Submitted to NCDENR/APS
6/30/2005 SAS

HOLCOMB BOULEVARD SOIL REMOVAL REPORT
MARINE CORPS BASE
CAMP LEJEUNE, NORTH CAROLINA

Prepared for:

DEPARTMENT OF THE NAVY
Contract No. N62470-02-D-3260
Task Order 0012

Naval Facilities Engineering Command, Atlantic Division
6506 Hampton Boulevard
Norfolk, Virginia 24311-6287

Prepared by:

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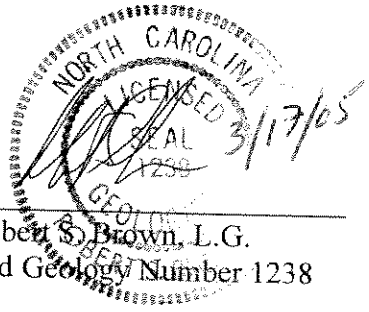

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Licensed Geology Number 1238

Ron Kenyon.
Project Manager

Roland Moreau, P.E.
Program Manager

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1.0 INTRODUCTION

Shaw Environmental Inc. (Shaw) was tasked by the Department of the Navy, Naval Facilities Engineering Command, Atlantic Division (LANTDIV) under Contract Number N62470-02-D-3260, Task Order 0012, to complete a limited soil removal action at a site located along Holcomb Boulevard. The site is located on the Marine Corps Base (MCB), Camp Lejeune, in Onslow County North Carolina.

1.1 ENVIRONMENTAL SETTING

Located in Onslow County, North Carolina, MCB Camp Lejeune is a training base for the United States Marine Corps. The Base covers approximately 236 square miles and includes 14 miles of coastline. MCB Camp Lejeune is bounded to the southeast by the Atlantic Ocean and the northeast by State Route 24 (*Figure 1-1*).

1.2 SITE DESCRIPTION

The Holcomb Boulevard site is located on the eastern portion of Camp Lejeune at the corner of Birch Road and Holcomb Boulevard as shown in *Figure 1-2*. It is an open area without previous construction in the vicinity of monitoring wells HPFF-39, HPFF-45, HPFF-46, and HPFF-47. Evidence of petroleum contamination was discovered during previous investigative work. A discussion of the previous investigation work is not provided in this document.

2.0 SCOPE-OF-WORK

The scope-of-work completed during implementation of the soil removal activity at the Holcomb Boulevard site is as follows:

- Excavate, stockpile, and manage contaminated soil until T&D load-out
- Collect confirmation soil samples in accordance with State UST regulations. The samples were analyzed for TPH-GRO using Method EPA 5030/Modified 8015 and TPH-DRO using EPA Method 3550/Modified 8015.
- Sample, characterize, and load-out contaminated soils for offsite disposal
- Backfill and restore site

3.0 EXCAVATION ACTIVITIES

Soil removal activities were completed using a rubber tired excavator. The excavated soil was directly loaded onto a dump truck and transported to the stockpiled soil that was generated during the AS1-4 piping and soil removal action (the AS1-4 removal action was being completed concurrently). The stockpiles were covered until final analytical results of the disposal analyses were received confirming the soils could be properly disposed. Photographs of field activities are provided in *Appendix A*.

3.1 HOLCOMB BOULEVARD SOIL REMOVAL ACTIVITIES

On November 17, 2004, soil removal activities were completed at the Holcomb Boulevard site. The area measured approximately 14 feet by 14 feet and was approximately 2.5 feet deep. A total of approximately 15 tons of soil was removed during the removal action. Floor confirmation soil samples (845845-HS-001, 845845-HS-002 and 845845-HS-003) were collected from the excavation on November 17, 2004. Because the site was located along Holcomb Boulevard (the major road on the main side of the Base), the excavated soil was not staged at the site. Therefore, excavated soil was placed directly in a dump truck, transported to a secure off-site location (i.e., AS1-4 soil staging area) and staged on plastic (and covered) pending disposal. *Figure 3.1* presents a site map of the excavation.

3.2 AS1-4 AND HOLCOMB BOULEVARD SOIL DISPOSAL

Stockpile soil analytical results tested positive for total petroleum hydrocarbons, requiring off-site disposal. Between January 28 and January 31, 2004, a total of 20 tons of soil from the Holcomb Boulevard excavation were properly manifested, transported and disposed with the AS1-4 contaminated soil at ES&J Inc. landfill located in Autryville, North Carolina. *Appendix B* provides the laboratory analytical reports of the disposal analysis.

4.0 SOIL CONFIRMATION SAMPLING AND ANALYSIS RESULTS

4.1 HOLCOMB BOULEVARD SOIL REMOVAL ANALYTICAL RESULTS

A total of three confirmation soil samples were collected from the excavation. Floor confirmation soil samples (845845-HS-001, 845845-HS-002 and 845845-HS-003) were collected on November 17, 2004. The samples were analyzed for TPH-GRO and TPH-DRO to determine whether excavation activities had removed all the contaminated soil.

The soil sample analytical results indicated all three floor samples were below the TPH-GRO and TPH-DRO SCL of 10 mg/kg. Analytical results from the confirmation soil samples are summarized on *Table 4.1*. Photocopies of the laboratory analytical reports are provided in *Appendix C*.

5.0 CONCLUSIONS AND RECOMMENDATIONS

5.1 HOLCOMB BOULEVARD SOIL REMOVAL ACTIVITIES

On November 17, 2004, Shaw completed a soil removal action at a location along Holcomb Boulevard located on the main side of the Camp Lejeune Marine Corp Base. No surface staining was detected during removal activities. Groundwater was not encountered during excavation activities.

Confirmation soil sample analytical results did not detect TPH-GRO or TPH-DRO in excess of North Carolina's SCL of 10 mg/kg. Based on results of the confirmation soil samples, Shaw recommends No Further Action associated with the Holcomb Boulevard soil removal action located at the Marine Corps Base, Camp Lejeune, North Carolina.

TABLE

Camp Lejeune, NC
Holcomb Boulevard

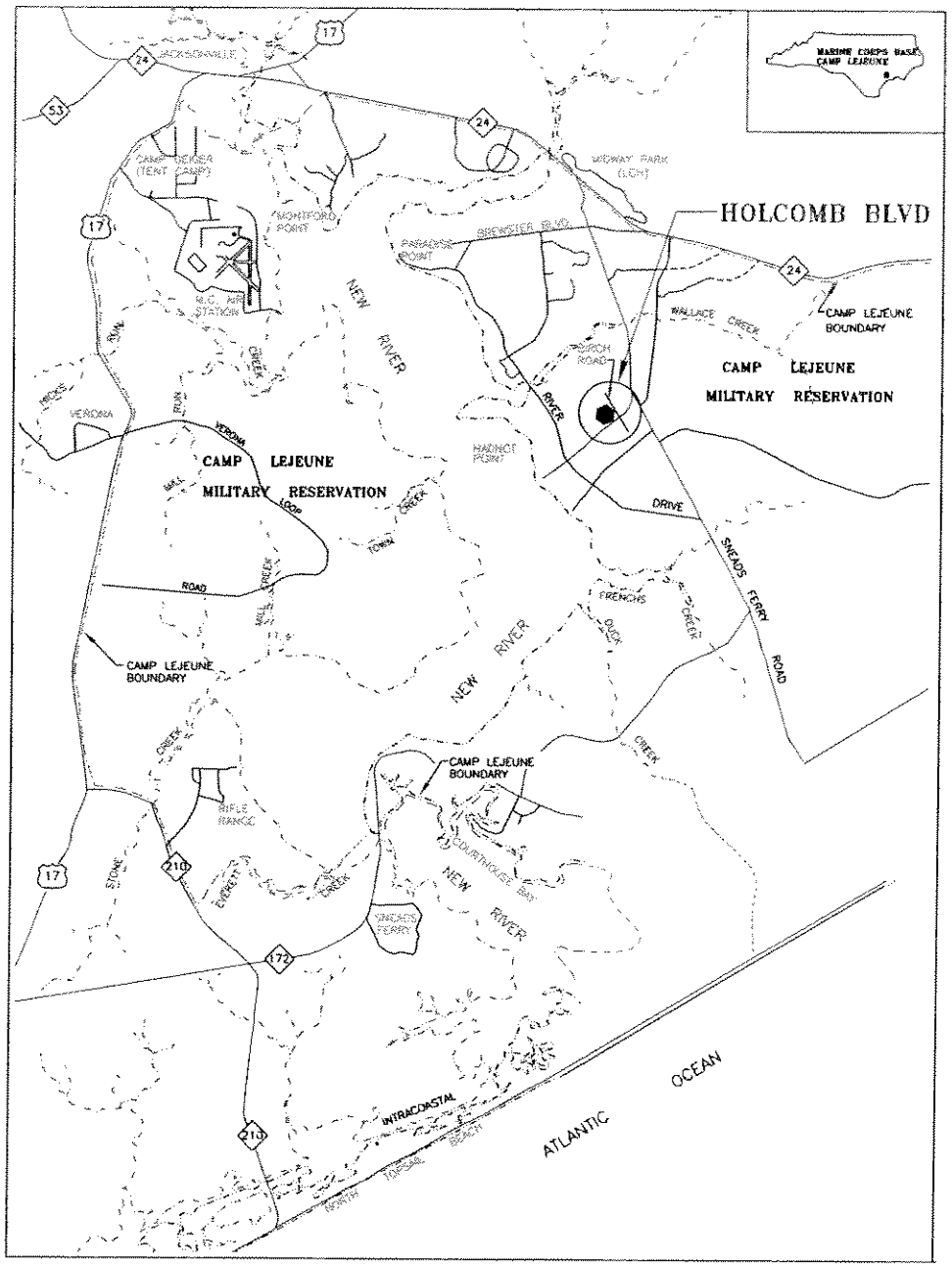
Table 4.1
TPH-GRO/DRO Soil Sampling Results

Project 845845

	Sample ID	845845-HS-001	845845-HS-002	845845-HS-003
	Sample Location	Location 001	Location 002	Location 003
Contaminant of Concern	Units			
TPH - GRO (C6-C10)	ppm (mg/kg)	<5.9	<6.4	<5.5
TPH - DRO (C10-C28)	ppm (mg/kg)	<9.4	<9.8	<9.5

FIGURES

MARINE CORPS BASE, CAMP LEJEUNE
NORTH CAROLINA



VICINITY MAP

1"= 3 MILES

0 1.5 3 4.5 6 7.5

Shaw Environmental, Inc.		
DRAWN BY	J. LANGE	3/16/05
CHECKED BY	–	–
APPROVED BY	R. KENYON	3/16/05
REV. 0	SHEET # –	PROJECT NO. 845845

FIGURE 1-1

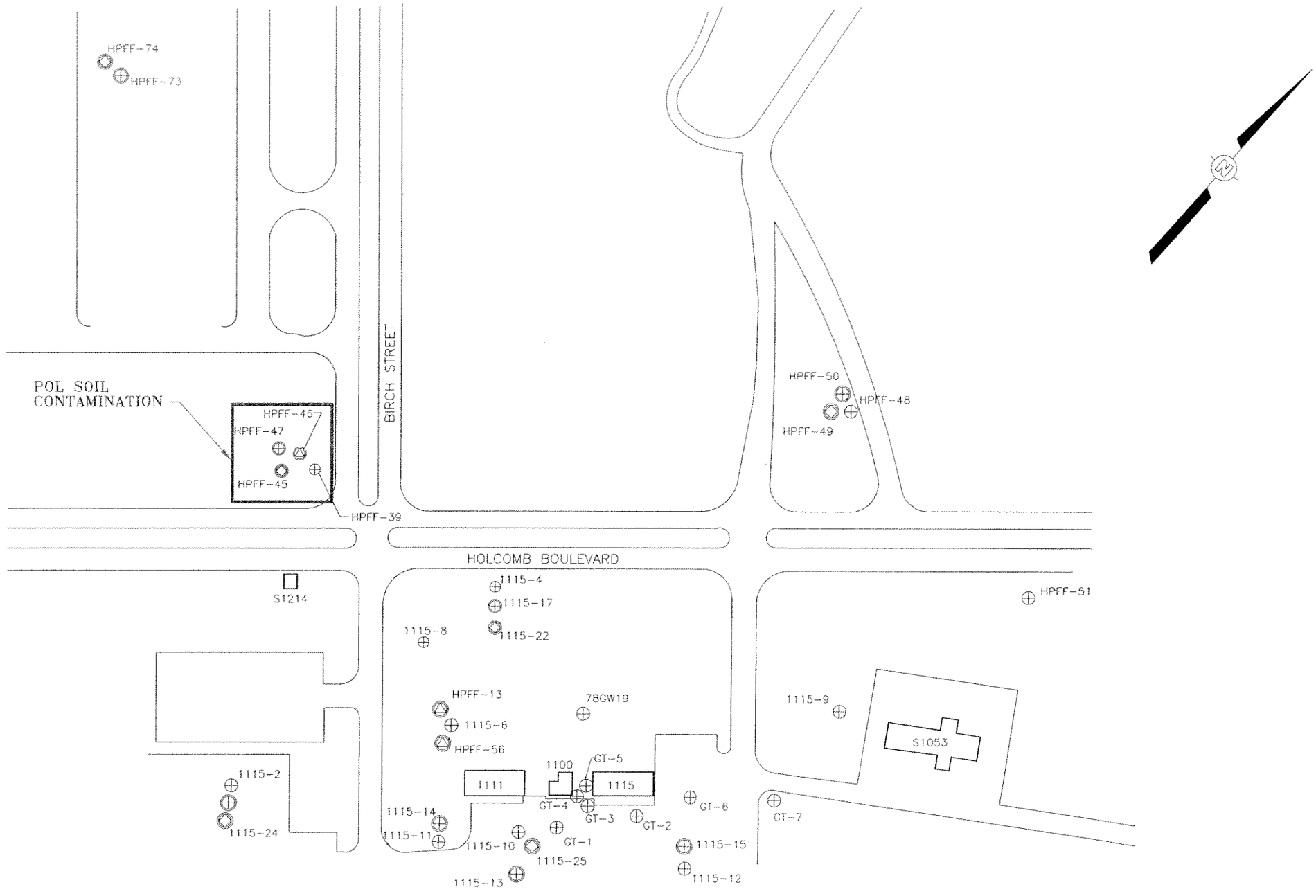
VICINITY MAP

HOLCOMB BLVD SOIL REMOVAL

PREPARED FOR
MCB CAMP LEJEUNE

J:\LANTDIV\LEJEUNE\824603\WP\824603-FIG1.DWG

IMAGE	X-REF	OFFICE	DRAWING NUMBER
---	---	Atlanta, GA	845845-fig3



REV	DATE	BY	CHK'D	APR'VD	DESCRIPTION/ISSUE
					REVISIONS

Shaw Environmental, Inc.

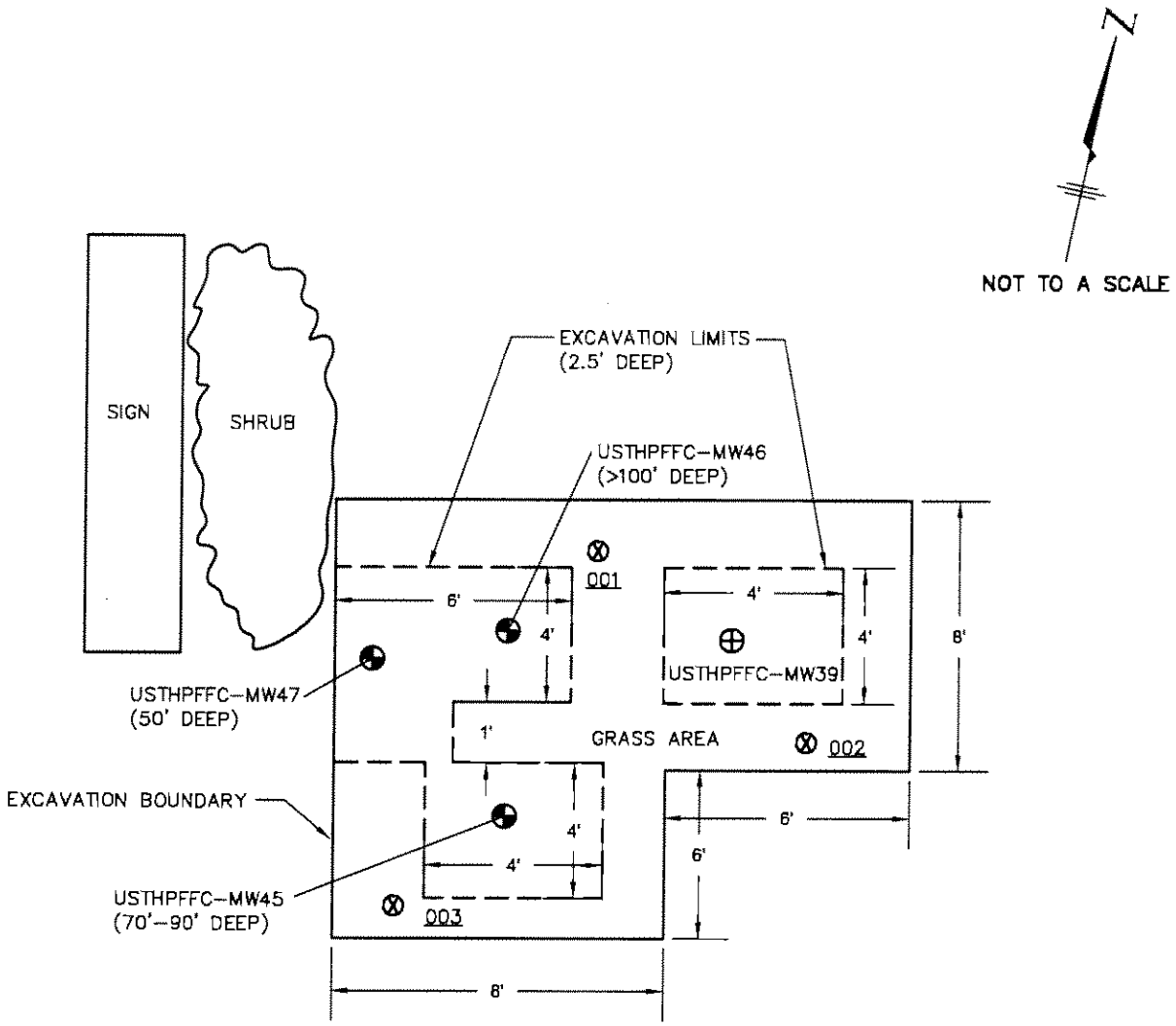
DESIGNED BY	CHECKED BY	PROJECT NO. 845845
DRAWN BY RBK	APPROVED BY JEL	

DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING COMMAND
NORFOLK, VIRGINIA
NAVAL STATION
ATLANTIC DIVISION
JACKSONVILLE, N.C.
MCB CAMP LEJEUNE
HOLCOMB BOULEVARD
SOIL REMOVAL AREA

SOIL EXCAVATION PLAN

SCALE: AS SHOWN	SIZE: D
DELIVERY ORDER NO. 0012	
CONSTR. CONTRACT NO. N62470-02-D-3260	
NAVFAC DRAWING NO. ?	
SHEET I.D. 1-2	

PLOT DATE: 10/06/03
FORMAT REVISION



LEGEND:

001	SAMPLE NUMBER
⊗	SAMPLE LOCATION
◕	TYPE III MONITORING WELL (ALL WELLS HAVE A 3'X3' CONC PAD)
⊕	TYPE II MONITORING WELL

Y:\LANTDIV\LEJEUNE\845845\HOLCOMB BLVD\HOLCOMB-BLVD SITE

Shaw
Shaw Environmental, Inc.

DRAWN BY	J. LANGE	3/16/05
CHECKED BY	--	--
APPROVED BY	R. KENYON	3/16/05

REV.	SHEET #	PROJECT NO.
0	--	845845

FIGURE 3-1
HOLCOMB BOULEVARD
EXCAVATION
SITE MAP

APPENDIX A

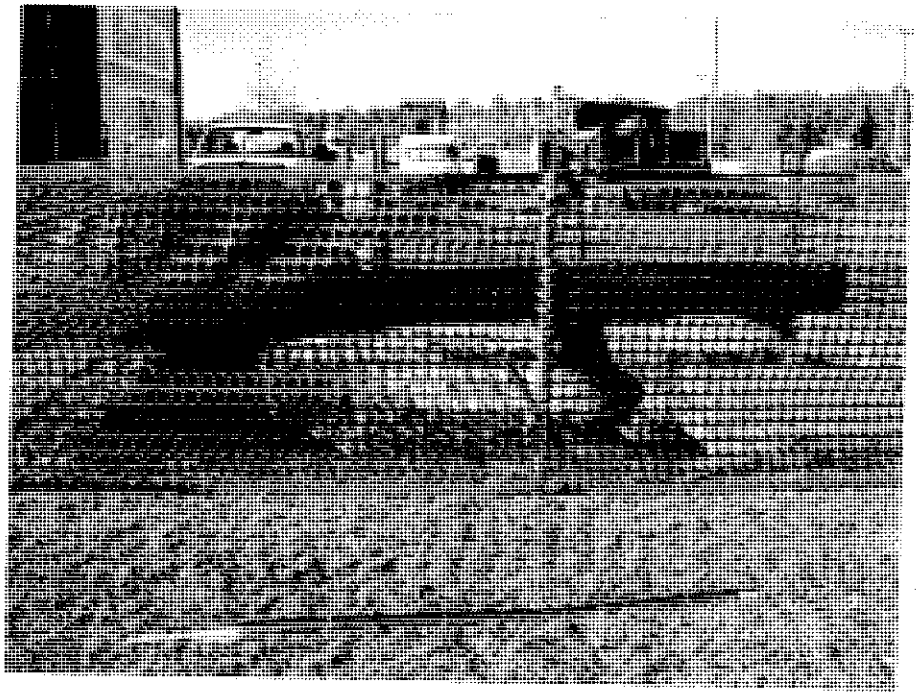
Field Implementation Photographs

Holcomb Boulevard Excavation Area

Holcomb Boulevard Site Address

Holcomb Boulevard Initial Excavation

Holcomb Boulevard Final Excavation



Holcomb Boulevard Excavation Secured

Holcomb Boulevard Excavation Restored to Original Grade

APPENDIX B

Soil Disposal Laboratory Analytical Reports

TCLP Results/Regulations

Compound	Reg. Limit	AS14-CP-001 Clean pile 100 yds	AS14-CP-002 Clean pile 200 yds	AS14-DP-001 Contaminated pile 100 yds	AS14-DP-002 Contaminated pile 200 yds	845845-DS-004 Comp pile 100 yds
Organics						
TPH-DRO (mg/Kg)	10	<8.9	**8.1**	**12.8**	**23.6**	**9.67**
TPH-GRO (mg/Kg)	10	<5.2	<4.8	**66.2**	**142**	<6.9
General Chemistry						
Reactive Cyanide (mg/Kg)	250	<1.6	N/A	<1.8	N/A	<1.5
Reactive Sulfide (mg/Kg)	500	<50	N/A	<50	N/A	<50
Corrosivity (pH units)	N/A	**7.8**	N/A	**6.9**	N/A	**7.4**
Ignitability (°F)	N/A	>200	N/A	>200	N/A	>200
TCLP (mg/L)						
Arsenic	5	<0.01	N/A	<0.01	N/A	<0.01
Barium	100	**0.12**	N/A	**0.069**	N/A	**0.18**
Benzene	0.5	<0.01	N/A	<0.01	N/A	<0.01
Cadmium	1	**0.0014**	N/A	<0.005	N/A	<0.005
Carbon tetrachloride	0.5	<0.02	N/A	<0.02	N/A	<0.02
Chlorobenzene	100	<0.02	N/A	<0.02	N/A	<0.02
Chlordane	0.03	<0.005	N/A	<0.005	N/A	<0.005
Chloroform	6	<0.02	N/A	<0.02	N/A	<0.02
Chromium	5	**0.00053**	N/A	**0.0016**	N/A	<0.01
o-Cresols	200	<0.05	N/A	<0.05	N/A	<0.05
m+p-Cresols	200	<0.05	N/A	<0.05	N/A	<0.05
2,4-D	10	<0.1	N/A	<0.1	N/A	<0.1
1,4-Dichlorobenzene	7.5	<0.05	N/A	<0.05	N/A	<0.05
1,2-Dichloroethane	0.5	<0.02	N/A	<0.02	N/A	<0.02
1,1-Dichloroethene	0.7	<0.02	N/A	<0.02	N/A	<0.02
2,4-Dinitrotoluene	0.13	<0.05	N/A	<0.05	N/A	<0.05
Endrin	0.02	<0.001	N/A	<0.001	N/A	<0.001
Heptachlor	0.008	<0.0005	N/A	<0.0005	N/A	<0.0005
Heptachlor epoxide	0.008	<0.0005	N/A	<0.0005	N/A	<0.0005
Hexachlorobenzene	0.13	<0.05	N/A	<0.05	N/A	<0.05
Hexachlorobutadiene	0.5	<0.05	N/A	<0.05	N/A	<0.05
Hexachloroethane	3	<0.05	N/A	<0.05	N/A	<0.05
Lead	5	**0.039**	N/A	**0.028**	N/A	**0.012**
Lindane	0.4	<0.0005	N/A	<0.0005	N/A	<0.0005
Mercury	0.2	<0.01	N/A	<0.01	N/A	<0.01

Bold print shows detectable concentrations.
Shading shows results that exceed regulatory limits.
N/A = not applicable.

TCLP Results/Regulations

Compound	Reg. Limit	AS14-CP-001 Clean pile 100 yds	AS14-CP-002 Clean pile 200 yds	AS14-DP-001 Contaminated pile 100 yds	AS14-DP-002 Contaminated pile 200 yds	845845-DS-004 Comp pile 100 yds
Methoxychlor	10	<0.001	N/A	<0.001	N/A	<0.001
Methyl ethyl ketone	200	<0.1	N/A	<0.1	N/A	<0.1
Nitrobenzene	2	<0.05	N/A	<0.05	N/A	<0.05
Pentachlorophenol	100	<0.25	N/A	<0.25	N/A	<0.25
Pyridine	5	<0.1	N/A	<0.1	N/A	<0.1
Selenium	1	<0.05	N/A	**0.014**	N/A	**0.0099**
Silver	5	<0.01	N/A	<0.01	N/A	<0.01
2,4,5-TP (Silvex)	1	<0.01	N/A	<0.01	N/A	<0.01
Tetrachloroethene	0.7	<0.02	N/A	<0.02	N/A	<0.02
Trichloroethene	0.5	<0.02	N/A	<0.02	N/A	<0.02
2,4,5-Trichlorophenol	400	<0.05	N/A	<0.05	N/A	<0.05
2,4,6-Trichlorophenol	2	<0.05	N/A	<0.05	N/A	<0.05
Toxaphene	0.5	<0.025	N/A	<0.025	N/A	<0.025
Vinyl chloride	0.2	<0.01	N/A	<0.01	N/A	<0.01

Bold print shows detectable concentrations.
Shading shows results that exceed regulatory limits.
N/A = not applicable.

Southeast
ACCUTEST.
Laboratories

11/18/04

Technical Report for

Shaw E & I, Inc.

Camp Lejeune-AS1-4

845845

Accutest Job Number: F27930

Sampling Date: 11/04/04

Report to:

Shaw E & I, Inc.

natasha.sullivan@shawgrp.com

ATTN: Natasha Sullivan

Total number of pages in report: 137

nelac

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

Harry Behzadi, Ph.D.
Laboratory Director

Certifications: FL (DOH E83510), NC (573), NJ (FL002), MA (FL946), IA (366), LA (03051), KS (E-10327), SC, AK

Sections: 1 2 3 4 5 6 7 8 9

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Sample Summary

Shaw E & I, Inc.

Job No: F27930

Camp Lejeune-AS1-4
Project No: 845845

Sample Number	Collected Date	Time	By	Received	Matrix Code	Matrix Type	Client Sample ID
F27930-1	11/04/04	13:00	MM	11/05/04	SO	Soil	AS14-CP-001
F27930-2	11/04/04	13:15	MM	11/05/04	SO	Soil	AS14-CP-002
F27930-3	11/04/04	14:00	MM	11/05/04	SO	Soil	AS14-DP-001
F27930-4	11/04/04	14:15	MM	11/05/04	SO	Soil	AS14-DP-002

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

Accutest Laboratories

Report of Analysis

Client Sample ID:	AS14-CP-001		
Lab Sample ID:	F27930-1	Date Sampled:	11/04/04
Matrix:	SO - Soil	Date Received:	11/05/04
Method:	SW846 8260B SW846 5035	Percent Solids:	92.0
Project:	Camp Lejeune-AS1-4		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	M0001929.D	10	11/16/04	NJ	11/15/04	OP11834	VM83
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCLP Leachate

CAS No.	Compound	Result	HW#	MCL	RL	MDL	Units	Q
71-43-2	Benzene	ND	D018	0.50	0.010	0.0050	mg/l	
108-90-7	Chlorobenzene	ND	D021	100	0.020	0.0050	mg/l	
67-66-3	Chloroform	ND	D022	6.0	0.020	0.0050	mg/l	
56-23-5	Carbon tetrachloride	ND	D019	0.50	0.020	0.0050	mg/l	
75-35-4	1,1-Dichloroethylene	ND	D029	0.70	0.020	0.0050	mg/l	
107-06-2	1,2-Dichloroethane	ND	D028	0.50	0.020	0.0050	mg/l	
106-46-7	p-Dichlorobenzene	ND	D027	7.5	0.020	0.0050	mg/l	
78-93-3	Methyl ethyl ketone	ND	D035	200	0.10	0.025	mg/l	
127-18-4	Tetrachloroethylene	ND	D039	0.70	0.020	0.0050	mg/l	
79-01-6	Trichloroethylene	ND	D040	0.50	0.020	0.0050	mg/l	
75-01-4	Vinyl chloride	ND	D043	0.20	0.010	0.0050	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	99%		86-115%
2037-26-5	Toluene-D8	98%		86-112%
460-00-4	4-Bromofluorobenzene	100%		83-119%
17060-07-0	1,2-Dichloroethane-D4	99%		73-126%

ND = Not detected MDL - Method Detection Limit
MCL = Maximum Contamination Level (40 CFR 261 6/96)
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	AS14-CP-001		
Lab Sample ID:	F27930-1	Date Sampled:	11/04/04
Matrix:	SO - Soil	Date Received:	11/05/04
Method:	SW846 8270C SW846 1311	Percent Solids:	92.0
Project:	Camp Lejeune-AS1-4		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	L024240.D	1	11/12/04	ME	11/11/04	OP11803	SL1278
Run #2							

	Initial Volume	Final Volume
Run #1	100 ml	1.0 ml
Run #2		

ABN TCLP Leachate

CAS No.	Compound	Result	HW#	MCL	RL	MDL	Units	Q
95-48-7	2-Methylphenol	ND	D023	200	0.050	0.020	mg/l	
	3&4-Methylphenol	ND	D024	200	0.050	0.020	mg/l	
87-86-5	Pentachlorophenol	ND	D037	100	0.25	0.10	mg/l	
95-95-4	2,4,5-Trichlorophenol	ND	D041	400	0.050	0.020	mg/l	
88-06-2	2,4,6-Trichlorophenol	ND	D042	2.0	0.050	0.020	mg/l	
106-46-7	1,4-Dichlorobenzene	ND	D027	7.5	0.050	0.010	mg/l	
121-14-2	2,4-Dinitrotoluene	ND	D030	0.13	0.050	0.020	mg/l	
118-74-1	Hexachlorobenzene	ND	D032	0.13	0.050	0.010	mg/l	
87-68-3	Hexachlorobutadiene	ND	D033	0.50	0.050	0.020	mg/l	
67-72-1	Hexachloroethane	ND	D034	3.0	0.050	0.020	mg/l	
98-95-3	Nitrobenzene	ND	D036	2.0	0.050	0.010	mg/l	
110-86-1	Pyridine	ND	D038	5.0	0.10	0.030	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	53%		19-90%
4165-62-2	Phenol-d5	34%		10-68%
118-79-6	2,4,6-Tribromophenol	96%		36-137%
4165-60-0	Nitrobenzene-d5	93%		49-119%
321-60-8	2-Fluorobiphenyl	88%		45-118%
1718-51-0	Terphenyl-d14	90%		46-135%

ND = Not detected MDL - Method Detection Limit
MCL = Maximum Contamination Level (40 CFR 261 6/96)
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	AS14-CP-001		
Lab Sample ID:	F27930-1	Date Sampled:	11/04/04
Matrix:	SO - Soil	Date Received:	11/05/04
Method:	SW846 8015 SW846 5035	Percent Solids:	92.0
Project:	Camp Lejeune-AS1-4		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	HH011338.D	1	11/08/04	RM	11/05/04 11:20	n/a	GHH445
Run #2							

	Initial Weight	Final Volume	Methanol Aliquot
Run #1	5.26 g	5.0 ml	100 ul
Run #2			

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-GRO (C6-C10)	ND	5.2	2.6	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	4-Bromofluorobenzene	89%		62-135%
98-08-8	aaa-Trifluorotoluene	86%		65-118%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	AS14-CP-001		
Lab Sample ID:	F27930-1	Date Sampled:	11/04/04
Matrix:	SO - Soil	Date Received:	11/05/04
Method:	SW846 8151	Percent Solids:	92.0
Project:	Camp Lejeune-AS1-4		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]		1	11/12/04	SUB	n/a	n/a	R14142
Run #2							

	Initial Volume	Final Volume
Run #1	100 ml	1.0 ml
Run #2		

CAS No.	Compound	Result	HW#	MCL	RL	Units	Q
94-75-7	2,4-D	ND	D016	10	0.10	mg/l	
93-72-1	2,4,5-TP (Silvex)	ND	D017	1.0	0.010	mg/l	

(a) Analyzed By Accutest Southeast Subcontract Lab.

ND = Not detected
MCL = Maximum Contamination Level (40 CFR 261 6/96)
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	AS14-CP-001		
Lab Sample ID:	F27930-1	Date Sampled:	11/04/04
Matrix:	SO - Soil	Date Received:	11/05/04
Method:	SW846 8081A SW846 1311	Percent Solids:	92.0
Project:	Camp Lejeune-AS1-4		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	KK05392.D	1	11/12/04	SKW	11/11/04	OP11804	GKK204
Run #2							

	Initial Volume	Final Volume
Run #1	100 ml	10.0 ml
Run #2		

Pesticide TCLP Leachate

CAS No.	Compound	Resnlt	HW#	MCL	RL	MDL	Units	Q
58-89-9	gamma-BHC (Lindane)	ND	D013	0.40	0.00050	0.00010	mg/l	
12789-03-6	Chlordane	ND	D020	0.030	0.0050	0.0025	mg/l	
72-20-8	Endrin	ND	D012	0.020	0.0010	0.00020	mg/l	
76-44-8	Heptachlor	ND	D031	0.0080	0.00050	0.00010	mg/l	
1024-57-3	Heptachlor epoxide	ND	D031	0.0080	0.00050	0.00010	mg/l	
72-43-5	Methoxychlor	ND	D014	10	0.0010	0.00040	mg/l	
8001-35-2	Toxaphene	ND	D015	0.50	0.025	0.015	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	86%		60-138%
2051-24-3	Decachlorobiphenyl	99%		31-148%

ND = Not detected MDL - Method Detection Limit
MCL = Maximum Contamination Level (40 CFR 261 6/96)
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	AS14-CP-001		
Lab Sample ID:	F27930-1	Date Sampled:	11/04/04
Matrix:	SO - Soil	Date Received:	11/05/04
Method:	SW846 8015 M SW846 3550B	Percent Solids:	92.0
Project:	Camp Lejeune-AS1-4		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	LL01404.D	1	11/09/04	AA	11/08/04	OP11768	GLL42
Run #2							

	Initial Weight	Final Volume
Run #1	30.6 g	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH (C10-C28)	ND	8.9	5.3	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	93%		65-118%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	AS14-CP-001		
Lab Sample ID:	F27930-1	Date Sampled:	11/04/04
Matrix:	SO - Soil	Date Received:	11/05/04
		Percent Solids:	92.0
Project:	Camp Lejeune-AS1-4		

Metals Analysis, TCLP Leachate SW846 1311

Analyte	Result	HW#	MCL	RL	IDL	Units	DF	Prep	Analyzed	By	Method
Arsenic	0.0028 U	D004	5.0	0.010	0.0028	mg/l	1	11/12/04	11/17/04	DM	SW846 6010B [2]
Barium	0.12 B	D005	100	1.0	0.00050	mg/l	1	11/12/04	11/17/04	DM	SW846 6010B [2]
Cadmium	0.0014 B	D006	1.0	0.0050	0.00030	mg/l	1	11/12/04	11/17/04	DM	SW846 6010B [2]
Chromium	0.00053 B	D007	5.0	0.010	0.00040	mg/l	1	11/12/04	11/17/04	DM	SW846 6010B [2]
Lead	0.039 B	D008	5.0	0.050	0.0012	mg/l	1	11/12/04	11/17/04	DM	SW846 6010B [2]
Mercury	0.00022 U	D009	0.20	0.010	0.00022	mg/l	1	11/11/04	11/12/04	DM	SW846 7470A [1]
Selenium	0.0020 U	D010	1.0	0.050	0.0020	mg/l	1	11/12/04	11/17/04	DM	SW846 6010B [2]
Silver	0.00060 U	D011	5.0	0.010	0.00060	mg/l	1	11/12/04	11/17/04	DM	SW846 6010B [2]

(1) Instrument QC Batch: MA4084
(2) Instrument QC Batch: MA4088
(3) Prep QC Batch: MP7399
(4) Prep QC Batch: MP7403

RL = Reporting Limit IDL = Instrument Detection Limit U = Indicates a result < IDL
MCL = Maximum Contamination Level (40 CFR 261 6/96) B = Indicates a result > = IDL but < RL

Accutest Laboratories

Report of Analysis

Client Sample ID:	AS14-CP-001		
Lab Sample ID:	F27930-1	Date Sampled:	11/04/04
Matrix:	SO - Soil	Date Received:	11/05/04
		Percent Solids:	92.0
Project:	Camp Lejeune-AS1-4		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Corrosivity as pH	7.8			1	11/11/04	MCR	SW846 CHAP7
Cyanide Reactivity	< 1.6	1.6	mg/kg	1	11/17/04	MCR	SW846 CHAP7
Ignitability (Flashpoint)	> 200		Deg. F	1	11/09/04	MCR	SW846 1010
Solids, Percent	92		%	1	11/08/04	MCR	EPA 160.3 M
Sulfide Reactivity	< 50	50	mg/kg	1	11/17/04	DM	SW846 CHAP7

RL = Reporting Limit

Accutest Laboratories

Report of Analysis

Client Sample ID:	AS14-CP-002		
Lab Sample ID:	F27930-2	Date Sampled:	11/04/04
Matrix:	SO - Soil	Date Received:	11/05/04
Method:	SW846 8015 SW846 5035	Percent Solids:	91.7
Project:	Camp Lejeune-AS1-4		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	HH011339.D	1	11/08/04	RM	11/05/04 11:20	n/a	GHH445
Run #2							

	Initial Weight	Final Volume	Methanol Aliquot
Run #1	5.69 g	5.0 ml	100 ul
Run #2			

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-GRO (C6-C10)	ND	4.8	2.4	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	4-Bromofluorobenzene	89%		62-135%
98-08-8	aaa-Trifluorotoluene	86%		65-118%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	AS14-CP-002		
Lab Sample ID:	F27930-2	Date Sampled:	11/04/04
Matrix:	SO - Soil	Date Received:	11/05/04
Method:	SW846 8015 M SW846 3550B	Percent Solids:	91.7
Project:	Camp Lejeune-AS1-4		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	LL01407.D	1	11/09/04	AA	11/08/04	OP11768	GLL42
Run #2							

	Initial Weight	Final Volume
Run #1	30.8 g	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH (C10-C28) [a]	8.10	8.9	5.3	mg/kg	J

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	87%		65-118%

(a) Petroleum hydrocarbon pattern extends beyond C28.

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presnmptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	AS14-DP-001		
Lab Sample ID:	F27930-3	Date Sampled:	11/04/04
Matrix:	SO - Soil	Date Received:	11/05/04
Method:	SW846 8260B SW846 5035	Percent Solids:	84.2
Project:	Camp Lejeune-AS1-4		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	M0001934.D	10	11/16/04	NJ	11/15/04	OP11834	VM83
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCLP Leachate

CAS No.	Compound	Result	HW#	MCL	RL	MDL	Units	Q
71-43-2	Benzene	ND	D018	0.50	0.010	0.0050	mg/l	
108-90-7	Chlorobenzene	ND	D021	100	0.020	0.0050	mg/l	
67-66-3	Chloroform	ND	D022	6.0	0.020	0.0050	mg/l	
56-23-5	Carbon tetrachloride	ND	D019	0.50	0.020	0.0050	mg/l	
75-35-4	1,1-Dichloroethylene	ND	D029	0.70	0.020	0.0050	mg/l	
107-06-2	1,2-Dichloroethane	ND	D028	0.50	0.020	0.0050	mg/l	
106-46-7	p-Dichlorobenzene	ND	D027	7.5	0.020	0.0050	mg/l	
78-93-3	Methyl ethyl ketone	ND	D035	200	0.10	0.025	mg/l	
127-18-4	Tetrachloroethylene	ND	D039	0.70	0.020	0.0050	mg/l	
79-01-6	Trichloroethylene	ND	D040	0.50	0.020	0.0050	mg/l	
75-01-4	Vinyl chloride	ND	D043	0.20	0.010	0.0050	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	98%		86-115%
2037-26-5	Toluene-D8	100%		86-112%
460-00-4	4-Bromofluorobenzene	104%		83-119%
17060-07-0	1,2-Dichloroethane-D4	98%		73-126%

ND = Not detected MDL - Method Detection Limit
MCL = Maximum Contamination Level (40 CFR 261 6/96)
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	AS14-DP-001		
Lab Sample ID:	F27930-3	Date Sampled:	11/04/04
Matrix:	SO - Soil	Date Received:	11/05/04
Method:	SW846 8270C SW846 1311	Percent Solids:	84.2
Project:	Camp Lejeune-AS1-4		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	L024242.D	1	11/12/04	ME	11/11/04	OP11803	SL1278
Run #2							

	Initial Volume	Final Volume
Run #1	100 ml	1.0 ml
Run #2		

ABN TCLP Leachate

CAS No.	Compound	Result	HW#	MCL	RL	MDL	Units	Q
95-48-7	2-Methylphenol	ND	D023	200	0.050	0.020	mg/l	
	3&4-Methylphenol	ND	D024	200	0.050	0.020	mg/l	
87-86-5	Pentachlorophenol	ND	D037	100	0.25	0.10	mg/l	
95-95-4	2,4,5-Trichlorophenol	ND	D041	400	0.050	0.020	mg/l	
88-06-2	2,4,6-Trichlorophenol	ND	D042	2.0	0.050	0.020	mg/l	
106-46-7	1,4-Dichlorobenzene	ND	D027	7.5	0.050	0.010	mg/l	
121-14-2	2,4-Dinitrotoluene	ND	D030	0.13	0.050	0.020	mg/l	
118-74-1	Hexachlorobenzene	ND	D032	0.13	0.050	0.010	mg/l	
87-68-3	Hexachlorobutadiene	ND	D033	0.50	0.050	0.020	mg/l	
67-72-1	Hexachloroethane	ND	D034	3.0	0.050	0.020	mg/l	
98-95-3	Nitrobenzene	ND	D036	2.0	0.050	0.010	mg/l	
110-86-1	Pyridine	ND	D038	5.0	0.10	0.030	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	54%		19-90%
4165-62-2	Phenol-d5	34%		10-68%
118-79-6	2,4,6-Tribromophenol	93%		36-137%
4165-60-0	Nitrobenzene-d5	91%		49-119%
321-60-8	2-Fluorobiphenyl	90%		45-118%
1718-51-0	Terphenyl-d14	88%		46-135%

ND = Not detected MDL - Method Detection Limit
MCL = Maximum Contamination Level (40 CFR 261 6/96)
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	AS14-DP-001		
Lab Sample ID:	F27930-3	Date Sampled:	11/04/04
Matrix:	SO - Soil	Date Received:	11/05/04
Method:	SW846 8015 SW846 5035	Percent Solids:	84.2
Project:	Camp Lejeune-AS1-4		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	HH011353.D	1	11/09/04	AJ	11/05/04 11:30	n/a	GHH446
Run #2							

	Initial Weight	Final Volume	Methanol Aliquot
Run #1	5.95 g	5.0 ml	50.0 ul
Run #2			

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-GRO (C6-C10)	66.2	10	5.0	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	4-Bromofluorobenzene	107%		62-135%
98-08-8	aaa-Trifluorotoluene	117% [a]		65-118%
98-08-8	aaa-Trifluorotoluene	137% [b]		65-118%

(a) Result reported from PID.
(b) Outside control limits due to matrix interference.

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	AS14-DP-001		
Lab Sample ID:	F27930-3	Date Sampled:	11/04/04
Matrix:	SO - Soil	Date Received:	11/05/04
Method:	SW846 8151	Percent Solids:	84.2
Project:	Camp Lejeune-AS1-4		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]		1	11/12/04	SUB	n/a	n/a	R14142
Run #2							

	Initial Volume	Final Volume
Run #1	100 ml	1.0 ml
Run #2		

CAS No.	Compound	Result	HW#	MCL	RL	Units	Q
94-75-7	2,4-D	ND	D016	10	0.10	mg/l	
93-72-1	2,4,5-TP (Silvex)	ND	D017	1.0	0.010	mg/l	

(a) Analyzed By Accutest Southeast Subcontract Lab.

ND = Not detected
MCL = Maximum Contamination Level (40 CFR 261 6/96)
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	AS14-DP-001		
Lab Sample ID:	F27930-3	Date Sampled:	11/04/04
Matrix:	SO - Soil	Date Received:	11/05/04
Method:	SW846 8081A SW846 1311	Percent Solids:	84.2
Project:	Camp Lejeune-AS1-4		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	KK05394.D	1	11/12/04	SKW	11/11/04	OP11804	GKK204
Run #2							

	Initial Volume	Final Volume
Run #1	100 ml	10.0 ml
Run #2		

Pesticide TCLP Leachate

CAS No.	Compound	Result	HW#	MCL	RL	MDL	Units	Q
58-89-9	gamma-BHC (Lindane)	ND	D013	0.40	0.00050	0.00010	mg/l	
12789-03-6	Chlordane	ND	D020	0.030	0.0050	0.0025	mg/l	
72-20-8	Endrin	ND	D012	0.020	0.0010	0.00020	mg/l	
76-44-8	Heptachlor	ND	D031	0.0080	0.00050	0.00010	mg/l	
1024-57-3	Heptachlor epoxide	ND	D031	0.0080	0.00050	0.00010	mg/l	
72-43-5	Methoxychlor	ND	D014	10	0.0010	0.00040	mg/l	
8001-35-2	Toxaphene	ND	D015	0.50	0.025	0.015	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	94%		60-138%
2051-24-3	Decachlorobiphenyl	103%		31-148%

ND = Not detected MDL - Method Detection Limit
MCL = Maximum Contamination Level (40 CFR 261 6/96)
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	AS14-DP-001		
Lab Sample ID:	F27930-3	Date Sampled:	11/04/04
Matrix:	SO - Soil	Date Received:	11/05/04
Method:	SW846 8015 M SW846 3550B	Percent Solids:	84.2
Project:	Camp Lejeune-AS1-4		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	LL01408.D	1	11/09/04	AA	11/08/04	OP11768	GLL42
Run #2							

	Initial Weight	Final Volume
Run #1	30.5 g	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH (C10-C28) [a]	12.8	9.7	5.8	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	84%		65-118%

(a) Petroleum hydrocarbon pattern extends beyond C28.

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	AS14-DP-001		
Lab Sample ID:	F27930-3	Date Sampled:	11/04/04
Matrix:	SO - Soil	Date Received:	11/05/04
		Percent Solids:	84.2
Project:	Camp Lejeune-AS1-4		

Metals Analysis, TCLP Leachate SW846 1311

Analyte	Result	HW#	MCL	RL	IDL	Units	DF	Prep	Analyzed	By	Method
Arsenic	0.0028 U	D004	5.0	0.010	0.0028	mg/l	1	11/12/04	11/17/04	DM	SW846 6010B [2]
Barium	0.069 B	D005	100	1.0	0.00050	mg/l	1	11/12/04	11/17/04	DM	SW846 6010B [2]
Cadmium	0.00030 U	D006	1.0	0.0050	0.00030	mg/l	1	11/12/04	11/17/04	DM	SW846 6010B [2]
Chromium	0.0016 B	D007	5.0	0.010	0.00040	mg/l	1	11/12/04	11/17/04	DM	SW846 6010B [2]
Lead	0.028 B	D008	5.0	0.050	0.0012	mg/l	1	11/12/04	11/17/04	DM	SW846 6010B [2]
Mercury	0.00022 U	D009	0.20	0.010	0.00022	mg/l	1	11/11/04	11/12/04	DM	SW846 7470A [1]
Selenium	0.014 B	D010	1.0	0.050	0.0020	mg/l	1	11/12/04	11/17/04	DM	SW846 6010B [2]
Silver	0.00060 U	D011	5.0	0.010	0.00060	mg/l	1	11/12/04	11/17/04	DM	SW846 6010B [2]

(1) Instrument QC Batch: MA4084
(2) Instrument QC Batch: MA4088
(3) Prep QC Batch: MP7399
(4) Prep QC Batch: MP7403

RL = Reporting Limit IDL = Instrument Detection Limit U = Indicates a result < IDL
MCL = Maximum Contamination Level (40 CFR 261 6/96) B = Indicates a result > = IDL but < RL

Accutest Laboratories

Report of Analysis

Client Sample ID:	AS14-DP-001		
Lab Sample ID:	F27930-3	Date Sampled:	11/04/04
Matrix:	SO - Soil	Date Received:	11/05/04
		Percent Solids:	84.2
Project:	Camp Lejeune-AS1-4		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Corrosivity as pH	6.9			1	11/11/04	MCR	SW846 CHAP7
Cyanide Reactivity	< 1.8	1.8	mg/kg	1	11/17/04	MCR	SW846 CHAP7
Ignitability (Flashpoint)	> 200		Deg. F	1	11/09/04	MCR	SW846 1010
Solids, Percent	84.2		%	1	11/08/04	MCR	EPA 160.3 M
Sulfide Reactivity	< 50	50	mg/kg	1	11/17/04	DM	SW846 CHAP7

RL = Reporting Limit

Accutest Laboratories

Report of Analysis

Client Sample ID:	AS14-DP-002		
Lab Sample ID:	F27930-4	Date Sampled:	11/04/04
Matrix:	SO - Soil	Date Received:	11/05/04
Method:	SW846 8015 SW846 5035	Percent Solids:	83.3
Project:	Camp Lejeune-AS1-4		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	HH011352.D	1	11/09/04	AJ	11/05/04 11:30	n/a	GHH446
Run #2 [a]	HH011345.D	1	11/08/04	RM	11/05/04 11:30	n/a	GHH445

	Initial Weight	Final Volume	Methanol Aliquot
Run #1	5.50 g	5.0 ml	25.0 ul
Run #2	5.50 g	5.0 ml	100 ul

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-GRO (C6-C10)	142	22	11	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	4-Bromofluorobenzene		107% [b]	62-135%
460-00-4	4-Bromofluorobenzene	113%	294% [c]	62-135%
98-08-8	aaa-Trifluorotoluene	92% [b]		65-118%
98-08-8	aaa-Trifluorotoluene	128% [c]	218% [c]	65-118%

(a) Confirmation run.
(b) Result reported from PID.
(c) Outside control limits due to matrix interference. Confirmed by reanalysis.

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	AS14-DP-002		
Lab Sample ID:	F27930-4	Date Sampled:	11/04/04
Matrix:	SO - Soil	Date Received:	11/05/04
Method:	SW846 8015 M SW846 3550B	Percent Solids:	83.3
Project:	Camp Lejeune-AS1-4		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	LL01409.D	1	11/09/04	AA	11/08/04	OP11768	GLL42
Run #2							

	Initial Weight	Final Volume
Run #1	30.4 g	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH (C10-C28) [a]	23.6	9.9	5.9	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	87%		65-118%

(a) Petroleum hydrocarbon pattern extends beyond C28.

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a componnd

Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody

COC Number: F27930

845845-AS14-110404

Shaw Environmental & Infrastructure, Inc.

CHAIN-OF-CUSTODY RECORD

Shaw E & I - Piney Green Rd. Lot 203 Bld 626 - 910-451-2390

Receiving LAB: ACCUTEST

Project Name	Project Location		
CAMP LEJEUNE - AS 1 - 4	CAMP LEJEUNE, NC		
Project Number	**Contact**	**P.O. Number**	**Reviewed by**
845845	Mark Martin		
Client Rep	**Project Manager**		
US NAVY - LANTDIV	Ron Kenyon		

Item No.	Sample Number	Date	Time	Comp	Grab	Sample Description	Number of Containers	Analysis Desired: Full TCLP	SR/C	TPH (DRO/GRO)
1	AS14-CP-001	11/4/04	13:00	X		Comp clean soil pile 100 yds	3	X	X	X
2	AS14-CP-002	11/4/04	13:15	X		Comp clean soil pile 200 yds	2			X
3	AS14-DP-001	11/4/04	14:00	X		Comtaminated soil pile 100 yds	3	X	X	X
4	AS14-DP-002	11/4/04	14:15	X		Comtaminated soil pile 200 yds	2			X
5										
6										
7										
8										
9										
10										
11										

Transfer Number	Item Number	Transfers Relinquished By	Transfers Accepted By	Date	Time	Remarks
1	1 – 4		FedEx 8481 [redacted] 64	11/4/04	16:00	- PLEASE FAX RESULTS TO 910-451-1809
2						or e-mail, Mark.Martin@shawgrp.com
3						**14 Day TAT**

F27930: Chain of Custody

Page 1 of 2

ACCUTEST LABORATORIES SOUTHEAST SAMPLE RECEIPT CONFIRMATION

Accutest's Job Number: F27930

Client: SHAW E+I Project: Camp LEJEUNE-AS1.4

Date Received: 11/5/04 Time Received: 09:00

# of Coolers Received: 1 Cooler Temperatures: 3.2

Delivery Method: (FedEx) UPS Accutest Courier Greyhound Delivery Other

Air Bill Number:

Cooler Custody Seals Intact ?	(Yes)	No	
Chain of Custody Provided ?	(Yes)	No	
COC Match Bottle Label ID's ?	(Yes)	No	
Sample Labels Present on all bottles ?	(Yes)	No	
All Analyses Marked On COC ?	(Yes)	No	
Are All Bottles Intact ?	(Yes)	No	
Samples Preserved Correctly ?	(Yes)	No	
Correct Number of Containers Used ?	(Yes)	No	
Sufficient Sample Volume ?	(Yes)	No	
Trip Blank Provided ?	Yes	(No)	
Trip Blank on COC ?	Yes	(No)	
Trip Blank Intact ?	Yes	No	(N/A)
Trip Blank Matrix ?	Soil	Water	(N/A)
Number of Encores ?	4		
Number of Soil Field Kits ?	0		

Summary of Comments:

Signature: Carlos H Date: 11/5/04

Review Signature:

ASBD 12/30/03

F27930: Chain of Custody
Page 2 of 2

Southeast
ACCUTEST.
Laboratories

12/03/04

Technical Report for

Shaw E & I, Inc.

Camp Lejeune-AS1-4

845845

Accutest Job Number: F28320

Sampling Date: 11/17/04

Report to:

Shaw E & I, Inc.

natasha.sullivan@shawgrp.com

ATTN: Natasha Sullivan

Total number of pages in report: 50

nelac

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

Harry Behzadi, Ph.D.
Laboratory Director

Certifications: FL (DOH E83510), NC (573), NJ (FL002), MA (FL946), IA (366), LA (03051), KS (E-10327), SC, AK

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Sections: 1 2 3 4 5 6 7 8 9

Sample Summary

Shaw E & I, Inc.

Job No: F28320

Camp Lejeune-AS1-4
Project No: 845845

Sample Number	Collected Date	Time	By	Received	Matrix Code	Matrix Type	Client Sample ID
F28320-1	11/17/04	14:45	MM	11/19/04	SO	Soil	845845-DS-004

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

Accutest Laboratories

Report of Analysis

Client Sample ID:	845845-DS-004		
Lab Sample ID:	F28320-1	Date Sampled:	11/17/04
Matrix:	SO - Soil	Date Received:	11/19/04
Method:	SW846 8260B SW846 5035	Percent Solids:	84.2
Project:	Camp Lejeune-AS1-4		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	N0002027.D	10	12/02/04	NJ	11/30/04	OP11959	VN89
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCLP Leachate

CAS No.	Compound	Result	HW#	MCL	RL	MDL	Units	Q
71-43-2	Benzene	ND	D018	0.50	0.010	0.0050	mg/l	
108-90-7	Chlorobenzene	ND	D021	100	0.020	0.0050	mg/l	
67-66-3	Chloroform	ND	D022	6.0	0.020	0.0050	mg/l	
56-23-5	Carbon tetrachloride	ND	D019	0.50	0.020	0.0050	mg/l	
75-35-4	1,1-Dichloroethylene	ND	D029	0.70	0.020	0.0050	mg/l	
107-06-2	1,2-Dichloroethane	ND	D028	0.50	0.020	0.0050	mg/l	
106-46-7	p-Dichlorobenzene	ND	D027	7.5	0.020	0.0050	mg/l	
78-93-3	Methyl ethyl ketone	ND	D035	200	0.10	0.025	mg/l	
127-18-4	Tetrachloroethylene	ND	D039	0.70	0.020	0.0050	mg/l	
79-01-6	Trichloroethylene	ND	D040	0.50	0.020	0.0050	mg/l	
75-01-4	Vinyl chloride	ND	D043	0.20	0.010	0.0050	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	93%		86-115%
2037-26-5	Toluene-D8	101%		86-112%
460-00-4	4-Bromofluorobenzene	94%		83-119%
17060-07-0	1,2-Dichloroethane-D4	95%		73-126%

ND = Not detected MDL - Method Detection Limit
MCL = Maximum Contamination Level (40 CFR 261 6/96)
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	845845-DS-004		
Lab Sample ID:	F28320-1	Date Sampled:	11/17/04
Matrix:	SO - Soil	Date Received:	11/19/04
Method:	SW846 8270C SW846 1311	Percent Solids:	84.2
Project:	Camp Lejeune-AS1-4		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	W023212.D	1	12/01/04	SM	11/30/04	OP11956	SW1210
Run #2							

	Initial Volume	Final Volume
Run #1	100 ml	1.0 ml
Run #2		

ABN TCLP Leachate

CAS No.	Compound	Result	HW#	MCL	RL	MDL	Units	Q
95-48-7	2-Methylphenol	ND	D023	200	0.050	0.020	mg/l	
	3&4-Methylphenol	ND	D024	200	0.050	0.020	mg/l	
87-86-5	Pentachlorophenol	ND	D037	100	0.25	0.10	mg/l	
95-95-4	2,4,5-Trichlorophenol	ND	D041	400	0.050	0.020	mg/l	
88-06-2	2,4,6-Trichlorophenol	ND	D042	2.0	0.050	0.020	mg/l	
106-46-7	1,4-Dichlorobenzene	ND	D027	7.5	0.050	0.010	mg/l	
121-14-2	2,4-Dinitrotoluene	ND	D030	0.13	0.050	0.020	mg/l	
118-74-1	Hexachlorobenzene	ND	D032	0.13	0.050	0.010	mg/l	
87-68-3	Hexachlorobutadiene	ND	D033	0.50	0.050	0.020	mg/l	
67-72-1	Hexachloroethane	ND	D034	3.0	0.050	0.020	mg/l	
98-95-3	Nitrobenzene	ND	D036	2.0	0.050	0.010	mg/l	
110-86-1	Pyridine	ND	D038	5.0	0.10	0.030	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	40%		19-90%
4165-62-2	Phenol-d5	25%		10-68%
118-79-6	2,4,6-Tribromophenol	67%		36-137%
4165-60-0	Nitrobenzene-d5	67%		49-119%
321-60-8	2-Fluorobiphenyl	68%		45-118%
1718-51-0	Terphenyl-d14	82%		46-135%

ND = Not detected MDL - Method Detection Limit
MCL = Maximum Contamination Level (40 CFR 261 6/96)
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	845845-DS-004		
Lab Sample ID:	F28320-1	Date Sampled:	11/17/04
Matrix:	SO - Soil	Date Received:	11/19/04
Method:	SW846 8015 SW846 5035	Percent Solids:	84.2
Project:	Camp Lejeune-AS1-4		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	HH011457.D	1	11/22/04	RM	11/19/04 16:00	n/a	GHH455
Run #2							

	Initial Weight	Final Volume	Methanol Aliquot
Run #1	4.95 g	5.0 ml	100 ul
Run #2			

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-GRO (C6-C10)	ND	6.9	3.5	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	4-Bromofluorobenzene	84%		62-135%
98-08-8	aaa-Trifluorotoluene	83%		65-118%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	845845-DS-004		
Lab Sample ID:	F28320-1	Date Sampled:	11/17/04
Matrix:	SO - Soil	Date Received:	11/19/04
Method:	SW846 8151	Percent Solids:	84.2
Project:	Camp Lejeune-AS1-4		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]		1	12/01/04	SUB	n/a	n/a	R14221
Run #2							

	Initial Volume	Final Volume
Run #1	100 ml	1.0 ml
Run #2		

CAS No.	Compound	Result	HW#	MCL	RL	Units	Q
94-75-7	2,4-D	ND	D016	10	0.10	mg/l	
93-72-1	2,4,5-TP (Silvex)	ND	D017	1.0	0.010	mg/l	

(a) Analyzed By Accutest Southeast Subcontract Lab.

ND = Not detected
MCL = Maximum Contamination Level (40 CFR 261 6/96)
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	845845-DS-004		
Lab Sample ID:	F28320-1	Date Sampled:	11/17/04
Matrix:	SO - Soil	Date Received:	11/19/04
Method:	SW846 8081A SW846 1311	Percent Solids:	84.2
Project:	Camp Lejeune-AS1-4		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	KK05459.D	1	12/01/04	AG	11/30/04	OP11957	GKK206
Run #2							

	Initial Volume	Final Volume
Run #1	100 ml	10.0 ml
Run #2		

Pesticide TCLP Leachate

CAS No.	Compound	Result	HW#	MCL	RL	MDL	Units	Q
58-89-9	gamma-BHC (Lindane)	ND	D013	0.40	0.00050	0.00010	mg/l	
12789-03-6	Chlordane	ND	D020	0.030	0.0050	0.0025	mg/l	
72-20-8	Endrin	ND	D012	0.020	0.0010	0.00020	mg/l	
76-44-8	Heptachlor	ND	D031	0.0080	0.00050	0.00010	mg/l	
1024-57-3	Heptachlor epoxide	ND	D031	0.0080	0.00050	0.00010	mg/l	
72-43-5	Methoxychlor	ND	D014	10	0.0010	0.00040	mg/l	
8001-35-2	Toxaphene	ND	D015	0.50	0.025	0.015	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	88%		60-138%
2051-24-3	Decachlorobiphenyl	105%		31-148%

ND = Not detected MDL - Method Detection Limit
MCL = Maximum Contamination Level (40 CFR 261 6/96)
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	845845-DS-004		
Lab Sample ID:	F28320-1	Date Sampled:	11/17/04
Matrix:	SO - Soil	Date Received:	11/19/04
Method:	SW846 8015 M SW846 3550B	Percent Solids:	84.2
Project:	Camp Lejeune-AS1-4		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	LL01753.D	1	11/23/04	SM	11/23/04	OP11909	GLL59
Run #2							

	Initial Weight	Final Volume
Run #1	30.7 g	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH (C10-C28) [a]	9.67	9.7	5.8	mg/kg	J

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	86%		65-118%

(a) Petroleum hydrocarbon pattern extends beyond C28.

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	845845-DS-004		
Lab Sample ID:	F28320-1	Date Sampled:	11/17/04
Matrix:	SO - Soil	Date Received:	11/19/04
		Percent Solids:	84.2
Project:	Camp Lejeune-AS1-4		

Metals Analysis, TCLP Leachate SW846 1311

Analyte	Result	HW#	MCL	RL	IDL	Units	DF	Prep	Analyzed	By	Method
Arsenic	0.0028 U	D004	5.0	0.010	0.0028	mg/l	1	12/01/04	12/01/04	SM	SW846 6010B [2]
Barium	0.18 B	D005	100	1.0	0.00050	mg/l	1	12/01/04	12/01/04	SM	SW846 6010B [2]
Cadmium	0.00030 U	D006	1.0	0.0050	0.00030	mg/l	1	12/01/04	12/01/04	SM	SW846 6010B [2]
Chromium	0.00040 U	D007	5.0	0.010	0.00040	mg/l	1	12/01/04	12/01/04	SM	SW846 6010B [2]
Lead	0.012 B	D008	5.0	0.050	0.0012	mg/l	1	12/01/04	12/01/04	SM	SW846 6010B [2]
Mercury	0.00022 U	D009	0.20	0.010	0.00022	mg/l	1	11/30/04	11/30/04	JM	SW846 7470A [1]
Selenium	0.0099 B	D010	1.0	0.050	0.0020	mg/l	1	12/01/04	12/01/04	SM	SW846 6010B [2]
Silver	0.00060 U	D011	5.0	0.010	0.00060	mg/l	1	12/01/04	12/01/04	SM	SW846 6010B [2]

(1) Instrument QC Batch: MA4112
(2) Instrument QC Batch: MA4113
(3) Prep QC Batch: MP7463
(4) Prep QC Batch: MP7466

RL = Reporting Limit IDL = Instrument Detection Limit U = Indicates a result < IDL
MCL = Maximum Contamination Level (40 CFR 261 6/96) B = Indicates a result >= IDL but < RL

Accutest Laboratories

Report of Analysis

Client Sample ID:	845845-DS-004		
Lab Sample ID:	F28320-1	Date Sampled:	11/17/04
Matrix:	SO - Soil	Date Received:	11/19/04
		Percent Solids:	84.2
Project:	Camp Lejeune-AS1-4		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Corrosivity as pH	7.4			1	11/22/04	MCR	SW846 CHAP7
Cyanide Reactivity	< 1.5	1.5	mg/kg	1	11/24/04	SJL	SW846 CHAP7
Ignitability (Flashpoint)	> 200		Deg. F	1	11/22/04	MCR	SW846 1010
Solids, Percent	84.2		%	1	11/24/04	MCR	EPA 160.3 M
Sulfide Reactivity	< 50	50	mg/kg	1	11/23/04	MP	SW846 CHAP7

RL = Reporting Limit

Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody

F28320

CHAIN-OF-CUSTODY RECORD

COC Number: 845845-AS14-111104

Shaw Environmental & Infrastructure, Inc.

Shaw E & I - Piney Green Rd. Lot 203 Bld 626 - 910-451-2390

Project Name: CAMP LEJEUNE - AS 1 - 4	Project Location: CAMP LEJEUNE, NC		Receiving LAB: ACCUTEST
Project Number: 845845	Contact: Mark Martin	P.O. Number:	Reviewed by:
Client Rep: US NAVY - LANTDIV	Project Manager: Ron Kenyon		

Analysis Desired: Full TCLP; VOC; TPH (DRO/GRO)

Item No.	Sample Number	Date	Time	Comp	Grab	Sample Description	Number of Containers	Full TCLP	VOC	TPH (DRO/GRO)
1	845845-DS-004	11/17/04	14:45	X		Comp soil pile 100 yds	3	X	X	X
2										
3										
4										
5										
6										
7										
8										
9										
10										
11										

Transfer Number	Item Number	Transfers Relinquished By	Transfers Accepted By	Date	Time
1	1		FedEx	11/17/04	16:00
2		FX	11/19/04	11/19/04	9:00
3					

Remarks

Summary report

14 Day TAT

1.2

F28320: Chain of Custody
Page 1 of 2

ACCUTEST Laboratories F28320

ACCUTEST LABORATORIES SOUTHEAST SAMPLE RECEIPT CONFIRMATION

Accutest's Job Number: F28320

Client: Shaw E&I Project: Camp Lejeune

Date Received: 11/19/04 Time Received: 9:00

# of Coolers Received: 1 Cooler Temperatures: 1.2

Delivery Method: (FedEx) UPS Accutest Courier Greyhound Delivery Other

Air Bill Number:

Cooler Custody Seals Intact ?	(Yes)	No	
Chain of Custody Provided ?	(Yes)	No	
COC Match Bottle Label ID's ?	(Yes)	No	
Sample Labels Present on all bottles ?	(Yes)	No	
All Analyses Marked On COC ?	(Yes)	No	
Are All Bottles Intact ?	(Yes)	No	
Samples Preserved Correctly ?	(Yes)	No	
Correct Number of Containers Used ?	(Yes)	No	
Sufficient Sample Volume ?	(Yes)	No	
Trip Blank Provided ?	Yes	(No)	
Trip Blank on COC ?	Yes	(No)	
Trip Blank Intact ?	Yes	No	(N/A)
Trip Blank Matrix ?	Soil	Water	(N/A)
Number of Encores ?	1		
Number of Soil Field Kits ?	0		

Summary of Comments:

Signature: Date: 11/19/04

Review Signature:

ASBD/HW 05/11/03

F28320: Chain of Custody
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APPENDIX C

Holcomb Boulevard Site Confirmation Soil Sample Laboratory Analytical Reports

Southeast
ACCUTEST.
Laboratories

11/23/04

Technical Report for

Shaw E & I, Inc.

Camp Lejeune-Holocomb Blvd Site

845845

Accutest Job Number: F28293

Sampling Date: 11/17/04

Report to:

Shaw E & I, Inc.

natasha.sullivan@shawgrp.com

ATTN: Natasha Sullivan

Total number of pages in report: 33

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

Harry Behzadi, Ph.D.
Laboratory Director

Certifications: FL (DOH E83510), NC (573), NJ (FL002), MA (FL946), IA (366), LA (03051), KS (E-10327), SC, AK

Sections: 1 2 3 4 5 6

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Sample Summary

Shaw E & I, Inc.

Job No: F28293

Camp Lejeune-Holocomb Blvd Site
Project No: 845845

Sample Number	Collected Date	Time	By	Received	Matrix Code	Matrix Type	Client Sample ID
F28293-1	11/17/04	14:00	MM	11/19/04	SO	Soil	845845-HS-001
F28293-2	11/17/04	14:15	MM	11/19/04	SO	Soil	845845-HS-002
F28293-3	11/17/04	14:30	MM	11/19/04	SO	Soil	845845-HS-003

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

Accutest Laboratories

Report of Analysis

Client Sample ID:	845845-HS-001		
Lab Sample ID:	F28293-1	Date Sampled:	11/17/04
Matrix:	SO - Soil	Date Received:	11/19/04
Method:	SW846 8015 SW846 5035	Percent Solids:	86.9
Project:	Camp Lejeune-Holocomb Blvd Site		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	HH011454.D	1	11/22/04	RM	11/19/04 13:40	n/a	GHH455
Run #2							

	Initial Weight	Final Volume	Methanol Aliquot
Run #1	5.54 g	5.0 ml	100 ul
Run #2			

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-GRO (C6-C10)	ND	5.9	3.0	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	4-Bromofluorobenzene	84%		62-135%
98-08-8	aaa-Trifluorotoluene	82%		65-118%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	845845-HS-001		
Lab Sample ID:	F28293-1	Date Sampled:	11/17/04
Matrix:	SO - Soil	Date Received:	11/19/04
Method:	SW846 8015 M SW846 3550B	Percent Solids:	86.9
Project:	Camp Lejeune-Holocomb Blvd Site		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	LL01703.D	1	11/21/04	SM	11/20/04	OP11880	GLL56
Run #2							

	Initial Weight	Final Volume
Run #1	30.6 g	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH (C10-C28)	ND	9.4	5.6	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	67%		65-118%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	845845-HS-002		
Lab Sample ID:	F28293-2	Date Sampled:	11/17/04
Matrix:	SO - Soil	Date Received:	11/19/04
Method:	SW846 8015 SW846 5035	Percent Solids:	82.9
Project:	Camp Lejeune-Holocomb Blvd Site		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	HH011455.D	1	11/22/04	RM	11/19/04 13:40	n/a	GHH455
Run #2							

	Initial Weight	Final Volume	Methanol Aliquot
Run #1	5.58 g	5.0 ml	100 ul
Run #2			

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-GRO (C6-C10)	ND	6.4	3.2	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	4-Bromofluorobenzene	85%		62-135%
98-08-8	aaa-Trifluorotoluene	81%		65-118%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	845845-HS-002		
Lab Sample ID:	F28293-2	Date Sampled:	11/17/04
Matrix:	SO - Soil	Date Received:	11/19/04
Method:	SW846 8015 M SW846 3550B	Percent Solids:	82.9
Project:	Camp Lejeune-Holocomb Blvd Site		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	LL01704.D	1	11/21/04	SM	11/20/04	OP11880	GLL56
Run #2							

	Initial Weight	Final Volume
Run #1	30.7 g	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH (C10-C28)	ND	9.8	5.9	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	82%		65-118%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	845845-HS-003		
Lab Sample ID:	F28293-3	Date Sampled:	11/17/04
Matrix:	SO - Soil	Date Received:	11/19/04
Method:	SW846 8015 SW846 5035	Percent Solids:	86.2
Project:	Camp Lejeune-Holocomb Blvd Site		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	HH011456.D	1	11/22/04	RM	11/19/04 13:40	n/a	GHH455
Run #2							

	Initial Weight	Final Volume	Methanol Aliquot
Run #1	6.18 g	5.0 ml	100 ul
Run #2			

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-GRO (C6-C10)	ND	5.5	2.7	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	4-Bromofluorobenzene	86%		62-135%
98-08-8	aaa-Trifluorotoluene	84%		65-118%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	845845-HS-003		
Lab Sample ID:	F28293-3	Date Sampled:	11/17/04
Matrix:	SO - Soil	Date Received:	11/19/04
Method:	SW846 8015 M SW846 3550B	Percent Solids:	86.2
Project:	Camp Lejeune-Holocomb Blvd Site		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	LL01705.D	1	11/21/04	SM	11/20/04	OP11880	GLL56
Run #2							

	Initial Weight	Final Volume
Run #1	30.4 g	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH (C10-C28)	ND	9.5	5.7	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	79%		65-118%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody

COC Number:
845845-HOLCOMB-4-111704

Shaw
Shaw Environmental & Infrastructure, Inc.

CHAIN-OF-CUSTODY RECORD F28293

Shaw E & I - Piney Green Rd. Lot 203 Bld 626 - 910-451-2390

Receiving LAB:Accutest

Project Name	Project Location		
CAMP LEJEUNE - Holcomb Blvd Site	CAMP LEJEUNE, NC		
Project Number 845845	**Contact** Mark Martin	**P.O. Number** 8330	**Reviewed by**
Client Rep US NAVY - LANTDIV	**Project Manager** Ron Kenyon		

Analysis Desired: DRO/GRO3550/5030

Item No.	Sample Number	Date	Time	Comp	Grab	Sample Description	Number of Containers	DRO/GRO3550/5030
1	845845-HS-001	11/17/04	14:00		X	Location 001	2	X
2	845845-HS-002	11/17/04	14:15		X	Location 002	2	X
3	845845-HS-003	11/17/04	14:30		X	Location 003	2	X
4								
5								
6								
7								
8								
9								
10								

Transfer Number	Item Number	Transfers Relinquished By	Transfers Accepted By	Date	Time	Remarks
1	1 – 3		FedEx 8481 5080 8420	11/17/04	16:00	24 Hour TAT
2		FX		11/19/04	9:00	
3						

F28293: Chain of Custody
Page 1 of 2

ACCUTEST LABORATORIES SOUTHEAST SAMPLE RECEIPT CONFIRMATION

Accutest's Job Number: F28293

Client: Shaw E+I Project: Camp Lejeune

Date Received: 11/19/04 Time Received: 9:00

# of Coolers Received: 1 Cooler Temperatures: 1C

Delivery Method: (FedEx) UPS Accutest Courier Greyhound Delivery Other

Air Bill Number:

Cooler Custody Seals Intact ?	(Yes)	No	
Chain of Custody Provided ?	(Yes)	No	
COC Match Bottle Label ID's ?	(Yes)	No	
Sample Labels Present on all bottles ?	(Yes)	No	
All Analyses Marked On COC ?	(Yes)	No	
Are All Bottles Intact ?	(Yes)	No	
Samples Preserved Correctly ?	(Yes)	No	
Correct Number of Containers Used ?	(Yes)	No	
Sufficient Sample Volume ?	(Yes)	No	
Trip Blank Provided ?	Yes	(No)	
Trip Blank on COC ?	Yes	(No)	
Trip Blank Intact ?	Yes	No	(N/A)
Trip Blank Matrix ?	Soil	Water	(N/A)
Number of Encores ?	3		
Number of Soil Field Kits ?	Ø		

Summary of Comments:

Signature: Date: 11/19/04

Review Signature:

A38D/MW 05/11/03

F28293: Chain of Custody
Page 2 of 2

Shaw Environmental, Inc.
11560 Great Oaks Way, Suite 500
Alpharetta, GA 30022-2424
770.475.8994
Fax 770.777.8165

Shaw The Shaw Group Inc.™

March 16, 2005

DEPARTMENT OF THE NAVY

Ms. Nikki Hall, I&E/EMD
Environmental Management Division
MCB Building 12
Camp Lejeune, NC 28547

Re: Contract N62470-02-D-3260; Task Order 12
Final Reports, AS 1-4 and Holcomb Blvd.
Marine Corps Base Camp Lejeune, N.C.

Dear Ms. Hall:

Enclosed find the revised Final Reports for both the AS 1-4 and Holcomb Blvd. removals conducted at The New River Air station and mainside Camp Lejeune. These incorporate comments to the draft submittal, and we have also inserted all of the available information from the AS 1-4 projects first Phase of work conducted by J.A. Jones.

We have provided two hardcopies of the reports to you and one set of hardcopy to Mr. Dave Cleland at NAVFAC.

Sincerely,

Shaw Environmental, Inc.

Ronald B. Kenyon
Project Manager

Attachments

pc: Dave Cleland, NAVFAC
File 845845