg/L
4-Chloro-3-methylphenol	10 U	µg/L
2-Chlorophenol	10 U	µg/L
2,4-Dichlorophenol	10 U	µg/L
2,4-Dimethylphenol	10 U	µg/L
2,4-Dinitrophenol	50 U	µg/L
2-Methyl-4,6-dinitrophenol	30 U	µg/L
2-Nitrophenol	10 U	µg/L
4-Nitrophenol	10 U	µg/L
Pentachlorophenol	10 U	µg/L
Phenol	10 U	µg/L
2,4,6-Trichlorophenol	10 U	µg/L

Surrogate:	% RECOV	LIMITS
Nitrobenzene -D5	82	30-106
2-Fluorobiphenyl	62	38-107
Terphenyl -D14	72	29-131
Phenol -D5	51	12-87
2-Fluorophenol	47	19-115
2,4,6-Tribromophenol	123	43-126
Date Extracted	04/21/99	
Date Analyzed	04/22/99	

= Compound was analyzed for but not detected to the level shown.
.. = Analysis not requested for this sample.

ENCO LABORATORIES
REPORT # : JR6335
DATE REPORTED: May 3, 1999
REFERENCE : WO# JX078
PROJECT NAME : SWMU-14 Monthly

RESULTS OF ANALYSIS

EPA METHOD RSK 175 - Dissolved Gases	LAB BLANK	Units
Methane	0.0010 U	mg/L
Ethene	0.0010 U	mg/L
Ethane	0.0010 U	mg/L
Date Analyzed	04/27/99	

Ferrous Iron	METHOD	LAB BLANK	Units
Fe, Ferrous	SM	4.0 U	mg/L
Date Analyzed		04/16/99	

FL METHOD FLPRO - PETROL. RESIDUAL ORG.	LAB BLANK	Units
Hydrocarbons (C8-C40)	0.20 U	mg/L
Surrogate:	**% RECOV**	**LIMITS**
o-Terphenyl	78	65-140
Date Extracted	04/19/99	
Date Analyzed	04/19/99	

= Compound was analyzed for but not detected to the level shown.
= Analysis not requested for this sample.

ENCO LABORATORIES
REPORT # : JR6335
DATE REPORTED: May 3, 1999
REFERENCE : WO# JX078
PROJECT NAME : SWMU-14 Monthly

RESULTS OF ANALYSIS

MISCELLANEOUS	METHOD	LAB BLANK	Units
BOD	405.1	2.0 U	mg/L
Date Analyzed		04/21/99	
COD	410.4	10 U	mg/L
Date Analyzed		04/20/99	
Nitrite-N	354.1	0.10 U	mg/L
Date Analyzed		04/17/99	
Sulfate, Total	375.4	5.0 U	mg/L
Date Analyzed		04/22/99	
Sulfide, Total	376.1	1.0 U	mg/L
Date Analyzed		04/18/99	
Total Org. Carbon	415.1	1.0 U	mg/L
Date Analyzed		04/20/99	
Nitrate-Nitrite-N	353.1	0.020 U	mg/L
Date Analyzed		04/19/99	

= Compound was analyzed for but not detected to the level shown.
x = Analysis not requested for this sample.

ENCO LABORATORIES
REPORT # : JR6335
DATE REPORTED: May 3, 1999
REFERENCE : WO# JX078
PROJECT NAME : SWMU-14 Monthly

QUALITY CONTROL DATA

Parameter	% RECOVERY MS/MSD/LCS	ACCEPT LIMITS	% RPD MS/MSD	ACCEPT LIMITS
EPA Method 625				
Phenol	58/ 53/ 49	29-102	9	44
2-Chlorophenol	75/ 73/ 65	58-124	3	41
1,4-Dichlorobenzene	54/ 45/ 27	0-127	18	43
N-Nitrosodi-N-Propylamine	93/ 89/ 84	72-118	4	22
1,2,4-Trichlorobenzene	58/ 52/ 25	18-129	11	43
4-Chloro-3-Methylphenol	117/114/ 95	75-126	2	22
Acenaphthene	77/ 77/ 56	63-122	<1	28
4-Nitrophenol	89/ 89/ 71	D-168	<1	52
2,4-Dinitrotoluene	112/110/ 96	81-151	2	21
Pentachlorophenol	144/140/114	27-154	3	42
Pyrene	76/ 75/ 69	54-146	1	32
EPA Method RSK175				
Methane	NA/ NA/107	NA	NA	NA
Ethene	NA/ NA/103	NA	NA	NA
Ethane	NA/ NA/103	NA	NA	NA
Ferrous Iron				
Fe, Ferrous, SM	93/92/102	50-150	1	20
PETROL. RESIDUAL ORG.				
Hydrocarbons (C8-C40)	66/ 67/ 68	51-163	2	27

Environmental Conservation Laboratories Comprehensive QA Plan #960038

< = Less Than
MS = Matrix Spike
MSD = Matrix Spike Duplicate
LCS = Laboratory Control Standard
NA = Not applicable
RPD = Relative Percent Difference

This report shall not be reproduced except in full, without the written approval of the laboratory. Results for these procedures apply only to the samples as submitted.

ENCO LABORATORIES
REPORT # : JR6335
DATE REPORTED: May 3, 1999
REFERENCE : WO# JX078
PROJECT NAME : SWMU-14 Monthly

QUALITY CONTROL DATA

Parameter	% RECOVERY MS/MSD/LCS	ACCEPT LIMITS	% RPD MS/MSD	ACCEPT LIMITS
Miscellaneous				
BOD, 405.1	NA/ NA/ 82	NA	NA	NA
COD, 410.4	99/ 96/100	82-124	3	8
Nitrite-N, 354.1	99/100/108	69-124	1	13
Sulfate, Total, 375.4	86/ 98/ 92	66-134	13	23
Sulfide, Total, 376.1	NA/ NA/100	NA	NA	NA
Total Org. Carbon, 415.1	91/ 94/ 91	69-132	3	13
Nitrate-Nitrite-N, 353.1	96/112/115	61-144	15	21
Nitrate-Nitrite-N, 353.1	83/ 90/116	61-144	8	21

Environmental Conservation Laboratories Comprehensive QA Plan #960038

< = Less Than
MS = Matrix Spike
MSD = Matrix Spike Duplicate
LCS = Laboratory Control Standard
RPD = Relative Percent Difference

This report shall not be reproduced except in full, without the written proval of the laboratory. Results for these procedures apply only to the samples as submitted.

CLIENT : Bechtel Environmental, Inc.
ADDRESS: NAS Cecil Field
P.O. Box 171
Jacksonville, FL 32215

REPORT # : JR6690
DATE SUBMITTED: May 13, 1999
DATE REPORTED : May 26, 1999

ATTENTION: Mr. Dane Cutshaw

SAMPLE IDENTIFICATION

Samples submitted and
identified by client as:

WO # JX090

SWMU-14 Monthly

05/12/99

#1 - MPO6875 @ 11:20
#2 - MPO6880 @ 10:45
#3 - MPO6878 @ 11:50
#4 - MPO6879 @ 11:05
#5 - MPO6876 @ 11:30
#6 - MPO6881 @ 10:15

)JECT MANAGER _____
Scott D. Martin

ENCO LABORATORIES
REPORT # : JR6690
DATE REPORTED: May 26, 1999
REFERENCE : WO # JX090
PROJECT NAME : SWMU-14 Monthly

RESULTS OF ANALYSIS

EPA METHOD 625 - SEMIVOLATILE ORGANICS	MP06875	MP06880	Units
Acenaphthene	10 U	10 U	µg/L
Acenaphthylene	10 U	10 U	µg/L
Anthracene	10 U	10 U	µg/L
Benzidine	10 U	10 U	µg/L
Benzo(a)anthracene	10 U	10 U	µg/L
Benzo(b)fluoranthene	10 U	10 U	µg/L
Benzo(k)fluoranthene	10 U	10 U	µg/L
Benzo(g,h,i)perylene	10 U	10 U	µg/L
Benzo(a)pyrene	10 U	10 U	µg/L
Benzylbutyl phthalate	10 U	10 U	µg/L
Bis(2-chloroethoxy)methane	10 U	10 U	µg/L
Bis(2-chloroethyl)ether	10 U	10 U	µg/L
Bis(2-chloroisopropyl)ether	10 U	10 U	µg/L
Bis(2-ethylhexyl)phthalate	10 U	10 U	µg/L
4-Bromophenylphenyl ether	10 U	10 U	µg/L
2-Chloronaphthalene	10 U	10 U	µg/L
4-Chlorophenyl phenyl ether	10 U	10 U	µg/L
Chrysene	10 U	10 U	µg/L
Dibenzo(a,h)anthracene	10 U	10 U	µg/L
1,2-Dichlorobenzene	10 U	10 U	µg/L
1,3-Dichlorobenzene	10 U	10 U	µg/L
1,4-Dichlorobenzene	10 U	10 U	µg/L
3,3'-Dichlorobenzidine	20 U	20 U	µg/L
Diethyl phthalate	10 U	10 U	µg/L
Dimethyl phthalate	10 U	10 U	µg/L
Di-n-butyl phthalate	10 U	10 U	µg/L
Di-n-octyl phthalate	10 U	10 U	µg/L
2,4-Dinitrotoluene	10 U	10 U	µg/L
2,6-Dinitrotoluene	10 U	10 U	µg/L
Fluoranthene	10 U	10 U	µg/L
Fluorene	10 U	10 U	µg/L
Hexachlorobenzene	10 U	10 U	µg/L
Hexachlorobutadiene	10 U	10 U	µg/L
Hexachlorocyclopentadiene	10 U	10 U	µg/L

U = Compound was analyzed for but not detected to the level shown.

ENCO LABORATORIES
REPORT # : JR6690
DATE REPORTED: May 26, 1999
REFERENCE : WO # JX090
PROJECT NAME : SWMU-14 Monthly

RESULTS OF ANALYSIS

EPA METHOD 625 (cont.) - SEMIVOLATILE ORGANICS	MP06875	MP06880	Units
Hexachloroethane	10 U	10 U	µg/L
Indeno(1,2,3-cd)pyrene	10 U	10 U	µg/L
Isophorone	10 U	10 U	µg/L
1-Methylnaphthalene	10 U	10 U	µg/L
2-Methylnaphthalene	10 U	10 U	µg/L
Naphthalene	10 U	10 U	µg/L
Nitrobenzene	10 U	10 U	µg/L
N-Nitrosodimethylamine	10 U	10 U	µg/L
N-Nitrosodi-n-propylamine	10 U	10 U	µg/L
N-Nitrosodiphenylamine	10 U	10 U	µg/L
Phenanthrene	10 U	10 U	µg/L
Pyrene	10 U	10 U	µg/L
1,2,4-Trichlorobenzene	10 U	10 U	µg/L
4-Chloro-3-methylphenol	10 U	10 U	µg/L
2-Chlorophenol	10 U	10 U	µg/L
2,4-Dichlorophenol	10 U	10 U	µg/L
2,4-Dimethylphenol	10 U	10 U	µg/L
2,4-Dinitrophenol	50 U	50 U	µg/L
4-Methyl-4,6-dinitrophenol	30 U	30 U	µg/L
2-Nitrophenol	10 U	10 U	µg/L
4-Nitrophenol	10 U	10 U	µg/L
Pentachlorophenol	10 U	10 U	µg/L
Phenol	10 U	10 U	µg/L
2,4,6-Trichlorophenol	10 U	10 U	µg/L
Surrogate:	**% RECOV**	**% RECOV**	**LIMITS**
Nitrobenzene -D5	77	59	30-106
2-Fluorobiphenyl	65	56	38-107
Terphenyl -D14	37	29	29-131
Phenol -D5	53	42	12-87
2-Fluorophenol	53	41	19-115
2,4,6-Tribromophenol	110	93	43-126
Date Extracted	05/13/99	05/13/99	
Date Analyzed	05/14/99	05/14/99	

U = Compound was analyzed for but not detected to the level shown.

ENCO LABORATORIES
REPORT # : JR6690
DATE REPORTED: May 26, 1999
REFERENCE : WO # JX090
PROJECT NAME : SWMU-14 Monthly

RESULTS OF ANALYSIS

EPA METHOD RSK 175 - Dissolved Gases	MP06875		MP06880	Units
Methane	1.4	D1	0.034	mg/L
Ethene	0.0010 U		0.0010 U	mg/L
Ethane	0.0010 U		0.0010 U	mg/L
Date Analyzed	05/19/99		05/19/99	

FL METHOD FLPRO - PETROL. RESIDUAL ORG.	MP06875	MP06880	Units
drocarbons (C8-C40)	0.20 U	0.20 U	mg/L
Surrogate:	**% RECOV**	**% RECOV**	**LIMITS**
-Terphenyl	114	83	65-140
ate Extracted	05/17/99	05/17/99	
Date Analyzed	05/18/99	05/18/99	

= Compound was analyzed for but not detected to the level shown.
= Analyte value determined from a 1:2 dilution.

ENCO LABORATORIES
REPORT # : JR6690
DATE REPORTED: May 26, 1999
REFERENCE : WO # JX090
PROJECT NAME : SWMU-14 Monthly

RESULTS OF ANALYSIS

MISCELLANEOUS	METHOD	MP06875	MP06880	Units
Fe, Ferrous	SM3500	4.0 U	4.0 U	mg/L
Date Analyzed		05/13/99	05/13/99	
BOD	405.1	**4.0** I	**4.0**	mg/L
Date Analyzed		05/13/99	05/13/99	
COD	410.4	**32**	**87**	mg/L
Date Analyzed		05/14/99	05/14/99	
Nitrate-N	353.3	0.10 U	0.10 U	mg/L
Date Analyzed		05/13/99	05/13/99	
Nitrite-N	354.1	0.10 U	**0.41**	mg/L
Date Analyzed		05/13/99	05/13/99	
Sulfate, Total	375.4	**73**	**180**	mg/L
Date Analyzed		05/19/99	05/19/99	
Sulfide, Total	376.1	1.0 U	1.0 U	mg/L
Date Analyzed		05/17/99	05/17/99	
Total Org. Carbon	415.1	**10**	**28**	mg/L
Date Analyzed		05/18/99	05/18/99	
Nitrate-Nitrite-N	353.1	0.020 U	**0.43**	mg/L
Date Analyzed		05/20/99	05/20/99	

I = Analyte detected; value is between the Method Detection Level (MDL) and the Practical Quantitation Level (PQL).
U = Compound was analyzed for but not detected to the level shown.

ENCO LABORATORIES
REPORT # : JR6690
DATE REPORTED: May 26, 1999
REFERENCE : WO # JX090
PROJECT NAME : SWMU-14 Monthly

RESULTS OF ANALYSIS

EPA METHOD 625 - SEMIVOLATILE ORGANICS	MPO6878	MPO6879	Units
Acenaphthene	10 U	10 U	µg/L
Acenaphthylene	10 U	10 U	µg/L
Anthracene	10 U	10 U	µg/L
Benzidine	10 U	10 U	µg/L
Benzo(a)anthracene	10 U	10 U	µg/L
Benzo(b)fluoranthene	10 U	10 U	µg/L
Benzo(k)fluoranthene	10 U	10 U	µg/L
Benzo(g,h,i)perylene	10 U	10 U	µg/L
Benzo(a)pyrene	10 U	10 U	µg/L
Benzylbutyl phthalate	10 U	10 U	µg/L
Bis(2-chloroethoxy)methane	10 U	10 U	µg/L
Bis(2-chloroethyl)ether	10 U	10 U	µg/L
Bis(2-chloroisopropyl)ether	10 U	10 U	µg/L
Bis(2-ethylhexyl)phthalate	10 U	10 U	µg/L
4-Bromophenylphenyl ether	10 U	10 U	µg/L
2-Chloronaphthalene	10 U	10 U	µg/L
4-Chlorophenyl phenyl ether	10 U	10 U	µg/L
Chrysene	10 U	10 U	µg/L
Dibenzo(a,h)anthracene	10 U	10 U	µg/L
1,2-Dichlorobenzene	10 U	10 U	µg/L
1,3-Dichlorobenzene	10 U	10 U	µg/L
1,4-Dichlorobenzene	10 U	10 U	µg/L
3,3'-Dichlorobenzidine	20 U	20 U	µg/L
Diethyl phthalate	10 U	10 U	µg/L
Dimethyl phthalate	10 U	10 U	µg/L
Di-n-butyl phthalate	10 U	10 U	µg/L
Di-n-octyl phthalate	10 U	10 U	µg/L
2,4-Dinitrotoluene	10 U	10 U	µg/L
2,6-Dinitrotoluene	10 U	10 U	µg/L
Fluoranthene	10 U	10 U	µg/L
Fluorene	10 U	10 U	µg/L
Hexachlorobenzene	10 U	10 U	µg/L
Hexachlorobutadiene	10 U	10 U	µg/L
Hexachlorocyclopentadiene	10 U	10 U	µg/L

U = Compound was analyzed for but not detected to the level shown.

ENCO LABORATORIES
REPORT # : JR6690
DATE REPORTED: May 26, 1999
REFERENCE : WO # JX090
PROJECT NAME : SWMU-14 Monthly

RESULTS OF ANALYSIS

EPA METHOD 625 (cont.) - SEMIVOLATILE ORGANICS	MPO6878	MPO6879	Units
Hexachloroethane	10 U	10 U	µg/L
Indeno(1,2,3-cd)pyrene	10 U	10 U	µg/L
Isophorone	10 U	10 U	µg/L
1-Methylnaphthalene	10 U	10 U	µg/L
2-Methylnaphthalene	10 U	10 U	µg/L
Naphthalene	10 U	10 U	µg/L
Nitrobenzene	10 U	10 U	µg/L
N-Nitrosodimethylamine	10 U	10 U	µg/L
N-Nitrosodi-n-propylamine	10 U	10 U	µg/L
N-Nitrosodiphenylamine	10 U	10 U	µg/L
Phenanthrene	10 U	10 U	µg/L
Pyrene	10 U	10 U	µg/L
1,2,4-Trichlorobenzene	10 U	10 U	µg/L
4-Chloro-3-methylphenol	10 U	10 U	µg/L
2-Chlorophenol	10 U	10 U	µg/L
2,4-Dichlorophenol	10 U	10 U	µg/L
2,4-Dimethylphenol	10 U	10 U	µg/L
2,4-Dinitrophenol	50 U	50 U	µg/L
2-Methyl-4,6-dinitrophenol	30 U	30 U	µg/L
2-Nitrophenol	10 U	10 U	µg/L
4-Nitrophenol	10 U	10 U	µg/L
Pentachlorophenol	10 U	10 U	µg/L
Phenol	10 U	10 U	µg/L
2,4,6-Trichlorophenol	10 U	10 U	µg/L
Surrogate:	**% RECOV**	**% RECOV**	**LIMITS**
Nitrobenzene -D5	81	64	30-106
2-Fluorobiphenyl	77	54	38-107
Terphenyl -D14	42	32	29-131
Phenol -D5	57	44	12-87
2-Fluorophenol	58	43	19-115
2,4,6-Tribromophenol	118	91	43-126
Date Extracted	05/13/99	05/13/99	
Date Analyzed	05/14/99	05/14/99	

U = Compound was analyzed for but not detected to the level shown.

ENCO LABORATORIES
REPORT # : JR6690
DATE REPORTED: May 26, 1999
REFERENCE : WO # JX090
PROJECT NAME : SWMU-14 Monthly

RESULTS OF ANALYSIS

EPA METHOD RSK 175 - Dissolved Gases	MP06878		MP06879	Units
Methane	4.1	D2	0.68	mg/L
Ethene	0.0010 U		0.0010 U	mg/L
Ethane	0.0010 U		0.0010 U	mg/L
Date Analyzed	05/19/99		05/19/99	

FL METHOD FLPRO - PETROL. RESIDUAL ORG.	MP06878	MP06879	Units
drocarbons (C8-C40)	0.20 U	0.64	mg/L
Surrogate:	**% RECOV**	**% RECOV**	**LIMITS**
o-Terphenyl	60	135	65-140
Date Extracted	05/17/99	05/17/99	
Date Analyzed	05/18/99	05/18/99	

: Compound was analyzed for but not detected to the level shown.
1 - Analyte value determined from a 1:5 dilution.

ENCO LABORATORIES
REPORT # : JR6690
DATE REPORTED: May 26, 1999
REFERENCE : WO # JX090
PROJECT NAME : SWMU-14 Monthly

RESULTS OF ANALYSIS

MISCELLANEOUS	METHOD	MP06878	MP06879	Units
Fe, Ferrous	SM3500	4.0 U	4.0 U	mg/L
Date Analyzed		05/13/99	05/13/99	
BOD	405.1	**4.0**	**2.0** I	mg/L
Date Analyzed		05/13/99	05/13/99	
COD	410.4	**63**	**110**	mg/L
Date Analyzed		05/14/99	05/14/99	
Nitrate-N	353.3	0.10 U	0.10 U	mg/L
Date Analyzed		05/13/99	05/13/99	
Nitrite-N	354.1	0.10 U	0.10 U	mg/L
Date Analyzed		05/13/99	05/13/99	
Sulfate, Total	375.4	**16**	**94**	mg/L
Date Analyzed		05/19/99	05/19/99	
Sulfide, Total	376.1	1.0 U	1.0 U	mg/L
Date Analyzed		05/17/99	05/17/99	
Total Org. Carbon	415.1	**15**	**31**	mg/L
Date Analyzed		05/18/99	05/18/99	
Nitrate-Nitrite-N	353.1	0.020 U	0.020 U	mg/L
Date Analyzed		05/20/99	05/20/99	

I = Analyte detected; value is between the Method Detection Level (MDL) and the Practical Quantitation Level (PQL).
U = Compound was analyzed for but not detected to the level shown.

ENCO LABORATORIES
REPORT # : JR6690
DATE REPORTED: May 26, 1999
REFERENCE : WO # JX090
PROJECT NAME : SWMU-14 Monthly

RESULTS OF ANALYSIS

EPA METHOD 625 - SEMIVOLATILE ORGANICS	MPO6876	MPO6881	Units
Acenaphthene	10 U	10 U	µg/L
Acenaphthylene	10 U	10 U	µg/L
Anthracene	10 U	10 U	µg/L
Benzidine	10 U	10 U	µg/L
Benzo(a)anthracene	10 U	10 U	µg/L
Benzo(b)fluoranthene	10 U	10 U	µg/L
Benzo(k)fluoranthene	10 U	10 U	µg/L
Benzo(g,h,i)perylene	10 U	10 U	µg/L
Benzo(a)pyrene	10 U	10 U	µg/L
Benzylbutyl phthalate	10 U	10 U	µg/L
Bis(2-chloroethoxy)methane	10 U	10 U	µg/L
Bis(2-chloroethyl)ether	10 U	10 U	µg/L
Bis(2-chloroisopropyl)ether	10 U	10 U	µg/L
Bis(2-ethylhexyl)phthalate	10 U	10 U	µg/L
4-Bromophenylphenyl ether	10 U	10 U	µg/L
2-Chloronaphthalene	10 U	10 U	µg/L
4-Chlorophenyl phenyl ether	10 U	10 U	µg/L
Chrysene	10 U	10 U	µg/L
Dibenzo(a,h)anthracene	10 U	10 U	µg/L
1,2-Dichlorobenzene	10 U	10 U	µg/L
1,3-Dichlorobenzene	10 U	10 U	µg/L
1,4-Dichlorobenzene	10 U	10 U	µg/L
3,3'-Dichlorobenzidine	20 U	20 U	µg/L
Diethyl phthalate	10 U	10 U	µg/L
Dimethyl phthalate	10 U	10 U	µg/L
Di-n-butyl phthalate	10 U	10 U	µg/L
Di-n-octyl phthalate	10 U	10 U	µg/L
2,4-Dinitrotoluene	10 U	10 U	µg/L
2,6-Dinitrotoluene	10 U	10 U	µg/L
Fluoranthene	10 U	10 U	µg/L
Fluorene	10 U	10 U	µg/L
Hexachlorobenzene	10 U	10 U	µg/L
Hexachlorobutadiene	10 U	10 U	µg/L
Hexachlorocyclopentadiene	10 U	10 U	µg/L

= Compound was analyzed for but not detected to the level shown.

ENCO LABORATORIES
REPORT # : JR6690
DATE REPORTED: May 26, 1999
REFERENCE : WO # JX090
PROJECT NAME : SWMU-14 Monthly

RESULTS OF ANALYSIS

EPA METHOD 625 (cont.) - SEMIVOLATILE ORGANICS	MP06876	MP06881	Units
Hexachloroethane	10 U	10 U	µg/L
Indeno(1,2,3-cd)pyrene	10 U	10 U	µg/L
Isophorone	10 U	10 U	µg/L
1-Methylnaphthalene	11	10 U	µg/L
2-Methylnaphthalene	10 U	10 U	µg/L
Naphthalene	10 U	10 U	µg/L
Nitrobenzene	10 U	10 U	µg/L
N-Nitrosodimethylamine	10 U	10 U	µg/L
N-Nitrosodi-n-propylamine	10 U	10 U	µg/L
N-Nitrosodiphenylamine	10 U	10 U	µg/L
Phenanthrene	10 U	10 U	µg/L
Pyrene	10 U	10 U	µg/L
1,2,4-Trichlorobenzene	10 U	10 U	µg/L
4-Chloro-3-methylphenol	10 U	10 U	µg/L
2-Chlorophenol	10 U	10 U	µg/L
2,4-Dichlorophenol	10 U	10 U	µg/L
2,4-Dimethylphenol	10 U	10 U	µg/L
2,4-Dinitrophenol	50 U	50 U	µg/L
2-Methyl-4,6-dinitrophenol	30 U	30 U	µg/L
2-Nitrophenol	10 U	10 U	µg/L
4-Nitrophenol	10 U	10 U	µg/L
Pentachlorophenol	10 U	10 U	µg/L
Phenol	10 U	10 U	µg/L
2,4,6-Trichlorophenol	10 U	10 U	µg/L
Surrogate:	**% RECOV**	**% RECOV**	**LIMITS**
Nitrobenzene -D5	72	66	30-106
2-Fluorobiphenyl	62	59	38-107
Terphenyl -D14	29	41	29-131
Phenol -D5	48	44	12-87
2-Fluorophenol	48	43	19-115
2,4,6-Tribromophenol	118	108	43-126
Date Extracted	05/13/99	05/13/99	
Date Analyzed	05/14/99	05/14/99	

U = Compound was analyzed for but not detected to the level shown.

ENCO LABORATORIES
REPORT # : JR6690
DATE REPORTED: May 26, 1999
REFERENCE : WO # JX090
PROJECT NAME : SWMU-14 Monthly

RESULTS OF ANALYSIS

EPA METHOD RSK 175 - Dissolved Gases	MP06876	MP06881	Units
Methane	0.63	0.020	mg/L
Ethene	0.0010 U	0.0010 U	mg/L
Ethane	0.0010 U	0.0010 U	mg/L
Date Analyzed	05/19/99	05/19/99	

FL METHOD FLPRO - PETROL. RESIDUAL ORG.	MP06876	MP06881	Units
drocarbons (C8-C40)	15 D2	0.20 U	mg/L
Surrogate:	**% RECOV**	**% RECOV**	**LIMITS**
p-Terphenyl	*	56#	65-140
Date Extracted	05/17/99	05/17/99	
Date Analyzed	05/18/99	05/18/99	

* = Surrogate recovery outside of laboratory established limits.
# = Surrogate recovery unavailable due to matrix interference.
U = Compound was analyzed for but not detected to the level shown.
D2 = Analyte value determined from a 1:5 dilution.

ENCO LABORATORIES
REPORT # : JR6690
DATE REPORTED: May 26, 1999
REFERENCE : WO # JX090
PROJECT NAME : SWMU-14 Monthly

RESULTS OF ANALYSIS

MISCELLANEOUS	METHOD	MPO6876	MPO6881	Units
Fe, Ferrous	SM3500	4.0 U	4.0 U	mg/L
Date Analyzed		05/13/99	05/13/99	
BOD	405.1	**17**	**5.0**	mg/L
Date Analyzed		05/13/99	05/13/99	
COD	410.4	**310**	**29**	mg/L
Date Analyzed		05/14/99	05/14/99	
Nitrate-N	353.3	0.10 U	0.10 U	mg/L
Date Analyzed		05/13/99	05/13/99	
Nitrite-N	354.1	0.10 U	0.10 U	mg/L
Date Analyzed		05/13/99	05/13/99	
Sulfate, Total	375.4	5.0 U	**67**	mg/L
Date Analyzed		05/19/99	05/19/99	
Sulfide, Total	376.1	1.0 U	1.0 U	mg/L
Date Analyzed		05/17/99	05/17/99	
Total Org. Carbon	415.1	**81**	**6.0**	mg/L
Date Analyzed		05/18/99	05/18/99	
Nitrate-Nitrite-N	353.1	0.020 U	0.020 U	mg/L
Date Analyzed		05/20/99	05/20/99	

U = Compound was analyzed for but not detected to the level shown.

ENCO LABORATORIES
REPORT # : JR6690
DATE REPORTED: May 26, 1999
REFERENCE : WO # JX090
PROJECT NAME : SWMU-14 Monthly

RESULTS OF ANALYSIS

EPA METHOD 625 - SEMIVOLATILE ORGANICS	LAB BLANK	Units
Acenaphthene	10 U	µg/L
Acenaphthylene	10 U	µg/L
Anthracene	10 U	µg/L
Benzidine	10 U	µg/L
Benzo(a)anthracene	10 U	µg/L
Benzo(b)fluoranthene	10 U	µg/L
Benzo(k)fluoranthene	10 U	µg/L
Benzo(g,h,i)perylene	10 U	µg/L
Benzo(a)pyrene	10 U	µg/L
Benzylbutyl phthalate	10 U	µg/L
Bis(2-chloroethoxy)methane	10 U	µg/L
Bis(2-chloroethyl)ether	10 U	µg/L
Bis(2-chloroisopropyl)ether	10 U	µg/L
Bis(2-ethylhexyl)phthalate	10 U	µg/L
4-Bromophenylphenyl ether	10 U	µg/L
2-Chloronaphthalene	10 U	µg/L
4-Chlorophenyl phenyl ether	10 U	µg/L
Chrysene	10 U	µg/L
Dibenzo(a,h)anthracene	10 U	µg/L
1,2-Dichlorobenzene	10 U	µg/L
1,3-Dichlorobenzene	10 U	µg/L
1,4-Dichlorobenzene	10 U	µg/L
3,3'-Dichlorobenzidine	20 U	µg/L
Diethyl phthalate	10 U	µg/L
Dimethyl phthalate	10 U	µg/L
Di-n-butyl phthalate	10 U	µg/L
Di-n-octyl phthalate	10 U	µg/L
2,4-Dinitrotoluene	10 U	µg/L
2,6-Dinitrotoluene	10 U	µg/L
Fluoranthene	10 U	µg/L
Fluorene	10 U	µg/L
Hexachlorobenzene	10 U	µg/L
Hexachlorobutadiene	10 U	µg/L
Hexachlorocyclopentadiene	10 U	µg/L

U = Compound was analyzed for but not detected to the level shown.

RESULTS OF ANALYSIS

EPA METHOD 625 (cont.) - SEMIVOLATILE ORGANICS	LAB BLANK	Units
Hexachloroethane	10 U	µg/L
Indeno(1,2,3-cd)pyrene	10 U	µg/L
Isophorone	10 U	µg/L
1-Methylnaphthalene	10 U	µg/L
2-Methylnaphthalene	10 U	µg/L
Naphthalene	10 U	µg/L
Nitrobenzene	10 U	µg/L
N-Nitrosodimethylamine	10 U	µg/L
N-Nitrosodi-n-propylamine	10 U	µg/L
N-Nitrosodiphenylamine	10 U	µg/L
Phenanthrene	10 U	µg/L
Pyrene	10 U	µg/L
1,2,4-Trichlorobenzene	10 U	µg/L
4-Chloro-3-methylphenol	10 U	µg/L
2-Chlorophenol	10 U	µg/L
2,4-Dichlorophenol	10 U	µg/L
2,4-Dimethylphenol	10 U	µg/L
2,4-Dinitrophenol	50 U	µg/L
2-Methyl-4,6-dinitrophenol	30 U	µg/L
2-Nitrophenol	10 U	µg/L
4-Nitrophenol	10 U	µg/L
Pentachlorophenol	10 U	µg/L
Phenol	10 U	µg/L
2,4,6-Trichlorophenol	10 U	µg/L

Surrogate:	% RECOV	LIMITS
Nitrobenzene -D5	70	30-106
2-Fluorobiphenyl	53	38-107
Terphenyl -D14	72	29-131
Phenol -D5	48	12-87
2-Fluorophenol	50	19-115
2,4,6-Tribromophenol	74	43-126
Date Extracted	05/13/99	
Date Analyzed	05/14/99	

U = Compound was analyzed for but not detected to the level shown.

ENCO LABORATORIES
REPORT # : JR6690
DATE REPORTED: May 26, 1999
REFERENCE : WO # JX090
PROJECT NAME : SWMU-14 Monthly

RESULTS OF ANALYSIS

EPA METHOD RSK 175 - Dissolved Gases	LAB BLANK	Units
Methane	0.0010 U	mg/L
Ethene	0.0010 U	mg/L
Ethane	0.0010 U	mg/L
Date Analyzed	05/19/99	

FL METHOD FLPRO - PETROL. RESIDUAL ORG.	LAB BLANK	Units
[illegible]drocarbons (C8-C40)	0.20 U	mg/L
Surrogate:	**% RECOV**	**LIMITS**
o-Terphenyl	84	65-140
Date Extracted	05/17/99	
Date Analyzed	05/17/99	

[illegible] = Compound was analyzed for but not detected to the level shown.

ENCO LABORATORIES
REPORT # : JR6690
DATE REPORTED: May 26, 1999
REFERENCE : WO # JX090
PROJECT NAME : SWMU-14 Monthly

RESULTS OF ANALYSIS

MISCELLANEOUS	METHOD	LAB BLANK	Units
Fe, Ferrous	SM3500	4.0 U	mg/L
Date Analyzed		05/13/99	
BOD	405.1	2.0 U	mg/L
Date Analyzed		05/13/99	
COD	410.4	10 U	mg/L
Date Analyzed		05/14/99	
Nitrite-N	354.1	0.10 U	mg/L
Date Analyzed		05/13/99	
ıfate, Total	375.4	5.0 U	mg/L
Date Analyzed		05/19/99	
Sulfide, Total	376.1	1.0 U	mg/L
Date Analyzed		05/17/99	
Total Org. Carbon	415.1	1.0 U	mg/L
Date Analyzed		05/18/99	
Nitrate-Nitrite-N	353.1	0.020 U	mg/L
Date Analyzed		05/20/99	

= Compound was analyzed for but not detected to the level shown.

QUALITY CONTROL DATA

Parameter	% RECOVERY MS/MSD/LCS	ACCEPT LIMITS	% RPD MS/MSD	ACCEPT LIMITS
EPA Method 625				
Phenol	57/ 51/ 46	29-102	11	44
2-Chlorophenol	72/ 66/ 67	58-124	9	41
1,4-Dichlorobenzene	53/ 50/ 40	D-127	6	43
N-Nitrosodi-N-Propylamine	72/ 67/ 73	72-118	7	22
1,2,4-Trichlorobenzene	51/ 48/ 39	18-129	6	43
4-Chloro-3-Methylphenol	89/ 86/ 76	75-126	3	22
Acenaphthene	#64/ 58/ 58	63-122	10	28
4-Nitrophenol	92/ 74/ 38	D-168	22	52
2,4-Dinitrotoluene	94/ 85/102	81-151	10	21
Pentachlorophenol	129/111/ 78	27-154	15	42
Pyrene	58/ 55/ 83	54-146	5	32
EPA Method RSK175				
Methane	NA/ NA/ 99	-	NA	
Ethene	NA/ NA/ 98	-	NA	
Ethane	NA/ NA/ 96	-	NA	

Environmental Conservation Laboratories Comprehensive QA Plan #960038

= One or more of the associated value failed to meet laboratory established criteria for accuracy.
< = Less Than
MS = Matrix Spike
MSD = Matrix Spike Duplicate
LCS = Laboratory Control Standard
RPD = Relative Percent Difference

This report shall not be reproduced except in full, without the written approval of the laboratory. Results for these procedures apply only to the samples as submitted.

ENCO LABORATORIES
REPORT # : JR6690
DATE REPORTED: May 26, 1999
REFERENCE : WO # JX090
PROJECT NAME : SWMU-14 Monthly

QUALITY CONTROL DATA

Parameter	% RECOVERY MS/MSD/LCS	ACCEPT LIMITS	% RPD MS/MSD	ACCEPT LIMITS
Miscellaneous				
BOD, 405.1	NA/ NA/ 84	-	NA	
COD, 410.4	107/107/109	82-124	<1	8
Nitrite-N, 354.1	99/ 98/108	69-124	1	13
Sulfate, Total, 375.4	*/ */ 94	66-134	*	23
Sulfide, Total, 376.1	NA/ NA/100	-	NA	
Total Org. Carbon, 415.1	92/ 93/108	69-132	1	13
Nitrate-Nitrite-N, 353.1	120/100/127	61-144	18	21
PETROL. RESIDUAL ORG.				
Hydrocarbons (C8-C40)	82/ 83/ 75	51-163	1	27

Environmental Conservation Laboratories Comprehensive QA Plan #960038

* = MS/MSD/RPD unavailable due to high original sample concentration.
< = Less Than
MS = Matrix Spike
MSD = Matrix Spike Duplicate
LCS = Laboratory Control Standard
RPD = Relative Percent Difference

This report shall not be reproduced except in full, without the written approval of the laboratory. Results for these procedures apply only to the samples as submitted.

CLIENT : Bechtel Environmental, Inc.
ADDRESS: NAS Cecil Field
P.O. Box 171
Jacksonville, FL 32215

REPORT # : JR7189
DATE SUBMITTED: June 10, 1999
DATE REPORTED : June 24, 1999

ATTENTION: Mr. Dane Cutshaw

SAMPLE IDENTIFICATION

Samples submitted and
identified by client as:

WO# JX102

SWMU-14 Monthly

06/09/99

#1 - MP06898 @ 13:30
#2 - MP06899 @ 13:15
#3 - MP06901 @ 14:30
#4 - MP06902 @ 13:10
#5 - MP06903 @ 12:50
#6 - MP06904 @ 12:45

)JECT MANAGER _____
Scott D. Martin

ENCO LABORATORIES
REPORT # : JR7189
DATE REPORTED: June 24, 1999
REFERENCE : WO# JX102
PROJECT NAME : SWMU-14 Monthly

RESULTS OF ANALYSIS

EPA METHOD 625 - SEMIVOLATILE ORGANICS	MP06898	MP06899	Units
Acenaphthene	10 U	10 U	µg/L
Acenaphthylene	10 U	10 U	µg/L
Anthracene	10 U	10 U	µg/L
Benzidine	10 U	10 U	µg/L
Benzo(a)anthracene	10 U	10 U	µg/L
Benzo(b)fluoranthene	10 U	10 U	µg/L
Benzo(k)fluoranthene	10 U	10 U	µg/L
Benzo(g,h,i)perylene	10 U	10 U	µg/L
Benzo(a)pyrene	10 U	10 U	µg/L
Benzylbutyl phthalate	10 U	10 U	µg/L
Bis(2-chloroethoxy)methane	10 U	10 U	µg/L
Bis(2-chloroethyl)ether	10 U	10 U	µg/L
Bis(2-chloroisopropyl)ether	10 U	10 U	µg/L
Bis(2-ethylhexyl)phthalate	10 U	10 U	µg/L
4-Bromophenylphenyl ether	10 U	10 U	µg/L
2-Chloronaphthalene	10 U	10 U	µg/L
4-Chlorophenyl phenyl ether	10 U	10 U	µg/L
Chrysene	10 U	10 U	µg/L
Dibenzo(a,h)anthracene	10 U	10 U	µg/L
1,2-Dichlorobenzene	10 U	10 U	µg/L
1,3-Dichlorobenzene	10 U	10 U	µg/L
1,4-Dichlorobenzene	10 U	10 U	µg/L
3,3'-Dichlorobenzidine	20 U	20 U	µg/L
Diethyl phthalate	10 U	10 U	µg/L
Dimethyl phthalate	10 U	10 U	µg/L
Di-n-butyl phthalate	10 U	10 U	µg/L
Di-n-octyl phthalate	10 U	10 U	µg/L
2,4-Dinitrotoluene	10 U	10 U	µg/L
2,6-Dinitrotoluene	10 U	10 U	µg/L
Fluoranthene	10 U	10 U	µg/L
Fluorene	10 U	10 U	µg/L
Hexachlorobenzene	10 U	10 U	µg/L
Hexachlorobutadiene	10 U	10 U	µg/L
Hexachlorocyclopentadiene	10 U	10 U	µg/L

U = Compound was analyzed for but not detected to the level shown.

ENCO LABORATORIES
REPORT # : JR7189
DATE REPORTED: June 24, 1999
REFERENCE : WO# JX102
PROJECT NAME : SWMU-14 Monthly

RESULTS OF ANALYSIS

EPA METHOD 625 (cont.) - SEMIVOLATILE ORGANICS	MP06898	MP06899	Units
Hexachloroethane	10 U	10 U	µg/L
Indeno(1,2,3-cd)pyrene	10 U	10 U	µg/L
Isophorone	10 U	10 U	µg/L
1-Methylnaphthalene	10 U	10 U	µg/L
2-Methylnaphthalene	10 U	10 U	µg/L
Naphthalene	10 U	10 U	µg/L
Nitrobenzene	10 U	10 U	µg/L
N-Nitrosodimethylamine	10 U	10 U	µg/L
N-Nitrosodi-n-propylamine	10 U	10 U	µg/L
N-Nitrosodiphenylamine	10 U	10 U	µg/L
Phenanthrene	10 U	10 U	µg/L
Pyrene	10 U	10 U	µg/L
1,2,4-Trichlorobenzene	10 U	10 U	µg/L
4-Chloro-3-methylphenol	10 U	10 U	µg/L
2-Chlorophenol	10 U	10 U	µg/L
2,4-Dichlorophenol	10 U	10 U	µg/L
2,4-Dimethylphenol	10 U	10 U	µg/L
2,4-Dinitrophenol	50 U	50 U	µg/L
2-Methyl-4,6-dinitrophenol	30 U	30 U	µg/L
2-Nitrophenol	10 U	10 U	µg/L
4-Nitrophenol	10 U	10 U	µg/L
Pentachlorophenol	10 U	10 U	µg/L
Phenol	10 U	10 U	µg/L
2,4,6-Trichlorophenol	10 U	10 U	µg/L
Surrogate:	**% RECOV**	**% RECOV**	**LIMITS**
Nitrobenzene -D5	77	80	30-106
2-Fluorobiphenyl	55	58	38-107
Terphenyl -D14	57	66	29-131
Phenol -D5	34	41	12-87
2-Fluorophenol	38	40	19-115
2,4,6-Tribromophenol	141*	165*	43-126
Date Extracted	06/16/99	06/16/99	
Date Analyzed	06/17/99	06/17/99	

* = Surrogate recovery outside of laboratory established limits.
U = Compound was analyzed for but not detected to the level shown.

ENCO LABORATORIES
REPORT # : JR7189
DATE REPORTED: June 24, 1999
REFERENCE : WO# JX102
PROJECT NAME : SWMU-14 Monthly

RESULTS OF ANALYSIS

EPA METHOD RSK 175 - Dissolved Gases	MP06898		MP06899	Units
Methane	1.3	D1	0.21	mg/L
Ethene	0.0010 U		0.0010 U	mg/L
Ethane	0.0010 U		0.0010 U	mg/L
Date Analyzed	06/23/99		06/23/99	

EPA METHOD FLPRO - PETROL. RESIDUAL ORG.	MP06898	MP06899	Units
Hydrocarbons (C8-C40)	0.20 U	0.20 U	mg/L
Surrogate:	**% RECOV**	**% RECOV**	**LIMITS**
o-Terphenyl	70	79	65-140
Date Extracted	06/15/99	06/15/99	
Date Analyzed	06/16/99	06/16/99	

U = Compound was analyzed for but not detected to the level shown.
D1 = Analyte value determined from a 1:50 dilution.

ENCO LABORATORIES
REPORT # : JR7189
DATE REPORTED: June 24, 1999
REFERENCE : WO# JX102
PROJECT NAME : SWMU-14 Monthly

RESULTS OF ANALYSIS

MISCELLANEOUS	METHOD	MP06898	MP06899	Units
Fe, Ferrous	SM3500	4.0 U	4.0 U	mg/L
Date Analyzed		06/11/99	06/11/99	
BOD	405.1	**2.0** I	**4.0** I	mg/L
Date Analyzed		06/11/99	06/11/99	
COD	410.4	**30**	**90**	mg/L
Date Analyzed		06/12/99	06/12/99	
Nitrate-N	353.3	0.10 U	**0.47**	mg/L
Date Analyzed		06/11/99	06/11/99	
Nitrite-N	354.1	0.10 U	0.10 U	mg/L
Date Analyzed		06/11/99	06/11/99	
Sulfate, Total	375.4	**55**	**66**	mg/L
Date Analyzed		06/15/99	06/15/99	
Sulfide, Total	376.1	1.0 U	1.0 U	mg/L
Date Analyzed		06/14/99	06/14/99	
Total Org. Carbon	415.1	**8.0**	**26**	mg/L
Date Analyzed		06/23/99	06/23/99	
Nitrate-Nitrite-N	353.1	0.020 U	**0.49**	mg/L
Date Analyzed		06/17/99	06/17/99	

I = Analyte detected; value is between the Method Detection Level (MDL) and the Practical Quantitation Level (PQL).
U = Compound was analyzed for but not detected to the level shown.

ENCO LABORATORIES
REPORT # : JR7189
DATE REPORTED: June 24, 1999
REFERENCE : WO# JX102
PROJECT NAME : SWMU-14 Monthly

RESULTS OF ANALYSIS

EPA METHOD 625 - SEMIVOLATILE ORGANICS	MP06901	MP06902	Units
Acenaphthene	10 U	10 U	µg/L
Acenaphthylene	10 U	10 U	µg/L
Anthracene	10 U	10 U	µg/L
Benzidine	10 U	10 U	µg/L
Benzo(a)anthracene	10 U	10 U	µg/L
Benzo(b)fluoranthene	10 U	10 U	µg/L
Benzo(k)fluoranthene	10 U	10 U	µg/L
Benzo(g,h,i)perylene	10 U	10 U	µg/L
Benzo(a)pyrene	10 U	10 U	µg/L
Benzylbutyl phthalate	10 U	10 U	µg/L
Bis(2-chloroethoxy)methane	10 U	10 U	µg/L
Bis(2-chloroethyl)ether	10 U	10 U	µg/L
Bis(2-chloroisopropyl)ether	10 U	10 U	µg/L
Bis(2-ethylhexyl)phthalate	10 U	10 U	µg/L
4-Bromophenylphenyl ether	10 U	10 U	µg/L
2-Chloronaphthalene	10 U	10 U	µg/L
4-Chlorophenyl phenyl ether	10 U	10 U	µg/L
Chrysene	10 U	10 U	µg/L
Dibenzo(a,h)anthracene	10 U	10 U	µg/L
1,2-Dichlorobenzene	10 U	10 U	µg/L
1,3-Dichlorobenzene	10 U	10 U	µg/L
1,4-Dichlorobenzene	10 U	10 U	µg/L
3,3'-Dichlorobenzidine	20 U	20 U	µg/L
Diethyl phthalate	10 U	10 U	µg/L
Dimethyl phthalate	10 U	10 U	µg/L
Di-n-butyl phthalate	10 U	10 U	µg/L
Di-n-octyl phthalate	10 U	10 U	µg/L
2,4-Dinitrotoluene	10 U	10 U	µg/L
2,6-Dinitrotoluene	10 U	10 U	µg/L
Fluoranthene	10 U	10 U	µg/L
Fluorene	10 U	10 U	µg/L
Hexachlorobenzene	10 U	10 U	µg/L
Hexachlorobutadiene	10 U	10 U	µg/L
Hexachlorocyclopentadiene	10 U	10 U	µg/L

U = Compound was analyzed for but not detected to the level shown.

ENCO LABORATORIES
REPORT # : JR7189
DATE REPORTED: June 24, 1999
REFERENCE : WO# JX102
PROJECT NAME : SWMU-14 Monthly

RESULTS OF ANALYSIS

EPA METHOD 625 (cont.) - SEMIVOLATILE ORGANICS	MP06901	MP06902	Units
Hexachloroethane	10 U	10 U	µg/L
Indeno(1,2,3-cd)pyrene	10 U	10 U	µg/L
Isophorone	10 U	10 U	µg/L
1-Methylnaphthalene	10 U	10 U	µg/L
2-Methylnaphthalene	10 U	10 U	µg/L
Naphthalene	10 U	10 U	µg/L
Nitrobenzene	10 U	10 U	µg/L
N-Nitrosodimethylamine	10 U	10 U	µg/L
N-Nitrosodi-n-propylamine	10 U	10 U	µg/L
N-Nitrosodiphenylamine	10 U	10 U	µg/L
P[illegible]enanthrene	10 U	10 U	µg/L
[illegible]rene	10 U	10 U	µg/L
1,2,4-Trichlorobenzene	10 U	10 U	µg/L
4-Chloro-3-methylphenol	10 U	10 U	µg/L
2-Chlorophenol	10 U	10 U	µg/L
2,4-Dichlorophenol	10 U	10 U	µg/L
2,4-Dimethylphenol	10 U	10 U	µg/L
2,4-Dinitrophenol	50 U	50 U	µg/L
2-Methyl-4,6-dinitrophenol	30 U	30 U	µg/L
2-Nitrophenol	10 U	10 U	µg/L
4-Nitrophenol	10 U	10 U	µg/L
Pentachlorophenol	10 U	10 U	µg/L
Phenol	10 U	10 U	µg/L
2,4,6-Trichlorophenol	10 U	10 U	µg/L
Surrogate:	**% RECOV**	**% RECOV**	**LIMITS**
Nitrobenzene -D5	47	83	30-106
2-Fluorobiphenyl	27*	41	38-107
Terphenyl -D14	40	64	29-131
Phenol -D5	19	38	12-87
2-Fluorophenol	25	43	19-115
2,4,6-Tribromophenol	98	165*	43-126
Date Extracted	06/16/99	06/16/99	
Date Analyzed	06/17/99	06/17/99	

* = Surrogate recovery outside of laboratory established limits.
U = Compound was analyzed for but not detected to the level shown.

ENCO LABORATORIES
REPORT # : JR7189
DATE REPORTED: June 24, 1999
REFERENCE : WO# JX102
PROJECT NAME : SWMU-14 Monthly

RESULTS OF ANALYSIS

EPA METHOD RSK 175 - Dissolved Gases	MP06901		MP06902	Units
Methane	2.9	D1	0.55	mg/L
Ethene	0.0010 U		0.0010 U	mg/L
Ethane	0.0010 U		0.0010 U	mg/L
Date Analyzed	06/23/99		06/23/99	

EPA METHOD FLPRO - PETROL. RESIDUAL ORG.	MP06901	MP06902	Units
Hydrocarbons (C8-C40)	0.20 U	0.20 U	mg/L
Surrogate:	**% RECOV**	**% RECOV**	**LIMITS**
o-Terphenyl	106	89	65-140
Date Extracted	06/15/99	06/15/99	
Date Analyzed	06/16/99	06/16/99	

U = Compound was analyzed for but not detected to the level shown.
D1 = Analyte value determined from a 1:50 dilution.

ENCO LABORATORIES
REPORT # : JR7189
DATE REPORTED: June 24, 1999
REFERENCE : WO# JX102
PROJECT NAME : SWMU-14 Monthly

RESULTS OF ANALYSIS

MISCELLANEOUS	METHOD	MP06901	MP06902	Units
BOD	405.1	**6.0**	2.0 U	mg/L
Date Analyzed		06/11/99	06/11/99	
COD	410.4	**120**	**180**	mg/L
Date Analyzed		06/12/99	06/12/99	
Fe, Ferrous	SM3500	4.0 U	4.0 U	mg/L
Date Analyzed		06/11/99	06/11/99	
Nitrate-N	353.3	0.10 U	0.10 U	mg/L
Date Analyzed		06/11/99	06/11/99	
Nitrite-N	354.1	0.10 U	0.10 U	mg/L
Date Analyzed		06/11/99	06/11/99	
Sulfate, Total	375.4	**21**	**31**	mg/L
Date Analyzed		06/15/99	06/15/99	
Sulfide, Total	376.1	1.0 U	1.0 U	mg/L
Date Analyzed		06/14/99	06/14/99	
Total Org. Carbon	415.1	**18**	**24**	mg/L
Date Analyzed		06/23/99	06/23/99	
Nitrate-Nitrite-N	353.1	0.020 U	0.020 U	mg/L
Date Analyzed		06/17/99	06/17/99	

U = Compound was analyzed for but not detected to the level shown.

ENCO LABORATORIES
REPORT # : JR7189
DATE REPORTED: June 24, 1999
REFERENCE : WO# JX102
PROJECT NAME : SWMU-14 Monthly

RESULTS OF ANALYSIS

EPA METHOD 625 - SEMIVOLATILE ORGANICS	MP06903	MP06904	Units
Acenaphthene	10 U	10 U	µg/L
Acenaphthylene	10 U	10 U	µg/L
Anthracene	10 U	10 U	µg/L
Benzidine	10 U	10 U	µg/L
Benzo(a)anthracene	10 U	10 U	µg/L
Benzo(b)fluoranthene	10 U	10 U	µg/L
Benzo(k)fluoranthene	10 U	10 U	µg/L
Benzo(g,h,i)perylene	10 U	10 U	µg/L
Benzo(a)pyrene	10 U	10 U	µg/L
Benzylbutyl phthalate	10 U	10 U	µg/L
Bis(2-chloroethoxy)methane	10 U	10 U	µg/L
Bis(2-chloroethyl)ether	10 U	10 U	µg/L
Bis(2-chloroisopropyl)ether	10 U	10 U	µg/L
Bis(2-ethylhexyl)phthalate	10 U	10 U	µg/L
4-Bromophenylphenyl ether	10 U	10 U	µg/L
2-Chloronaphthalene	10 U	10 U	µg/L
4-Chlorophenyl phenyl ether	10 U	10 U	µg/L
Chrysene	10 U	10 U	µg/L
Dibenzo(a,h)anthracene	10 U	10 U	µg/L
1,2-Dichlorobenzene	10 U	10 U	µg/L
1,3-Dichlorobenzene	10 U	10 U	µg/L
1,4-Dichlorobenzene	10 U	10 U	µg/L
3,3'-Dichlorobenzidine	20 U	20 U	µg/L
Diethyl phthalate	10 U	10 U	µg/L
Dimethyl phthalate	10 U	10 U	µg/L
Di-n-butyl phthalate	10 U	10 U	µg/L
Di-n-octyl phthalate	10 U	10 U	µg/L
2,4-Dinitrotoluene	10 U	10 U	µg/L
2,6-Dinitrotoluene	10 U	10 U	µg/L
Fluoranthene	10 U	10 U	µg/L
Fluorene	10 U	10 U	µg/L
Hexachlorobenzene	10 U	10 U	µg/L
Hexachlorobutadiene	10 U	10 U	µg/L
Hexachlorocyclopentadiene	10 U	10 U	µg/L

U = Compound was analyzed for but not detected to the level shown.

ENCO LABORATORIES
REPORT # : JR7189
DATE REPORTED: June 24, 1999
REFERENCE : WO# JX102
PROJECT NAME : SWMU-14 Monthly

RESULTS OF ANALYSIS

EPA METHOD 625 (cont.) - SEMIVOLATILE ORGANICS	MP06903	MP06904	Units
Hexachloroethane	10 U	10 U	µg/L
Indeno(1,2,3-cd)pyrene	10 U	10 U	µg/L
Isophorone	10 U	10 U	µg/L
1-Methylnaphthalene	**15**	10 U	µg/L
2-Methylnaphthalene	10 U	10 U	µg/L
Naphthalene	10 U	10 U	µg/L
Nitrobenzene	10 U	10 U	µg/L
N-Nitrosodimethylamine	10 U	10 U	µg/L
N-Nitrosodi-n-propylamine	10 U	10 U	µg/L
N-Nitrosodiphenylamine	10 U	10 U	µg/L
Phenanthrene	10 U	10 U	µg/L
Pyrene	10 U	10 U	µg/L
1,2,4-Trichlorobenzene	10 U	10 U	µg/L
4-Chloro-3-methylphenol	10 U	10 U	µg/L
2-Chlorophenol	10 U	10 U	µg/L
2,4-Dichlorophenol	10 U	10 U	µg/L
2,4-Dimethylphenol	10 U	10 U	µg/L
2,4-Dinitrophenol	50 U	50 U	µg/L
2-Methyl-4,6-dinitrophenol	30 U	30 U	µg/L
2-Nitrophenol	10 U	10 U	µg/L
4-Nitrophenol	10 U	10 U	µg/L
Pentachlorophenol	10 U	10 U	µg/L
Phenol	10 U	10 U	µg/L
2,4,6-Trichlorophenol	10 U	10 U	µg/L
Surrogate:	**% RECOV**	**% RECOV**	**LIMITS**
Nitrobenzene -D5	87	41	30-106
2-Fluorobiphenyl	54	28*	38-107
Terphenyl -D14	64	31	29-131
Phenol -D5	45	20	12-87
2-Fluorophenol	45	22	19-115
2,4,6-Tribromophenol	158*	72	43-126
Date Extracted	06/16/99	06/16/99	
Date Analyzed	06/17/99	06/17/99	

* = Surrogate recovery outside of laboratory established limits.
U = Compound was analyzed for but not detected to the level shown.

ENCO LABORATORIES
REPORT # : JR7189
DATE REPORTED: June 24, 1999
REFERENCE : WO# JX102
PROJECT NAME : SWMU-14 Monthly

RESULTS OF ANALYSIS

EPA METHOD RSK 175 - Dissolved Gases	MP06903	MP06904	Units
Methane	**0.46**	0.0010 U	mg/L
Ethene	0.0010 U	0.0010 U	mg/L
Ethane	0.0010 U	0.0010 U	mg/L
Date Analyzed	06/23/99	06/23/99	

EPA METHOD FLPRO - PETROL. RESIDUAL ORG.	MP06903	MP06904	Units
Hydrocarbons (C8-C40)	**1.4**	0.20 U	mg/L
Surrogate:	**% RECOV**	**% RECOV**	**LIMITS**
o-Terphenyl	84	68	65-140
Date Extracted	06/15/99	06/15/99	
Date Analyzed	06/16/99	06/16/99	

U = Compound was analyzed for but not detected to the level shown.

ENCO LABORATORIES
REPORT # : JR7189
DATE REPORTED: June 24, 1999
REFERENCE : WO# JX102
PROJECT NAME : SWMU-14 Monthly

RESULTS OF ANALYSIS

MISCELLANEOUS	METHOD	MP06903	MP06904	Units
BOD	405.1	**8.0**	2.0 U	mg/L
Date Analyzed		06/11/99	06/11/99	
COD	410.4	**120**	**10** I	mg/L
Date Analyzed		06/12/99	06/12/99	
Fe, Ferrous	SM3500	4.0 U	4.0 U	mg/L
Date Analyzed		06/11/99	06/11/99	
Nitrate-N	353.3	0.10 U	0.10 U	mg/L
Date Analyzed		06/11/99	06/11/99	
Nitrite-N	354.1	0.10 U	0.10 U	mg/L
Date Analyzed		06/11/99	06/11/99	
Sulfate, Total	375.4	**5.0**	**71**	mg/L
Date Analyzed		06/15/99	06/15/99	
Sulfide, Total	376.1	1.0 U	1.0 U	mg/L
Date Analyzed		06/14/99	06/14/99	
Total Org. Carbon	415.1	**32**	**4.0**	mg/L
Date Analyzed		06/23/99	06/23/99	
Nitrate-Nitrite-N	353.1	0.020 U	0.020 U	mg/L
Date Analyzed		06/17/99	06/17/99	

U = Compound was analyzed for but not detected to the level shown.
I = Analyte detected; value is between the Method Detection Level (MDL) and the Practical Quantitation Level (PQL).

ENCO LABORATORIES
REPORT # : JR7189
DATE REPORTED: June 24, 1999
REFERENCE : WO# JX102
PROJECT NAME : SWMU-14 Monthly

RESULTS OF ANALYSIS

EPA METHOD 625 - SEMIVOLATILE ORGANICS	LAB BLANK	Units
Acenaphthene	10 U	µg/L
Acenaphthylene	10 U	µg/L
Anthracene	10 U	µg/L
Benzidine	10 U	µg/L
Benzo(a)anthracene	10 U	µg/L
Benzo(b)fluoranthene	10 U	µg/L
Benzo(k)fluoranthene	10 U	µg/L
Benzo(g,h,i)perylene	10 U	µg/L
Benzo(a)pyrene	10 U	µg/L
Benzylbutyl phthalate	10 U	µg/L
Bis(2-chloroethoxy)methane	10 U	µg/L
Bis(2-chloroethyl)ether	10 U	µg/L
Bis(2-chloroisopropyl)ether	10 U	µg/L
Bis(2-ethylhexyl)phthalate	10 U	µg/L
4-Bromophenylphenyl ether	10 U	µg/L
2-Chloronaphthalene	10 U	µg/L
4-Chlorophenyl phenyl ether	10 U	µg/L
Chrysene	10 U	µg/L
Dibenzo(a,h)anthracene	10 U	µg/L
1,2-Dichlorobenzene	10 U	µg/L
1,3-Dichlorobenzene	10 U	µg/L
1,4-Dichlorobenzene	10 U	µg/L
3,3'-Dichlorobenzidine	20 U	µg/L
Diethyl phthalate	10 U	µg/L
Dimethyl phthalate	10 U	µg/L
Di-n-butyl phthalate	10 U	µg/L
Di-n-octyl phthalate	10 U	µg/L
2,4-Dinitrotoluene	10 U	µg/L
2,6-Dinitrotoluene	10 U	µg/L
Fluoranthene	10 U	µg/L
Fluorene	10 U	µg/L
Hexachlorobenzene	10 U	µg/L
Hexachlorobutadiene	10 U	µg/L
Hexachlorocyclopentadiene	10 U	µg/L

U = Compound was analyzed for but not detected to the level shown.

ENCO LABORATORIES
REPORT # : JR7189
DATE REPORTED: June 24, 1999
REFERENCE : WO# JX102
PROJECT NAME : SWMU-14 Monthly

RESULTS OF ANALYSIS

EPA METHOD 625 (cont.) - SEMIVOLATILE ORGANICS	LAB BLANK	Units
Hexachloroethane	10 U	µg/L
Indeno(1,2,3-cd)pyrene	10 U	µg/L
Isophorone	10 U	µg/L
1-Methylnaphthalene	10 U	µg/L
2-Methylnaphthalene	10 U	µg/L
Naphthalene	10 U	µg/L
Nitrobenzene	10 U	µg/L
N-Nitrosodimethylamine	10 U	µg/L
N-Nitrosodi-n-propylamine	10 U	µg/L
N-Nitrosodiphenylamine	10 U	µg/L
Phenanthrene	10 U	µg/L
Pyrene	10 U	µg/L
1,2,4-Trichlorobenzene	10 U	µg/L
4-Chloro-3-methylphenol	10 U	µg/L
2-Chlorophenol	10 U	µg/L
2,4-Dichlorophenol	10 U	µg/L
2,4-Dimethylphenol	10 U	µg/L
2,4-Dinitrophenol	50 U	µg/L
2-Methyl-4,6-dinitrophenol	30 U	µg/L
2-Nitrophenol	10 U	µg/L
4-Nitrophenol	10 U	µg/L
Pentachlorophenol	10 U	µg/L
Phenol	10 U	µg/L
2,4,6-Trichlorophenol	10 U	µg/L

Surrogate:	% RECOV	LIMITS
Nitrobenzene -D5	68	30-106
2-Fluorobiphenyl	44	38-107
Terphenyl -D14	54	29-131
Phenol -D5	34	12-87
2-Fluorophenol	39	19-115
2,4,6-Tribromophenol	104	43-126
Date Extracted	06/16/99	
Date Analyzed	06/17/99	

U = Compound was analyzed for but not detected to the level shown.

ENCO LABORATORIES
REPORT # : JR7189
DATE REPORTED: June 24, 1999
REFERENCE : WO# JX102
PROJECT NAME : SWMU-14 Monthly

RESULTS OF ANALYSIS

EPA METHOD RSK 175 - Dissolved Gases	LAB BLANK	Units
Methane	0.0010 U	mg/L
Ethene	0.0010 U	mg/L
Ethane	0.0010 U	mg/L
Date Analyzed	06/23/99	

EPA METHOD FLPRO - PETROL. RESIDUAL ORG.	LAB BLANK	Units
drocarbons (C8-C40)	0.20 U	mg/L
Surrogate:	**% RECOV**	**LIMITS**
o-Terphenyl	67	65-140
Date Extracted	06/15/99	
Date Analyzed	06/16/99	

= Compound was analyzed for but not detected to the level shown.

ENCO LABORATORIES
REPORT # : JR7189
DATE REPORTED: June 24, 1999
REFERENCE : WO# JX102
PROJECT NAME : SWMU-14 Monthly

RESULTS OF ANALYSIS

MISCELLANEOUS	METHOD	LAB BLANK	Units
BOD	405.1	2.0 U	mg/L
Date Analyzed		06/11/99	
COD	410.4	10 U	mg/L
Date Analyzed		06/12/99	
e, Ferrous	SM3500	4.0 U	mg/L
Date Analyzed		06/11/99	
itrite-N	354.1	0.10 U	mg/L
Date Analyzed		06/11/99	
fate, Total	375.4	1.0 U	mg/L
ate Analyzed		06/15/99	
ulfide, Total	376.1	1.0 U	mg/L
ate Analyzed		06/14/99	
otal Org. Carbon	415.1	1.0 U	mg/L
ate Analyzed		06/23/99	
Nitrate-Nitrite-N	353.1	0.020 U	mg/L
ate Analyzed		06/17/99	

U = Compound was analyzed for but not detected to the level shown.

ENCO LABORATORIES
REPORT # : JR7189
DATE REPORTED: June 24, 1999
REFERENCE : WO# JX102
PROJECT NAME : SWMU-14 Monthly

QUALITY CONTROL DATA

Parameter	% RECOVERY MS/MSD/LCS	ACCEPT LIMITS	% RPD MS/MSD	ACCEPT LIMITS
EPA Method 625				
Phenol	45/ 44/ 41	29-102	2	44
2-Chlorophenol	76/ 78/ 76	58-124	2	41
1,4-Dichlorobenzene	68/ 63/ 53	D-127	8	43
N-Nitrosodi-N-Propylamine	106/109/106	72-118	3	22
1,2,4-Trichlorobenzene	70/ 63/ 58	18-129	10	43
4-Chloro-3-Methylphenol	100/ 95/ 93	75-126	5	22
Acenaphthene	73/ 66/ 72	63-122	10	28
4-Nitrophenol	25/ 22/ 17	D-168	13	52
2,4-Dinitrotoluene	98/ 92/ 91	81-151	6	21
Pentachlorophenol	70/ 80/ 68	27-154	13	42
Pyrene	66/ 64/ 68	54-146	3	32
EPA Method RSK175				
Methane	NA/ NA/ 99	NA	NA	NA
Ethene	NA/ NA/ 95	NA	NA	NA
Ethane	NA/ NA/ 95	NA	NA	NA
PETROL. RESIDUAL ORG.				
Hydrocarbons (C8-C40)	89/104/ 95	51-163	16	27

Environmental Conservation Laboratories Comprehensive QA Plan #960038

< = Less Than
MS = Matrix Spike
MSD = Matrix Spike Duplicate
LCS = Laboratory Control Standard
RPD = Relative Percent Difference

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ENCO LABORATORIES
REPORT # : JR7189
DATE REPORTED: June 24, 1999
REFERENCE : WO# JX102
PROJECT NAME : SWMU-14 Monthly

QUALITY CONTROL DATA

Parameter	% RECOVERY MS/MSD/LCS	ACCEPT LIMITS	% RPD MS/MSD	ACCEPT LIMITS
Miscellaneous				
BOD, 405.1	NA/ NA/ 92	NA	NA	NA
COD, 410.4	109/109/107	82-124	<1	8
Fe, Ferrous, SM3500	NA/ NA/ NA	NA	NA	NA
Nitrite-N, 354.1	100/101/102	69-124	<1	13
Sulfate, Total, 375.4	93/ 91/ 94	61-138	2	22
Sulfide, Total, 376.1	NA/ NA/100	NA	NA	NA
Total Org. Carbon, 415.1	98/ 97/104	69-132	1	13
Nitrate-Nitrite-N, 353.1	NA/ NA/115	NA	NA	NA

Environmental Conservation Laboratories Comprehensive QA Plan #960038

< = Less Than
MS = Matrix Spike
MSD = Matrix Spike Duplicate
LCS = Laboratory Control Standard
RPD = Relative Percent Difference

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CLIENT : Bechtel Environmental, Inc.
ADDRESS: NAS Cecil Field
P.O. Box 171
Jacksonville, FL 32215

REPORT # : JR7700
DATE SUBMITTED: July 16, 1999
DATE REPORTED : July 30, 1999

ATTENTION: Mr. Dane Cutshaw

SAMPLE IDENTIFICATION

Samples submitted and
identified by client as:

PROJECT #: WO# JX112

SWMU-14 Monthly

07/15/99

#1 - MP06947 @ 10:45
#2 - MP06948 @ 10:25
#3 - MP06949 @ 11:40
#4 - MP06950 @ 11:20
#5 - MP06951 @ 11:00
#6 - MP06952 @ 09:40

)JECT MANAGER _____
Scott D. Martin

ENCO LABORATORIES
REPORT # : JR7700
DATE REPORTED: July 30, 1999
REFERENCE : WO# JX112
PROJECT NAME : SWMU-14 Monthly

RESULTS OF ANALYSIS

EPA METHOD 625 - SEMIVOLATILE ORGANICS	MP06947	MP06948	Units
Acenaphthene	10 U	10 U	µg/L
Acenaphthylene	10 U	10 U	µg/L
Anthracene	10 U	10 U	µg/L
Benzidine	10 U	10 U	µg/L
Benzo(a)anthracene	10 U	10 U	µg/L
Benzo(b)fluoranthene	10 U	10 U	µg/L
Benzo(k)fluoranthene	10 U	10 U	µg/L
Benzo(g,h,i)perylene	10 U	10 U	µg/L
Benzo(a)pyrene	10 U	10 U	µg/L
Benzylbutyl phthalate	10 U	10 U	µg/L
Bis(2-chloroethoxy)methane	10 U	10 U	µg/L
Bis(2-chloroethyl)ether	10 U	10 U	µg/L
Bis(2-chloroisopropyl)ether	10 U	10 U	µg/L
Bis(2-ethylhexyl)phthalate	10 U	10 U	µg/L
4-Bromophenylphenyl ether	10 U	10 U	µg/L
2-Chloronaphthalene	10 U	10 U	µg/L
4-Chlorophenyl phenyl ether	10 U	10 U	µg/L
Chrysene	10 U	10 U	µg/L
Dibenzo(a,h)anthracene	10 U	10 U	µg/L
1,2-Dichlorobenzene	10 U	10 U	µg/L
1,3-Dichlorobenzene	10 U	10 U	µg/L
1,4-Dichlorobenzene	10 U	10 U	µg/L
3,3'-Dichlorobenzidine	20 U	20 U	µg/L
Diethyl phthalate	10 U	10 U	µg/L
Dimethyl phthalate	10 U	10 U	µg/L
Di-n-butyl phthalate	10 U	10 U	µg/L
Di-n-octyl phthalate	10 U	10 U	µg/L
2,4-Dinitrotoluene	10 U	10 U	µg/L
2,6-Dinitrotoluene	10 U	10 U	µg/L
Fluoranthene	10 U	10 U	µg/L
Fluorene	10 U	10 U	µg/L
Hexachlorobenzene	10 U	10 U	µg/L
Hexachlorobutadiene	10 U	10 U	µg/L
Hexachlorocyclopentadiene	10 U	10 U	µg/L

U = Compound was analyzed for but not detected to the level shown.

ENCO LABORATORIES
REPORT # : JR7700
DATE REPORTED: July 30, 1999
REFERENCE : WO# JX112
PROJECT NAME : SWMU-14 Monthly

RESULTS OF ANALYSIS

EPA METHOD 625 (cont.) - SEMIVOLATILE ORGANICS	MP06947	MP06948	Units
Hexachloroethane	10 U	10 U	µg/L
Indeno(1,2,3-cd)pyrene	10 U	10 U	µg/L
Isophorone	10 U	10 U	µg/L
1-Methylnaphthalene	10 U	**11**	µg/L
2-Methylnaphthalene	10 U	**10**	µg/L
Naphthalene	10 U	10 U	µg/L
Nitrobenzene	10 U	10 U	µg/L
N-Nitrosodimethylamine	10 U	10 U	µg/L
N-Nitrosodi-n-propylamine	10 U	10 U	µg/L
N-Nitrosodiphenylamine	10 U	10 U	µg/L
Phenanthrene	10 U	10 U	µg/L
Pyrene	10 U	10 U	µg/L
1,2,4-Trichlorobenzene	10 U	10 U	µg/L
4-Chloro-3-methylphenol	10 U	10 U	µg/L
2-Chlorophenol	10 U	10 U	µg/L
2,4-Dichlorophenol	10 U	10 U	µg/L
2,4-Dimethylphenol	10 U	10 U	µg/L
2,4-Dinitrophenol	50 U	50 U	µg/L
4-Methyl-4,6-dinitrophenol	30 U	30 U	µg/L
2-Nitrophenol	10 U	10 U	µg/L
4-Nitrophenol	10 U	10 U	µg/L
Pentachlorophenol	10 U	10 U	µg/L
Phenol	10 U	10 U	µg/L
2,4,6-Trichlorophenol	10 U	10 U	µg/L
Surrogate:	**% RECOV**	**% RECOV**	**LIMITS**
Nitrobenzene -D5	65	68	30-106
2-Fluorobiphenyl	73	63	38-107
Terphenyl -D14	60	55	29-131
Phenol -D5	46	43	12-87
2-Fluorophenol	42	44	19-115
2,4,6-Tribromophenol	128#	117	43-126
Date Extracted	07/20/99	07/20/99	
Date Analyzed	07/20/99	07/20/99	

# = Surrogate recovery outside of laboratory established limits.
U = Compound was analyzed for but not detected to the level shown.

ENCO LABORATORIES
REPORT # : JR7700
DATE REPORTED: July 30, 1999
REFERENCE : WO# JX112
PROJECT NAME : SWMU-14 Monthly

RESULTS OF ANALYSIS

EPA METHOD 8310 - PAH BY HPLC	MP06947	MP06948	Units
Naphthalene	0.50 U	0.50 U	µg/L
Acenaphthylene	1.0 U	1.0 U	µg/L
1-Methylnaphthalene	**3.9**	1.0 U	µg/L
2-Methylnaphthalene	**1.4**	**1.1**	µg/L
Acenaphthene	**1.6**	0.50 U	µg/L
Fluorene	**0.75**	0.10 U	µg/L
Phenanthrene	1.0 U	1.0 U	µg/L
Anthracene	**0.13**	0.050 U	µg/L
Fluoranthene	0.10 U	0.10 U	µg/L
Pyrene	0.050 U	0.050 U	µg/L
Benzo(a)anthracene	0.050 U	0.050 U	µg/L
Chrysene	0.050 U	0.050 U	µg/L
Benzo(b)fluoranthene	0.10 U	0.10 U	µg/L
Benzo(k)fluoranthene	0.050 U	0.050 U	µg/L
Benzo(a)pyrene	0.050 U	0.050 U	µg/L
Dibenzo(a,h)anthracene	0.10 U	0.10 U	µg/L
Benzo(g,h,i)perylene	0.10 U	0.10 U	µg/L
Indeno(1,2,3-cd)pyrene	0.050 U	0.050 U	µg/L
Surrogate:	**% RECOV**	**% RECOV**	**LIMITS**
p-terphenyl	90	71	39-148
Date Extracted	07/20/99	07/20/99	
Date Analyzed	07/22/99	07/22/99	

EPA METHOD RSK 175 - Dissolved Gases	MP06947	MP06948	Units
Methane	**1.4** D1	**0.15**	mg/L
Ethene	0.0010 U	0.0010 U	mg/L
Ethane	0.0010 U	0.0010 U	mg/L
Date Analyzed	07/28/99	07/28/99	

U = Compound was analyzed for but not detected to the level shown.
D1 = Analyte value determined from a 1:20 dilution.

ENCO LABORATORIES
REPORT # : JR7700
DATE REPORTED: July 30, 1999
REFERENCE : WO# JX112
PROJECT NAME : SWMU-14 Monthly

RESULTS OF ANALYSIS

MISCELLANEOUS	METHOD	MP06947	MP06948	Units
Alkalinity, Total	310.1	**290**	**550**	mg/L
Date Analyzed		07/19/99	07/19/99	
BOD	405.1	**5.0**	**7.0**	mg/L
Date Analyzed		07/17/99	07/17/99	
COD	410.4	**38**	**80**	mg/L
Date Analyzed		07/20/99	07/20/99	
Fe, Ferrous	SM3500 Fe	4.0 U	4.0 U	mg/L
Date Analyzed		07/16/99	07/16/99	
Nitrate-N	353.3	0.10 U	**0.64**	mg/L
Date Analyzed		07/16/99	07/16/99	
Nitrite-N	354.1	0.10 U	0.10 U	mg/L
Date Analyzed		07/16/99	07/16/99	
Sulfate, Total	375.4	**30**	**98**	mg/L
Date Analyzed		07/21/99	07/21/99	
Sulfide, Total	376.1	1.0 U	1.0 U	mg/L
Date Analyzed		07/20/99	07/20/99	
Total Org. Carbon	415.1	**7.0**	**22**	mg/L
Date Analyzed		07/19/99	07/19/99	
Nitrate-Nitrite-N	353.1	0.020 U	**0.68**	mg/L
Date Analyzed		07/26/99	07/26/99	

U = Compound was analyzed for but not detected to the level shown.

ENCO LABORATORIES
REPORT # : JR7700
DATE REPORTED: July 30, 1999
REFERENCE : WO# JX112
PROJECT NAME : SWMU-14 Monthly

RESULTS OF ANALYSIS

EPA METHOD FLPRO - PETROL. RESIDUAL ORG.	MP06947	MP06948	Units
Hydrocarbons (C8-C40)	0.20 U	0.20 U	mg/L
Surrogate:	**% RECOV**	**% RECOV**	**LIMITS**
o-Terphenyl	65	#60	65-140
Date Extracted	07/17/99	07/17/99	
Date Analyzed	07/20/99	07/20/99	

: The surrogate recovery is outside laboratory established limits.
U = Compound was analyzed for but not detected to the level shown.

ENCO LABORATORIES
REPORT # : JR7700
DATE REPORTED: July 30, 1999
REFERENCE : WO# JX112
PROJECT NAME : SWMU-14 Monthly

RESULTS OF ANALYSIS

EPA METHOD 625 - SEMIVOLATILE ORGANICS	MP06949	MP06950	Units
Acenaphthene	10 U	10 U	µg/L
Acenaphthylene	10 U	10 U	µg/L
Anthracene	10 U	10 U	µg/L
Benzidine	10 U	10 U	µg/L
Benzo(a)anthracene	10 U	10 U	µg/L
Benzo(b)fluoranthene	10 U	10 U	µg/L
Benzo(k)fluoranthene	10 U	10 U	µg/L
Benzo(g,h,i)perylene	10 U	10 U	µg/L
Benzo(a)pyrene	10 U	10 U	µg/L
Benzylbutyl phthalate	10 U	10 U	µg/L
Bis(2-chloroethoxy)methane	10 U	10 U	µg/L
Bis(2-chloroethyl)ether	10 U	10 U	µg/L
Bis(2-chloroisopropyl)ether	10 U	10 U	µg/L
Bis(2-ethylhexyl)phthalate	10 U	10 U	µg/L
4-Bromophenylphenyl ether	10 U	10 U	µg/L
2-Chloronaphthalene	10 U	10 U	µg/L
4-Chlorophenyl phenyl ether	10 U	10 U	µg/L
Chrysene	10 U	10 U	µg/L
Dibenzo(a,h)anthracene	10 U	10 U	µg/L
1,2-Dichlorobenzene	10 U	10 U	µg/L
1,3-Dichlorobenzene	10 U	10 U	µg/L
1,4-Dichlorobenzene	10 U	10 U	µg/L
3,3'-Dichlorobenzidine	20 U	20 U	µg/L
Diethyl phthalate	10 U	10 U	µg/L
Dimethyl phthalate	10 U	10 U	µg/L
Di-n-butyl phthalate	10 U	10 U	µg/L
Di-n-octyl phthalate	10 U	10 U	µg/L
2,4-Dinitrotoluene	10 U	10 U	µg/L
2,6-Dinitrotoluene	10 U	10 U	µg/L
Fluoranthene	10 U	10 U	µg/L
Fluorene	10 U	10 U	µg/L
Hexachlorobenzene	10 U	10 U	µg/L
Hexachlorobutadiene	10 U	10 U	µg/L
Hexachlorocyclopentadiene	10 U	10 U	µg/L

U = Compound was analyzed for but not detected to the level shown.

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RESULTS OF ANALYSIS

EPA METHOD 625 (cont.) - SEMIVOLATILE ORGANICS	MP06949	MP06950	Units
Hexachloroethane	10 U	10 U	µg/L
Indeno(1,2,3-cd)pyrene	10 U	10 U	µg/L
Isophorone	10 U	10 U	µg/L
1-Methylnaphthalene	10 U	10 U	µg/L
2-Methylnaphthalene	10 U	10 U	µg/L
Naphthalene	10 U	10 U	µg/L
Nitrobenzene	10 U	10 U	µg/L
N-Nitrosodimethylamine	10 U	10 U	µg/L
N-Nitrosodi-n-propylamine	10 U	10 U	µg/L
N-Nitrosodiphenylamine	10 U	10 U	µg/L
Phenanthrene	10 U	10 U	µg/L
Pyrene	10 U	10 U	µg/L
1,2,4-Trichlorobenzene	10 U	10 U	µg/L
4-Chloro-3-methylphenol	10 U	10 U	µg/L
2-Chlorophenol	10 U	10 U	µg/L
2,4-Dichlorophenol	10 U	10 U	µg/L
2,4-Dimethylphenol	10 U	10 U	µg/L
2,4-Dinitrophenol	50 U	50 U	µg/L
4-Methyl-4,6-dinitrophenol	30 U	30 U	µg/L
2-Nitrophenol	10 U	10 U	µg/L
4-Nitrophenol	10 U	10 U	µg/L
Pentachlorophenol	10 U	10 U	µg/L
Phenol	10 U	10 U	µg/L
2,4,6-Trichlorophenol	10 U	10 U	µg/L
Surrogate:	**% RECOV**	**% RECOV**	**LIMITS**
Nitrobenzene -D5	62	69	30-106
2-Fluorobiphenyl	57	63	38-107
Terphenyl -D14	69	53	29-131
Phenol -D5	46	44	12-87
2-Fluorophenol	44	40	19-115
2,4,6-Tribromophenol	141#	127#	43-126
Date Extracted	07/20/99	07/20/99	
Date Analyzed	07/20/99	07/20/99	

# = Surrogate recovery outside of laboratory established limits.
U = Compound was analyzed for but not detected to the level shown.

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RESULTS OF ANALYSIS

EPA METHOD 8310 - PAH BY HPLC	MP06949	MP06950		Units
Naphthalene	0.50 U	1.0 U	D2	µg/L
Acenaphthylene	1.0 U	2.0 U	D2	µg/L
1-Methylnaphthalene	1.0 U	2.0 U	D2	µg/L
2-Methylnaphthalene	**3.2**	**3.2**	D2	µg/L
Acenaphthene	**0.90**	1.0 U	D2	µg/L
Fluorene	**1.2**	**3.7**	D2	µg/L
Phenanthrene	1.0 U	2.0 U	D2	µg/L
Anthracene	**0.32**	**0.22**	D2	µg/L
Fluoranthene	0.10 U	0.20 U	D2	µg/L
Pyrene	0.050 U	0.10 U	D2	µg/L
Benzo(a)anthracene	0.050 U	0.10 U	D2	µg/L
Chrysene	0.050 U	0.10 U	D2	µg/L
Benzo(b)fluoranthene	0.10 U	0.20 U	D2	µg/L
Benzo(k)fluoranthene	0.050 U	0.10 U	D2	µg/L
Benzo(a)pyrene	0.050 U	0.10 U	D2	µg/L
Dibenzo(a,h)anthracene	0.10 U	0.20 U	D2	µg/L
Benzo(g,h,i)perylene	0.10 U	0.20 U	D2	µg/L
Indeno(1,2,3-cd)pyrene	0.050 U	0.10 U	D2	µg/L
Surrogate:	**% RECOV**	**% RECOV**		**LIMITS**
p-terphenyl	86	80		39-148
Date Extracted	07/20/99	07/20/99		
Date Analyzed	07/22/99	07/22/99		

EPA METHOD RSK 175 - Dissolved Gases	MP06949		MP06950	Units
Methane	**2.0**	D1	**0.15**	mg/L
Ethene	0.0010 U		0.0010 U	mg/L
Ethane	0.0010 U		0.0010 U	mg/L
Date Analyzed	07/28/99		07/28/99	

U = Compound was analyzed for but not detected to the level shown.
D1 = Analyte value determined from a 1:20 dilution.
D2 = Analyte value determined from a 1:2 dilution.

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RESULTS OF ANALYSIS

MISCELLANEOUS	METHOD	MP06949	MP06950	Units
Alkalinity, Total	310.1	**200**	**380**	mg/L
Date Analyzed		07/19/99	07/19/99	
BOD	405.1	**8.0**	**5.0**	mg/L
Date Analyzed		07/17/99	07/17/99	
COD	410.4	**53**	**120**	mg/L
Date Analyzed		07/20/99	07/20/99	
Fe, Ferrous	SM	4.0 U	4.0 U	mg/L
Date Analyzed		07/16/99	07/16/99	
Nitrate-N	353.3	0.10 U	0.10 U	mg/L
Date Analyzed		07/16/99	07/16/99	
Nitrite-N	354.1	0.10 U	0.10 U	mg/L
Date Analyzed		07/16/99	07/16/99	
Sulfate, Total	375.4	**9.0**	**36**	mg/L
Date Analyzed		07/21/99	07/21/99	
Sulfide, Total	376.1	**2.0** I	1.0 U	mg/L
Date Analyzed		07/20/99	07/20/99	
Total Org. Carbon	415.1	**5.0**	**29**	mg/L
Date Analyzed		07/19/99	07/19/99	
Nitrate-Nitrite-N	353.1	0.020 U	0.020 U	mg/L
Date Analyzed		07/26/99	07/26/99	

U = Compound was analyzed for but not detected to the level shown.
I = Analyte detected; value is between the Method Detection Level (MDL) and the Practical Quantitation Level (PQL).

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RESULTS OF ANALYSIS

EPA METHOD FLPRO - PETROL. RESIDUAL ORG.	MP06949	MP06950	Units
Hydrocarbons (C8-C40)	0.20 U	0.56	mg/L
Surrogate:	**% RECOV**	**% RECOV**	**LIMITS**
o-Terphenyl	72	79	65-140
Date Extracted	07/17/99	07/17/99	
Date Analyzed	07/20/99	07/20/99	

= Compound was analyzed for but not detected to the level shown.

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EPA METHOD 625 - SEMIVOLATILE ORGANICS	MP06951	MP06952	Units
Acenaphthene	10 U	10 U	µg/L
Acenaphthylene	10 U	10 U	µg/L
Anthracene	10 U	10 U	µg/L
Benzidine	10 U	10 U	µg/L
Benzo(a)anthracene	10 U	10 U	µg/L
Benzo(b)fluoranthene	10 U	10 U	µg/L
Benzo(k)fluoranthene	10 U	10 U	µg/L
Benzo(g,h,i)perylene	10 U	10 U	µg/L
Benzo(a)pyrene	10 U	10 U	µg/L
Benzylbutyl phthalate	10 U	10 U	µg/L
Bis(2-chloroethoxy)methane	10 U	10 U	µg/L
Bis(2-chloroethyl)ether	10 U	10 U	µg/L
Bis(2-chloroisopropyl)ether	10 U	10 U	µg/L
Bis(2-ethylhexyl)phthalate	10 U	10 U	µg/L
4-Bromophenylphenyl ether	10 U	10 U	µg/L
2-Chloronaphthalene	10 U	10 U	µg/L
4-Chlorophenyl phenyl ether	10 U	10 U	µg/L
Chrysene	10 U	10 U	µg/L
Dibenzo(a,h)anthracene	10 U	10 U	µg/L
1,2-Dichlorobenzene	10 U	10 U	µg/L
1,3-Dichlorobenzene	10 U	10 U	µg/L
1,4-Dichlorobenzene	10 U	10 U	µg/L
3,3'-Dichlorobenzidine	20 U	20 U	µg/L
Diethyl phthalate	10 U	10 U	µg/L
Dimethyl phthalate	10 U	10 U	µg/L
Di-n-butyl phthalate	10 U	10 U	µg/L
Di-n-octyl phthalate	10 U	10 U	µg/L
2,4-Dinitrotoluene	10 U	10 U	µg/L
2,6-Dinitrotoluene	10 U	10 U	µg/L
Fluoranthene	10 U	10 U	µg/L
Fluorene	10 U	10 U	µg/L
Hexachlorobenzene	10 U	10 U	µg/L
Hexachlorobutadiene	10 U	10 U	µg/L
Hexachlorocyclopentadiene	10 U	10 U	µg/L

U = Compound was analyzed for but not detected to the level shown.

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RESULTS OF ANALYSIS

EPA METHOD 625 (cont.) - SEMIVOLATILE ORGANICS	MP06951	MP06952	Units
Hexachloroethane	10 U	10 U	µg/L
Indeno(1,2,3-cd)pyrene	10 U	10 U	µg/L
Isophorone	10 U	10 U	µg/L
1-Methylnaphthalene	10 U	10 U	µg/L
2-Methylnaphthalene	10 U	10 U	µg/L
Naphthalene	10 U	10 U	µg/L
Nitrobenzene	10 U	10 U	µg/L
N-Nitrosodimethylamine	10 U	10 U	µg/L
N-Nitrosodi-n-propylamine	10 U	10 U	µg/L
N-Nitrosodiphenylamine	10 U	10 U	µg/L
Phenanthrene	10 U	10 U	µg/L
Pyrene	10 U	10 U	µg/L
1,2,4-Trichlorobenzene	10 U	10 U	µg/L
4-Chloro-3-methylphenol	10 U	10 U	µg/L
2-Chlorophenol	10 U	10 U	µg/L
2,4-Dichlorophenol	10 U	10 U	µg/L
2,4-Dimethylphenol	10 U	10 U	µg/L
2,4-Dinitrophenol	50 U	50 U	µg/L
2-Methyl-4,6-dinitrophenol	30 U	30 U	µg/L
2-Nitrophenol	10 U	10 U	µg/L
4-Nitrophenol	10 U	10 U	µg/L
Pentachlorophenol	10 U	10 U	µg/L
Phenol	10 U	10 U	µg/L
2,4,6-Trichlorophenol	10 U	10 U	µg/L
Surrogate:	**% RECOV**	**% RECOV**	**LIMITS**
Nitrobenzene -D5	68	68	30-106
2-Fluorobiphenyl	58	58	38-107
Terphenyl -D14	60	63	29-131
Phenol -D5	44	49	12-87
2-Fluorophenol	43	44	19-115
2,4,6-Tribromophenol	127#	135#	43-126
Date Extracted	07/20/99	07/20/99	
Date Analyzed	07/20/99	07/20/99	

# = Surrogate recovery outside of laboratory established limits.
U = Compound was analyzed for but not detected to the level shown.

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RESULTS OF ANALYSIS

EPA METHOD 8310 - PAH BY HPLC	MP06951	MP06952	Units
Naphthalene	0.50 U	0.50 U	µg/L
Acenaphthylene	1.0 U	1.0 U	µg/L
1-Methylnaphthalene	1.0 U	1.0 U	µg/L
2-Methylnaphthalene	**3.3**	1.0 U	µg/L
Acenaphthene	**0.90**	0.50 U	µg/L
Fluorene	**0.99**	**0.17**	µg/L
Phenanthrene	1.0 U	1.0 U	µg/L
Anthracene	**0.090** I	0.050 U	µg/L
Fluoranthene	0.10 U	0.10 U	µg/L
Pyrene	0.050 U	0.050 U	µg/L
Benzo(a)anthracene	0.050 U	0.050 U	µg/L
Chrysene	0.050 U	0.050 U	µg/L
Benzo(b)fluoranthene	0.10 U	0.10 U	µg/L
Benzo(k)fluoranthene	0.050 U	0.050 U	µg/L
Benzo(a)pyrene	0.050 U	0.050 U	µg/L
Dibenzo(a,h)anthracene	0.10 U	0.10 U	µg/L
Benzo(g,h,i)perylene	0.10 U	0.10 U	µg/L
Indeno(1,2,3-cd)pyrene	0.050 U	0.050 U	µg/L
Surrogate:	**% RECOV**	**% RECOV**	**LIMITS**
p-terphenyl	58	97	39-148
Date Extracted	07/20/99	07/20/99	
Date Analyzed	07/22/99	07/22/99	

EPA METHOD RSK 175 - Dissolved Gases	MP06951	MP06952	Units
Methane	**0.11**	**0.011**	mg/L
Ethene	0.0010 U	0.0010 U	mg/L
Ethane	0.0010 U	0.0010 U	mg/L
Date Analyzed	07/28/99	07/28/99	

= Compound was analyzed for but not detected to the level shown.
: Analyte detected; value is between the Method Detection Level (MDL) and the Practical Quantitation Level (PQL).

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RESULTS OF ANALYSIS

MISCELLANEOUS	METHOD	MP06951	MP06952	Units
Alkalinity, Total	310.1	**230**	**260**	mg/L
Date Analyzed		07/19/99	07/19/99	
BOD	405.1	**2.0** I	**4.0**	mg/L
Date Analyzed		07/17/99	07/17/99	
COD	410.4	**28**	**37**	mg/L
Date Analyzed		07/20/99	07/20/99	
Fe, Ferrous	SM	4.0 U	4.0 U	mg/L
Date Analyzed		07/16/99	07/16/99	
. :rate-N	353.3	0.10 U	0.10 U	mg/L
Date Analyzed		07/16/99	07/16/99	
Nitrite-N	354.1	0.10 U	0.10 U	mg/L
Date Analyzed		07/16/99	07/16/99	
Sulfate, Total	375.4	**4.0** I	**92**	mg/L
Date Analyzed		07/21/99	07/21/99	
Sulfide, Total	376.1	1.0 U	1.0 U	mg/L
Date Analyzed		07/20/99	07/20/99	
Total Org. Carbon	415.1	**3.0** I	**5.0**	mg/L
Date Analyzed		07/19/99	07/19/99	
Nitrate-Nitrite-N	353.1	0.020 U	0.020 U	mg/L
Date Analyzed		07/26/99	07/26/99	

U = Compound was analyzed for but not detected to the level shown.
I = Analyte detected; value is between the Method Detection Level (MDL) and the Practical Quantitation Level (PQL).

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RESULTS OF ANALYSIS

EPA METHOD FLPRO - PETROL. RESIDUAL ORG.	MP06951	MP06952	Units
Hydrocarbons (C8-C40)	0.20 U	0.20 U	mg/L
Surrogate:	**% RECOV**	**% RECOV**	**LIMITS**
o-Terphenyl	72	76	65-140
Date Extracted	07/17/99	07/17/99	
Date Analyzed	07/20/99	07/20/99	

= Compound was analyzed for but not detected to the level shown.

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RESULTS OF ANALYSIS

EPA METHOD 625 - SEMIVOLATILE ORGANICS	LAB BLANK	Units
Acenaphthene	10 U	µg/L
Acenaphthylene	10 U	µg/L
Anthracene	10 U	µg/L
Benzidine	10 U	µg/L
Benzo(a)anthracene	10 U	µg/L
Benzo(b)fluoranthene	10 U	µg/L
Benzo(k)fluoranthene	10 U	µg/L
Benzo(g,h,i)perylene	10 U	µg/L
Benzo(a)pyrene	10 U	µg/L
Benzylbutyl phthalate	10 U	µg/L
Bis(2-chloroethoxy)methane	10 U	µg/L
Bis(2-chloroethyl)ether	10 U	µg/L
Bis(2-chloroisopropyl)ether	10 U	µg/L
Bis(2-ethylhexyl)phthalate	10 U	µg/L
4-Bromophenylphenyl ether	10 U	µg/L
2-Chloronaphthalene	10 U	µg/L
4-Chlorophenyl phenyl ether	10 U	µg/L
Chrysene	10 U	µg/L
Dibenzo(a,h)anthracene	10 U	µg/L
1,2-Dichlorobenzene	10 U	µg/L
1,3-Dichlorobenzene	10 U	µg/L
1,4-Dichlorobenzene	10 U	µg/L
3,3'-Dichlorobenzidine	20 U	µg/L
Diethyl phthalate	10 U	µg/L
Dimethyl phthalate	10 U	µg/L
Di-n-butyl phthalate	10 U	µg/L
Di-n-octyl phthalate	10 U	µg/L
2,4-Dinitrotoluene	10 U	µg/L
2,6-Dinitrotoluene	10 U	µg/L
Fluoranthene	10 U	µg/L
Fluorene	10 U	µg/L
Hexachlorobenzene	10 U	µg/L
Hexachlorobutadiene	10 U	µg/L
Hexachlorocyclopentadiene	10 U	µg/L

U = Compound was analyzed for but not detected to the level shown.

RESULTS OF ANALYSIS

EPA METHOD 625 (cont.) - SEMIVOLATILE ORGANICS	LAB BLANK	Units
Hexachloroethane	10 U	µg/L
Indeno(1,2,3-cd)pyrene	10 U	µg/L
Isophorone	10 U	µg/L
1-Methylnaphthalene	10 U	µg/L
2-Methylnaphthalene	10 U	µg/L
Naphthalene	10 U	µg/L
Nitrobenzene	10 U	µg/L
N-Nitrosodimethylamine	10 U	µg/L
N-Nitrosodi-n-propylamine	10 U	µg/L
N-Nitrosodiphenylamine	10 U	µg/L
Phenanthrene	10 U	µg/L
Pyrene	10 U	µg/L
1,2,4-Trichlorobenzene	10 U	µg/L
4-Chloro-3-methylphenol	10 U	µg/L
2-Chlorophenol	10 U	µg/L
2,4-Dichlorophenol	10 U	µg/L
2,4-Dimethylphenol	10 U	µg/L
2,4-Dinitrophenol	50 U	µg/L
2-Methyl-4,6-dinitrophenol	30 U	µg/L
2-Nitrophenol	10 U	µg/L
4-Nitrophenol	10 U	µg/L
Pentachlorophenol	10 U	µg/L
Phenol	10 U	µg/L
2,4,6-Trichlorophenol	10 U	µg/L

Surrogate:	% RECOV	LIMITS
Nitrobenzene -D5	66	30-106
2-Fluorobiphenyl	66	38-107
Terphenyl -D14	72	29-131
Phenol -D5	36	12-87
2-Fluorophenol	41	19-115
2,4,6-Tribromophenol	100	43-126
Date Extracted	07/20/99	
Date Analyzed	07/20/99	

U = Compound was analyzed for but not detected to the level shown.

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EPA METHOD 8310 - PAH BY HPLC	LAB BLANK	Units
Naphthalene	0.50 U	µg/L
Acenaphthylene	1.0 U	µg/L
1-Methylnaphthalene	1.0 U	µg/L
2-Methylnaphthalene	1.0 U	µg/L
Acenaphthene	0.50 U	µg/L
Fluorene	0.10 U	µg/L
Phenanthrene	1.0 U	µg/L
Anthracene	0.050 U	µg/L
Fluoranthene	0.10 U	µg/L
Pyrene	0.050 U	µg/L
Benzo(a)anthracene	0.050 U	µg/L
Chrysene	0.050 U	µg/L
Benzo(b)fluoranthene	0.10 U	µg/L
Benzo(k)fluoranthene	0.050 U	µg/L
Benzo(a)pyrene	0.050 U	µg/L
Dibenzo(a,h)anthracene	0.10 U	µg/L
Benzo(g,h,i)perylene	0.10 U	µg/L
Indeno(1,2,3-cd)pyrene	0.050 U	µg/L

Surrogate:	% RECOV	LIMITS
p-terphenyl	99	39-148
Date Extracted	07/20/99	
Date Analyzed	07/21/99	

EPA METHOD RSK 175 - Dissolved Gases	LAB BLANK	Units
Methane	0.0010 U	mg/L
Ethene	0.0010 U	mg/L
Ethane	0.0010 U	mg/L
Date Analyzed	07/28/99	

U = Compound was analyzed for but not detected to the level shown.

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RESULTS OF ANALYSIS

MISCELLANEOUS	METHOD	LAB BLANK	Units
Alkalinity, Total	310.1	1.0 U	mg/L
Date Analyzed		07/19/99	
BOD	405.1	2.0 U	mg/L
Date Analyzed		07/17/99	
COD	410.4	10 U	mg/L
Date Analyzed		07/20/99	
Fe, Ferrous	SM3500 Fe	4.0 U	mg/L
Date Analyzed		07/16/99	
crite-N	354.1	0.10 U	mg/L
Date Analyzed		07/16/99	
Sulfate, Total	375.4	1.0 U	mg/L
Date Analyzed		07/21/99	
Sulfide, Total	376.1	1.0 U	mg/L
Date Analyzed		07/20/99	
Total Org. Carbon	415.1	1.0 U	mg/L
Date Analyzed		07/19/99	
Nitrate-Nitrite-N	353.1	0.020 U	mg/L
Date Analyzed		07/26/99	

= Compound was analyzed for but not detected to the level shown.

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PROJECT NAME : SWMU-14 Monthly

RESULTS OF ANALYSIS

EPA METHOD FLPRO - PETROL. RESIDUAL ORG.	LAB BLANK	Units
Hydrocarbons (C8-C40)	0.20 U	mg/L
Surrogate:	**% RECOV**	**LIMITS**
o-Terphenyl	57#	65-140
Date Extracted	07/17/99	
Date Analyzed	07/19/99	

# = Surrogate recovery outside of laboratory established limits.
U = Compound was analyzed for but not detected to the level shown.

ENCO LABORATORIES
REPORT # : JR7700
DATE REPORTED: July 30, 1999
REFERENCE : WO# JX112
PROJECT NAME : SWMU-14 Monthly

QUALITY CONTROL DATA

Parameter	% RECOVERY MS/MSD/LCS	ACCEPT LIMITS	% RPD MS/MSD	ACCEPT LIMITS
EPA Method 625				
Phenol	39/ 34/ 45	29-102	14	44
2-Chlorophenol	#60/ 51/ 72	58-124	16	41
1,4-Dichlorobenzene	43/ 32/ 53	D-127	29	43
N-Nitrosodi-N-Propylamine	#76/ 68/ 79	72-118	11	22
1,2,4-Trichlorobenzene	42/ 33/ 59	18-129	24	43
4-Chloro-3-Methylphenol	#80/ 69/ 85	75-126	15	22
Acenaphthene	#58/ 51/ 71	63-122	13	28
4-Nitrophenol	24/ 23/ 31	D-168	4	52
2,4-Dinitrotoluene	#82/ 68/ 95	81-151	19	21
Pentachlorophenol	58/ 42/ 74	27-154	32	42
Pyrene	#59/ 52/ 82	54-146	13	32
EPA Method 8310				
Naphthalene	57/ 44/ 73	22-130	#26	20
Acenaphthene	72/ 55/ 78	14-163	#27	19
Benzo(a)pyrene	71/ 57/ 79	33-137	22	36
Benzo(g,h,i)perylene	54/ 50/ 58	36-135	8	34
EPA Method RSK175				
Methane	NA/ NA/107	NA	NA	NA
Ethene	NA/ NA/ 98	NA	NA	NA
Ethane	NA/ NA/100	NA	NA	NA

Environmental Conservation Laboratories Comprehensive QA Plan #960038

\# = One or more of the associated value failed to meet laboratory established criteria for accuracy/precision
< = Less Than
MS = Matrix Spike
MSD = Matrix Spike Duplicate
LCS = Laboratory Control Standard
RPD = Relative Percent Difference

This report shall not be reproduced except in full, without the written approval of the laboratory. Results for these procedures apply only to the samples as submitted.

ENCO LABORATORIES
REPORT # : JR7700
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REFERENCE : WO# JX112
PROJECT NAME : SWMU-14 Monthly

QUALITY CONTROL DATA

Parameter	% RECOVERY MS/MSD/LCS	ACCEPT LIMITS	% RPD MS/MSD	ACCEPT LIMITS
Miscellaneous				
Alkalinity, Total, 310.1	92/ 91/ 95	73-126	1	11
BOD, 405.1	NA/ NA/102	NA	NA	NA
COD, 410.4	111/109/110	82-124	2	8
Fe, Ferrous, SM3500 Fe	NA/ NA/ NA	NA	NA	NA
Nitrite-N, 354.1	107/106/112	69-124	<1	13
Sulfate, Total, 375.4	61/ 64/103	61-138	5	22
Sulfide, Total, 376.1	NA/ NA/100	NA	NA	NA
Total Org. Carbon, 415.1	105/100/ 93	69-132	5	13
Nitrate-Nitrite-N, 353.1	105/ 77/ 93	61-144	#31	21
TROL. RESIDUAL ORG.				
Hydrocarbons (C8-C40)	75/ 66/ 67	51-163	13	27

Environmental Conservation Laboratories Comprehensive QA Plan #960038

= The associated value failed to meet laboratory established criteria for precision.
< = Less Than
MS = Matrix Spike
MSD = Matrix Spike Duplicate
LCS = Laboratory Control Standard
RPD = Relative Percent Difference

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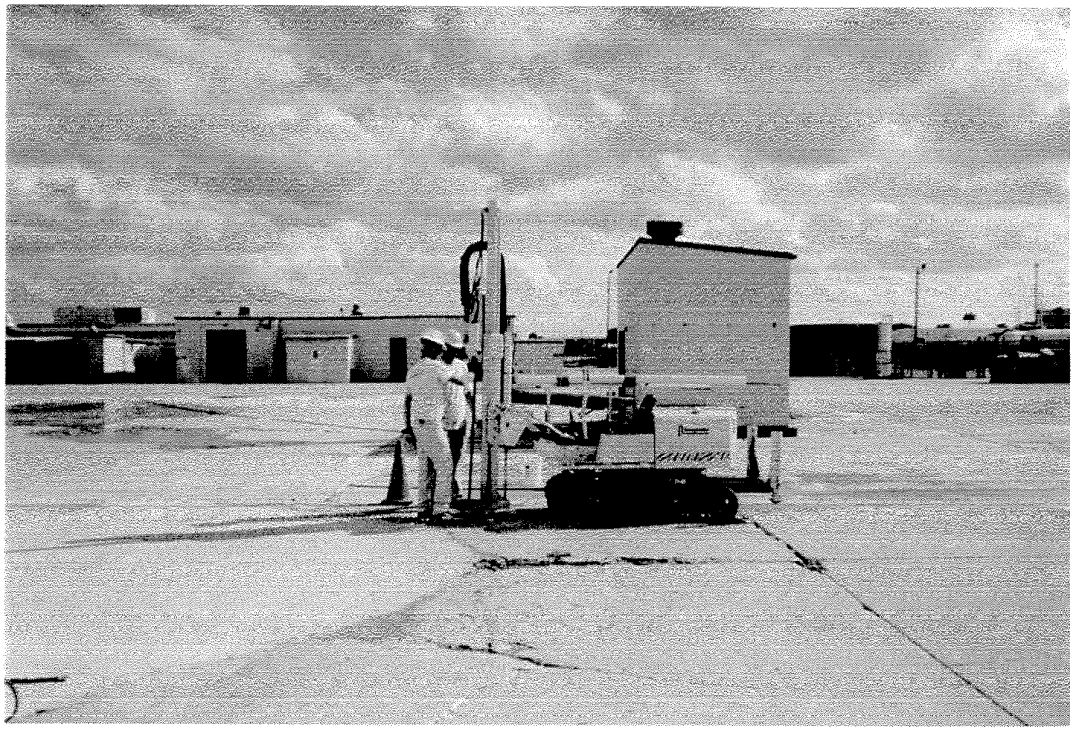
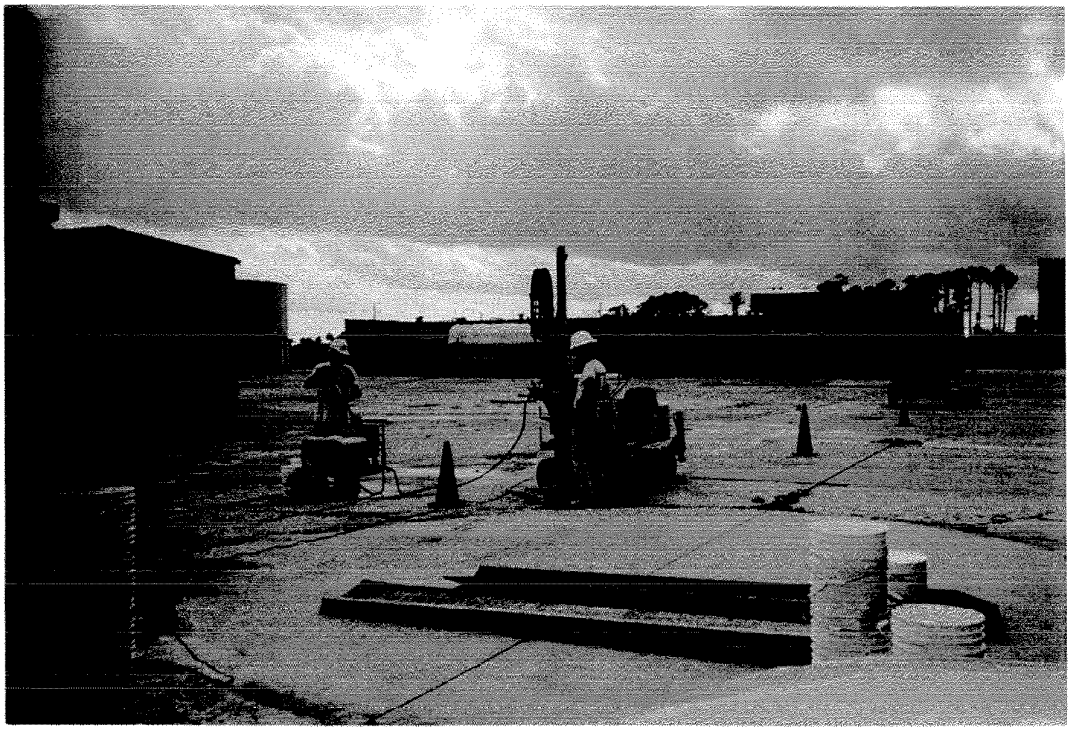
APPENDIX B

SITE PHOTOGRAPHS

SWMU 14
Project Photographs

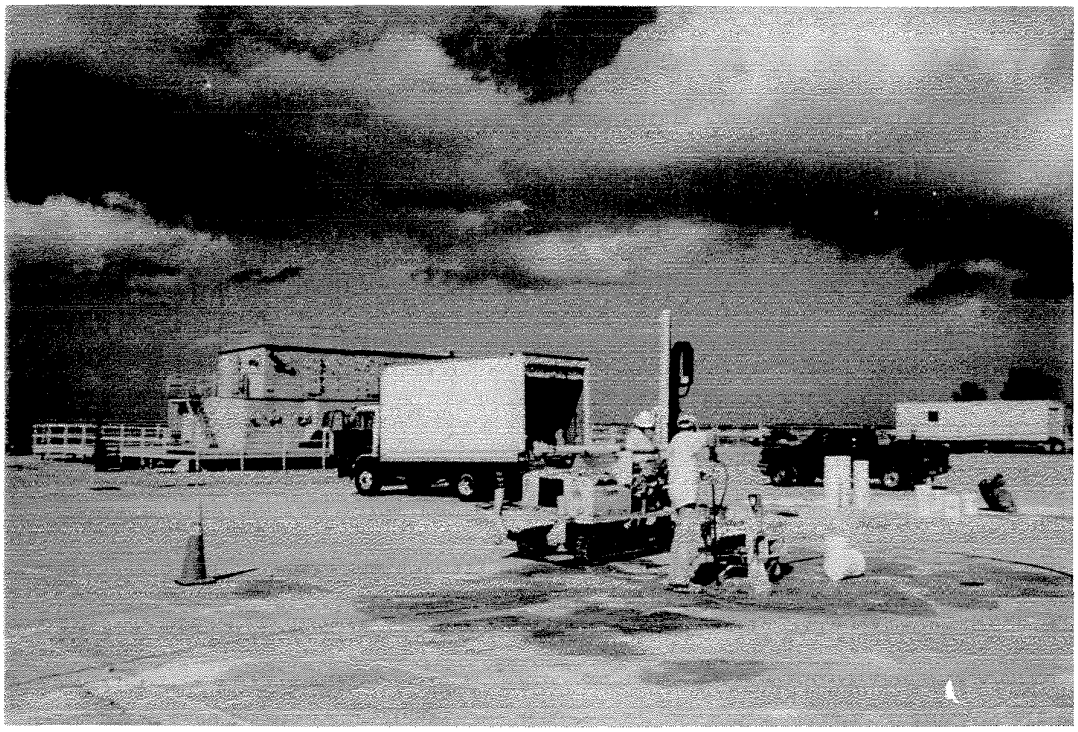


1	Feb-99	ORC injection well installation	SWMU 14, NS Mayport

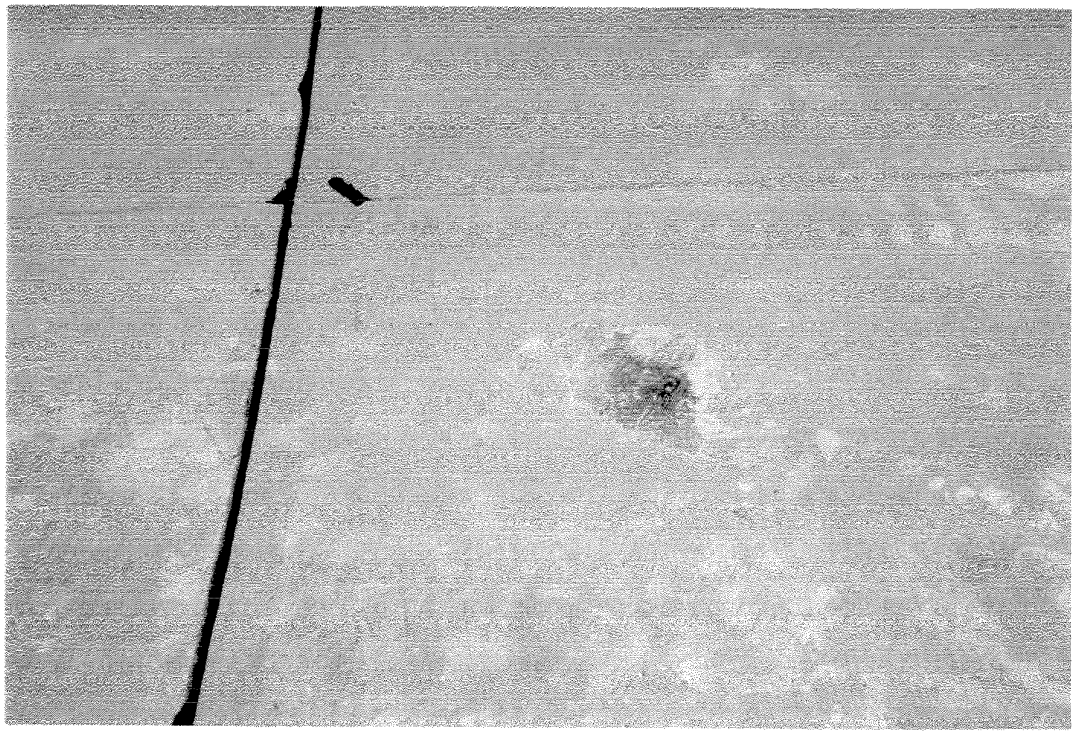


2	Feb-99	ORC slurry preparation	SWMU 14, NS Mayport

SWMU 14
Project Photographs



3	Feb-99	ORC being injected into groundwater	SWMU 14, NS Mayport



4	Feb-99	Completed and Patched Injection Point	SWMU 14, NS Mayport