03.12-01/19/95-01505

FINAL

REMEDIAL INVESTIGATION REPORT
OPERABLE UNIT NO. 7
(SITES 1, 28, AND 30)

MARINE CORPS BASE
CAMP LEJEUNE, NORTH CAROLINA

CONTRACT TASK ORDER 0231

JANUARY 19, 1995

Prepared For:

DEPARTMENT OF THE NAVY
ATLANTIC DIVISION
NAVAL FACILITIES
ENGINEERING COMMAND
Norfolk, Virginia

Under:

LANTDIV CLEAN Program
Contract N62470-89-D-4814

Prepared by:

BAKER ENVIRONMENTAL, INC.
Coraopolis, Pennsylvania

TABLE OF CONTENTS

APPENDICES

APPENDIX A
TEST BORING RECORDS

TEST BORING LOG LEGEND

SOIL DESCRIPTION

GRAIN SIZE IDENTIFICATION

NAME	SIZE LIMITS
Boulder	12" OR MORE
Cobbles	3" - 12"
Coarse Gravel	3/4" - 3"
Fine Gravel	4.76 mm (#4) - 3/4"
Coarse Sand	2 mm (#10) - 4.76 mm (#4)
Medium Sand	0.42 mm (#40) - 2 mm (#10)
Fine Sand	0.074 mm (#200)-0.42 mm (#40)
Silt	0.002 mm-0.074 mm (#200)
Clay	Less than 0.002 mm

RELATIVE DENSITY

NONCOHESIVE SOIL

TERM	SPT (Blows/ft)
Very Loose	Below 4
Loose	4-10
Medium Dense	10-30
Dense	30-50
Very Dense	OVER 50

COHESIVE SOILS

TERM	SPT (Blows/ft)
Very Soft	BELOW 2
Soft	2-4
Medium Stiff	4-8
Stiff	8-15
Very Stiff	15-30
Hard	OVER 30

MOISTURE	DESCRIPTIVE TERMS	
Dry	Trace	0-10%
Damp	Little	10-20%
Moist	Some	20-35%
Wet	And	35-50%

CONTACTS:

_____ = DEFINITE

_ _ _ _ = INDEFINITE

. . . . . = GRADATIONAL

ROCK DESCRIPTIONS

HARDNESS

Very Soft -	Easily gouged by knife, easily scratched by fingernail, easily broken by hand
Soft -	Gouged by knife, scratched by fingernail, difficult to break by hand, powders with hammer
Medium Hard -	Easily scratched by knife, easily broken with hammer
Hard -	Difficult to scratch, breaks with hammer
Very Hard -	Difficult to break, rings when struck

WEATHERING

Decomposed	-	Soft to Very soft, bedding and fractures indistinct, no cementation.
Highly Weathered	-	Very soft to soft, with medium hard relict rock fragments; little to moderate cementation. Vugs, openings in bedding and fractures (may be filled).
Weathered	-	Soft to medium hard. Good cementation, bedding and fractures are pronounced. Uniformly stained.
Slightly Weathered	-	Medium hard. Fractures pronounced, non-uniform staining, bedding distinct.
Fresh	-	Medium hard to hard. No staining. Fractures may be present. Bedding may or may not be indistinct.

BEDDING AND FRACTURES:

SPACING	BEDDING	FRACTURES
	Indistinct	
LESS THAN 1/2" (1 cm)	Laminated	Fissile
1/2" to 1" (1cm-3cm)	Very Thin	Very Close
1" TO 4" (3cm-10cm)	Thin	Close
4" TO 1' (10cm-30cm)	Moderate	Moderate
1' TO 3' (30 cm-1m)	Thick	Wide
3' TO 10' (1m-3m)	Massive	Very Wide

SAMPLE TYPE

S = Split Spoon
T = Shelby Tube
R = Air Rotary
D = Denison
A = Auger
W = Wash (Roller Bit)
C = Core
P = Piston
N = No Sample Taken

ABBREVIATIONS

HS	=	Hollow Stem
NP	=	Non Plastic
-PL	=	Below the Plastic Limit
PL	=	At the Plastic Limit
+PL	=	Above the Plastic Limit
+LL	=	Above the Liquid Limit
SPT	=	Standard Penetration Test
RQD	=	Rock Quality Designation

SITE 1

Baker

Baker Environmental, Inc.

FIELD TEST BORING RECORD

PROJECT: SITE 1 FLUDA RIFS MCB CAMP LEJEUNE
S.O. NO.: 62470-231 BORING NO.: 1-15-SB01
COORDINATES: EAST: 2502106.90 NORTH: 333090.30
ELEVATION: SURFACE: 23.95 TOP OF PVC CASING:

RIG: B-57	SPLIT SPOON	CASING	AUGERS	CORE BARREL	DATE	PROGRESS (FT)	WEATHER	TOP OF CASING WATER DEPTH (FT)	TIME
SIZE (DIAM.)	1 3/8" ID		3 1/4" ID		3-29-94	19	SUNNY	17	
LENGTH	2.0'		5.0'						
TYPE	STD		HSA						
HAMMER WT.	140 lb								
FALL	30"								
STICK UP									

REMARKS: BACKGROUND (BG) HNU = 0.3 ppm

DRILL RECORD							VISUAL DESCRIPTION					
DEPTH	SOIL / ROCK	Sample ID / Type-No. (N = No Samp.)	Samp. Rec. (Ft. & %)	SPT Blows Per 0.5' / RQD (Ft. & %)	Lab. Class. / Pen. Rate	PID (ppm)	Classification (Grain Size, Principal Constituents, Etc.) / Classification (Name, Grain Size, Principal Constituents, Etc.)	Color	Consist. or Density / Hardness	Moisture Content, Organic Content, Plasticity, and Other Observations / Weathering, Bedding, Fracturing, and Other Observations	SOIL / ROCK	ELEVATION
1							1' FILL SAND-FINE AND GRAVEL-F					
2	LAB	S-1	1.41/2 71%	5 6 6 5	01	BG	SAND-FINE TRACE SILT	GRAY 10" BROWN	MED DENSE	DAMP		
3												
4		S-2	1.83/2 67%	3 3 3 5		BG	SAND-FINE LITHIC SILT	BROWN	LOOSE	MOIST		
5												
6		S-3	1.5/2 75%	4 4 5 5		BG	SAND-FINE LITHIC SILT	BROWN	LOOSE	MOIST		
7												
8	LAB	S-4	1.08/2 54%	4 4 5 7	04	BG	SAND-FINE LITHIC SILT	BROWN & WHITE	LOOSE	MOIST		
9												
10		S-5	1.60/2	3 4		BG	SAND-FINE TRACE SILT	BROWN	MED. DENSE.	MOIST		

DRILLING CO.: EMTC BAKER REP.: KENNETH A. TUA
DRILLER: JIM MARSH BORING NO.: 1-15-SB01 SHEET 1 OF 2

Baker

Baker Environmental, Inc.

FIELD TEST BORING RECORD

PROJECT: SITE 1 FCLDA RIFS MCB CAMP LEJEUNE

S.O. NO.: 62470-231 BORING NO.: 1-1S-SB01

DRILL RECORD							VISUAL DESCRIPTION					
DEPTH	SOIL / ROCK	Sample ID — Type-No. (N = No Samp.)	Samp. Rec. (Ft. & %)	SPT Blows Per 0.5' / RQD (Ft. & %)	Lab. Class.. / Pen. Rate	PID (ppm)	Classification (Grain Size, Principal Constituents, Etc.) / *Classification (Name, Grain Size, Principal Constituents, Etc.)*	Color / *Color*	Consist. or Density / *Hardness*	Moisture Content, Organic Content, Plasticity, and Other Observations / *Weathering, Bedding, Fracturing, and Other Observations*	SOIL / ROCK	ELEVATION
10		S-5	79%	7 8		BG	CONTINUED					
11			1.41/2	5 6			SAND-FINE LITTLE SILT	WHITE & BLACK BANDED	MED DENSE	MOIST		
12		S-6	71%	9 11		BG						
13			1.67/2	6 7			SAND-FINE LITTLE SILT	BROWN	MED DENSE	MOIST		
14		S-7	83%	10 13		BG						
15			1.5/2	7 8			SAND-FINE LITTLE SILT	BROWN	MED DENSE	MOIST		
16	LAB	S-8	75%	10 14	08	BG						
17			1.41/2	9 7			WATER @ 17' SAND-FINE TRACE SILT	WHITE	MED DENSE	WET		
18		S-9	71%	8 10		BG						
19							END OF BORING 19'					4.95
0												
1												
2												
3												
4												
5												
6												
7												
8												
9												
0												

DRILLING CO.: EMTC BAKER REP.: KENNETH A. TUA

DRILLER: JIM MARSH BORING NO.: 1-1S-SB01 SHEET 2 OF 2

TEST BORING RECORD

Baker Environmental, Inc.

PROJECT: Site 1 - FCLDA RI/FS MCB Camp Lejeune
S.O. NO.: 19231 BORING NO.: 1-15-SB02
COORDINATES: EAST: 2502157.0100 NORTH: 332945.5710
ELEVATION: SURFACE: 21.2680 TOP OF PVC CASING: _____

RIG: #73									
	SPLIT SPOON	CASING	AUGERS	CORE BARREL	DATE	PROGRESS (FT)	WEATHER	WATER DEPTH (FT)	TIME
SIZE (DIAM.)	1-3/8"ID		4¼"ID		4-6-94	0-17'	overcast, mild (60's)	15.0	
LENGTH	2.0'		5.0'						
TYPE	STD.		HSA						
HAMMER WT.	140#								
FALL	30"								
STICK UP									

REMARKS: Boring sampled to 17.0' and grouted to surface. HNu background is .4 ppm

SAMPLE TYPE
S = Split Spoon A = Auger
T = Shelby Tube W = Wash
R = Air Rotary C = Core
D = Denison P = Piston
N = No Sample

DEFINITIONS
SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5')
RQD = Rock Quality Designation (%)
PID = Photoionization Detector

Depth (Ft.)	Sample Type and No.	Samp. Rec. Ft. & %	SPT or RQD	Samp. Desig.	PID (ppm)	Visual Description	Elevation
1 — 1.0	N	—	—		—	NO SAMPLE	
2	S-1	.9/2.0 45%	22/6" 50/2"	01	BG	SILTY SAND, fine grained. Brown, dense, damp.	
3 — 3.0							
4	S-2	1.6/2.0 80%	16 7 8 6		BG		
5 — 5.0							
6	S-3	1.6/2.0 80%	4 4 5 6		BG	SAND, fine grained w/ trace silt. Brown to light brown, loose to medium dense, damp. Oxidation streaks (orange) from 9' (bgs)	
7 — 7.0							
8	S-4	1.4/2.0 70%	3 6 4 6	04	BG		
9 — 9.0							
	S-5	1.9/2.0 95%	3 5		BG		

Match to Sheet 2

DRILLING CO.: EMTC BAKER REP.: J. E. Zimmerman
DRILLER: G. Barnes BORING NO.: 1-15-SB02 SHEET 1 OF 2

Baker

Baker Environmental, Inc.

TEST BORING RECORD

PROJECT: Site 1 - FCLDA RI/FS MCB Camp Lejeune
S.O. NO.: 19231 BORING NO.: I-15-SB02

SAMPLE TYPE
S = Split Spoon A = Auger
T = Shelby Tube W = Wash
R = Air Rotary C = Core
D = Denison P = Piston
N = No Sample

DEFINITIONS
SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5')
RQD = Rock Quality Designation (%)
PID = Photoionization Detector

Depth (Ft.)	Sample Type and No.	Samp. Rec. (Ft. & %)	SPT or RQD	Samp. Desig.	PID (ppm)	Visual Description	Elevation
11.0	S-5	95%	6 8		BG	Continued from Sheet 1	
11							
12	S-6	1.5/2.0 75%	7 12 15 15		BG	SAND, fine grained w/ trace silt. Brown to dark brown to light brown, medium dense to dense, damp to moist to wet. Oxidation streaks (orange) to 15' (bgs).	
13.0							
13							
14	S-7	1.5/2.0 75%	9 12 22 37	07	BG		
15.0							
15							
16	S-8	1.0/2.0 50%	12 16 28 32		BG		
17.0						End of Boring TD 17.0'	
18							
19							
20							
21							
22							
23							
24							
25							
26							
27							
28							
29							

Match to Sheet 3

DRILLING CO.: EMTC BAKER REP.: J. E. Zimmerman
DRILLER: G. Barnes BORING NO.: I-15-SB02 SHEET 2 OF 2

TEST BORING RECORD

Baker Environmental, Inc.

PROJECT: Site 1 - FCLDA RI/FS MCB Camp Lejeune
S.O. NO.: 19231 BORING NO.: 1-S-SB03
COORDINATES: EAST: 2502136.88 NORTH: 332743.90
ELEVATION: SURFACE: 20.90 TOP OF PVC CASING: ____

RIG: MOBILE B-57	SPLIT SPOON	CASING	AUGERS	CORE BARREL	DATE	PROGRESS (FT)	WEATHER	WATER DEPTH (FT)	TIME
SIZE (DIAM.)	1-3/8"ID		4¼"ID		3-30-94	0.0-17.0	PARTLY CLOUDY ±60°	15.0±	
LENGTH	2.0'		5.0						
TYPE	STD.		HSA						
HAMMER WT.	140#								
FALL	30"								
STICK UP									

REMARKS: Boring sampled to 17.0' and grouted to surface. HNu background = 0.2

SAMPLE TYPE
S = Split Spoon A = Auger
T = Shelby Tube W = Wash
R = Air Rotary C = Core
D = Denison P = Piston
N = No Sample

DEFINITIONS
SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5')
RQD = Rock Quality Designation (%)
PID = Photoionization Detector

Depth (Ft.)	Sample Type and No.	Samp. Rec. Ft. & %	SPT or RQD	Samp. Desig.	PID (ppm)	Visual Description	Elevation
1 — 1.0						SAND fine grained, some crushed stone AUGERED TO 1.0'	
2 —	S-1	1.0/2.0 50%	8 11 11 11	01	BG	SAND, fine grained, trace silt, light brown to brown, medium dense, damp	
3 — 3.0						SILT, trace sand trace clay from 2.5'-3.0'	
4 —	S-2	2.0/2.0 100%	5 5 6 8		BG	SAND, fine grained, little silt, brown, medium dense, damp	
5 — 5.0							
6 —	S-3	2.0/2.0 100%	5 6 7 8	03	BG	SAND, fine grained, little silt, Brown to white, medium dense, damp	
7 — 7.0							
8 —	S-4	1.3/2.0 65%	4 5 5 7		BG	SAND, fine grained, little silt, orangish brown, medium dense, damp	
9 — 9.0							
	S-5	1.6/2.0 80%	6 7		BG	SAND, fine grained little silt, orangish brown to light brown to dark brown, medium dense, damp	

Match to Sheet 2

DRILLING CO.: EMTC BAKER REP.: MARTIN G. TAUBE
DRILLER: J. MARSH BORING NO.: 1-S-SB03 SHEET 1 OF 2

TEST BORING RECORD

Baker Environmental, Inc.

PROJECT: Site 1 - FCLDA RI/FS MCB Camp Lejeune
S.O. NO.: 19231 BORING NO.: 1-S-SB03

SAMPLE TYPE
S = Split Spoon A = Auger
T = Shelby Tube W = Wash
R = Air Rotary C = Core
D = Denison P = Piston
N = No Sample

DEFINITIONS
SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5')
RQD = Rock Quality Designation (%)
PID = Photoionization Detector

Depth (Ft.)	Sample Type and No.	Samp. Rec. (Ft. & %)	SPT or RQD	Samp. Desig.	PID (ppm)	Visual Description	Elevation
11.0			11 8			Continued from Sheet 1	
11							
12	S-6	1.1 2.0 55%	7 7 11 11	06	BG	SAND, fine grained, little silt, dark brown to white, medium dense, damp to moist	
13.0							
13		0.0 2.0	4 5			NO RECOVERY	
14	S-7		8			Bottom of Split Spoon WET	
15.0		0%	8				
15		1.1 2.0	5 5			SAND, fine grained, little silt, white, medium dense, wet	
16	S-8		7		BG		
17.0		55%	10				3.90
18						END OF BORING TOTAL DEPTH = 17.0'	
19							
20							
21							
22							
23							
24							
25							
26							
27							
28							
29							
						Match to Sheet 3	

DRILLING CO.: EMTC
DRILLER: J. MARSH
BAKER REP.: MARTIN G. TAUBE
BORING NO.: 1-S-SB03
SHEET 2 OF 2

TEST BORING RECORD

Baker Environmental, Inc.

PROJECT: Site 1 - FCLDA RI/FS MCB CAMP LEJEUNE
S.O. NO.: 62470-231 BORING NO.: 1-SB-04
COORDINATES: EAST: 2502128.80 NORTH: 332525.21
ELEVATION: SURFACE: 21.84 TOP OF PVC CASING:

RIG: B-57

	SPLIT SPOON	CASING	AUGERS	CORE BARREL	DATE	PROGRESS (FT)	WEATHER	WATER DEPTH (FT)	TIME
SIZE (DIAM.)	1 3/8" ID		3 1/4" ID		4-5-94	15	SUNNY	15	
LENGTH	2.0'		5.0'						
TYPE	STD		HSA						
HAMMER WT.	140 #								
FALL	30"								
STICK UP									

REMARKS: BACKGROUND (BG) HNU ≥ 0.2 PPM

SAMPLE TYPE
S = Split Spoon A = Auger
T = Shelby Tube W = Wash
R = Air Rotary C = Core
D = Denison P = Piston
N = No Sample

DEFINITIONS
SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5')
RQD = Rock Quality Designation (%)
Lab Class. = USCS (ASTM D-2487) or AASHTO (ASTM D-3282)
Lab Moist. = Moisture Content (ASTM D-2216) Dry Weight Basis

Depth (Ft.)	Sample Type and No.	Samp. Rec. Ft. & %	SPT or RQD	Lab. Class. or Pen. Rate	PID (ppm)	Visual Description	Elevatic
1						1' Fill - SAND-FINE AND GRAVEL-F	
2	LAB	S-1	1.25/2			CLAY SOME SAND-FINE	
				8			
				18			
				14	01		
3			63%	15	BG	DRY. BLACK. DENSE	
4		S-2	1.33/2	8		SAND-FINE AND SILT	
				8			
				9		DRY. LT. GRAY. MED DENSE	
5			67%	10	BG		
6		S-3	1.63/2	6		SAND-FINE TRACE SILT	
				6			
				9		DRY. TAN. MED DENSE	
7			83%	9	BG		
8	LAB	S-4	1.63/2	4		SAND-FINE LITHIC SILT	
				5			
				6	04	DRY. ORANGE. MED DENSE	
9			83%	6	BG		
10		S-5	1.60/2	6		SAND-FINE TRACE SILT	
				7		DAMP. BROWN AND WHITE	
					BG	MED DENSE	

Match to Sheet 2

DRILLING CO.: EMTC BAKER REP.: KENNETH A. TUA
DRILLER: JIM MARSH BORING NO.: 1-SB-04 SHEET 1 OF 2

Baker

Baker Environmental, Inc.

TEST BORING RECORD

PROJECT: SITE 1 - FOLDA RIFS MCB CAMP LEJEUNE
S.O. NO.: 62470-231 BORING NO.: 1-SB-04

SAMPLE TYPE
S = Split Spoon A = Auger
T = Shelby Tube W = Wash
R = Air Rotary C = Core
D = Denison P = Piston
N = No Sample

DEFINITIONS
SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5')
RQD = Rock Quality Designation (%)
Lab Class. = USCS (ASTM D-2487) or AASHTO (ASTM D-3282)
Lab Moist. = Moisture Content (ASTM D-2216) Dry Weight Basis

Depth (Ft.)	Sample Type and No.	Samp. Rec. (Ft. & %)	SPT or RQD	Lab. Class. or Pen. Rate	PID (ppm)	Visual Description	Elevation
10	S-5	79%	14 14		BG	CONTINUED	
11		1.6 / 2	7 9			SAND-FINE TRACE SILT DAMP. BROWN. MED DENSE	
12	LAB S-6	79%	11 10	CC	BG		
13		1.6 / 2	12 11			SAND-FINE TRACE SILT MOIST TO WET. BROWN MED DENSE	
14	S-7	88%	10 13		BG		
15						WATER @ 15' END OF BORING 15'	6.84
16							
17							
18							
19							
20							
21							
22							
23							
24							
25							
26							
27							
28							
29							
30							

DRILLING CO.: EMTC BAKER REP.: KENNETH A. TWA
DRILLER: JIM MARSH BORING NO.: 1-SB-04 SHEET 2 OF 2

TEST BORING RECORD

Baker Environmental, Inc.

PROJECT: Site 1 - FCLDA RI/FS MCB Camp Lejeune
S.O. NO.: 19231 BORING NO.: 1-S-SB05
COORDINATES: EAST: 2502098.63 NORTH: 332369.54
ELEVATION: SURFACE: 23.71 TOP OF PVC CASING:

RIG: MOBILE B-61

	SPLIT SPOON	CASING	AUGERS	CORE BARREL
SIZE (DIAM.)	1-3/8"ID		3¼" ID	
LENGTH	2.0'		5.0'	
TYPE	STD.		HSA	
HAMMER WT.	140#			
FALL	30"			
STICK UP				

DATE	PROGRESS (FT)	WEATHER	WATER DEPTH (FT)	TIME
3-30-94	0.0-19.0	PARTLY SUNNY ±70°	18.0	

REMARKS: Boring sampled to 19.0' and grouted to surface. HNu BG = 0.4ppm

SAMPLE TYPE
S = Split Spoon A = Auger
T = Shelby Tube W = Wash
R = Air Rotary C = Core
D = Denison P = Piston
N = No Sample

DEFINITIONS
SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5')
RQD = Rock Quality Designation (%)
PID = Photoionization Detector

Depth (Ft.)	Sample Type and No.	Samp. Rec. Ft. & %	SPT or RQD	Samp. Desig.	PID (ppm)	Visual Description	Elevation
1 – 1.0						SAND, fine grained, and crushed stone, brown, damp (AUGERED 0.0' TO 1.0')	
2 –	S-1	1.1/2.0 55%	16 23 15 17	01	BG	SAND, fine grained, some silt, brown, dense, damp	
3 – 3.0							
4 –	S-2	1.5/2.0 75%	12 13 15 15		BG	SAND, fine grained, some silt, brown, medium dense, damp	
5 – 5.0							
6 –	S-3	1.3/2.0 65%	7 10 10 12		BG	SAND, fine grained, trace silt, brown to light brown with white zones, medium dense, damp	
7 – 7.0							
8 –	S-4	1.2/2.0 60%	6 11 13 14	04	BG	SAND, fine grained, trace silt, white, medium dense, damp	
9 – 9.0							
10 –	S-5	1.5/2.0 75%	6 8		BG	SAND, Fine grained, trace silt, white, medium dense, damp	

Match to Sheet 2

DRILLING CO.: EMTC BAKER REP.: MARTIN G. TAUBE
DRILLER: J. MARSH BORING NO.: 1-S-SB05 SHEET 1 OF 2

Baker

Baker Environmental, Inc.

TEST BORING RECORD

PROJECT: Site 1 - FCLDA RI/FS MCB Camp Lejeune
S.O. NO.: 19231 BORING NO.: 1-S-SB05

SAMPLE TYPE
S = Split Spoon A = Auger
T = Shelby Tube W = Wash
R = Air Rotary C = Core
D = Denison P = Piston
N = No Sample

DEFINITIONS
SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5')
RQD = Rock Quality Designation (%)
PID = Photoionization Detector

Depth (Ft.)	Sample Type and No.	Samp. Rec. (Ft. & %)	SPT or RQD	Samp. Desig.	PID (ppm)	Visual Description	Elevation
11.0			8 10			Continued from Sheet 1	
11							
12	S-6	1.4/2.0 70%	7 9 10 11		BG	SAND, fine grained, trace silt, white, medium dense, damp	
13.0							
13							
14	S-7	1.6/2.0 80%	40 32 45 57		BG	SAND, fine grained, trace silt, white to yellowish brown, medium dense, damp DROVE 3" OD SPLIT SPOON FROM 13.0'-15.0'	
15.0							
15							
16	S-8	1.3/2.0 65%	7 10 15 21	08	BG	SAND, fine grained, trace silt, white, medium dense, moist	
17.0							
18	S-9	2.0/2.0 100%	5 7 6 7		BG	SAND, fine grained, little silt, yellowish brown to orangish brown with gray mottling, medium dense, moist to wet. SILT seams present throughout.	
19.0							4.71
19						END OF BORING TOTAL DEPTH = 19.0'	
20							
21							
22							
23							
24							
25							
26							
27							
28							
29							

Match to Sheet 3

DRILLING CO.: EMTC
DRILLER: J. MARSH

BAKER REP.: MARTIN G. TAUBE
BORING NO.: 1-S-SB05

Baker

Baker Environmental, Inc.

TEST BORING RECORD

PROJECT: Site 1 - FCLDA RI/FS MCB CAMP LEJEUNE
S.O. NO.: 62470 - 231 BORING NO.: 1-1S-SBC6
COORDINATES: EAST: 2502319.96 NORTH: 332332.57
ELEVATION: SURFACE: 25.61 TOP OF PVC CASING:

RIG: B-57	SPLIT SPOON	CASING	AUGERS	CORE BARREL	DATE	PROGRESS (FT)	WEATHER	WATER DEPTH (FT)	TIME
SIZE (DIAM.)	1 3/8" ID		3 1/4" ID		4-5-94	21	SUNNY	18	
LENGTH	2.0'		5.0'						
TYPE	STD		HSA						
HAMMER WT.	140 #								
FALL	30"								
STICK UP									

REMARKS: BACKGROUND (BG) HNU = 0.2 PPM

SAMPLE TYPE
S = Split Spoon A = Auger
T = Shelby Tube W = Wash
R = Air Rotary C = Core
D = Denison P = Piston
N = No Sample

DEFINITIONS
SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5')
RQD = Rock Quality Designation (%)
Lab Class. = USCS (ASTM D-2487) or AASHTO (ASTM D-3282)
Lab Moist. = Moisture Content (ASTM D-2216) Dry Weight Basis

Depth (Ft.)		Sample Type and No.	Samp. Rec. Ft. & %	SPT or RQD	Lab. Class. or Pen. Rate	PID (ppm)	Visual Description	Elevatic
1							1' FILL - SAND-FINE AND GRAVEL - F	
2	LAB	S-1	1.25/2 = 65%	8 9 8 8	01	BG	CLAY TRACE SAND-FINE DRY. BROWN. STIFF	
3								
4		S-2	1.5/2 = 75%	6 8 8 7		BG	SILT TRACE CLAY TRACE SAND-FINE DRY. BROWN. MED DENSE	
5								
6		S-3	1.41/2 = 71%	4 7 7 8		BG	SILT SOME SAND-FINE DAMP. BROWN. MED DENSE	
7								
8	LAB	S-4	1.83/2 = 92%	6 6 8 10	04	BG	SAND-FINE TRACE SILT DAMP. ORANGE. MED. DENSE 5" SAND-FINE. WHITE	
9								
10		S-5	1.41/2	8 7		BG	SAND-FINE TRACE SILT DAMP. LT. BROWN. MED DENSE	

Match to Sheet 2

DRILLING CO.: EMTC BAKER REP.: KENNETH A. TUA
DRILLER: JIM MARSH BORING NO.: 1-1S-SBC6 SHEET 1 OF 2

Baker

Baker Environmental, Inc.

TEST BORING RECORD

PROJECT: SITE 1 - FCLDA RIFS MCB CAMP LEJEUNE
S.O. NO.: 62470-231 BORING NO.: 1-1S-SB06

SAMPLE TYPE
S = Split Spoon A = Auger
T = Shelby Tube W = Wash
R = Air Rotary C = Core
D = Denison P = Piston
N = No Sample

DEFINITIONS
SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5')
RQD = Rock Quality Designation (%)
Lab Class. = USCS (ASTM D-2487) or AASHTO (ASTM D-3282)
Lab Moist. = Moisture Content (ASTM D-2216) Dry Weight Basis

Depth (Ft.)	Sample Type and No.	Samp. Rec. (Ft. & %)	SPT or RQD	Lab. Class. or Pen. Rate	PID (ppm)	Visual Description	Elevation
10	S-5	71%	10 10		BG	CONTINUED	
11		1.41/2	11 14			SAND-FINE TRACE SILT DAMP. WHITE. MED DENSE	
12	S-6	71%	13 18		BG		
13		1.60/2	10 6			SAND-FINE TRACE SILT DAMP. WHITE. MED DENSE	
14	S-7	79%	14 16		BG		
15		1.67/2	11 14			SAND-FINE TRACE SILT DAMP. WHITE. MED DENSE	
16	LAB S-8	83%	15 18	08	BG		
17		1.67/2	7 7			SAND-FINE TRACE SILT MOIST. LT. GRAY WATER @ 18' MOTTLED MED DENSE	
18	S-9	83%	9 11		BG		
19		2/2	2 3			CLAY TRACE SAND-FINE MOIST TO WET. ORANGE. MED STIFF	
20	S-10	100%	4 5		BG		
21						END OF BORING 21'	4.61
22							
23							
24							
25							
26							
27							
28							
29							
30							

DRILLING CO.: EMTC BAKER REP.: KENNETH A. TWA
DRILLER: JIM MARSH BORING NO.: 1-1S-SB06 SHEET 2 OF 2

TEST BORING RECORD

Baker Environmental, Inc.

PROJECT: Site 1 - FCLDA RI/FS MCB Camp Lejeune
S.O. NO.: 19231 BORING NO.: 1-IS-SB07
COORDINATES: EAST: 2502262.6200 NORTH: 332490.8160
ELEVATION: SURFACE: 22.9' TOP OF PVC CASING:

RIG: MOBILE B-57									
	SPLIT SPOON	CASING	AUGERS	CORE BARREL	DATE	PROGRESS (FT)	WEATHER	WATER DEPTH (FT)	TIME
SIZE (DIAM.)	1-3/8"ID		4¼" ID		3-30-94	0.0-17.0	PARTLY CLOUDY 60°	15.0	
LENGTH	2.0'		5.0'						
TYPE	STD.		HSA						
HAMMER WT.	140#								
FALL	30"								
STICK UP									

REMARKS: Boring sampled to 17.0' and grouted to surface HNu BG = 0.2 PPM

SAMPLE TYPE
S = Split Spoon A = Auger
T = Shelby Tube W = Wash
R = Air Rotary C = Core
D = Denison P = Piston
N = No Sample

DEFINITIONS
SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5')
RQD = Rock Quality Designation (%)
PID = Photoionization Detector

Depth (Ft.)	Sample Type and No.	Samp. Rec. Ft. & %	SPT or RQD	Samp. Desig.	PID (ppm)	Visual Description	Elevation
1 1.0					BG	0.0-0.2 ASPHALT WEARING / BINDER COURSE 0.2-1.0 SAND, SOME CRUSHED STONE (BASE CRS)	
2 3 3.0	S-1	1.1 / 2.0 55%	3 16 18 12	01	BG	SAND, fine grained, trace silt, brown, dense, damp, NOTICEABLE ODOR - POSSIBLY PETROLEUM	
4 5 5.0	S-2	1.3 / 2.0 65%	4 4 5 8		BG	SAND, fine grained, little silt, brown, loose, damp to moist	
6 7 7.0	S-3	1.1 / 2.0 55%	5 5 5 6		BG	SAND, fine grained, little silt, brown, medium dense, damp	
8 9 9.0	S-4	1.3 / 2.0 65%	4 5 8 8	04	BG	SAND, fine grained, little silt, yellowish brown, medium dense, damp	
	S-5	1.9 / 2.0 95%	4 6		BG	SAND, fine grained, trace silt, yellowish brown and white, medium dense, damp	

Match to Sheet 2

DRILLING CO.: EMTC BAKER REP.: MARTIN G. TAUBE
DRILLER: J. MARSH BORING NO.: 1-IS-SB07 SHEET 1 OF 2

Baker

Baker Environmental, Inc.

TEST BORING RECORD

PROJECT: Site 1 - FCLDA RI/FS MCB Camp Lejeune
S.O. NO.: 19231 BORING NO.: 1-15-SB07

SAMPLE TYPE
S = Split Spoon A = Auger
T = Shelby Tube W = Wash
R = Air Rotary C = Core
D = Denison P = Piston
N = No Sample

DEFINITIONS
SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5')
RQD = Rock Quality Designation (%)
PID = Photoionization Detector

Depth (Ft.)	Sample Type and No.	Samp. Rec. (Ft. & %)	SPT or RQD	Samp. Desig.	PID (ppm)	Visual Description	Elevation
11.0			8 9			Continued from Sheet 1	
11						SAND, fine grained, trace silt yellowish brown to dark brown, medium dense, damp	
12	S-6	1.5/2.0 75%	3 6 9 11		BG		
13.0							
13						SAND, fine grained, trace silt dark brown to light brown, medium dense, moist	
14	S-7	2.0/2.0 100%	5 5 8 8	07	BG		
15.0							
15						SAND, fine grained, trace silt, light brown to white, medium dense, wet	
16	S-8	1.2/2.0 60%	5 6 6 7		BG		
17.0							
7						END OF BORING TOTAL DEPTH = 17.0'	
18							
19							
20							
21							
22							
23							
24							
25							
26							
27							
28							
29							
0						Match to Sheet 3	

DRILLING CO.: EMTC
DRILLER: J. MARSH
BAKER REP.: MARTIN G. TAUBE
BORING NO.: 1-15-SB07
SHEET 2 OF 2

Baker

Baker Environmental, Inc.

TEST BORING RECORD

PROJECT: Site 1 - FCLDA RI/FS MCB Camp Lejeune
S.O. NO.: 19231 BORING NO.: 1-S-SB08
COORDINATES: EAST: 2502213.69 NORTH: 332573.45
ELEVATION: SURFACE: 21.90 TOP OF PVC CASING:

RIG:	SPLIT SPOON	CASING	AUGERS	CORE BARREL	DATE	PROGRESS (FT)	WEATHER	WATER DEPTH (FT)	TIME
SIZE (DIAM.)	1-3/8"ID		3¼" ID		4-5-94	0.0-15.0	PARTLY SUNNY ±75°	14.5	
LENGTH	2.0'		5.0						
TYPE	STD.		HSA						
HAMMER WT.	140#								
FALL	30"								
STICK UP									

REMARKS: Boring sampled to 15.0' and grouted to surface. HNu BG = 0.2 ppm

SAMPLE TYPE
S = Split Spoon A = Auger
T = Shelby Tube W = Wash
R = Air Rotary C = Core
D = Denison P = Piston
N = No Sample

DEFINITIONS
SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5')
RQD = Rock Quality Designation (%)
PID = Photoionization Detector

Depth (Ft.)	Sample Type and No.	Samp. Rec. Ft. & %	SPT or RQD	Samp. Desig.	PID (ppm)	Visual Description	Elevation
1 1.0						SAND, fine grained, little crushed stone, brown, damp (AUGERED FROM 0.0'-1.0')	
2 3.0	S-1	1.7/2.0 85%	14 23 27 15	01	BG	SAND, fine grained, trace silt, brown, medium dense, damp NOTE: DROVE 3" O.D. SPLIT SPOON	
4 5.0	S-2	0.1/2.0 5%	3 3 4 6		BG	SAND, fine grained, trace silt, light brown, loose, damp	
6 7.0					BG	SAND, fine grained, trace silt light brown, damp (DESCRIPTION BASED ON INSPECTION OF RETURNS, DRILLER MISTAKENLY AUGERED THROUGH INTERVAL)	
8 9.0	S-3	1.4/2.0 70%	6 5 7 8	04	BG	SAND, fine grained, trace to little silt, light brown, medium dense, damp	
	S-4	1.4/2.0 70%	4 6		BG	SAND fine grained, trace silt, light brown to white, medium dense, damp	

Match to Sheet 2

DRILLING CO.: EMTC BAKER REP.: MARTIN G. TAUBE
DRILLER: J. MARSH BORING NO.: 1-S-SB08 SHEET 1 OF 2

Baker

Baker Environmental, Inc.

TEST BORING RECORD

PROJECT: Site 1 - FCLDA RI/FS MCB Camp Lejeune
S.O. NO.: 19231 BORING NO.: 1-S-SB08

SAMPLE TYPE
S = Split Spoon A = Auger
T = Shelby Tube W = Wash
R = Air Rotary C = Core
D = Denison P = Piston
N = No Sample

DEFINITIONS
SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5')
RQD = Rock Quality Designation (%)
PID = Photoionization Detector

Depth (Ft.)	Sample Type and No.	Samp. Rec. (Ft. & %)	SPT or RQD	Samp. Desig.	PID (ppm)	Visual Description	Elevation
11.0			6 7			Continued from Sheet 1	
12	S-5	1.9/2.0 95%	6 7 9 10		BG	SAND, fine grained, trace silt, light brown to dark brown, medium dense, damp	
13.0							
14	S-6	2.0/2.0 100%	32 19 21 19	07	BG	SAND, fine grained, trace silt, dark brown, medium dense, damp (13.0' to 13.2') to moist (13.2' to 14.5') to wet (below 14.5') DRIVE 3" O.D. SPLIT SPOON, SAMPLE COLLECTED FROM 13.2' to 14.2'	
15.0							6.90
16						End of Boring TD: 15.0'	
18							
19							
20							
21							
22							
23							
24							
25							
26							
27							
28							
29							

Match to Sheet 3

DRILLING CO.: EMTC
DRILLER: J. MARSH
BAKER REP.: MARTIN G. TAUBE
BORING NO.: 1-S-SB08
SHEET 2 OF 2

TEST BORING RECORD

Baker Environmental, Inc.

PROJECT: Site 1 - FCLDA RI/FS MCB Camp Lejeune
S.O. NO.: 19231 BORING NO.: 1-15-SB09
COORDINATES: EAST: 2502352.65 NORTH: 332573.75
ELEVATION: SURFACE: 23.03 TOP OF PVC CASING:

RIG: MOBILE B-57									
	SPLIT SPOON	CASING	AUGERS	CORE BARREL	DATE	PROGRESS (FT)	WEATHER	WATER DEPTH (FT)	TIME
SIZE (DIAM.)	1-3/8"ID		3¼" ID		4-5-94	0.0-17.0	PARTLY SUNNY ±75°	16.0	
LENGTH	2.0'		5.0'						
TYPE	STD.		HSA						
HAMMER WT.	140#								
FALL	30"								
STICK UP									

REMARKS: Boring sampled to 17.0' and grouted to surface. HNu BG = 0.2 ppm

SAMPLE TYPE
S = Split Spoon A = Auger
T = Shelby Tube W = Wash
R = Air Rotary C = Core
D = Denison P = Piston
N = No Sample

DEFINITIONS
SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5')
RQD = Rock Quality Designation (%)
PID = Photoionization Detector

Depth (Ft.)	Sample Type and No.	Samp. Rec. Ft. & %	SPT or RQD	Samp. Desig.	PID (ppm)	Visual Description	Elevation
1 — 1.0						SAND, fine grained and crushed stone, brown, very dense, damp (AUGERED 0.0-1.0)	
2 —	S-1	1.2/2.0 60%	13 31 55 27	01	BG	SAND, fine grained, trace silt, dark brown, very dense, damp	
3 — 3.0							
4 —	S-2	1.2/2.0 60%	5 5 6 5		BG	SAND, fine grained, little silt, brown, medium dense, damp	
5 — 5.0							
6 —	S-3	1.1/2.0 55%	4 4 5 4		BG	SAND, fine grained, little silt, brown, loose, damp	
7 — 7.0							
8 —	S-4	1.5/2.0 75%	3 3 6 6	04	BG	SAND, fine grained, trace silt, light brown, loose, damp	
9 — 9.0							
	S-5	2.0/2.0 100%	4 5		BG	SAND, fine grained, trace silt, light brown to dark brown to light brown, med. dense, damp	

Match to Sheet 2

DRILLING CO.: EMTC BAKER REP.: MARTIN G. TAUBE
DRILLER: J. MARSH BORING NO.: 1-15-SB09

TEST BORING RECORD

Baker Environmental, Inc.

PROJECT: Site 1 - FCLDA RI/FS MCB Camp Lejeune
S.O. NO.: 19231 BORING NO.: 1-15-SB09

SAMPLE TYPE
S = Split Spoon A = Auger
T = Shelby Tube W = Wash
R = Air Rotary C = Core
D = Denison P = Piston
N = No Sample

DEFINITIONS
SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5')
RQD = Rock Quality Designation (%)
PID = Photoionization Detector

Depth (Ft.)	Sample Type and No.	Samp. Rec. (Ft. & %)	SPT or RQD	Samp. Desig.	PID (ppm)	Visual Description	Elevation
11.0			5 7			Continued from Sheet 1	
11							
12	S-6	1.5/2.0 75%	5 5 6 8		BG	SAND, fine grained, trace silt, light brown, medium dense, damp	
13.0							
13							
14	S-7	1.5/2.0 75%	3 6 8 9	07	BG	SAND, fine grained, trace silt, brown, medium dense, damp	
15.0							
15							
16	S-8	2.0/2.0 100%	6 7 6 8		BG	SAND, fine grained, trace silt, dark brown, medium dense, damp to moist to wet (wet below 16.0')	
17.0							6.03
18						END OF BORING TOTAL DEPTH = 17.0'	
19							
20							
21							
22							
23							
24							
25							
26							
27							
28							
29						Match to Sheet 3	

DRILLING CO.: EMTC
DRILLER: J. MARSH
BAKER REP.: MARTIN G. TAUBE
BORING NO.: 1-15-SB09
SHEET 2 OF 2

Baker

Baker Environmental, Inc.

FIELD TEST BORING RECORD

PROJECT: SITE 1 FLOLOA RIFLES CAMP LEJEUNE
S.O. NO.: 62470-231 BORING NO.: 1-15-SB10
COORDINATES: EAST: 2502485.70 NORTH: 332682.23
ELEVATION: SURFACE: 22.81 TOP OF PVC CASING:

RIG: 8-57	SPLIT SPOON	CASING	AUGERS	CORE BARREL	DATE	PROGRESS (FT)	WEATHER	TOP OF CASING WATER DEPTH (FT)	TIME
SIZE (DIAM.)	1 3/8" ID		3 1/4" ID		3-29-94	19	SUNNY	17	
LENGTH	2.0'		5.0'						
TYPE	STD		HSA						
HAMMER WT.	140 lb								
FALL	30"								
STICK UP									

REMARKS: BACKGROUND (BG) HNU = 0.2 ppm

DRILL RECORD							VISUAL DESCRIPTION					
DEPTH	SOIL / ROCK	Sample ID / Type-No. (N = No Samp.)	Samp. Rec. (Ft. & %)	SPT Blows Per 0.5' / RQD (Ft. & %)	Lab. Class. / Pen. Rate	PID (ppm)	Classification (Grain Size, Principal Constituents, Etc.) / Classification (Name, Grain Size, Principal Constituents, Etc.)	Color	Consist. or Density / Hardness	Moisture Content, Organic Content, Plasticity, and Other Observations / Weathering, Bedding, Fracturing, and Other Observations	SOIL / ROCK	ELEVATION
1							1' FILL - SAND-FINE AND GRAVEL-FILL					
2	LAB	S-1	1.33/2 = 42%	10, 15, 28, 27	01	BG	SAND-FINE TRACE SILT	BROWN	DENSE	DRY		
3												
4		S-2	2/2 = 100%	4, 6, 7, 6		BG	SAND-FINE TRACE SILT	BROWN	MED DENSE	DRY		
5												
6		S-3	1.41/2 = 71%	3, 2, 4, 3		BG	SAND-FINE TRACE SILT	BROWN	LOOSE	DAMP		
7												
8	LAB	S-4	1.16/2 = 58%	6, 12, 23, 29	02	BG	SAND-FINE TRACE SILT	BROWN	DENSE	DRY		
9							SAND-FINE LITTLE SILT	BROWN	VERY DENSE	DAMP		
10		S5	1.16/2	4, 24		BG						

DRILLING CO.: EMTC BAKER REP.: KENNETH A. TUA
DRILLER: JIM MARSH BORING NO.: 1-15-SB10 SHEET 1 OF 2

Baker

Baker Environmental, Inc.

FIELD TEST BORING RECORD

PROJECT: SITE 1 FCLDA RI/FS MCB CAMP LEJEUNE

S.O. NO.: 62470-231 BORING NO.: 1-IS-SB

DRILL RECORD							VISUAL DESCRIPTION					
DEPTH	SOIL / ROCK	Sample ID — Type-No. (N = No Samp.)	Samp. Rec. (Ft. & %)	SPT Blows Per 0.5' / RQD (Ft. & %)	Lab. Class. / Pen. Rate	PID (ppm)	Classification (Grain Size, Principal Constituents, Etc.) / Classification (Name, Grain Size, Principal Constituents, Etc.)	Color	Consist. or Density / Hardness	Moisture Content, Organic Content, Plasticity, and Other Observations / Weathering, Bedding, Fracturing, and Other Observations	SOIL / ROCK	ELEVATION
10		S-5	58%	33 36		BG	CONTINUED					
11			1.83/2	6			SAND-FINE LITTLE SILT	LT. BROWN	MED DENSE	DAMP		
12		S-6	92%	10 12 14		BG						
13			1.91/2	7 10			SAND-FINE LITTLE SILT	WHITE	MED. DENSE	MOIST		
14		S-7	96%	12 17		BG						
15			1.25/2	4 5			SAND-FINE LITTLE SILT	WHITE	MED DENSE	MOIST MOTTLED		
16	LAB	S-8	63%	11 15	03	BG						
17			1.25/2	4 5			WATER @ 17'					
18		S-9	63%	5 4		BG	SAND-F LITTLE SILT	BROWN	MED DENSE	MOIST		3.8
19							END OF BORING 19'					
20												
21												
22												
23												
24												
25												
26												
27												
28												
29												
30												

DRILLING CO.: EMTC

DRILLER: JIM MARSH

BAKER REP.: KENNETH A. TWA

BORING NO.: 1-IS-SB10 SHEET 2 OF 2

Baker

Baker Environmental, Inc.

FIELD TEST BORING RECORD

PROJECT: SITE 1 FCLDA RI/FS MCB CAMP LEJEUNE
S.O. NO.: 62470-231 BORING NO.: 1-1S-SB11
COORDINATES: EAST: 2502299.55 NORTH: 332686.38
ELEVATION: SURFACE: 21.90 TOP OF PVC CASING:

RIG: B-57	SPLIT SPOON	CASING	AUGERS	CORE BARREL	DATE	PROGRESS (FT)	WEATHER	TOP OF CASING WATER DEPTH (FT)	TIME
SIZE (DIAM.)	1 3/8" ID		3 1/4" ID		3-30-94	15	SUNNY	13	
LENGTH	2.0'		5.0'						
TYPE	STD		HSA						
HAMMER WT.	140#								
FALL	30"								
STICK UP									

REMARKS: BACKGROUND (BG) HNU = 0.2 PPM

DRILL RECORD							VISUAL DESCRIPTION					
DEPTH	SOIL / ROCK	Sample ID / Type-No. (N = No Samp.)	Samp. Rec. (Ft. & %)	SPT Blows Per 0.5' / RQD (Ft. & %)	Lab. Class. / Pen. Rate	PID (ppm)	Classification (Grain Size, Principal Constituents, Etc.) / Classification (Name, Grain Size, Principal Constituents, Etc.)	Color	Consist. or Density / Hardness	Moisture Content, Organic Content, Plasticity, and Other Observations / Weathering, Bedding, Fracturing, and Other Observations	SOIL / ROCK	ELEVATION
1							1' FILL - SAND-F GRAVEL - FINE					
2	LAB	S-1	.67/2 = 33%	6, 45, 52/12	01	BG	SAND-FINE TRACE SILT	BROWN	VERY DENSE	DRY		
3												
4		S-2	1.08/2 = 54%	3, 5, 6, 6		BG	CLAY SOME SILT TRACE SAND-FINE	BROWN	MED DENSE	DRY		
5												
6	LAB	S-3	1.33/2 = 67%	3, 7, 10, 10	03	BG	CLAY SOME SILT TRACE SAND-FINE	BROWN	VERY STIFF	DRY		
7							3' SAND-FINE TRACE SILT	WHITE		DRY		
8		S-4	1.41/2 = 71%	3, 8, 8, 9		BG	SAND-FINE TRACE SILT	ORANGE	MED DENSE	DRY		
9												
10		S-5	1.08/2	5, 7		BG	SAND-FINE TRACE SILT	ORANGE	MED DENSE	DRY		

DRILLING CO.: EMTC BAKER REP.: KENNETH A. TUA
DRILLER: JIM MARSH BORING NO.: 1-1S-SB11 SHEET 1 OF 2

Baker

Baker Environmental, Inc.

FIELD TEST BORING RECORD

PROJECT: Site 1 - FCLDA RI/FS MCB CAMP LEJEUNE
S.O. NO.: 62470-231 BORING NO.: 1-1S-SB11

DRILL RECORD							VISUAL DESCRIPTION					
DEPTH	SOIL / ROCK	Sample ID — Type-No. (N = No Samp.)	Samp. Rec. (Ft. & %)	SPT Blows Per 0.5' / RQD (Ft. & %)	Lab. Class.. / Pen. Rate	PID (ppm)	Classification (Grain Size, Principal Constituents, Etc.) / Classification (Name, Grain Size, Principal Constituents, Etc.)	Color	Consist. or Density / Hardness	Moisture Content, Organic Content, Plasticity, and Other Observations / Weathering, Bedding, Fracturing, and Other Observations	SOIL / ROCK	ELEVATION
11		S-5	54%	7 9		BG	SILT TRACE SAND-FINE	BLACK	MED DENSE	DAMP		
12	LAB	S-6	1.0 / 2 = 54%	4 5 8 11	06	BG						
13							WATER @ 13'					
14		S-7	1.5 / 2 = 75%	6 5 4 4		BG	SILT TRACE SAND-FINE	BLACK	LOOSE	WET		6.9
15							END OF BORING 15'					
16												
7												
8												
9												
0												
1												
2												
3												
4												
5												
6												
7												
8												
9												
0												

DRILLING CO.: EMTC BAKER REP.: KENNETH A. TUA
DRILLER: JIM MARSH BORING NO.: 1-1S-SB11 SHEET 2 OF 2

TEST BORING RECORD

Baker Environmental, Inc.

PROJECT: Site 1 - FCLDA RI/FS MCB CAMP LEJEUNE
S.O. NO.: 62470-231 BORING NO.: 1-1S-12
COORDINATES: EAST: 2502183.27 NORTH: 332722.42
ELEVATION: SURFACE: 21.05 TOP OF PVC CASING:

RIG: B-57

	SPLIT SPOON	CASING	AUGERS	CORE BARREL
SIZE (DIAM.)	1 3/8" ID		3 1/4" ID	
LENGTH	2.0'		5.0'	
TYPE	STD		HSA	
HAMMER WT.	140 #			
FALL	30"			
STICK UP				

DATE	PROGRESS (FT)	WEATHER	WATER DEPTH (FT)	TIME
4-6-94	15	OVERCAST	15	

REMARKS: BACKGROUND (BG) HNU ≥ 0.2 PPM

SAMPLE TYPE
S = Split Spoon A = Auger
T = Shelby Tube W = Wash
R = Air Rotary C = Core
D = Denison P = Piston
N = No Sample

DEFINITIONS
SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5')
RQD = Rock Quality Designation (%)
Lab Class. = USCS (ASTM D-2487) or AASHTO (ASTM D-3282)
Lab Moist. = Moisture Content (ASTM D-2216) Dry Weight Basis

Depth (Ft.)	Sample Type and No.	Samp. Rec. Ft. & %	SPT or RQD	Lab. Class. or Pen. Rate	PID (ppm)	Visual Description	Elevation
1						1' FILL - SAND-FINE AND GRAVEL-F	
2	LAB S-1	1.1/2 58%	9 20 13 8	01	BG	SAND-FINE TRACE SILT DRY. LT. BROWN. DENSE	
3							
4	S-2	.9/2 46%	3 3 5 6		BG	SAND-FINE TRACE CLAY TRACE SILT DRY. BROWN. MED STIFF	
5							
6	S-3	1.6/2 79%	5 6 7 7		BG	SAND-FINE LITTLE SILT. DAMP. BROWN. MED DENSE	
7							
8	LAB S-4	2/2 100%	5 7 8 8	04	BG	SAND-FINE TRACE SILT DAMP. ORANGE/BROWN. MED. DENSE	
9							
10	S-5	1.6/2	8 8		BG	SAND-FINE TRACE SILT DAMP. BROWN & WHITE. MED DENSE	

Match to Sheet 2

DRILLING CO.: EMTC BAKER REP.: KENNETH A. TIA
DRILLER: JIM MARSH BORING NO.: 1-1S-SB12 SHEET 1 OF

Baker

Baker Environmental, Inc.

TEST BORING RECORD

PROJECT: SITE 1 - FCLDA RI/FS MCB CAMP LEJEUNE
S.O. NO.: 62470-231 BORING NO.: 1-D-SB12

SAMPLE TYPE
S = Split Spoon A = Auger
T = Shelby Tube W = Wash
R = Air Rotary C = Core
D = Denison P = Piston
N = No Sample

DEFINITIONS
SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5')
RQD = Rock Quality Designation (%)
Lab Class. = USCS (ASTM D-2487) or AASHTO (ASTM D-3282)
Lab Moist. = Moisture Content (ASTM D-2216) Dry Weight Basis

Depth (Ft.)	Sample Type and No.	Samp. Rec. (Ft. & %)	SPT or RQD	Lab. Class. or Pen. Rate	PID (ppm)	Visual Description	Elevation
	S-5	79%	8 7		BG	CONTINUED	
11		1.83/2	8			SAND-FINE TRACE SILT DAMP LT. BROWN, MED DENSE	
12	S-6	92%	10 10 12		BG		
13		2/2	18 11			SAND-FINE TRACE SILT MOIST TO WET. GRAY MED DENSE	
14	LAB S-7	100%	12 10	07	BG	BOTTOM 2" SATURATED	
15						WATER @ 15' END OF BORING 15'	6.05
16							
17							
18							
19							
20							
21							
22							
23							
24							
25							
26							
27							
28							
29							
30							

DRILLING CO.: EMTC BAKER REP.: KENNETH A. TUA
DRILLER: JIM MARSH BORING NO.: 1-1S-SB12 SHEET 2 OF 2

Baker

Baker Environmental, Inc.

TEST BORING RECORD

PROJECT: SITE 1 - FCLDA RI/FS MCB CAMP LEJEUNE
S.O. NO.: 62470 - 231 BORING NO.: 1-15-SB13
COORDINATES: EAST: 2502351.69 NORTH: 332762.54
ELEVATION: SURFACE: 21.66 TOP OF PVC CASING:

RIG: B-57

	SPLIT SPOON	CASING	AUGERS	CORE BARREL
SIZE (DIAM.)	1 3/8" ID		3 1/4" ID	
LENGTH	2.0'		5.0'	
TYPE	STD		HSA	
HAMMER WT.	140 #			
FALL	30"			
STICK UP				

DATE	PROGRESS (FT)	WEATHER	WATER DEPTH (FT)	TIME
4-6-94	17	CLOUDY	15	

REMARKS: BACKGROUND (BG) HNU = 0.2 PPM

SAMPLE TYPE
S = Split Spoon A = Auger
T = Shelby Tube W = Wash
R = Air Rotary C = Core
D = Denison P = Piston
N = No Sample

DEFINITIONS
SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5')
RQD = Rock Quality Designation (%)
Lab Class. = USCS (ASTM D-2487) or AASHTO (ASTM D-3282)
Lab Moist. = Moisture Content (ASTM D-2216) Dry Weight Basis

Depth (Ft.)	Sample Type and No.	Samp. Rec. Ft. & %	SPT or RQD	Lab. Class. or Pen. Rate	PID (ppm)	Visual Description	Elevation
1						1' FILL - SAND-FINE AND GRAVEL-F	
2	LAB	S-1	1.4/2	11 30 18 12	01	SILT AND SAND-FINE DRY. BROWN. DENSE	
3			71%		BG		
4		S-2	.35/2	7 2 2 3		SILT AND SAND-FINE DRY. BROWN. LOOSE	
5			37%		BG		
6		S-3	1.6/2	3 4 5 5		SAND-FINE SOME SILT DRY. WHITE. LOOSE	
7			79%		BG		
8	LAB	S-4	1.08/2	2 2 3 3	04	SAND-FINE LITTLE SILT DRY. WHITE. LOOSE	
9			54%		BG		
10		S-5	1.1/2	3 4		SAND-FINE TRACE SILT DRY. WHITE. LOOSE 4" BROWN.	

Match to Sheet 2

DRILLING CO.: EMTC BAKER REP.: KENNETH A. TUA
DRILLER: JIM MARSH BORING NO.: 1-15-SB13 SHEET 1 OF

Baker

Baker Environmental, Inc.

TEST BORING RECORD

PROJECT: SITE 1 - FOLDA RI/FS MCB CAMP LEJEUNE
S.O. NO.: 62470-231 BORING NO.: 1-15-SB13

SAMPLE TYPE
S = Split Spoon A = Auger
T = Shelby Tube W = Wash
R = Air Rotary C = Core
D = Denison P = Piston
N = No Sample

DEFINITIONS
SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5')
RQD = Rock Quality Designation (%)
Lab Class. = USCS (ASTM D-2487) or AASHTO (ASTM D-3282)
Lab Moist. = Moisture Content (ASTM D-2216) Dry Weight Basis

Depth (Ft.)		Sample Type and No.	Samp. Rec. (Ft. & %)	SPT or RQD	Lab. Class. or Pen. Rate	PID (ppm)	Visual Description	Elevation
10		S-5	58%	4 3		BG	CONTINUED	
11			1.33/2	4			SAND-FINE TRACE SILT DAMP. LT. BROWN. MED DENSE	
12		S-6	67%	4 6 5		BG		
13			1.16/2	4			SAND-FINE LITTLE SILT TRACE CLAY. DAMP. LT. BROWN	
14	LAB	S-7	58%	10 10 11	05	BG		
15			1.25/2	4			WATER @ 15'	
16		S-8	63%	8 10 16		BG	SAND-FINE LITHIC SILT WET. WHITE. MED DENSE.	
17							END OF BORING 17'	4.6
18								
19								
20								
21								
22								
23								
24								
25								
26								
27								
28								
29								
30								

DRILLING CO.: EMTC BAKER REP.: KENNETH A. TUA
DRILLER: JIM MARSH BORING NO.: 1-15-SB13 SHEET 2 OF

TEST BORING RECORD

Baker Environmental, Inc.

PROJECT: Site 1 - FCLDA RI/FS MCB Camp Lejeune
S.O. NO.: 19231 BORING NO.: I-15-SB14
COORDINATES: EAST: 2502265.05 NORTH: 332861.69
ELEVATION: SURFACE: 21.21 TOP OF PVC CASING: _____

RIG: #73	SPLIT SPOON	CASING	AUGERS	CORE BARREL	DATE	PROGRESS (FT)	WEATHER	WATER DEPTH (FT)	TIME
SIZE (DIAM.)	1-3/8"ID		4¼"ID		4-6-93	0-15.0	overcast mild (60's)	14.0	
LENGTH	2.0'		5.0'						
TYPE	STD.		HSA						
HAMMER WT.	140#								
FALL	30"								
STICK UP									

REMARKS: Boring sampled to 15.0' and grouted to surface. HNu background is .4 ppm

SAMPLE TYPE
S = Split Spoon A = Auger
T = Shelby Tube W = Wash
R = Air Rotary C = Core
D = Denison P = Piston
N = No Sample

DEFINITIONS
SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5')
RQD = Rock Quality Designation (%)
PID = Photoionization Detector

Depth (Ft.)	Sample Type and No.	Samp. Rec. Ft. & %	SPT or RQD	Samp. Desig.	PID (ppm)	Visual Description	Elevation
1 — 1.0	N	—	—		—	NO SAMPLE	
2 — 3.0	S-1	1.9/2.0 95%	52 68 45 37	01	BG	SILTY SAND, fine grained w/trace gravel. Brown, very dense, damp.	
4 — 5.0	S-2	1.5/2.0 75%	7 7 8 7		BG	SAND, fine grained w/trace silt. Brown to light brown, medium dense, damp. Oxidation present (orange) 9 to 11' (bgs) only.	
6 — 7.0	S-3	1.4/2.0 70%	6 6 6 6	03	BG		
8 — 9.0	S-4	1.4/2.0 70%	3 5 6 8		BG		
9 —	S-5	1.8/2.0 90%	5 7		BG	Match to Sheet 2	

DRILLING CO.: EMTC BAKER REP.: J.E. Zimmerman
DRILLER: G. Barnes BORING NO.: I-15-SB14 SHEET 1 OF 2

TEST BORING RECORD

Baker Environmental, Inc.

PROJECT: Site 1 - FCLDA RI/FS MCB Camp Lejeune
S.O. NO.: 19231 BORING NO.: Z-15-SB14

SAMPLE TYPE
S = Split Spoon A = Auger
T = Shelby Tube W = Wash
R = Air Rotary C = Core
D = Denison P = Piston
N = No Sample

DEFINITIONS
SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5')
RQD = Rock Quality Designation (%)
PID = Photoionization Detector

Depth (Ft.)	Sample Type and No.	Samp. Rec. (Ft. & %)	SPT or RQD	Samp. Desig.	PID (ppm)	Visual Description	Elevation
11.0	S-5	90%	8 7		BG	Continued from Sheet 1	
11		1.2 / 2.0	5 7			SAND, fine grained w/ trace silt. Brown to light brown, medium dense, damp to moist to wet. Oxidation present (orange) 9 to 11' (bgs) only.	
12	S-6		7	06	BG		
13.0		60%	8				
13		2.0 / 2.0	20 13				
14	S-7		12		BG		▼
15.0		100%	12				6.21
15						End of Boring	
16						TD 15.0'	
7							
18							
19							
20							
21							
22							
23							
24							
25							
26							
27							
28							
29							
0						Match to Sheet 3	

DRILLING CO.: EMTC BAKER REP.: J. E. Zimmerman
DRILLER: G. Barnes BORING NO.: Z-15-SB14 SHEET 2 OF 2

Baker

Baker Environmental, Inc.

FIELD TEST BORING RECORD

PROJECT: SITE 1 FCLOA REIFS MCB CAMP LEJEUNE
S.O. NO.: 62470-231 BORING NO.: 1-1S-S15
COORDINATES: EAST: 2502242.54 NORTH: 332985.00
ELEVATION: SURFACE: 21.82 TOP OF PVC CASING:

RIG: B-57	SPLIT SPOON	CASING	AUGERS	CORE BARREL	DATE	PROGRESS (FT)	WEATHER	TOP OF CASING WATER DEPTH (FT)	TIME
SIZE (DIAM.)	1 3/8" ID		3 1/4" ID		4-5-94	15'	SUNNY	15	
LENGTH	2.0'		5.0'						
TYPE	STD		HSA						
HAMMER WT.	140#								
FALL	30"								
STICK UP									

REMARKS: BACKGROUND (BG) HNU = 0.2 ppm

DRILL RECORD							VISUAL DESCRIPTION					
DEPTH	SOIL / ROCK	Sample ID — Type-No. (N = No Samp.)	Samp. Rec. (Ft. & %)	SPT Blows Per 0.5' / RQD (Ft. & %)	Lab. Class. / Pen. Rate	PID (ppm)	Classification (Grain Size, Principal Constituents, Etc.) / Classification (Name, Grain Size, Principal Constituents, Etc.)	Color	Consist. or Density / Hardness	Moisture Content, Organic Content, Plasticity, and Other Observations / Weathering, Bedding, Fracturing, and Other Observations	SOIL / ROCK	ELEVATION
1							1' FILL-SAND-FINE AND GRAVEL-FINE					
2	LAB	S-1	2/2 100%	16 29 15 13	01	BG	SAND-FINE TRACE SILT TRACE CLAY	BROWN	DENSE	DRY		
3												
4		S-2	1.33/2 67%	4 6 6 5		0.3	SAND-FINE TRACE SILT	LT. BROWN	MED DENSE	DRY		
5												
6		S-3	1/2 50%	2 4 3 4		BG	SAND-FINE TRACE SILT	BROWN	LOOSE	DAMP		
7												
8	LAB	S-4	2/2 100%	3 7 5 6	02	BG	SAND-FINE LITTLE SILT	ORANGE BROWN	LOOSE	DAMP		
9												
10		S-5	1.5/2	6 7		BG	SAND-FINE LITTLE SILT	WHITE LT BROWN	MED DENSE	DAMP		

DRILLING CO.: EMTC BAKER REP.: KENNETH A. TUA
DRILLER: JIM MARSH BORING NO.: 1-1S-SB15 SHEET 1 OF 2

Baker

Baker Environmental, Inc.

FIELD TEST BORING RECORD

PROJECT: SITE 1 FCLDA RI/FS MCB CAMP LEJEUNE

S.O. NO.: 62470-231 BORING NO.: 1-1S-SB15

DRILL RECORD							VISUAL DESCRIPTION					
DEPTH	SOIL / ROCK	Sample ID — Type-No. (N = No Samp.)	Samp. Rec. (Ft. & %)	SPT Blows Per 0.5' / RQD (Ft. & %)	Lab. Class.. / Pen. Rate	PID (ppm)	Classification (Grain Size, Principal Constituents, Etc.) / Classification (Name, Grain Size, Principal Constituents, Etc.)	Color	Consist. or Density / Hardness	Moisture Content, Organic Content, Plasticity, and Other Observations / Weathering, Bedding, Fracturing, and Other Observations	SOIL / ROCK	ELEVATION
11		S-5	75%	7 6		BG						
12	LAB	S-6	1.67/2 83%	5 5 4 5	06	BG	SAND-F TRACE SILT	LT. GRAY		DAMP		
13			1.67/2	5 5			SAND-FINE TRACE SILT	DARK BROWN		MOIST TO WET		
14		S-7	83%	6 7		BG						
15							END OF BORING 15'					6.82
16												
17												
18												
19												
20												
21												
22												
23												
24												
25												
26												
27												
28												
29												
30												

DRILLING CO.: EMTC BAKER REP.: KENNETH A. TUA

DRILLER: JIM MARSH BORING NO.: 1-1S-SB15 SHEET 2 OF 2

Baker

Baker Environmental, Inc.

FIELD TEST BORING RECORD

PROJECT: Site 1 - FCLDA RI/FS MCB CAMP LEJEUNE
S.O. NO.: 62470-231 BORING NO.: 1-1S-SB16
COORDINATES: EAST: 250276.10 NORTH: 333117.27
ELEVATION: SURFACE: 23.92 TOP OF PVC CASING:

RIG: B-57	SPLIT SPOON	CASING	AUGERS	CORE BARREL	DATE	PROGRESS (FT)	WEATHER	TOP OF CASING WATER DEPTH (FT)	TIME
SIZE (DIAM.)	1 3/8" ID		3 1/4" ID		4-5-94	17	SUNNY	16	
LENGTH	2.0'		5.0'						
TYPE	STD		HSA						
HAMMER WT.	140#								
FALL	30"								
STICK UP									

REMARKS: BACKGROUND (BG) HNU = 0.2 ppm

DEPTH	SOIL / ROCK	Sample ID — Type-No. (N = No Samp.)	Samp. Rec. (Ft. & %)	SPT Blows Per 0.5' / RQD (Ft. & %)	Lab. Class. / Pen. Rate	PID (ppm)	Classification (Grain Size, Principal Constituents, Etc.) / Classification (Name, Grain Size, Principal Constituents, Etc.)	Color	Consist. or Density / Hardness	Moisture Content, Organic Content, Plasticity, and Other Observations / Weathering, Bedding, Fracturing, and Other Observations	SOIL / ROCK	ELEVATION
							1.5" ASPHALT 1' FILL - SAND-FINE					
1			1.33/2	5			SAND - FINE LITHE CLAY	BROWN	MED DENSE	DRY		
2		S-1		6	01	BG						
			67%	5								
3				6								
			1.25/2	3			SAND - FINE TRACE SILT	LT. BROWN	LOOSE	DRY		
4		S-2		3		BG						
			63%	3								
5				4								
			2/2	5			SAND - FINE TRACE SILT	LT. BROWN	LOOSE	DAMP		
6		S-3		4		BG						
			100%	4								
7				5								
			1.16/2	6			SAND - FINE TRACE SILT	WHITE	LOOSE	DAMP		
8		S-4		5	04	BG						
			58%	4								
9				5								
			1.25/2	6			SAND - FINE TRACE SILT	WHITE	MED DENSE	DAMP		
10		S-5		5		BG						

DRILLING CO.: EMTC BAKER REP.: KENNETH A. TUIA
DRILLER: JIM MARSH BORING NO.: 1-1S-SB16 SHEET 1 OF 2

FIELD TEST BORING RECORD

Baker Environmental, Inc.

PROJECT: Site 1 FCLDA RIFS MCB CAMP LEJEUNE
S.O. NO.: 62470-231 BORING NO.: 1-1S-SB16

DEPTH	SOIL / ROCK	Sample ID — Type-No. (N = No Samp.)	Samp. Rec. (Ft. & %)	SPT Blows Per 0.5' / RQD (Ft. & %)	Lab. Class.. / Pen. Rate	PID (ppm)	Classification (Grain Size, Principal Constituents, Etc.) / Classification (Name, Grain Size, Principal Constituents, Etc.)	Color	Consist. or Density / Hardness	Moisture Content, Organic Content, Plasticity, and Other Observations / Weathering, Bedding, Fracturing, and Other Observations	SOIL / ROCK	ELEVATION
11		S-5	63%	5 7		BG	SAND-FINE TRACE SILT	WHITE	MED DENSE	DAMP		
12		S-6	1.33/2 67%	7 7 7 9		BG						
13		S-7	1.60/2 79%	7 7 8 9	07	BG	SAND-FINE TRACE SILT	WHITE	MED DENSE	DAMP		
15		S-8	2/2 100%	6 7 7 8		BG	SAND-FINE TRACE SILT WATER @ 16'	WHITE	MED DENSE	WET		6.92
17							END OF BORING 17'					

DRILLING CO.: EMTC
DRILLER: JIM MARSH
BAKER REP.: KENNETH A. TUA
BORING NO.: 1-1S-SB16 SHEET 2 OF 2

TEST BORING RECORD

Baker Environmental, Inc.

PROJECT: Site 1 - FCLDA RI/FS MCB Camp Lejeune
S.O. NO.: 19231 BORING NO.: 1-IS-SB17
COORDINATES: EAST: NORTH:
ELEVATION: SURFACE: TOP OF PVC CASING:

RIG: MOBILE B-61

	SPLIT SPOON	CASING	AUGERS	CORE BARREL	DATE	PROGRESS (FT)	WEATHER	WATER DEPTH (FT)	TIME
SIZE (DIAM.)	1-3/8"ID		3 1/4" ID		3-30-94	0.0-15.0	PARTLY CLOUDY ±60°	14.7	
LENGTH	2.0'		5.0'						
TYPE	STD.		HSA						
HAMMER WT.	140#								
FALL	30"								
STICK UP									

REMARKS: Boring sampled to 15.0' and grouted to surface. HNu background=0.3ppm

SAMPLE TYPE
S = Split Spoon A = Auger
T = Shelby Tube W = Wash
R = Air Rotary C = Core
D = Denison P = Piston
N = No Sample

DEFINITIONS
SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5')
RQD = Rock Quality Designation (%)
PID = Photoionization Detector

Depth (Ft.)	Sample Type and No.	Samp. Rec. Ft. & %	SPT or RQD	Samp. Desig.	PID (ppm)	Visual Description	Elevation
1 — 1.0						AUGERED THRU GRAVEL PVMT (sand with crushed stone)	
2 — 3.0		—		01	BG	SAND, fine grained, light brown, damp	
4 — 5.0	S-1	1.8/2.0 90%	6 9 9 10		BG	SAND, fine grained, little silt, light brown to yellowish brown, medium dense, damp	
6 — 7.0	S-2	1.7/2.0 85%	8 10 13 16	03	BG	SAND, fine grained, little silt, yellowish brown, medium dense, damp	
8 — 9.0	S-3	1.3/2.0 65%	13 8 9 7		BG	SAND, fine grained, little silt, yellowish brown to dark brown, medium dense, damp	
	S-4	1.5/2.0 75%	8 9		BG	SAND, fine grained, little silt, dark brown, medium dense, damp	

Match to Sheet 2

DRILLING CO.: EMTC BAKER REP.: MARTIN G. TAUBE
DRILLER: G. BARNES BORING NO.: 1-IS-SB17 SHEET 1 OF 2

Baker

Baker Environmental, Inc.

TEST BORING RECORD

PROJECT: Site 1 - FCLDA RI/FS MCB Camp Lejeune
S.O. NO.: 19231 BORING NO.: 1-IS-SB17

SAMPLE TYPE
S = Split Spoon A = Auger
T = Shelby Tube W = Wash
R = Air Rotary C = Core
D = Denison P = Piston
N = No Sample

DEFINITIONS
SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5')
RQD = Rock Quality Designation (%)
PID = Photoionization Detector

Depth (Ft.)	Sample Type and No.	Samp. Rec. (Ft. & %)	SPT or RQD	Samp. Desig.	PID (ppm)	Visual Description	Elevation
11.0			11 12			Continued from Sheet 1	
11							
12	S-5	1.7/2.0 85%	9 18 15 22	06	BG	SAND, fine grained, trace silt, dark brown to white, dense, damp	
13.0							
13							
14	S-6	1.3/2.0 65%	18 19 18 21		BG	SAND, fine grained, trace silt, white, dense, moist to wet (wet below 14.7')	
15.0							
15						END OF BORING TOTAL DEPTH = 15.0'	
16							
18							
19							
20							
21							
22							
23							
24							
25							
26							
27							
28							
29						Match to Sheet 3	

DRILLING CO.: EMTC
DRILLER: G. BARNES
BAKER REP.: MARTIN G. TAUBE
BORING NO.: 1-IS-SB17
SHEET 2 OF 2

Baker

Baker Environmental, Inc.

TEST BORING RECORD

PROJECT: SITE 1 - FCLDA RI/FS MCB CAMP LEJEUNE
S.O. NO.: 62470 - 231 BORING NO.: 1-1S-SB18
COORDINATES: EAST: 2502396.97 NORTH: 332498.05
ELEVATION: SURFACE: 23.73 TOP OF PVC CASING:

RIG: B-57	SPLIT SPOON	CASING	AUGERS	CORE BARREL	DATE	PROGRESS (FT)	WEATHER	WATER DEPTH (FT)	TIME
SIZE (DIAM.)	1 3/8" ID		3 1/4" ID		4-5-94	17	SUNNY	16	
LENGTH	2.0'		5.0'						
TYPE	STD		HSA						
HAMMER WT.	140 #								
FALL	30"								
STICK UP									

REMARKS: BACKGROUND (BG) HNU ≈ 0.2 PPM

SAMPLE TYPE
S = Split Spoon A = Auger
T = Shelby Tube W = Wash
R = Air Rotary C = Core
D = Denison P = Piston
N = No Sample

DEFINITIONS
SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5')
RQD = Rock Quality Designation (%)
Lab Class. = USCS (ASTM D-2487) or AASHTO (ASTM D-3282)
Lab Moist. = Moisture Content (ASTM D-2216) Dry Weight Basis

Depth (Ft.)		Sample Type and No.	Samp. Rec. Ft. & %	SPT or RQD	Lab. Class. or Pen. Rate	PID (ppm)	Visual Description	Elevation
1							1' FILL - SAND-FINE AND GRAVEL-FINE	
2	LAB	S-1	1.41/2	13 30 25 14	01	BG	SAND-FINE AND SILT. DRY. BLACK. VERY DENSE	
3			71%					
4		S-2	.75/2	3 5 5 4		BG	SILT LITTLE SAND-F DRY. BROWN. MED DENSE	
5			37%					
6		S-3	1.60/2	3 3 4 3		BG	SAND-F LITTLE SILT DRY. ORANGE. LOOSE	
7			79%					
8	LAB	S-4	1.67/2	3 4 6 7	04	BG	SAND-FINE SOME SILT. DAMP. LT. BROWN. MED. DENSE	
9			83%					
10		S-5	1.67/2	4 5		BG	SAND-FINE SOME SILT DAMP. LT. BROWN. MED DENSE 6" SAND-FINE. DARK BROWN	

Match to Sheet 2

DRILLING CO.: EMTC BAKER REP.: KENNETH A. TUA
DRILLER: JIM MARSH BORING NO.: 1-1S-SB18 SHEET 1 OF

Baker

Baker Environmental, Inc.

TEST BORING RECORD

PROJECT: SITE 1 - FCLDA RI/FS MCB CAMP LEJEUNE
S.O. NO.: 62470-231 BORING NO.: 1-1S-SB18

SAMPLE TYPE
S = Split Spoon A = Auger
T = Shelby Tube W = Wash
R = Air Rotary C = Core
D = Denison P = Piston
N = No Sample

DEFINITIONS
SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5')
RQD = Rock Quality Designation (%)
Lab Class. = USCS (ASTM D-2487) or AASHTO (ASTM D-3282)
Lab Moist. = Moisture Content (ASTM D-2216) Dry Weight Basis

Depth (Ft.)	Sample Type and No.	Samp. Rec. (Ft. & %)	SPT or RQD	Lab. Class. or Pen. Rate	PID (ppm)	Visual Description	Elevation
11	S-5	83%	6 8		BG	CONTINUED	
12	S-6	1.67/2 83%	5 8 8 7		BG	SAND-FINE SOME SILT DAMP. DARK BROWN	
13	LAB S-7	1.25/2 68%	3 6 7 9	07	BG	SAND-FINE SOME SILT DAMP. DARK BROWN. MED DENSE	
15	S-8	.75/2 37%	5 7 9 10		BG	SAND-FINE LITHIC SILT WATER @ 16' MOIST TO WET BROWN. MED DENSE	
17						END OF BORING 17'	6.73
18							
19							
20							
21							
22							
23							
24							
25							
26							
27							
28							
29							
30							

DRILLING CO.: EMTC BAKER REP.: KENNETH A. TWA
DRILLER: JIM MARSH BORING NO.: 1-1S-SB18 SHEET 2 OF 2

Baker

Baker Environmental, Inc.

FIELD TEST BORING RECORD

PROJECT: SITE 1 FCLDA RIFS MCB CAMP LEJEUNE
S.O. NO.: 62470-231 BORING NO.: 1-IN-SB19
COORDINATES: EAST: 2502539.04 NORTH: 333936.41
ELEVATION: SURFACE: 17.57 TOP OF PVC CASING: _____

RIG: B-57	SPLIT SPOON	CASING	AUGERS	CORE BARREL	DATE	PROGRESS (FT)	WEATHER	TOP OF CASING WATER DEPTH (FT)	TIME
SIZE (DIAM.)	1 3/8" ID		3 1/4" ID		3-28-94	13	RAIN	9	
LENGTH	2.0'		5.0'						
TYPE	STD		HSA						
HAMMER WT.	140#								
FALL	30"								
STICK UP									

REMARKS: BACKGROUND (BG) HNU = .2 ppm

DRILL RECORD							VISUAL DESCRIPTION					
DEPTH	SOIL / ROCK	Sample ID / Type-No. (N = No Samp.)	Samp. Rec. (Ft. & %)	SPT Blows Per 0.5' / RQD (Ft. & %)	Lab. Class. / Pen. Rate	PID (ppm)	Classification (Grain Size, Principal Constituents, Etc.) / Classification (Name, Grain Size, Principal Constituents, Etc.)	Color	Consist. or Density / Hardness	Moisture Content, Organic Content, Plasticity, and Other Observations / Weathering, Bedding, Fracturing, and Other Observations	SOIL / ROCK	ELEVATION
1	LAB	00	100%	-	00	BG	SILT AND SAND-FINE	GRAY		DRY		
2		S-1	1.5/2	15 17		.4	SAND-FINE TRACE SILT	WHITE	MED DENSE	DRY		
3			75%	17 14								
4		S-2	1.5/2	2 3		BG	SAND-FINE AND SILT	LT. BROWN	LOOSE	DRY		
5			71%	3 4								
6		S-3	1.5/2	6 7		BG	SAND-FINE AND SILT	LT. BROWN	MED DENSE	DRY		
7			75%	8 9								
8	LAB	S-4	1.67/2	13 6	04	BG	SAND-FINE AND SILT	LT. BROWN	MED DENSE	DAMP		
9			83%	8 7			WATER @ 9'					
10		S-5	1.5/2	6 7		BG	SAND-F AND SILT	LT. BROWN	MED DENSE	WET		

DRILLING CO.: EMTC BAKER REP.: KENNETH A. TUA
DRILLER: JIM MARSH BORING NO.: 1-IN-SB19 SHEET 1 OF 2

Baker

Baker Environmental, Inc.

FIELD TEST BORING RECORD

PROJECT: SITE 1 FCLDA RIFS MCB CAMP LEJEUNE
S.O. NO.: 62470-231 BORING NO.: 1-IN-SB19

DRILL RECORD							VISUAL DESCRIPTION					
DEPTH	SOIL / ROCK	Sample ID — Type-No. (N = No Samp.)	Samp. Rec. (Ft. & %)	SPT Blows Per 0.5' / RQD (Ft. & %)	Lab. Class.. / Pen. Rate	PID (ppm)	Classification (Grain Size, Principal Constituents, Etc.) / Classification (Name, Grain Size, Principal Constituents, Etc.)	Color / Color	Consist. or Density / Hardness	Moisture Content, Organic Content, Plasticity, and Other Observations / Weathering, Bedding, Fracturing, and Other Observations	SOIL / ROCK	ELEVATION
11		S-5	75%	8 9		BG	CONTINUED					
12		S-6	1.4/2 71%	4 4 7 7		BG	SAND-F AND SILT	LT. BROWN	MED DENSE	WET.		4.5
13							END OF BORING 13'					
14												
15												
16												
17												
18												
19												
20												
21												
22												
23												
24												
25												
26												
27												
28												
29												
30												

DRILLING CO.: EMTC BAKER REP.: KENNETH A. TUA
DRILLER: JIM MARSH BORING NO.: 1-IN-SB19 SHEET 2 OF 2

Baker Environmental, Inc.

FIELD TEST BORING RECORD

PROJECT: SITE 1 FCLDA RI/FS MCB CAMP LEJEUNE
S.O. NO.: 62470-23/ BORING NO.: 1-IN-SB20
COORDINATES: EAST: 2502536.27 NORTH: 333715.87
ELEVATION: SURFACE: 18.34 TOP OF PVC CASING:

RIG: B-57	SPLIT SPOON	CASING	AUGERS	CORE BARREL	DATE	PROGRESS (FT)	WEATHER	TOP OF CASING WATER DEPTH (FT)	TIME
SIZE (DIAM.)	1 3/8" ID		3 1/4" ID		3-29-94	13	SUNNY	11	
LENGTH	2.0'		5.0'						
TYPE	STD		HSA						
HAMMER WT.	140 #								
FALL	30"								
STICK UP									

REMARKS: BACKGROUND (BG) HNU = 0.2

DRILL RECORD							VISUAL DESCRIPTION					
DEPTH	SOIL / ROCK	Sample ID — Type-No. (N = No Samp.)	Samp. Rec. (Ft. & %)	SPT Blows Per 0.5' / RQD (Ft. & %)	Lab. Class. / Pen. Rate	PID (ppm)	Classification (Grain Size, Principal Constituents, Etc.) / Classification (Name, Grain Size, Principal Constituents, Etc.)	Color	Consist. or Density / Hardness	Moisture Content, Organic Content, Plasticity, and Other Observations / Weathering, Bedding, Fracturing, and Other Observations	SOIL / ROCK	ELEVATION
1	LAB	00	100%		00	BG	SATURATED MUD	BROWN				
2		S-1	1.25/2	4 5 7 12		BG	SAND-FINE SOME SILT	LT. BROWN	MED DENSE	DAMP		
3			63%									
4		S-2	1.67/2	4 4 5 7		BG	SAND-FINE TRACE SILT	BROWN 5" WHITE	LOOSE	DAMP		
5			83%									
6		S-3	1.5/2	3 4 5 5		BG	SAND-FINE SOME SILT	4" BROWN 9" WHITE 4" BROWN	LOOSE	MOIST		
7			75%									
8		S-4	1.5/2	5 8 10 13		BG	SAND-FINE SOME SILT	BROWN	MED. DENSE	MOIST		
9			75%									
10	LAB	S-5	1.25/2	4 6	05	BG	SAND-FINE LITTLE SILT	WHITE	MED DENSE	MOIST		

DRILLING CO.: EMTC BAKER REP.: KENNETH A. TUA
DRILLER: JIM MARSH BORING NO.: 1-IN-SB20 SHEET 1 OF 2

Baker

Baker Environmental, Inc.

FIELD TEST BORING RECORD

PROJECT: SITE 1 FOLCA RIFS MCB CAMP LEJEUNE
S.O. NO.: 6470-231 BORING NO.: 1-IN-SB20

DEPTH	SOIL / ROCK	Sample ID — Type-No. (N = No Samp.)	Samp. Rec. (Ft. & %)	SPT Blows Per 0.5' / RQD (Ft & %)	Lab. Class.. / Pen. Rate	PID (ppm)	Classification (Grain Size, Principal Constituents, Etc.) / Classification (Name, Grain Size, Principal Constituents, Etc.)	Color / Color	Consist. or Density / Hardness	Moisture Content, Organic Content, Plasticity, and Other Observations / Weathering, Bedding, Fracturing, and Other Observations	SOIL / ROCK	ELEVATION
	LAB	S-5	63%	10 13		BG	CONTINUED SAND-FINE LITTLE SILT	WHITE	MED DENSE	MOIST		
/1							WATER @ 11'					
			1.5/2	4			SAND-FINE SOME SILT	WHITE	MED DENSE	WET		
/2		S-6		7 7		BG						
			75%	6								
/3							END OF BORING 13'					5.34
4												
5												
6												
7												
8												
9												
0												
1												
2												
3												
4												
5												
6												
7												
8												
9												
0												

DRILLING CO.: EATC BAKER REP.: KENNETH A. TUA
DRILLER: JIM MARSH BORING NO.: 1-IN-SB20 SHEET 2 OF 2

TEST BORING RECORD

Baker Environmental, Inc.

PROJECT: Site 1 - FCLDA RI/FS MCB Camp Lejeune
S.O. NO.: 19231 BORING NO.: 1-IN-SB21
COORDINATES: EAST: 2502526.92 NORTH: 333507.25
ELEVATION: SURFACE: 23.15 TOP OF PVC CASING: _____

RIG: # 220	SPLIT SPOON	CASING	AUGERS	CORE BARREL	DATE	PROGRESS (FT)	WEATHER	WATER DEPTH (FT)	TIME
SIZE (DIAM.)	1-3/8"ID		3¼" ID		3-29-94	0-17'	overcast cool (50's)	16.0	
LENGTH	2.0'		5.0'						
TYPE	STD.		HSA						
HAMMER WT.	140#								
FALL	30"								
STICK UP									

REMARKS: Boring sampled to 17.0' and grouted to surface. Hnu background is .3 ppm

SAMPLE TYPE
S = Split Spoon A = Auger
T = Shelby Tube W = Wash
R = Air Rotary C = Core
D = Denison P = Piston
N = No Sample

DEFINITIONS
SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5')
RQD = Rock Quality Designation (%)
PID = Photoionization Detector

Depth (Ft.)	Sample Type and No.	Samp. Rec. Ft. & %	SPT or RQD	Samp. Desig.	PID (ppm)	Visual Description	Elevation
1.0	N	-	-		-	NO SAMPLE	
2 3.0		-	-	01	BG		
4 5.0	S-1	1.7/2.0 85%	15 12 11 11		BG	SAND, fine grained w/ trace silt. Brown to dark brown to gray to light brown, very loose to medium dense to loose, damp.	
6 7.0	S-2	1.9/2.0 95%	5 5 7 8		BG		
8 9.0	S-3	1.6/2.0 80%	4 4 4 6	04	BG		
	S-4	1.7/2.0 85%	5 5		BG	Match to Sheet 2	

DRILLING CO.: EMTC BAKER REP.: J. E. Zimmerman
DRILLER: G. Barnes BORING NO.: 1-IN-SB21 SHEET 1 OF 2

Baker

Baker Environmental, Inc.

TEST BORING RECORD

PROJECT: Site 1 - FCLDA RI/FS MCB Camp Lejeune
S.O. NO.: 19231 BORING NO.: 1-IN-SB21

SAMPLE TYPE
S = Split Spoon A = Auger
T = Shelby Tube W = Wash
R = Air Rotary C = Core
D = Denison P = Piston
N = No Sample

DEFINITIONS
SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5')
RQD = Rock Quality Designation (%)
PID = Photoionization Detector

Depth (Ft.)	Sample Type and No.	Samp. Rec. (Ft. & %)	SPT or RQD	Samp. Desig.	PID (ppm)	Visual Description	Elevation
11.0	S-4	85%	5 6		BG	Continued from Sheet 1	
11							
12	S-5	1.9/2.0 95%	8 9 9 11		BG		
13.0						SAND, fine grained w/trace silt and little clay. Light brown to light gray, medium dense to very stiff, damp to moist to wet.	
13							
14	S-6	1.8/2.0 90%	7 7 8 8	07	BG		
15.0							
15							
16	S-7	2.0/2.0 100%	8 11 12 10		BG		▼
17.0							6.15
						End of Boring TD 17.0'	
18							
19							
20							
21							
22							
23							
24							
25							
26							
27							
28							
29							

Match to Sheet 3

DRILLING CO.: EMTC BAKER REP.: J. E. Zimmerman
DRILLER: G. Barnes BORING NO.: 1-IN-SB21 SHEET 2 OF 2

TEST BORING RECORD

Baker Environmental, Inc.

PROJECT: Site 1 - FCLDA RI/FS MCB Camp Lejeune
S.O. NO.: 19231 BORING NO.: 1-IN-SB22
COORDINATES: EAST: 2502510.55 NORTH: 333393.52
ELEVATION: SURFACE: 24.39 TOP OF PVC CASING:

RIG: #73	SPLIT SPOON	CASING	AUGERS	CORE BARREL	DATE	PROGRESS (FT)	WEATHER	WATER DEPTH (FT)	TIME
SIZE (DIAM.)	1-3/8"ID		8" air ham. 4¼" ID		4-5-93	0-19'	clear, cool (50's)	18.0	
LENGTH	2.0'		5.0'						
TYPE	STD.		HSA						
HAMMER WT.	140#								
FALL	30"								
STICK UP									

REMARKS: Boring sampled to 19.0' and grouted to surface. HNu background is .3 ppm

SAMPLE TYPE
S = Split Spoon A = Auger
T = Shelby Tube W = Wash
R = Air Rotary C = Core
D = Denison P = Piston
N = No Sample

DEFINITIONS
SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5')
RQD = Rock Quality Designation (%)
PID = Photoionization Detector

Depth (Ft.)	Sample Type and No.	Samp. Rec. Ft. & %	SPT or RQD	Samp. Desig.	PID (ppm)	Visual Description	Elevation
1.0	R-1	—	—		—	Concrete/Subbase	
3.0	S-1	1.5/2.0 75%	12 19 22 20	01	BG	SILTY SAND, fine grained. Brown to dark brown, dense, damp	
5.0	S-2	1.4/2.0 70%	9 15 22 19		BG		
7.0	S-3	1.7/2.0 85%	4 9 7 8		BG	SAND, fine grained w/ trace silt. Light brown to brown, dense to medium dense to loose, damp.	
9.0	S-4	1.5/2.0 75%	2 3 5 7		BG		
	S-5	1.6/2.0 80%	4 6		BG		

Match to Sheet 2

DRILLING CO.: EMTC BAKER REP.: J.E. Zimmerman
DRILLER: G. Barnes BORING NO.: 1-IN-SB22 SHEET 1 OF 2

TEST BORING RECORD

Baker Environmental, Inc.

PROJECT: Site 1 - FCLDA RI/FS MCB Camp Lejeune
S.O. NO.: 19231 BORING NO.: 1-IN-SB22

SAMPLE TYPE
S = Split Spoon A = Auger
T = Shelby Tube W = Wash
R = Air Rotary C = Core
D = Denison P = Piston
N = No Sample

DEFINITIONS
SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5')
RQD = Rock Quality Designation (%)
PID = Photoionization Detector

Depth (Ft.)	Sample Type and No.	Samp. Rec. (Ft. & %)	SPT or RQD	Samp. Desig.	PID (ppm)	Visual Description	Elevation
11 — 11.0	S-5	80%	7 8		BG	Continued from Sheet 1	
12 — 13.0	S-6	1.4 70%	3 5 11 15	06	BG		
14 — 15.0	S-7	1.7/2.0 85%	15 24 25 39		BG	SAND, fine grained w/ trace silt. Light brown, medium dense to dens, damp to moist to wet.	
16 — 17.0	S-8	1.4/2.0 70%	11 13 13 11	08	BG		
18 — 19.0	S-9	1.3/2.0 65%	5 6 6 7		BG		▼ 5.39
19						End of Boring TD 19.0'	
20							
21							
22							
23							
24							
25							
26							
27							
28							
29						Match to Sheet 3	

DRILLING CO.: EMTC
DRILLER: G. Barnes
BAKER REP.: J. E. Zimmerman
BORING NO.: 1-IN-SB22
SHEET 2 OF 2

TEST BORING RECORD

Baker Environmental, Inc.

PROJECT: Site 1 - FCLDA RI/FS MCB Camp Lejeune
S.O. NO.: 19231 BORING NO.: I-IN-SB23
COORDINATES: EAST: 2502579.72 NORTH: 333364.73
ELEVATION: SURFACE: 24.54 TOP OF PVC CASING:

RIG: #73	SPLIT SPOON	CASING	AUGERS	CORE BARREL	DATE	PROGRESS (FT)	WEATHER	WATER DEPTH (FT)	TIME
SIZE (DIAM.)	1-3/8"ID		8" air ham. 4¼" ID		4-5-94	0-19'	clear cool (50's)	17.5	
LENGTH	2.0'		5.0'						
TYPE	STD.		HSA						
HAMMER WT.	140#								
FALL	30"								
STICK UP									

REMARKS: Boring sampled to 19.0' and grouted to surface. HNu background is .2 ppm.

SAMPLE TYPE
S = Split Spoon A = Auger
T = Shelby Tube W = Wash
R = Air Rotary C = Core
D = Denison P = Piston
N = No Sample

DEFINITIONS
SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5')
RQD = Rock Quality Designation (%)
PID = Photoionization Detector

Depth (Ft.)	Sample Type and No.	Samp. Rec. Ft. & %	SPT or RQD	Samp. Desig.	PID (ppm)	Visual Description	Elevation
1 – 1.0	R-1	–	–		–	Concrete/Subbase	
2 – 3.0	S-1	1.3/2.0 65%	7 19 21 24	01	BG	SILTY SAND, fine grained. Brown, dense, damp. Yellow staining at top only.	
4 – 5.0	S-2	1.5/2.0 75%	12 14 10 12		BG		
6 – 7.0	S-3	1.5/2.0 75%	7 10 11 10		BG	SAND, fine grained w/ trace silt. Brown to dark brown to light brown, medium dense to loose, damp.	
8 – 9.0	S-4	1.3/2.0 65%	2 5 5 3		BG		
10	S-5	1.3/2.0 65%	3 4	05	BG	Match to Sheet 2	

DRILLING CO.: EMTC BAKER REP.: J.E. Zimmerman
DRILLER: G. Barnes BORING NO.: I-IN-SB23 SHEET 1 OF 2

TEST BORING RECORD

Baker Environmental, Inc.

PROJECT: Site 1 - FCLDA RI/FS MCB Camp Lejeune
S.O. NO.: 19231 BORING NO.: 1-IN-SB23

SAMPLE TYPE
S = Split Spoon A = Auger
T = Shelby Tube W = Wash
R = Air Rotary C = Core
D = Denison P = Piston
N = No Sample

DEFINITIONS
SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5')
RQD = Rock Quality Designation (%)
PID = Photoionization Detector

Depth (Ft.)	Sample Type and No.	Samp. Rec. (Ft. & %)	SPT or RQD	Samp. Desig.	PID (ppm)	Visual Description	Elevation
11.0	S-5	65%	5 6	05	BG	Continued from Sheet 1	
12.0	S-6	1.4/2.0 70%	3 5 7 8		BG	SAND, fine grained w/ trace silt. Light brown, medium dense to loose, damp to moist to wet.	
14.0	S-7	1.5/2.0 75%	3 4 5 8		BG		
16.0	S-8	1.6/2.0 80%	7 11 14 22	08	BG		
18.0	S-9	1.6/2.0 80%	4 6 18 14		BG		5.54
19.0						End of Boring TD 19.0'	
						Match to Sheet 3	

DRILLING CO.: EMTC BAKER REP.: J.E. Zimmerman
DRILLER: G. Barnes BORING NO.: 1-IN-SB23 SHEET 2 OF 2

TEST BORING RECORD

Baker Environmental, Inc.

PROJECT: Site 1 - FCLDA RI/FS MCB Camp Lejeune
S.O. NO.: 19231 BORING NO.: 1-IN-SB24
COORDINATES: EAST: 2502625.56 NORTH: 333517.69
ELEVATION: SURFACE: 22.97 TOP OF PVC CASING:

RIG: #220	SPLIT SPOON	CASING	AUGERS	CORE BARREL	DATE	PROGRESS (FT)	WEATHER	WATER DEPTH (FT)	TIME
SIZE (DIAM.)	1-3/8"ID		3¼" ID		3-29-94	0-17'	overcast, cool (50's)	16.0	
LENGTH	2.0'		5.0'						
TYPE	STD.		HSA						
HAMMER WT.	140#								
FALL	30"								
STICK UP									

REMARKS: Boring sampled to 17.0' and grouted to surface. HNu background is .2 ppm

SAMPLE TYPE
S = Split Spoon A = Auger
T = Shelby Tube W = Wash
R = Air Rotary C = Core
D = Denison P = Piston
N = No Sample

DEFINITIONS
SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5')
RQD = Rock Quality Designation (%)
PID = Photoionization Detector

Depth (Ft.)	Sample Type and No.	Samp. Rec. Ft. & %	SPT or RQD	Samp. Desig.	PID (ppm)	Visual Description	Elevation
1 1.0	N	—	—		—	NO SAMPLE	
2 3.0		—	—	01	BG		
4 5.0	S-1	1.7/2.0 85%	23 23 24 14		BG	SAND, fine grained w/ trace silt. Brown to gray to dark brown to light brown, very loose to dense to medium dense, damp.	
6 7.0	S-2	2.0/2.0 100%	5 6 9 10		BG		
8 9.0	S-3	1.4/2.0 70%	3 5 7 10	04	BG		
	S-4	1.6/2.0 80%	7 8		BG		

Match to Sheet 2

DRILLING CO.: EMTC BAKER REP.: J. E. Zimmerman
DRILLER: G. Barnes BORING NO.: 1-IN-SB24 SHEET 1 OF 2

Baker

Baker Environmental, Inc.

TEST BORING RECORD

PROJECT: Site 1 - FCLDA RI/FS MCB Camp Lejeune
S.O. NO.: 19231 BORING NO.: 1-IN-SB24

SAMPLE TYPE
S = Split Spoon A = Auger
T = Shelby Tube W = Wash
R = Air Rotary C = Core
D = Denison P = Piston
N = No Sample

DEFINITIONS
SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5')
RQD = Rock Quality Designation (%)
PID = Photoionization Detector

Depth (Ft.)	Sample Type and No.	Samp. Rec. (Ft. & %)	SPT or RQD	Samp. Desig.	PID (ppm)	Visual Description	Elevation
11.0	S-4	80%	10 12		BG	Continued from Sheet 1	
12	S-5	1.7/2.0	5 5		BG		
13.0		85%	6 8			SAND, fine grained w/ trace silt. Light brown to brown, medium dense, damp to moist to wet.	
14	S-6	1.8/2.0	6 12	07	BG		
15.0		90%	17 22				
16	S-7	2.0/2.0	12 17		BG		▼
17.0		100%	23 25				5.97
						End of Boring TD: 17.0'	
						Match to Sheet 3	

DRILLING CO.: EMTC
DRILLER: G. Barnes
BAKER REP.: J. E. Zimmerman
BORING NO.: 1-IN-SB24
SHEET 2 OF 2

Baker

Baker Environmental, Inc.

TEST BORING RECORD

PROJECT: Site 1 - FCLDA RI/FS MCB Camp Lejeune
S.O. NO.: 19231 BORING NO.: 1-IN-SB25
COORDINATES: EAST: 2502748.13 NORTH: 333523.52
ELEVATION: SURFACE: 22.49 TOP OF PVC CASING:

RIG: #220	SPLIT SPOON	CASING	AUGERS	CORE BARREL	DATE	PROGRESS (FT)	WEATHER	WATER DEPTH (FT)	TIME
SIZE (DIAM.)	1-3/8"ID		3¼" ID		3-29-94	0-15'	overcast cool (50's)	14.5	
LENGTH	2.0'		5.0'						
TYPE	STD.		HSA						
HAMMER WT.	140#								
FALL	30"								
STICK UP									

REMARKS: Boring sampled to 15.0' and grouted to surface. HNu background is .3 ppm

SAMPLE TYPE
S = Split Spoon A = Auger
T = Shelby Tube W = Wash
R = Air Rotary C = Core
D = Denison P = Piston
N = No Sample

DEFINITIONS
SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5')
RQD = Rock Quality Designation (%)
PID = Photoionization Detector

Depth (Ft.)	Sample Type and No.	Samp. Rec. Ft. & %	SPT or RQD	Samp. Desig.	PID (ppm)	Visual Description	Elevation
1 – 1.0	N	–	–		–	NO SAMPLE	
2 – 3 – 3.0		–	–	01	BG		
4 – 5 – 5.0	S-1	1.8/2.0 90%	12 9 13 9		BG	SAND, fine grained w/ trace silt. Brown to light gray to light brown, very loose to loose to medium dense, damp.	
6 – 7 – 7.0	S-2	1.8/2.0 90%	7 8 8 9		BG		
8 – 9 – 9.0	S-3	1.4/2.0 70%	12 4 5 9		BG		
–	S-4	1.6/2.0 80%	4 4		BG	Match to Sheet 2	

DRILLING CO.: EMTC BAKER REP.: J. E. Zimmerman
DRILLER: G. Barnes BORING NO.: 1-IN-SB25 SHEET 1 OF 2

Baker

Baker Environmental, Inc.

TEST BORING RECORD

PROJECT: Site 1 - FCLDA RI/FS MCB Camp Lejeune
S.O. NO.: 19231 BORING NO.: 1-IN-SB25

SAMPLE TYPE
S = Split Spoon A = Auger
T = Shelby Tube W = Wash
R = Air Rotary C = Core
D = Denison P = Piston
N = No Sample

DEFINITIONS
SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5')
RQD = Rock Quality Designation (%)
PID = Photoionization Detector

Depth (Ft.)	Sample Type and No.	Samp. Rec. (Ft. & %)	SPT or RQD	Samp. Desig.	PID (ppm)	Visual Description	Elevation
11.0	S-4	80%	5 5		BG	Continued from Sheet 1	
12	S-5	1.8/2.0 90%	3 4 6 13	06	BG	SAND, fine grained w/ trace silt. Light brown, loose to medium dense, damp to moist to wet.	
13.0							
14	S-6	1.9/2.0 95%	5 6 5 6		BG		7.49
15.0						End of Boring TD 15.0'	
16							
18							
19							
20							
21							
22							
23							
24							
25							
26							
27							
28							
29						Match to Sheet 3	

DRILLING CO.: EMTC
DRILLER: G. Barnes
BAKER REP.: J. E. Zimmerman
BORING NO.: 1-IN-SB25
SHEET 2 OF 2

TEST BORING RECORD

Baker Environmental, Inc.

PROJECT: Site 1 - FCLDA RI/FS MCB Camp Lejeune
S.O. NO.: 19231 BORING NO.: I-IN-SB26
COORDINATES: EAST: 2502729.50 NORTH: 333627.62
ELEVATION: SURFACE: 20.16 TOP OF PVC CASING: ____

RIG: #220	SPLIT SPOON	CASING	AUGERS	CORE BARREL	DATE	PROGRESS (FT)	WEATHER	WATER DEPTH (FT)	TIME
SIZE (DIAM.)	1-3/8"ID		3¼" ID		3-29-94	0-11'	overcast, cool (50's)	11.0	
LENGTH	2.0'		5.0'						
TYPE	STD.		HSA						
HAMMER WT.	140#								
FALL	30"								
STICK UP									

REMARKS: Boring sampled to 11.0' and grouted to surface. HNu background is .3ppm

SAMPLE TYPE
S = Split Spoon A = Auger
T = Shelby Tube W = Wash
R = Air Rotary C = Core
D = Denison P = Piston
N = No Sample

DEFINITIONS
SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5')
RQD = Rock Quality Designation (%)
PID = Photoionization Detector

Depth (Ft.)	Sample Type and No.	Samp. Rec. Ft. & %	SPT or RQD	Samp. Desig.	PID (ppm)	Visual Description	Elevation
1 1.0	N	–	–		–	NO SAMPLE	
2 3.0		–	–	01	BG		
4 5.0	S-1	1.8/2.0 90%	10 8 8 8		BG	SAND, fine grained w/ trace silt. Dark brown to brown to light brown, very loose, to medium dense to loose, damp to moist to wet.	
6 7.0	S-2	2.0/2.0 100%	5 6 7 9		BG		
8 9.0	S-3	1.6/2.0 80%	4 4 4 3	04	BG		
	S-4	1.6/2.0 80%	4 3		BG		

Match to Sheet 2

DRILLING CO.: EMTC BAKER REP.: J.E. Zimmerman
DRILLER: G. Barnes BORING NO.: I-IN-SB26 SHEET 1 OF 2

TEST BORING RECORD

Baker Environmental, Inc.

PROJECT: Site 1 - FCLDA RI/FS MCB Camp Lejeune
S.O. NO.: 19231 BORING NO.: 1-IN-SB26

SAMPLE TYPE
S = Split Spoon A = Auger
T = Shelby Tube W = Wash
R = Air Rotary C = Core
D = Denison P = Piston
N = No Sample

DEFINITIONS
SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5')
RQD = Rock Quality Designation (%)
PID = Photoionization Detector

Depth (Ft.)	Sample Type and No.	Samp. Rec. (Ft. & %)	SPT or RQD	Samp. Desig.	PID (ppm)	Visual Description	Elevation
11.0	S-4	80%	3 5		BG	Continued from Sheet 1	▼ 9.
11						End of Boring TD 11.0'	
12							
13							
14							
15							
16							
18							
19							
20							
21							
22							
23							
24							
25							
26							
27							
28							
29							

Match to Sheet 3

DRILLING CO.: EMTC
DRILLER: G. Barnes
BAKER REP.: J. E. Zimmerman
BORING NO.: 1-IN-SB26
SHEET 2 OF 2

Baker

Baker Environmental, Inc.

FIELD TEST BORING RECORD

PROJECT: SITE 1 FCLDA RIFS MCB CAMP LEJEUNE
S.O. NO.: 62470-231 BORING NO.: 1-IN-SB27A
COORDINATES: EAST: 2502589.96 NORTH: 333761.50
ELEVATION: SURFACE: 18.08 TOP OF PVC CASING:

RIG: B-57	SPLIT SPOON	CASING	AUGERS	CORE BARREL	DATE	PROGRESS (FT)	WEATHER	TOP OF CASING WATER DEPTH (FT)	TIME
SIZE (DIAM.)	1 3/8" ID		3 1/4" ID		3-29-94	13	RAIN	11	
LENGTH	2.0'		5.0'						
TYPE	STD		HSA						
HAMMER WT.	140 #								
FALL	30"								
STICK UP									

REMARKS: BACKGROUND (BG) HNU = .3 PPM

DRILL RECORD							VISUAL DESCRIPTION					
DEPTH	SOIL / ROCK	Sample ID / Type-No. (N = No Samp.)	Samp. Rec. (Ft. & %)	SPT Blows Per 0.5' / RQD (Ft. & %)	Lab. Class. / Pen. Rate	PID (ppm)	Classification (Grain Size, Principal Constituents, Etc.) / Classification (Name, Grain Size, Principal Constituents, Etc.)	Color	Consist. or Density / Hardness	Moisture Content, Organic Content, Plasticity, and Other Observations / Weathering, Bedding, Fracturing, and Other Observations	SOIL / ROCK	ELEVATION
1							2" ASPHALT 13" FILL - SAND-F AND FINE GRAVEL	GRAY				
2	LAB	S-1	83/2 42%	10 22 24 36	01	BG	SAND-FINE TRACE SILT	WHITE	DENSE	DRY		
3												
4		S-2	1.16/2 58%	8 15 22 25		BG	SAND-FINE TRACE SILT	WHITE	DENSE	DRY		
5												
6		S-3	1.41/2 71%	10 8 10 8		BG	SAND-FINE TRACE SILT	WHITE	MED DENSE	DRY		
7												
8		S-4	1.25/2 63%	4 6 6 7		BG	SAND-FINE AND SILT	BROWN	MED DENSE	DRY MOTTLED		
9												
10	LAB	S-5	1.16/2	5 5	05	BG	SAND-FINE AND SILT	BROWN	MED DENSE	MOIST		

DRILLING CO.: EMTC BAKER REP.: KENNETH A TUA
DRILLER: JIM MARSH BORING NO.: 1-IN-SB27 SHEET 1 OF 2

FIELD TEST BORING RECORD

Baker Environmental, Inc.

PROJECT: SITE 1 FCLDA RI/FS MCB CAMP LEJEUNE
S.O. NO.: 62470-231 BORING NO.: 1-IN-SB27A

DEPTH	SOIL / ROCK	Sample ID — Type-No. (N = No Samp.)	Samp. Rec. (Ft. & %)	SPT Blows Per 0.5' / RQD (Ft. & %)	Lab. Class.. / Pen. Rate	PID (ppm)	Classification (Grain Size, Principal Constituents, Etc.) / Classification (Name, Grain Size, Principal Constituents, Etc.)	Color / Color	Consist. or Density / Hardness	Moisture Content, Organic Content, Plasticity, and Other Observations / Weathering, Bedding, Fracturing, and Other Observations	SOIL / ROCK	ELEVATION
	LAB	S-5	58%	6 8		BG	CONTINUED 3" SAND-FINE AND SILT WATER @ 11'	WHITE	MED DENSE	WET		
9-11			2/2	3 2			4" SAND-FINE AND SILT	BROWN	LOOSE	WET		
12		S-6		2 4		BG	CLAY TRACE SAND-FINE	ORANGE				
13			100%				END OF BORING 13'					5.08
4												
5												
6												
7												
8												
9												
0												
1												
2												
3												
4												
5												
6												
7												
8												
9												
0												

DRILLING CO.: EMTC
DRILLER: Jim MARSH
BAKER REP.: KENNETH A. TUA
BORING NO.: 1-IN-SB27 SHEET 2 OF 2

Baker

Baker Environmental, Inc.

FIELD TEST BORING RECORD

PROJECT: Site 1 FCLDA RI/FS MCB CAMP LEJEUNE
S.O. NO.: 62470 - 231 BORING NO.: 1-IN-SB29
COORDINATES: EAST: 2502745.11 NORTH: 333739.70
ELEVATION: SURFACE: 17.54 TOP OF PVC CASING: ____

RIG: B-57	SPLIT SPOON	CASING	AUGERS	CORE BARREL	DATE	PROGRESS (FT)	WEATHER	TOP OF CASING WATER DEPTH (FT)	TIME
SIZE (DIAM.)	1 3/8" ID		3 1/4" ID		3-29-94	11	SUNNY + WARM	9'	
LENGTH	2.0		5.0'						
TYPE	STD		HSA						
HAMMER WT.	140#								
FALL	30"								
STICK UP									

REMARKS: BACKGROUND (BG) HNu = 0.2 ppm

DRILL RECORD							VISUAL DESCRIPTION					
DEPTH	SOIL / ROCK	Sample ID / Type-No. (N = No Samp.)	Samp. Rec. (Ft. & %)	SPT Blows Per 0.5' / RQD (Ft. & %)	Lab. Class. / Pen. Rate	PID (ppm)	Classification (Grain Size, Principal Constituents, Etc.) / Classification (Name, Grain Size, Principal Constituents, Etc.)	Color	Consist. or Density / Hardness	Moisture Content, Organic Content, Plasticity, and Other Observations / Weathering, Bedding, Fracturing, and Other Observations	SOIL / ROCK	ELEVATION
0							2" ASPHALT					
1							1' FILL - SAND AND FINE GRAVEL	GRAY				
2	LAB	S-1	83/2 (42%)	10, 12, 30, 42	01	BG	SAND - FINE AND SILT TRACE GRAVEL - MEDIUM	LT. BROWN	DENSE	DRY		
3												
4		S-2	.75/2 (37%)	12, 14, 16, 23		.3	SAND - FINE LITTLE CLAY	BROWN	DENSE	DRY		
5												
6		S-3	1/2 (50%)	10, 12, 15, 13		.3	SAND - FINE LITTLE SILT	BROWN, 3" WHITE	MED DENSE	DRY		
7												
8	LAB	S-4	1.16/2 (58%)	5, 10, 5, 7	04	BG	SAND - FINE LITTLE CLAY	LT. GRAY	STIFF	MOIST		
9							WATER @ 9'					
10		S-5	1.33/2 (67%)	3, 3, 4, 4		BG	SAND - FINE AND SILT TRACE CLAY	WHITE	MED. STIFF	WET		
							END OF BORING 11'					

DRILLING CO.: EMTC BAKER REP.: KENNETH A. TUA
DRILLER: JIM MARSH BORING NO.: 1-IN-SB29 SHEET 1 OF 1

Baker

Baker Environmental, Inc.

FIELD TEST BORING RECORD

PROJECT: SITE 1 FCLDA RI/FS MCB CAMP LEJEUNE
S.O. NO.: 62470-231 BORING NO.: 1-IN-SB89
COORDINATES: EAST: 2502673.6400 NORTH: 333962.1530
ELEVATION: SURFACE: 14.8253 TOP OF PVC CASING:

RIG: B-57									
	SPLIT SPOON	CASING	AUGERS	CORE BARREL	DATE	PROGRESS (FT)	WEATHER	TOP OF CASING WATER DEPTH (FT)	TIME
SIZE (DIAM.)	1 3/8" ID		3 1/4" ID		3-28-94	9	RAIN	5	
LENGTH	2.0'		5.0'						
TYPE	STD		HSA						
HAMMER WT.	140 #								
FALL	30"								
STICK UP									

REMARKS: BACKGROUND (BG) HNU = .2

DRILL RECORD							VISUAL DESCRIPTION					
DEPTH	SOIL / ROCK	Sample ID — Type-No. (N = No Samp.)	Samp. Rec. (Ft. & %)	SPT Blows Per 0.5' / RQD (Ft. & %)	Lab. Class. / Pen. Rate	PID (ppm)	Classification (Grain Size, Principal Constituents, Etc.) / Classification (Name, Grain Size, Principal Constituents, Etc.)	Color	Consist. or Density / Hardness	Moisture Content, Organic Content, Plasticity, and Other Observations / Weathering, Bedding, Fracturing, and Other Observations	SOIL / ROCK	ELEVATION
1	LAB	00	100%	—	01	BG	SAND-F SOME SILT	BROWN		DRY		
2		S-1				BG	OBSTRUCTION ENCOUNTERED NO SAMPLE					
3												
4	LAB	S-2	1/2 50%	10 4 6 9	02	.4	SAND-FINE AND SILT	GRAY	MED DENSE	DAMP		
5							WATER @ 5'					
6		S-3	2/2 100%	9 6 2 3		BG	SAND-FINE AND SILT	LT. BROWN	LOOSE	WET		
7												
8		S-4	1.33/2 67%	3 2 4 5		BG	SAND-FINE AND SILT	BROWN	LOOSE	WET		
9							END OF BORING 9'					8.5
10												

DRILLING CO.: EMTC BAKER REP.: KENNETH A. TUA
DRILLER: JIM MARSH BORING NO.: 1-IN-SB89 SHEET 1 OF 1

Baker

Baker Environmental, Inc.

FIELD TEST BORING RECORD

PROJECT: SITE 1 FLDA RIFS MCB CAMP LEJEUNE
S.O. NO.: 62470-231 BORING NO.: 1-IN-SB30
COORDINATES: EAST: 2502847.82 NORTH: 333943.43
ELEVATION: SURFACE: 14.56 TOP OF PVC CASING:

RIG: B-57	SPLIT SPOON	CASING	AUGERS	CORE BARREL	DATE	PROGRESS (FT)	WEATHER	TOP OF CASING WATER DEPTH (FT)	TIME
SIZE (DIAM.)	1 3/8" ID		3 1/4" ID		3-29-94	11	RAIN		
LENGTH	2.0'		5.0'						
TYPE	STD		HSA						
HAMMER WT.	140#								
FALL	30"								
STICK UP									

REMARKS: BACKGROUND (BG) HNU = .4

DRILL RECORD							VISUAL DESCRIPTION					
DEPTH	SOIL / ROCK	Sample ID — Type-No. (N = No Samp.)	Samp. Rec. (Ft. & %)	SPT Blows Per 0.5' / RQD (Ft. & %)	Lab. Class. / Pen. Rate	PID (ppm)	Classification (Grain Size, Principal Constituents, Etc.) / Classification (Name, Grain Size, Principal Constituents, Etc.)	Color	Consist. or Density / Hardness	Moisture Content, Organic Content, Plasticity, and Other Observations / Weathering, Bedding, Fracturing, and Other Observations	SOIL / ROCK	ELEVATION
1	LAB	00	100%	—	00	BG	SAND-FINE AND SILT	BROWN		DRY		
2		S-1	1.41/2	12 12 12		BG	SAND-FINE AND SILT	GRAY	MED DENSE	DAMP		
3			71%	15								
4		S-2	1.67/2	10 9 9		BG	SAND-F AND SILT 5" CLAY LITHIC SILT TRACE SAND-FINE	WHITE	STIFF	DAMP		
5			83%	8								
6	LAB	S-3	1/2	3 4 6 6	03	BG	SILT AND SAND-FINE	BROWN	MED DENSE	DAMP		
7			100%				WATER @ 7'					
8		S-4	1.25/2	2 3 5 5		BG	SAND-FINE AND SILT	BROWN	LOOSE	MOIST		
9			63%									
10		S-5	1.33/2	3 1 1 1		BG	SAND-FINE F SILT	BROWN	VERY LOOSE	WET		
			67%				END OF BORING 11'					3.5

DRILLING CO.: EMTC BAKER REP.: KENNETH A. TUA
DRILLER: JIM MARSH BORING NO.: 1-IN-SB30 SHEET 1 OF 1

Baker

Baker Environmental, Inc.

FIELD TEST BORING RECORD

PROJECT: SITE 1 FCLDA RIFS MCB CAMP LEJEUNE
S.O. NO.: 62470 - 231 BORING NO.: 1-IN-SB31
COORDINATES: EAST: 2502825.02 NORTH: 333793.71
ELEVATION: SURFACE: 17.05 TOP OF PVC CASING:

RIG: B-57	SPLIT SPOON	CASING	AUGERS	CORE BARREL	DATE	PROGRESS (FT)	WEATHER	TOP OF CASING WATER DEPTH (FT)	TIME
SIZE (DIAM.)	1 3/8" ID		3 1/4" ID		3-29-94	11	SUNNY	9	
LENGTH	2.0'		5.0'						
TYPE	STD		HSA						
HAMMER WT.	140#								
FALL	30"								
STICK UP									

REMARKS: BACKGROUND (BG) HNU = 0.2 PPM

DRILL RECORD							VISUAL DESCRIPTION					
DEPTH	SOIL / ROCK	Sample ID / Type-No. (N = No Samp.)	Samp. Rec. (Ft. & %)	SPT Blows Per 0.5' / RQD (Ft. & %)	Lab. Class. / Pen. Rate	PID (ppm)	Classification (Grain Size, Principal Constituents, Etc.) / Classification (Name, Grain Size, Principal Constituents, Etc.)	Color	Consist. or Density / Hardness	Moisture Content, Organic Content, Plasticity, and Other Observations / Weathering, Bedding, Fracturing, and Other Observations	SOIL / ROCK	ELEVATION
1							3" ASPHALT 1' FILL - SAND-FINE ANG FINE GRAVEL	GRAY				
2	LAB	S-1	.83/2 42%	10 18 18 20	01	BG	SAND-FINE TRACE SILT	LT. BROWN	DENSE	DRY		
3												
4		S-2	1.33/2 63%	4 6 7 6		0.4	SAND-FINE TRACE SILT	LT. BROWN	MED DENSE	DRY		
5												
6		S-3	1.16/2 58%	3 3 5 7		BG	SAND-FINE SOME SILT	BROWN	LOOSE	DAMP		
7							3" CLAY TRACE SAND-FINE	BLUE GREEN		DAMP		
8	LAB	S-4	1.33/2 67%	2 4 7 6	04	BG	SAND-FINE SOME CLAY TRACE SILT	LT. GRAY	STIFF	MOIST MOTTLED ORANGE		
9							WATER @ 9'					
10		S-5	1.75/2 88%	4 4 5 7		BG	CLAY LITTLE SAND-FINE	GRAY	STIFF	WET MOTTLED ORANGE		
							END OF BORING 11'					6.05

DRILLING CO.: EMTC BAKER REP.: KENNETH A. TUA
DRILLER: JIM MARSH BORING NO.: 1-IN-SB31 SHEET 1 OF 1

Baker Environmental, Inc.

TEST BORING RECORD

PROJECT: Site 1 - FCLDA RI/FS MCB Camp Lejeune
S.O. NO.: 19231 BORING NO.: 1-IN-SB32
COORDINATES: EAST: 2502717.27 NORTH: 333364.94
ELEVATION: SURFACE: 24.70 TOP OF PVC CASING:

RIG: #73	SPLIT SPOON	CASING	AUGERS	CORE BARREL	DATE	PROGRESS (FT)	WEATHER	WATER DEPTH (FT)	TIME
SIZE (DIAM.)	1-3/8"ID		8" air ham. 4¼" ID		4-5-94	0-17'	Clear, cool (50's)	16.0	
LENGTH	2.0'		5.0'						
TYPE	STD.		HSA						
HAMMER WT.	140#								
FALL	30"								
STICK UP									

REMARKS: Boring sample to 17.0' and grouted to surface. HNu background is .3ppm

SAMPLE TYPE
S = Split Spoon A = Auger
T = Shelby Tube W = Wash
R = Air Rotary C = Core
D = Denison P = Piston
N = No Sample

DEFINITIONS
SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5')
RQD = Rock Quality Designation (%)
PID = Photoionization Detector

Depth (Ft.)	Sample Type and No.	Samp. Rec. Ft. & %	SPT or RQD	Samp. Desig.	PID (ppm)	Visual Description	Elevation
1 1.0	R-1	-	-		-	Concrete/Subbase	
2 3.0	S-1	1.6/2.0 80%	7 13 22 14	01	BG	SILTY SAND, fine grained. Dark brown to brown, dense, damp.	
4 5.0	S-2	1.6/2.0 80%	9 8 7 6		BG	SAND, fine grained w/ trace silt. Brown to light brown, loose to medium dense, damp. Oxidation (orange) staining 8.5 to 9.0' (bgs) only	
6 7.0	S-3	1.5/2.0 75%	2 4 4 6		BG		
8 9.0	S-4	1.6/2.0 80%	4 6 6 7	04	BG		
	S-5	1.5/2.0 75%	5 6		BG		

Match to Sheet 2

DRILLING CO.: EMTC BAKER REP.: J. E. Zimmerman
DRILLER: G. Barnes BORING NO.: 1-IN-SB32 SHEET 1 OF 2

Baker

Baker Environmental, Inc.

TEST BORING RECORD

PROJECT: Site 1 - FCLDA RI/FS MCB Camp Lejeune

S.O. NO.: 19231 BORING NO.: 1-IN-SB32

SAMPLE TYPE
S = Split Spoon A = Auger
T = Shelby Tube W = Wash
R = Air Rotary C = Core
D = Denison P = Piston
N = No Sample

DEFINITIONS
SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5')
RQD = Rock Quality Designation (%)
PID = Photoionization Detector

Depth (Ft.)	Sample Type and No.	Samp. Rec. (Ft. & %)	SPT or RQD	Samp. Desig.	PID (ppm)	Visual Description	Elevation
11.0	S-5	75%	7 10		BG	Continued from Sheet 1	
11							
12	S-6	1.6/2.0 80%	6 7 5 6		BG		
13.0						SAND, fine grained w/ trace silt. Light brown, medium dense to loose, damp to moist to wet.	
13							
14	S-7	1.8/2.0 90%	2 4 4 5	07	BG		
15.0							
15							
16	S-8	1.8/2.0 90%	5 6 6 8		BG		▼
17.0							7.70
						End of Boring TD 17.0'	
18							
19							
20							
21							
22							
23							
24							
25							
26							
27							
28							
29							

Match to Sheet 3

DRILLING CO.: EMTC BAKER REP.: J.E. Zimmerman

DRILLER: G. Barnes BORING NO.: 1-IN-SB32 SHEET 2 OF 2

Baker

Baker Environmental, Inc.

TEST BORING RECORD

PROJECT: SITE 1 FLDA RI/FS MCB CAMP LEJEUNE
S.O. NO.: 62470-231 BORING NO.: 1-IN-SB33
COORDINATES: EAST: 2502754.7500 NORTH: 233381.2810
ELEVATION: SURFACE: 25.3267 TOP OF PVC CASING:

RIG: B-57	SPLIT SPOON	CASING	AUGERS	CORE BARREL	DATE	PROGRESS (FT)	WEATHER	WATER DEPTH (FT)	TIME
SIZE (DIAM.)	1 3/8" ID		3 1/4" ID		4-18-94	17	SUNNY	15	
LENGTH	2.0'		5.0'						
TYPE	STD		HSA						
HAMMER WT.	140#								
FALL	30"								
STICK UP									

REMARKS: BACKGROUND (BG) HNU = 0.2 ppm

SAMPLE TYPE
S = Split Spoon A = Auger
T = Shelby Tube W = Wash
R = Air Rotary C = Core
D = Denison P = Piston
N = No Sample

DEFINITIONS
SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5')
RQD = Rock Quality Designation (%)
Lab Class. = USCS (ASTM D-2487) or AASHTO (ASTM D-3282)
Lab Moist. = Moisture Content (ASTM D-2216) Dry Weight Basis

Depth (Ft.)	Sample Type and No.	Samp. Rec. Ft. & %	SPT or RQD	Lab. Class. or Pen. Rate	PID (ppm)	Visual Description	Elevation
1						2" ASPHALT 1.5' FILL SAND-FINE AND GRAVEL-FINE	
2	LAB S-1	2/2	22 25	01	BG	SAND-FINE TRACE SILT DRY. BROWN VERY DENSE	
3		100%	30 36				
4	S-2	1.5/2	17 29		BG	SAND-FINE TRACE SILT DRY. WHITE & BROWN ~~VERY~~ DENSE	
5		75%	18 12				
6	S-3	1.5/2	3 4		BG	SAND-FINE TRACE SILT DRY. TAN LOOSE	
7		75%	5 6				
8	LAB S-4	1.60/2	3 3	04	BG	SAND-FINE TRACE SILT DRY. TAN LOOSE	
9		79%	4 5				
10	S-5	1.41/2	3 5		BG	SAND-FINE TRACE SILT DRY. TAN MED DENSE	

Match to Sheet 2

DRILLING CO.: EMTC BAKER REP.: KENNETH A. TUA
DRILLER: GENE BARNES BORING NO.: 1-IN-SB33 SHEET 1 OF 2

Baker

Baker Environmental, Inc.

TEST BORING RECORD

PROJECT: SITE 1 FLODA RIFS MCB CAMP LEJEUNE
S.O. NO.: 62470-231 BORING NO.: 1-IN-SB33

SAMPLE TYPE
S = Split Spoon A = Auger
T = Shelby Tube W = Wash
R = Air Rotary C = Core
D = Denison P = Piston
N = No Sample

DEFINITIONS
SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5')
RQD = Rock Quality Designation (%)
Lab Class. = USCS (ASTM D-2487) or AASHTO (ASTM D-3282)
Lab Moist. = Moisture Content (ASTM D-2216) Dry Weight Basis

Depth (Ft.)	Sample Type and No.	Samp. Rec. (Ft. & %)	SPT or RQD	Lab. Class. or Pen. Rate	PID (ppm)	Visual Description	Elevation
10	S-5	71%	8 9		BG	CONTINUED	
11	S-6	1.6/2 79%	5 7 9 12		BG	SAND-FINE TRACE SILT DAMP. WHITE MED DENSE	
13	LAB S-7	1.4/2 71%	4 6 7 9	07	BG	SAND-FINE TRACE SILT MOIST. WHITE MED DENSE WATER @ 15'	
15	S-8	1.6/2 79%	3 6 8 8		BG	SAND-FINE TRACE SILT WET. WHITE MED DENSE	
17						END OF BORING 17'	

DRILLING CO.: EMTC BAKER REP.: KENNETH A. TUA
DRILLER: GENE BARNES BORING NO.: 1-IN-SB33 SHEET 2 OF 2

TEST BORING RECORD

Baker Environmental, Inc.

PROJECT: Site 1 - FCLDA RI/FS MCB Camp Lejeune
S.O. NO.: 19231 BORING NO.: 1-N-SB34
COORDINATES: EAST: 2502852.37 NORTH: 333415.67
ELEVATION: SURFACE: 24.06 TOP OF PVC CASING:

RIG: MOBILE B-61									
	SPLIT SPOON	CASING	AUGERS	CORE BARREL	DATE	PROGRESS (FT)	WEATHER	WATER DEPTH (FT)	TIME
SIZE (DIAM.)	1-3/8"ID		3¼"ID		3-29-94	0.0-17.0	PTLY CLOUDY BREEZY 65°±	15.0	
LENGTH	2.0'		5.0'						
TYPE	STD.		HSA						
HAMMER WT.	140#								
FALL	30"								
STICK UP									

REMARKS: Boring sampled to 17.0' and grouted to surface. HNu background = 0.3 ppm

SAMPLE TYPE
S = Split Spoon A = Auger
T = Shelby Tube W = Wash
R = Air Rotary C = Core
D = Denison P = Piston
N = No Sample

DEFINITIONS
SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5')
RQD = Rock Quality Designation (%)
PID = Photoionization Detector

Depth (Ft.)	Sample Type and No.	Samp. Rec. Ft. & %	SPT or RQD	Samp. Desig.	PID (ppm)	Visual Description	Elevation
1 — 1.0		—	—			0.0 TO 0.2 ASPHALT WEARING/BINDER COURSE	
1.4	S-1	100%	50/.4		BG	SAND, fine grained, little crushed stone, light brown, very dense, damp	
2	S-2	0 / 1.5 0%	25 48 50	01	BG	SAND, fine grained, little crushed stone, trace metal (nail), light brown very dense, damp. * SEE NOTE @ END OF BORING LOG	
3 — 3.0							
3.5						AUGERED FROM 3.0' TO 3.5'	
4	S-3	1.4 / 1.5 93%	25 37 24		BG	SAND, fine grained, trace gravel, trace silt, brown, very dense, damp	
5 — 5.0							
6	S-4	1.8 / 2.0 90%	4 8 13 18	03	BG	SAND, fine grained, trace to little silt, brown, medium dense, damp	
7 — 7.0							
8	S-5	1.5 / 2.0 75%	4 8 13 18		BG	SAND, fine grained, little to some silt, brown to white, medium dense, damp	
9 — 9.0							
9.5	S-6	1.1 / 2.0 55%	9 9		BG	SAND, fine grained, little silt, light brown SILT, little fine sand, yellowish brown, medium dense, damp	

Match to Sheet 2

DRILLING CO.: EMTC BAKER REP.: MARTIN G. TAUBE
DRILLER: G. BARNES BORING NO.: 1-IN-SB34 SHEET 1 OF 2

Baker

Baker Environmental, Inc.

TEST BORING RECORD

PROJECT: Site 1 - FCLDA RI/FS MCB Camp Lejeune
S.O. NO.: 19231 BORING NO.: 1-IN-SB34

SAMPLE TYPE
S = Split Spoon A = Auger
T = Shelby Tube W = Wash
R = Air Rotary C = Core
D = Denison P = Piston
N = No Sample

DEFINITIONS
SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5')
RQD = Rock Quality Designation (%)
PID = Photoionization Detector

Depth (Ft.)	Sample Type and No.	Samp. Rec. (Ft. & %)	SPT or RQD	Samp. Desig.	PID (ppm)	Visual Description	Elevation
11.0			10 13			Continued from Sheet 1	
11							
12	S-7	1.2/2.0 60%	9 11 12 11		BG	SAND, fine grained, trace to some silt, brown to white, medium dense, damp	
13.0							
13							
14	S-8	1.5/2.0 75%	6 9 11 9	07	1.1	SAND, fine grained, trace to some silt white, medium dense, damp to moist	
15.0							
15							
16	S-9	1.5/2.0 75%	7 9 9 8		BG	SAND, fine grained, trace to some silt, white, medium dense, wet	
17.0						ORANGE SILT SEAM PRESENT FROM 15.9'-16.0'	7.06
18						END OF BORING TOTAL DEPTH = 17.0'	
19							
20						* NOTE: 3 SPLIT SPOONS DRIVEN FROM 1.5'-3.0'. NO RECOVERY ON FIRST ATTEMPT (LOST SHOE OF SPLIT SPOON IN HOLE). THE RECOVERED MATERIAL FROM THE SECOND AND THIRD ATTEMPTS WERE COMPOSITED	
21							
22							
23							
24							
25							
26							
27							
28							
29							

Match to Sheet 3

DRILLING CO.: EMTC
DRILLER: G. BARNES
BAKER REP.: MARTIN G. TAUBE
BORING NO.: 1-IN-SB34

Baker

Baker Environmental, Inc.

TEST BORING RECORD

PROJECT: Site 1 - FCLDA RI/FS MCB Camp Lejeune
S.O. NO.: 19231 BORING NO.: 1-IN-SB35
COORDINATES: EAST: 2502822.1000 NORTH: 333521.4130
ELEVATION: SURFACE: 21.8778 TOP OF PVC CASING: _____

RIG: MOBILE B-61									
	SPLIT SPOON	CASING	AUGERS	CORE BARREL	DATE	PROGRESS (FT)	WEATHER	WATER DEPTH (FT)	TIME
SIZE (DIAM.)	1-3/8"ID		3¼" ID		3-29-94	0.0-15.0	PARTLY CLDY, BREEZY ±65°	15.0	
LENGTH	2.0'		5.0'						
TYPE	STD.		HSA						
HAMMER WT.	140#								
FALL	30"								
STICK UP									

REMARKS: Boring sampled to 15.0' and grouted to surface. HNu background = 0.3 ppm

SAMPLE TYPE
S = Split Spoon A = Auger
T = Shelby Tube W = Wash
R = Air Rotary C = Core
D = Denison P = Piston
N = No Sample

DEFINITIONS
SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5')
RQD = Rock Quality Designation (%)
PID = Photoionization Detector

Depth (Ft.)	Sample Type and No.	Samp. Rec. Ft. & %	SPT or RQD	Samp. Desig.	PID (ppm)	Visual Description	Elevation
1 — 1.0		—	—			0.0 TO 0.2 ASPHALT WEARING / BINDER COURSE 0.2 TO 3.0 SAND, Fine grained, trace silt, brown, damp	
2 — 3.0		—	—	01	BG		
4 — 5.0	S-1	1.3/2.0 65%	8 6 11 12		BG	SAND, fine grained, trace silt, white, medium dense, damp 4.5 SILT, little sand trace clay, brown, damp	
6 — 7.0	S-2	1.4/2.0 70%	3 7 12 13		BG	SILT, little clay, trace fine sand, brown, medium dense, damp SILT, trace sand, trace clay, brown, damp	
8 — 9.0	S-3	1.4/2.0 70%	5 7 9 11		BG	8.0 SAND, fine grained, trace silt, white to yellowish orange, medium dense, damp	
	S-4	1.5/2.0 75%	12 12		BG	SAND, fine grained, trace silt, white to yellowish orange, medium dense, damp Match to Sheet 2	

DRILLING CO.: EMTC BAKER REP.: MARTIN G. TAUBE
DRILLER: G. BARNES BORING NO.: 1-IN-SB35 SHEET 1 OF 2

Baker

Baker Environmental, Inc.

TEST BORING RECORD

PROJECT: Site 1 - FCLDA RI/FS MCB Camp Lejeune
S.O. NO.: 19231 BORING NO.: 1-IN-SB35

SAMPLE TYPE
S = Split Spoon A = Auger
T = Shelby Tube W = Wash
R = Air Rotary C = Core
D = Denison P = Piston
N = No Sample

DEFINITIONS
SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5')
RQD = Rock Quality Designation (%)
PID = Photoionization Detector

Depth (Ft.)	Sample Type and No.	Samp. Rec. (Ft. & %)	SPT or RQD	Samp. Desig.	PID (ppm)	Visual Description	Elevation
11.0			11 10			Continued from Sheet 1	
11						11.0 to 12.7 SAND, fine grained, trace silt, white to yellowish orange, medium dense, damp to moist	
12	S-5	1.4/2.0 70%	5 9 10 10	06	BG		
13.0						12.7 to 13.0 SILT, little sand, trace clay, tan, moist	
13							
14	S-6	1.8/2.0 90%	5 7 7 8		BG	SAND, fine grained, trace silt, white medium dense, wet	
15.0							
15						END OF BORING TOTAL DEPTH = 15.0'	
16							
18							
19							
20							
21							
22							
23							
24							
25							
26							
27							
28							
29							

Match to Sheet 3

DRILLING CO.: EMTC
DRILLER: G. BARNES

BAKER REP.: MARTIN G. TAUBE
BORING NO.: 1-IN-SB35

TEST BORING RECORD

Baker Environmental, Inc.

PROJECT: Site 1 - FCLDA RI/FS MCB Camp Lejeune
S.O. NO.: 19231 BORING NO.: I-IN-SB36
COORDINATES: EAST: 2502869.69 NORTH: 333510.14
ELEVATION: SURFACE: 21.64 TOP OF PVC CASING:

RIG: #220	SPLIT SPOON	CASING	AUGERS	CORE BARREL	DATE	PROGRESS (FT)	WEATHER	WATER DEPTH (FT)	TIME
SIZE (DIAM.)	1-3/8"ID		3¼" ID		3-29-94	0-15'	overcast, cool (50's)	14.5	
LENGTH	2.0'		5.0'						
TYPE	STD.		HSA						
HAMMER WT.	140#								
FALL	30"								
STICK UP									

REMARKS: Boring sampled to 15.0' and grouted to surface. HNu background is .3 ppm

SAMPLE TYPE
S = Split Spoon A = Auger
T = Shelby Tube W = Wash
R = Air Rotary C = Core
D = Denison P = Piston
N = No Sample

DEFINITIONS
SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5')
RQD = Rock Quality Designation (%)
PID = Photoionization Detector

Depth (Ft.)	Sample Type and No.	Samp. Rec. Ft. & %	SPT or RQD	Samp. Desig.	PID (ppm)	Visual Description	Elevation
1 1.0	N	–	–		–	Asphalt coarse gravel and cobble material	
2 3.0		–	–	01	BG		
4 5.0	S-1	1.7/2.0 85%	33 25 27 31		BG	SAND, fine grained w/ trace silt. Brown to light brown to light gray, very dense to medium dense, damp.	
6 7.0	S-2	1.4/2.0 70%	14 12 11 12		BG		
8 9.0	S-3	1.8/2.0 90%	7 7 9 12		BG		
	S-4	1.3/2.0 65%	6 9		BG	Match to Sheet 2	

DRILLING CO.: EMTC BAKER REP.: J. E. Zimmerman
DRILLER: G. Barnes BORING NO.: I-IN-SB36 SHEET 1 OF 2

TEST BORING RECORD

Baker Environmental, Inc.

PROJECT: Site 1 - FCLDA RI/FS MCB Camp Lejeune
S.O. NO.: 19231 BORING NO.: 1-IN-SB36

SAMPLE TYPE
S = Split Spoon A = Auger
T = Shelby Tube W = Wash
R = Air Rotary C = Core
D = Denison P = Piston
N = No Sample

DEFINITIONS
SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5')
RQD = Rock Quality Designation (%)
PID = Photoionization Detector

Depth (Ft.)	Sample Type and No.	Samp. Rec. (Ft. & %)	SPT or RQD	Samp. Desig.	PID (ppm)	Visual Description	Elevation
11.0	S-4	65%	9 11		BG	Continued from Sheet 1	
12	S-5	1.4/2.0 70%	5 8 8 8	06	BG	SAND, fine grained w/ trace silt. Light brown, medium dense, damp to moist to wet.	
13.0							
14	S-6	1.6/2.0 80%	5 5 5 10		BG		
15.0							6.64
15						End of Boring TD 15.0'	
16							
18							
19							
20							
21							
22							
23							
24							
25							
26							
27							
28							
29						Match to Sheet 3	

DRILLING CO.: EMTC
DRILLER: G. Barnes
BAKER REP.: J. E. Zimmerman
BORING NO.: 1-IN-SB36
SHEET 2 OF 2

Baker

Baker Environmental, Inc.

FIELD TEST BORING RECORD

PROJECT: Site 1 FCLDA RIFS MCB CAMP LEJEUNE
S.O. NO.: 62470-231 BORING NO.: 1-IN-3837
COORDINATES: EAST: 2502894.86 NORTH: 333700.08
ELEVATION: SURFACE: 18.56 TOP OF PVC CASING:

RIG: B-57	SPLIT SPOON	CASING	AUGERS	CORE BARREL	DATE	PROGRESS (FT)	WEATHER	TOP OF CASING WATER DEPTH (FT)	TIME
SIZE (DIAM.)	1 3/8" ID		3 1/4" ID		3-29-94	7	SUNNY	5	
LENGTH	2.0'		5.0'						
TYPE	STD		HSA						
HAMMER WT.	140#								
FALL	30"								
STICK UP									

REMARKS: BACKGROUND (BG) HNU = 0.2 PPM

DEPTH	SOIL / ROCK	Sample ID / Type-No. (N = No Samp.)	Samp. Rec. (Ft. & %)	SPT Blows Per 0.5' / RQD (Ft. & %)	Lab. Class. / Pen. Rate	PID (ppm)	Classification (Grain Size, Principal Constituents, Etc.) / Classification (Name, Grain Size, Principal Constituents, Etc.)	Color	Consist. or Density / Hardness	Moisture Content, Organic Content, Plasticity, and Other Observations / Weathering, Bedding, Fracturing, and Other Observations	SOIL / ROCK	ELEVATION
1							2" ASPHALT 1' FILL - SAND-FINE + GRAVEL-F					
2	LAB	S-1	1.33/2 67%	12 12 15 13	01	BG	SAND-FINE AND SILT	LT. BROWN	MED DENSE	DRY		
3												
4	LAB	S-2	1.08/2 54%	2 4 6 6	02	BG	SAND-FINE LITTLE SILT	LT BROWN	MED. DENSE	DRY		
5							WATER @ 5'					
6		S-3	.25/2 13%	2 2 3 2		BG	SAND-FINE AND SILT TRACE CLAY	BLUE GREEN	MED STIFF	WET		
7							END OF BORING 7'					11.5
8												
9												
10												

DRILLING CO.: EMTC BAKER REP.: KENNETH A. TUA
DRILLER: JIM MARSH BORING NO.: 1-IN-3837 SHEET 1 OF 1

Baker

Baker Environmental, Inc.

TEST BORING RECORD

PROJECT: Site 1 - FCLDA RI/FS MCB CAMP LEJEUNE
S.O. NO.: 62470 - 231 BORING NO.: 1-IN-SB38
COORDINATES: EAST: 2502393.68 NORTH: 332138.03
ELEVATION: SURFACE: 20.06 TOP OF PVC CASING:

RIG: B-57	SPLIT SPOON	CASING	AUGERS	CORE BARREL	DATE	PROGRESS (FT)	WEATHER	WATER DEPTH (FT)	TIME
SIZE (DIAM.)	1 3/8" ID		3 1/4" ID		4-6-94	13	PARTLY SUNNY	11	
LENGTH	2.0'		5.0'						
TYPE	STD		HSA						
HAMMER WT.	140 #								
FALL	30"								
STICK UP									

REMARKS: BACKGROUND (BG) HNU ≥ 0.2 PPM

SAMPLE TYPE
S = Split Spoon A = Auger
T = Shelby Tube W = Wash
R = Air Rotary C = Core
D = Denison P = Piston
N = No Sample

DEFINITIONS
SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5')
RQD = Rock Quality Designation (%)
Lab Class. = USCS (ASTM D-2487) or AASHTO (ASTM D-3282)
Lab Moist. = Moisture Content (ASTM D-2216) Dry Weight Basis

Depth (Ft.)	Sample Type and No.	Samp. Rec. Ft. & %	SPT or RQD	Lab. Class. or Pen. Rate	PID (ppm)	Visual Description	Elevation
1	LAB	CC	100%	—	∞	BG	4" TOP SOIL. ORGANICS SAND-FINE TRACE SILT. DRY.	
2	S-1	1.41/2	20 17		BG	SAND-FINE TRACE SILT DRY. BROWN. MED DENSE.	
3		71%	10 9				
4	S-2	1.67/2	10 9		BG	SAND-FINE TRACE SILT. DAMP. BROWN. MED DENSE	
5		83%	8 8				
6	S-3	1.5/2	8 7		BG	SAND-FINE TRACE SILT. DAMP. ORANGE/BROWN. MED DENSE.	
7		75%	7 6				
8	S-4	1.33/2	4 5		BG	CLAY SOME SILT TRACE SAND-FINE DAMP. BROWN. MED DENSE	
9		67%	4 6				
10	LAB S-5	1.33/2	6 5	05	BG	SAND-FINE LITHIC SILT. DAMP. GRAY/ORANGE MOTTLED MED DENSE	

Match to Sheet 2

DRILLING CO.: EMTC BAKER REP.: KENNETH A. TUA
DRILLER: JIM MARSH BORING NO.: 1-IN-SB38 SHEET 1 OF 2

Baker

Baker Environmental, Inc.

TEST BORING RECORD

PROJECT: SITE 1 - FOLDA RI/FS MCB CAMP LEJEUNE
S.O. NO.: 62470-231 BORING NO.: 1-IN-5838

SAMPLE TYPE
S = Split Spoon A = Auger
T = Shelby Tube W = Wash
R = Air Rotary C = Core
D = Denison P = Piston
N = No Sample

DEFINITIONS
SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5')
RQD = Rock Quality Designation (%)
Lab Class. = USCS (ASTM D-2487) or AASHTO (ASTM D-3282)
Lab Moist. = Moisture Content (ASTM D-2216) Dry Weight Basis

Depth (Ft.)	Sample Type and No.	Samp. Rec. (Ft. & %)	SPT or RQD	Lab. Class. or Pen. Rate	PID (ppm)	Visual Description	Elevation
LAB	S-5	67%	5 6		BG	CONTINUED	
11		1.25/2	7 10			WATER @ 11' SAND - FINE LITHIE SI.T.	
12	S-6	63%	12 8		BG	WET. GRAY. MED.	
13						END OF BORING 13'	7.06
14							
15							
16							
17							
18							
19							
20							
21							
22							
23							
24							
25							
26							
27							
28							
29							
30							

DRILLING CO.: EMTL BAKER REP.: KENNETH A. TUA
DRILLER: JIM MARSH BORING NO.: 1-IN-5838 SHEET 2 OF 2

Baker

Baker Environmental, Inc.

TEST BORING RECORD

PROJECT: Site 1 - FCLDA RI/FS MCB CAMP LEJEUNE
S.O. NO.: 62470 - 231 BORING NO.: 1-IN-SB39
COORDINATES: EAST: 2502728.77 NORTH: 332328.81
ELEVATION: SURFACE: 22.68 TOP OF PVC CASING:

RIG: B-57	SPLIT SPOON	CASING	AUGERS	CORE BARREL	DATE	PROGRESS (FT)	WEATHER	WATER DEPTH (FT)	TIME
SIZE (DIAM.)	1 3/8" ID		3 1/4" ID		4-6-94	15	PARTLY SUNNY	13	
LENGTH	2.0'		5.0'						
TYPE	STD		HSA						
HAMMER WT.	140 #								
FALL	30"								
STICK UP									

REMARKS: BACKGROUND (BG) HNU = 0.2 PPM

SAMPLE TYPE
S = Split Spoon A = Auger
T = Shelby Tube W = Wash
R = Air Rotary C = Core
D = Denison P = Piston
N = No Sample

DEFINITIONS
SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5')
RQD = Rock Quality Designation (%)
Lab Class. = USCS (ASTM D-2487) or AASHTO (ASTM D-3282)
Lab Moist. = Moisture Content (ASTM D-2216) Dry Weight Basis

Depth (Ft.)	Sample Type and No.	Samp. Rec. Ft. & %	SPT or RQD	Lab. Class. or Pen. Rate	PID (ppm)	Visual Description	Elevation
1	LAB	OO 100%	—	∞	BG	4" Top Soil. Black SAND-FINE TRACE SILT. DRY	
2	S-1	1.67/2 83%	11 12 10 8		BG	SAND-FINE TRACE SILT DRY. ORANGE. MED DENSE	
3							
4	S-2	.83/2 42%	4 5 7 11		BG	SAND-FINE TRACE SILT DAMP. ORANGE AND WHITE MED DENSE	
5							
6	S-3	1.08/2 54%	4 7 13 17		BG	SAND-FINE TRACE SILT DAMP. WHITE. MED DENSE	
7							
8	LAB S-4	1.60/2 79%	5 6 9 9	04	BG	SAND-FINE TRACE SILT MOIST. WHITE W/ ORANGE MOTTLED. MED DENSE.	
9							
10	S-5	1.60/2	6 6		BG	SAND-FINE LITHIE SILT. MOIST. WHITE W/ ORANGE MOTTLED MED DENSE.	

Match to Sheet 2

DRILLING CO.: EMTC BAKER REP.: KENNETH A. TUA
DRILLER: JIM MARSH BORING NO.: 1-IN-SB39 SHEET 1 OF 2

Baker

Baker Environmental, Inc.

TEST BORING RECORD

PROJECT: SITE 1 - FCLDA RI/FS MCB CAMP LEJEUNE
S.O. NO.: 62470-231 BORING NO.: 1-IN-SB39

SAMPLE TYPE
S = Split Spoon A = Auger
T = Shelby Tube W = Wash
R = Air Rotary C = Core
D = Denison P = Piston
N = No Sample

DEFINITIONS
SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5')
RQD = Rock Quality Designation (%)
Lab Class. = USCS (ASTM D-2487) or AASHTO (ASTM D-3282)
Lab Moist. = Moisture Content (ASTM D-2216) Dry Weight Basis

Depth (Ft.)	Sample Type and No.	Samp. Rec. (Ft. & %)	SPT or RQD	Lab. Class. or Pen. Rate	PID (ppm)	Visual Description	Elevation
10	S-5	79%	7 7		BG	CONTINUED	
11		1.33/2	3 5			SAND-FINE, TRACE SILT MOIST. WHITE, MED DENSE	
12	LAB S-6		7	Qb	BG		
		67%	8				
13		1.41/2	7 7			WATER @ 13'	
14	S-7		9		BG	SAND-FINE TRACE SILT WET. LT. BROWN, MED DENSE	
		71%	11				
15						END OF BORING 15'	7.68
16							
17							
18							
19							
20							
21							
22							
23							
24							
25							
26							
27							
28							
29							
30							

DRILLING CO.: EMTC BAKER REP.: KENNETH A. TWA
DRILLER: JIM MARSH BORING NO.: 1-IN-SB39 SHEET 2 OF 2

TEST BORING RECORD

Baker Environmental, Inc.

PROJECT: Site FCLDA RI/FS MCB CAMP LEJEUNE
S.O. NO.: 62470-231 BORING NO.: 1-IN-SB40
COORDINATES: EAST: 2502198.12 NORTH: 332665.00
ELEVATION: SURFACE: 21.50 TOP OF PVC CASING:

RIG: B-57

	SPLIT SPOON	CASING	AUGERS	CORE BARREL	DATE	PROGRESS (FT)	WEATHER	WATER DEPTH (FT)	TIME
SIZE (DIAM.)	1 3/8" ID		3 1/4" ID		4-18-94	15	SUNNY	15	
LENGTH	2.0'		5.0'						
TYPE	STD		HSA						
HAMMER WT.	140#								
FALL	30"								
STICK UP									

REMARKS: BACKGROUND (BG) HNU = 0.4 ppm. GEOTECHNICAL BORING ONLY

SAMPLE TYPE
S = Split Spoon A = Auger
T = Shelby Tube W = Wash
R = Air Rotary C = Core
D = Denison P = Piston
N = No Sample

DEFINITIONS
SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5')
RQD = Rock Quality Designation (%)
Lab Class. = USCS (ASTM D-2487) or AASHTO (ASTM D-3282)
Lab Moist. = Moisture Content (ASTM D-2216) Dry Weight Basis

Depth (Ft.)	Sample Type and No.	Samp. Rec. Ft. & %	SPT or RQD	Lab. Class. or Pen. Rate	PID (ppm)	Visual Description	Elevation
1						1' FILL SAND-FINE AND GRAVEL-FINE TO MEDIUM	
2	S-1	1.41/2 71%	50/12 15 17		BG	SILT TRACE SAND-FINE DRY. DARK BROWN MED DENSE	
3							
4	S-2	1.67/2 83%	5 8 9 13		BG	SAND-FINE TRACE SILT DRY. LT. BROWN MED DENSE	
5							
6	S-3	2/2 100%	8 8 7 8		BG	SAND-FINE TRACE SILT DRY. ORANGE MED DENSE	
7							
8	S-4	1.41/2 71%	7 8 7 6		BG	SAND-FINE LITTLE SILT DRY. DARK BROWN MED DENSE	
9							
10	S-5	1.83/2	5 8		BG	SAND-FINE LITTLE SILT DRY. DARK BROWN MED DENSE	

Match to Sheet 2

DRILLING CO.: EMTC BAKER REP.: KENNETH A. TUA
DRILLER: GENE BARNES BORING NO.: 1-IN-SB40 SHEET 1 OF 2

Baker

Baker Environmental, Inc.

TEST BORING RECORD

PROJECT: SITE 1 FCLDA RIFS MCB CAMP LEJEUNE
S.O. NO.: 62470-231 BORING NO.: 1-IN-SB40

SAMPLE TYPE
S = Split Spoon A = Auger
T = Shelby Tube W = Wash
R = Air Rotary C = Core
D = Denison P = Piston
N = No Sample

DEFINITIONS
SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5')
RQD = Rock Quality Designation (%)
Lab Class. = USCS (ASTM D-2487) or AASHTO (ASTM D-3282)
Lab Moist. = Moisture Content (ASTM D-2216) Dry Weight Basis

Depth (Ft.)	Sample Type and No.	Samp. Rec. (Ft. & %)	SPT or RQD	Lab. Class. or Pen. Rate	PID (ppm)	Visual Description	Elevation
10	S-5	93%	9 11		BG	CONTINUED	
11		1.41/2	7 9			SAND-FINE TRACE SILT MOIST LT. BROWN	
12	S-6	71%	11 12		BG	MED DENSE	
13		1.41/2	8 8			SAND-FINE TRACE SILT MOIST TO WET	
14	S-7	71%	9 13		BG	LT. GRAY MED DENSE	
15						WATER @ 15' END OF BORING @ 15'	6.5
16							
17							
18							
19							
20							
21							
22							
23							
24							
25							
26							
27							
28							
29							
30							

DRILLING CO.: EMTC
DRILLER: GENE BARNES
BAKER REP.: KENNETH A. TUA
BORING NO.: 1-IN-SB40 SHEET 2 OF 2

SITE 28

TEST BORING RECORD

Baker Environmental, Inc.

PROJECT: Site 28 - HPBD RI/FS MCB Camp Lejeune
S.O. NO.: 19231 BORING NO.: 28-W-SB01
COORDINATES: EAST: 2498293.9600 NORTH: 332026.3370
ELEVATION: SURFACE: 19.5062 TOP OF PVC CASING:

RIG: #220	SPLIT SPOON	CASING	AUGERS	CORE BARREL	DATE	PROGRESS (FT)	WEATHER	WATER DEPTH (FT)	TIME
SIZE (DIAM.)	1-3/8"ID		4¼" ID		3-26-94	0-19'	Broken overcast humid (50's)	17.5	
LENGTH	2.0'		5.0'						
TYPE	STD.		HSA						
HAMMER WT.	140#								
FALL	30"								
STICK UP									

REMARKS: Boring Sampled to 19.0' and grouted to surface. Hnu background is .5 ppm

SAMPLE TYPE
S = Split Spoon A = Auger
T = Shelby Tube W = Wash
R = Air Rotary C = Core
D = Denison P = Piston
N = No Sample

DEFINITIONS
SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5')
RQD = Rock Quality Designation (%)
PID = Photoionization Detector

Depth (Ft.)	Sample Type and No.	Samp. Rec. Ft. & %	SPT or RQD	Samp. Desig.	PID (ppm)	Visual Description	Elevation
1	1.0	–	–	–	00	BG	SILTY SAND, fine grained. Dark brown to gray, very loose, damp	
2		1.5/2.0	6				
	S-1		18				
3	3.0	75%	20 9			BG	
4		1.2/2.0	3				
	S-2		6				
5	5.0	60%	5 5			BG	SAND, fine grained w/ trace silt. Brown, loose to medium dense to dense, damp.
6		1.6/2.0	5				
	S-3		5				
7	7.0	80%	5 5			BG	
8		1.4/2.0	5				
	S-4		3		04		
9	9.0	70%	4 5			BG	
		1.5/2.0	3				
	S-5	75%	5			BG	

Match to Sheet 2

DRILLING CO.: EMTC BAKER REP.: J. E. Zimmerman
DRILLER: G. Barnes BORING NO.: 28-W-SB01 SHEET 1 OF 2

TEST BORING RECORD

Baker Environmental, Inc.

PROJECT: Site 28 - HPBD RI/FS MCB Camp Lejeune
S.O. NO.: 19231 BORING NO.: 28-W-SB01

SAMPLE TYPE
S = Split Spoon A = Auger
T = Shelby Tube W = Wash
R = Air Rotary C = Core
D = Denison P = Piston
N = No Sample

DEFINITIONS
SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5')
RQD = Rock Quality Designation (%)
PID = Photoionization Detector

Depth (Ft.)	Sample Type and No.	Samp. Rec. (Ft. & %)	SPT or RQD	Samp. Desig.	PID (ppm)	Visual Description	Elevation
11.0	S-5	75%	6 6		BG	Continued from Sheet 1	
13.0	S-6	1.6/2.0 80%	3 5 7 8		BG		
15.0	S-7	1.5/2.0 75%	7 8 10 13		BG	SAND, fine grained w/ trace silt. Brown, medium dense, damp to moist to wet.	
17.0	S-8	1.4/2.0 70%	7 8 10 13	08	BG		
19.0	S-9	1.2/2.0 60%	4 5 7 11		BG		
						End of Boring TD 19.0'	
						Match to Sheet 3	

DRILLING CO.: EMTC BAKER REP.: J. E. Zimmerman
DRILLER: G. Barnes BORING NO.: 28-W-SB01 SHEET 2 OF 3

TEST BORING RECORD

Baker Environmental, Inc.

PROJECT: Site 28 - HPBD RI/FS MCB Camp Lejeune
S.O. NO.: 19231 BORING NO.: 28-W-SB02
COORDINATES: EAST: 2498353.4700 NORTH: 332108.7350
ELEVATION: SURFACE: 21.6264 TOP OF PVC CASING: ____

RIG: #220	SPLIT SPOON	CASING	AUGERS	CORE BARREL	DATE	PROGRESS (FT)	WEATHER	WATER DEPTH (FT)	TIME
SIZE (DIAM.)	1-3/8"ID		4¼" ID		3-26-94	0-17'	Broken overcast, humid, 50's	16.5	
LENGTH	2.0'		5.0'						
TYPE	STD.		HSA						
HAMMER WT.	140#								
FALL	30"								
STICK UP									

REMARKS: Boring sampled to 17.0' and grouted to surface. Hnu background is .4 ppm

SAMPLE TYPE
S = Split Spoon A = Auger
T = Shelby Tube W = Wash
R = Air Rotary C = Core
D = Denison P = Piston
N = No Sample

DEFINITIONS
SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5')
RQD = Rock Quality Designation (%)
PID = Photoionization Detector

Depth (Ft.)	Sample Type and No.	Samp. Rec. Ft. & %	SPT or RQD	Samp. Desig.	PID (ppm)	Visual Description	Elevation
1 1.0		-	-	00	BG	SILTY SAND, fine grained. Dark brown to gray, very loose, damp.	
2	S-1	1.3/2.0	8 11		BG		
3 3.0		65%	16 23				
4	S-2	1.6/2.0	9 8		BG	SAND, fine grained w/ trace silt. Brown, medium dense, damp.	
5 5.0		80%	7 8				
6	S-3	1.2/2.0	4 7		BG		
7 7.0		60%	8 8				
8	S-4	1.4/2.0	7 7	04	BG		
9 9.0		70%	9 11				
J	S-5	1.4/2.0	4		BG		
		70%	6			Match to Sheet 2	

DRILLING CO.: EMTC BAKER REP.: J.E. Zimmerman
DRILLER: G. Barnes BORING NO.: 28-W-SB02 SHEET 1 OF 2

TEST BORING RECORD

Baker Environmental, Inc.

PROJECT: Site 28 - HPBD RI/FS MCB Camp Lejeune
S.O. NO.: 19231 BORING NO.: 28-W-SB02

SAMPLE TYPE
S = Split Spoon A = Auger
T = Shelby Tube W = Wash
R = Air Rotary C = Core
D = Denison P = Piston
N = No Sample

DEFINITIONS
SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5')
RQD = Rock Quality Designation (%)
PID = Photoionization Detector

Depth (Ft.)	Sample Type and No.	Samp. Rec. (Ft. & %)	SPT or RQD	Samp. Desig.	PID (ppm)	Visual Description	Elevation
11.0	S-5	70%	6 9		BG	Continued from Sheet 1	
12	S-6	1.6/2.0	3 8		BG		
13.0		80%	10 12				
14	S-7	1.7/2.0	8 11	07	BG	SAND, fine grained w/ trace silt. Brown to dark brown, medium dense, damp to moist to wet.	
15.0		85%	12 6				
16	S-8	1.2/2.0	5 3		BG		
17.0		60%	2 3			End of Boring TD 17.0'	
						Match to Sheet 3	

DRILLING CO.: EMTC BAKER REP.: J.E. Zimmerman
DRILLER: G. Barnes BORING NO.: 28-W-SB02 SHEET 2 OF 2

TEST BORING RECORD

Baker Environmental, Inc.

PROJECT: Site 28 - HPBD RI/FS MCB Camp Lejeune
S.O. NO.: 19231 BORING NO.: 28-W-SB03
COORDINATES: EAST: 2498382.87 NORTH: 331991.65
ELEVATION: SURFACE: 14.79 TOP OF PVC CASING:

RIG: #220

	SPLIT SPOON	CASING	AUGERS	CORE BARREL	DATE	PROGRESS (FT)	WEATHER	WATER DEPTH (FT)	TIME
SIZE (DIAM.)	1-3/8"ID		4¼" ID		3-26-94	0-13'	Broken overcast, humid, 50's	12.0	
LENGTH	2.0'		5.0'						
TYPE	STD.		HSA						
HAMMER WT.	140#								
FALL	30"								
STICK UP									

REMARKS: Boring sampled to 13.0' and grouted to surface. HNu background is .4 ppm

SAMPLE TYPE
S = Split Spoon A = Auger
T = Shelby Tube W = Wash
R = Air Rotary C = Core
D = Denison P = Piston
N = No Sample

DEFINITIONS
SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5')
RQD = Rock Quality Designation (%)
PID = Photoionization Detector

Depth (Ft.)	Sample Type and No.	Samp. Rec. Ft. & %	SPT or RQD	Samp. Desig.	PID (ppm)	Visual Description	Elevation
1 — 1.0		-	-	00	BG	SILTY SAND, fine grained. Dark brown to gray, very loose, damp.	
2 —	S-1	1.3/2.0	1/1		BG		
3 — 3.0		65%	2			SAND, fine grained w/ trace silt. Dark brown to brown to gray, v. loose to loose, damp.	
4 —	S-2	1.5/2.0	1/1		BG		
5 — 5.0		75%	2/3				
6 —	S-3	.8/2.0	1/5	03	BG	SAND, fine to medium grained w/ trace silt. Dark gray, loose, damp.	
7 — 7.0		40%	3/9				
8 —	S-4	1.2/2.0	1/1		BG	SAND, fine grained w/ trace silt and "Pea Gravel". Dark gray, loose to very loose, damp.	
9 — 9.0		60%	2/2				
—	S-5	1.1/2.0	3/8	05	BG	SAND, fine grained w/ trace silt and Organics Match to Sheet 2	
		55%					

DRILLING CO.: EMTC BAKER REP.: J. E. Zimmerman
DRILLER: G. Barnes BORING NO.: 28-W-SB03 SHEET 1 OF 2

Baker
Baker Environmental, Inc.

TEST BORING RECORD

PROJECT: Site 28 - HPBD RI/FS MCB Camp Lejeune
S.O. NO.: 19231 BORING NO.: 28-W-SB03

SAMPLE TYPE
S = Split Spoon A = Auger
T = Shelby Tube W = Wash
R = Air Rotary C = Core
D = Denison P = Piston
N = No Sample

DEFINITIONS
SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5')
RQD = Rock Quality Designation (%)
PID = Photoionization Detector

Depth (Ft.)	Sample Type and No.	Samp. Rec. (Ft. & %)	SPT or RQD	Samp. Desig.	PID (ppm)	Visual Description	Elevation
11.0	S-5	55%	5 6	05	BG	Continued from Sheet 1 (wood). Dark gray, medium dense, damp	
	S-6	1.3/2.0	2 1 1		BG	SAND, fine grained w/ trace silt and organics (roots). Dark gray, very loose, moist to wet.	▼
13.0		65%	4				1.79
						End of Boring TD 13.0'	
						Match to Sheet 3	

DRILLING CO.: EMTC BAKER REP.: J.E. Zimmerman
DRILLER: G. Barnes BORING NO.: 28-W-SB03 SHEET 2 OF 2

Baker

Baker Environmental, Inc.

TEST BORING RECORD

PROJECT: Site 28 - HPBD RI/FS MCB Camp Lejeune
S.O. NO.: 19231 BORING NO.: 28-W-SB04
COORDINATES: EAST: 2498450.4500 NORTH: 332125.7080
ELEVATION: SURFACE: 21.7433 TOP OF PVC CASING:

RIG: # 220	SPLIT SPOON	CASING	AUGERS	CORE BARREL	DATE	PROGRESS (FT)	WEATHER	WATER DEPTH (FT)	TIME
SIZE (DIAM.)	1-3/8"ID		4¼" ID		3-26-94	0-15'	Broken overcast, humid, 50's	14.5	
LENGTH	2.0'		5.0'						
TYPE	STD.		HSA						
HAMMER WT.	140#								
FALL	30"								
STICK UP									

REMARKS: Boring sampled to 15.0' and grouted to surface. HNu background is .3 ppm

SAMPLE TYPE
S = Split Spoon A = Auger
T = Shelby Tube W = Wash
R = Air Rotary C = Core
D = Denison P = Piston
N = No Sample

DEFINITIONS
SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5')
RQD = Rock Quality Designation (%)
PID = Photoionization Detector

Depth (Ft.)	Sample Type and No.	Samp. Rec. Ft. & %	SPT or RQD	Samp. Desig.	PID (ppm)	Visual Description	Elevation
1 1.0		-	-	00	BG	SILTY SAND, fine grained w/ trace clay. Dark brown to gray, v. loose, damp.	
2	S-1	1.6/2.0 80%	6 11 13 29		BG		
3 3.0							
4	S-2	1.3/2.0 65%	13 17 13 12		BG		
5 5.0							
6	S-3	1.5/2.0 75%	5 6 8 12	03	BG	SAND, fine grained w/ trace silt. Brown to gray to dark brown, medium dense to loose, damp to moist.	
7 7.0							
8	S-4	1.3/2.0 65%	4 8 8 8		BG		
9 9.0							
	S-5	1.4/2.0 70%	2 5		BG	Match to Sheet 2	

DRILLING CO.: EMTC BAKER REP.: J. E. Zimmerman
DRILLER: G. Barnes BORING NO.: 28-W-SB04 SHEET 1 OF 2

Baker Environmental, Inc.

TEST BORING RECORD

PROJECT: Site 28 - HPBD RI/FS MCB Camp Lejeune
S.O. NO.: 19231 BORING NO.: 28-W-SB04

SAMPLE TYPE
S = Split Spoon A = Auger
T = Shelby Tube W = Wash
R = Air Rotary C = Core
D = Denison P = Piston
N = No Sample

DEFINITIONS
SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5')
RQD = Rock Quality Designation (%)
PID = Photoionization Detector

Depth (Ft.)	Sample Type and No.	Samp. Rec. (Ft. & %)	SPT or RQD	Samp. Desig.	PID (ppm)	Visual Description	Elevation
11.0	S-5	70%	4 6		BG	Continued from Sheet 1	
12	S-6	1.2/2.0 60%	3 5 4 8	06	BG	SAND, fine grained w/ trace silt. Brown to dark brown, moist to wet.	
13.0							
14	S-7	1.5/2.0 75%	3 6 8 3		BG		▼
15.0						End of Boring TD 15.0'	
15							
16							
17							
18							
19							
20							
21							
22							
23							
24							
25							
26							
27							
28							
29							
30						Match to Sheet 3	

DRILLING CO.: EMTC
DRILLER: G. Barnes
BAKER REP.: J. E. Zimmerman
BORING NO.: 28-W-SB04
SHEET 2 OF 2

TEST BORING RECORD

Baker Environmental, Inc.

PROJECT: Site 28 - HPBD RI/FS MCB Camp Lejeune
S.O. NO.: 19231 BORING NO.: 28-W-SB05
COORDINATES: EAST: 2498455.3800 NORTH: 331762.5620
ELEVATION: SURFACE: 9.4897 TOP OF PVC CASING:

RIG: #220	SPLIT SPOON	CASING	AUGERS	CORE BARREL	DATE	PROGRESS (FT)	WEATHER	WATER DEPTH (FT)	TIME
SIZE (DIAM.)	1-3/8"ID		4 1/4" ID		3-27-94	0-9'	Clear, warm, windy (70's)	7.5	
LENGTH	2.0'		5.0'						
TYPE	STD.		HSA						
HAMMER WT.	140#								
FALL	30"								
STICK UP									

REMARKS: Boring sampled to 9.0' and grouted to surface. HNu background is .3 ppm

SAMPLE TYPE
S = Split Spoon A = Auger
T = Shelby Tube W = Wash
R = Air Rotary C = Core
D = Denison P = Piston
N = No Sample

DEFINITIONS
SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5')
RQD = Rock Quality Designation (%)
PID = Photoionization Detector

Depth (Ft.)	Sample Type and No.	Samp. Rec. Ft. & %	SPT or RQD	Samp. Desig.	PID (ppm)	Visual Description	Elevation
1 1.0	—	—	—	00	BG	SILTY SAND, fine grained w/ rooted material and trace fill material (glass shards and charcoal pieces). Dark brown to gray, v. loose.	
2 3.0	S-1	.2 / 2.0 10%	5 7 17 1		BG	SAND, fine grained w/ trace silt and pieces of brick. Brown to red, medium dense, damp.	
4 5.0	S-2	NR	1/24"		—	NO RECOVERY	
6 7.0	S-3	NR	1/12" 1/12"		—		
8 9.0	S-4	1.0 / 2.0 50%	1/12" 1/12"	04	BG	SAND, fine grained w/ trace silt Brown to dark gray, very loose, wet.	▼
						End of Boring TD 9.0'	

Match to Sheet 2

DRILLING CO.: EMTC BAKER REP.: J. E. Zimmerman
DRILLER: G. Barnes BORING NO.: 28-W-SB05 SHEET 1 OF 1

TEST BORING RECORD

Baker Environmental, Inc.

PROJECT: Site 28 - HPBD RI/FS MCB Camp Lejeune
S.O. NO.: 19231 BORING NO.: 28-W-SB06
COORDINATES: EAST: 2498564.56 NORTH: 331830.12
ELEVATION: SURFACE: 16.9 TOP OF PVC CASING:

RIG: #220

	SPLIT SPOON	CASING	AUGERS	CORE BARREL	DATE	PROGRESS (FT)	WEATHER	WATER DEPTH (FT)	TIME
SIZE (DIAM.)	1-3/8"ID		4¼"ID		3-27-94	0-15'	clear, warm windy, (70's)	13.5	
LENGTH	2.0'		5.0'						
TYPE	STD.		HSA						
HAMMER WT.	140#								
FALL	30"								
STICK UP									

REMARKS: Boring sampled to 15.0' and grouted to surface. HNu background is .1ppm

SAMPLE TYPE
S = Split Spoon A = Auger
T = Shelby Tube W = Wash
R = Air Rotary C = Core
D = Denison P = Piston
N = No Sample

DEFINITIONS
SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5')
RQD = Rock Quality Designation (%)
PID = Photoionization Detector

Depth (Ft.)	Sample Type and No.	Samp. Rec. Ft. & %	SPT or RQD	Samp. Desig.	PID (ppm)	Visual Description	Elevation
1 1.0	—	—	—	00	BG	SILTY SAND, fine grained w/ trace glass shards and oxidized metal, dark brown to gray, very loose, damp.	
2	S-1	1.1/2.0 55%	2 2 5 3		BG	SAND, fine grained w/ trace silt and FILL material (burnt soil glass shards, charcoal flecks, brick, oxidized metal fragments). Dark brown to reddish brown, black, brown, loose to very loose, damp.	
3 3.0							
4	S-2	.6/2.0 30%	6 1 1 2		BG		
5 5.0							
6	S-3	.7/2.0 35%	8 3 2 1/12"		BG		
7 7.0							
8	S-4	.8/2.0 40%	1 6 14 39		BG	FILL material (oxidized metal fragments, burnt soil, charcoal flecks, brick). Dark brown, reddish brown, black, orange, medium dense, damp.	
9 9.0							
	S-5	.6/2.0 30%	3 1		BG	SAND, fine grained w/ trace silt and FILL material (burnt soil, charcoal flecks, glass shards, Match to Sheet 2	

DRILLING CO.: EMTC BAKER REP.: J. E. Zimmerman
DRILLER: G. Barnes BORING NO.: 28-W-SB06 SHEET 1 OF 2

TEST BORING RECORD

Baker Environmental, Inc.

PROJECT: Site 28 - HPBD RI/FS MCB Camp Lejeune
S.O. NO.: 19231 BORING NO.: 28-W-SB06

SAMPLE TYPE
S = Split Spoon A = Auger
T = Shelby Tube W = Wash
R = Air Rotary C = Core
D = Denison P = Piston
N = No Sample

DEFINITIONS
SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5')
RQD = Rock Quality Designation (%)
PID = Photoionization Detector

Depth (Ft.)	Sample Type and No.	Samp. Rec. (Ft. & %)	SPT or RQD	Samp. Desig.	PID (ppm)	Visual Description	Elevation
11.0	S-5	30%	1 4		BG	Continued from Sheet 1 (possible decomposed food) Brown, dark brown, black, very loose, damp	
11							
12	S-6	.5/2.0	36 11 4	06	BG	SAND, fine grained w/ trace silt. Soil appears stained w/ oxidation from FILL material. Brown to reddish orange (oxidation), medium dense, moist to wet.	
13.0		25%	2				
13							▼
14	S-7	.3/2.0	11 8 3		BG		
15.0		15%	1				1.90
15						End of Boring TD 15.0'	
16							
18							
19							
20							
21							
22							
23							
24							
25							
26							
27							
28							
29						Match to Sheet 3	

DRILLING CO.: EMTC BAKER REP.: J. E. Zimmerman
DRILLER: G. Barnes BORING NO.: 28-W-SB06 SHEET 2 OF 2

TEST BORING RECORD

Baker Environmental, Inc.

PROJECT: Site 28 - HPBD RI/FS MCB Camp Lejeune
S.O. NO.: 19231 BORING NO.: 28-W-SB07
COORDINATES: EAST: 2498703.94 NORTH: 331957.26
ELEVATION: SURFACE: 17.82 TOP OF PVC CASING:

RIG: # 220	SPLIT SPOON	CASING	AUGERS	CORE BARREL	DATE	PROGRESS (FT)	WEATHER	WATER DEPTH (FT)	TIME
SIZE (DIAM.)	1-3/8"ID		4¼" ID		3-26-94	0-17'	Broken overcast, humid, 50's	15.3	
LENGTH	2.0'		5.0'						
TYPE	STD.		HSA						
HAMMER WT.	140#								
FALL	30"								
STICK UP									

REMARKS: Boring sampled to 17.0' and grouted to surface. HNu background is .4 ppm

SAMPLE TYPE
S = Split Spoon A = Auger
T = Shelby Tube W = Wash
R = Air Rotary C = Core
D = Denison P = Piston
N = No Sample

DEFINITIONS
SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5')
RQD = Rock Quality Designation (%)
PID = Photoionization Detector

Depth (Ft.)	Sample Type and No.	Samp. Rec. Ft. & %	SPT or RQD	Samp. Desig.	PID (ppm)	Visual Description	Elevation
1 – 1.0		–	–	00	BG	SILTY SAND, fine grained. Dark brown to gray, very loose, damp	
2 –	S-1	1.2/2.0 60%	8 10 50/4"	01	BG	SAND, fine grained w/ trace silt. Brown to gray, medium dense, damp.	
3 – 3.0							
4 –	S-2	.4/2.0 20%	31/6" 50/5"		BG		
5 – 5.0							
6 –	S-3	.4/2.0 20%	1 6 13 18		BG	FILL material (burnt soil and charcoal flecks)	
7 – 7.0						SAND, fine grained w/ trace silt. Brown, medium dense, damp.	
8 –	S-4	.3/2.0 15%	50/5"		BG		
9 – 9.0							
–	S-5	.6/2.0 30%	3 4		BG	FILL material (metal and possible burnt soil)	

Match to Sheet 2

DRILLING CO.: EMTC BAKER REP.: J. E. Zimmerman
DRILLER: G. Barnes BORING NO.: 28-W-SB07 SHEET 1 OF 2

TEST BORING RECORD

Baker Environmental, Inc.

PROJECT: Site 28 - HPBD RI/FS MCB Camp Lejeune
S.O. NO.: 19231 BORING NO.: 28-W-SB07

SAMPLE TYPE
S = Split Spoon A = Auger
T = Shelby Tube W = Wash
R = Air Rotary C = Core
D = Denison P = Piston
N = No Sample

DEFINITIONS
SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5')
RQD = Rock Quality Designation (%)
PID = Photoionization Detector

Depth (Ft.)	Sample Type and No.	Samp. Rec. (Ft. & %)	SPT or RQD	Samp. Desig.	PID (ppm)	Visual Description	Elevation
11.0	S-5	30%	6 8		BG	Continued from Sheet 1	
11						SAND, fine grained w/some silt and FILL material (burnt soil, brick, and charcoal flecks). Brown to dark gray to black, medium dense, moist	
12	S-6	.7/2.0 35%	3 8 5 3	06	BG		
13.0							
13							
14	S-7	.4/2.0 20%	3 2 1 1		BG	SAND, fine grained w/little to trace silt. Brown to dark gray, loose to very loose, moist to wet.	
15.0							
15							▼
16	S-8	.3/2.0 15%	3 1 1 3		BG		
17.0							.82
18						End of Boring TD 17.0'	
19							
20							
21							
22							
23							
24							
25							
26							
27							
28							
29						Match to Sheet 3	

DRILLING CO.: EMTC BAKER REP.: J. E. Zimmerman
DRILLER: G. Barnes BORING NO.: 28-W-SB07 SHEET 2 OF 2

TEST BORING RECORD

Baker Environmental, Inc.

PROJECT: Site 28 - HPBD RI/FS MCB Camp Lejeune
S.O. NO.: 19231 BORING NO.: 28-W-SB08
COORDINATES: EAST: 249862l.8600 NORTH: 331687.2740
ELEVATION: SURFACE: 11.5121 TOP OF PVC CASING:

RIG: # 220

	SPLIT SPOON	CASING	AUGERS	CORE BARREL	DATE	PROGRESS (FT)	WEATHER	WATER DEPTH (FT)	TIME
SIZE (DIAM.)	1-3/8"ID		4¼" ID		3-27-94	0-11'	clear, warm, windy (70's)	9.5	
LENGTH	2.0'		5.0'						
TYPE	STD.		HSA						
HAMMER WT.	140#								
FALL	30"								
STICK UP									

REMARKS: Boring sampled to 11.0' and grouted to surface. HNu background is .2 ppm

SAMPLE TYPE
S = Split Spoon A = Auger
T = Shelby Tube W = Wash
R = Air Rotary C = Core
D = Denison P = Piston
N = No Sample

DEFINITIONS
SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5')
RQD = Rock Quality Designation (%)
PID = Photoionization Detector

Depth (Ft.)	Sample Type and No.	Samp. Rec. Ft. & %	SPT or RQD	Samp. Desig.	PID (ppm)	Visual Description	Elevation
1 1.0	—	—	—	00	BG	SILTY SAND, fine grained w/ FILL material (glass shards, brick, charcoal flecks, metal fragments) Brown, gray, red, very loose, damp	
2 3.0	S-1	.1/2.0 5%	3 6 2 1		BG	SAND, fine grained w/ trace silt. Brown to gray, loose, moist	
4 5.0	S-2	1.1/2.0 55%	6 5 7 13	02	BG	FILL material (brick, glass shards, charcoal flecks, possible burnt soil). "Pea gravel, well rounded 3.5' to 3.6' only. Brown, red, dark gray, black, yellowish orange, medium dense to loose, damp	
6 7.0	S-3	1.0/2.0 50%	7 7 3 2	03	BG		
8 9.0	S-4	.3/2.0 15%	2 4 2 6	04	BG		
	S-5	.5/2.0 25%	3 1 1/12"		BG	SAND, fine grained w/ trace silt. Dark gray, very loose, Match to Sheet 2	

DRILLING CO.: EMTC BAKER REP.: J.E. Zimmerman
DRILLER: G. Barnes BORING NO.: 28-W-SB08 SHEET 1 OF 2

Baker

Baker Environmental, Inc.

TEST BORING RECORD

PROJECT: Site 28 - HPBD RI/FS MCB Camp Lejeune
S.O. NO.: 19231 BORING NO.: 28-W-SB08

SAMPLE TYPE
S = Split Spoon A = Auger
T = Shelby Tube W = Wash
R = Air Rotary C = Core
D = Denison P = Piston
N = No Sample

DEFINITIONS
SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5')
RQD = Rock Quality Designation (%)
PID = Photoionization Detector

Depth (Ft.)	Sample Type and No.	Samp. Rec. (Ft. & %)	SPT or RQD	Samp. Desig.	PID (ppm)	Visual Description	Elevation
11.0	S-5	25%	2		BG	Continued from Sheet 1 moist to wet.	
						End of Boring TD 11.0' * Sample 02 & 03 are composited for waste only	
						Match to Sheet 3	

DRILLING CO.: EMTC BAKER REP.: J. E. Zimmerman
DRILLER: G. Barnes BORING NO.: 28-W-SB08 SHEET 2 OF 2

TEST BORING RECORD

Baker Environmental, Inc.

PROJECT: Site 28 - HPBD RI/FS MCB Camp Lejeune
S.O. NO.: 19231 BORING NO.: 28-W-5809
COORDINATES: EAST: 2498710.82 NORTH: 331810.03
ELEVATION: SURFACE: 16.82 TOP OF PVC CASING: _____

RIG: #220	SPLIT SPOON	CASING	AUGERS	CORE BARREL	DATE	PROGRESS (FT)	WEATHER	WATER DEPTH (FT)	TIME
SIZE (DIAM.)	1-3/8"ID		4¼" ID		3-25-94	0-17'	overcast, mild (60's)	15.5	
LENGTH	2.0'		5.0'						
TYPE	STD.		HSA						
HAMMER WT.	140#								
FALL	30"								
STICK UP									

REMARKS: Boring sampled to 17.0' and grouted to surface. Hnu background is .3 ppm

SAMPLE TYPE
S = Split Spoon A = Auger
T = Shelby Tube W = Wash
R = Air Rotary C = Core
D = Denison P = Piston
N = No Sample

DEFINITIONS
SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5')
RQD = Rock Quality Designation (%)
PID = Photoionization Detector

Depth (Ft.)	Sample Type and No.	Samp. Rec. Ft. & %	SPT or RQD	Samp. Desig.	PID (ppm)	Visual Description	Elevation
1 1.0	-	-	-	00	BG	SILTY SAND, fine grained. Dark brown to brown, very loose, damp.	
2 3.0	S-1	.4	3 2 1/12"		BG	FILL material (oxidized metal, burnt soil, charcoal flecks?) w/ SILTY SAND, fine grained Dark brown to brown, loose, damp	
4 5.0	S-2	.3	1 2 1 1		BG		
6 7.0	S-3	.4	1 1 1 6		BG		
8 9.0	S-4	NR	12 7 4 2		-	NO RECOVERY	
	S-5	.2	7 8		BG	SAND, fine grained w/ silt Brown, medium dense Match to Sheet 2	

DRILLING CO.: EMTC BAKER REP.: J.E. Zimmerman
DRILLER: G. Barnes BORING NO.: 28-W-5809 SHEET 1 OF 2

Baker

Baker Environmental, Inc.

TEST BORING RECORD

PROJECT: Site 28 - HPBD RI/FS MCB Camp Lejeune
S.O. NO.: 19231 BORING NO.: 28-W-SB09

SAMPLE TYPE
S = Split Spoon A = Auger
T = Shelby Tube W = Wash
R = Air Rotary C = Core
D = Denison P = Piston
N = No Sample

DEFINITIONS
SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5')
RQD = Rock Quality Designation (%)
PID = Photoionization Detector

Depth (Ft.)	Sample Type and No.	Samp. Rec. (Ft. & %)	SPT or RQD	Samp. Desig.	PID (ppm)	Visual Description	Elevation
11.0	S-5	10%	5 4		BG	Continued from Sheet 1	
12	S-6	.3/2.0	7/6" 50/2"		BG	SAND, fine grained w/silt. Brown to dark brown, medium dense, damp to moist. Root material present	
13.0		15%					
14	S-7	.7/2.0	6 8 16	07	BG		
15.0		35%	18				▼
16	S-8	.7/2.0	2 3 1		BG	SAND, fine grained w/trace silt and FILL material (glass shards). Dark Brown, loose, wet.	
17.0		35%	2				-.18
						End of Boring TD 17.0'	
						Match to Sheet 3	

DRILLING CO.: EMTC BAKER REP.: J. E. Zimmerman
DRILLER: G. Barnes BORING NO.: 28-W-SB09 SHEET 2 OF 2

TEST BORING RECORD

Baker Environmental, Inc.

PROJECT: Site 28 - HPBD RI/FS MCB Camp Lejeune
S.O. NO.: 19231 BORING NO.: 28-W-SB10
COORDINATES: EAST: 2498816.72 NORTH: 332017.12
ELEVATION: SURFACE: 17.22 TOP OF PVC CASING:

RIG: # 220	SPLIT SPOON	CASING	AUGERS	CORE BARREL	DATE	PROGRESS (FT)	WEATHER	WATER DEPTH (FT)	TIME
SIZE (DIAM.)	1-3/8"ID		4¼" ID		3-26-94	0-17'	Broken overcast, humid, 50's	15.5	
LENGTH	2.0'		5.0'						
TYPE	STD.		HSA						
HAMMER WT.	140#								
FALL	30"								
STICK UP									

REMARKS: Boring sampled to 17.0' and grouted to surface. HNu background is .4 ppm.

SAMPLE TYPE
S = Split Spoon A = Auger
T = Shelby Tube W = Wash
R = Air Rotary C = Core
D = Denison P = Piston
N = No Sample

DEFINITIONS
SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5')
RQD = Rock Quality Designation (%)
PID = Photoionization Detector

Depth (Ft.)	Sample Type and No.	Samp. Rec. Ft. & %	SPT or RQD	Samp. Desig.	PID (ppm)	Visual Description	Elevation
1 1.0		–	–	00	BG	SILTY SAND, fine grained w/ trace glass shards. Brown to gray, v. loose, damp	
2	S-1	1.0/2.0 50%	9 12 25 31		BG	SAND, fine grained w/ trace silt and little CLAY. Brown to gray, medium to stiff, dense damp	
3 3.0							
4	S-2	1.7/2.0 85%	5 10 16 21		BG		
5 5.0							
6	S-3	1.6/2.0 80%	5 13 20 18	03	BG	SAND, fine grained w/ trace silt. Brown to gray, medium dense, damp.	
7 7.0							
8	S-4	1.5/2.0 75%	4 8 7 12		BG		
9 9.0							
	S-5	.7/2.0 35%	4 4		BG		

Match to Sheet 2

DRILLING CO.: EMTC BAKER REP.: J.E. Zimmerman
DRILLER: G. Barnes BORING NO.: 28-W-SB10 SHEET 1 OF 2

TEST BORING RECORD

Baker Environmental, Inc.

PROJECT: Site 28 - HPBD RI/FS MCB Camp Lejeune
S.O. NO.: 19231 BORING NO.: 28-W-SB10

SAMPLE TYPE
S = Split Spoon A = Auger
T = Shelby Tube W = Wash
R = Air Rotary C = Core
D = Denison P = Piston
N = No Sample

DEFINITIONS
SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5')
RQD = Rock Quality Designation (%)
PID = Photoionization Detector

Depth (Ft.)	Sample Type and No.	Samp. Rec. (Ft. & %)	SPT or RQD	Samp. Desig.	PID (ppm)	Visual Description	Elevation
11.0	S-5	35%	5 6		BG	Continued from Sheet 1	
12 13.0	S-6	1.1/2.0 55%	5 25 13 8	06	BG	SAND, fine grained w/ trace silt. Brown, medium dense, damp to moist to wet.	
14 15.0	S-7	.2/2.0 10%	3 5 4 2		BG		▼
16 17.0	S-8	.3/2.0 15%	7 3 4 5		BG		.22
						End of Boring TD 17.0'	
						Match to Sheet 3	

DRILLING CO.: EMTC BAKER REP.: J. E. Zimmerman
DRILLER: G. Barnes BORING NO.: 28-W-SB10 SHEET 2 OF 2

TEST BORING RECORD

Baker Environmental, Inc.

PROJECT: Site 28 - HPBD RI/FS MCB Camp Lejeune
S.O. NO.: 19231 BORING NO.: 28-W-SB11
COORDINATES: EAST: 2498781.4500 NORTH: 331637.3300
ELEVATION: SURFACE: 16.2573 TOP OF PVC CASING:

RIG: # 220	SPLIT SPOON	CASING	AUGERS	CORE BARREL	DATE	PROGRESS (FT)	WEATHER	WATER DEPTH (FT)	TIME
SIZE (DIAM.)	1-3/8"ID		4¼"ID		3-27-94	0-11'	clear, warm windy (70's)	9.5	
LENGTH	2.0'		5.0'						
TYPE	STD.		HSA						
HAMMER WT.	140#								
FALL	30"								
STICK UP									

REMARKS: Boring sampled to 11.0' and grouted to surface. HNu background is .2ppm

SAMPLE TYPE
S = Split Spoon A = Auger
T = Shelby Tube W = Wash
R = Air Rotary C = Core
D = Denison P = Piston
N = No Sample

DEFINITIONS
SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5')
RQD = Rock Quality Designation (%)
PID = Photoionization Detector

Depth (Ft.)	Sample Type and No.	Samp. Rec. Ft. & %	SPT or RQD	Samp. Desig.	PID (ppm)	Visual Description	Elevation
1 – 1.0	–	–	–	00	BG	SILTY SAND, fine grained w/some FILL material (glass shards, oxidized metal and charcoal flecks). Dark brown to gray to black, very loose, damp.	
2 – 3.0	S-1	1.6/2.0 80%	3 3 5 7		BG	SAND, fine grained w/ trace silt. "Pea gravel" bottom ½ of sample only. Brown to dark gray, loose, damp	
4 – 5.0	S-2	.7/2.0 35%	4 6 7 3		BG	FILL material (brick, glass shards). Brown, red, dark brown, medium dense, damp. SAND, fine grained w/ trace silt. Brown, medium dense, damp	
6 – 7.0	S-3	1.3/2.0 65%	6 7 18 30	03	BG	FILL material (glass shards, brick, charcoal flecks; trace metal). Red to dark brown to black, medium dense, damp	
8 – 9.0	S-4	.3/2.0 15%	4 6 7 5		BG	SAND, fine grained w/ trace silt. "Pea gravel" is occasional Dark brown to brown to dark gray, medium dense,	
	S-5	1.0/2.0 50%	5 11		BG	Match to Sheet 2	

DRILLING CO.: EMTC BAKER REP.: J. E. Zimmerman
DRILLER: G. Barnes BORING NO.: 28-W-SB11 SHEET 1 OF 2

Baker

Baker Environmental, Inc.

TEST BORING RECORD

PROJECT: Site 28 - HPBD RI/FS MCB Camp Lejeune
S.O. NO.: 19231 BORING NO.: 28-W-SB11

SAMPLE TYPE
S = Split Spoon A = Auger
T = Shelby Tube W = Wash
R = Air Rotary C = Core
D = Denison P = Piston
N = No Sample

DEFINITIONS
SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5')
RQD = Rock Quality Designation (%)
PID = Photoionization Detector

Depth (Ft.)	Sample Type and No.	Samp. Rec. (Ft. & %)	SPT or RQD	Samp. Desig.	PID (ppm)	Visual Description	Elevation
11.0	S-5	50%	50/5"		BG	Continued from Sheet 1 damp to moist to wet	
11						End of Boring TD 11.0'	
12							
13							
14							
15							
16							
17							
18							
19							
20							
21							
22							
23							
24							
25							
26							
27							
28							
29							
						Match to Sheet 3	

DRILLING CO.: EMTC BAKER REP.: J.E. Zimmerman
DRILLER: G. Barnes BORING NO.: 28-W-SB11 SHEET 2 OF 2

Baker

Baker Environmental, Inc.

TEST BORING RECORD

PROJECT: Site 28 - HPBD RI/FS MCB Camp Lejeune
S.O. NO.: 19231 BORING NO.: 28-W-SB12
COORDINATES: EAST: 2498884.02 NORTH: 331895.83
ELEVATION: SURFACE: 16.32 TOP OF PVC CASING:

RIG: # 220	SPLIT SPOON	CASING	AUGERS	CORE BARREL	DATE	PROGRESS (FT)	WEATHER	WATER DEPTH (FT)	TIME
SIZE (DIAM.)	1-3/8"ID		4¼"ID		3-27-94	0-15'	clear, warm, windy, (70's)	15.0	
LENGTH	2.0'		5.0'						
TYPE	STD.		HSA						
HAMMER WT.	140#								
FALL	30"								
STICK UP									

REMARKS: Boring sampled to 15.0' and grouted to surface. HNu background is .2ppm

SAMPLE TYPE
S = Split Spoon A = Auger
T = Shelby Tube W = Wash
R = Air Rotary C = Core
D = Denison P = Piston
N = No Sample

DEFINITIONS
SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5')
RQD = Rock Quality Designation (%)
PID = Photoionization Detector

Depth (Ft.)	Sample Type and No.	Samp. Rec. Ft. & %	SPT or RQD	Samp. Desig.	PID (ppm)	Visual Description	Elevation
1 1.0	—	—	—	00	BG	SILTY SAND, fine grained w/little FILL material (glass shards, brick, wood, metal fragments). Dark brown, reddish brown, gray, very loose, damp	
2 3.0	S-1	.2/2.0 10%	2 1 2 3		BG	SAND, fine grained w/trace silt. Dark brown to tan, very loose, damp.	
4 5.0	S-2	.5/2.0 25%	2 3 5 4		BG		
6 7.0	S-3	1.1/2.0 55%	8 27 5 3		BG	FILL material (glass shards, burnt soil, charcoal flecks, oxidized metal frags.) w/trace ceramic material. Dark brown, orange, black, dense, damp	
8 9.0	S-4	.8/2.0 40%	8 3 50/0		BG	SAND, fine grained w/trace silt. Pieces of ceramic material are present. Brown to white to dark brown,	
10	S-5	.3/2.0 15%	18 38	05	BG	Match to Sheet 2	

DRILLING CO.: EMTC BAKER REP.: J. E. Zimmerman
DRILLER: G. Barnes BORING NO.: 28-W-SB12 SHEET 1 OF 2

Baker

Baker Environmental, Inc.

TEST BORING RECORD

PROJECT: Site 28 - HPBD RI/FS MCB Camp Lejeune
S.O. NO.: 19231 BORING NO.: 28-W-SB12

SAMPLE TYPE
S = Split Spoon A = Auger
T = Shelby Tube W = Wash
R = Air Rotary C = Core
D = Denison P = Piston
N = No Sample

DEFINITIONS
SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5')
RQD = Rock Quality Designation (%)
PID = Photoionization Detector

Depth (Ft.)	Sample Type and No.	Samp. Rec. (Ft. & %)	SPT or RQD	Samp. Desig.	PID (ppm)	Visual Description	Elevation
11.0	S-5	15%	30 16	OS	BG	Continued from Sheet 1 loose to very dense, damp	
11 12 13.0	S-6	NR	S S T 8		–	NO RECOVERY	
13 14 15.0	S-7	.9 2.0 45%	4 7 11 4		BG	SAND, fine grained w/trace silt "Pea gravel" present (bottom 1/2 of sample) Dark brown to dark gray, medium dense, wet.	▼
15						End of Boring TD 15.0'	
16 7 18 19 20 21 22 23 24 25 26 27 28 29 0						Match to Sheet 3	

DRILLING CO.: EMTC
DRILLER: G. Barnes
BAKER REP.: J. E. Zimmerman
BORING NO.: 28-W-SB12
SHEET 2 OF 2

TEST BORING RECORD

Baker Environmental, Inc.

PROJECT: Site 28 - HPBD RI/FS MCB Camp Lejeune
S.O. NO.: 19231 BORING NO.: 28-W-SB13
COORDINATES: EAST: 2498955.4600 NORTH: 302020.5680
ELEVATION: SURFACE: 15.1106 TOP OF PVC CASING:

RIG: #220	SPLIT SPOON	CASING	AUGERS	CORE BARREL	DATE	PROGRESS (FT)	WEATHER	WATER DEPTH (FT)	TIME
SIZE (DIAM.)	1-3/8"ID		4¼"ID		3-27-94	0-17'	Clear, warm, windy (70's)	15.5	
LENGTH	2.0'		5.0'						
TYPE	STD.		HSA						
HAMMER WT.	140#								
FALL	30"								
STICK UP									

REMARKS: Boring sampled to 17.0' and grouted to surface. HNu background is .2 ppm

SAMPLE TYPE
S = Split Spoon A = Auger
T = Shelby Tube W = Wash
R = Air Rotary C = Core
D = Denison P = Piston
N = No Sample

DEFINITIONS
SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5')
RQD = Rock Quality Designation (%)
PID = Photoionization Detector

Depth (Ft.)	Sample Type and No.	Samp. Rec. Ft. & %	SPT or RQD	Samp. Desig.	PID (ppm)	Visual Description	Elevation
1 – 1.0	—	—	—	00	BG	SILTY SAND, fined grained w/ little "Pea gravel" and trace metal fragments. Dark brown to gray, very loose, damp	
2 – 3.0	S-1	1.3/2.0 65%	6 15 11 12		BG	SAND, fine grained w/ trace Silt Glass shards present at .3' only. Dark brown, tan, green, medium dense, damp	
4 – 5.0	S-2	NR	50/0		-	NO RECOVERY	
6 – 7.0	S-3	.8/2.0 40%	4 6 4 10		BG		
8 – 9.0	S-4	.7/2.0 35%	1 1 1 1		BG	SAND, fine grained w/ trace silt. Dark gray, dark brown, very loose to medium dense, damp. Glass shards at 9.6' (bgs) only.	
	S-5	.8/2.0 40%	1/12"		BG	Match to Sheet 2	

DRILLING CO.: EMTC BAKER REP.: J. E. Zimmerman
DRILLER: G. Barnes BORING NO.: 28-W-SB13 SHEET 1 OF 2

Baker

Baker Environmental, Inc.

TEST BORING RECORD

PROJECT: Site 28 - HPBD RI/FS MCB Camp Lejeune
S.O. NO.: 19231 BORING NO.: 28-W-SB13

SAMPLE TYPE
S = Split Spoon A = Auger
T = Shelby Tube W = Wash
R = Air Rotary C = Core
D = Denison P = Piston
N = No Sample

DEFINITIONS
SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5')
RQD = Rock Quality Designation (%)
PID = Photoionization Detector

Depth (Ft.)	Sample Type and No.	Samp. Rec. (Ft. & %)	SPT or RQD	Samp. Desig.	PID (ppm)	Visual Description	Elevation
11.0	S-5	40%			BG	Continued from Sheet 1	
11						SAND, fine grained w/ trace silt. Dark gray, very loose damp.	
12	S-6	.7/2.0 35%	1/12"	06	BG		
13.0							
13			1				
14	S-7	NR	2 3 4		–	NO RECOVERY	
15.0							
15			3				
16	S-8	1.8/2.0 90%	4 5 7		BG	SAND, fine grained w/ trace silt. Dark gray to brown, loose to medium dense, wet	
17.0						End of Boring TD 17.0'	
18							
19							
20							
21							
22							
23							
24							
25							
26							
27							
28							
29						Match to Sheet 3	

DRILLING CO.: EMTC BAKER REP.: J. E. Zimmerman
DRILLER: G. Barnes BORING NO.: 28-W-SB13 SHEET 2 OF 2

Baker

Baker Environmental, Inc.

FIELD TEST BORING RECORD

PROJECT: SITE 28 HPBD RIFS MCB CAMP LEJEUNE
S.O. NO.: 62470-231 BORING NO.: 28-W-SB14
COORDINATES: EAST: 2498938.3700 NORTH: 331719.6070
ELEVATION: SURFACE: 7.6438 TOP OF PVC CASING:

RIG: B-57	SPLIT SPOON	CASING	AUGERS	CORE BARREL	DATE	PROGRESS (FT)	WEATHER	TOP OF CASING WATER DEPTH (FT)	TIME
SIZE (DIAM.)	1 3/8" ID		3 1/4" ID		3-27-94	9	SUNNY & WARM	7	
LENGTH	2.0'		5.0'				WINDY		
TYPE	STD		HSA						
HAMMER WT.	140 lb								
FALL	30"								
STICK UP									

REMARKS: BACKGROUND (BG) HNU = .7 ppm

DEPTH	SOIL / ROCK	Sample ID / Type-No. (N = No Samp.)	Samp. Rec. (Ft. & %)	SPT Blows Per 0.5' / RQD (Ft. & %)	Lab. Class. / Pen. Rate	PID (ppm)	Classification (Grain Size, Principal Constituents, Etc.) / Classification (Name, Grain Size, Principal Constituents, Etc.)	Color	Consist. or Density / Hardness	Moisture Content, Organic Content, Plasticity, and Other Observations / Weathering, Bedding, Fracturing, and Other Observations	SOIL / ROCK	ELEVATION
1	LAB	00	100%	-	∞	BG	SAND-FINE AND SILT ORGANICS AND DEBRIS.	BROWN		DAMP		
2		S-1	2/2	6 9 7 5		BG	SAND-FINE AND SILT MUCH DEBRIS: GLASS, WOOD BRICK, METAL	BROWN	MED DENSE	DAMP		
3			100%									
4	LAB	S-2	.83/2	4 3 5 7	02	BG	SAND-FINE AND SILT	BROWN 6" YELLOW	LOOSE	DAMP		
5			42%									
6		S-3	-	1 2 1 2			NO RECOVERY		VERY LOOSE			
7							WATER @ 7'					
8		S-4	.42/2	3 7 2 22		BG	SAND-FINE AND SILT	BLACK	LOOSE	WET. WATER IS BLACK WITH STRONG SEWAGE ODOR		
9			21%									
							END OF BORING 9'					
10												

DRILLING CO.: EMTC BAKER REP.: KENNETH A. TUA
DRILLER: JIM MARSH BORING NO.: 28-W-SB14 SHEET 1 OF 1

TEST BORING RECORD

Baker Environmental, Inc.

PROJECT: Site 28 - HPBD RI/FS MCB Camp Lejeune
S.O. NO.: 19231 BORING NO.: 28-W-SB15
COORDINATES: EAST: 2499048.9700 NORTH: 331846.1860
ELEVATION: SURFACE: 8.6741 TOP OF PVC CASING:

RIG: # 220	SPLIT SPOON	CASING	AUGERS	CORE BARREL	DATE	PROGRESS (FT)	WEATHER	WATER DEPTH (FT)	TIME
SIZE (DIAM.)	1-3/8"ID		4¼"ID		3-25-94	0-15'	overcast mild (60's)	13.5	
LENGTH	2.0'		5.0'						
TYPE	STD.		HSA						
HAMMER WT.	140#								
FALL	30"								
STICK UP									

REMARKS: Boring sampled to 15.0' and grouted to surface. HNu background is .3 ppm

SAMPLE TYPE
S = Split Spoon A = Auger
T = Shelby Tube W = Wash
R = Air Rotary C = Core
D = Denison P = Piston
N = No Sample

DEFINITIONS
SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5')
RQD = Rock Quality Designation (%)
PID = Photoionization Detector

Depth (Ft.)	Sample Type and No.	Samp. Rec. Ft. & %	SPT or RQD	Samp. Desig.	PID (ppm)	Visual Description	Elevation
1 1.0	—	—	—	00	BG	SILTY SAND, fine grained w/ rooted material and FILL material (metal wire, glass shards). Dark brown to brown, very loose, damp.	
2	S-1	1.3/2.0	10 12		BG	SAND, fine grained w/ trace Silt and FILL material (burnt soil, glass shards and charcoal flecks). Dark brown to orange to black, medium dense, damp.	
3 3.0		65%	16 8				
4	S-2	.9/2.0	5 3		BG		
5 5.0		45%	2 4				
6	S-3	1.1/2.0	5 6		BG	SAND, fine grained w/ trace Silt and FILL material (brick, ceramics). Dark brown to reddish brown, damp	
7 7.0		55%	2 1				
8	S-4	.7/2.0	2 5		BG	FILL material (brick, burnt soil, glass shards, charcoal flecks). Dark brown, to reddish	
9 9.0		35%	6 8				
	S-5	.4/2.0	5	05	BG		
		20%	10			Match to Sheet 2	

DRILLING CO.: EMTC BAKER REP.: J. E. Zimmerman
DRILLER: G. Barnes BORING NO.: 28-W-SB15 SHEET 1 OF 2

Baker

Baker Environmental, Inc.

TEST BORING RECORD

PROJECT: Site 28 - HPBD RI/FS MCB Camp Lejeune

S.O. NO.: 19231 BORING NO.: 28-W-SB15

SAMPLE TYPE

S = Split Spoon A = Auger
T = Shelby Tube W = Wash
R = Air Rotary C = Core
D = Denison P = Piston
N = No Sample

DEFINITIONS

SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5')
RQD = Rock Quality Designation (%)
PID = Photoionization Detector

Depth (Ft.)	Sample Type and No.	Samp. Rec. (Ft. & %)	SPT or RQD	Samp. Desig.	PID (ppm)	Visual Description	Elevation
11.0	S-5	20%	3 7	OS	BG	Continued from Sheet 1 brown to black to dark gray, medium dense, damp to moist	
12	S-6	1.1/2.0 55%	6 4 16 21		BG	SAND, fine grained w/ trace silt. very small well rounded "Pea gravel". Dark gray to yellowish brown, dense, wet	
13.0							
14	S-7	.7/2.0 35%	10 10 22 12		BG		
15.0						End of Boring TD 15.0'	
15						Match to Sheet 3	

DRILLING CO.: EMTC BAKER REP.: J.E. Zimmerman

DRILLER: G. Barnes BORING NO.: 28-W-SB15 SHEET 2 OF 2

TEST BORING RECORD

Baker Environmental, Inc.

PROJECT: Site 28 - HPBD RI/FS MCB Camp Lejeune
S.O. NO.: 19231 BORING NO.: 28-W-SB16
COORDINATES: EAST: 2499145.4200 NORTH: 332041.0290
ELEVATION: SURFACE: 11.6315 TOP OF PVC CASING:

RIG: #220

	SPLIT SPOON	CASING	AUGERS	CORE BARREL	DATE	PROGRESS (FT)	WEATHER	WATER DEPTH (FT)	TIME
SIZE (DIAM.)	1-3/8"ID		4¼"ID		3-27-94	0-13'	Clear, warm windy (70's)	12.5	
LENGTH	2.0'		5.0'						
TYPE	STD.		HSA						
HAMMER WT.	140#								
FALL	30"								
STICK UP									

REMARKS: Boring sampled to 13.0' and grouted to surface. HNu background is .2 ppm.

SAMPLE TYPE
S = Split Spoon A = Auger
T = Shelby Tube W = Wash
R = Air Rotary C = Core
D = Denison P = Piston
N = No Sample

DEFINITIONS
SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5')
RQD = Rock Quality Designation (%)
PID = Photoionization Detector

Depth (Ft.)	Sample Type and No.	Samp. Rec. Ft. & %	SPT or RQD	Samp. Desig.	PID (ppm)	Visual Description	Elevation
1 1.0	—	—	—	00	BG	SILTY SAND, fine grained w/trace clay. Dark brown to gray, very loose, damp.	
2	S-1	1.0/2.0 50%	7 4 3 6		BG	FILL material (glass shards, pieces of brick, burnt soil). Dark brown, to brown to orange brown, loose, damp.	
3 3.0							
4	S-2	1.3/2.0 65%	3 9 3 13		BG	SAND, fine grained w/trace silt Reddish brown, medium dense, damp	
5 5.0						FILL material (glass shards, brick, charcoal flecks). Reddish brown to black, medium dense, damp	
6	S-3	1.0/2.0 50%	3 18 6 3		BG		
7 7.0							
8	S-4	.4/2.0 20%	3 1/12" 1/12"	04	BG	SAND, fine grained w/trace silt. Brown, very loose, damp.	
9 9.0							
	S-5	.1/2.0 5%	1/6"		BG	FILL material (pieces of brick) Match to Sheet 2	

DRILLING CO.: EMTC BAKER REP.: J.E. Zimmerman
DRILLER: G. Barnes BORING NO.: 28-W-SB16 SHEET 1 OF 2

TEST BORING RECORD

Baker Environmental, Inc.

PROJECT: Site 28 - HPBD RI/FS MCB Camp Lejeune
S.O. NO.: 19231 BORING NO.: 28-W-SB16

SAMPLE TYPE
S = Split Spoon A = Auger
T = Shelby Tube W = Wash
R = Air Rotary C = Core
D = Denison P = Piston
N = No Sample

DEFINITIONS
SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5')
RQD = Rock Quality Designation (%)
PID = Photoionization Detector

Depth (Ft.)	Sample Type and No.	Samp. Rec. (Ft. & %)	SPT or RQD	Samp. Desig.	PID (ppm)	Visual Description	Elevation
11.0	S-5	5%	1/18"		BG	Continued from Sheet 1 Reddish brown to dark-gray, very loose, moist.	
11							
12	S-6	1.1/2.0 55%	3 4 4 5		BG	SAND, fine grained w/trace silt Leached FILL material (brick) top of sample only. Reddish brown to dark gray, loose, wet	▼
13.0							
13						End of Boring TD 13.0'	
14							
15							
16							
18							
19							
20							
21							
22							
23							
24							
25							
26							
27							
28							
29							

Match to Sheet 3

DRILLING CO.: EMTC
DRILLER: G. Barnes
BAKER REP.: J. E. Zimmerman
BORING NO.: 28-W-SB16
SHEET 2 OF 2

TEST BORING RECORD

Baker Environmental, Inc.

PROJECT: Site 28 - HPBD RI/FS MCB Camp Lejeune
S.O. NO.: 19231
COORDINATES: EAST: 2499116.6700 NORTH: 332163.2630
ELEVATION: SURFACE: 12.4467
BORING NO.: 28-W-SB17
TOP OF PVC CASING:

RIG: # 220

	SPLIT SPOON	CASING	AUGERS	CORE BARREL	DATE	PROGRESS (FT)	WEATHER	WATER DEPTH (FT)	TIME
SIZE (DIAM.)	1-3/8"ID		4¼"ID		3-25-94	0-13'	overcast, mild (60's)	12.5	
LENGTH	2.0'		5.0'						
TYPE	STD.		HSA						
HAMMER WT.	140#								
FALL	30"								
STICK UP									

REMARKS: Boring sampled to 13.0' and grouted to surface. HNu background is .3 ppm

SAMPLE TYPE
S = Split Spoon, A = Auger
T = Shelby Tube, W = Wash
R = Air Rotary, C = Core
D = Denison, P = Piston
N = No Sample

DEFINITIONS
SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5')
RQD = Rock Quality Designation (%)
PID = Photoionization Detector

Depth (Ft.)	Sample Type and No.	Samp. Rec. Ft. & %	SPT or RQD	Samp. Desig.	PID (ppm)	Visual Description	Elevation
1		—	—	OO	BG	SILTY SAND, fine grained. Gray to dark brown, very loose, damp.	
1.0							
2	S-1	.4/2.0 20%	7 6 50/5"		BG	FILL material (brick, burnt soil, glass shards, charcoal flecks) w/ SAND, fine grained w/trace Silt. Dark brown to reddish brown, dark gray to brownish orange, loose to medium dense, damp.	
3							
3.0							
4	S-2	.7/2.0 35%	5 7 7 3		BG		
5							
5.0							
6	S-3	.4/2.0 20%	1 2 7 10		BG	SAND, fine grained w/trace Silt. Brown, medium dense, damp.	
7							
7.0							
8	S-4	.8/2.0 40%	2 2 2 2		BG	FILL material (brick, burnt soil) Brown, black, orangish	
9						SAND, fine grained w/trace Silt. Brown, very loose, damp.	
9.0							
	S-5	.4/2.0 20%	3 1	OS	BG	(Metal wire in auger cuttings)	

Match to Sheet 2

DRILLING CO.: EMTC
DRILLER: G. Barnes
BAKER REP.: J.E. Zimmerman
BORING NO.: 28-W-SB17

Baker

Baker Environmental, Inc.

TEST BORING RECORD

PROJECT: Site 28 - HPBD RI/FS MCB Camp Lejeune
S.O. NO.: 19231 BORING NO.: 28-W-SB17

SAMPLE TYPE
S = Split Spoon A = Auger
T = Shelby Tube W = Wash
R = Air Rotary C = Core
D = Denison P = Piston
N = No Sample

DEFINITIONS
SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5')
RQD = Rock Quality Designation (%)
PID = Photoionization Detector

Depth (Ft.)	Sample Type and No.	Samp. Rec. (Ft. & %)	SPT or RQD	Samp. Desig.	PID (ppm)	Visual Description	Elevation
11.0	S-5	20%	2 47	OS	BG	Continued from Sheet 1	
11 12 13.0	S-6	.2 2.0 10%	27 28 50 5"		BG	SAND, fine grained w/trace silt glass shards and shell material. Dark gray to white, loose, moist to wet	▼
13						End of Boring TD 13.0'	
14 15 16 18 19 20 21 22 23 24 25 26 27 28 29							

Match to Sheet 3

DRILLING CO.: EMTC BAKER REP.: J. E. Zimmerman
DRILLER: G. Barnes BORING NO.: 28-W-SB17 SHEET 2 OF 2

Baker

Baker Environmental, Inc.

FIELD TEST BORING RECORD

PROJECT: SITE 28 - HPBD RIFS MCB CAMP LEJEUNE
S.O. NO.: 62470-231 BORING NO.: 28-W-SB18
COORDINATES: EAST: 2499160.0300 NORTH: 331746.4500
ELEVATION: SURFACE: 4.8806 TOP OF PVC CASING:

RIG: B-57	SPLIT SPOON	CASING	AUGERS	CORE BARREL	DATE	PROGRESS (FT)	WEATHER	TOP OF CASING WATER DEPTH (FT)	TIME
SIZE (DIAM.)	1 3/8" ID		3 1/4" ID		3-27-18	7	OVERCAST + WINDY	3	
LENGTH	2.0'		5.0'						
TYPE	STD		HSA						
HAMMER WT.	140 #								
FALL	30"								
STICK UP									

REMARKS: BACKGROUND (BG) HNU = .7 ppm

DRILL RECORD							VISUAL DESCRIPTION					
DEPTH	SOIL / ROCK	Sample ID ----- Type-No. (N = No Samp.)	Samp. Rec. (Ft. & %)	SPT Blows Per 0.5' / RQD (Ft. & %)	Lab. Class. / Pen. Rate	PID (ppm)	Classification (Grain Size, Principal Constituents, Etc.) / Classification (Name, Grain Size, Principal Constituents, Etc.)	Color	Consist. or Density / Hardness	Moisture Content, Organic Content, Plasticity, and Other Observations / Weathering, Bedding, Fracturing, and Other Observations	SOIL / ROCK	ELEVATION
1	LAB	00	100%	-	00	BG	SILT. MINOR DEBRIS	BLACK		DAMP		
2	LAB	S-1	.33/2 17%	4 7 50/6	01	BG	SILT	BLACK	VERY DENSE	DAMP		
3							WATER @ 3'					
4		S-2	.83/2 42%	4 7 11 13		BG	SAND-FINE AND SILT	BLACK	MED DENSE	WET		
5												
6		S-3	.83/2 42%	6 3 5 4		BG	SAND-FINE AND SILT 4" SAND-FINE AND SILT	BLACK WHITE	LOOSE	WET		
7							END OF BORING 7'					
8												
9												
10												

DRILLING CO.: EMTC BAKER REP.: KENNETH A. TUA
DRILLER: JIM MARSH BORING NO.: 28-W-SB18 SHEET 1 OF 1

TEST BORING RECORD

Baker Environmental, Inc.

PROJECT: Site 28 - HPBD RI/FS MCB Camp Lejeune
S.O. NO.: 19231 BORING NO.: 28-W-SB19
COORDINATES: EAST: 2499235.5300 NORTH: 331851.8370
ELEVATION: SURFACE: 4.7603 TOP OF PVC CASING:

RIG: # 220	SPLIT SPOON	CASING	AUGERS	CORE BARREL	DATE	PROGRESS (FT)	WEATHER	WATER DEPTH (FT)	TIME
SIZE (DIAM.)	1-3/8"ID		4¼" ID		3-25-94	0-9'	overcast, mild (60's)	7.5	
LENGTH	2.0'		5.0'						
TYPE	STD.		HSA						
HAMMER WT.	140#								
FALL	30"								
STICK UP									

REMARKS: Boring is sampled to 9.0' and grouted to surface. HNu background is .3ppm

SAMPLE TYPE
S = Split Spoon A = Auger
T = Shelby Tube W = Wash
R = Air Rotary C = Core
D = Denison P = Piston
N = No Sample

DEFINITIONS
SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5')
RQD = Rock Quality Designation (%)
PID = Photoionization Detector

Depth (Ft.)	Sample Type and No.	Samp. Rec. Ft. & %	SPT or RQD	Samp. Desig.	PID (ppm)	Visual Description	Elevation
1 — 1.0	—	—	—	00	BG	SILTY SAND, fine grained w/ root material and glass shards. Brown to green to clear, very loose, damp.	
2 — 3.0	S-1	1.6/2.0 80%	6 33 12 17		BG	SAND, fine grained w/ trace silt and CLAY and FILL material (glass shards). Brown to dark brown to clear, dense damp.	
4 — 5.0	S-2	1.3/2.0 65%	8 11 12 13		BG		
6 — 7.0	S-3	1.4/2.0 70%	5 4 1 1	03	BG	CLAY, grayish green, moist stiff	▼
8 — 9.0	S-4	.9/2.0 45%	1/12" 6 11		BG	SILTY SAND, fine grained w/ trace to little CLAY. Brown to greenish gray, medium dense to stiff, moist to wet.	
						End of Boring TD 9.0'	

Match to Sheet 2

DRILLING CO.: EMTC BAKER REP.: J.E. Zimmerman
DRILLER: G. Barnes BORING NO.: 28-W-SB19 SHEET 1 OF 1

Baker Environmental, Inc.

TEST BORING RECORD

PROJECT: Site 28 - HPBD RI/FS MCB Camp Lejeune
S.O. NO.: 19231 BORING NO.: 28-W-SB20
COORDINATES: EAST: 2499296.5500 NORTH: 331719.2810
ELEVATION: SURFACE: 2.7857 TOP OF PVC CASING:

RIG: # 220	SPLIT SPOON	CASING	AUGERS	CORE BARREL	DATE	PROGRESS (FT)	WEATHER	WATER DEPTH (FT)	TIME
SIZE (DIAM.)	1-3/8"ID		4¼" ID		3-25-94	0-5'	overcast, mild (60's)	3.5	
LENGTH	2.0'		5.0'						
TYPE	STD.		HSA						
HAMMER WT.	140#								
FALL	30"								
STICK UP									

REMARKS: Boring sampled to 5.0' and grouted to surface. HNu background is .3ppm

SAMPLE TYPE
S = Split Spoon A = Auger
T = Shelby Tube W = Wash
R = Air Rotary C = Core
D = Denison P = Piston
N = No Sample

DEFINITIONS
SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5')
RQD = Rock Quality Designation (%)
PID = Photoionization Detector

Depth (Ft.)	Sample Type and No.	Samp. Rec. Ft. & %	SPT or RQD	Samp. Desig.	PID (ppm)	Visual Description	Elevation
1 1.0	-	-	-	00	BG	SILTY SAND, fine grained. Dark brown to gray, very loose, damp. Glass shards	
2	S-1	.8/2.0 40%	7 8 11 12	01	BG	SAND, fine grained w/ little CLAY and trace silt. Dark gray to greenish gray, medium dense, damp to moist	
3 3.0							
4	S-2	.2/2.0 10%	5 3 1 1		BG	SAND, fine grained w/ trace silt Dark gray, loose, wet.	▼
5 5.0							
6						End of Boring TD 5.0'	
7							
8							
9							

Match to Sheet 2

DRILLING CO.: EMTC BAKER REP.: J. E. Zimmerman
DRILLER: G. Barnes BORING NO.: 28-W-SB20 SHEET 1 OF 1

Baker

Baker Environmental, Inc.

FIELD TEST BORING RECORD

PROJECT: SITE 28 HPBD RI/FS MCB CAMP LEJEUNE
S.O. NO.: 62470 - 231 BORING NO.: 28-E-SB21
COORDINATES: EAST: NORTH:
ELEVATION: SURFACE: TOP OF PVC CASING:

RIG: B-57	SPLIT SPOON	CASING	AUGERS	CORE BARREL	DATE	PROGRESS (FT)	WEATHER	TOP OF CASING WATER DEPTH (FT)	TIME
SIZE (DIAM.)	1 3/8" ID		3 1/4" ID		3-25-94	7	RAIN	5	
LENGTH	2.0'		5.0'						
TYPE	STD		HSA						
HAMMER WT.	140 lb								
FALL	30"								
STICK UP									

REMARKS: BACKGROUND (BG) HNU = 0.2 ppm

DRILL RECORD							VISUAL DESCRIPTION					
DEPTH	SOIL / ROCK	Sample ID / Type - No. (N = No Samp.)	Samp. Rec. (Ft. & %)	SPT Blows Per 0.5' / RQD (Ft. & %)	Lab. Class. / Pen. Rate	PID (ppm)	Classification (Grain Size, Principal Constituents, Etc.) / Classification (Name, Grain Size, Principal Constituents, Etc.)	Color	Consist. or Density / Hardness	Moisture Content, Organic Content, Plasticity, and Other Observations / Weathering, Bedding, Fracturing, and Other Observations	SOIL / ROCK	ELEVATION
1	LAB	00	100%	—	00	BG	VERY SATURATED BROWN MUD	BROWN		WET		
2		S-1	1.0 / 2 = 54%	4 6 6 8		BG	CLAY SOME SAND-FINE	GREEN	STIFF	DAMP		
3												
4	LAB	S-2	.75 / 2 = 35%	2 3 4 7	02	BG	SILT LITTLE SAND-FINE	GREEN	LOOSE	MOIST		
5							WATER @ 5'					
6		S-3	1.0 / 2 = 54%	1 1 1 1		BG.	SILT TRACE SAND-FINE	GREEN	VERY LOOSE	WET		
7							END OF BORING 7'					
8												
9												
10												

DRILLING CO.: EMTC BAKER REP.: KENNETH A. TUA
DRILLER: JIM MARSH BORING NO.: 28-E-SB21 SHEET 1 OF 1

Baker

Baker Environmental, Inc.

FIELD TEST BORING RECORD

PROJECT: SITE 28 HPBD RI/FS MCB CAMP LEJEUNE
S.O. NO.: 62470-231 BORING NO.: 28-E-SB22
COORDINATES: EAST: 2499478.0500 NORTH: 331895.0400
ELEVATION: SURFACE: 4,667.5 TOP OF PVC CASING:

RIG: B-57									
	SPLIT SPOON	CASING	AUGERS	CORE BARREL	DATE	PROGRESS (FT)	WEATHER	TOP OF CASING WATER DEPTH (FT)	TIME
SIZE (DIAM.)	1 3/8" ID		3 1/4" ID		3-26-94	7	SUNNY & COOL	5	
LENGTH	2.0'		5.0'						
TYPE	STD		HSA						
HAMMER WT.	140 lb								
FALL	30"								
STICK UP									

REMARKS: BACKGROUND (BG) HNU = .2 ppm

DRILL RECORD							VISUAL DESCRIPTION					
DEPTH	SOIL / ROCK	Sample ID / Type-No. (N = No Samp.)	Samp. Rec. (Ft. & %)	SPT Blows Per 0.5' / RQD (Ft. & %)	Lab. Class. / Pen. Rate	PID (ppm)	Classification (Grain Size, Principal Constituents, Etc.) / Classification (Name, Grain Size, Principal Constituents, Etc.)	Color	Consist. or Density / Hardness	Moisture Content, Organic Content, Plasticity, and Other Observations / Weathering, Bedding, Fracturing, and Other Observations	SOIL / ROCK	ELEVATION
1	LAB	00	100%	—	00	BG	SAND-FINE AND SILT TRACE ORGANICS	BROWN		DAMP		
2		S-1	2/2	4 6 7 8		BG	10" SAND-FINE AND SILT CLAY AND SAND-FINE	GREEN	STIFF	DAMP		
3			100%									
4	LAB	S-2	2/2	3 4 4 4	02	BG	SAND-FINE AND SILT	GREEN	LOOSE	MOIST		
5			100%				WATER @ 5'					
6		S-3	1.41/2	1 WOH/2 1		BG	18" ORGANICS AND SILT	BLACK	VERY LOOSE	WET		
7			71%				END OF BORING 7'					
8												
9												
10												

DRILLING CO.: EMTC BAKER REP.: KENNETH A. TUA
DRILLER: JIM MARSH BORING NO.: 28-E-SB22 SHEET 1 OF 1

Baker

Baker Environmental, Inc.

FIELD TEST BORING RECORD

PROJECT: SITE 28 HPBD RI/FS MCB CAMP LEJEUNE
S.O. NO.: 62470-231 BORING NO.: 28-E-SB23
COORDINATES: EAST: 2499717.2400 NORTH: 331866.2620
ELEVATION: SURFACE: 13.9987 TOP OF PVC CASING:

RIG: B-57	SPLIT SPOON	CASING	AUGERS	CORE BARREL	DATE	PROGRESS (FT)	WEATHER	TOP OF CASING WATER DEPTH (FT)	TIME
SIZE (DIAM.)	1 3/8" ID		3 1/4" ID		3-26-94	9	SUNNY AND COOL	7	
LENGTH	2.0'		5.0'						
TYPE	STD		HSA						
HAMMER WT.	140#								
FALL	30"								
STICK UP									

REMARKS: BACKGROUND (BG) HNU = .3 ppm

DEPTH	SOIL / ROCK	Sample ID / Type-No. (N = No Samp.)	Samp. Rec. (Ft. & %)	SPT Blows Per 0.5' / RQD (Ft. & %)	Lab. Class. / Pen. Rate	PID (ppm)	Classification (Grain Size, Principal Constituents, Etc.) / Classification (Name, Grain Size, Principal Constituents, Etc.)	Color	Consist. or Density / Hardness	Moisture Content, Organic Content, Plasticity, and Other Observations / Weathering, Bedding, Fracturing, and Other Observations	SOIL / ROCK	ELEVATION
1	LAB	00	100%	—	00	BG	SAND-F AND SILT	Black		DAMP		
2		S-1	.92/2	3 3 6 9		.4	CLAY LITTLE SAND-FINE	LT. BROWN	STIFF	DAMP		
3			46%									
4		S-2	1.16/2	3 5 6 7		BG	CLAY LITTLE SAND-FINE	ORANGE 3" GREEN	STIFF	DAMP		
5			58%									
6	LAB	S-3	.83/2	3 6 10 7	03	BG	CLAY SOME SAND-FINE	yellow	VERY STIFF	DAMP		
7			42%				WATER @ 7'					
8		S-4	.42/2	4 7 5 7		BG	CLAY TRACE SAND-FINE	GREEN	STIFF	WET		
9			21%									
							END OF BORING 9'					
10												

DRILLING CO.: EMTC BAKER REP.: KENNETH A. TUA
DRILLER: JIM MARSH BORING NO.: 28-E-SB23 SHEET 1 OF 1

Baker

Baker Environmental, Inc.

FIELD TEST BORING RECORD

PROJECT: SITE 28 HPBD RI/FS MCB CAMP LEJEUNE
S.O. NO.: 62470-231 BORING NO.: 28-E-SB24
COORDINATES: EAST: 2499910.63 NORTH: 331538.75
ELEVATION: SURFACE: 11.73 TOP OF PVC CASING:

RIG: B-57									
	SPLIT SPOON	CASING	AUGERS	CORE BARREL	DATE	PROGRESS (FT)	WEATHER	TOP OF CASING WATER DEPTH (FT)	TIME
SIZE (DIAM.)	1 3/8" ID		3 1/4" ID		3-26-94	9	SUNNY & COOL	7	
LENGTH	2.0'		5.0'						
TYPE	STD		HSA						
HAMMER WT.	140#								
FALL	30"								
STICK UP									

REMARKS: BACKGROUND (BG) HNU = .2

DEPTH	SOIL / ROCK	Sample ID / Type-No. (N = No Samp.)	Samp. Rec. (Ft. & %)	SPT Blows Per 0.5' / RQD (Ft. & %)	Lab. Class. / Pen. Rate	PID (ppm)	Classification (Grain Size, Principal Constituents, Etc.) / Classification (Name, Grain Size, Principal Constituents, Etc.)	Color	Consist. or Density / Hardness	Moisture Content, Organic Content, Plasticity, and Other Observations / Weathering, Bedding, Fracturing, and Other Observations	SOIL / ROCK	ELEVATION
1	LAB	00	100%	-	00	BG	SILT LITTLE SAND-FINE ORGANICS	BROWN		DRY		
2		S-1	1.33/2 67%	6 6 6 5		BG	SILT LITTLE SAND-FINE	BROWN	MED DENSE	DRY		
3												
4		S-2	.83/2 42%	4 3 2 5		BG	CLAY TRACE SAND-FINE	YELLOW	MED STIFF	DAMP		
5												
6	LAB	S-3	1.16/2 58%	6 5 7 10	03	BG	CLAY	YELLOW	STIFF	DAMP		
7							WATER @ 7'					
8		S-4	.25/2 37%	3 4 4 5		BG	SAND-FINE LITTLE SILT	YELLOW	LOOSE	WET		
9							END OF BORING 9'					2.73
10												

DRILLING CO.: EMTC BAKER REP.: KENNETH A. TUA
DRILLER: JIM MARSH BORING NO.: 28-E-SB24 SHEET 1 OF 1

Baker

Baker Environmental, Inc.

FIELD TEST BORING RECORD

PROJECT: SITE 28 HPBO REIFS MCB CAMP LEJEUNE
S.O. NO.: 62470-231 BORING NO.: 28-E-SB25
COORDINATES: EAST: 2499931.2100 NORTH: 331636.3070
ELEVATION: SURFACE: 15.2300 TOP OF PVC CASING:

RIG: B-57	SPLIT SPOON	CASING	AUGERS	CORE BARREL	DATE	PROGRESS (FT)	WEATHER	TOP OF CASING WATER DEPTH (FT)	TIME
SIZE (DIAM.)	1 3/8" ID		3 1/4" ID		3-25-94	11	DRIZZLE	7	
LENGTH	2.0'		5.0'						
TYPE	STD		HSA						
HAMMER WT.	140#								
FALL	30"								
STICK UP									

REMARKS: BACKGROUND (BG) HNU = 0.4 ppm

DRILL RECORD							VISUAL DESCRIPTION					
DEPTH	SOIL / ROCK	Sample ID / Type-No. (N = No Samp.)	Samp. Rec. (Ft. & %)	SPT Blows Per 0.5' / RQD (Ft. & %)	Lab. Class. / Pen. Rate	PID (ppm)	Classification (Grain Size, Principal Constituents, Etc.) / Classification (Name, Grain Size, Principal Constituents, Etc.)	Color	Consist. or Density / Hardness	Moisture Content, Organic Content, Plasticity, and Other Observations / Weathering, Bedding, Fracturing, and Other Observations	SOIL / ROCK	ELEVATION
1	LAB	00	100%	—	∞	BG	SAND-F AND SILT	BLACK		DAMP		
2		S-1	1.25/2	2 3 3 3		BG	SILT AND SAND-FINE TRACE WOOD	BLACK	LOOSE	DAMP		
3			63%				2" SAND-FINE	ORANGE				
4		S-2	1.33/2	3 4 5 4		BG	SAND-FINE AND SILT LITTLE ORGANICS	BLACK	LOOSE	WET		
5			67%									
6	LAB	S-3	1.41/2	4 4 12 13	03	BG	SAND-FINE AND SILT LITTLE ORGANICS.	LT. GRAY	MED DENSE	MOIST		
7			71%				WATER @ 7'					
8		S-4	.67/2	6 6 7 6		BG	SILT LITTLE SAND-FINE AND ORGANICS	BLACK	MED DENSE	WET		
9			33%									
10		S-5	—	7 8 9 15		BG	NO RECOVERY					
							END OF BORING 11'					

DRILLING CO.: EMTC BAKER REP.: KENNETH A. TUA
DRILLER: JIM MARSH BORING NO.: 28-E-SB25 SHEET 1 OF 1

Baker

Baker Environmental, Inc.

FIELD TEST BORING RECORD

PROJECT: Site 28 HPBD RIFS MCB CAMP LEJEUNE
S.O. NO.: 62470-231 BORING NO.: 28-E-SB06
COORDINATES: EAST: 2499946.9400 NORTH: 331700.6530
ELEVATION: SURFACE: 15.9800 TOP OF PVC CASING: _____

RIG: B-57	SPLIT SPOON	CASING	AUGERS	CORE BARREL	DATE	PROGRESS (FT)	WEATHER	TOP OF CASING WATER DEPTH (FT)	TIME
SIZE (DIAM.)	1 3/8" ID		3 1/4" ID		3-26-94	11	SUNNY & COOL	7	
LENGTH	2.0'		5.0'						
TYPE	STD		HSA						
HAMMER WT.	140#								
FALL	30"								
STICK UP									

REMARKS: BACKGROUND (BG) HNU = .2 ppm

DRILL RECORD

DEPTH	SOIL / ROCK	Sample ID / Type-No. (N = No Samp.)	Samp. Rec. (Ft. & %)	SPT Blows Per 0.5' / RQD (Ft. & %)	Lab. Class. / Pen. Rate	PID (ppm)
1	LAB	00	100%	-	00	BG
2		S-1	1.5/2	4 4 8 9		BG
3			75%			
4		S-2	.92/2	3 7 8 7		BG
5			46%			
6	LAB	S-3	2/2	5 3 3 2	03	BG
7			100%			
8		S-4	1.5/2	2 4 4 4		BG
9			75%			
10		S-5	2/2	1 2		BG

VISUAL DESCRIPTION

Classification (Grain Size, Principal Constituents, Etc.) / Classification (Name, Grain Size, Principal Constituents, Etc.)	Color	Consist. or Density / Hardness	Moisture Content, Organic Content, Plasticity, and Other Observations / Weathering, Bedding, Fracturing, and Other Observations	SOIL / ROCK	ELEVATION
SAND-FINE AND SILT	BLACK		DRY		
SAND-FINE AND SILT	BLACK	MED DENSE	DAMP		
5" SAND-FINE	WHITE		DAMP		
SAND-FINE AND SILT	YELLOW	MED DENSE	MOIST		
5" SAND-FINE AND SILT	BLACK	MED	MOIST		
19" CLAY	YELLOW	STIFF			
WATER @ 7'					
SAND-FINE AND SILT	YELLOW	LOOSE	MOIST		
SAND-FINE AND SILT LITTLE CLAY	YELLOW	SOFT	WET		

DRILLING CO.: EMTC BAKER REP.: KENNETH A. TUA
DRILLER: JIM MARSH BORING NO.: 28-E-SB06 SHEET 1 OF 2

Baker

Baker Environmental, Inc.

FIELD TEST BORING RECORD

PROJECT: Site 28 HPBD RIFS MCB CAMP LEJEUNE

S.O. NO.: 62470-231 BORING NO.: 28-E-SB26

DRILL RECORD							VISUAL DESCRIPTION					
DEPTH	SOIL / ROCK	Sample ID — Type-No. (N = No Samp.)	Samp. Rec. (Ft. & %)	SPT Blows Per 0.5' / RQD (Ft. & %)	Lab. Class.. / Pen. Rate	PID (ppm)	Classification (Grain Size, Principal Constituents, Etc.) / *Classification (Name, Grain Size, Principal Constituents, Etc.)*	Color / *Color*	Consist. or Density / *Hardness*	Moisture Content, Organic Content, Plasticity, and Other Observations / *Weathering, Bedding, Fracturing, and Other Observations*	SOIL / ROCK	ELEVATION
		S-5	100%	1 2		BG	CONTINUED					
11							END OF BORING 11'					
2												
3												
4												
5												
6												
7												
8												
9												
0												
1												
2												
3												
4												
5												
6												
7												
8												
9												
0												

DRILLING CO.: EMTC

DRILLER: JIM MARSH

BAKER REP.: KENNETH A. TUA

BORING NO.: 28-E-SB26 SHEET 2 OF 2

TEST BORING RECORD

Baker Environmental, Inc.

PROJECT: Site 28 - HPBD RI/FS MCB Camp Lejeune
S.O. NO.: 19231 BORING NO.: 28-E-SB27
COORDINATES: EAST: 2499885.05 NORTH: 331847.22
ELEVATION: SURFACE: 14.46 TOP OF PVC CASING:

RIG: MOBILE B-61

	SPLIT SPOON	CASING	AUGERS	CORE BARREL	DATE	PROGRESS (FT)	WEATHER	WATER DEPTH (FT)	TIME
SIZE (DIAM.)	1-3/8"ID		3¼" I.D.		3-28-94	0.0'-11.0'	PARTLY SUNNY ±70°	9.0'	
LENGTH	2.0'		5.0'						
TYPE	STD.		HSA						
HAMMER WT.	140#								
FALL	30"								
STICK UP									

REMARKS: Boring sampled to 11.0' and grouted to surface. HNU BG 0.2 ppm

SAMPLE TYPE
S = Split Spoon A = Auger
T = Shelby Tube W = Wash
R = Air Rotary C = Core
D = Denison P = Piston
N = No Sample

DEFINITIONS
SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5')
RQD = Rock Quality Designation (%)
PID = Photoionization Detector

Depth (Ft.)	Sample Type and No.	Samp. Rec. Ft. & %	SPT or RQD	Samp. Desig.	PID (ppm)	Visual Description	Elevation
1 – 1.0		—	—	00	BG	SAND, fine grained, some silt, trace clay, trace organics, brown, damp	
2 – 3.0	S-1	0.6/2.0 30%	5 7 10 11		BG	SILT, trace sand, trace clay, brown, very stiff, damp	
4 – 5.0	S-2	0.9/2.0 45%	6 7 9 9		BG	SAND, some silt, trace brick, trace glass, brown, very stiff, damp	
6 – 7.0	S-3	0.5/2.0 25%	10 12 35 5		0.5	SILT, little sand, trace clay, large wood fragment present, trace metal fragments, tan, dense, damp	
8 – 9.0	S-4	0.6/2.0 30%	6 5 5 4	04	BG	SAND, fine grained, little silt, trace clay, trace slag, trace glass, trace brick, tan, moist, medium dense, moist	
9 –	S-5	1.4/2.0 70%	6 5		BG	SILT, trace wood fragments, brown, loose, wet	

Match to Sheet 2

DRILLING CO.: EMTC BAKER REP.: MARTIN G. TAUBE
DRILLER: J. MARSH BORING NO.: 28-E-SB27 SHEET 1 OF 2

Baker

Baker Environmental, Inc.

TEST BORING RECORD

PROJECT: Site 28 - HPBD RI/FS MCB Camp Lejeune
S.O. NO.: 19231 BORING NO.: 28-E-SB27

SAMPLE TYPE
S = Split Spoon A = Auger
T = Shelby Tube W = Wash
R = Air Rotary C = Core
D = Denison P = Piston
N = No Sample

DEFINITIONS
SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5')
RQD = Rock Quality Designation (%)
PID = Photolonization Detector

Depth (Ft.)	Sample Type and No.	Samp. Rec. (Ft. & %)	SPT or RQD	Samp. Desig.	PID (ppm)	Visual Description	Elevation
11.0			4 2			Continued from Sheet 1	3.46
						END OF BORING TOTAL DEPTH = 11.0'	
						Match to Sheet 3	

DRILLING CO.: EMTC
DRILLER: J. MARSH
BAKER REP.: MARTIN G. TAUBE
BORING NO.: 28-E-SB27 SHEET 2 OF 2

Baker

Baker Environmental, Inc.

FIELD TEST BORING RECORD

PROJECT: SITE 28 HPBD RI/FS MCB CAMP LEJEUNE
S.O. NO.: 62470-231 BORING NO.: 28-E-SB28
COORDINATES: EAST: 2499994.83 NORTH: 331544.86
ELEVATION: SURFACE: 17.46 TOP OF PVC CASING: _____

RIG: B-57	SPLIT SPOON	CASING	AUGERS	CORE BARREL	DATE	PROGRESS (FT)	WEATHER	TOP OF CASING WATER DEPTH (FT)	TIME
SIZE (DIAM.)	1 3/8" ID		3 1/4" ID		3-25-94	9	DRIZZLE	7	
LENGTH	2.0'		5.0'						
TYPE	STD		HSA						
HAMMER WT.	140 #								
FALL	30"								
STICK UP									

REMARKS: BACKGROUND (BG) HNU = 0.1

DRILL RECORD							VISUAL DESCRIPTION					
DEPTH	SOIL / ROCK	Sample ID / Type-No. (N = No Samp.)	Samp. Rec. (Ft. & %)	SPT Blows Per 0.5' / RQD (Ft. & %)	Lab. Class. / Pen. Rate	PID (ppm)	Classification (Grain Size, Principal Constituents, Etc.) / Classification (Name, Grain Size, Principal Constituents, Etc.)	Color	Consist. or Density / Hardness	Moisture Content, Organic Content, Plasticity, and Other Observations / Weathering, Bedding, Fracturing, and Other Observations	SOIL / ROCK	ELEVATION
1	LAB	00	100%	—	00	BG	SILT AND SAND-FINE AND ORGANICS	BLACK		DAMP		
2		S-1	1/2	3 4			SAND-FINE LITTLE SILT TRACE CLAY	TAN	LOOSE	DAMP		
3			50%	6 7		BG						
4		S-2	1.75/2	3 3			SAND-FINE LITTLE CLAY TRACE SILT	LT. BROWN	MED STIFF	MOIST		
5			88%	4 7		BG						
6	LAB	S-3	2/2	4 4	03		14" SAND-F LITTLE CLAY 10" CLAY TRACE SAND-FINE	LT. BROWN	STIFF	MOIST		
7			100%	6 4		BG	WATER @ 7'					
8		S-4	1.6/2	3 4			SAND-F TRACE SILT SOME CLAY	YELLOW	STIFF	MOIST TO WET		
9			79%	4 3		BG						8.4
10							END OF BORING 9'					

DRILLING CO.: EMTC BAKER REP.: KENNETH A. TUA
DRILLER: JIM MARSH BORING NO.: 28-E-SB28 SHEET 1 OF 1

Baker

Baker Environmental, Inc.

FIELD TEST BORING RECORD

PROJECT: Site 28 HPBO RIFS MCB CAMP LEJEUNE
S.O. NO.: 62470-231 BORING NO.: 28--E-SB29
COORDINATES: EAST: 2499994.00 NORTH: 331664.18
ELEVATION: SURFACE: 16.91 TOP OF PVC CASING:

RIG: B-57	SPLIT SPOON	CASING	AUGERS	CORE BARREL	DATE	PROGRESS (FT)	WEATHER	TOP OF CASING WATER DEPTH (FT)	TIME
SIZE (DIAM.)	1 3/8" ID		3 1/4" ID		3-26-94	7	SUNNY & COOL	5	
LENGTH	2.0'		5.0'						
TYPE	STD		HSA						
HAMMER WT.	140#								
FALL	30"								
STICK UP									

REMARKS: BACKGROUND (BG) HNU = .2

DRILL RECORD							VISUAL DESCRIPTION					
DEPTH	SOIL / ROCK	Sample ID ----- Type - No. (N = No Samp.)	Samp. Rec. (Ft. & %)	SPT Blows Per 0.5' / RQD (Ft. & %)	Lab. Class. / Pen. Rate	PID (ppm)	Classification (Grain Size, Principal Constituents, Etc.) / Classification (Name, Grain Size, Principal Constituents, Etc.)	Color	Consist. or Density / Hardness	Moisture Content, Organic Content, Plasticity, and Other Observations / Weathering, Bedding, Fracturing, and Other Observations	SOIL / ROCK	ELEVATION
1	LAB	00	100%	—	∞	BG	SAND-FINE AND SILT	BLACK		DRY		
2		S-1	1.25/2	5 3 5 8		BG	SAND-FINE TRACE SILT	GRAY	LOOSE	WET		
3			63%									
4		S-2	1.08/2	3 7 12 15		BG	6" SAND-FINE TRACE SILT 7" SAND-FINE LITTLE SILT TRACE CLAY	GRAY LT BROWN	MED DENSE	MOIST		
5			54%									
6		S-3	1.25/2	3 5 6 5		BG	4" SAND-FINE SOME SILT 11" SAND-FINE SOME SILT	WHITE YELLOW	MED DENSE	WET		
7			63%				END OF BORING 7'					9.91
8												
9												
10												

DRILLING CO.: EMTC BAKER REP.: KENNETH A. TUA
DRILLER: JIM MARSH BORING NO.: 28-E-SB29 SHEET 1 OF 1

Baker

Baker Environmental, Inc.

FIELD TEST BORING RECORD

PROJECT: SITE 28 HPBD RIFS MCB CAMP LEJEUNE
S.O. NO.: 62470-231 BORING NO.: 28-E-SB30
COORDINATES: EAST: 2500056.46 NORTH: 331738.93
ELEVATION: SURFACE: 20.31 TOP OF PVC CASING: ____

RIG: B-57	SPLIT SPOON	CASING	AUGERS	CORE BARREL	DATE	PROGRESS (FT)	WEATHER	TOP OF CASING WATER DEPTH (FT)	TIME
SIZE (DIAM.)	1 3/8" ID		3 1/4" ID		3-26-94	13	SUNNY & COOL	12	
LENGTH	2.0'		5.0'						
TYPE	STD		HSA						
HAMMER WT.	140#								
FALL	30"								
STICK UP									

REMARKS: BACKGROUND (BG) HNU = .2 ppm

DEPTH	SOIL / ROCK	Sample ID / Type-No. (N = No Samp.)	Samp. Rec. (Ft. & %)	SPT Blows Per 0.5' / RQD (Ft. & %)	Lab. Class. / Pen. Rate	PID (ppm)	Classification (Grain Size, Principal Constituents, Etc.) / Classification (Name, Grain Size, Principal Constituents, Etc.)	Color	Consist. or Density / Hardness	Moisture Content, Organic Content, Plasticity, and Other Observations / Weathering, Bedding, Fracturing, and Other Observations	SOIL / ROCK	ELEVATION
1	LAB	00	100%	-	∞	BG	SAND-FINE SOME SILT	BROWN		DRY		
2		S-1	1.5/2	3 4 5 4		BG	SAND-FINE LITHIC SILT	LT. GRAY		DRY		
3			75%									
4		S-2	1.67/2	4 6 7 8		BG	SAND-FINE TRACE SILT	WHITE		DRY		
5			83%									
6	LAB	S-3	1.75/2	16 10 10 12	03	BG	SAND-FINE LITHIC SILT	WHITE		MOIST MOTTLED		
7			88%				SAND-FINE TRACE SILT	ORANGE		DAMP		
8		S-4	1.25/2	3 4 5 6		BG	8" CLAY	GRAY		DAMP		
9			65%									
10	LAB	S-5	1.41/2	4 5	05	BG	CLAY TRACE SAND-F	YELLOW		MOIST		

DRILLING CO.: EMTC BAKER REP.: KENNETH A. TUA
DRILLER: JIM MARSH BORING NO.: 28-E-SB30 SHEET 1 OF 2

Baker

Baker Environmental, Inc.

FIELD TEST BORING RECORD

PROJECT: SITE 28 HPBO RI/FS MCB CAMP LEJEUNE

S.O. NO.: 62470-231 BORING NO.: 28-E-SB30

DRILL RECORD							VISUAL DESCRIPTION					
DEPTH	SOIL / ROCK	Sample ID — Type-No. (N = No Samp.)	Samp. Rec. (Ft. & %)	SPT Blows Per 0.5' / RQD (Ft. & %)	Lab. Class.. / Pen. Rate	PID (ppm)	Classification (Grain Size, Principal Constituents, Etc.) / Classification (Name, Grain Size, Principal Constituents, Etc.)	Color	Consist. or Density / Hardness	Moisture Content, Organic Content, Plasticity, and Other Observations / Weathering, Bedding, Fracturing, and Other Observations	SOIL / ROCK	ELEVATION
	LAB	S-5	71%	6 9			CONTINUED.					
11		S-6	1.67/2 83%	2 3 4 3			SAND-FINE AND SILT WATER @ 12'	YELLOW		WET		
12												
13							END OF BORING 13'					7.31
4												
5												
6												
7												
8												
9												
0												
1												
2												
3												
4												
5												
6												
7												
8												
9												
0												

DRILLING CO.: EMTC BAKER REP.: KENNETH A. TUA

DRILLER: JIM MARSH BORING NO.: 28-E-SB30 SHEET 2 OF 2

Baker

Baker Environmental, Inc.

FIELD TEST BORING RECORD

PROJECT: Site 28 HPBD Reies MCB Camp Lejeune
S.O. NO.: 62470 - 231 BORING NO.: 28-E-SB31
COORDINATES: EAST: 2499986.56 NORTH: 331832.40
ELEVATION: SURFACE: 16.25 TOP OF PVC CASING: ____

RIG: B-57	SPLIT SPOON	CASING	AUGERS	CORE BARREL	DATE	PROGRESS (FT)	WEATHER	TOP OF CASING WATER DEPTH (FT)	TIME
SIZE (DIAM.)	1 3/8" ID		3 1/4" ID		3-25-94	9	RAIN	5'	
LENGTH	2.0'		5.0'						
TYPE	STD		HSA						
HAMMER WT.	140 lb								
FALL	30"								
STICK UP									

REMARKS: BACKGROUND (BG) HNU = 0.2 ppm

DRILL RECORD							VISUAL DESCRIPTION					
DEPTH	SOIL / ROCK	Sample ID / Type-No. (N = No Samp.)	Samp. Rec. (Ft. & %)	SPT Blows Per 0.5' / RQD (Ft. & %)	Lab. Class. / Pen. Rate	PID (ppm)	Classification (Grain Size, Principal Constituents, Etc.) / Classification (Name, Grain Size, Principal Constituents, Etc.)	Color / Color	Consist. or Density / Hardness	Moisture Content, Organic Content, Plasticity, and Other Observations / Weathering, Bedding, Fracturing, and Other Observations	SOIL / ROCK	ELEVATION
1	LAB	00	100%	-	00	BG	SAND-FINE AND SILT AND ORGANICS.	BLACK		DAMP.		
			1.16 / 2	2 3			6" SAND-FINE AND CLAY	BLACK		DAMP		
2		S-1		6		BG	8" CLAY LITHIE SAND-FINE	ORANGE	STIFF			
3			58%	6			CLAY AND SAND-FINE	ORANGE	VERY STIFF	DAMP		
			2 / 2	7 12			3" SAND-FINE LITHIE SILT	BLACK		DAMP		
4	LAB	S-2		15	02	BG	SOME CEMENTED PEICES					
			100%	22			WATER @ 5'					
5			1.08 / 2	12 15					DENSE			
6		S-3		17		BG	SAND-MEDIUM AND SILT CEMENTED PEICES	BLACK		MOIST DEBRIS IN CUTTINGS FROM AUGER		
			54%	15								
7							SPLIT-SPOON REFUSAL METAL DEBRIS IN CUTTINGS.					
8												
9							END OF BORING 9'					7.2
10												

DRILLING CO.: EMTS BAKER REP.: KENNETH A. TUA
DRILLER: JIM MARSH BORING NO.: 28-E-SB31 SHEET 1 OF 1

Baker

Baker Environmental, Inc.

FIELD TEST BORING RECORD

PROJECT: Site 28 HPBD RIFS MCB CAMP LEJEUNE
S.O. NO.: 62470-231 BORING NO.: 28-E-SB32
COORDINATES: EAST: 2500067.26 NORTH: 331550.52
ELEVATION: SURFACE: 18.03 TOP OF PVC CASING: ____

RIG: B-57	SPLIT SPOON	CASING	AUGERS	CORE BARREL	DATE	PROGRESS (FT)	WEATHER	TOP OF CASING WATER DEPTH (FT)	TIME
SIZE (DIAM.)	1 3/8" ID		3 1/4" ID		3-26-94	15	SUNNY + COOL	13	
LENGTH	2.0'		5.0						
TYPE	STD		HSA						
HAMMER WT.	140 lb								
FALL	30"								
STICK UP									

REMARKS: BACKGROUND (BG) HNU = .2 ppm

DRILL RECORD							VISUAL DESCRIPTION					
DEPTH	SOIL / ROCK	Sample ID / Type-No. (N = No Samp.)	Samp. Rec. (Ft. & %)	SPT Blows Per 0.5' / RQD (Ft. & %)	Lab. Class. / Pen. Rate	PID (ppm)	Classification (Grain Size, Principal Constituents, Etc.) / Classification (Name, Grain Size, Principal Constituents, Etc.)	Color	Consist. or Density / Hardness	Moisture Content, Organic Content, Plasticity, and Other Observations / Weathering, Bedding, Fracturing, and Other Observations	SOIL / ROCK	ELEVATION
1	LAB	00	100%	-		BG	SAND-FINE SOME SILT	BLACK		DRY		
2		S-1	.17/2	1 0		BG	SILT LITTLE SAND-FINE	BLACK	VERY LOOSE	DRY		
3			8%	1 0								
4		S-2	.25/2	1 2		BG	SAND-FINE AND SILT	LT. BROWN	VERY LOOSE	DRY		
5			13%	1 1								
6	LAB	S-3	2/2	5 3		BG	SAND-FINE TRACE SILT	WHITE	LOOSE	DRY		
7			100%	3 5								
8		S-4	1.08/2	3 2		BG	SAND-FINE TRACE SILT TRACE CLAY	ORANGE	LOOSE	DRY		
9			54%	2 3								
10		S-5	1/2	4 3		BG	CLAY TRACE SAND-FINE	YELLOW	MED STIFF	DRY. MOTTLED		

DRILLING CO.: EMTC BAKER REP.: KENNETH A. TUA
DRILLER: JIM MARSH BORING NO.: 28-E-SB32 SHEET 1 OF 2

FIELD TEST BORING RECORD

Baker Environmental, Inc.

PROJECT: Site 28 HPBD RIFS MCB CAMP LEJEUNE
S.O. NO.: 62470-231 BORING NO.: 28-E-SB32

DEPTH	SOIL / ROCK	Sample ID — Type-No. (N = No Samp.)	Samp. Rec. (Ft. & %)	SPT Blows Per 0.5' / RQD (Ft. & %)	Lab. Class.. / Pen. Rate	PID (ppm)	Classification (Grain Size, Principal Constituents, Etc.) / Classification (Name, Grain Size, Principal Constituents, Etc.)	Color	Consist. or Density / Hardness	Moisture Content, Organic Content, Plasticity, and Other Observations / Weathering, Bedding, Fracturing, and Other Observations	SOIL / ROCK	ELEVATION
		S-5	50%	5 4			CONTINUED					
11			2/2	3 4			SAND-FINE AND SILT TRACE CLAY.	YELLOW	LOOSE	MOIST		
12	LAB	S-6		4		BG.						
			100%	6			WATER @ 13'					
13			2/2	3 3			SAND-FINE AND SILT	ORANGE	LOOSE	WET		
14		S-7		3 4		BG						3.0
15							END OF BORING 15'					
6												
7												
8												
9												
0												
1												
2												
3												
4												
5												
6												
7												
8												
9												
0												

DRILLING CO.: EMTC
DRILLER: Jim MARSH
BAKER REP.: KENNETH A. TUA
BORING NO.: 28-E-SB32 SHEET 2 OF 2

Baker Environmental, Inc.

FIELD TEST BORING RECORD

PROJECT: Site 28 HPBD RIFS MCB CAMP LEJEUNE
S.O. NO.: 62470-231 BORING NO.: 28-E-SB33
COORDINATES: EAST: 2500087.15 NORTH: 331665.34
ELEVATION: SURFACE: 19.34 TOP OF PVC CASING:

RIG: B-57	SPLIT SPOON	CASING	AUGERS	CORE BARREL	DATE	PROGRESS (FT)	WEATHER	TOP OF CASING WATER DEPTH (FT)	TIME
SIZE (DIAM.)	1 3/8" ID		3 1/4" ID		3-25-94	15	RAIN	13	
LENGTH	2.0'		5.0						
TYPE	STD		HSA						
HAMMER WT.	140 lb								
FALL	30"								
STICK UP									

REMARKS: BACKGROUND (BG) HNU = 0.0 ppm

DEPTH	SOIL / ROCK	Sample ID / Type-No. (N = No Samp.)	Samp. Rec. (Ft. & %)	SPT Blows Per 0.5' / RQD (Ft. & %)	Lab. Class. / Pen. Rate	PID (ppm)	Classification (Grain Size, Principal Constituents, Etc.) / Classification (Name, Grain Size, Principal Constituents, Etc.)	Color	Consist. or Density / Hardness	Moisture Content, Organic Content, Plasticity, and Other Observations / Weathering, Bedding, Fracturing, and Other Observations	SOIL / ROCK	ELEVATION
1	LAB	00	100%		00	BG	SILT TRACE SAND-FINE ORGANICS.	BLACK		DRY		
2		S-1	.17/2 8%	4 3 3 5		BG	TREE ROOT. SAND-FINE AND SILT	BROWN	LOOSE	DAMP		
3												
4		S-2	.58/2 29%	5 3 4 5		BG	SILT SOME SAND-FINE	YELLOW	LOOSE	DAMP		
5												
6	LAB	S-3	1.25/2 63%	6 6 7 8	03	2	SAND-FINE	WHITE	MED DENSE	DAMP		
7												
8		S-4		8 9 9 9		.1	SAND-FINE	WHITE	MED DENSE	DAMP		
9												
10		S-5		6 4		BG	SAND-F AND SILT TRACE CLAY.	ORANGE	SOFT	MOIST		

DRILLING CO.: EMTC BAKER REP.: KENNETH A. TUA
DRILLER: JIM MARSH BORING NO.: 28-E-SB33 SHEET 1 OF 2

Baker

Baker Environmental, Inc.

FIELD TEST BORING RECORD

PROJECT: SITE 28 HPBD RI/FS MCB CAMP LEJEUNE
S.O. NO.: 62470-231 BORING NO.: 28-E-SB33

DRILL RECORD							VISUAL DESCRIPTION					
DEPTH	SOIL / ROCK	Sample ID — Type-No. (N = No Samp.)	Samp. Rec. (Ft. & %)	SPT Blows Per 0.5' / RQD (Ft. & %)	Lab. Class.. / Pen. Rate	PID (ppm)	Classification (Grain Size, Principal Constituents, Etc.) / Classification (Name, Grain Size, Principal Constituents, Etc.)	Color	Consist. or Density / Hardness	Moisture Content, Organic Content, Plasticity, and Other Observations / Weathering, Bedding, Fracturing, and Other Observations	SOIL / ROCK	ELEVATION
10		S-5		4 5		BG	6" CLAY TRACE SAND-FINE	GRAY	SOFT	DAMP.		
11			2/2	3 4			CLAY	GRAY	STIFF	MOIST		
12	LAB	S-6		5 6	∞	BG	4" SAND-FINE					
			100%				WATER @ 13'					
13			2/2	1 3			SILT LITTLE CLAY TRACE SAND-FINE	YELLOW	MOD STIFF	WET		
14		S-7		4 4		BG						
			100%									4.3
15							END OF BORING 15'					
16												
17												
18												
19												
20												
21												
22												
23												
24												
25												
26												
27												
28												
29												
30												

DRILLING CO.: EMTC
DRILLER: JIM MARSH

BAKER REP.: KENNETH A. TUA
BORING NO.: 28-E-SB33 SHEET 2 OF 2

Baker

Baker Environmental, Inc.

FIELD TEST BORING RECORD

PROJECT: SITE 28 HPBD RI/FS MCB CAMP LEJEUNE
S.O. NO.: 62470-231 BORING NO.: 28-E-SB34
COORDINATES: EAST: 2500092.17 NORTH: 331746.52
ELEVATION: SURFACE: 20.58 TOP OF PVC CASING: ____

RIG: B-57	SPLIT SPOON	CASING	AUGERS	CORE BARREL	DATE	PROGRESS (FT)	WEATHER	TOP OF CASING WATER DEPTH (FT)	TIME
SIZE (DIAM.)	1 3/8" ID		3 1/4" ID		3-28-94	17	RAIN	13	
LENGTH	2.0'		5.0'						
TYPE	STD		HSA						
HAMMER WT.	140#								
FALL	30"								
STICK UP									

REMARKS: BACKGROUND (BG) H_2O = .2 ppm

DEPTH	SOIL / ROCK	Sample ID / Type-No. (N = No Samp.)	Samp. Rec. (Ft. & %)	SPT Blows Per 0.5' / RQD (Ft. & %)	Lab. Class. / Pen. Rate	PID (ppm)	Classification (Grain Size, Principal Constituents, Etc.) / Classification (Name, Grain Size, Principal Constituents, Etc.)	Color	Consist. or Density / Hardness	Moisture Content, Organic Content, Plasticity, and Other Observations / Weathering, Bedding, Fracturing, and Other Observations	SOIL / ROCK	ELEVATION
1	LAB	00			∞	BG	SILT LITTLE SAND-FINE	BLACK		DRY		
2		S-1	1.6/2	5 10 12		BG	SAND-FINE LITTLE SILT	WHITE	MED DENSE	DRY		
3			79%	13								
4		S-2	1.41/2	7 9 12		BG	SAND-FINE LITTLE SILT	TAN	MED DENSE	DRY		
5			71%	13								
6	LAB	S-3	1.5/2	7 8 10	∞	BG	SAND-FINE TRACE SILT	WHITE	MED DENSE	DRY		
7			75%	20								
8		S-4	1.08/2	7 7 4		BG	SAND-FINE SOME SILT	3" WHITE 10" ORANGE	MED DENSE	DAMP		
9			54%	5								
10		S-5	1.14/2	2 2		BG	CLAY	GRAY	MED STIFF	DAMP ORANGE MOTTLED		

DRILLING CO.: EMTC BAKER REP.: KENNETH A. TUA
DRILLER: JIM MARSH BORING NO.: 28-E-SB34 SHEET 1 OF 2

FIELD TEST BORING RECORD

Baker Environmental, Inc.

PROJECT: SITE 28 HPBD RIFS MCB CAMP LEJEUNE
S.O. NO.: 62470-231 BORING NO.: 28-E-SB34

DEPTH	SOIL / ROCK	Sample ID — Type-No. (N = No Samp.)	Samp. Rec. (Ft. & %)	SPT Blows Per 0.5' / RQD (Ft. & %)	Lab. Class.. / Pen. Rate	PID (ppm)	Classification (Grain Size, Principal Constituents, Etc.) / Classification (Name, Grain Size, Principal Constituents, Etc.)	Color	Consist. or Density / Hardness	Moisture Content, Organic Content, Plasticity, and Other Observations / Weathering, Bedding, Fracturing, and Other Observations	SOIL / ROCK	ELEVATION
		S-5	58%	3 4		BG	CONTINUED					
11			1.5/2	3			SAND-FINE SOME SILT TRACE CLAY	GRAY	MED STIFF	MOIST		
12	LAB	S-6	75%	3 5 7	OO							
13			1.85/2	1			WATER @ 13'					
14		S-7	63%	1 1 2			CLAY AND SAND-FINE LITTLE SILT	GRAY	VERY SOFT	WET		
15			1.08/2	2			SAND-FINE SOME SILT TRACE CLAY	ORANGE	MED STIFF	WET		
16		S-8	54%	2 3 4								3.5
17							END OF BORING 17'					
8												
9												
0												
1												
2												
3												
4												
5												
6												
7												
8												
9												
0												

DRILLING CO.: EMTC BAKER REP.: KENNETH A. TUA
DRILLER: JIM MARSH BORING NO.: 28-E-SB34 SHEET 2 OF 2

Baker

Baker Environmental, Inc.

FIELD TEST BORING RECORD

PROJECT: SITE 28 HPBD RI/FS MCB CAMP LEJEUNE
S.O. NO.: 62470-231 BORING NO.: 28-E-SB35
COORDINATES: EAST: 2500096.56 NORTH: 331809.01
ELEVATION: SURFACE: 18.62 TOP OF PVC CASING: ____

RIG: B-57	SPLIT SPOON	CASING	AUGERS	CORE BARREL	DATE	PROGRESS (FT)	WEATHER	TOP OF CASING WATER DEPTH (FT)	TIME
SIZE (DIAM.)	1 3/8" ID		3 1/4" ID		3-27-94	13	SUNNY & WARM	11	
LENGTH	2.0'		5.0'						
TYPE	STD		HSA						
HAMMER WT.	140 lbs								
FALL	30"								
STICK UP									

REMARKS: BACKGROUND (BG) HNU = .3 ppm

DRILL RECORD							VISUAL DESCRIPTION					
DEPTH	SOIL / ROCK	Sample ID / Type-No. (N = No Samp.)	Samp. Rec. (Ft. & %)	SPT Blows Per 0.5' / RQD (Ft. & %)	Lab. Class. / Pen. Rate	PID (ppm)	Classification (Grain Size, Principal Constituents, Etc.) / Classification (Name, Grain Size, Principal Constituents, Etc.)	Color / Color	Consist. or Density / Hardness	Moisture Content, Organic Content, Plasticity, and Other Observations / Weathering, Bedding, Fracturing, and Other Observations	SOIL / ROCK	ELEVATION
1	LAB	00	100%		00	BG	SAND-FINE TRACE SILT	BLACK		DRY		
2		S-1	1/2	4 5 5 22		BG	SAND-FINE SOME SILT TRACE CLAY, ORGANICS.	BROWN	MED DENSE	DRY		
3			50%									
4		S-2	1.1/2	6 8 9 12		.4	SILT SOME SAND-FINE	BLACK	MED DENSE	DAMP		
5			58%									
6		S-3	.83/2	6 5 6 5		BG	SAND-FINE TRACE SILT TRACE CLAY	GRAY	MED DENSE	MOIST		
7			42%									
8		S-4	.58/2	3 2 3 3		BG	SAND-FINE SOME CLAY	LT. BROWN	MED STIFF	MOIST		
9			29%									
10	LAB	S-5	1.5/2	5 4	05	BG	SAND-FINE LITTLE SILT	GRAY	LOOSE	MOIST MOTTLED		

DRILLING CO.: EMTC BAKER REP.: KENNETH A. TUA
DRILLER: JIM MARSH BORING NO.: 28-E-SB35 SHEET 1 OF 2

Baker

Baker Environmental, Inc.

FIELD TEST BORING RECORD

PROJECT: Site 28 HPBD RI/FS MCB CAMP LEJEUNE

S.O. NO.: 62470-231 BORING NO.: 28-E-SB35

DRILL RECORD							VISUAL DESCRIPTION					
DEPTH	SOIL / ROCK	Sample ID — Type-No. (N = No Samp.)	Samp. Rec. (Ft. & %)	SPT Blows Per 0.5' / RQD (Ft. & %)	Lab. Class.. / Pen. Rate	PID (ppm)	Classification (Grain Size, Principal Constituents, Etc.) / Classification (Name, Grain Size, Principal Constituents, Etc.)	Color	Consist. or Density / Hardness	Moisture Content, Organic Content, Plasticity, and Other Observations / Weathering, Bedding, Fracturing, and Other Observations	SOIL / ROCK	ELEVATION
11		S-5	75%	4 5			CONTINUED WATER @ 11'					
12		S-6	1.6/2 58%	5 5 6 5		BG	SAND-FINE LITTLE SILT	BROWN	MED DENSE	WET		5.6
13							END OF BORING 12'					
4												
5												
6												
7												
8												
9												
0												
1												
2												
3												
4												
5												
6												
7												
8												
9												
0												

DRILLING CO.: EMTC BAKER REP.: KENNETH A. TUA

DRILLER: JIM MARSH BORING NO.: 28-E-SB35 SHEET 2 OF 2

Baker

Baker Environmental, Inc.

FIELD TEST BORING RECORD

PROJECT: SITE 28 HPBD RI/FS MCB CAMP LEJEUNE
S.O. NO.: 62470-231 BORING NO.: 28-E-SB36
COORDINATES: EAST: 2500174.34 NORTH: 331778.07
ELEVATION: SURFACE: 20.27 TOP OF PVC CASING:

RIG: B-57	SPLIT SPOON	CASING	AUGERS	CORE BARREL	DATE	PROGRESS (FT)	WEATHER	TOP OF CASING WATER DEPTH (FT)	TIME
SIZE (DIAM.)	1 3/8" ID		3 1/4" ID		3-26-94	11	SUNNY AND COOL	9	
LENGTH	2.0'		5.0'						
TYPE	STD		HSA						
HAMMER WT.	140#								
FALL	30"								
STICK UP									

REMARKS: BACKGROUND (BG) HNU = .2

DEPTH	SOIL / ROCK	Sample ID / Type-No. (N = No Samp.)	Samp. Rec. (Ft. & %)	SPT Blows Per 0.5' / RQD (Ft. & %)	Lab. Class. / Pen. Rate	PID (ppm)	Classification (Grain Size, Principal Constituents, Etc.) / Classification (Name, Grain Size, Principal Constituents, Etc.)	Color	Consist. or Density / Hardness	Moisture Content, Organic Content, Plasticity, and Other Observations / Weathering, Bedding, Fracturing, and Other Observations	SOIL / ROCK	ELEVATION
1	LAB	S-0	100%	—	∞	BG	SILT AND SAND-FINE	BROWN		DAMP		
2		S-1	.67/2 = 33%	4 1 1 1		BG	SILT AND SAND-FINE	BLACK	VERY LOOSE	DAMP		
3												
4		S-2					SPLIT-SPOON REFUSAL. AUGERED PAST OBSTRUCTION					
5												
6		S-3	1.16/2 = 58%	11 14 11 10		.3	SAND-FINE AND SILT	TAN	MED DENSE	DAMP		
7												
8	LAB	S-4	1.67/2 = 83%	3 3 4 8	04	BG	SAND-FINE AND SILT	ORANGE	MED STIFF	DAMP		
9							WATER @ 9'					
		S-5		4 5 6 7			NO RECOVERY LOST SHOE					
10							END OF BORING 11'					9.2

DRILLING CO.: EMTC BAKER REP.: KENNETH A. TUA
DRILLER: JIM MARSH BORING NO.: 28-E-SB36 SHEET 1 OF 1

Baker

Baker Environmental, Inc.

TEST BORING RECORD

PROJECT: Site 28 - HPBD RI/FS MCB Camp Lejeune
S.O. NO.: 19231 BORING NO.: 28-BB-SB37
COORDINATES: EAST: 2500351.89 NORTH: 3316116.15
ELEVATION: SURFACE: 22.99 TOP OF PVC CASING: _____

RIG: MOBILE B-61									
	SPLIT SPOON	CASING	AUGERS	CORE BARREL	DATE	PROGRESS (FT)	WEATHER	WATER DEPTH (FT)	TIME
SIZE (DIAM.)	1-3/8"ID		3¼" ID		3-28-94	0.0-9.0	PARTLY SUNNY ±70°	8.0	
LENGTH	2.0'		5.0'						
TYPE	STD.		HSA						
HAMMER WT.	140#								
FALL	30"								
STICK UP									

REMARKS: Boring sampled to 11.0' and grouted to surface, HNu background = 0.2 ppm

SAMPLE TYPE
S = Split Spoon A = Auger
T = Shelby Tube W = Wash
R = Air Rotary C = Core
D = Denison P = Piston
N = No Sample

DEFINITIONS
SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5')
RQD = Rock Quality Designation (%)
PID = Photoionization Detector

Depth (Ft.)	Sample Type and No.	Samp. Rec. Ft. & %	SPT or RQD	Samp. Desig.	PID (ppm)	Visual Description	Elevation
1 – 1.0		–	–	00	0.3	SAND, fine grained, little silt, light brown, damp	
2 – 3.0	S-1	1.3/2.0 65%	2 12 8 9		BG	SILT, little fine sand, grading to SAND, fine grained, little silt, trace clay, light brown, medium dense, damp	
4 – 5.0	S-2	2.0/2.0 100%	12 12 8 12		BG	SAND, fine grained, little silt, trace clay, brown, medium dense, damp	
6 – 7.0	S-3	1.5/2.0 75%	23 20 16 16	03	BG	SILT, little fine sand, trace clay, grading to SAND, fine grained, trace silt, brown to white, dense, damp	
8 – 9.0	S-4	1.5/2.0 75%	4 7 10 12		BG	SAND, fine grained, trace silt, white, medium dense, moist to wet (wet below 8.0')	
						END OF BORING TOTAL DEPTH = 9.0'	13.99

Match to Sheet 2

DRILLING CO.: EMTC BAKER REP.: MARTIN G. TAUBE
DRILLER: J. MARSH BORING NO.: 28-BB-SB37 SHEET 1 OF 1

TEST BORING RECORD

Baker Environmental, Inc.

PROJECT: Site 28 - HPBD RI/FS MCB Camp Lejeune
S.O. NO.: 19231 BORING NO.: 28-BB-SB38
COORDINATES: EAST: 2500395.00 NORTH: 331710.03
ELEVATION: SURFACE: 24.54 TOP OF PVC CASING:

RIG: MOBILE B-61	SPLIT SPOON	CASING	AUGERS	CORE BARREL	DATE	PROGRESS (FT)	WEATHER	WATER DEPTH (FT)	TIME
SIZE (DIAM.)	1-3/8"ID		3¼"ID		3-28-94	0.0-11.0	PARTLY SUNNY ± 70°	9.0	
LENGTH	2.0'		5.0'						
TYPE	STD.		HSA						
HAMMER WT.	140#								
FALL	30"								
STICK UP									

REMARKS: Boring sampled to 11.0' and grouted to surface. HNu background = 0.2 ppm

SAMPLE TYPE
S = Split Spoon A = Auger
T = Shelby Tube W = Wash
R = Air Rotary C = Core
D = Denison P = Piston
N = No Sample

DEFINITIONS
SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5')
RQD = Rock Quality Designation (%)
PID = Photoionization Detector

Depth (Ft.)	Sample Type and No.	Samp. Rec. Ft. & %	SPT or RQD	Samp. Desig.	PID (ppm)	Visual Description	Elevation
1 1.0		—	—	00	BG	SAND, fine grained, trace silt, brown, damp	
2	S-1	1.1 / 2.0 55%	3 3		BG	SILT, little fine sand, trace clay, yellowish brown, loose, damp	
3 3.0			3 4				
4	S-2	1.6 / 2.0 80%	4 4		BG	SILT, little to some fine sand, trace clay, yellowish brown, medium dense, damp	
5 5.0			8 8				
6	S-3	1.5 / 2.0 75%	4 4		BG	SAND, fine grained, little to some silt, trace to little clay, orangish brown to light brown, medium dense, damp	
7 7.0			6 8				
8	S-4	1.4 / 2.0 70%	4 7	04	BG	SAND, fine grained, trace to little silt, trace clay, light brown to brown, medium dense, moist	
9 9.0			13 16				
	S-5	1.4 / 2.0 70%	4 8		BG	SILTY SAND, fine grained, trace clay, tan, medium dense, wet	

Match to Sheet 2

DRILLING CO.: EMTC BAKER REP.: MARTIN G. TAUBE
DRILLER: J. MARSH BORING NO.: 28-BB-SB38 SHEET 1 OF 2

Baker

Baker Environmental, Inc.

TEST BORING RECORD

PROJECT: Site 28 - HPBD RI/FS MCB Camp Lejeune
S.O. NO.: 19231 BORING NO.: 28-BB-SB38

SAMPLE TYPE
S = Split Spoon A = Auger
T = Shelby Tube W = Wash
R = Air Rotary C = Core
D = Denison P = Piston
N = No Sample

DEFINITIONS
SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5')
RQD = Rock Quality Designation (%)
PID = Photoionization Detector

Depth (Ft.)	Sample Type and No.	Samp. Rec. (Ft. & %)	SPT or RQD	Samp. Desig.	PID (ppm)	Visual Description	Elevation
11.0			8 12		BG	Continued from Sheet 1	13.54
						END OF BORING TOTAL DEPTH = 11.0'	
						Match to Sheet 3	

DRILLING CO.: EMTC
DRILLER: J. MARSH

BAKER REP.: MARTIN G. TAUBE
BORING NO.: ZB-BB-SB38

SHEET 2 OF 2

TEST BORING RECORD

Baker Environmental, Inc.

PROJECT: Site 28 - HPBD RI/FS MCB Camp Lejeune
S.O. NO.: 19231 BORING NO.: 28-W-SB39
COORDINATES: EAST: 2498735.82 NORTH: 331878.76
ELEVATION: SURFACE: 17.22 TOP OF PVC CASING:

RIG: # 225

	SPLIT SPOON	CASING	AUGERS	CORE BARREL	DATE	PROGRESS (FT)	WEATHER	WATER DEPTH (FT)	TIME
SIZE (DIAM.)	1-3/8"ID		3 1/4"ID		3-24-94	0-18'	Partly cloudy, mild (50's)	16.5	
LENGTH	2.0'		5.0'						
TYPE	STD.		HSA						
HAMMER WT.	140#								
FALL	30"								
STICK UP									

REMARKS: Boring sampled to 18.0' and grouted to surface. Hnu background is .1ppm

SAMPLE TYPE
S = Split Spoon A = Auger
T = Shelby Tube W = Wash
R = Air Rotary C = Core
D = Denison P = Piston
N = No Sample

DEFINITIONS
SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5')
RQD = Rock Quality Designation (%)
PID = Photoionization Detector

Depth (Ft.)	Sample Type and No.	Samp. Rec. Ft. & %	SPT or RQD	Samp. Desig.	PID (ppm)	Visual Description	Elevation
1	S-1	.6/2.0 30%	6 8 8 9		BG	Rooted Zone (Dark Brown) SILTY SAND, fine grained. Brown, medium dense, damp	
2							
2.0							
3	S-2	.2 10%	4 3 4 6		BG	SAND, fine grained w/trace silt and TRASH (plastic, glass shards). Brown, loose, damp.	
4							
4.0							
5	S-3	.7 35%	17 30 25 20		BG	SILTY SAND, fine grained w/ FILL material (burnt soil, charcoal flecks, brick, glass shards, possible food stuffs). Brown to yellow to white to black, very dense, damp.	
6							
6.0							
7	S-4	.9 45%	7 9 8 9		BG		
8							
8.0							
9	S-5	.6 30%	5 9 8 7		BG		
10.0							

Match to Sheet 2

DRILLING CO.: EMTC BAKER REP.: J.E. Zimmerman
DRILLER: J. Marsh BORING NO.: 28-W-SB39 SHEET 1 OF 2

Baker

Baker Environmental, Inc.

TEST BORING RECORD

PROJECT: Site 28 - HPBD RI/FS MCB Camp Lejeune

S.O. NO.: 19231 BORING NO.: 28-W-SB39

SAMPLE TYPE
S = Split Spoon A = Auger
T = Shelby Tube W = Wash
R = Air Rotary C = Core
D = Denison P = Piston
N = No Sample

DEFINITIONS
SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5')
RQD = Rock Quality Designation (%)
PID = Photoionization Detector

Depth (Ft.)	Sample Type and No.	Samp. Rec. (Ft. & %)	SPT or RQD	Samp. Desig.	PID (ppm)	Visual Description	Elevation
11	S-6	.7 35%	6 6 9 11		BG	Continued from Sheet 1 FILL material (charcoal flecks, brick, trace of glass) w/ SILTY SAND, fine grained and trace gravel. Reddish brown to black, medium dense, moist	
12.0 12	S-7	NR	3 1 1/12"		–	NO RECOVERY	
14.0 14	S-8	1.3 65%	3 5 7 3		BG	FILL material (burnt soil, trace wood and glass shards, charcoal flecks & trace organics) and SILTY SAND, fine grained. DK. brown to black, medium dens, moist	
16.0 16	S-9	.3 15%	15 9 7 3		BG	SILTY SAND, fine grained w/ trace CLAY and FILL material (glass shards). Dark brown, medium dense, wet. Oily sheen observed.	▼ -.78
18.0 18						End of Boring TD 18.0'	
19							
20							
21							
22							
23							
24							
25							
26							
27							
28							
29						Match to Sheet 3	

DRILLING CO.: EMTC BAKER REP.: J. E. Zimmerman

DRILLER: J. Marsh BORING NO.: 28-W-SB39 SHEET 2 OF 2

Baker

Baker Environmental, Inc.

FIELD TEST BORING RECORD

PROJECT: Site 28 HPBD RI/FS MCB CAMP LEJEUNE
S.O. NO.: 62470-231 BORING NO.: 28-SB-40
COORDINATES: EAST: 2499980.06 NORTH: 331665.53
ELEVATION: SURFACE: 16.86 TOP OF PVC CASING:

RIG: B-57	SPLIT SPOON	CASING	AUGERS	CORE BARREL	DATE	PROGRESS (FT)	WEATHER	TOP OF CASING WATER DEPTH (FT)	TIME
SIZE (DIAM.)	1 3/8" ID		3 1/4" ID		3-25-94	16	DRIZZLE	14	
LENGTH	2.0'		5.0'						
TYPE	STD		HSA						
HAMMER WT.	140 #								
FALL	30"								
STICK UP									

REMARKS: GEOTECH BORING ONLY. BACKGROUND (BG) HNU = 0.0 ppm

DRILL RECORD							VISUAL DESCRIPTION					
DEPTH	SOIL / ROCK	Sample ID ----- Type-No. (N = No Samp.)	Samp. Rec. (Ft. & %)	SPT Blows Per 0.5' / RQD (Ft. & %)	Lab. Class. / Pen. Rate	PID (ppm)	Classification (Grain Size, Principal Constituents, Etc.) / Classification (Name, Grain Size, Principal Constituents, Etc.)	Color / Color	Consist. or Density / Hardness	Moisture Content, Organic Content, Plasticity, and Other Observations / Weathering, Bedding, Fracturing, and Other Observations	SOIL / ROCK	ELEVATION
1		S-1	1.41/2 71%	3 8 3 3		BG	3" Top Soil SAND-FINE AND SILT	Black Lt. Brown	MED DENSE	DAMP		
2												
3		S-2	1.60/2 79%	2 3 2 2		BG	SAND-FINE AND SILT	Black	LOOSE	DAMP		
4												
5		S-3	1.67/2 83%	2 3 5 7		BG	12" SAND-FINE AND SILT 8" SAND-FINE LITTLE CLAY TRACE SILT	Black	MED STIFF	MOIST		
6												
7		S-4	1.5/2 75%	2 4 8 9		BG	10" SAND-FINE AND SILT 8" CLAY TRACE SAND-FINE	Black yellow	STIFF	WET DRY		
8												
9		S-5	1.60/2 79%	3 4 6 6		BG	SAND-FINE LITTLE CLAY	yellow	STIFF	DRY MOTTLED		
10												

DRILLING CO.: EMTC BAKER REP.: KENNETH A. TUA
DRILLER: JIM MARSH BORING NO.: 28-SB-40 SHEET 1 OF 2

Baker

Baker Environmental, Inc

FIELD TEST BORING RECORD

PROJECT: SITE 28 HPBD RIFS MCB CAMP LEJEUNE
S.O. NO.: 62470-231 BORING NO.: 28-SB-40

DRILL RECORD							VISUAL DESCRIPTION					
DEPTH	SOIL / ROCK	Sample ID — Type-No. (N = No Samp.)	Samp. Rec. (Ft. & %)	SPT Blows Per 0.5' / RQD (Ft. & %)	Lab. Class.. / Pen. Rate	PID (ppm)	Classification (Grain Size, Principal Constituents, Etc.) / Classification (Name, Grain Size, Principal Constituents, Etc.)	Color	Consist. or Density / Hardness	Moisture Content, Organic Content, Plasticity, and Other Observations / Weathering, Bedding, Fracturing, and Other Observations	SOIL / ROCK	ELEVATION
11		S-6	1.67/2 (83%)	2 3 5 9		BG	SAND-FINE SOME SILT TRACE CLAY.	TAN	STIFF	MOIST		
12		S-7	2/2 (100%)	4 4 5 8		BG	SAND-FINE AND SILT	YELLOW	LOOSE	MOIST MOTTLED GRAY		
13							WATER @ 14'					
14		S-8	2/2 (100%)	3 5 6 9		BG	12" CLAY SOME SAND-FINE 12" CLAY TRACE SAND-FINE	YELLOW ORANGE	MED DENSE	WET MOTTLED GRAY		
15												
16							END OF BORING 16'					.8
17												
8												
9												
0												
1												
2												
3												
4												
5												
6												
7												
8												
9												
0												

DRILLING CO.: EMTC BAKER REP.: KENNETH A. TUA
DRILLER: JIM MARSH BORING NO.: 28-SB-40 SHEET 2 OF 2

TEST BORING RECORD

Baker Environmental, Inc.

PROJECT: Site 28 - HPBD RI/FS MCB Camp Lejeune
S.O. NO.: 19231 BORING NO.: 28-W-SB41
COORDINATES: EAST: 2498727.55 NORTH: 331877.27
ELEVATION: SURFACE: 17.37 TOP OF PVC CASING:

RIG: # 220

	SPLIT SPOON	CASING	AUGERS	CORE BARREL	DATE	PROGRESS (FT)	WEATHER	WATER DEPTH (FT)	TIME
SIZE (DIAM.)	1-3/8"ID		4¼" ID		3-27-94	0-18'	clear, warm, windy (70's)	16.5	
LENGTH	2.0'		5.0'						
TYPE	STD.		HSA						
HAMMER WT.	140#								
FALL	30"								
STICK UP									

REMARKS: Boring sampled to 18.0' and grouted to surface. Hnu background is .2 ppm

SAMPLE TYPE
S = Split Spoon A = Auger
T = Shelby Tube W = Wash
R = Air Rotary C = Core
D = Denison P = Piston
N = No Sample

DEFINITIONS
SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5')
RQD = Rock Quality Designation (%)
PID = Photoionization Detector

Depth (Ft.)	Sample Type and No.	Samp. Rec. Ft. & %	SPT or RQD	Samp. Desig.	PID (ppm)	Visual Description	Elevation
1 – 2 / 2.0	S-1	.3 / 15%	11 7 2 5		BG	SILTY SAND, fine grained w/ little FILL material (brick and charcoal flecks). Reddish brown to dark brown to gray, loose, damp	
3 – 4 / 4.0	S-2	.3 / 15%	3 2 1 1		BG		
5 – 6 / 6.0	S-3	.4 / 20%	3 2 1 3		BG	SAND, fine grained w/ trace silt. Dark brown to gray to reddish brown to dark gray, very loose to loose to dense, damp. Trace of brick 6' to 8' (bgs) only.	
7 – 8 / 8.0	S-4	.6 / 30%	7 11 12 14		BG		
9 – 10.0	S-5	.2 / 10%	12 17 18 22		BG		

Match to Sheet 2

DRILLING CO.: EMTC BAKER REP.: J. E. Zimmerman
DRILLER: G. Barnes BORING NO.: 28-W-SB41 SHEET 1 OF 2

Baker

Baker Environmental, Inc.

TEST BORING RECORD

PROJECT: Site 28 - HPBD RI/FS MCB Camp Lejeune
S.O. NO.: 19231 BORING NO.: 28-W-SB41

SAMPLE TYPE
S = Split Spoon A = Auger
T = Shelby Tube W = Wash
R = Air Rotary C = Core
D = Denison P = Piston
N = No Sample

DEFINITIONS
SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5')
RQD = Rock Quality Designation (%)
PID = Photoionization Detector

Depth (Ft.)	Sample Type and No.	Samp. Rec. (Ft. & %)	SPT or RQD	Samp. Desig.	PID (ppm)	Visual Description	Elevation
11	S-6	.4/2.0 20%	8 12 17 3		BG	Continued from Sheet 1 SAND, fine grained w/ trace silt. Dark brown, loose to very loose, damp to moist.	
12.0							
13	S-7	.3/2.0 15%	3 2 1/12"		BG		
14.0							
15	S-8	.4/2.0 20%	50/5"		BG		
16.0							
17	S-9	.3/2.0 15%	29 17 18 8		BG	SILTY SAND, fine grained w/ trace clay. Dark brown, dense, wet. Oily sheen can be seen on water laying in spoon.	-.63
18.0							
18						End of Boring TD 18.0' * Composited samples collected from 0 to 18.0' (bgs)	
19							
20							
21							
22							
23							
24							
25							
26							
27							
28							
29						Match to Sheet 3	

DRILLING CO.: EMTC
DRILLER: G. Barnes
BAKER REP.: J. E. Zimmerman
BORING NO.: 28-W-SB41
SHEET 2 OF 2

TEST BORING RECORD

Baker Environmental, Inc.

PROJECT: Site 28 - HPBD RI/FS MCB Camp Lejeune
S.O. NO.: 19231 BORING NO.: 28-E-SB42
COORDINATES: EAST: 2499998.41 NORTH: 331765.79
ELEVATION: SURFACE: 18.33 TOP OF PVC CASING: _____

RIG: MOBILE B-61

	SPLIT SPOON	CASING	AUGERS	CORE BARREL	DATE	PROGRESS (FT)	WEATHER	WATER DEPTH (FT)	TIME
SIZE (DIAM.)	1-3/8"ID		3¼" ID		3-28-94	0.0-12.0	PARTLY SUNNY ±70°	11.0'	
LENGTH	2.0'		5.0						
TYPE	STD.		HSA						
HAMMER WT.	140#								
FALL	30"								
STICK UP									

REMARKS: Boring sampled to 12.0' and grouted to the surface. HNu BG= 0.2ppm

SAMPLE TYPE
S = Split Spoon A = Auger
T = Shelby Tube W = Wash
R = Air Rotary C = Core
D = Denison P = Piston
N = No Sample

DEFINITIONS
SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5')
RQD = Rock Quality Designation (%)
PID = Photoionization Detector

Depth (Ft.)	Sample Type and No.	Samp. Rec. Ft. & %	SPT or RQD	Samp. Desig.	PID (ppm)	Visual Description	Elevation
1 – 2 (2.0)	S-1	1.4/2.0 70%	6 6 6 7	*	0.4	0.0 TO 1.8 SAND, fine grained, little silt, trace clay, trace organics, brown, medium dense, damp 1.8 TO 2.0 CLAY, little sand, trace silt, brown, damp	
3 – 4 (4.0)	S-2	1.5/2.0 75%	6 6 9 12	*	BG	SAND, fine grained trace silt, light brown, medium dense, damp BLACK ORGANIC LAYER PRESENT FROM 3.0' TO 3.1'	
5 – 6 (6.0)	S-3	1.0/2.0 50%	7 8 10 12	*	BG	SAND, fine grained, trace silt, light brown, medium dense, damp	
7 – 8 (8.0)	S-4	2.0/2.0 100%	2 3 2 4	*	0.3	SILTY CLAY, light brown, medium stiff, moist	
9 – 10 (10.0)	S-5	2.0/2.0 100%	2 2 3 3	*	BG	8.5' SILT, little sand, little clay, light brown, loose, moist	

Match to Sheet 2

DRILLING CO.: EMTC BAKER REP.: MARTIN G. TAUBE
DRILLER: J. MARSH BORING NO.: 28-E-SB42 SHEET 1 OF 2

TEST BORING RECORD

Baker Environmental, Inc.

PROJECT: Site 28 - HPBD RI/FS MCB Camp Lejeune
S.O. NO.: 19231 BORING NO.: 28-E-SB42

SAMPLE TYPE
S = Split Spoon A = Auger
T = Shelby Tube W = Wash
R = Air Rotary C = Core
D = Denison P = Piston
N = No Sample

DEFINITIONS
SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5')
RQD = Rock Quality Designation (%)
PID = Photoionization Detector

Depth (Ft.)	Sample Type and No.	Samp. Rec. (Ft. & %)	SPT or RQD	Samp. Desig.	PID (ppm)	Visual Description	Elevation
11	S-6	2.0 / 2.0 100%	1 2 / 1 2	*	BG	Continued from Sheet 1 SILT, little sand, little clay, light brown, very loose, moist to wet	
12	12.0						6.33
13						END OF BORING TOTAL DEPTH = 12.0'	
14						* SAMPLE 28-E-SB42 COMPOSITED FROM SPLIT SPOONS FOR RCRA CHARACTERIZATION AND TCLP ANALYSIS	
15							
16							
18						* SAMPLE 28-E-SB42 COMPOSITED FROM AUGER CUTTINGS FOR GEOTECHNICAL ANALYSIS	
19							
20							
21							
22							
23							
24							
25							
26							
27							
28							
29						Match to Sheet 3	

DRILLING CO.: EMTC
DRILLER: J. MARSH
BAKER REP.: MARTIN G. TAUBE
BORING NO.: 28-E-SB42
SHEET 2 OF 2

TEST BORING RECORD

Baker Environmental, Inc.

PROJECT: Site 28 - HPBD RI/FS MCB Camp Lejeune
S.O. NO.: 19231 BORING NO.: 28-W-SB43
COORDINATES: EAST: 2498803.84 NORTH: 331792.58
ELEVATION: SURFACE: 16.12 TOP OF PVC CASING:

RIG: #73	SPLIT SPOON	CASING	AUGERS	CORE BARREL	DATE	PROGRESS (FT)	WEATHER	WATER DEPTH (FT)	TIME
SIZE (DIAM.)	1-3/8"ID		3¼" ID		4-10-94	0-24'	overcast, mild (60's)	15.0	
LENGTH	2.0'		5.0'						
TYPE	STD.		HSA						
HAMMER WT.	140#								
FALL	30"								
STICK UP									

REMARKS: Boring sampled to 24.0' and grouted to surface. HNu background is .6 ppm

SAMPLE TYPE
S = Split Spoon A = Auger
T = Shelby Tube W = Wash
R = Air Rotary C = Core
D = Denison P = Piston
N = No Sample

DEFINITIONS
SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5')
RQD = Rock Quality Designation (%)
PID = Photoionization Detector

Depth (Ft.)	Sample Type and No.	Samp. Rec. Ft. & %	SPT or RQD	Samp. Desig.	PID (ppm)	Visual Description	Elevation
1	S-1	1.6/2.0 80%	6 9 9 9		BG	Rooted Zone SILTY SAND, fine grained. Dark brown to brown, medium dense, damp.	
2							
3	S-2	.2/2.0 10%	1 4 1 3		BG	SAND, fine grained w/trace silt. Brown to black, loose, damp. Oxidation (orange) and charcoal flecks (black) are present	
4	4.0						
5	S-3	.4/2.0 20%	2 2 2 5		BG	FILL material (glass shards, burnt soil, charcoal flecks) w/trace SAND fine grained. Black, loose, damp.	
6	6.0						
7	S-4	NR	7 9 6 2		-	NO RECOVERY	
8	8.0						
9	S-5	NR	1 2 2 7		-		
	10.0					Match to Sheet 2	

DRILLING CO.: EMTC BAKER REP.: J. E. Zimmerman
DRILLER: G. Moore BORING NO.: 28-W-SB43 SHEET 1 OF 2

TEST BORING RECORD

Baker Environmental, Inc.

PROJECT: Site 28 - HPBD RI/FS MCB Camp Lejeune
S.O. NO.: 19231 BORING NO.: 28-W-SB43

SAMPLE TYPE
S = Split Spoon A = Auger
T = Shelby Tube W = Wash
R = Air Rotary C = Core
D = Denison P = Piston
N = No Sample

DEFINITIONS
SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5')
RQD = Rock Quality Designation (%)
PID = Photoionization Detector

Depth (Ft.)	Sample Type and No.	Samp. Rec. (Ft. & %)	SPT or RQD	Samp. Desig.	PID (ppm)	Visual Description	Elevation
11	S-6	.6/2.0 30%	5 5 2 5		BG	Continued from Sheet 1 FILL material (glass shards, burnt soil, charcoal flecks) w/ SAND, fine grained w/ trace silt. Dark brown, black, dark gray, orange, loose to medium dense, damp to moist	
12.0							
13	S-7	.6/2.0 30%	1 5 5 3		BG		
14.0							
15	S-8	1.2/2.0 60%	5 4 5 13		BG	SAND, fine grained w/ trace silt and FILL material (charcoal flecks). Dark brown to dark gray, medium dense, wet.	▼
16.0							
18	S-9	.2/2.0 10%	16 18 20 3		BG	FILL material (burnt soil, brick, charcoal flecks) w/ SAND, fine grained w/ trace silt. Dark gray to reddish brown, dense, wet.	
18.0							
19	S-10	.6/2.0 30%	10 12 4 6		BG	ORGANIC material (peat like w/ decomposed wood). Brown, medium dense, wet.	
20.0							
21	S-11	1.3/2.0 65%	10 12 16 16		BG	SAND, fine grained w/ trace silt Dark gray, medium dense, wet.	
22.0							
23	S-12	1.3/2.0 65%	6 10 13 10		BG	ORGANIC material (peat like w/ decomposed wood). Dark brown to brown, medium dense, wet.	
24.0						SAND, fine grained w/ trace silt "virgin material" from 22.9' (bgs)	-7.88
25						End of Boring TD 24.0'	
26							
27							
28							
29						Match to Sheet 3	

DRILLING CO.: EMTC BAKER REP.: J. E. Zimmerman
DRILLER: G. Moore BORING NO.: 28-W-SB43 SHEET 2 OF 2

TEST BORING RECORD

Baker Environmental, Inc.

PROJECT: Site 28 - HPBD RI/FS MCB Camp Lejeune
S.O. NO.: 19231 BORING NO.: 28-W-SB44
COORDINATES: EAST: 2498840.93 NORTH: 331948.66
ELEVATION: SURFACE: 17.07 TOP OF PVC CASING: _____

RIG: #73	SPLIT SPOON	CASING	AUGERS	CORE BARREL	DATE	PROGRESS (FT)	WEATHER	WATER DEPTH (FT)	TIME
SIZE (DIAM.)	1-3/8"ID		3¼"ID		4-10-94	0-26'	overcast, mild (60's)		
LENGTH	2.0'		5.0'						
TYPE	STD.		HSA						
HAMMER WT.	140#								
FALL	30"								
STICK UP									

REMARKS: Boring sampled to 26.0' and grouted to surface. HNu background is .1 ppm

SAMPLE TYPE
S = Split Spoon A = Auger
T = Shelby Tube W = Wash
R = Air Rotary C = Core
D = Denison P = Piston
N = No Sample

DEFINITIONS
SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5')
RQD = Rock Quality Designation (%)
PID = Photoionization Detector

Depth (Ft.)	Sample Type and No.	Samp. Rec. Ft. & %	SPT or RQD	Samp. Desig.	PID (ppm)	Visual Description	Elevation
1 – 2 (2.0)	S-1	1.7	10 11 14 18		BG	Rooted zone SILTY SAND, fine grained. Brown, medium dense, damp	
3 – 4 (4.0)	S-2	.5	3 7 14 15		BG	SAND, fine grained w/ trace silt and FILL material (glass shards, burnt soil, charcoal flecks) Dark brown to brown, black, medium dense, damp. Oxidation (orange) is present.	
5 – 6 (6.0)	S-3	1.2	6 12 35 19		BG		
7 – 8 (8.0)	S-4	NR	19 29 10 7		—	NO RECOVERY	
9 – 10 (10.0)	S-5	NR	8 8 8 5		—		

Match to Sheet 2

DRILLING CO.: EMTC BAKER REP.: J.E. Zimmerman
DRILLER: G. Moore BORING NO.: 28-W-SB44 SHEET 1 OF 2

Baker
Baker Environmental, Inc.

TEST BORING RECORD

PROJECT: Site 28 - HPBD RI/FS MCB Camp Lejeune
S.O. NO.: 19231 BORING NO.: 28-W-SB44

SAMPLE TYPE
S = Split Spoon A = Auger
T = Shelby Tube W = Wash
R = Air Rotary C = Core
D = Denison P = Piston
N = No Sample

DEFINITIONS
SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5')
RQD = Rock Quality Designation (%)
PID = Photoionization Detector

Depth (Ft.)	Sample Type and No.	Samp. Rec. (Ft. & %)	SPT or RQD	Samp. Desig.	PID (ppm)	Visual Description	Elevation
11	S-6	1.0/2.0 50%	1 5 7 6		BG	Continued from Sheet 1 FILL material (glass shards, charcoal flecks, burnt soil, wood). Brown, black, gray medium dense, moist	
12.0							
13	S-7	NR	5 7 11 15		–	NO RECOVERY	
14.0							
15	S-8	NR	5 3 2 1		–		
16.0							
16	S-9	.8/2.0 40%	5 8 6/6"		1.4	FILL material (glass shards and ceramic material) w/SAND, fine grained w/trace silt. Dark gray and white, very dense, wet. oily sheen	
18.0							
19	S-10	NR	–		–	NO RECOVERY	
20.0							
20	S-11	1.0/2.0 50%	22 25 28 30		1.2	ORGANIC material (peat like w/ wood splinters). Dark gray to dark brown, very dense, wet.	
22.0							
23	S-12	NR	7 14 18 26		–	NO RECOVERY	
24.0							
25	S-13	1.1/2.0 55%	14 10 6 10		.4	SAND, fine grained w/trace silt "Virgin material from 24.0' (bgs)	-8.93
26.0							
27						End of Boring TD 26.0'	
28							
29						Match to Sheet 3	

DRILLING CO.: EMTC BAKER REP.: J. E. Zimmerman
DRILLER: G. Moore BORING NO.: 28-W-SB44 SHEET 2 OF 2

TEST BORING RECORD

Baker Environmental, Inc.

PROJECT: Site 28 - HPBD RI/FS MCB Camp Lejeune
S.O. NO.: 19231 BORING NO.: 28-W-SB45
COORDINATES: EAST: 2498541.03 NORTH: 331951.36
ELEVATION: SURFACE: 18.26 TOP OF PVC CASING: _____

RIG: #73	SPLIT SPOON	CASING	AUGERS	CORE BARREL	DATE	PROGRESS (FT)	WEATHER	WATER DEPTH (FT)	TIME
SIZE (DIAM.)	1-3/8"ID		3¼" ID		4-10-94	0-22'	Partly cloudy warm (70's) windy	12.2	
LENGTH	2.0'		5.0'						
TYPE	STD.		HSA						
HAMMER WT.	140#								
FALL	30"								
STICK UP									

REMARKS: Boring sampled to 22.0' and grouted to surface. HNu background is .2 ppm

SAMPLE TYPE
S = Split Spoon A = Auger
T = Shelby Tube W = Wash
R = Air Rotary C = Core
D = Denison P = Piston
N = No Sample

DEFINITIONS
SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5')
RQD = Rock Quality Designation (%)
PID = Photoionization Detector

Depth (Ft.)	Sample Type and No.	Samp. Rec. Ft. & %	SPT or RQD	Samp. Desig.	PID (ppm)	Visual Description	Elevation
1	S-1	1.6/2.0 80%	11 10 8 8		.7	SILTY SAND, fine grained. Brown, orange (oxidation), light brown, medium dense, damp	
2.0							
3	S-2	.7/2.0 35%	6 9 12 22		1.0	FILL material (glass shards, burnt soil, oxidation zones, wood). Brown to orangish brown, medium dense, damp	
4.0							
5	S-3	.6/2.0 30%	3 17 9 6		1.2		
6.0							
7	S-4	.5/2.0 25%	17 14 13 14		1.0	SAND, fine grained w/trace silt and FILL material (burnt soil and ceramics) Light brown, white, black, medium dense, damp	
8.0							
9	S-5	.5/2.0 25%	5 2 1 6		1.2	FILL material (burnt soil, charcoal flecks and ceramics). Brown to dark brown to black, loose, damp	
10.0						Match to Sheet 2	

DRILLING CO.: EMTC BAKER REP.: J. E. Zimmerman
DRILLER: G. Moore BORING NO.: 28-W-SB45 SHEET 1 OF 2

TEST BORING RECORD

Baker Environmental, Inc.

PROJECT: Site 28 - HPBD RI/FS MCB Camp Lejeune
S.O. NO.: 19231 BORING NO.: 28-W-SB45

SAMPLE TYPE
S = Split Spoon A = Auger
T = Shelby Tube W = Wash
R = Air Rotary C = Core
D = Denison P = Piston
N = No Sample

DEFINITIONS
SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5')
RQD = Rock Quality Designation (%)
PID = Photoionization Detector

Depth (Ft.)	Sample Type and No.	Samp. Rec. (Ft. & %)	SPT or RQD	Samp. Desig.	PID (ppm)	Visual Description	Elevation
11	S-6	NR	2 2 3 4		-	Continued from Sheet 1 NO RECOVERY	
12.0							
12		.4/2.0	2				
13	S-7		22 46		.6	FILL material (brick, burnt soil glass shards, ceramics). Dark gray to reddish brown, very dense wet.	
14.0		20%	11				
15	S-8	1.9/2.0	9 9 10		.9	ORGANIC material (peat like w/ wood). Dark brown, medium dense, wet.	
16.0		95%	11				
16	S-9	.3/2.0	8 3 9		.7	FILL material (matrix only) w/ ORGANIC material (wood w/ peat) Dark brown, medium dense, wet.	
18.0		15%	8				
18	S-10	1.7/2.0	6 4 5		1.2	ORGANIC material (peat like w/ wood splinters) w/ SAND, fine grained w/ little Silt. Dark brown to brown to green, loose to medium dense, wet.	
20.0		85%	4				
20	S-11	1.5/2.0	1 5 4		1.5	SAND, fine grained w/ little Silt. Green to yellow, loose to medium dense, wet	-3.7
22.0		75%	4				
22						End of Boring TD 22.0'	
23							
24							
25							
26							
27							
28							
29						Match to Sheet 3	

DRILLING CO.: EMTC BAKER REP.: J. E. Zimmerman
DRILLER: G. Moore BORING NO.: 28-W-SB45 SHEET 2 OF 2

TEST BORING RECORD

Baker Environmental, Inc.

PROJECT: Site 28 - HPBD RI/FS MCB Camp Lejeune
S.O. NO.: 19231 BORING NO.: 28-W+SB46
COORDINATES: EAST: 2498636.73 NORTH: 331914.93
ELEVATION: SURFACE: 17.86 TOP OF PVC CASING: _____

RIG: #73	SPLIT SPOON	CASING	AUGERS	CORE BARREL	DATE	PROGRESS (FT)	WEATHER	WATER DEPTH (FT)	TIME
SIZE (DIAM.)	1-3/8"ID		3¼" ID		4-10-94	0-26'	partly cloudy, warm (70's) windy		
LENGTH	2.0'		5.0'						
TYPE	STD.		HSA						
HAMMER WT.	140#								
FALL	30"								
STICK UP									

REMARKS: Boring sampled to 26.0' and grouted to surface. HNu background is .2 ppm

SAMPLE TYPE
S = Split Spoon A = Auger
T = Shelby Tube W = Wash
R = Air Rotary C = Core
D = Denison P = Piston
N = No Sample

DEFINITIONS
SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5')
RQD = Rock Quality Designation (%)
PID = Photoionization Detector

Depth (Ft.)	Sample Type and No.	Samp. Rec. Ft. & %	SPT or RQD	Samp. Desig.	PID (ppm)	Visual Description	Elevation
1 – 2 (2.0)	S-1	1.8/2.0 90%	10 15 15 7		1.1	SILTY SAND, fine grained. Gray to brown, medium dense, damp.	
3 – 4 (4.0)	S-2	1.4/2.0 70%	7 12 12 17		1.9	SAND, fine grained w/ trace silt. Brown to light gray to dark brown, medium dense, damp	
5 – 6 (6.0)	S-3	.4/2.0 20%	8 7 7 6		.7		
7 – 8 (8.0)	S-4	.6/2.0 30%	18 30 14 13		1.0	FILL material (burnt soil, charcoal flecks, glass shards, brick, oxidation zone). Dark brown, orange, black, dense, damp	
9 – (10.0)	S-5	NR	4 11 8 9		–	NO RECOVERY	

Match to Sheet 2

DRILLING CO.: EMTC BAKER REP.: J. E. Zimmerman
DRILLER: G. Moore BORING NO.: 28-W-SB46 SHEET 1 OF 2

Baker

Baker Environmental, Inc.

TEST BORING RECORD

PROJECT: Site 28 - HPBD RI/FS MCB Camp Lejeune

S.O. NO.: 19231 BORING NO.: 28-W-SB46

SAMPLE TYPE
S = Split Spoon A = Auger
T = Shelby Tube W = Wash
R = Air Rotary C = Core
D = Denison P = Piston
N = No Sample

DEFINITIONS
SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5')
RQD = Rock Quality Designation (%)
PID = Photoionization Detector

Depth (Ft.)	Sample Type and No.	Samp. Rec. (Ft. & %)	SPT or RQD	Samp. Desig.	PID (ppm)	Visual Description	Elevation
11	S-6	.8/2.0 40%	2 7 9 6		.5	Continued from Sheet 1 FILL material (burnt soil, charcoal, wood). Dark brown to black, medium dense, damp to moist	
12.0							
13	S-7	NR	5 5 7 4		-	NO RECOVERY	
14.0							
15	S-8	.2/2.0 10%	3 6 5 3		.5	FILL material (brick) w/ SAND fine grained w/ trace silt as matrix only. Reddish brown to dark gray, medium dense, wet.	
16.0							
18	S-9	.2/2.0 10%	4 4 26 6		1.1		
18.0							
19	S-10	NR	7 9 13 14		-	NO RECOVERY	
20.0							
21	S-11	.6/2.0 30%	11 12 12 15		.5	SAND, fine grained w/ trace silt. Sample is "soupy". Dark gray, medium dense, wet.	
22.0							
23	S-12	1.0/2.0 50%	7 4 4 9		60.5	ORGANIC material (peat like w/ wood) and FILL material (metal and glass shards)	
24.0						SAND, fine grained w/ little silt. Gray to green, loose to medium dense, wet.	
25	S-13	1.1/2.0 55%	12 7 2 2		31.0		
26.0							-8.14
26						End of Boring TD 26.0'	
27							
28							
29							
						Match to Sheet 3	

DRILLING CO.: EMTC BAKER REP.: J.E. Zimmerman

DRILLER: G. Moore BORING NO.: 28-W-SB46 SHEET 2 OF 2

Baker Environmental, Inc.

TEST BORING RECORD

PROJECT: Site 28 - HPBD RI/FS MCB Camp Lejeune
S.O. NO.: 19231 BORING NO.: 28-W-SB47
COORDINATES: EAST: 2498611.05 NORTH: 331715.71
ELEVATION: SURFACE: 14.52 TOP OF PVC CASING:

RIG: # 73	SPLIT SPOON	CASING	AUGERS	CORE BARREL	DATE	PROGRESS (FT)	WEATHER	WATER DEPTH (FT)	TIME
SIZE (DIAM.)	1-3/8"ID		3 1/4" ID		4-10-94	0-24'	Partly Cloudy warm (70's) windy	12.5	
LENGTH	2.0'		5.0'						
TYPE	STD.		HSA						
HAMMER WT.	140#								
FALL	30"								
STICK UP									

REMARKS: Boring sampled to 24.0' and grouted to surface. HNu background is .1 ppm

SAMPLE TYPE
S = Split Spoon A = Auger
T = Shelby Tube W = Wash
R = Air Rotary C = Core
D = Denison P = Piston
N = No Sample

DEFINITIONS
SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5')
RQD = Rock Quality Designation (%)
PID = Photoionization Detector

Depth (Ft.)	Sample Type and No.	Samp. Rec. Ft. & %	SPT or RQD	Samp. Desig.	PID (ppm)	Visual Description	Elevation
0						Rooted Zone	
1	S-1	1.4/2.0 70%	8 6 6 7		1.2	SILTY SAND, fine grained. Gray to brown, medium dense, damp	
2							
2.0						FILL material (glass shards, burnt soil, charcoal flecks, numerous oxidation zones). Dark brown, black, dark gray, orange, medium dense, damp.	
3	S-2	.3/2.0 15%	3 5 6 4		.6		
4							
4.0							
5	S-3	NR	26 7 8 9		—	NO RECOVERY	
6							
6.0							
7	S-4	1.0/2.0 50%	3 6 9 16		.4	FILL material (glass shards, burnt soil, charcoal flecks, oxidation zones) orange, dark brown, black, medium dense, damp.	
8							
8.0							
9	S-5	.8/2.0 40%	6 9 7 7		10.2		
10							
10.0						Match to Sheet 2	

DRILLING CO.: EMTC BAKER REP.: J.E. Zimmerman
DRILLER: G. Moore BORING NO.: 28-W-SB47 SHEET 1 OF 2

Baker

Baker Environmental, Inc.

TEST BORING RECORD

PROJECT: Site 28 - HPBD RI/FS MCB Camp Lejeune
S.O. NO.: 19231 BORING NO.: 28-W-SB47

SAMPLE TYPE
S = Split Spoon A = Auger
T = Shelby Tube W = Wash
R = Air Rotary C = Core
D = Denison P = Piston
N = No Sample

DEFINITIONS
SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5')
RQD = Rock Quality Designation (%)
PID = Photoionization Detector

Depth (Ft.)	Sample Type and No.	Samp. Rec. (Ft. & %)	SPT or RQD	Samp. Desig.	PID (ppm)	Visual Description	Elevation
11	S-6	.6/2.0 30%	6 23 16 4		.7	Continued from Sheet 1 FILL material (burnt soil, trace glass shards, some charcoal flecks and little oxidation) w/ SAND, fine grained as matrix only. Dark brown to brown to dark gray, damp to moist to wet, medium dense to dense	▼
12	12.0						
13	S-7	.6/2.0 30%	9 6 8 8		.5		
14	14.0						
15	S-8	.4/2.0 20%	4 16 36 10		.5	SAND, fine grained w/ trace silt. "Pea gravel" well rounded is present. Thin guage copper wire is at top of sample. Dark brown to dark gray, very dense, wet	
16	16.0						
17	S-9	.5/2.0 25%	10 6 8 9		1.1		
18	18.0						
19	S-10	1.5/2.0 75%	4 5 5 7		1.2	FILL material (trace glass shards and oxidation). Dark gray, medium dense, wet	
20	20.0						
21	S-11	1.3/2.0 65%	4 4 11 12		1.4	ORGANIC material (peat like w/ wood) Dark brown, medium dense, wet SAND, fine grained w/ trace silt. Olive gray, medium dense, wet	
22	22.0						
23	S-12	1.8/2.0 90%	10 15 17 22		1.6	ORGANIC material (peat like w/ wood). Dark brown SAND, fine to medium grained w/ trace coarse grained. Brown, dense, wet. "virgin material" from 22.5' (bgs).	-9.48
24	24.0						
25						End of Boring TD 24.0'	
26							
27							
28							
29						Match to Sheet 3	

DRILLING CO.: EMTC BAKER REP.: J. E. Zimmerman
DRILLER: G. Moore BORING NO.: 28-W-SB47 SHEET 2 OF 2

SITE 30

Baker

Baker Environmental, Inc.

TEST BORING RECORD

PROJECT: Site 30 - SFRFTSA RI/FS MCB Camp Lejeune
S.O. NO.: 19231 BORING NO.: 30-SB-01
COORDINATES: EAST: 2513408.21 NORTH: 318699.00
ELEVATION: SURFACE: 43.56 TOP OF PVC CASING:

RIG: # 220	SPLIT SPOON	CASING	AUGERS	CORE BARREL	DATE	PROGRESS (FT)	WEATHER	WATER DEPTH (FT)	TIME
SIZE (DIAM.)	1-3/8"ID		4¼" ID		3-22-94	0-9.0	clear, 60's	8.5	
LENGTH	2.0'		5.0'						
TYPE	STD.		HSA						
HAMMER WT.	140#								
FALL	30"								
STICK UP									

REMARKS: Boring sampled to 9.0' and grouted to surface. Hnu background is 1.4ppm

SAMPLE TYPE
S = Split Spoon A = Auger
T = Shelby Tube W = Wash
R = Air Rotary C = Core
D = Denison P = Piston
N = No Sample

DEFINITIONS
SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5')
RQD = Rock Quality Designation (%)
PID = Photoionization Detector

Depth (Ft.)	Sample Type and No.	Samp. Rec. Ft. & %	SPT or RQD	Samp. Desig.	PID (ppm)	Visual Description	Elevation
1 — 1.0		—	—	00	3.3	SILTY SAND, fine grained. Light gray to brown, very loose, damp.	
2	S-1	2.0/2.0	6 8 6 7		BG		
3 — 3.0		100%					
4	S-2	1.5/2.0	11 11 8 10		BG	SAND, fine grained w/ trace silt. Brown to dark brown, medium dense, damp to moist to wet.	
5 — 5.0		75%					
6	S-3	1.5/2.0	8 8 9 10		BG		
7 — 7.0		75%					
8	S-4	1.5/2.0	6 11 13 15	04	BG		
9 — 9.0		75%					▼ 34.56
10						End of Boring TD 9.0' Match to Sheet 2	

DRILLING CO.: EMTC BAKER REP.: J. E. Zimmerman
DRILLER: G. Barnes BORING NO.: 30-SB-01 SHEET 1 OF 1

Baker

Baker Environmental, Inc.

TEST BORING RECORD

PROJECT: Site 30 - SFRFTSA RI/FS MCB Camp Lejeune
S.O. NO.: 19231 BORING NO.: 30SB02
COORDINATES: EAST: 2513470.63 NORTH: 318785.62
ELEVATION: SURFACE: 43.5334 TOP OF PVC CASING:

RIG: #220	SPLIT SPOON	CASING	AUGERS	CORE BARREL	DATE	PROGRESS (FT)	WEATHER	WATER DEPTH (FT)	TIME
SIZE (DIAM.)	1-3/8"ID		4¼"ID		3-23-94	0-9.0	clear, mild (60's)	8.5	
LENGTH	2.0'		5.0'						
TYPE	STD.		HSA						
HAMMER WT.	140#								
FALL	30"								
STICK UP									

REMARKS: Boring sampled to 9.0' and grouted to surface. HNu background is .4 ppm.

SAMPLE TYPE
S = Split Spoon A = Auger
T = Shelby Tube W = Wash
R = Air Rotary C = Core
D = Denison P = Piston
N = No Sample

DEFINITIONS
SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5')
RQD = Rock Quality Designation (%)
PID = Photoionization Detector

Depth (Ft.)	Sample Type and No.	Samp. Rec. Ft. & %	SPT or RQD	Samp. Desig.	PID (ppm)	Visual Description	Elevation
1 1.0				00	BG	SILTY SAND, fine grained. Light gray to brown, very loose, damp.	
2	S-1	1.2/2.0	2 2 4		BG		
3 3.0		60%	5				
4	S-2	1.5/2.0	4 5 5		BG	SAND, fine grained w/ trace silt. Brown to dark brown, loose to medium dense, damp to moist to wet.	
5 5.0		75	5				
6	S-3	1.2/2.0	3 4 4	03	BG		
7 7.0		60%	5				
8	S-4	1.4/2.0	3 3 4		BG		
9 9.0		70%	5				34.53
						End of Boring TD 9.0'	

Match to Sheet 2

DRILLING CO.: EMTC BAKER REP.:
DRILLER: G. Barnes BORING NO.: 30SB02 SHEET 1 OF 1

Baker

Baker Environmental, Inc.

TEST BORING RECORD

PROJECT: Site 30 - SFRFTSA RI/FS MCB Camp Lejeune
S.O. NO.: 19231 BORING NO.: 305B03
COORDINATES: EAST: 2513543.34 NORTH: 318872.64
ELEVATION: SURFACE: 41.95 TOP OF PVC CASING:

RIG: # 220	SPLIT SPOON	CASING	AUGERS	CORE BARREL	DATE	PROGRESS (FT)	WEATHER	WATER DEPTH (FT)	TIME
SIZE (DIAM.)	1-3/8"ID		4¼"ID		3-22-94	0-9.0	clear, mild (60's)	8.0	
LENGTH	2.0'		5.0'						
TYPE	STD.		HSA						
HAMMER WT.	140#								
FALL	30"								
STICK UP									

REMARKS: Boring sampled to 9.0' and grouted to surface. HNu background is .9 ppm.

SAMPLE TYPE
S = Split Spoon A = Auger
T = Shelby Tube W = Wash
R = Air Rotary C = Core
D = Denison P = Piston
N = No Sample

DEFINITIONS
SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5')
RQD = Rock Quality Designation (%)
PID = Photoionization Detector

Depth (Ft.)	Sample Type and No.	Samp. Rec. Ft. & %	SPT or RQD	Samp. Desig.	PID (ppm)	Visual Description	Elevation
1		–	–	00	BG	SILTY SAND, fine grained w/trace plant material. Light brown, v. loose, damp	
1.0							
2	S-1	1.6/2.0 80%	6 6 5 8		BG		
3							
3.0							
4	S-2	1.3/2.0 65%	4 4 4 5		BG 1.5	SAND, fine grained w/trace silt. Brown to light brown to dark brown, loose to medium dense, damp to moist	
5							
5.0							
6	S-3	1.7/2.0 85%	6 7 9 11	03	BG		
7							
7.0							
8	S-4	1.4/2.0 70%	8 11 15 17		BG	SAND, fine to medium grained w/trace silt. Dark brown, moist to wet.	▼
9							32.95
9.0						End of Boring TD 9.0' Match to Sheet 2	
10							

DRILLING CO.: EMTC BAKER REP.: J.E. Zimmerman
DRILLER: G. Barnes BORING NO.: 305B03 SHEET 1 OF 1

Baker

Baker Environmental, Inc.

TEST BORING RECORD

PROJECT: Site 30 - SFRFTSA RI/FS MCB Camp Lejeune
S.O. NO.: 19231 BORING NO.: 305804
COORDINATES: EAST: 2513612.15 NORTH: 318967.25
ELEVATION: SURFACE: 41.66 TOP OF PVC CASING:

RIG: #220	SPLIT SPOON	CASING	AUGERS	CORE BARREL	DATE	PROGRESS (FT)	WEATHER	WATER DEPTH (FT)	TIME
SIZE (DIAM.)	1-3/8"ID		4 1/4"ID		3-23-94	0-9.0	clear, mild (60's)	8.5	
LENGTH	2.0'		5.0'						
TYPE	STD.		HSA						
HAMMER WT.	140#								
FALL	30"								
STICK UP									

REMARKS: Boring sampled to 9.0' and grouted to surface. HNu background is .4 ppm

SAMPLE TYPE
S = Split Spoon A = Auger
T = Shelby Tube W = Wash
R = Air Rotary C = Core
D = Denison P = Piston
N = No Sample

DEFINITIONS
SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5')
RQD = Rock Quality Designation (%)
PID = Photoionization Detector

Depth (Ft.)	Sample Type and No.	Samp. Rec. Ft. & %	SPT or RQD	Samp. Desig.	PID (ppm)	Visual Description	Elevation
1		–	–	00	BG	SILTY SAND, fine grained. Light gray to brown, very loose, damp.	
1.0							
2	S-1	1.2/2.0 60%	3 5 4 7		BG		
3.0							
4	S-2	1.3/2.0 65%	3 4 5 7		BG	SAND, fine grained w/ trace silt. Brown to dark brown, loose to medium dense, damp to moist to wet.	
5.0							
6	S-3	1.5/2.0 75%	7 7 7 7	03	BG		
7.0							
8	S-4	1.2/2.0 60%	7 8 9 11		BG		▼
9.0							32.66
						End of Boring TD 9.0' Match to Sheet 2	

DRILLING CO.: EMTC BAKER REP.: J. E. Zimmerman
DRILLER: G. Barnes BORING NO.: 305804 SHEET 1 OF 1

TEST BORING RECORD

Baker Environmental, Inc.

PROJECT: Site 30 - SFRFTSA RI/FS MCB Camp Lejeune
S.O. NO.: 19231 BORING NO.: 30-SB-05
COORDINATES: EAST: 2513283.72 NORTH: 318788.22
ELEVATION: SURFACE: 39.79 TOP OF PVC CASING:

RIG: # 220	SPLIT SPOON	CASING	AUGERS	CORE BARREL	DATE	PROGRESS (FT)	WEATHER	WATER DEPTH (FT)	TIME
SIZE (DIAM.)	1-3/8"ID		4¼" ID		3-22-94	0-7.0	clear, 60's	6.5	
LENGTH	2.0'		5.0'						
TYPE	STD.		HSA						
HAMMER WT.	140#								
FALL	30"								
STICK UP									

REMARKS: Boring sampled to 7.0' and grouted to surface. HNu background is 2.8 ppm

SAMPLE TYPE
S = Split Spoon A = Auger
T = Shelby Tube W = Wash
R = Air Rotary C = Core
D = Denison P = Piston
N = No Sample

DEFINITIONS
SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5')
RQD = Rock Quality Designation (%)
PID = Photoionization Detector

Depth (Ft.)	Sample Type and No.	Samp. Rec. Ft. & %	SPT or RQD	Samp. Desig.	PID (ppm)	Visual Description	Elevation
1 / 1.0		—	—	00	BG	SILTY SAND, fine grained. Light brown to gray, very loose, damp.	
2	S-1	1.4/2.0 70%	7 10 10 11		BG		
3 / 3.0							
4	S-2	2.0/2.0 100%	6 5 6 6	02	BG	SAND, fine grained w/ trace silt. Brown, medium dense to loose, damp to moist to wet	
5 / 5.0							
6	S-3	1.0/2.0 50%	3 3 3 4		BG		
7 / 7.0							32.79
8						End of Boring TD 7.0'	
9							
10						Match to Sheet 2	

DRILLING CO.: EMTC BAKER REP.: J. E. Zimmerman
DRILLER: G. Barnes BORING NO.: 30-SB-05 SHEET 1 OF 1

TEST BORING RECORD

Baker Environmental, Inc.

PROJECT: Site 30 - SFRFTSA RI/FS MCB Camp Lejeune
S.O. NO.: 19231 BORING NO.: 30SB06
COORDINATES: EAST: 2513365.51 NORTH: 318883.54
ELEVATION: SURFACE: 41.43 TOP OF PVC CASING:

RIG: #220	SPLIT SPOON	CASING	AUGERS	CORE BARREL	DATE	PROGRESS (FT)	WEATHER	WATER DEPTH (FT)	TIME
SIZE (DIAM.)	1-3/8"ID		4 1/4" ID		3-23-94	0-9.0	clear, mild (60's)	8.5	
LENGTH	2.0'		5.0'						
TYPE	STD.		HSA						
HAMMER WT.	140#								
FALL	30"								
STICK UP									

REMARKS: Boring sampled to 9.0' and grouted to surface. HNu background is .3 ppm

SAMPLE TYPE
S = Split Spoon A = Auger
T = Shelby Tube W = Wash
R = Air Rotary C = Core
D = Denison P = Piston
N = No Sample

DEFINITIONS
SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5')
RQD = Rock Quality Designation (%)
PID = Photoionization Detector

Depth (Ft.)	Sample Type and No.	Samp. Rec. Ft. & %	SPT or RQD	Samp. Desig.	PID (ppm)	Visual Description	Elevation
1		—	—	00	BG	SILTY SAND, fine grained. Light gray, very loose, damp.	
1.0							
2	S-1	1.2/2.0 60%	2 3 4 5		BG		
3.0							
4	S-2	1.5/2.0 75%	4 5 7 9		BG	SAND, fine grained w/ trace silt. Light gray to brown to dark brown, loose to medium dense, damp to moist to wet.	
5.0							
6	S-3	1.5/2.0 75%	4 5 6 8	03	BG		
7.0							
8	S-4	1.1/2.0 55%	3 5 6 6		BG		
9.0							32.43
						End of Boring TD 9.0'	

Match to Sheet 2

DRILLING CO.: EMTC BAKER REP.: J.E. Zimmerman
DRILLER: G. Barnes BORING NO.: 30SB06 SHEET 1 OF 1

TEST BORING RECORD

Baker Environmental, Inc.

PROJECT: Site 30 - SFRFTSA RI/FS MCB Camp Lejeune
S.O. NO.: 19231 BORING NO.: 30SB07
COORDINATES: EAST: 2513465.70 NORTH: 318973.60
ELEVATION: SURFACE: 40.98 TOP OF PVC CASING:

RIG: # 220

	SPLIT SPOON	CASING	AUGERS	CORE BARREL	DATE	PROGRESS (FT)	WEATHER	WATER DEPTH (FT)	TIME
SIZE (DIAM.)	1-3/8"ID		4¼" ID		3-22-94	0-9.0	clear, mild (60's)	8.0	
LENGTH	2.0'		5.0'						
TYPE	STD.		HSA						
HAMMER WT.	140#								
FALL	30"								
STICK UP									

REMARKS: Boring sampled to 9.0' and grouted to surface. HNu background is 1.0 ppm

SAMPLE TYPE
S = Split Spoon A = Auger
T = Shelby Tube W = Wash
R = Air Rotary C = Core
D = Denison P = Piston
N = No Sample

DEFINITIONS
SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5')
RQD = Rock Quality Designation (%)
PID = Photoionization Detector

Depth (Ft.)	Sample Type and No.	Samp. Rec. Ft. & %	SPT or RQD	Samp. Desig.	PID (ppm)	Visual Description	Elevation
1		–	–	00	BG	SILTY SAND, fine grained w/ trace plant material. Light gray, very loose, damp	
1.0							
2	S-1	1.5/2.0	1 2 2 3		BG		
3		75%					
3.0							
4	S-2	1.1/2.0	5 5 5 6		BG	SAND, fine grained w/ trace silt. Light gray to brown to dark brown, loose to medium dense, damp to moist to wet.	
5		55%					
5.0							
6	S-3	.7/2.0	4 4 5 7	03	BG		
7		35%					
7.0							
8	S-4	1.9/2.0	7 11 12 13		BG		▼
9		95%					31.98
9.0						End of Boring TD 9.0'	

Match to Sheet 2

DRILLING CO.: EMTC BAKER REP.: J. E. Zimmerman
DRILLER: G. Barnes BORING NO.: 30SB07 SHEET 1 OF 1

Baker

Baker Environmental, Inc.

TEST BORING RECORD

PROJECT: Site 30 - SFRFTSA RI/FS MCB Camp Lejeune
S.O. NO.: 19231 BORING NO.: 30SB08
COORDINATES: EAST: 2513546.56 NORTH: 319032.99
ELEVATION: SURFACE: 40.49 TOP OF PVC CASING:

RIG: # 220	SPLIT SPOON	CASING	AUGERS	CORE BARREL	DATE	PROGRESS (FT)	WEATHER	WATER DEPTH (FT)	TIME
SIZE (DIAM.)	1-3/8"ID		4¼" ID		3-23-94	0-7.0	Clear, mild (60's)	6.5	
LENGTH	2.0'		5.0'						
TYPE	STD.		HSA						
HAMMER WT.	140#								
FALL	30"								
STICK UP									

REMARKS: Boring sampled to 7.0' and grouted to surface. HNu background is .4ppm

SAMPLE TYPE
S = Split Spoon A = Auger
T = Shelby Tube W = Wash
R = Air Rotary C = Core
D = Denison P = Piston
N = No Sample

DEFINITIONS
SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5')
RQD = Rock Quality Designation (%)
PID = Photoionization Detector

Depth (Ft.)	Sample Type and No.	Samp. Rec. Ft. & %	SPT or RQD	Samp. Desig.	PID (ppm)	Visual Description	Elevation
1 / 1.0		-	-	00	BG	SILTY SAND, fine grained. Light gray to brown, very loose, damp.	
2	S-1	1.1/2.0 55%	7 7 6 7		BG		
3 / 3.0						SAND, fine grained w/ trace silt. Light brown to brown to dark brown, medium dense to loose, damp to moist to wet	
4	S-2	1.7/2.0 85%	5 5 4 4	02	BG		
5 / 5.0							
6	S-3	1.2/2.0 60%	2 5 7 10		BG		
7 / 7.0						▼	33.49
8						End of Boring TD 7.0'	
9							
10						Match to Sheet 2	

DRILLING CO.: EMTC BAKER REP.: J. E. Zimmerman
DRILLER: G. Barnes BORING NO.: 30SB08 SHEET 1 OF 1

TEST BORING RECORD

Baker Environmental, Inc.

PROJECT: Site 30 - SFRFTSA RI/FS MCB Camp Lejeune
S.O. NO.: 19231 BORING NO.: 305B09
COORDINATES: EAST: 2513391.79 NORTH: 318792.71
ELEVATION: SURFACE: 42.80 TOP OF PVC CASING:

RIG: #220									
	SPLIT SPOON	CASING	AUGERS	CORE BARREL	DATE	PROGRESS (FT)	WEATHER	WATER DEPTH (FT)	TIME
SIZE (DIAM.)	1-3/8"ID		4¼" ID		3-23-94	0-7.0	clear, mild (60's)	7.0	
LENGTH	2.0'		5.0'						
TYPE	STD.		HSA						
HAMMER WT.	140#								
FALL	30"								
STICK UP									

REMARKS: Boring sampled to 7.0' and grouted to surface. HNu background is .3 ppm

SAMPLE TYPE
S = Split Spoon A = Auger
T = Shelby Tube W = Wash
R = Air Rotary C = Core
D = Denison P = Piston
N = No Sample

DEFINITIONS
SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5')
RQD = Rock Quality Designation (%)
PID = Photoionization Detector

Depth (Ft.)	Sample Type and No.	Samp. Rec. Ft. & %	SPT or RQD	Samp. Desig.	PID (ppm)	Visual Description	Elevation
1 / 1.0				00	BG	SILTY SAND, fine grained. Light gray to brown, very loose, damp.	
2 / 3.0	S-1	1.8/2.0 90%	3 5 7 8		BG	SAND, fine grained w/ trace silt. Brown, medium dense, damp to moist to wet.	
4 / 5.0	S-2	1.7/2.0 85%	4 5 7 9	02	BG		
6 / 7.0	S-3	1.5/2.0 75%	5 7 6 7		BG		▼ 35
7						End of Boring TD 7.0'	

Match to Sheet 2

DRILLING CO.: EMTC BAKER REP.: J. E. Zimmerman
DRILLER: G. Barnes BORING NO.: 305B09 SHEET 1 OF 1

TEST BORING RECORD

Baker Environmental, Inc.

PROJECT: Site 30 - SFRFTSA RI/FS MCB Camp Lejeune
S.O. NO.: 19231 BORING NO.: 30SB10
COORDINATES: EAST: 2513467.60 NORTH: 318872.29
ELEVATION: SURFACE: 41.83 TOP OF PVC CASING:

RIG: # 220	SPLIT SPOON	CASING	AUGERS	CORE BARREL	DATE	PROGRESS (FT)	WEATHER	WATER DEPTH (FT)	TIME
SIZE (DIAM.)	1-3/8"ID		4¼"ID		3-22-94	0-9.0	clear mild (60's)	8.5	
LENGTH	2.0'		5.0'						
TYPE	STD.		HSA						
HAMMER WT.	140#								
FALL	30"								
STICK UP									

REMARKS: Boring sampled to 9.0' and grouted to surface. HNu background is .9ppm

SAMPLE TYPE
S = Split Spoon A = Auger
T = Shelby Tube W = Wash
R = Air Rotary C = Core
D = Denison P = Piston
N = No Sample

DEFINITIONS
SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5')
RQD = Rock Quality Designation (%)
PID = Photoionization Detector

Depth (Ft.)	Sample Type and No.	Samp. Rec. Ft. & %	SPT or RQD	Samp. Desig.	PID (ppm)	Visual Description	Elevation
1				00	BG	SILTY SAND, fine grained w/ trace plant material. Light gray to brown, v. loose, damp	
1.0							
2	S-1	1.4/2.0	2 3		BG		
3		70%	3 5				
3.0							
4	S-2	1.7/2.0	8 7		BG	SAND, fine grained w/ trace silt. Light gray to brown to dark brown, loose to medium dense damp to moist to wet.	
5		85%	8 9				
5.0							
6	S-3	1.6/2.0	5 7	03	BG		
7		80%	9 10				
7.0							
8	S-4	1.8/2.0	10 12		BG		
9		90%	14 14				32.83
9.0						End of Boring TD 9.0'	

Match to Sheet 2

DRILLING CO.: EMTC BAKER REP.: J.E. Zimmerman
DRILLER: G. Barnes BORING NO.: 30SB10 SHEET 1 OF 1

Baker

Baker Environmental, Inc.

TEST BORING RECORD

PROJECT: Site 30 - SFRFTSA RI/FS MCB Camp Lejeune
S.O. NO.: 19231 BORING NO.: 30SB11
COORDINATES: EAST: 2513544.47 NORTH: 318959.99
ELEVATION: SURFACE: 40.87 TOP OF PVC CASING:

RIG: #220	SPLIT SPOON	CASING	AUGERS	CORE BARREL	DATE	PROGRESS (FT)	WEATHER	WATER DEPTH (FT)	TIME
SIZE (DIAM.)	1-3/8"ID		4 1/4" ID		3-22-94	0-9.0	clear, mild (60's)	7.5	
LENGTH	2.0'		5.0'						
TYPE	STD.		HSA						
HAMMER WT.	140#								
FALL	30"								
STICK UP									

REMARKS: Boring sampled to 9.0' and grouted to surface. HNu background is .7 ppm

SAMPLE TYPE
S = Split Spoon A = Auger
T = Shelby Tube W = Wash
R = Air Rotary C = Core
D = Denison P = Piston
N = No Sample

DEFINITIONS
SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5')
RQD = Rock Quality Designation (%)
PID = Photoionization Detector

Depth (Ft.)	Sample Type and No.	Samp. Rec. Ft. & %	SPT or RQD	Samp. Desig.	PID (ppm)	Visual Description	Elevation
1 — 1.0				00	BG	SILTY SAND, fine grained. Light gray to brown, very loose, damp.	
2	S-1	1.2/2.0 60%	4 6 8 9		BG		
3 — 3.0							
4	S-2	1.6/2.0 80%	5 6 6 8		BG		
5 — 5.0							
6	S-3	.8/2.0 40%	4 4 5 8	03	BG	SAND, fine grained w/ trace silt. Brown to light brown to dark brown, medium dense to loose, damp to moist to wet.	▼
7 — 7.0							
8	S-4	1.8/2.0 90%	6 7 8 9		BG		
9 — 9.0							31.87
						End of Boring TD 9.0'	

Match to Sheet 2

DRILLING CO.: EMTC BAKER REP.: J. E. Zimmerman
DRILLER: G. Barnes BORING NO.: 30SB11 SHEET 1 OF 1

Baker

Baker Environmental, Inc.

FIELD TEST BORING RECORD

PROJECT: SITE 30 SFRFTSA REIFS MCB CAMP LEJEUNE
S.O. NO.: 62470 -231 BORING NO.: 30 SB 12
COORDINATES: EAST: 2514564.52 NORTH: 318615.29
ELEVATION: SURFACE: 43.80 TOP OF PVC CASING:

RIG: B-57	SPLIT SPOON	CASING	AUGERS	CORE BARREL	DATE	PROGRESS (FT)	WEATHER	TOP OF CASING WATER DEPTH (FT)	TIME
SIZE (DIAM.)	1 3/8" ID				3-23-94	7'	CLEAR & WARM	6'	
LENGTH	2.0'								
TYPE	STD								
HAMMER WT.	140#								
FALL	30"								
STICK UP									

REMARKS: BACKGROUND (BG) HNU READINGS = .5 ppm

DRILL RECORD							VISUAL DESCRIPTION					
DEPTH	SOIL / ROCK	Sample ID / Type-No. (N = No Samp.)	Samp. Rec. (Ft. & %)	SPT Blows Per 0.5' / RQD (Ft. & %)	Lab. Class. / Pen. Rate	PID (ppm)	Classification (Grain Size, Principal Constituents, Etc.) / Classification (Name, Grain Size, Principal Constituents, Etc.)	Color	Consist. or Density / Hardness	Moisture Content, Organic Content, Plasticity, and Other Observations / Weathering, Bedding, Fracturing, and Other Observations	SOIL / ROCK	ELEVATION
1	LAB	00	100%	—	∞	BG	SAND-FINE	WHITE	LOOSE	DRY		
2		S-1	1.25/2	4, 16, 8, 8		BG	SAND-FINE TRACE SILT	WHITE	MED DENSE	DRY		
3			88%									
4		S-2	1.75/2	9, 15, 18, 13		BG	SAND-FINE TRACE SILT	BROWN/BLACK	DENSE	MOIST		
5			88%									
6	LAB	S-3	2/2	9, 10, 12, 5	03	BG	SAND-FINE TRACE SILT WATER @ 6'	BROWN		WET		
7			100%				END OF BORING 7'					36.8
8												
9												
10												

DRILLING CO.: EMTC BAKER REP.: KENNETH A. TUA
DRILLER: JIM MARSH BORING NO.: 30 SB 12 SHEET 1 OF 1

Baker

Baker Environmental, Inc.

FIELD TEST BORING RECORD

PROJECT: SITE 30 SFRFTSA RI/FS MCB CAMP LEJEUNE
S.O. NO.: 62470-231 BORING NO.: 30 SB 13
COORDINATES: EAST: 2514492.58 NORTH: 318919.81
ELEVATION: SURFACE: 40.17 TOP OF PVC CASING: _____

RIG: B-57	SPLIT SPOON	CASING	AUGERS	CORE BARREL	DATE	PROGRESS (FT)	WEATHER	TOP OF CASING WATER DEPTH (FT)	TIME
SIZE (DIAM.)	1 3/8" ID				3-23-94	5'	CLEAR & WARM	3'	
LENGTH	2.0'								
TYPE	STD								
HAMMER WT.	140#								
FALL	30"								
STICK UP									

REMARKS: BACKGROUND (BG) HNU = 0.4 ppm

DRILL RECORD							VISUAL DESCRIPTION					
DEPTH	SOIL / ROCK	Sample ID / Type-No. (N = No Samp.)	Samp. Rec. (Ft. & %)	SPT Blows Per 0.5' / RQD (Ft. & %)	Lab. Class. / Pen. Rate	PID (ppm)	Classification (Grain Size, Principal Constituents, Etc.) / *Classification (Name, Grain Size, Principal Constituents, Etc.)*	Color / *Color*	Consist. or Density / *Hardness*	Moisture Content, Organic Content, Plasticity, and Other Observations / *Weathering, Bedding, Fracturing, and Other Observations*	SOIL / ROCK	ELEVATION
1	LAB	00	100%	—	00	BG	SAND-FINE	WHITE	LOOSE	DAMP		
2	LAB	S-1	1.5/2	4 4	01	BG	SAND-FINE TRACE SILT	LT. GRAY	LOOSE	MOIST		
3			75%	3 2			WATER @ 3'					
4		S-2	2/2	3 4 4		BG	SAND-FINE TRACE SILT	BROWN/BLACK	LOOSE	WET		35.
5			100%	5			END OF BORING 5'					
6												
7												
8												
9												
10												

DRILLING CO.: EMTC BAKER REP.: KENNETH A. TUA
DRILLER: JIM MARSH BORING NO.: 30 SB 13 SHEET 1 OF 1

Baker

Baker Environmental, Inc.

FIELD TEST BORING RECORD

PROJECT: SITE 30 SPRFTSA RIFS MCB CAMP LEJEUNE
S.O. NO.: 62470-231 BORING NO.: 30 SB 14
COORDINATES: EAST: 2514337.12 NORTH: 319226.54
ELEVATION: SURFACE: 38.60 TOP OF PVC CASING: ____

RIG: B-57	SPLIT SPOON	CASING	AUGERS	CORE BARREL	DATE	PROGRESS (FT)	WEATHER	TOP OF CASING WATER DEPTH (FT)	TIME
SIZE (DIAM.)	1-3/8" ID				3-23-94	3'	CLEAR & WARM	3'	
LENGTH	2.0'								
TYPE	STD								
HAMMER WT.	140 lb								
FALL	30"								
STICK UP									

REMARKS: BACKGROUND (BG) HNU = 0.4 ppm

DRILL RECORD							VISUAL DESCRIPTION					
DEPTH	SOIL / ROCK	Sample ID / Type-No. (N = No Samp.)	Samp. Rec. (Ft. & %)	SPT Blows Per 0.5' / RQD (Ft. & %)	Lab. Class. / Pen. Rate	PID (ppm)	Classification (Grain Size, Principal Constituents, Etc.) / Classification (Name, Grain Size, Principal Constituents, Etc.)	Color	Consist. or Density / Hardness	Moisture Content, Organic Content, Plasticity, and Other Observations / Weathering, Bedding, Fracturing, and Other Observations	SOIL / ROCK	ELEVATION
1	LAB	00	100%		00	BG	SAND-FINE	WHITE	LOOSE	DAMP		
2	LAB	S-1	2/2	3 4	01	BG	SAND-F TRACE SILT	BROWN	LOOSE	MOIST TO WET		
3			100%	5 6			WATER @ 3'					35.
							END OF BORING 3'					
4												
5												
6												
7												
8												
9												
10												

DRILLING CO.: EMTC
DRILLER: JIM MARSH
BAKER REP.: KENNETH A. TUA
BORING NO.: 30 SB14 SHEET 1 OF 1

Baker

Baker Environmental, Inc.

FIELD TEST BORING RECORD

PROJECT: SITE 30 SFRFTSA RI/FS MCB CAMP LEJEUNE
S.O. NO.: 62470-251 BORING NO.: 30 SB 15
COORDINATES: EAST: 2514300.20 NORTH: 319385.26
ELEVATION: SURFACE: 39.16 TOP OF PVC CASING: _____

RIG: B-57	SPLIT SPOON	CASING	AUGERS	CORE BARREL	DATE	PROGRESS (FT)	WEATHER	TOP OF CASING WATER DEPTH (FT)	TIME
SIZE (DIAM.)	1 3/8" ID				3-23-94	5'	CLEAR & WARM	3'	
LENGTH	2.0'								
TYPE	STD								
HAMMER WT.	140 #								
FALL	30"								
STICK UP									

REMARKS: BACKGROUND (BG) HNU = 0.4 ppm

DRILL RECORD							VISUAL DESCRIPTION					
DEPTH	SOIL / ROCK	Sample ID / Type-No. (N = No Samp.)	Samp. Rec. (Ft. & %)	SPT Blows Per 0.5' / RQD (Ft. & %)	Lab. Class. / Pen. Rate	PID (ppm)	Classification (Grain Size, Principal Constituents, Etc.) / Classification (Name, Grain Size, Principal Constituents, Etc.)	Color / Color	Consist. or Density / Hardness	Moisture Content, Organic Content, Plasticity, and Other Observations / Weathering, Bedding, Fracturing, and Other Observations	SOIL / ROCK	ELEVATION
1	LAB	00	100%	—	00	BG	SAND-FINE TRACE SILT	LT. GRAY	LOOSE	DAMP		
2	LAB	S-1	2/2	1 3 3 3	01	BG	SAND-FINE TRACE SILT	LT. GRAY	LOOSE	MOIST TO WET		
3			100%				WATER @ 3'					
4		S-2	1.67/2	1 2 3 3		BG	SAND-FINE TRACE SILT	BROWN	LOOSE	WET		
5			83%				END OF BORING 5'					34.1
6												
7												
8												
9												
10												

DRILLING CO.: EMTC BAKER REP.: KENNETH A. TUA
DRILLER: JIM MARSH BORING NO.: 30 SB 15 SHEET 1 OF 1

Baker

Baker Environmental, Inc.

FIELD TEST BORING RECORD

PROJECT: SITE 30 SFRFTSA RI/FS MCB CAMP LEJEUNE
S.O. NO.: 62470-231 BORING NO.: 30 SB16
COORDINATES: EAST: 2514182.06 NORTH: 319653.31
ELEVATION: SURFACE: 41.20 TOP OF PVC CASING:

RIG: B-57	SPLIT SPOON	CASING	AUGERS	CORE BARREL	DATE	PROGRESS (FT)	WEATHER	TOP OF CASING WATER DEPTH (FT)	TIME
SIZE (DIAM.)	1 3/8" ID				3-23-94	7	CLEAR + WARM	5	
LENGTH	2.0'								
TYPE	STD								
HAMMER WT.	140 #								
FALL	30"								
STICK UP									

REMARKS: BACKGROUND (BG) HNU = 0.3 ppm

DRILL RECORD							VISUAL DESCRIPTION					
DEPTH	SOIL / ROCK	Sample ID / Type-No. (N = No Samp.)	Samp. Rec. (Ft. & %)	SPT Blows Per 0.5' / RQD (Ft. & %)	Lab. Class. / Pen. Rate	PID (ppm)	Classification (Grain Size, Principal Constituents, Etc.) / Classification (Name, Grain Size, Principal Constituents, Etc.)	Color	Consist. or Density / Hardness	Moisture Content, Organic Content, Plasticity, and Other Observations / Weathering, Bedding, Fracturing, and Other Observations	SOIL / ROCK	ELEVATION
1	LAB	00	100%	—	00	BG	SAND-FINE LITTLE WOOD CHIPS (RED)	LT. GRAY	—	DAMP		
2		S-1	—	1 2 1 1		BG	NO RECOVERY					
3			1.33/2	1 1			SAND-FINE TRACE SILT	8" GRAY 8" BROWN		MOIST		
4	LAB	S-2	67%	2 1	02	BG						
5							WATER @ 5'					
6		S-3	2/2 100%	2 2 2 2		BG	SAND-FINE LITTLE SILT	BROWN		WET		
7							END OF BORING 7'					34
8												
9												
10												

DRILLING CO.: EMTC BAKER REP.: KENNETH A. TUA
DRILLER: JIM MARSH BORING NO.: 30 SB 16 SHEET 1 OF 1

Baker

Baker Environmental, Inc.

TEST BORING RECORD

PROJECT: Site 30 - SFRFTSA RI/FS MCB Camp Lejeune
S.O. NO.: 19231 BORING NO.: 30SB17
COORDINATES: EAST: NORTH:
ELEVATION: SURFACE: TOP OF PVC CASING:

RIG: #225									
	SPLIT SPOON	CASING	AUGERS	CORE BARREL	DATE	PROGRESS (FT)	WEATHER	WATER DEPTH (FT)	TIME
SIZE (DIAM.)	1-3/8"ID		3¼" ID		3-24-94	0-8.0	partly cloudy, mild, humid (50's)	7.5	
LENGTH	2.0'		5.0'						
TYPE	STD.		HSA						
HAMMER WT.	140#								
FALL	30"								
STICK UP									

REMARKS: Boring sampled to 8.0' and grouted to surface. HNu background is .4 ppm

COMPOSITE FROM 0 TO 6' WAS COLLECTED FOR ENGINEERING PARAMETERS

SAMPLE TYPE
S = Split Spoon A = Auger
T = Shelby Tube W = Wash
R = Air Rotary C = Core
D = Denison P = Piston
N = No Sample

DEFINITIONS
SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5')
RQD = Rock Quality Designation (%)
PID = Photoionization Detector

Depth (Ft.)	Sample Type and No.	Samp. Rec. Ft. & %	SPT or RQD	Samp. Desig.	PID (ppm)	Visual Description	Elevation
1	S-1	1.5/2.0 75%	3 3 2 3		BG	SILTY SAND, fine grained w/ organic material (roots). Gray to brown, loose, damp.	
2 2.0							
3	S-2	1.3/2.0 65%	2 4 4 4		BG	SAND, fine grained w/ trace silt. Brown to yellowish brown to dark brown, loose to medium dense, damp to moist to wet	
4 4.0							
5	S-3	1.4/2.0 70%	4 4 4 3		BG		
6 6.0							
7	S-4	1.5/2.0 75%	3 5 4 4		BG		
8 8.0						End of Boring TD 8.0'	
9							

Match to Sheet 2

DRILLING CO.: EMTC BAKER REP.: J. E. Zimmerman
DRILLER: J. Marsh BORING NO.: 30SB17 SHEET 1 OF 1

Baker

Baker Environmental, Inc.

TEST BORING RECORD

PROJECT: SITE 30 SFRFTSA RI/FS MCB CAMP LEJEUNE
S.O. NO.: 62470-231 BORING NO.: 30-SB-18
COORDINATES: EAST: 2513316.98 NORTH: 318674.15
ELEVATION: SURFACE: 40.56 TOP OF PVC CASING:

RIG: B-57	SPLIT SPOON	CASING	AUGERS	CORE BARREL	DATE	PROGRESS (FT)	WEATHER	WATER DEPTH (FT)	TIME
SIZE (DIAM.)	1 3/8" ID		3 1/4" ID		4-8-94	9	SUNNY	7	
LENGTH	2.0'		5.0'						
TYPE	STD		HSA						
HAMMER WT.	140 lb								
FALL	30"								
STICK UP									

REMARKS: BACKGROUND (BG) HNU = 0.3 ppm

SAMPLE TYPE
S = Split Spoon A = Auger
T = Shelby Tube W = Wash
R = Air Rotary C = Core
D = Denison P = Piston
N = No Sample

DEFINITIONS
SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5')
RQD = Rock Quality Designation (%)
Lab Class. = USCS (ASTM D-2487) or AASHTO (ASTM D-3282)
Lab Moist. = Moisture Content (ASTM D-2216) Dry Weight Basis

Depth (Ft.)	Sample Type and No.	Samp. Rec. Ft. & %	SPT or RQD	Lab. Class. or Pen. Rate	PID (ppm)	Visual Description	Elevation
1	LAB 00	100%	—	00	BG	SAND-FINE TRACE SILT DRY. WHITE.	
2	S-1	1.2/2 63%	3 2 3 5		BG	SAND-FINE TRACE SILT, DRY. GRAY. LOOSE	
3							
4	S-2	1.5/2 75%	4 4 5 7		BG	SAND-FINE TRACE SILT DAMP BROWN & WHITE LOOSE.	
5							
6	LAB S-3	1.7/2 88%	9 8 10 11	03	BG	SAND-FINE TRACE SILT MOIST. BROWN MED DENSE	
7						WATER @ 7'	
8	S-4	1.6o/2 79%	10 8 7 6		BG	SAND-FINE LITHIC SILT WET. BROWN. MED DENSE.	
9						END OF BORING 9'	31.56
10						Match to Sheet 2	

DRILLING CO.: EMTC BAKER REP.: KENNETH A. TUA
DRILLER: JIM MARSH BORING NO.: 30-SB-18 SHEET 1 OF 2

Baker

Baker Environmental, Inc.

TEST BORING RECORD

PROJECT: SITE 30 SFRFTSA RI/FS MCB CAMP LEJEUNE
S.O. NO.: 62470-231 BORING NO.: 30-SB-19
COORDINATES: EAST: 251314.736 NORTH: 318754.86
ELEVATION: SURFACE: 36.98 TOP OF PVC CASING: _____

RIG: B-57	SPLIT SPOON	CASING	AUGERS	CORE BARREL	DATE	PROGRESS (FT)	WEATHER	WATER DEPTH (FT)	TIME
SIZE (DIAM.)	1 3/8" ID		3 1/4" ID		4-8-94	7	SUNNY	5	
LENGTH	2.0'		5.0'						
TYPE	STD		HSA						
HAMMER WT.	140#								
FALL	30"								
STICK UP									

REMARKS: BACKGROUND (BG) HNU = 0.3 PPM

SAMPLE TYPE
S = Split Spoon A = Auger
T = Shelby Tube W = Wash
R = Air Rotary C = Core
D = Denison P = Piston
N = No Sample

DEFINITIONS
SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5')
RQD = Rock Quality Designation (%)
Lab Class. = USCS (ASTM D-2487) or AASHTO (ASTM D-3282)
Lab Moist. = Moisture Content (ASTM D-2216) Dry Weight Basis

Depth (Ft.)	Sample Type and No.	Samp. Rec. Ft. & %	SPT or RQD	Lab. Class. or Pen. Rate	PID (ppm)	Visual Description	Elevation
1	LAB S-1	1.0 / 100%	—		BG	SAND-FINE TRACE SILT DRY. WHITE.	
2	S-1	1.5 / 2	5		BG	SAND-FINE TRACE SILT DAMP. GRAY. MED DENSE	
3	S-1	75%	10 12 14		BG		
4	LAB S-2	1.5 / 2	8 8		BG	SAND-FINE TRACE SILT MOIST. BROWN. MED DENSE	
5	S-2	79%	7 7		BG	WATER @ 5'	
6	S-3	1.5 / 2	6 12		BG	SAND-FINE TRACE SILT. WET. BROWN. MED DENSE	
7	S-3	75%	14 15		BG	END OF BORING 7'	29.98
8							
9							
10						Match to Sheet 2	

DRILLING CO.: EMTC BAKER REP.: KENNETH A. TUA
DRILLER: JIM MARSH BORING NO.: 30-SB-19 SHEET 1 OF 2

Baker

Baker Environmental, Inc.

TEST BORING RECORD

PROJECT: SITE 30 SFRFTSA RIFS MCB CAMP LEJEUNE
S.O. NO.: 62470-231 BORING NO.: 30-SB-20
COORDINATES: EAST: 2513249.26 NORTH: 318915.98
ELEVATION: SURFACE: 38.87 TOP OF PVC CASING: _____

RIG: B-57	SPLIT SPOON	CASING	AUGERS	CORE BARREL	DATE	PROGRESS (FT)	WEATHER	WATER DEPTH (FT)	TIME
SIZE (DIAM.)	1 3/8" ID		3 1/4" ID		4-8-94	9	SUNNY	7	
LENGTH	2.0'		5.0'						
TYPE	STD		HSA						
HAMMER WT.	140 lb								
FALL	30"								
STICK UP									

REMARKS: BACKGROUND (BG) HNU = 0.3 ppm

SAMPLE TYPE
S = Split Spoon A = Auger
T = Shelby Tube W = Wash
R = Air Rotary C = Core
D = Denison P = Piston
N = No Sample

DEFINITIONS
SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5')
RQD = Rock Quality Designation (%)
Lab Class. = USCS (ASTM D-2487) or AASHTO (ASTM D-3282)
Lab Moist. = Moisture Content (ASTM D-2216) Dry Weight Basis

Depth (Ft.)	Sample Type and No.	Samp. Rec. Ft. & %	SPT or RQD	Lab. Class. or Pen. Rate	PID (ppm)	Visual Description	Elevation
1	LAB S-1	00	—	∞	BG	SAND-FINE TRACE SILT. DRY. GRAY.	
2	S-1	1.4/2 78%	5 7 10 12		BG	SAND-FINE TRACE SILT. DRY. BLACK. MED DENSE	
3							
4	S-2	1.6/2 79%	3 5 7 7		0.5	SAND-FINE LITTLE SILT. MOIST. BROWN. MED DENSE	
5							
6	LAB S-3	1.7/2 88%	3 7 6 7	03	BG	SAND-FINE TRACE SILT. MOIST. BROWN. MED DENSE	
7						WATER @ 7'	
8	S-4	1.5/2 75%	6 5 5 7		BG	SAND-FINE LITTLE SILT. WET. LT. BROWN. MED DENSE.	
9						END OF BORING 9'	29.87
10						Match to Sheet 2	

DRILLING CO.: EMTC BAKER REP.: KENNETH A. TUA
DRILLER: JIM MARSH BORING NO.: 30-SB-20 SHEET 1 OF 2

APPENDIX B
TEST BORING AND WELL CONSTRUCTION RECORDS

TEST BORING LOG AND WELL CONSTRUCTION LEGEND

SOIL DESCRIPTIONS

GRAIN SIZE IDENTIFICATION

NAME	SIZE LIMITS
Boulder	12" OR MORE
Cobbles	3" - 12"
Coarse Gravel	3/4" - 3"
Fine Gravel	4.76 mm (#4) - 3/4"
Coarse Sand	2 mm (#10) - 4.76 mm (#4)
Medium Sand	0.42 mm (#40) - 2 mm (#10)
Fine Sand	0.074 mm (#200)-0.42 mm (#40)
Silt	0.002 mm-0.074 mm (#200)
Clay	Less than 0.002 mm

RELATIVE DENSITY

NONCOHESIVE SOIL

TERM	SPT (Blows/ft)
Very Loose	BELOW 4
Loose	4-10
Medium Dense	10-30
Dense	30-50
Very Dense	OVER 50

COHESIVE SOILS

TERM	SPT (Blows/ft)
Very Soft	BELOW 2
Soft	2-4
Medium Stiff	4-8
Stiff	8-15
Very Stiff	15-30
Hard	OVER 30

MOISTURE	DESCRIPTIVE TERMS	
Dry	Trace	0-10%
Damp	Little	10-20%
Moist	Some	20-35%
Wet	And	35-50%

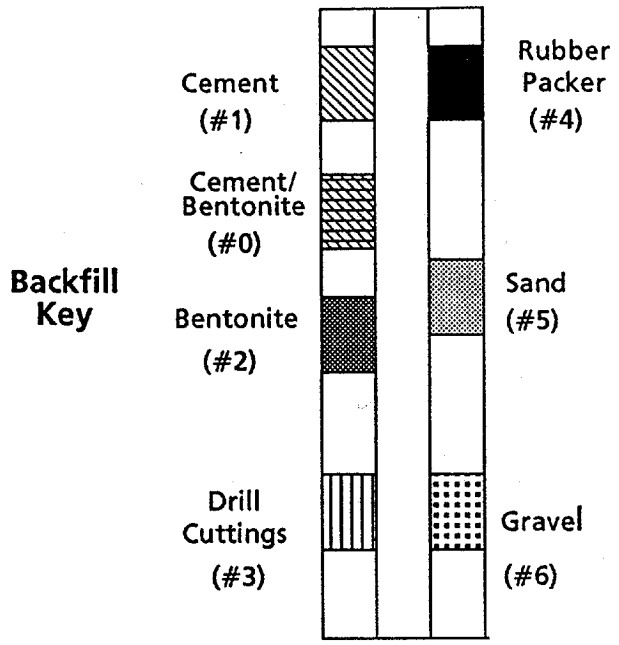
CONTACTS:

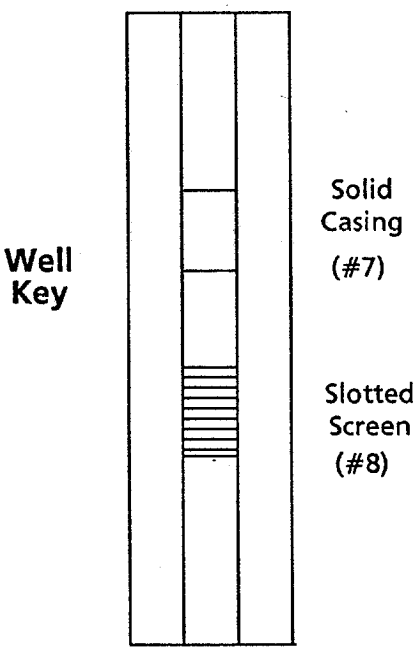
_____ = DEFINITE

_ _ _ _ = INDEFINITE

. . . . . = GRADATIONAL

WELL SYMBOLS AND BACKFILL





SAMPLE TYPE

S = Split Spoon
T = Shelby Tube
R = Air Rotary
D = Denison
A = Auger
W = Wash (Roller Bit)
C = Core
P = Piston
N = No Sample Taken

ABBREVIATIONS

HS = Hollow Stem
NP = Non Plastic
-PL = Below the Plastic Limit
PL = At the Plastic Limit
+PL = Above the Plastic Limit
+LL = Above the Liquid Limit
SPT = Standard Penetration Test
RQD = Rock Quality Designation

TEST BORING LOG LEGEND

SOIL DESCRIPTION

GRAIN SIZE IDENTIFICATION

NAME	SIZE LIMITS
Boulder	12" OR MORE
Cobbles	3" - 12"
Coarse Gravel	3/4" - 3"
Fine Gravel	4.76 mm (#4) - 3/4"
Coarse Sand	2 mm (#10) - 4.76 mm (#4)
Medium Sand	0.42 mm (#40) - 2 mm (#10)
Fine Sand	0.074 mm (#200)-0.42 mm (#40)
Silt	0.002 mm-0.074 mm (#200)
Clay	Less than 0.002 mm

RELATIVE DENSITY

NONCOHESIVE SOIL

TERM	SPT (Blows/ft)
Very Loose	Below 4
Loose	4-10
Medium Dense	10-30
Dense	30-50
Very Dense	OVER 50

COHESIVE SOILS

TERM	SPT (Blows/ft)
Very Soft	BELOW 2
Soft	2-4
Medium Stiff	4-8
Stiff	8-15
Very Stiff	15-30
Hard	OVER 30

MOISTURE	DESCRIPTIVE TERMS	
Dry	Trace	0-10%
Damp	Little	10-20%
Moist	Some	20-35%
Wet	And	35-50%

ROCK DESCRIPTIONS

HARDNESS

Very Soft -	Easily gouged by knife, easily scratched by fingernail, easily broken by hand
Soft -	Gouged by knife, scratched by fingernail, difficult to break by hand, powders with hammer
Medium Hard -	Easily scratched by knife, easily broken with hammer
Hard -	Difficult to scratch, breaks with hammer
Very Hard -	Difficult to break, rings when struck

WEATHERING

Decomposed	-	Soft to Very soft, bedding and fractures indistinct, no cementation.
Highly Weathered	-	Very soft to soft, with medium hard relict rock fragments; little to moderate cementation. Vugs, openings in bedding and fractures (may be filled).
Weathered	-	Soft to medium hard. Good cementation, bedding and fractures are pronounced. Uniformly stained.
Slightly Weathered	-	Medium hard. Fractures pronounced, non-uniform staining, bedding distinct.
Fresh	-	Medium hard to hard. No staining. Fractures may be present. Bedding may or may not be indistinct.

BEDDING AND FRACTURES:

SPACING	BEDDING	FRACTURES
	Indistinct	
LESS THAN 1/2" (1 cm)	Laminated	Fissile
1/2" to 1" (1cm-3cm)	Very Thin	Very Close
1" TO 4" (3cm-10cm)	Thin	Close
4" TO 1' (10cm-30cm)	Moderate	Moderate
1' TO 3' (30 cm-1m)	Thick	Wide
3' TO 10' (1m-3m)	Massive	Very Wide

CONTACTS:

_____ = DEFINITE

_ _ _ _ = INDEFINITE

. . . . . = GRADATIONAL

SAMPLE TYPE

S = Split Spoon
T = Shelby Tube
R = Air Rotary
D = Denison
A = Auger
W = Wash (Roller Bit)
C = Core
P = Piston
N = No Sample Taken

ABBREVIATIONS

HS = Hollow Stem
NP = Non Plastic
-PL = Below the Plastic Limit
PL = At the Plastic Limit
+PL = Above the Plastic Limit
+LL = Above the Liquid Limit
SPT = Standard Penetration Test
RQD = Rock Quality Designation

SITE 1

TEST BORING AND WELL CONSTRUCTION RECORD

Baker Environmental, Inc

PROJECT: Site 1 - FCLDA RI/FS MCB Camp Lejeune
S.O. NO.: 19231 BORING NO.: 1-GW07
COORDINATES: EAST: 2501578.13 NORTH: 332253.49
ELEVATION: SURFACE: 20.2 TOP OF PVC CASING: 23.12

RIG: MOBILE B-57

	SPLIT SPOON	CASING	AUGERS	CORE BARREL	DATE	PROGRESS (FT)	WEATHER	WATER DEPTH (FT)	TIME
SIZE (DIAM.)	1-3/8" ID		3 1/4" / 6 1/4" ID		4-12-94	0.0 - 25.0	OVERCAST ± 60°	13.0	(BORING ADVANCE)
LENGTH	2.0'		5.0'						
TYPE	Std.		HSA						
HAMMER WT.	140#								
FALL	30"								
STICK UP									

REMARKS: Boring sampled to 25.0'. HNu BG = 0.2

SAMPLE TYPE
S = Split Spoon A = Auger
T = Shelby Tube W = Wash
R = Air Rotary C = Core
D = Denison P = Piston
N = No Sample

WELL INFORMATION	DIAM	TYPE	TOP DEPTH (FT)	BOTTOM DEPTH (FT)
Well Casing	2"	PVC Threaded - Sch. 40	+5.13' (BEEN CUT)	10.08 bgs
Well Screen	2"	PVC Slotted No. 10 - Sch. 40	10.08 bgs	24.66 bgs

Depth (Ft.)	Sample Type and No.	Samp. Rec. Ft. & %	SPT or RQD	Samp. Desig.	PID (ppm)	Visual Description	Well Installation Detail	Elevation
1				00	BG	SAND, fine grained, little silt, trace grass, trace roots, trace leaves; brown, damp (AUGERED)		
1.0								
2	S-1	1.5/2.0 75%	8 19 10 8		BG	SAND, fine grained, little silt, brown to light brown, medium dense, damp to moist		
3								
3.0								
4	S-2	1.7/2.0 85%	2 3 7 12		BG	SILT, some sand (fine), trace clay; brown, loose, damp	#0 #0	
5								
5.0							#7	
6	S-3	1.1/2.0 55%	5 6 8 8	03	BG	SAND, fine grained, some silt, light brown, medium dense, damp	#2 #2	
7								
7.0								
8	S-4	1.4/2.0 70%	3 6 7 9		BG	SAND, fine grained, some silt, light brown, medium dense, damp	#5	
9								
9.0								
10	S-5	1.3/2.0 65%	3 6		BG	SAND, fine grained, trace silt, yellowish brown and white mottled, medium dense, damp Match to Sheet 2	#5 #8	

DRILLING CO.: EMTC BAKER REP.: MARTIN GTAUBE
DRILLER: G. BARNES BORING NO.: 1-GW07 SHEET 1 OF 2

Baker
Baker Environmental, Inc.

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: Site 1 - FCLDA RI/FS MCB Camp Lejeune
S.O. NO.: 19231 BORING NO.: 1-GW07

SAMPLE TYPE
S = Split Spoon A = Auger
T = Shelby Tube W = Wash
R = Air Rotary C = Core
D = Denison P = Piston
N = No Sample

DEFINITIONS
SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5')
RQD = Rock Quality Designation (%)
Lab Class. = USCS (ASTM D-2487) or AASHTO (ASTM D-3282)
Lab Moist. = Moisture Content (ASTM D-2216) Dry Weight Basis

Depth (Ft.)	Sample Type and No.	Samp. Rec. (Ft. & %)	SPT or RQD	Samp. Desig.	PID (ppm)	Visual Description	Well Installation Detail	Elevation
11			9/15			Continued from Sheet 1		
11.0								
12	S-6	1.4/2.0	6/10/11/13	06	BG	SAND, fine grained, trace silt, yellowish brown and white mottling (<12') to brown (>12'), medium dense, damp to wet	#5	BORING ADVANC.
13		70%						
13.0								
14	S-7	1.2/2.0	7/14/18/23		BG	SAND, fine grained, little silt, light brownish gray, dense, wet	#8	
15		60%						
15.0								
16	S-8	0.3/2.0	6/7/7/8		BG	SAND, fine grained, some silt, light brownish gray, medium dense, wet		
17		15%					#5	
17.0						17.0-17.7 SAND, fine grained, some silt, light brownish gray, wet		
18	S-9	1.8/2.0	6/8/9/7		BG	17.7-19.0 SAND, fine to medium grained, trace silt, orange, medium dense, wet		
19		90%						
19.0								
20	S-10	1.2/2.0	4/5/7/7		BG	SAND, fine grained, trace silt, yellowish orange, medium dense, wet	#7	
21		60%				Light brownish gray SILT from 20.8-21		
21.0							#5	
22	S-11	1.5/2.0	4/4/3/4		BG	SAND, fine to coarse grained, trace to some silt, trace fine gravel, trace clay, light brownish gray, loose, wet		
23		75%					#8	
23.0								
24	S-12	1.0/2.0	1/1/2/2		BG	SILT, some fine to coarse sand, trace clay, olivish gray, very loose, wet		
25		50%					#7	
25.0								
26						END OF BORING TOTAL DEPTH = 25.0'	#5	
27								
28								
29								
30						Match to Sheet 3		

DRILLING CO.: EMTC
DRILLER: G. BARNES
BAKER REP.: MARTIN G. TAUBE
BORING NO.: 1-GW07
SHEET 2 OF 2

Baker
Baker Environmental, Inc

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: Site 1 FCLOA RIFS MCB CAMP LEJEUNE
S.O. NO.: 62470-231 BORING NO.: 1-GW08
COORDINATES: EAST: 2501598.15 NORTH: 332740.42
ELEVATION: SURFACE: 19.4 TOP OF PVC CASING: 22.31

RIG: B-57	SPLIT SPOON	CASING	AUGERS	CORE BARREL	DATE	PROGRESS (FT)	WEATHER	WATER DEPTH (FT)	TIME
SIZE (DIAM.)	1 3/8" ID		6 1/4" ID		4-12-94	25'	SUNNY	13	
LENGTH	2.0'		5.0'						
TYPE	STD		HSA						
HAMMER WT.	140#								
FALL	30"								
STICK UP									

REMARKS: BACKGROUND (BG) HNU = 0.2 PPM

SAMPLE TYPE
S = Split Spoon A = Auger
T = Shelby Tube W = Wash
R = Air Rotary C = Core
D = Denison P = Piston
N = No Sample

WELL INFORMATION	DIAM	TYPE	TOP DEPTH (FT)	BOTTOM DEPTH (FT)
RISER	2"	PVC SCH 40	0	10.1
SCREEN	2"	PVC SCH 40	10.1	24.39

Depth (Ft.)	Sample Type and No.	Samp. Rec. Ft. & %	SPT or RQD	Lab. Class. or Pen. Rate	PID (ppm)	Visual Description	Well Installation Detail	Elevation Ft. MSL
1	LAB	S-0	100%	—	BG	SAND-FINE TRACE SILT DRY. LT. GRAY		
2		S-1	1.67/2	3 5 6 7	BG	SAND-FINE TRACE SILT DAMP. GRAY. MED. DENSE.	0	
3			83%					
4		S-2	1.25/2	3 3 6 6	BG	SAND-FINE TRACE SILT. DAMP. WHITE. LOOSE.		
5			63%					
6	LAB	S-3	2/2	5 6 7 7	BG	SILT TRACE SAND-FINE DAMP. BROWN. MED DENSE	2	
7			100%					
8		S-4	1.5/2	4 4 4 4	BG	SAND-FINE AND SILT DAMP. GRAY MOTTLED ORANGE LOOSE	5	
9			75%					
10		S-5	1.83/2	3 5	BG	SILT LITTLE SAND-FINE TRACE CLAY. 4" SILT SOME CLAY. TRACE SAND. GRAY BROWN. MOIST. MED DENSE Match to Sheet 2	8	

DRILLING CO.: EMTC BAKER REP.: KENNETH A. TUA
DRILLER: GENE BARNES BORING NO.: 1-GW08 SHEET 1 OF 2

TEST BORING AND WELL CONSTRUCTION RECORD

Baker Environmental, Inc.

PROJECT: Site 1 FLLDA REIFS CAMP LEJEUNE
S.O. NO.: 62470 - 231 BORING NO.: 1-GW08

SAMPLE TYPE
S = Split Spoon A = Auger
T = Shelby Tube W = Wash
R = Air Rotary C = Core
D = Denison P = Piston
N = No Sample

DEFINITIONS
SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5')
RQD = Rock Quality Designation (%)
Lab. Class. = USCS (ASTM D-2487) or AASHTO (ASTM D-3282)
Lab. Moist. = Moisture Content (ASTM D-2216) Dry Weight Basis
PID = Photoionization Detector

Depth (Ft.)	Sample Type and No.	Samp. Rec. (Ft. & %)	SPT or RQD	Lab. Class. or Pen. Rate	PID (ppm)	Visual Description	Well Installation Detail	Elevation
11	S-5	92%	4 5		BG	Continued from Sheet		
12	LAB S-6	1.83/2 92%	3 4 6 5	OG	BG	SAND-FINE LITTLE SILT MOIST TO WET. LT. GRAY MED DENSE	5	5
13						WATER @ 13'		
14	S-7	1.67/2 83%	2 3 3 4		BG	SAND-FINE AND SILT WET. GRAY. LOOSE		
15							8	
16	S-8	1.67/2 83%	3 5 6 7		BG	SAND-FINE LITTLE SILT WET. GRAY, MED DENSE.		
17								
18	S-9	1.35/2 68%	1 3 5 6		BG	SAND-FINE TRACE SILT WET. GRAY. LOOSE.		
19								
20	S-10	1.08/2 54%	2 3 3 4		BG	SAND-FINE LITTLE SILT WET. GRAY. LOOSE.	7	
21								
22	S-11	2/2 100%	3 4 4 5		BG	SAND-FINE TRACE SILT WET. GRAY.	8	
23								
24	S-12	1.33/2 67%	3 5 5 6		BG	SAND-FINE SOME SILT WET. GRAY TO GREEN. MED DENSE.	7	
25						END OF BORING 25'		
6								
7								
8								
9								
0						Match to Sheet		

DRILLING CO.: EMTC BAKER REP.: KENNETH A. TUA
DRILLER: GENE BARNES BORING NO.: 1-GW-08 SHEET 2 OF 2

TEST BORING AND WELL CONSTRUCTION RECORD

Baker Environmental, Inc

PROJECT: SITE 1 FCLDA RIFS MCB CAMP LEJEUNE
S.O. NO.: 62470-231 BORING NO.: 1-GW09
COORDINATES: EAST: 2501628.22 NORTH: 333163.09
ELEVATION: SURFACE: 14.9 TOP OF PVC CASING: 17.62

RIG: B-57

	SPLIT SPOON	CASING	AUGERS	CORE BARREL	DATE	PROGRESS (FT)	WEATHER	WATER DEPTH (FT)	TIME
SIZE (DIAM.)	1 3/8" ID		6 1/4" ID		4-10-94	21	SUNNY	8	
LENGTH	2.0'		5.0'						
TYPE	STD		HSA						
HAMMER WT.	140 lb								
FALL	30"								
STICK UP									

REMARKS: BACKGROUND (BG) HNU = 0.2 PPM

SAMPLE TYPE
S = Split Spoon A = Auger
T = Shelby Tube W = Wash
R = Air Rotary C = Core
D = Denison P = Piston
N = No Sample

WELL INFORMATION	DIAM	TYPE	TOP DEPTH (FT)	BOTTOM DEPTH (FT)
RISER	2"	PVC SCH 40	0	6.15
SCREEN	2"	PVC SCH 40	6.15	20.41

Depth (Ft.)	Sample Type and No.	Samp. Rec. Ft. & %	SPT or RQD	Lab. Class. or Pen. Rate	PID (ppm)	Visual Description	Well Installation Detail	Elevation Ft. MSL
1	LAB				BG	SAND-FINE TRACE SILT DRY.	0	0
2	S-1	1.67/2 83%	5 5 5 5		BG	SAND-FINE TRACE SILT DAMP. GRAY. 10" BROWN MED DENSE	7	2
3								
4	S-2	1.5/2 75%	5 4 4 3		BG	SAND-FINE TRACE SILT DAMP. LT. BROWN LOOSE	2	
5								
6	LAB S-3	1.33/2 67%	4 4 5 5	03	BG	SAND-FINE TRACE SILT DAMP. LT. GRAY LOOSE		
7							5	5
8	S-4	1.5/2 75%	7 5 6 7		BG	SAND-FINE LITHIE SILT MOIST. BROWN WATER @ 8' MED DENSE	8	
9								
10	S-5	2/2	5 6		BG	SAND-FINE TRACE SILT WET LT. GRAY MED DENSE		

Match to Sheet 2

DRILLING CO.: EMTC BAKER REP.: KENNETH A. TUA
DRILLER: GENE BARNES BORING NO.: 1-GW-09 SHEET 1 OF 2

TEST BORING AND WELL CONSTRUCTION RECORD

Baker Environmental, Inc

PROJECT: Site 1 FLDA RI/FS MCB CAMP LEJEUNE
S.O. NO.: 62470-231 BORING NO.: 1-GW-09

SAMPLE TYPE
S = Split Spoon A = Auger
T = Shelby Tube W = Wash
R = Air Rotary C = Core
D = Denison P = Piston
N = No Sample

DEFINITIONS
SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5')
RQD = Rock Quality Designation (%)
Lab. Class. = USCS (ASTM D-2487) or AASHTO (ASTM D-3282)
Lab. Moist. = Moisture Content (ASTM D-2216) Dry Weight Basis
PID = Photoionization Detector

Depth (Ft.)	Sample Type and No.	Samp. Rec. (Ft. & %)	SPT or RQD	Lab. Class. or Pen. Rate	PID (ppm)	Visual Description	Well Installation Detail	Elevation
11	S-5	100%	6 6		BG	Continued from Sheet 1		
12	S-6	1.83/2 93%	3 2 3 2		BG	SAND-FINE TRACE SILT WET. GRAY LOOSE	5 8 5	
13								
14	S-7	1.67/2 83%	3 2 3 3		BG	CLAY SILT TRACE SAND-FINE WET. BROWN MOTTLED ORANGE		
15								
16	S-8	1.67/2 83%	3 6 4 3		BG	SILT TRACE SAND-FINE WET. BROWN MED DENSE	7	
17								
18	S-9	1.67/2 83%	WOH 1 6 8		BG	SAND-FINE AND SILT WET. BROWN LOOSE	8	
19								
20	S-10	.83/2 42%	1 2 3 2		BG	SAND-FINE TRACE SAND-MEDIUM WET RUST COLOR.	7	
21						END OF BORING 21'		
2								
3								
4								
5								
6								
7								
8								
0						Match to Sheet		

DRILLING CO.: EMTC BAKER REP.: KENNETH A. TUA
DRILLER: 62470-231 BORING NO.: 1-GW-09 SHEET 2 OF 2

Baker
Baker Environmental, Inc

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SITE 1 FCLDA RI/FS MCB CAMP LEJEUNE
S.O. NO.: 62470-231 BORING NO.: 1-GW-10
COORDINATES: EAST: 2502105.18 NORTH: 333902.57
ELEVATION: SURFACE: 15.3 TOP OF PVC CASING: 18.07

RIG: B-57					DATE	PROGRESS (FT)	WEATHER	WATER DEPTH (FT)	TIME
	SPLIT SPOON	CASING	AUGERS	CORE BARREL					
SIZE (DIAM.)	1 3/8" ID		6 1/4" ID		4-11-94	24	OVERCAST	13	
LENGTH	2.0'		5.0'						
TYPE	STD		HSA						
HAMMER WT.	140#								
FALL	30"								
STICK UP									

REMARKS: BACKGROUND (BG) HNU = 0.3 PPM

SAMPLE TYPE
S = Split Spoon A = Auger
T = Shelby Tube W = Wash
R = Air Rotary C = Core
D = Denison P = Piston
N = No Sample

WELL INFORMATION	DIAM	TYPE	TOP DEPTH (FT)	BOTTOM DEPTH (FT)
RISER	2"	PVC SCH 40	0	9.12
SCREEN	2"	PVC SCH 40	9.12	23.4

Depth (Ft.)	Sample Type and No.	Samp. Rec. Ft. & %	SPT or RQD	Lab. Class. or Pen. Rate	PID (ppm)	Visual Description	Well Installation Detail	Elevation Ft. MSL
0–1 LAB	00	100%	—	00	BG	SAND-F TRACE SILT DAMP. LT. GRAY.		
1–3	S-1	1.67/2 83%	7 4 12 14		BG	SAND-FINE TRACE SILT DAMP. WHITE. MED DENSE	0 0	
3–5	S-2	1.33/2 67%	7 5 6 5		BG	SAND-FINE TRACE SILT DAMP. WHITE. MED DENSE		
5–7 LAB	S-3	1.41/2 71%	9 9 15 9	03	BG	SAND-FINE LITTLE SILT MOIST. BROWN. MED DENSE	2 2	
7–9	S-4	1.67/2 83%	7 4 8 12		BG	SAND-FINE AND SILT MOIST. LT. BROWN MED DENSE	7 5 5	
9–10	S-5	1.41/2	5 4		BG	SILT LITTLE SAND-FINE MOIST. YELLOW BROWN MOTTLED GRAY LOOSE	8	

Match to Sheet 2

DRILLING CO.: EMTC BAKER REP.: KENNETH A. TUA
DRILLER: GENE BARNES BORING NO.: 1-GW-10 SHEET 1 OF 2

TEST BORING AND WELL CONSTRUCTION RECORD

Baker Environmental, Inc

PROJECT: SITE 1 FCLDA RIFS MCB CAMP LEJEUNE
S.O. NO.: 62470-231 BORING NO.: 1-GW-10

SAMPLE TYPE
S = Split Spoon A = Auger
T = Shelby Tube W = Wash
R = Air Rotary C = Core
D = Denison P = Piston
N = No Sample

DEFINITIONS
SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5')
RQD = Rock Quality Designation (%)
Lab. Class. = USCS (ASTM D-2487) or AASHTO (ASTM D-3282)
Lab. Moist. = Moisture Content (ASTM D-2216) Dry Weight Basis
PID = Photoionization Detector

Depth (Ft.)	Sample Type and No.	Samp. Rec. (Ft. & %)	SPT or RQD	Lab. Class. or Pen. Rate	PID (ppm)	Visual Description	Well Installation Detail	Elevation
11	S-5	71%	3 3		BG	Continued from Sheet		
12	LAB S-6	1.25/2 63%	3 4 5 7	CC	BG	SILT TRACE SAND-FINE TRACE CLAY MOIST. ORANGE MOTTLED GRAY. LOOSE WATER @ 13'		
14	S-7	1.67/2 83%	5 7 7 9		BG	SILT TRACE SAND-FINE TRACE CLAY WET. YELLOW MED DENSE	8	
16	S-8	1.5/2 75%	3 3 4 5		BG	SAND-FINE AND SILT TRACE SAND COARSE. WET. ORANGE & GRAY LOOSE		
18	S-9	1.83/2 92%	1 1 1 12		BG	SAND-FINE LITTLE SILT. WET. GREEN. VERY LOOSE	7	
20	S-10	2/2 100%	1 12 1 12		BG	SAND-FINE LITTLE SILT TRACE SAND-C WET. GREEN	5	5
22	S-11	.33/2 92%	1 2 1 2		BG	6" SAND-FINE LITTLE SILT GREEN. 2" WHITE MATERIAL WITH "COTTAGE CHEESE" TEXTURE	8	
24	N				BG		7	
						END OF BORING 24		
						Match to Sheet		

DRILLING CO.: EMTC
DRILLER: GENE BARNES
BAKER REP.: KENNETH A. TUA
BORING NO.: 1-GW-10
SHEET 2 OF 2

Baker
Baker Environmental, Inc

TEST BORING AND WELL CONSTRUCTION RECORI

PROJECT: SITE 1 FCLDA RI/FS MCB CAMP LEJEUNE
S.O. NO.: 62470-231 BORING NO.: 1-GW-11
COORDINATES: EAST: 2502786.13 NORTH: 334181.98
ELEVATION: SURFACE: 10.4 TOP OF PVC CASING: 13.18

RIG: B-57

	SPLIT SPOON	CASING	AUGERS	CORE BARREL	DATE	PROGRESS (FT)	WEATHER	WATER DEPTH (FT)	TIME
SIZE (DIAM.)	1 3/8" ID		6 1/4" ID		4-10-94	17	SUNNY	4	
LENGTH	2.0'		5.0'						
TYPE	STD		HSA						
HAMMER WT.	140#								
FALL	30"								
STICK UP									

REMARKS: BACKGROUND (BG) HNU = 0.3 ppm

SAMPLE TYPE
S = Split Spoon A = Auger
T = Shelby Tube W = Wash
R = Air Rotary C = Core
D = Denison P = Piston
N = No Sample

WELL INFORMATION	DIAM	TYPE	TOP DEPTH (FT)	BOTTOM DEPTH (FT)
RISER	2"	PVC SCH 40	0	2.06
SCREEN	2"	PVC SCH 40	2.06	16.4

Depth (Ft.)	Sample Type and No.	Samp. Rec. Ft. & %	SPT or RQD	Lab. Class. or Pen. Rate	PID (ppm)	Visual Description	Well Installation Detail	Elevation Ft. MSL
1	LAB			00	BG	SAND-FINE SOME SILT DAMP. GRAY	1 / 2 / 7 / 1 / 2	
2	LAB	S-1	1.67/2 (83%)	4 8 12 19	BG	SAND-FINE TRACE SILT DAMP. BROWN. MED DENSE		
3								
4		S-2	1.67/2 (83%)	3 5 6 6	BG	SAND-FINE TRACE SILT MOIST TO WET. WATER @ 4' BROWN MED DENSE.		
5								
6		S-3	1.5/2 (75%)	5 6 3 4	BG	SAND-FINE LITTLE SILT WET. BROWN MOTTLED GRAY. LOOSE	5 / 8 / 5	
7								
8		S-4	.67/2 (33%)	3 4 5 4	BG	3" CLAY TRACE SAND-FINE BROWN 5" GRAVEL-FINE WHITE STIFF		
9								
10		S-5	1.25/2	3 5	BG	GRAVEL FINE TRACE SILT TRACE CLAY WET. WHITE MED DENSE		

Match to Sheet 2

DRILLING CO.: EMTC BAKER REP.: KENNETH A. TUA
DRILLER: GENE BARNES BORING NO.: 1-GW-11 SHEET 1 OF 2

TEST BORING AND WELL CONSTRUCTION RECORD

Baker Environmental, Inc

PROJECT: SITE 1 FLOA RIFS CAMP LEJEUNE
S.O. NO.: 62470-231 BORING NO.: 1-GW-11

SAMPLE TYPE
S = Split Spoon A = Auger
T = Shelby Tube W = Wash
R = Air Rotary C = Core
D = Denison P = Piston
N = No Sample

DEFINITIONS
SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5')
RQD = Rock Quality Designation (%)
Lab. Class. = USCS (ASTM D-2487) or AASHTO (ASTM D-3282)
Lab. Moist. = Moisture Content (ASTM D-2216) Dry Weight Basis
PID = Photoionization Detector

Depth (Ft.)	Sample Type and No.	Samp. Rec. (Ft. & %)	SPT or RQD	Lab. Class. or Pen. Rate	PID (ppm)	Visual Description	Well Installation Detail	Elevation
11	S-5	63%	5/4		BG	Continued from Sheet	8	
12	S-6	1.16/2 58%	13/29/58/12		BG	2" SHELL FRAGMENTS. LIMESTONE PIECES SAND-FINE TRACE SILT. WHITE. WET. VERY DENSE	7	
13								
14	S-7	1.42/2 21%	50/4		BG	SHELL FRAGMENT SOME LIMESTONE FRAGMENTS. TRACE SILT. BROWN. WET. VERY DENSE	5 8	5
15								
16	S-8	.58/2 29%	50/5		BG	LIMESTONE FRAG. TRACE SILT TRACE SAND-FINE. SHELL FRAG. BROWN. WET VERY DENSE	7	
17						END OF BORING 17'		
8								
9								
0								
1								
2								
3								
4								
5								
6								
7								
8								
9								
0						Match to Sheet		

DRILLING CO.: EMTC
DRILLER: GENE BARNES
BAKER REP.: KENNETH A. TUA
BORING NO.: 1-GW-11
SHEET 2 OF 2

Baker
Baker Environmental, Inc

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SITE 1 FCLOA RI/FS MCB CAMP LEJEUNE
S.O. NO.: 62470-231 BORING NO.: 1-GW-12
COORDINATES: EAST: 2503317.40 NORTH: 334050.00
ELEVATION: SURFACE: 13.8 TOP OF PVC CASING: 16.33

RIG: B-57

	SPLIT SPOON	CASING	AUGERS	CORE BARREL	DATE	PROGRESS (FT)	WEATHER	WATER DEPTH (FT)	TIME
SIZE (DIAM.)	1 3/8" ID		6 1/4" ID		4-10-94	18	Sunny	5	
LENGTH	2.0'		5.0'						
TYPE	STD		HSA						
HAMMER WT.	140#								
FALL	30"								
STICK UP									

REMARKS: BACKGROUND (BG) HNU = 0.2

SAMPLE TYPE
S = Split Spoon A = Auger
T = Shelby Tube W = Wash
R = Air Rotary C = Core
D = Denison P = Piston
N = No Sample

WELL INFORMATION	DIAM	TYPE	TOP DEPTH (FT)	BOTTOM DEPTH (FT)
RISER	2"	PVC SCH 40	0	3.13
SCREEN	2"	PVC SCH 40	3.13	17.39

Depth (Ft.)		Sample Type and No.	Samp. Rec. Ft. & %	SPT or RQD	Lab. Class. or Pen. Rate	PID (ppm)	Visual Description	Well Installation Detail	Elevation Ft. MSL
1	LAB	00			00	BG	SAND-F TRACE SILT DAMP. BROWN	1 2	
2	LAB	S-1	1.67/2 83%	4 4 5 6	01	BG	SAND-FINE TRACE SILT DAMP. LT. BROWN LOOSE	5 7	
3									
4		S-2	1.67/2 83%	3 4 9 11		BG	SAND-FINE TRACE SILT MOIST. LT. BROWN MED DENSE	8	
5							WATER @ 5'		
6		S-3	1.67/2 83%	11 13 15 19		BG	SAND-FINE TRACE SILT WET. GRAY. MED DENSE		
7									
8		S-4	1.33/2 67%	7 6 7 10		BG	SAND-FINE TRACE SILT WET. GRAY MED DENSE		
9									
10		S-5	1.41/2	2 7		BG	SAND-FINE TRACE SILT WET. 7" BROWN. 10" GRAY MED DENSE		

Match to Sheet 2

DRILLING CO.: EMTC BAKER REP.: KENNETH A. TUA
DRILLER: GENE BARNES BORING NO.: 1-GW-12 SHEET 1 OF 2

TEST BORING AND WELL CONSTRUCTION RECORD

Baker Environmental, Inc

PROJECT: Site 1 FLGDA RI/FS MCB CAMP LEJEUNE
S.O. NO.: 62470-231 BORING NO.: 1-GW-12

SAMPLE TYPE
S = Split Spoon A = Auger
T = Shelby Tube W = Wash
R = Air Rotary C = Core
D = Denison P = Piston
N = No Sample

DEFINITIONS
SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5')
RQD = Rock Quality Designation (%)
Lab. Class. = USCS (ASTM D-2487) or AASHTO (ASTM D-3282)
Lab. Moist. = Moisture Content (ASTM D-2216) Dry Weight Basis
PID = Photoionization Detector

Depth (Ft.)	Sample Type and No.	Samp. Rec. (Ft. & %)	SPT or RQD	Lab. Class. or Pen. Rate	PID (ppm)	Visual Description	Well Installation Detail	Elevation
11	S-5	71%	6 9		BG	Continued from Sheet		
12	S-6	2/2 100%	3 5 5 9		BG	SAND-FINE TRACE SILT WET. GRAY MED DENSE	5 8 7 5	
13								
14	S-7	2/2 100%	3 4 5 5		BG	SAND-FINE TRACE SILT WET. WHITE MED DENSE	8	
15								
16	S-8	2/2 100%	2 3 2 2		BG	SAND-FINE TRACE SAND-COARSE. GRAY 4" BROWN WET LOOSE		
17	N						7	
18						END OF BORING 17'		
19								
20								
1								
2								
3								
4								
5								
6								
7								
8								
9								
0						Match to Sheet		

DRILLING CO.: EMTC BAKER REP.: KENNETH A. TUA
DRILLER: GENE BARNES BORING NO.: 1-GW-12 SHEET 2 OF 2

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: Site 1 - FCLDA RI/FS MCB Camp Lejeune
S.O. NO.: 19231 BORING NO.: 1GW13
COORDINATES: EAST: 2503931.1788 NORTH: 332860.0163
ELEVATION: SURFACE: 29.5 TOP OF PVC CASING: 32.33

RIG: MOBILE B-57

	SPLIT SPOON	CASING	AUGERS	CORE BARREL	DATE	PROGRESS (FT)	WEATHER	WATER DEPTH (FT)	TIME
SIZE (DIAM.)	1-3/8" ID		3¼" / 6¼" ID		4-9-94	0.0-33.0	CLOUDY ±70°	18.8	Boring Advance.
LENGTH	2.0'		5.0'						
TYPE	Std.		HSA						
HAMMER WT.	140#								
FALL	30"								
STICK UP									

REMARKS: Boring sampled to 33.0'. HNu BG = 0.2 ppm

SAMPLE TYPE
S = Split Spoon A = Auger
T = Shelby Tube W = Wash
R = Air Rotary C = Core
D = Denison P = Piston
N = No Sample

WELL INFORMATION	DIAM	TYPE	TOP DEPTH (FT)	BOTTOM DEPTH (FT)
Well Casing	2"	PVC Threaded - Sch. 40	HAS BEEN C + 4.24 ft	16.01 bgs
Well Screen	2"	PVC Slotted No. 10 - Sch. 40	16.01 bgs	30.37 bgs

Depth (Ft.)	Sample Type and No.	Samp. Rec. Ft. & %	SPT or RQD	Samp. Desig.	PID (ppm)	Visual Description	Well Installation Detail	Elevation
1	1.0			00	BG	SAND, fine grained, little silt, trace roots (AUGERED 0.0'-1.0')		
2		S-1	2.0/2.0 100%	8 6 8 9	BG	SAND, fine grained, trace silt, yellowish brown to light brown, medium dense, damp	#0	
3	3.0							
4		S-2	1.5/2.0 75%	4 5 6 5	BG	SAND, fine grained, trace silt, light brown, medium dense, damp		
5	5.0						#0	
6		S-3	1.5/2.0 75%	4 4 4 5	BG	SAND, fine grained, little silt, light brownish gray, loose, damp	#7	
7	7.0							
8		S-4	0.7/2.0 35%	8 12 6 6	04 BG	SAND, fine grained, little silt, trace clay, light brownish gray, medium dense, damp		
9	9.0							
10		S-5	1.4/2.0 70%	8 12	BG	SAND, fine grained, trace silt, light brownish gray to white, med. dense, moist Match to Sheet 2	#0	

DRILLING CO.: EMTC BAKER REP.: MARTIN G. TAUBE
DRILLER: G. BARNES BORING NO.: 1GW13 SHEET 1 OF 3

Baker
Baker Environmental, Inc

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: Site 1 - FCLDA RI/FS MCB Camp Lejeune
S.O. NO.: 19231 BORING NO.: 1-GW13

SAMPLE TYPE
S = Split Spoon A = Auger
T = Shelby Tube W = Wash
R = Air Rotary C = Core
D = Denison P = Piston
N = No Sample

DEFINITIONS
SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5')
RQD = Rock Quality Designation (%)
Lab Class. = USCS (ASTM D-2487) or AASHTO (ASTM D-3282)
Lab Moist. = Moisture Content (ASTM D-2216) Dry Weight Basis

Depth (Ft.)	Sample Type and No.	Samp. Rec. (Ft. & %)	SPT or RQD	Samp. Desig.	PID (ppm)	Visual Description	Well Installation Detail	Elevation
11			15 16			Continued from Sheet 1	#0 #0	
11.0						SAND, fine grained, trace silt, white to light brown, medium dense, damp to moist		
12	S-6	1.4/2.0 70%	8 8 7 11		BG			
13	13.0						#2 #7 #2	
14	S-7	1.6/2.0 80%	8 12 13 12		BG	SAND, fine grained, little to some silt, light brownish gray, medium dense, damp to moist	#5	
15	15.0							
16	S-8	1.6/2.0 80%	8 7 7 6	08	BG	SILT and SAND fine grained, trace clay, light brownish gray to white, medium dense, damp		
17	17.0							
18	S-9	2.0/2.0 100%	8 11 17 16		BG	SAND, fine grained, little to some silt, trace clay, light brownish gray, medium dense, damp to moist to wet	#5	BORING ADVANC.
19	19.0							
20	S-10	1.4/2.0 70%	2 3 2 4		BG	SAND, fine grained, and SILT, light brownish gray to white, loose, wet	#8	
21	21.0							
22	S-11	1.1/2.0 55%	4 4 5 7		BG	SILT, little sand (fine), light brownish gray to white, loose, wet	#5	
23	23.0							
24	S-12	1.6/2.0 80%	3 4 4 6		BG	SILT, little sand (fine), light brownish gray, loose, wet		
24.0						clay seam from 23.8'-24.0'		
25	25.0					SAND, fine grained, little silt, yellowish orange, loose, wet		
26	S-13	1.4/2.0 70%	8 12 14 9		BG	SAND, fine to medium grained, trace silt, orangish brown, medium dense, wet	#7	
27	27.0						#5	
28	S-14	1.0/2.0 50%	7 8 11 13		BG	SAND, fine grained, trace silt, orangish brown, medium dense, wet	#8	
29	29.0							
30		0.6/2.0 30%	2 3		BG	SAND, fine grained, trace silt, orangish brown, loose, wet		

Match to Sheet 3

DRILLING CO.: EMTC BAKER REP.: MARTIN G. TAUBE
DRILLER: G. BARNES BORING NO.: 1GW13 SHEET 2 OF 3

TEST BORING AND WELL CONSTRUCTION RECORD

Baker Environmental, Inc

PROJECT: Site 1 - FCLDA RI/FS MCB Camp Lejeune
S.O. NO.: 19231 BORING NO.: 1-GW13

SAMPLE TYPE
S = Split Spoon A = Auger
T = Shelby Tube W = Wash
R = Air Rotary C = Core
D = Denison P = Piston
N = No Sample

DEFINITIONS
SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5')
RQD = Rock Quality Designation (%)
Lab Class. = USCS (ASTM D-2487) or AASHTO (ASTM D-3282)
Lab Moist. = Moisture Content (ASTM D-2216) Dry Weight Basis

Depth (Ft.)	Sample Type and No.	Samp. Rec. (Ft. & %)	SPT or RQD	Samp. Desig.	PID (ppm)	Visual Description	Well Installation Detail	Elevation
31	31.0		5 3			Continued from Sheet 2	#7 #5	
32		1.0 2.0	2 3 5		BG	SAND fine to medium grained, trace silt, light brown, loose, wet. CLAY SEAM FROM 32.5'-32.7'	#5	
33	33.0	S-15 50%	4			END OF BORING TOTAL DEPTH = 33.0'		
34								
35								
36								
37								
38								
39								
40								
41								
42								
43								
44								
45								
46								
47								
48								
49								
50						Match to Sheet ____		

DRILLING CO.: EMTC
DRILLER: G. BARNES
BAKER REP.: MARTIN G. TAUBE
BORING NO.: 1GW13 SHEET 3 OF 3

Baker

Baker Environmental, Inc

TEST BORING AND WELL CONSTRUCTION RECORI

PROJECT: SITE 1 FCLDA RI/FS MCB CAMP LEJEUNE
S.O. NO.: 62470-231 BORING NO.: 1-GW-16
COORDINATES: EAST: 2502017.42 NORTH: 332670.11
ELEVATION: SURFACE: 20.7 TOP OF PVC CASING: 23.71

RIG: B-57

	SPLIT SPOON	CASING	AUGERS	CORE BARREL	DATE	PROGRESS (FT)	WEATHER	WATER DEPTH (FT)	TIME
SIZE (DIAM.)	1 3/8" ID		6 1/4" ID		4-13-94	27	RAIN	14	
LENGTH	2.0'		5.0'						
TYPE	STD		HSA						
HAMMER WT.	140#								
FALL	30"								
STICK UP									

REMARKS: BACKGROUND (BG) HNU = 0.2 ppm

SAMPLE TYPE
S = Split Spoon A = Auger
T = Shelby Tube W = Wash
R = Air Rotary C = Core
D = Denison P = Piston
N = No Sample

WELL INFORMATION	DIAM	TYPE	TOP DEPTH (FT)	BOTTOM DEPTH (FT)
RISER	2"	PVC SCH 40	0	12.08
SCREEN	2"	PVC SCH 40	12.08	26.39

Depth (Ft.)	Sample Type and No.	Samp. Rec. Ft. & %	SPT or RQD	Lab. Class. or Pen. Rate	PID (ppm)	Visual Description	Well Installation Detail	Elevation Ft. MSL
1						1' FILL SAND-FINE TRACE SILT GRAY		
2	LAB /	100%	-	01	BG	SAND-FINE LITTLE SILT. DAMP. LT. BROWN		
3								
4	S-2	1.67/2 83%	4 5 3 2		BG	SAND-FINE LITTLE SILT DAMP. LT. BROWN LOOSE		
5								
6	S-3	1/2 50%	5 5 4 5		BG	SAND-FINE LITTLE SILT DAMP. LT. BROWN LOOSE	7 0 0	
7								
8	LAB S-4	1.67/2 83%	5 3 4 5	04	BG	SAND-FINE AND SILT DAMP. ORANGE LOOSE		
9							2 2	
10	S-5	1.67/2	4 4		BG	SAND-FINE TRACE SILT DAMP. ORANGE 4" WHITE		

Match to Sheet 2 5 5

DRILLING CO.: EATC BAKER REP.: KENNETH A. TUA
DRILLER: GENE BARNES BORING NO.: 1-GW-16 SHEET 1 OF 2

TEST BORING AND WELL CONSTRUCTION RECORD

Baker Environmental, Inc

PROJECT: Site1 FCLDA RIFS MCB CAMP LEJEUNE
S.O. NO.: 62470 - 231 BORING NO.: 1-GW-16

SAMPLE TYPE
S = Split Spoon A = Auger
T = Shelby Tube W = Wash
R = Air Rotary C = Core
D = Denison P = Piston
N = No Sample

DEFINITIONS
SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5')
RQD = Rock Quality Designation (%)
Lab. Class. = USCS (ASTM D-2487) or AASHTO (ASTM D-3282)
Lab. Moist. = Moisture Content (ASTM D-2216) Dry Weight Basis
PID = Photoionization Detector

Depth (Ft.)	Sample Type and No.	Samp. Rec. (Ft. & %)	SPT or RQD	Lab. Class. or Pen. Rate	PID (ppm)	Visual Description	Well Installation Detail	Elevation
11	S-5	83%	5 7		BG	Continued from Sheet	7	
12	LAB S-6	1.25/2 63%	6 5 6 7	CC	BG	SAND-FINE LITTLE SILT DAMP. BROWN MED DENSE		
13								
14	S-7	1.67/2 83%	5 9 10 11		BG	SAND-FINE SOME SILT MOIST TO WET WATER @ 14'		
15								
16	S-8	1.16/2 58%	9 11 13 15		BG	SAND-FINE SOME SILT WET. DARK BROWN MED DENSE	8	
17								
18	S-9	2/2 100%	9 12 11 13		BG	SAND-FINE LITTLE SILT WET. WHITE MED DENSE	5 5	
19								
20	S-10	1.25/2 63%	3 4 8 17		BG	SAND-FINE TRACE SILT WET, LT. BROWN MED DENSE		
21								
22	S-11	1.41/2 71%	3 5 7 50/2		BG	SAND-FINE TRACE SILT WET. WHITE MED. DENSE	7	
23								
24	S-12	1.5/2 75%	6 8 9 11		BG	SAND-FINE LITTLE SILT WET WHITE/BROWN MED DENSE	8	
25								
26	N					NO SAMPLE	7	
27								
28						END OF BORING @ 27'		
30						Match to Sheet		

DRILLING CO.: EMTC BAKER REP.: KENNETH A. TUA
DRILLER: GENE BARNES BORING NO.: 1-GW-16 SHEET 2 OF 2

TEST BORING AND WELL CONSTRUCTION RECORD

Baker Environmental, Inc

PROJECT: SITE 1 FT GILA RIFS MCB CAMP LEJEUNE
S.O. NO.: 62470-221 BORING NO.: 1-GW-17
COORDINATES: EAST: 2502796.83 NORTH: 333662.02
ELEVATION: SURFACE: 20.1 TOP OF PVC CASING: 23.00

RIG: B-61	SPLIT SPOON	CASING	AUGERS	CORE BARREL	DATE	PROGRESS (FT)	WEATHER	WATER DEPTH (FT)	TIME
SIZE (DIAM.)	1 3/8" ID		6 1/4" ID		4-19-94	25	SUNNY	12'	
LENGTH	2.0'		5.0'						
TYPE	STD		HSA						
HAMMER WT.	140 lb								
FALL	30"								
STICK UP									

REMARKS: BACKGROUND (BG) HNU = 0.2 ppm

SAMPLE TYPE
S = Split Spoon A = Auger
T = Shelby Tube W = Wash
R = Air Rotary C = Core
D = Denison P = Piston
N = No Sample

WELL INFORMATION	DIAM	TYPE	TOP DEPTH (FT)	BOTTOM DEPTH (FT)
RISER	2"	PVC SCH 40	0	10.04
SCREEN	2"	PVC SCH 40	10.04	24.39

Depth (Ft.)	Sample Type and No.	Samp. Rec. Ft. & %	SPT or RQD	Lab. Class. or Pen. Rate	PID (ppm)	Visual Description	Well Installation Detail	Elevation Ft. MSL
1	LAB 00	100%	—	00	BG	SAND-FINE LITHIC SILT DRY. BROWN.		
2	S-1	2/2	6 9 10		BG	SAND-FINE LITHIC SILT DRY. BROWN MED DENSE		
3		100%	13				0	0
4	S-2	1.1/2	6 4 9		BG	SAND-FINE LITHIC SILT DRY. 10" BROWN 4" GRAY MED DENSE	7	
5		58%	13					
6	S-3	2/2	6 4 4		BG	SAND-FINE SOME SILT DRY. BLACK. LOOSE		
7		100%	5				2	2
8	S-4	1.16/2	6 9 9		BG	SAND-FINE SOME SILT DAMP. BLACK MED DENSE		
9		58%	5				5	5
10	LAB S-5	1.67/2	5 4	05	BG	SAND-FINE SOME SILT LT. BROWN. LOOSE	8	

Match to Sheet 2

DRILLING CO.: EMTC BAKER REP.: KENNETH A. TUA
DRILLER: GENE BARNES BORING NO.: 1-GW-17 SHEET 1 OF 2

Baker Environmental, Inc

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SITE 1 FCLDA RI/FS MCB CAMP LEJEUNE
S.O. NO.: 62470-231 BORING NO.: 1-GW-17

SAMPLE TYPE
S = Split Spoon A = Auger
T = Shelby Tube W = Wash
R = Air Rotary C = Core
D = Denison P = Piston
N = No Sample

DEFINITIONS
SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5')
RQD = Rock Quality Designation (%)
Lab. Class. = USCS (ASTM D-2487) or AASHTO (ASTM D-3282)
Lab. Moist. = Moisture Content (ASTM D-2216) Dry Weight Basis
PID = Photoionization Detector

Depth (Ft.)	Sample Type and No.	Samp. Rec. (Ft. & %)	SPT or RQD	Lab. Class. or Pen. Rate	PID (ppm)	Visual Description	Well Installation Detail	Elevation
11 LAB	S-5	2/2 85%	3 3		BG	Continued from Sheet		
12	S-6	2/2 100%	2 3 2 3		BG	SAND-FINE LITTLE SILT. WET. LT. BROWN. WATER @ 12' 3" CLAY. GRAY		
14	S-7	2/2 100%	5 6 7 9		BG	SAND-FINE SOME SILT TRACE CLAY. WET. WHITE. MED DENSE	8	
16	S-8	2/2 100%	2 2 2 3		BG	SAND-FINE AND SILT WET. ORANGE MOTTLED GRAY LOOSE		
18	S-9	1.25/2 63%	1 1 1/12		BG	SAND-FINE AND SILT. WET. ORANGE VERY LOOSE	5	5
20	S-10	.83/2 42%	1 WOH 5 15		BG	SAND-FINE AND SILT WET. GRAY TRACE CLAY 3" LIMESTONE FRAG. WITH TE	7	
22	S-11	.5/2 25%	17 5 3 1		BG	CEMENTED LIMESTONE AND SHELL FRAG. WITH TE. WET. LOOSE.	8	
24	S-12	1.1C/2 58%	C 3 4 4		BG	SAND-FINE SOME SILT. WET. BROWN LOOSE.	7	
25						END OF BORING 25'		
6								
7								
8								
0						Match to Sheet		

DRILLING CO.: EMTC BAKER REP.: KENNETH A. TUA
DRILLER: GENE BARNES BORING NO.: 1-GW-17 SHEET 2 OF 2

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: Site 1 - FCLDA RI/FS MCB Camp Lejeune
S.O. NO.: 19231 BORING NO.: 1GW16DW
COORDINATES: EAST: 2501994.83 NORTH: 332654.53
ELEVATION: SURFACE: 20.8 TOP OF PVC CASING: 23.50

RIG: #48

	SPLIT SPOON	CASING	AUGERS	CORE BARREL	DATE	PROGRESS (FT)	WEATHER	WATER DEPTH (FT)	TIME
SIZE (DIAM.)	1-3/8" ID	8"			5-2-94	0-72'	overcast, cool (50's)	16.5	
LENGTH	2.0'	72.0'			5-4-94	72-122'	overcast, cool (60's)		
TYPE	Std.	Steel							
HAMMER WT.	140#								
FALL	30"								
STICK UP									

REMARKS: Boring sampled to 122.0'. HNu background range .3 to .4 ppm.

SAMPLE TYPE
S = Split Spoon A = Auger
T = Shelby Tube W = Wash
R = Air Rotary C = Core
D = Denison P = Piston
N = No Sample

WELL INFORMATION	DIAM	TYPE	TOP DEPTH (FT)	BOTTOM DEPTH (FT)
Well Casing	2"	PVC Threaded - Sch. 40	+2.5'	107.0'(bgs)
Well Screen	2"	PVC Slotted No. 10 - Sch. 40	107.0'(bgs)	122.0'(bgs)

Depth (Ft.)	Sample Type and No.	Samp. Rec. Ft. & %	SPT or RQD	Samp. Desig.	PID (ppm)	Visual Description	Well Installation Detail	Elevation
1 1.0		–	–	00	.9	SILTY SAND, fine grained Brown to tan, v. loose, damp.	#0 8" steel casing	
2	S-1	1.5/2.0 75%	5 14 30 24		1.2			
3 3.0								
4	S-2	1.4/2.0 70%	9 11 9 7		1.1	SAND, fine grained w/ trace silt. Brown to brownish orange, loose to medium dense to dense, damp.	#7	
5 5.0								
6	S-3	1.3/2.0 65%	5 6 5 3		1.9			
7 7.0								
8	S-4	.8/2.0 40%	3 4 3 3	04	–			
9 9.0								
10	S-5	1.2/2.0 60%	4 5		1.1	Match to Sheet 2	#0	

DRILLING CO.: Hardin-Huber, Inc. BAKER REP.: J. E. Zimmerman
DRILLER: C. Chism BORING NO.: 1GW16DW SHEET 1 OF 7

TEST BORING AND WELL CONSTRUCTION RECORD

Baker Environmental, Inc.

PROJECT: Site 1 - FCLDA RI/FS MCB Camp Lejeune
S.O. NO.: 19231 BORING NO.: 2GW16DW

SAMPLE TYPE
S = Split Spoon A = Auger
T = Shelby Tube W = Wash
R = Air Rotary C = Core
D = Denison P = Piston
N = No Sample

DEFINITIONS
SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5')
RQD = Rock Quality Designation (%)
Lab Class. = USCS (ASTM D-2487) or AASHTO (ASTM D-3282)
Lab Moist. = Moisture Content (ASTM D-2216) Dry Weight Basis

Depth (Ft.)	Sample Type and No.	Samp. Rec. (Ft. & %)	SPT or RQD	Samp. Desig.	PID (ppm)	Visual Description
11	S-5	60%	7 8		1.1	Continued from Sheet 1
11.0						
12	S-6	1.6/2.0	11 11		2.0	SAND, fine grained w/ trace Silt. Yellowish brown w/ orange to tan to dark brown to brown, medium dense, damp to moist to wet.
13		80%	8 8			
13.0						
14	S-7	1.5/2.0	7 8	07	-	
15		75%	9 9			
15.0						
16	S-8	1.8/2.0	5 5		1.3	
17		90%	5 5			
17.0						
18						
19						
20						
20.0						
21	S-9	.5/2.0	WOH/12" 3		BG	SAND, fine grained w/ trace Silt. Light brown, loose, wet.
22		25%	4			
22.0						
23						
24						
25						
25.0						
26	S-10	.7/2.0	10 16		BG	SAND, fine grained w/ trace Silt. Light brown, medium dense, wet.
27		35%	13 16			
27.0						
28						
29						
30						Match to Sheet 3
30.0						

Well Installation Detail: #0 | 8" steel casing | #7 | #0

Elevation

DRILLING CO.: Hardin-Huber, Inc. BAKER REP.: J.E. Zimmerman
DRILLER: C. Chism BORING NO.: 2GW16DW SHEET 2 OF 7

Baker
Baker Environmental, Inc

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: Site 1 - FCLDA RI/FS MCB Camp Lejeune
S.O. NO.: 19231 BORING NO.: IGW16DW

SAMPLE TYPE
S = Split Spoon A = Auger
T = Shelby Tube W = Wash
R = Air Rotary C = Core
D = Denison P = Piston
N = No Sample

DEFINITIONS
SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5')
RQD = Rock Quality Designation (%)
Lab Class. = USCS (ASTM D-2487) or AASHTO (ASTM D-3282)
Lab Moist. = Moisture Content (ASTM D-2216) Dry Weight Basis

Depth (Ft.)	Sample Type and No.	Samp. Rec. (Ft. & %)	SPT or RQD	Samp. Desig.	PID (ppm)	Visual Description	Well Installation Detail	Elevation
31	S-11	1.4/2.0 70%	3 5 3 7		BG	Continued from Sheet 2 SAND, fine to medium grained w/ trace silt. Light green w/ orange (oxidation), loose, wet.	8" steel casing	
32 32.0								
33								
34								
35 35.0								
36	S-12	.9/2.0 45%	3 4 6 10		BG	SAND, fine to medium grained w/ trace silt. Brown w/ orange (oxidation), medium dense, wet.		
37.0								
38								
39								
40 40.0								
41	S-13	.6/2.0 30%	5 5 5 4		BG	SAND, fine grained w/ some medium sand and trace silt. Light brown, medium dense, wet.		
42 42.0								
43								
44								
45 45.0								
46	S-14	1.1/2.0 55%	9 21 18 36		BG	SAND, fine to medium grained w/ trace silt and some shell material. Light brown and white, dense, wet.		
47 47.0								
48								
49								
50 50.0						Match to Sheet 4		

DRILLING CO.: Hardin-Huber, Inc. BAKER REP.: J. E. Zimmerman
DRILLER: C. Chism BORING NO.: IGW16DW SHEET 3 OF 7

Baker Environmental, Inc

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: Site 1 - FCLDA RI/FS MCB Camp Lejeune
S.O. NO.: 19231 BORING NO.: IGW160W

SAMPLE TYPE
S = Split Spoon A = Auger
T = Shelby Tube W = Wash
R = Air Rotary C = Core
D = Denison P = Piston
N = No Sample

DEFINITIONS
SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5')
RQD = Rock Quality Designation (%)
Lab Class. = USCS (ASTM D-2487) or AASHTO (ASTM D-3282)
Lab Moist. = Moisture Content (ASTM D-2216) Dry Weight Basis

Depth (Ft.)	Sample Type and No.	Samp. Rec. (Ft. & %)	SPT or RQD	Samp. Desig.	PID (ppm)	Visual Description	Well Installation Detail	Elevation
51	S-15	.9/2.0 45%	3 19 33 41		BG	Continued from Sheet 3 SAND, fine to medium grained w/ trace silt. Gray, dense, wet	#0 8" steel casing	
52 52.0								
53								
54								
55 55.0								
56	S-16	.8/2.0 40%	21 37 33 25		BG	SAND, fine to medium grained w/ trace silt and shell fragments. Brown and white, very dense, wet.	#7	
57 57.0								
58								
59								
60 60.0								
61	S-17	1.0/2.0 50%	25 33 43 41		BG	SAND, fine to medium w/ trace silt and shell material / fragments. Dark green and white, very dense, wet.		
62 62.0								
63								
64								
65 65.0								
66	S-18	1.2/2.0 60%	15 25 18 17		BG	SILTY SAND, fine grained w/ some clay. Light green to green, dense to hard, wet to moist.	#0	
67 67.0								
68								
69								
70 70.0						Match to Sheet 5		

DRILLING CO.: Hardin-Huber, Inc. BAKER REP.: J. E. Zimmerman
DRILLER: C. Chism BORING NO.: IGW160W SHEET 4 OF 7

Baker
Baker Environmental, Inc

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: Site 1 - FCLDA RI/FS MCB Camp Lejeune
S.O. NO.: 19231 BORING NO.: 16W160W

SAMPLE TYPE
S = Split Spoon A = Auger
T = Shelby Tube W = Wash
R = Air Rotary C = Core
D = Denison P = Piston
N = No Sample

DEFINITIONS
SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5')
RQD = Rock Quality Designation (%)
Lab Class. = USCS (ASTM D-2487) or AASHTO (ASTM D-3282)
Lab Moist. = Moisture Content (ASTM D-2216) Dry Weight Basis

Depth (Ft.)	Sample Type and No.	Samp. Rec. (Ft. & %)	SPT or RQD	Samp. Desig.	PID (ppm)	Visual Description	Well Installation Detail	Elevation
71	S-19	1.7/2.0 85%	12 16 25 24		BG	Continued from Sheet 4 SAND, fine grained wt trace silt and some shell material fragments. Green to white, dense, wet.	8" steel casing; # 0	
72 72.0								
73								
74								
75 75.0						SAND, fine grained wltrace silt and some shell material fragments. Green to white, dense, wet.		
76	S-20	1.3/2.0 65%	9 16 33 47		BG			
77 77.0							# 7	
78								
79								
80 80.0								
81	S-21	.8/2.0 40%	19 47 51/5"		BG	SAND, fine grained wltrace silt. Green very dense, wet.		
82 82.0								
83								
84								
85 85.0								
86	S-22	NR	23 51/6"		-	NO RECOVERY		
87 87.0								
88								
89								
90 90.0						Match to Sheet 6	# 0	

DRILLING CO.: Hardin-Huber, Inc. BAKER REP.: J. E. Zimmerman
DRILLER: C. Chism BORING NO.: 16W160W SHEET 5 OF 7

Baker Environmental, Inc.

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: Site 1 - FCLDA RI/FS MCB Camp Lejeune
S.O. NO.: 19231 BORING NO.: 1GW16DW

SAMPLE TYPE
S = Split Spoon A = Auger
T = Shelby Tube W = Wash
R = Air Rotary C = Core
D = Denison P = Piston
N = No Sample

DEFINITIONS
SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5')
RQD = Rock Quality Designation (%)
Lab Class. = USCS (ASTM D-2487) or AASHTO (ASTM D-3282)
Lab Moist. = Moisture Content (ASTM D-2216) Dry Weight Basis

Depth (Ft.)	Sample Type and No.	Samp. Rec. (Ft. & %)	SPT or RQD	Samp. Desig.	PID (ppm)	Visual Description	Well Installation Detail	Elevation
91	S-23	.5/2.0 25%	29 51/4"		BG	Continued from Sheet 5 SAND, fine grained w/ trace silt and shell fragments. Green to white to gray, dense, wet.	#0	
92 92.0								
93								
94								
95 95.0							#7	
96	S-24	NR	24 51/5"		-	NO RECOVERY		
97 97.0							#0	
98								
99								
100 100.0						SAND, fine grained w/ trace silt and shell fragments (0 to .1') FOSSILIFEROUS LIMESTONE (.1' to .2') (Castle Hane Fm.) SAND, fine grained w/ trace silt and shell fragments. Micrite is cement (matrix only). Light green and white dense, wet.	#2	
101	S-25	1.8/2.0 90%	15 16 16 33		BG			
102 102.0							#2	
103								
104							#7	
105 105.0							#5	
106	S-26	.7/2.0 35%	21 51/5"		BG	SAND, fine to medium grained w/ trace silt and shell fragments. Green and white, dense, wet.		
107 107.0								
108							#8	
109								
110 110.0						Match to Sheet 7	#5	

DRILLING CO.: Hardin-Huber, Inc. BAKER REP.: J. E. Zimmerman
DRILLER: C. Chism BORING NO.: 1GW16DW SHEET 6 OF 7

Baker
Baker Environmental, Inc

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: Site 1 - FCLDA RI/FS MCB Camp Lejeune
S.O. NO.: 19231 BORING NO.: IGW160W

SAMPLE TYPE
S = Split Spoon A = Auger
T = Shelby Tube W = Wash
R = Air Rotary C = Core
D = Denison P = Piston
N = No Sample

DEFINITIONS
SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5')
RQD = Rock Quality Designation (%)
Lab Class. = USCS (ASTM D-2487) or AASHTO (ASTM D-3282)
Lab Moist. = Moisture Content (ASTM D-2216) Dry Weight Basis

Depth (Ft.)	Sample Type and No.	Samp. Rec. (Ft. & %)	SPT or RQD	Samp. Desig.	PID (ppm)	Visual Description	Well Installation Detail	Elevation
111	S-27	.5/2.0 25%	27 5I/5"		BG	Continued from Sheet 6 SAND, fine grained w/ trace silt and shell fragments. Green and white, dense, wet.	#5	
112 (112.0)								
113								
114								
115 (115.0)								
116	S-28	.8/2.0 40%	27 5I/4"		BG	SAND, fine grained w/ trace silt and some shell fragments. Greenish gray and white, dense, wet.	#8	
117 (117.0)								
118								
119								
120 (120.0)						SAND, fine grained w/ trace silt and shell fragments. Green and white, dense, wet.		
121	S-29	1.0/2.0 50%	19 22 27 5I/5"		BG		#5	
122 (122.0)						End of Boring TD 122.0'		
3								
4								
5								
6								
7								
8								
9								
0						Match to Sheet ____		

DRILLING CO.: Hardin-Huber, Inc. BAKER REP.: J. E. Zimmerman
DRILLER: C. Chism BORING NO.: IGW160W SHEET 7 OF 7

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: Site 1 - FCLDA RI/FS MCB Camp Lejeune
S.O. NO.: 19231 BORING NO.: 1GW17DW
COORDINATES: EAST: 2502792.01 NORTH: 333685.99
ELEVATION: SURFACE: 19.1 TOP OF PVC CASING: 21.91

RIG: #48	SPLIT SPOON	CASING	AUGERS	CORE BARREL	DATE	PROGRESS (FT)	WEATHER	WATER DEPTH (FT)	TIME
SIZE (DIAM.)	1-3/8" ID	8"			5-5-94	0-39'	overcast, cool (50's)	12.5	
LENGTH	2.0'	39.0'			5-7-94	39'-122'	clear, mild (60's)		
TYPE	Std.	steel							
HAMMER WT.	140#								
FALL	30"								
STICK UP									

REMARKS: Boring sampled to 122.0'. HNu background range .2 to .4 ppm

SAMPLE TYPE
S = Split Spoon A = Auger
T = Shelby Tube W = Wash
R = Air Rotary C = Core
D = Denison P = Piston
N = No Sample

WELL INFORMATION	DIAM	TYPE	TOP DEPTH (FT)	BOTTOM DEPTH (FT)
Well Casing	2"	PVC Threaded - Sch. 40	+ 2.5'	105.0' (bgs)
Well Screen	2"	PVC Slotted No. 10 - Sch. 40	105.0' (bgs)	120.0' (bgs)

Depth (Ft.)	Sample Type and No.	Samp. Rec. Ft. & %	SPT or RQD	Samp. Desig.	PID (ppm)	Visual Description	Well Installation Detail	Elevation
1 1.0		—	—	00	BG	SILTY SAND, fine grained w/ trace gravel. Brown, very loose, damp.		
2 3.0	S-1	.9/2.0 45%	13 24 51/4"		BG	SAND, fine grained w/ trace silt and gravel. Brown, damp	8" steel casing	
4 5.0	S-2	1.5/2.0 75%	4 5 3 4		1.2	SAND, fine grained w/ trace silt. Brown, medium dense to loose, damp.		
6 7.0	S-3	.6/2.0 30%	3 3 3 4		1.2			
8 9.0	S-4	.5/2.0 25%	1 2 2 2		.7			
	S-5	1.3/2.0 65%	3 2	05	—	SAND, fine grained w/ trace silt and some CLAY. Match to Sheet 2		

DRILLING CO.: Hardin-Huber, Inc. BAKER REP.: J. E. Zimmerman
DRILLER: C. Chism BORING NO.: 1GW17DW SHEET 1 OF 7

TEST BORING AND WELL CONSTRUCTION RECORD

Baker Environmental, Inc

PROJECT: Site 1 - FCLDA RI/FS MCB Camp Lejeune
S.O. NO.: 19231 BORING NO.: IGW17DW

SAMPLE TYPE
S = Split Spoon A = Auger
T = Shelby Tube W = Wash
R = Air Rotary C = Core
D = Denison P = Piston
N = No Sample

DEFINITIONS
SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5')
RQD = Rock Quality Designation (%)
Lab Class. = USCS (ASTM D-2487) or AASHTO (ASTM D-3282)
Lab Moist. = Moisture Content (ASTM D-2216) Dry Weight Basis

Depth (Ft.)	Sample Type and No.	Samp. Rec. (Ft. & %)	SPT or RQD	Samp. Desig.	PID (ppm)	Visual Description
11 11.0	S-5	65%	2 2	OS	–	Continued from Sheet 1 Light gray, Light brown, loose to medium stiff, moist
12	S-6	1.1/2.0	4 3 2 3		1.1	SAND, fine grained w/trace silt. Light brown, moist to wet.
13 13.0		55%				
14						
15 15.0						SAND, fine to medium grained w/trace silt and some SILTY CLAY Brown to grayish green, loose to medium stiff, wet.
16	S-7	1.2/2.0	2 3 2 2		BG	
17 17.0		60%				
18						
19						
20 20.0						
21	S-8	NR	2 3 2 2		–	NO RECOVERY
22 22.0						
23						
24						
25 25.0						
26	S-9	.7/2.0	16 23 9 3		BG	FOSSILIFEROUS LIMESTONE w/shell fragments and micrite cement acting as matrix only. Gray and white, medium dense, wet.
27 27.0		35%				
28						
29						
30 30.0						Match to Sheet 3

Well Installation Detail: #0; 8" steel casing; #7; #0

Elevation

DRILLING CO.: Hardin-Huber, Inc. BAKER REP.: J. E. Zimmerman
DRILLER: C. Chism BORING NO.: IGW17DW SHEET 2 OF 7

Baker
Baker Environmental, Inc

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: Site 1 - FCLDA RI/FS MCB Camp Lejeune
S.O. NO.: 19231 BORING NO.: IGW17DW

SAMPLE TYPE
S = Split Spoon A = Auger
T = Shelby Tube W = Wash
R = Air Rotary C = Core
D = Denison P = Piston
N = No Sample

DEFINITIONS
SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5')
RQD = Rock Quality Designation (%)
Lab Class. = USCS (ASTM D-2487) or AASHTO (ASTM D-3282)
Lab Moist. = Moisture Content (ASTM D-2216) Dry Weight Basis

Depth (Ft.)	Sample Type and No.	Samp. Rec. (Ft. & %)	SPT or RQD	Samp. Desig.	PID (ppm)	Visual Description	Well Installation Detail	Elevation
31	S-10	—	—		—	Continued from Sheet 2 No sampling due to instability of formation during drilling	#0 8" steel casing	
32 32.0								
33								
34								
35								
36								
37 37.0								
38	S-11	1.3/2.0 65%	19 25 37 41		BG	SAND, fine grained wt trace silt and shell fragments. Brown, very dense, wet	#7	
39 39.0								
40								
41								
42								
43								
44								
45 45.0								
46	S-12	1.1/2.0 55%	17 26 26 27		1.0	SAND, fine to medium grained w/ trace silt. Gray, very dense, wet.	#0	
47 47.0								
48								
49								
50 50.0						Match to Sheet 4		

DRILLING CO.: Hardin-Huber, Inc. BAKER REP.: J. E. Zimmerman
DRILLER: C. Chism BORING NO.: IGW17DW SHEET 3 OF 7

Baker
Baker Environmental, Inc.

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: Site 1 - FCLDA RI/FS MCB Camp Lejeune
S.O. NO.: 19231 BORING NO.: IGW17DW

SAMPLE TYPE
S = Split Spoon A = Auger
T = Shelby Tube W = Wash
R = Air Rotary C = Core
D = Denison P = Piston
N = No Sample

DEFINITIONS
SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5')
RQD = Rock Quality Designation (%)
Lab Class. = USCS (ASTM D-2487) or AASHTO (ASTM D-3282)
Lab Moist. = Moisture Content (ASTM D-2216) Dry Weight Basis

Depth (Ft.)	Sample Type and No.	Samp. Rec. (Ft. & %)	SPT or RQD	Samp. Desig.	PID (ppm)	Visual Description	Well Installation Detail	Elevation
51	S-13	1.4/2.0 70%	14 15 18 36		1.3	Continued from Sheet 3 SAND, fine to medium grained w/ trace silt and shell fragments. Micrite cement is matrix. (bottom 1/2 of sample only)	#0	
52 52.0								
53								
54								
55 55.0								
56	S-14	.9/2.0 45%	19 25 28 30		1.3	SAND, fine to medium grained w/ trace silt. Gray, very dense, wet		
57.0								
58							#7	
59								
60 60.0								
61	S-15	1.4/2.0 70%	19 28 33 51		BG	SAND, fine to medium grained w/ trace silt. Greenish gray, very dense, wet.		
62 62.0								
63								
64								
65 65.0								
66	S-16	1.9/2.0 95%	7 9 14 18		BG	SAND, fine to medium grained w/ trace silt and shell fragments. Greenish gray, very dense, wet.	#0	
67 67.0								
68								
69								
70 70.0						Match to Sheet 5		

DRILLING CO.: Hardin-Huber, Inc. BAKER REP.: J. E. Zimmerman
DRILLER: C. Chism BORING NO.: IGW17DW SHEET 4 OF 7

Baker
Baker Environmental, Inc.

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: Site 1 - FCLDA RI/FS MCB Camp Lejeune
S.O. NO.: 19231 BORING NO.: IGWI7DW

SAMPLE TYPE
S = Split Spoon A = Auger
T = Shelby Tube W = Wash
R = Air Rotary C = Core
D = Denison P = Piston
N = No Sample

DEFINITIONS
SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5')
RQD = Rock Quality Designation (%)
Lab Class. = USCS (ASTM D-2487) or AASHTO (ASTM D-3282)
Lab Moist. = Moisture Content (ASTM D-2216) Dry Weight Basis

Depth (Ft.)	Sample Type and No.	Samp. Rec. (Ft. & %)	SPT or RQD	Samp. Desig.	PID (ppm)	Visual Description	Well Installation Detail	Elevation
71	S-17	1.9/2.0 95%	19 23 32 51		BG	Continued from Sheet 4 SAND, fine to medium grained w/trace silt and shell fragments. Greenish gray, very dense, wet.	#0	
72 72.0								
73								
74								
75 75.0								
76	S-18	.9/2.0 45%	29 43 51/5"		BG	SAND fine grained w/trace silt and shell fragment. Greenish gray to gray, very dense, wet.		
77 77.0								
78							#7	
79								
80 80.0								
81	S-19	.5/2.0 25%	33 51/5"		BG	SAND, fine grained w/trace silt and shell fragments. Greenish gray to gray, very dense, wet.		
82 82.0								
83								
84								
85 85.0								
86	S-20	.7/2.0 35%	43 51/5"		BG	SAND, fine grained w/trace silt. Greenish gray, very dense, wet.		
87 87.0								
88								
89							#0	
90 90.0						Match to Sheet 6		

DRILLING CO.: Hardin-Huber, Inc. BAKER REP.: J. E. Zimmerman
DRILLER: C. Chism BORING NO.: IGWI7DW SHEET 5 OF 7

Baker
Baker Environmental, Inc

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: Site 1 - FCLDA RI/FS MCB Camp Lejeune
S.O. NO.: 19231 BORING NO.: 26W17DW

SAMPLE TYPE
S = Split Spoon A = Auger
T = Shelby Tube W = Wash
R = Air Rotary C = Core
D = Denison P = Piston
N = No Sample

DEFINITIONS
SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5')
RQD = Rock Quality Designation (%)
Lab Class. = USCS (ASTM D-2487) or AASHTO (ASTM D-3282)
Lab Moist. = Moisture Content (ASTM D-2216) Dry Weight Basis

Depth (Ft.)	Sample Type and No.	Samp. Rec. (Ft. & %)	SPT or RQD	Samp. Desig.	PID (ppm)	Visual Description	Well Installation Detail	Elevation
91	S-21	.6/2.0 30%	41 51/5"		BG	Continued from Sheet 5 SAND, fine grained w/trace silt. Greenish gray, very dense, wet	#0 #7 #0	
92 92.0								
93							Bentonite Slurry	
94								
95 95.0						SAND, fine to medium grained w/trace silt and shell fragments. Gray, very dense, wet.		
96	S-22	1.1/2.0 55%	47 51/3"		BG			
97 97.0								
98								
99								
100 100.0						SAND, fine grained w/trace silt and shell fragments. Micrite is cement acting as matrix. Light green and white, very dense, wet.	#5	
101	S-23	1.0/2.0 50%	37 48 51/4"		BG		#7	
102 102.0								
103								
104								
105 105.0						SAND, fine grained w/trace silt and shell fragments (0 to .1') FOSSILIFEROUS LIMESTONE (.1' to .2') (Castle Hane Fm.). SAND, fine grained w/trace silt and shell fragments. Greenish gray and white Match to Sheet 7		
106	S-24	1.0/2.0 50%	38 51/2"		BG		#8	
107 107.0								
108								
109								
110 110.0							#5	

DRILLING CO.: Hardin-Huber, Inc. BAKER REP.: J. E. Zimmerman
DRILLER: C. Chism BORING NO.: 26W17DW SHEET 6 OF 7

Baker
Baker Environmental, Inc

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: Site 1 - FCLDA RI/FS MCB Camp Lejeune
S.O. NO.: 19231 BORING NO.: 1GW17DW

SAMPLE TYPE
S = Split Spoon A = Auger
T = Shelby Tube W = Wash
R = Air Rotary C = Core
D = Denison P = Piston
N = No-Sample

DEFINITIONS
SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5')
RQD = Rock Quality Designation (%)
Lab Class. = USCS (ASTM D-2487) or AASHTO (ASTM D-3282)
Lab Moist. = Moisture Content (ASTM D-2216) Dry Weight Basis

Depth (Ft.)	Sample Type and No.	Samp. Rec. (Ft. & %)	SPT or RQD	Samp. Desig.	PID (ppm)	Visual Description	Well Installation Detail	Elevation
111	S-25	.8/2.0 40%	102/5"		BG	Continued from Sheet 6 SAND, fine grained w/ trace silt and shell fragments. Greenish gray and white, very dense, wet.	#5	
112 112.0								
113								
114								
115 115.0						SAND, fine grained w/ trace silt and shell fragments Green and white, very dense, wet	#8	
116	S-26	1.0/2.0 50%	39 48 51/4"		BG			
117.0								
118								
119								
120 120.0						SAND, fine to medium grained w/ trace silt and shell fragments. Greenish gray and white, very dense, wet	#5	
121	S-27	2.0/2.0 100%	22 40 50 50/5"		BG			
122 122.0						End of Boring TD 122.0'		
3								
4								
5								
6								
7								
8								
9								
0						Match to Sheet ___		

DRILLING CO.: Hardin-Huber, Inc. BAKER REP.: J.E. Zimmerman
DRILLER: C. Chism BORING NO.: 1GW17DW SHEET 7 OF 7

SITE 28

TEST BORING AND WELL CONSTRUCTION RECORD

Baker
Baker Environmental, Inc

PROJECT: SITE 1 FCLDA RI/FS MCB CAMP LEJEUNE
S.O. NO.: 62470-231 BORING NO.: 28-GW-1
COORDINATES: EAST: 2498347.1500 NORTH: 331825.7480
ELEVATION: SURFACE: 4.80 TOP OF PVC CASING: 7.34

RIG: B-61					DATE	PROGRESS (FT)	WEATHER	WATER DEPTH (FT)	TIME
	SPLIT SPOON	CASING	AUGERS	CORE BARREL					
SIZE (DIAM.)	1 3/8" ID		6 1/4" ID		4-20-94	17	Sunny	3	
LENGTH	2.0'		5.0'						
TYPE	STD		HSA						
HAMMER WT.	140#								
FALL	30"								
STICK UP									

REMARKS: BACKGROUND (BG) HNU = 0.2 ppm

SAMPLE TYPE
S = Split Spoon, A = Auger
T = Shelby Tube, W = Wash
R = Air Rotary, C = Core
D = Denison, P = Piston
N = No Sample

WELL INFORMATION	DIAM	TYPE	TOP DEPTH (FT)	BOTTOM DEPTH (FT)
RISER	2"	PVC SCH 40	0	2.0
SCREEN	2"	PVC SCH 40	2.0	16.39

Depth (Ft.)	Sample Type and No.	Samp. Rec. Ft. & %	SPT or RQD	Lab. Class. or Pen. Rate	PID (ppm)	Visual Description	Well Installation Detail	Elevation Ft. MSL
0–1 LAB	GO	100%			BG	SAND-FINE LITTLE SILT MUCH DEBRIS BLACK.	1 / 1	
1–3 LAB	S-1	.83/2 42%	27 32 21 18		BG	FILL. SAND-FINE AND GRAVEL METAL DEBRIS. WHITE. MOIST.	2 7 2	
3–5	S-2	.83/2 42%	NA		BG	WATER @ 3'. SAND-MEDIUM AND ORGANIC SILT. BLACK. WET.	5 8 5	
5–7	S-3	.25/2 11%	13 15 9 8		BG	ORGANIC SILT. SOME SAND-MED. BLACK. WET. MED DENSE.		
7–9	S-4	.67/2 33%	5 7 14 21		BG	SAND-FINE TRACE SILT. WET. GRAY. MED DENSE.		
9–10	S-5	.67/2	7 1		BG	SILT. LITTLE SAND-FINE WET. GRAY. LOOSE		

Match to Sheet 2

DRILLING CO.: EMTC BAKER REP.: KENNETH A. TUA
DRILLER: GENE BARNES BORING NO.: 28-GW-1

TEST BORING AND WELL CONSTRUCTION RECORD

Baker Environmental, Inc

PROJECT: SITE 1 FCLDA RI/FS MCB CAMP LEJEUNE
S.O. NO.: 62470-231 BORING NO.: 28-GW-1

SAMPLE TYPE
S = Split Spoon A = Auger
T = Shelby Tube W = Wash
R = Air Rotary C = Core
D = Denison P = Piston
N = No Sample

DEFINITIONS
SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5')
RQD = Rock Quality Designation (%)
Lab. Class. = USCS (ASTM D-2487) or AASHTO (ASTM D-3282)
Lab. Moist. = Moisture Content (ASTM D-2216) Dry Weight Basis
PID = Photoionization Detector

Depth (Ft.)	Sample Type and No.	Samp. Rec. (Ft. & %)	SPT or RQD	Lab. Class. or Pen. Rate	PID (ppm)	Visual Description	Well Installation Detail	Elevation
11	S-5	33%	3 3		BG	Continued from Sheet	8	
12	S-6	1/2 50%/6	5 7 8 12		BG	SILT AND SAND-FINE WET. GRAY. MED DENSE	7	
13							5	5
14	S-7	1.0/2 83%	2 3 3 6		BG	SAND-FINE AND SILT WET. GRAY. LOOSE.	8	
15								
16	S-8	1.5/2 75%	1 1 1 2		BG	SAND-FINE AND SILT GRAY. 8" SAND-FINE TRACE SILT. BROWN WET. VERY LOOSE.	7	
17						END OF BORING 17'		
8								
9								
0								
1								
2								
3								
4								
5								
6								
7								
8								
0						Match to Sheet		

DRILLING CO.: EMTC
DRILLER: GENE BARNES
BAKER REP.: KENNETH A. TUA
BORING NO.: 28-GW-1
SHEET 2 OF 2

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: Site 28 - HPBD RI/FS MCB Camp Lejeune
S.O. NO.: 19231 BORING NO.: 28-GW01DW
COORDINATES: EAST: 2498346.58 NORTH: 331848.67
ELEVATION: SURFACE: 5.50 TOP OF PVC CASING: 7.49

RIG: #48	SPLIT SPOON	CASING	AUGERS	CORE BARREL	DATE	PROGRESS (FT)	WEATHER	WATER DEPTH (FT)	TIME
SIZE (DIAM.)	1-3/8" ID	8"			4-21-94	0-65'	clear, warm & humid (70's)	≈4.0	
LENGTH	2.0'	65.0'			4-23-94	65-134'	clear, mild (70's)		
TYPE	Std.	Steel							
HAMMER WT.	140#								
FALL	30"								
STICK UP									

REMARKS: Boring sampled to 132.0'. HNu background is .2 ppm.

SAMPLE TYPE
S = Split Spoon A = Auger
T = Shelby Tube W = Wash
R = Air Rotary C = Core
D = Denison P = Piston
N = No Sample

WELL INFORMATION	DIAM	TYPE	TOP DEPTH (FT)	BOTTOM DEPTH (FT)
Well Casing	2"	PVC Threaded - Sch. 40	+2.5'	117.0' (bgs)
Well Screen	2"	PVC Slotted No. 10 - Sch. 40	117.0' (bgs)	132.0' (bgs)

Depth (Ft.)	Sample Type and No.	Samp. Rec. Ft. & %	SPT or RQD	Samp. Desig.	PID (ppm)	Visual Description	Well Installation Detail	Elevation
1	1.0		-	-	00	BG	SILTY SAND, fine grained w/rooted material. Brown to gray, very loose, damp.		
2		S-1	.5/2.0		01	BG	SAND, fine grained w/SILT and FILL material (brick, burnt soil, charcoal flecks) Brownish red to black to brown, dense, damp.	#0 8" steel casing	
3	3.0		25%						
4		S-2	NR	12 11 8 9		-	NO RECOVERY		
5	5.0								
6		S-3	NR	1 1 11 7		-		#7	
7	7.0								
8									
9									
10	10.0					BG	Match to Sheet 2	#0	

DRILLING CO.: Hardin-Huber, Inc. BAKER REP.: J.E. Zimmerman
DRILLER: C. Chism BORING NO.: 28-GW01DW SHEET 1 OF 8

Baker
Baker Environmental, Inc

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: Site 28 - HPBD RI/FS MCB Camp Lejeune
S.O. NO.: 19231 BORING NO.: 28-GW01DW

SAMPLE TYPE
S = Split Spoon A = Auger
T = Shelby Tube W = Wash
R = Air Rotary C = Core
D = Denison P = Piston
N = No Sample

DEFINITIONS
SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5')
RQD = Rock Quality Designation (%)
Lab Class. = USCS (ASTM D-2487) or AASHTO (ASTM D-3282)
Lab Moist. = Moisture Content (ASTM D-2216) Dry Weight Basis

Depth (Ft.)	Sample Type and No.	Samp. Rec. (Ft. & %)	SPT or RQD	Samp. Desig.	PID (ppm)	Visual Description	Well Installation Detail	Elevation
11	S-4	1.4/2.0 70%	WOH/12" 5 7		BG	Continued from Sheet 1 SAND, fine grained w/ silt and little CLAY. Greenish-gray to brown, loose to soft, wet.	#0 8" steel casing	
12 12.0								
13								
14								
15 15.0								
16	S-5	1.0/2.0 50%	2 2 2 2		BG	SAND, fine grained w/ trace silt. Greenish gray to brown, loose, wet.		
17 17.0								
18								
19								
20 20.0								
21	S-6	1.0/2.0 50%	5 5 4 4		BG	SAND, fine grained w/ trace silt. Gray to brown, loose, wet.	#7	
22 22.0								
23								
24								
25 25.0								
26	S-7	1.0/2.0 50%	7 6 8 12		BG	SAND, fine grained w/ trace silt (0 to .4') GRAVEL, coarse grained (.4 to 1.0'). Brown, medium dense, wet. oxidation (orange) bottom 1/2 of sample only.	#0	
27 27.0								
28								
9								
30 30.0						Match to Sheet 3		

DRILLING CO.: Hardin-Huber, Inc. BAKER REP.: J.E. Zimmerman
DRILLER: C. Chism BORING NO.: 28-GW01DW SHEET 2 OF 8

TEST BORING AND WELL CONSTRUCTION RECORD

Baker Environmental, Inc

PROJECT: Site 28 - HPBD RI/FS MCB Camp Lejeune
S.O. NO.: 19231 BORING NO.: 28-GW01DW

SAMPLE TYPE
S = Split Spoon A = Auger
T = Shelby Tube W = Wash
R = Air Rotary C = Core
D = Denison P = Piston
N = No Sample

DEFINITIONS
SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5')
RQD = Rock Quality Designation (%)
Lab Class. = USCS (ASTM D-2487) or AASHTO (ASTM D-3282)
Lab Moist. = Moisture Content (ASTM D-2216) Dry Weight Basis

Depth (Ft.)	Sample Type and No.	Samp. Rec. (Ft. & %)	SPT or RQD	Samp. Desig.	PID (ppm)	Visual Description	Well Installation Detail	Elevation
31	S-8	.7/2.0 35%	7 13 13 15		BG	Continued from Sheet 2 SAND, fine to medium grained w/ trace silt- and shell material. Brown + white, medium dense, wet.	8" steel casing	
32 32.0								
33								
34								
35 35.0								
36	S-9	1.0/2.0 50%	6 11 20 20		BG	SAND, fine to medium grained w/ trace silt and shell material. Brown to white, dense, wet.		
37 37.0								
38								
39								
40 40.0								
41	S-10	1.0/2.0 50%	11 16 17 17		BG	SAND, fine to medium grained w/ trace silt and shell material. Brown to white, dense, wet.		
42 42.0								
43								
44								
45 45.0								
46	S-11	1.0/2.0 50%	15 33 23 24		BG	SAND, fine to medium grained w/ trace silt and micrite (acting as matrix). Light gray, dense, wet.		
47 47.0								
48								
49								
50 50.0						Match to Sheet 4		

DRILLING CO.: Hardin-Huber, Inc. BAKER REP.: J. E. Zimmerman
DRILLER: C. Chism BORING NO.: 28-GW01DW SHEET 3 OF 8

Baker Environmental, Inc

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: Site 28 - HPBD RI/FS MCB Camp Lejeune
S.O. NO.: 19231 BORING NO.: 28-GW01DW

SAMPLE TYPE
S = Split Spoon A = Auger
T = Shelby Tube W = Wash
R = Air Rotary C = Core
D = Denison P = Piston
N = No Sample

DEFINITIONS
SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5')
RQD = Rock Quality Designation (%)
Lab Class. = USCS (ASTM D-2487) or AASHTO (ASTM D-3282)
Lab Moist. = Moisture Content (ASTM D-2216) Dry Weight Basis

Depth (Ft.)	Sample Type and No.	Samp. Rec. (Ft. & %)	SPT or RQD	Samp. Desig.	PID (ppm)	Visual Description	Well Installation Detail	Elevation
51	S-12	1.1/2.0 55%	15 35 25 27		BG	Continued from Sheet 3 SAND, fine to medium grained w/trace silt and micrite (acting as matrix). Light gray very dense, wet.	#0 8" steel casing	
52 52.0								
53								
54								
55 55.0								
56	S-13	.8/2.0 40%	16 11 13 20		BG	SAND, fine to medium grained w/trace silt and micrite (acting as matrix) bottom 1/2 of sample only Light gray, medium dense, wet.	#7	
57 57.0								
58								
59								
60 60.0								
61	S-14	1.2/2.0 60%	5 13 26 28		BG	SAND, fine to medium grained w/trace silt and micrite (acting as matrix). Light gray, dense, wet.		
62 62.0								
63								
64								
65								
66							#0	
67								
68								
9								
70						Match to Sheet 5		

DRILLING CO.: Hardin-Huber, Inc. BAKER REP.: J.E. Zimmerman
DRILLER: C. Chism BORING NO.: 28-GW01DW SHEET 4 OF 8

Baker
Baker Environmental, Inc

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: Site 28 - HPBD RI/FS MCB Camp Lejeune
S.O. NO.: 19231 BORING NO.: 28-GW01DW

SAMPLE TYPE
S = Split Spoon A = Auger
T = Shelby Tube W = Wash
R = Air Rotary C = Core
D = Denison P = Piston
N = No Sample

DEFINITIONS
SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5')
RQD = Rock Quality Designation (%)
Lab Class. = USCS (ASTM D-2487) or AASHTO (ASTM D-3282)
Lab Moist. = Moisture Content (ASTM D-2216) Dry Weight Basis

Depth (Ft.)	Sample Type and No.	Samp. Rec. (Ft. & %)	SPT or RQD	Samp. Desig.	PID (ppm)	Visual Description	Well Installation Detail	Elevation
71	S-15	.4/2.0 20%	5 14 51/5"		BG	Continued from Sheet 4 SAND, fine grained w/ trace silt. Greenish gray, very dense, wet	#0	
72 72.0								
73								
74								
75 75.0								
76	S-16	.6/2.0 30%	17 38 51/5"		BG	SAND, fine grained w/ trace silt and shell fragments. Greenish gray to white, very dense, wet		
77 77.0								
78								
79								
80 80.0								
81	S-17	.5/2.0 25%	32 38 51/3"		BG	SAND, fine grained w/ trace silt and shell material. Light gray, very dense, wet	#7	
82 82.0								
83								
84								
85 85.0								
86	S-18	.6/2.0 30%	17 38 51/5"		BG	SAND, fine grained w/ trace silt. Greenish gray, very dense, wet.		
87 87.0								
88							#0	
89								
90 90.0						Match to Sheet 6		

DRILLING CO.: Hardin-Huber, Inc. BAKER REP.: J. E. Zimmerman
DRILLER: C. Chism BORING NO.: 28-GW01DW SHEET 5 OF 8

Baker Environmental, Inc

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: Site 28 - HPBD RI/FS MCB Camp Lejeune
S.O. NO.: 19231 BORING NO.: 28-GW01DW

SAMPLE TYPE
S = Split Spoon A = Auger
T = Shelby Tube W = Wash
R = Air Rotary C = Core
D = Denison P = Piston
N = No Sample

DEFINITIONS
SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5')
RQD = Rock Quality Designation (%)
Lab Class. = USCS (ASTM D-2487) or AASHTO (ASTM D-3282)
Lab Moist. = Moisture Content (ASTM D-2216) Dry Weight Basis

Depth (Ft.)	Sample Type and No.	Samp. Rec. (Ft. & %)	SPT or RQD	Samp. Desig.	PID (ppm)	Visual Description	Well Installation Detail	Elevation
91	S-19	.7/2.0 35%	17 22 51/5"		BG	Continued from Sheet 5 SAND, fine grained wl trace silt. Greenish gray, very dense, wet.	#0	
92 92.0								
93								
94								
95 95.0								
96	S-20	1.0/2.0 50%	9 23 51/5"		BG	SAND, fine grained wl trace silt. Greenish gray, very dense, wet.		
97 97.0								
98								
99								
100 100.0							#7	
101	S-21	1.8/2.0 90%	17 30 14 27		BG	SAND, fine to medium wl micrite cement. Light greenish gray, dense, wet.		
102 102.0								
103								
104								
105 105.0								
106	S-22	.4/2.0 20%	40 51/3"		BG	SAND, fine to medium grained wl micrite cement. Light greenish gray, dense, wet.	#0	
107 107.0								
108							#2	
109							#7	
110 110.0						Match to Sheet 7	#2	

DRILLING CO.: Hardin-Huber, Inc. BAKER REP.: J. E. Zimmerman
DRILLER: C. Chism BORING NO.: 28-GW01DW SHEET 6 OF 8

Baker
Baker Environmental, Inc

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: Site 28 - HPBD RI/FS MCB Camp Lejeune
S.O. NO.: 19231 BORING NO.: 28-GW01DW

SAMPLE TYPE
S = Split Spoon A = Auger
T = Shelby Tube W = Wash
R = Air Rotary C = Core
D = Denison P = Piston
N = No Sample

DEFINITIONS
SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5')
RQD = Rock Quality Designation (%)
Lab Class. = USCS (ASTM D-2487) or AASHTO (ASTM D-3282)
Lab Moist. = Moisture Content (ASTM D-2216) Dry Weight Basis

Depth (Ft.)	Sample Type and No.	Samp. Rec. (Ft. & %)	SPT or RQD	Samp. Desig.	PID (ppm)	Visual Description	Well Installation Detail	Elevation
111	S-23	1.0 / 2.0 50%	29 51/5"		BG	Continued from Sheet 6 SAND, fine grained w/trace silt (0 to .8') FOSSILIFEROUS LIMESTONE (.8' to 1.0') Castle Hane Fm. Gray to light green, very dense, wet.	#2 / #5	
112								
112.0								
113								
114								
115								
115.0								
116	S-24	1.0 / 2.0 50%	25 38 51/4"		BG	SAND, fine grained w/trace silt and shell material. Greenish gray, very dense, wet.		
117								
117.0								
118								
119								
120								
120.0								
121	S-25	NR	73 51/3"		-	NO RECOVERY	#8	
122								
122.0								
123								
124								
125								
125.0								
126	S-26	NR	33 51/6"		-	NO RECOVERY		
127								
127.0								
128								
9							#5	
130						Match to Sheet 8		
130.0								

DRILLING CO.: Hardin-Huber, Inc. BAKER REP.: J. E. Zimmerman
DRILLER: C. Chism BORING NO.: 28-GW01DW SHEET 7 OF 8

Baker
Baker Environmental, Inc

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: Site 28 - HPBD RI/FS MCB Camp Lejeune
S.O. NO.: 19231 BORING NO.: 28-GW01DW

SAMPLE TYPE
S = Split Spoon A = Auger
T = Shelby Tube W = Wash
R = Air Rotary C = Core
D = Denison P = Piston
N = No Sample

DEFINITIONS
SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5')
RQD = Rock Quality Designation (%)
Lab Class. = USCS (ASTM D-2487) or AASHTO (ASTM D-3282)
Lab Moist. = Moisture Content (ASTM D-2216) Dry Weight Basis

Depth (Ft.)	Sample Type and No.	Samp. Rec. (Ft. & %)	SPT or RQD	Samp. Desig.	PID (ppm)	Visual Description	Well Installation Detail	Elevation
131	S-27	NR	57 51/3"		-	Continued from Sheet 7 NO RECOVERY	#5	
132 132.0							#8	
133								
134 134.0							#5	-126.51
5						End of Boring TD 134.0'		
6								
7								
8								
9								
0								
1								
2								
3								
4								
5								
6								
7								
8								
9								
0						Match to Sheet ___		

DRILLING CO.: Hardin-Huber, Inc. BAKER REP.: J. E. Zimmerman
DRILLER: C. Chism BORING NO.: 28-GW01DW SHEET 8 OF 8

Baker
Baker Environmental, Inc

TEST BORING AND WELL CONSTRUCTION RECORI

PROJECT: SITE 28 HPBD RI/FS MCB CAMP LEJEUNE
S.O. NO.: 62470-231 BORING NO.: 28-GW05
COORDINATES: EAST: 2499931.97 NORTH: 331673.03
ELEVATION: SURFACE: 15.60 TOP OF PVC CASING: 15.47

RIG: B-57

	SPLIT SPOON	CASING	AUGERS	CORE BARREL	DATE	PROGRESS (FT)	WEATHER	WATER DEPTH (FT)	TIME
SIZE (DIAM.)	1 3/8" ID	2"	3¼ ID 6¼ ID		4-7-94	24	PARTLY SUNNY	11	
LENGTH	2.0'	24'	5.0'						
TYPE	STD	PVC SCH 40	HSA						
HAMMER WT.	140 lb								
FALL	30"								
STICK UP									

REMARKS: BACKGROUND (BG) HNU = 0.2 ppm

SAMPLE TYPE
S = Split Spoon A = Auger
T = Shelby Tube W = Wash
R = Air Rotary C = Core
D = Denison P = Piston
N = No Sample

WELL INFORMATION	DIAM	TYPE	TOP DEPTH (FT)	BOTTOM DEPTH (FT)
RISER	2"	PVC SCH 40	0	9.06
SCREEN	2"	PVC SCH 40	9.06	23.40

Depth (Ft.)	Sample Type and No.	Samp. Rec. Ft. & %	SPT or RQD	Lab. Class. or Pen. Rate	PID (ppm)	Visual Description	Well Installation Detail	Elevation Ft. MSL
1	LAB	00	100% —		BG	SAND-FINE TRACE SILT ORGANICS. CRUSHED STONE. BROWN. DRY		
2	S-1	1.60/2 79%	1 2 5 9		BG	SILT TRACE SAND-FINE. ORGANICS DAMP. BLACK. LOOSE.	CEMENT & BENTONITE	
3								
4	S-2	1.40/2 71%	2 5 6 7		BG	SILT. TRACE SAND-FINE DAMP. BLACK. MED DENSE	0 0	
5						4" CLAY BROWN		
6	S-3	1.60/2 79%	3 4 9 10		BG	CLAY TRACE SAND-FINE DAMP. YELLOW. MED DENSE	2 7 2 BENTONITE	
7								
8	LAB S-4	1.7/2 85%	2 5 3 4	04	BG	SILT SOME SAND-FINE DAMP. YELLOW & GRAY. LOOSE	5 5 SAND	
9								
10	S-5	1.7/2	2 2		BG	SAND-FINE AND SILT MOIST TO WET. GRAY LOOSE	8	

Match to Sheet 2

DRILLING CO.: EMTC BAKER REP.: KENNETH A. TUA
DRILLER: JIM MARSH BORING NO.: 28-GW05 SHEET 1 OF 2

TEST BORING AND WELL CONSTRUCTION RECORD

Baker Environmental, Inc

PROJECT: Site 28 HPBD RIFS MCB CAMP LEJEUNE
S.O. NO.: 62470-231 BORING NO.: 28-GW05

SAMPLE TYPE
S = Split Spoon A = Auger
T = Shelby Tube W = Wash
R = Air Rotary C = Core
D = Denison P = Piston
N = No Sample

DEFINITIONS
SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5')
RQD = Rock Quality Designation (%)
Lab. Class. = USCS (ASTM D-2487) or AASHTO (ASTM D-3282)
Lab. Moist. = Moisture Content (ASTM D-2216) Dry Weight Basis
PID = Photoionization Detector

Depth (Ft.)	Sample Type and No.	Samp. Rec. (Ft. & %)	SPT or RQD	Lab. Class. or Pen. Rate	PID (ppm)	Visual Description	Well Installation Detail	Elevation
11	S-5	2/2 85%	2 3		BG	Continued from Sheet 1 WATER @ 11'		
12	S-6	1.5/2 25%	3 4 4 3		BG	SAND-FINE TRACE SILT TRACE GRAVEL-FINE WET. ORANGE. LOOSE		
13								
14	S-7	2/2 100%	1 2 3 3		BG	CLAY TRACE SAND-FINE MOIST. GRAY. MED STIFF	8	
15								
16	S-8	2/2 100%	4 3 2 9		BG	CLAY. MOIST. GRAY MED STIFF	5 5	
17								
18	S-9	2/2 100%	6 6 7 7		BG	SAND-FINE AND SILT WET. GRAY. MED DENSE	7	
19								
20	S-10	1.67/2 83%	5 3 1 4		BG	SAND-FINE LITHIE SILT. WET GRAY. LOOSE	8	
21								
22	S-11	2/2 100%	10 13 14 20		BG	SAND-FINE LITTLE SILT WET. GRAY. MED DENSE		
23								
24	N					NO SAMPLE	7	-8.53
						END OF BORING 24'		
5								
6								
7								
8								
0						Match to Sheet		

DRILLING CO.: EMTC BAKER REP.: KENNETH A. TUA
DRILLER: JIM MARSH BORING NO.: 28-GW05 SHEET 2 OF 2

Baker
Baker Environmental, Inc

TEST BORING AND WELL CONSTRUCTION RECORI

PROJECT: SITE 28 HPBO RIFS MCB CAMP LEJEUNE
S.O. NO.: 62470-231 BORING NO.: 28-GW 06
COORDINATES: EAST: 2498117.9600 NORTH: 332191.7520
ELEVATION: SURFACE: 17.20 TOP OF PVC CASING: 19.98

RIG: B-57

	SPLIT SPOON	CASING	AUGERS	CORE BARREL	DATE	PROGRESS (FT)	WEATHER	WATER DEPTH (FT)	TIME
SIZE (DIAM.)	1 3/8" ID	2"	6¼" ID		4-7-94	30	SUNNY	17	
LENGTH	2.0'	30"	5.0'						
TYPE	STD	PVC SCH 40	HSA						
HAMMER WT.	140#								
FALL	30"								
STICK UP									

REMARKS: BACKGROUND (BG) HNU = 0.3 PPM

SAMPLE TYPE
S = Split Spoon A = Auger
T = Shelby Tube W = Wash
R = Air Rotary C = Core
D = Denison P = Piston
N = No Sample

WELL INFORMATION	DIAM	TYPE	TOP DEPTH (FT)	BOTTOM DEPTH (FT)
RISER	2"	PVC SCH 40	0	15.07
SCREEN	2"	PVC SCH 40	15.07	29.39

Depth (Ft.)	Sample Type and No.	Samp. Rec. Ft. & %	SPT or RQD	Lab. Class. or Pen. Rate	PID (ppm)	Visual Description	Well Installation Detail	Elevation Ft. MSL
1	LAB S-1	1.0/2 100%	—	—	BG	SILT AND SAND-FINE DRY. BLACK.		
2	S-1	1.6/2	7 7		BG	SAND-FINE LITTLE SILT. GRAY. DRY. MED DENSE		
3	S-1	79%	7 7			8" CLAY TRACE SAND-FINE. ORANGE. DRY.		
4	S-2	1.5/2	3 6		BG	SAND-FINE TRACE SILT DRY. GRAY. MED DENSE.		
5	S-2	75%	7 6					
6	S-3	1.6/2	3 9		BG	SAND-FINE TRACE SILT MOIST. WHITE. MED DENSE	0 7 0	
7	S-3	83%	8 9					
8	LAB S-4	1.6/2	3 6	04	BG	SILT AND SAND-FINE. BROWN 8" CLAY TRACE SAND-FINE DAMP. MED STIFF		
9	S-4	83%	7 9				2 2	
10	S-5	2/2	3 5		BG	CLAY TRACE SAND-FINE. DAMP. GRAY. MED DENSE		
						Match to Sheet 2	5 5	

DRILLING CO.: EMTC BAKER REP.: KENNETH A. TUA
DRILLER: JIM MARSH BORING NO.: 28-GW 06 SHEET 1 OF 2

TEST BORING AND WELL CONSTRUCTION RECORD

Baker Environmental, Inc

PROJECT: SITE 28 HPBD RIFS MCB CAMP LEJEUNE
S.O. NO.: 62470-231 BORING NO.: 28-GW06

SAMPLE TYPE
S = Split Spoon A = Auger
T = Shelby Tube W = Wash
R = Air Rotary C = Core
D = Denison P = Piston
N = No Sample

DEFINITIONS
SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5')
RQD = Rock Quality Designation (%)
Lab. Class. = USCS (ASTM D-2487) or AASHTO (ASTM D-3282)
Lab. Moist. = Moisture Content (ASTM D-2216) Dry Weight Basis
PID = Photoionization Detector

Depth (Ft.)	Sample Type and No.	Samp. Rec. (Ft. & %)	SPT or RQD	Lab. Class. or Pen. Rate	PID (ppm)	Visual Description	Well Installation Detail	Elevation
11	S-6	100%	6 9		BG	Continued from Sheet 1		
12	S-7	1.67/2 83%	4 5 4 4		BG	SAND-FINE SOME SILT TRACE CLAY. GRAY & YELLOW DAMP. MED DENSE	7	
13								
14	S-8	1.67/2 83%	1 2 1 3		BG	CLAY SOME SAND-FINE DAMP. GRAY. SOFT.		
15								
16	LAB S-9	R/2 100%	2 3 2 3		BG	10" SAND-FINE AND SILT. GRAY. MOIST MED. DENSE 2" CLAY TRACE SAND-FINE GRAY. MOIST. SOFT	5	5
17						WATER @ 17'		
18	S-10	2/2 100%	3 4 5 5		BG	SAND-FINE AND SILT. WET. GRAY AND ORANGE. LOOSE		
19							8	
20	S-11	2/2 100%	4 4 5 7		BG	12" SAND-FINE SOME SILT. YELLOW WET. LOOSE 12" CLAY SOME SAND-FINE TRACE SILT. GRAY. WET. SOFT.		
21								
22	S-12	2/2 100%	5 1 8 6		BG	SAND-FINE SOME SILT. YELLOW WET. 4" CLAY TRACE SAND-FINE GRY. MED STIFF		
23								
24	S-13	2/2 100%	3 4 3 6		BG	SILT TRACE SAND-FINE TO CLAY 4" SAND-FINE TRACE SILT. GRAY. WET. LOOSE		
25							7	
26	S-14	1.83/2 92%	3 3 5 5		BG	SAND-FINE AND SILT. GRAY. WET. LOOSE		
27							8	
28	S-15	2/2 100%	3 4 4 5		BG	SAND-FINE LITTLE SILT. WET LT. GRAY. LOOSE.		
29	N					NO SAMPLE	7	
30						END OF BORING 30' Match to Sheet		

DRILLING CO.: EMTC BAKER REP.: KENNETH A. TUA
DRILLER: JIM MARSH BORING NO.: 28-GW06 SHEET 2 OF 2

TEST BORING AND WELL CONSTRUCTION RECORD

Baker Environmental, Inc

PROJECT: Site 28 - HPBD RI/FS MCB Camp Lejeune
S.O. NO.: 19231 BORING NO.: 28-GW07
COORDINATES: EAST: 2499142.5600 NORTH: 331714.7820
ELEVATION: SURFACE: 3.85 TOP OF PVC CASING: 6.62

RIG: #73	SPLIT SPOON	CASING	AUGERS	CORE BARREL	DATE	PROGRESS (FT)	WEATHER	WATER DEPTH (FT)	TIME
SIZE (DIAM.)	1-3/8" ID		4¼" ID		4-8-94	0-18'	Clear, cool (50's)	3.5	
LENGTH	2.0'		5.0'						
TYPE	Std.		HSA						
HAMMER WT.	140#								
FALL	30"								
STICK UP									

REMARKS: Boring is sampled to 17.0'. HNu background is .2 ppm.

SAMPLE TYPE
S = Split Spoon A = Auger
T = Shelby Tube W = Wash
R = Air Rotary C = Core
D = Denison P = Piston
N = No Sample

WELL INFORMATION	DIAM	TYPE	TOP DEPTH (FT)	BOTTOM DEPTH (FT)
Well Casing	2"	PVC Threaded - Sch. 40	+ 2.5'	2.5' (bgs)
Well Screen	2"	PVC Slotted No. 10 - Sch. 40	2.5' (bgs)	17.5' (bgs)

Depth (Ft.)	Sample Type and No.	Samp. Rec. Ft. & %	SPT or RQD	Samp. Desig.	PID (ppm)	Visual Description	Well Installation Detail	Elevation
1 1.0		–	–	00	BG	SILTY SAND, fine grained Brown, v. loose, damp.	#2	
2	S-1	1.9/2.0 95%	1 2 3 4	01	BG	SAND, fine grained w/trace silt. Dark brown, moist.	#5	
3 3.0								
4	S-2	.8/2.0 40%	17 12 6 18		BG	FILL material (brick, ceramics, charcoal)		
5 5.0								
6	S-3	.4/2.0 20%	6 50/4"		BG	SAND, fine grained w/trace silt. Dark gray, very dense, wet	#8	
7 7.0								
8	S-4	.7/2.0 35%	3 7 1/12"		BG	ORGANIC material (peat like) w/ wood splinters. Dark brown, very loose, moist to wet.	#5	
9 9.0								
	S-5	.7/2.0 35%	1/12"		BG	Match to Sheet 2		

DRILLING CO.: EMTC BAKER REP.: J. E. Zimmerman
DRILLER: G. Barnes BORING NO.: 28-GW07 SHEET 1 OF 2

Baker
Baker Environmental, Inc

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: Site 28 - HPBD RI/FS MCB Camp Lejeune
S.O. NO.: 19231 BORING NO.: 28-GW07

SAMPLE TYPE
S = Split Spoon A = Auger
T = Shelby Tube W = Wash
R = Air Rotary C = Core
D = Denison P = Piston
N = No Sample

DEFINITIONS
SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5')
RQD = Rock Quality Designation (%)
Lab Class. = USCS (ASTM D-2487) or AASHTO (ASTM D-3282)
Lab Moist. = Moisture Content (ASTM D-2216) Dry Weight Basis

Depth (Ft.)	Sample Type and No.	Samp. Rec. (Ft. & %)	SPT or RQD	Samp. Desig.	PID (ppm)	Visual Description	Well Installation Detail	Elevation
11						Continued from Sheet 1	#5	
11.0	S-5	35%	1 1		BG			
12		1.0/2.0	1/12"					
13	13.0 S-6	50%	1/12"		BG	ORGANIC material (peat like) w/ wood-splinters. Dark brown, very loose, moist to wet.		
14		1.1/2.0	2 1/12"				#8	
15	15.0 S-7	55%	1		BG			
16		.7/2.0	1 1					
17	17.0 S-8	35%	1 1		BG			
18	18.0				—		#5	
19						End of Boring TD 18.0'		
20								
21								
22								
23								
24								
25								
26								
27								
28								
29								
30						Match to Sheet 3		

DRILLING CO.: EMTC BAKER REP.: J. E. Zimmerman
DRILLER: G. Barnes BORING NO.: 28-GW07 SHEET 2 OF 2

TEST BORING AND WELL CONSTRUCTION RECORD

Baker Environmental, Inc.

PROJECT: Site 28 - HPBD RI/FS MCB Camp Lejeune
S.O. NO.: 19231 BORING NO.: 28-GW08
COORDINATES: EAST: 2499117.7000 NORTH: 332231.4150
ELEVATION: SURFACE: 11.6 TOP OF PVC CASING: 14.16

RIG:	SPLIT SPOON	CASING	AUGERS	CORE BARREL	DATE	PROGRESS (FT)	WEATHER	WATER DEPTH (FT)	TIME
SIZE (DIAM.)	1-3/8" ID		3¼" ID / 6¼" ID		4-9-94	0.0-24.0	SUNNY 165°	10.8	(BORING ADVANCE)
LENGTH	2.0'		5.0						
TYPE	Std.		HSA						
HAMMER WT.	140#								
FALL	30"								
STICK UP									

REMARKS: Boring sampled to 23.0'. HNu BG = 0.2 ppm

SAMPLE TYPE
S = Split Spoon A = Auger
T = Shelby Tube W = Wash
R = Air Rotary C = Core
D = Denison P = Piston
N = No Sample

WELL INFORMATION	DIAM	TYPE	TOP DEPTH (FT)	BOTTOM DEPTH (FT)
Well Casing	2"	PVC Threaded - Sch. 40	MAY CHANGE + 2.3	7.96 bgs
Well Screen	2"	PVC Slotted No. 10 - Sch. 40	7.96 bgs	22.71 bgs

Depth (Ft.)	Sample Type and No.	Samp. Rec. Ft. & %	SPT or RQD	Samp. Desig.	PID (ppm)	Visual Description	Well Installation Detail	Elevation
1 – 1.0				OO	BG	SAND, fine grained, trace grass, trace roots, trace tile, trace glass, brown damp		
2 – 3.0	S-1	0.2 / 2.0 10%	6 10 7 7		BG	SAND, fine grained, trace gravel, trace silt, trace glass, trace white powder, brown, medium dense, damp	#0 #0	
4 – 5.0	S-2	0.3 / 2.0 15%	3 3 4 6		BG	SAND, fine grained, trace gravel, trace silt, trace glass, trace ceramic material, brown, loose, damp	#1 #2 #2	
6 – 7.0	S-3	0.2 / 2.0 10%	3 4 4 6		BG	SAND, fine grained, trace gravel, trace silt, trace brick, trace soft white substance (possible food), trace nylon stocking, brown to reddish brown, loose, damp	#5	
8 – 9.0	S-4	0.0 / 2.0 0%	6 7 12 12			NO RECOVERY		
10	S-5	1.0 / 2.0 50%	21 5	05	BG	TOP = BURNT FILL MAT'L, BLACK, damp Bott = SAND, fine grained, little burnt fill, trace silt, gray, loose, moist to wet Match to Sheet 2	#8 #5	

DRILLING CO.: EMTC BAKER REP.: MARTIN G. TAUBE
DRILLER: J. MARSH / G. BARNES BORING NO.: 28-GW08 SHEET 1 OF 2

Baker
Baker Environmental, Inc.

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: Site 28 - HPBD RI/FS MCB Camp Lejeune
S.O. NO.: 19231 BORING NO.: 28-GW08

SAMPLE TYPE
S = Split Spoon A = Auger
T = Shelby Tube W = Wash
R = Air Rotary C = Core
D = Denison P = Piston
N = No Sample

DEFINITIONS
SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5')
RQD = Rock Quality Designation (%)
Lab Class. = USCS (ASTM D-2487) or AASHTO (ASTM D-3282)
Lab Moist. = Moisture Content (ASTM D-2216) Dry Weight Basis

Depth (Ft.)	Sample Type and No.	Samp. Rec. (Ft. & %)	SPT or RQD	Samp. Desig.	PID (ppm)	Visual Description	Well Installation Detail	Elevation
11			4 7			Continued from Sheet 1, wet below 10.8'. SAMPLE collected from middle of recovered interval (3" O.D. SPLIT SPOON DRIVEN)	#5	Boring ADVANC. ▽
11.0 – 13.0	S-6	0.4 / 2.0 20%	2 1 2 1		BG	SAND, fine grained and BURNT FILL (wood, brick, glass), trace gravel, trace silt, dark gray to black, very loose, wet		
13.0 – 15.0	S-7	0.1 / 2.0 5%	3 0 1 0		BG	SAND, fine grained, little silt, trace glass, black, very loose, wet	#8 #5	
15.0 – 17.0	S-8	0.7 / 2.0 35%	4 5 13 24		BG	SAND, fine to coarse grained, trace silt, trace glass, trace ceramic, trace brick, black, medium dense, wet		
17.0 – 19.0	S-9	1.0 / 2.0 50%	8 25 23 32		BG	SAND, fine to coarse grained, trace silt, trace glass, trace ceramic, trace brick, black, very dense, wet	#7	
19.0 – 21.0	S-10	0.5 / 2.0 25%	8 12 13 12		BG	SAND, fine to coarse grained, trace silt, trace glass, trace ceramic, trace brick, trace metal scrap (screw), black, medium dense, wet	#5 #8	
21.0 – 23.0	S-11	1.0 / 2.0 50%	5 10 8 7		BG	ORGANIC MATERIAL (WOOD, LEAVES), little sand, little silt, reddish brown to dark brown, medium dense, wet to moist	#7 #5	
23						END OF BORING, TOTAL DEPTH = 23.0'		
24						NOTE: SHELL CASING RETRIEVED FROM BOREHOLE UPON REMOVAL OF AUGERS		
25								
26								
27								
28								
29								
30						Match to Sheet 3		

DRILLING CO.: EMTC
DRILLER: J. MARSH / G. BARNES
BAKER REP.: MARTIN G. TAUBE
BORING NO.: 28-GW08
SHEET 2 OF 2

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: Site 28 - HPBD RI/FS MCB Camp Lejeune
S.O. NO.: 19231 BORING NO.: 28GW07DW
COORDINATES: EAST: 2499167.46 NORTH: 331708.22
ELEVATION: SURFACE: 3.65 TOP OF PVC CASING: 6.03

RIG: #48

	SPLIT SPOON	CASING	AUGERS	CORE BARREL
SIZE (DIAM.)	1-3/8" ID	8" / 6"		
LENGTH	2.0'	50.5' / 80'		
TYPE	Std.	Steel		
HAMMER WT.	140#			
FALL	30"			
STICK UP				

DATE	PROGRESS (FT)	WEATHER	WATER DEPTH (FT)	TIME
4-18-94	0-52.0'	clear, warm (70's)		
4-20-94	52-77.0'	clear, mild (60's)		
4-26-94	80-132.0'	mostly cloudy mild, humid (60's)		

REMARKS: Boring sampled to 132.0'. HNu background is .1 ppm.

SAMPLE TYPE
S = Split Spoon A = Auger
T = Shelby Tube W = Wash
R = Air Rotary C = Core
D = Denison P = Piston
H = HAND SPOON N = No Sample

WELL INFORMATION	DIAM	TYPE	TOP DEPTH (FT)	BOTTOM DEPTH (FT)
Well Casing	2"	PVC Threaded - Sch. 40	+2.5'	114.0' (bgs)
Well Screen	2"	PVC Slotted No. 10 - Sch. 40	114.0' (bgs)	129.0' (bgs)

Depth (Ft.)	Sample Type and No.	Samp. Rec. Ft. & %	SPT or RQD	Samp. Desig.	PID (ppm)	Visual Description	Well Installation Detail	Elevation
1 1.0		—	—	00	—	0.0-0.2 GRASS, TOP SOIL. SAND, fine grained, trace silt, light brown, damp	#0	
2 3.0	S-1	1.4/2.0 70%	3 5 6 6	01	—	SAND, fine grained, little silt, brown, medium dense, moist to wet (wet below 2.7' bgs)	#1 8" steel casing	
4 5.0	S-2	0/2.0 0%	19 11 7 5		—	NO RECOVERY		
6 7.0	S-3	1.0/2.0 50%	7 5 2 2		—	SILT, Organic, some wood, dark brown, loose, wet	#7 6" steel casing	
8 9 10 10.0						Match to Sheet 2	#0	

DRILLING CO.: Hardin-Huber, Inc. BAKER REP.: M. Taube
DRILLER: C. Chism BORING NO.: 28GW07DW SHEET 1 OF 8

Baker
Baker Environmental, Inc.

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: Site 28 - HPBD RI/FS MCB Camp Lejeune
S.O. NO.: 19231 BORING NO.: 28GW7DW

SAMPLE TYPE
S = Split Spoon A = Auger
T = Shelby Tube W = Wash
R = Air Rotary C = Core
D = Denison P = Piston
N = No Sample

DEFINITIONS
SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5')
RQD = Rock Quality Designation (%)
Lab Class. = USCS (ASTM D-2487) or AASHTO (ASTM D-3282)
Lab Moist. = Moisture Content (ASTM D-2216) Dry Weight Basis

Depth (Ft.)	Sample Type and No.	Samp. Rec. (Ft. & %)	SPT or RQD	Samp. Desig.	PID (ppm)	Visual Description	Well Installation Detail	Elevation
11	S-4	1.5/2.0 75%	2 2 2 2		—	Continued from Sheet 1 SILT, organic, some wood, dark brown, very loose, wet	#0 8" steel casing	
12 12.0								
13								
14								
15 15.0							6" steel casing	
16	S-5	0/2.0 0%	5 3 2 2		—	NO RECOVERY		
17 17.0								
18	S-6	2.0/2.0 100%	2 2 2 2		—	SILTY CLAY, trace fine sand, gray, soft, wet	#7	
19 19.0								
20 20.0								
21	S-7	1.6/2.0 80%	3 2 2 2		—	SILTY CLAY, trace to some sand, trace gravel, gray and brown, soft, wet		
22 22.0								
23								
24								
25 25.0								
26	S-8	1.0/2.0 50%	4 8 9 9		—	SAND, fine to medium grained, trace silt, trace clay, trace wood fragments, dark gray, very stiff, wet		
27 27.0								
28								
29							#0	
30 30.0						Match to Sheet 3		

DRILLING CO.: Hardin-Huber, Inc. BAKER REP.: M. Tauba
DRILLER: C. Chism BORING NO.: 28GW7DW SHEET 2 OF 8

TEST BORING AND WELL CONSTRUCTION RECORD

Baker Environmental, Inc

PROJECT: Site 28 - HPBD RI/FS MCB Camp Lejeune
S.O. NO.: 19231 BORING NO.: 28GW70W

SAMPLE TYPE
S = Split Spoon A = Auger
T = Shelby Tube W = Wash
R = Air Rotary C = Core
D = Denison P = Piston
N = No Sample

DEFINITIONS
SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5')
RQD = Rock Quality Designation (%)
Lab Class. = USCS (ASTM D-2487) or AASHTO (ASTM D-3282)
Lab Moist. = Moisture Content (ASTM D-2216) Dry Weight Basis

Depth (Ft.)	Sample Type and No.	Samp. Rec. (Ft. & %)	SPT or RQD	Samp. Desig.	PID (ppm)	Visual Description	Well Installation Detail	Elevation
31	S-9	1.0/2.0 50%	9 9 7 5		–	Continued from Sheet 2 SAND, fine to coarse grained, little silt, trace wood fragments, dark gray, medium dense, wet	8" steel casing	
32 32.0								
33								
34								
35 35.0						SAND, fine to medium grained w/ CLAY and ORGANIC material (wood). Dark gray, dense to stiff, wet	6" steel casing	
36	S-10	1.3/2.0 65%	7 7 13 15		–			
37 37.0								
38								
39								
40 40.0								
41	S-11	2.0/2.0 100%	5 4 4 6		–	SAND, fine to medium grained. Dark gray to orangish brown, loose, wet.		
42 42.0								
43								
44								
45 45.0								
46	S-12	1.2/2.0 60%	6 19 17 23		–	SAND, fine to medium grained w/ shell material (6.7 to 8') only. Brown & white, dense, wet.		
47 47.0								
48								
9								
50 50.0						Match to Sheet 4		

DRILLING CO.: Hardin-Huber, Inc. BAKER REP.: J. E. Zimmerman
DRILLER: C. Chism BORING NO.: 28GW70W SHEET 3 OF 8

TEST BORING AND WELL CONSTRUCTION RECORD

Baker Environmental, Inc

PROJECT: Site 28 - HPBD RI/FS MCB Camp Lejeune
S.O. NO.: 19231 BORING NO.: 28GW70W

SAMPLE TYPE
S = Split Spoon A = Auger
T = Shelby Tube W = Wash
R = Air Rotary C = Core
D = Denison P = Piston
N = No Sample

DEFINITIONS
SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5')
RQD = Rock Quality Designation (%)
Lab Class. = USCS (ASTM D-2487) or AASHTO (ASTM D-3282)
Lab Moist. = Moisture Content (ASTM D-2216) Dry Weight Basis

Depth (Ft.)	Sample Type and No.	Samp. Rec. (Ft. & %)	SPT or RQD	Samp. Desig.	PID (ppm)	Visual Description	Well Installation Detail	Elevation
51	S-13	1.3/2.0 65%	12 13 17 21		–	Continued from Sheet 3 SAND, fine to medium grained. Brown, dense, wet.	8" steel casing; #0	
52 52.0								
53								
54								
55								
56							6" steel casing	
57								
58								
59								
60 60.0								
61	S-14	1.1/2.0 55%	16 22 51/5"		–	SAND, fine to medium w/silt and little shell material. Brown to white, dense, wet.	#7	
62 62.0								
63								
64								
65 65.0								
66	S-15	.5/2.0 25%	24 30		–	SAND, fine grained. Brown, dense, wet.		
67 67.0								
68								
9							#0	
70 70.0						Match to Sheet 5		

DRILLING CO.: Hardin-Huber, Inc.
DRILLER: C. Chism
BAKER REP.: J. E. Zimmerman
BORING NO.: 28GW70W SHEET 4 OF 8

TEST BORING AND WELL CONSTRUCTION RECORD

Baker Environmental, Inc

PROJECT: Site 28 - HPBD RI/FS MCB Camp Lejeune
S.O. NO.: 19231 BORING NO.: 28GW7DW

SAMPLE TYPE
S = Split Spoon A = Auger
T = Shelby Tube W = Wash
R = Air Rotary C = Core
D = Denison P = Piston
N = No Sample

DEFINITIONS
SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5')
RQD = Rock Quality Designation (%)
Lab Class. = USCS (ASTM D-2487) or AASHTO (ASTM D-3282)
Lab Moist. = Moisture Content (ASTM D-2216) Dry Weight Basis

Depth (Ft.)	Sample Type and No.	Samp. Rec. (Ft. & %)	SPT or RQD	Samp. Desig.	PID (ppm)	Visual Description	Well Installation Detail	Elevation
71	S-16	.6/2.0 30%	41 51/4"		–	Continued from Sheet 4 SAND, fine grained w/trace silt. Greenish gray, dense, wet	#0 6" steel casing	
72 72.0								
73								
74								
75 75.0								
76	S-17	.6/2.0 30%	30 51/5"		–	SAND, fine grained w/trace silt and shell material. Greenish gray to white, dense, wet		
77 77.0								
78								
79								
80 80.0								
81	S-18	.4/2.0 20%	4 7 39 51		BG	SAND, fine to medium grained w/trace silt and shell material. Micrite is cement acting as matrix. Greenish gray, dense, wet.	#7	
82 82.0								
83								
84								
85 85.0								
86	S-19	.8/2.0 40%	14 27 29 51/4"		BG	SAND, fine grained w/trace silt and shell material. Greenish gray to white, very dense, wet.		
87 87.0								
88								
9							#0	
90 90.0						Match to Sheet 6		

DRILLING CO.: Hardin-Huber, Inc. BAKER REP.: J. E. Zimmerman
DRILLER: C. Chism BORING NO.: 28GW7DW SHEET 5 OF 8

Baker Environmental, Inc

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: Site 28 - HPBD RI/FS MCB Camp Lejeune
S.O. NO.: 19231 BORING NO.: 28GW7DW

SAMPLE TYPE
S = Split Spoon A = Auger
T = Shelby Tube W = Wash
R = Air Rotary C = Core
D = Denison P = Piston
N = No Sample

DEFINITIONS
SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5')
RQD = Rock Quality Designation (%)
Lab Class. = USCS (ASTM D-2487) or AASHTO (ASTM D-3282)
Lab Moist. = Moisture Content (ASTM D-2216) Dry Weight Basis

Depth (Ft.)	Sample Type and No.	Samp. Rec. (Ft. & %)	SPT or RQD	Samp. Desig.	PID (ppm)	Visual Description	Well Installation Detail	Elevation
91	S20	1.3/2.0 65%	17 33 40 5½"		BG	Continued from Sheet 5 SAND, fine grained w/ trace silt and shell fragments. Greenish gray and white, very dense, wet.	#10	
92 92.0								
93								
94								
95 95.0								
96	S21	1.8/2.0 90%	19 29 29 5½"		BG	SAND, fine to medium grained w/ trace silt and shell fragments. Green and white, very dense, wet.	#7	
97 97.0								
98								
99								
100 100.0								
101	S22	1.6/2.0 80%	19 47 21 20		BG	SAND, fine grained w/ trace silt (0 to 1.0') FOSSILIFEROUS LIMESTONE (Castle Hane Fm) (1.0 to 1.1'). SAND, fine grained w/ trace silt and shell fragments. Light greenish gray and white, very dense, wet.		#10
102 102.0								
103								
104								
105 105.0								
106	S23	.6/2.0 30%	37 5½"		BG	SAND, fine grained w/ trace silt and shell material. Light greenish gray and white, very dense, wet.	#2 #7	#2
107 107.0								
108								
9								
110 110.0						Match to Sheet 7	#5	#5

DRILLING CO.: Hardin-Huber, Inc. BAKER REP.: J. E. Zimmerman
DRILLER: C. Chism BORING NO.: 28GW7DW SHEET 6 OF 8

Baker Environmental, Inc

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: Site 28 - HPBD RI/FS MCB Camp Lejeune
S.O. NO.: 19231 BORING NO.: 28GW7DW

SAMPLE TYPE
S = Split Spoon A = Auger
T = Shelby Tube W = Wash
R = Air Rotary C = Core
D = Denison P = Piston
N = No Sample

DEFINITIONS
SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5')
RQD = Rock Quality Designation (%)
Lab Class. = USCS (ASTM D-2487) or AASHTO (ASTM D-3282)
Lab Moist. = Moisture Content (ASTM D-2216) Dry Weight Basis

Depth (Ft.)	Sample Type and No.	Samp. Rec. (Ft. & %)	SPT or RQD	Samp. Desig.	PID (ppm)	Visual Description	Well Installation Detail	Elevation
111	S-24	.9/2.0 45%	47 51/5"		BG	Continued from Sheet 6. SAND, fine grained wL trace silt and shell material. Light greenish gray and white, very dense, wet.	#5	
112 112.0								
113							#7	
114								
115 115.0								
116	S-25	1.6/2.0 80%	17 19 29 33		BG	SAND, fine grained wl trace silt. Greenish gray, dense, wet.		
117 117.0								
118								
119								
120 120.0							#8	
121	S-26	NR	41 51/3"		-	NO RECOVERY		
122 122.0								
123								
124								
125 125.0								
126	S-27	NR	42 51/3"		-	NO RECOVERY		
127 127.0								
128							#5	
9								
130 130.0						Match to Sheet 8		

DRILLING CO.: Hardin-Huber, Inc.
DRILLER: C. Chism
BAKER REP.: J. E. Zimmerman
BORING NO.: 28GW7DW SHEET 7 OF 8

Baker
Baker Environmental, Inc

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: Site 1 - FCLDA RI/FS MCB Camp Lejeune
S.O. NO.: 19231 BORING NO.: 28GW7DW

SAMPLE TYPE
S = Split Spoon A = Auger
T = Shelby Tube W = Wash
R = Air Rotary C = Core
D = Denison P = Piston
N = No Sample

DEFINITIONS
SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5')
RQD = Rock Quality Designation (%)
Lab Class. = USCS (ASTM D-2487) or AASHTO (ASTM D-3282)
Lab Moist. = Moisture Content (ASTM D-2216) Dry Weight Basis

Depth (Ft.)	Sample Type and No.	Samp. Rec. (Ft. & %)	SPT or RQD	Samp. Desig.	PID (ppm)	Visual Description	Well Installation Detail	Elevation
131	S-28	1.3/2.0 65%	29 40 51/5"		BG	Continued from Sheet 7 SAND, fine grained w/ trace silt. Greenish gray, very dense, wet	#5 #5	
132 132.0								-125.97
133						End of Boring TD 132.0'		
134								
135								
6								
7								
8								
9								
0								
1								
2								
3								
4								
5								
6								
7								
8								
9								
0						Match to Sheet ___		

DRILLING CO.: Hardin-Huber, Inc. BAKER REP.: J. E. Zimmerman
DRILLER: C. Chism BORING NO.: 28GW7DW SHEET 8 OF 8

TEST BORING AND WELL CONSTRUCTION RECORD

Baker Environmental, Inc

PROJECT: Site 28 - HPBD RI/FS MCB Camp Lejeune
S.O. NO.: 19231 BORING NO.: 28GW90W
COORDINATES: EAST: 2498283.33 NORTH: 332886.18
ELEVATION: SURFACE: 4.50 TOP OF PVC CASING: 6.91

RIG: #48	SPLIT SPOON	CASING	AUGERS	CORE BARREL	DATE	PROGRESS (FT)	WEATHER	WATER DEPTH (FT)	TIME
SIZE (DIAM.)	1-3/8" ID	8"			4-7-94	0-51'	clear, mild (70's)	2.5	
LENGTH	2.0'	51.0'			4-9-94	51'-71'	clear, cool (50's)		
TYPE	Std.	Steel			4-11-94	71'-111'	overcast, mild (70's)		
HAMMER WT.	140#				4-12-94	111'-126'	clear, mild (60's)		
FALL	30"								
STICK UP									

REMARKS: Boring sampled to 126.0'. HNu background range is .2 ppm to 2.3 ppm.

SAMPLE TYPE
S = Split Spoon A = Auger
T = Shelby Tube W = Wash
R = Air Rotary C = Core
D = Denison P = Piston
N = No Sample

WELL INFORMATION	DIAM	TYPE	TOP DEPTH (FT)	BOTTOM DEPTH (FT)
Well Casing	2"	PVC Threaded - Sch. 40	+2.5'	111.0' (bgs)
Well Screen	2"	PVC Slotted No. 10 - Sch. 40	111.0' (bgs)	126.0' (bgs)

Depth (Ft.)	Sample Type and No.	Samp. Rec. Ft. & %	SPT or RQD	Samp. Desig.	PID (ppm)	Visual Description	Well Installation Detail	Elevation
0						Rooted Zone (Dark Brown)	#0	
1	S-1	1.7/2.0 85%	9 17 14 16	01	BG	SILTY SAND, fine grained, Brown, dense, damp to moist		
2								
3	S-2	.6/2.0 30%	18 18 11 7		BG	SAND, fine grained w/ trace silt. Brown, medium dense, wet.	8" steel casing	
4								
5							#7	
6								
7								
8								
9								
10	S-3	1.6/2.0 80%	7 9		BG	SAND, fine grained w/ trace silt. Match to Sheet 2	#0	

DRILLING CO.: EMTC BAKER REP.: J. E. Zimmerman
DRILLER: G. Barnes BORING NO.: 28GW90W SHEET 1 OF 7

Baker
Baker Environmental, Inc

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: Site 28 - HPBD RI/FS MCB Camp Lejeune
S.O. NO.: 19231 BORING NO.: 28GW9DW

SAMPLE TYPE
S = Split Spoon A = Auger
T = Shelby Tube W = Wash
R = Air Rotary C = Core
D = Denison P = Piston
N = No Sample

DEFINITIONS
SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5')
RQD = Rock Quality Designation (%)
Lab Class. = USCS (ASTM D-2487) or AASHTO (ASTM D-3282)
Lab Moist. = Moisture Content (ASTM D-2216) Dry Weight Basis

Depth (Ft.)	Sample Type and No.	Samp. Rec. (Ft. & %)	SPT or RQD	Samp. Desig.	PID (ppm)	Visual Description	Well Installation Detail	Elevation
11	S-3	80%	18 19		BG	Continued from Sheet 1 Gray, medium dense, wet. Oxidation streaks (orange) are occasional.	8" steel casing; #0	
11.0								
12								
13								
14								
14.0								
15	S-4	2.0/2.0 100%	3 5 7 12		BG	SILTY CLAY (0 to 1.4') and (1.6 to 2.0'). SAND, fine grained (1.4 to 1.6'). Organic material (peat) (1.6' only). Gray to dark brown, soft to medium dense, wet.		
16								
16.0								
17								
18								
19								
19.0								
20	S-5	.9/2.0 45%	12 23 39 26		BG	SAND, fine grained w/ trace silt. Brown to yellowish brown, very dense, wet	#7	
21								
21.0								
22								
23								
24								
24.0								
25	S-6	1.7/2.0 85%	18 52 67 48		BG	SAND, fine grained w/ trace silt. Brown to yellowish brown, very dense, wet.		
26								
26.0								
27								
28								
29							#0	
29.0								
30	S-7	2.0/2.0 100%	18 28		BG	SAND, fine to medium grained w/ Match to Sheet 3		

DRILLING CO.: EMTC BAKER REP.: J. E. Zimmerman
DRILLER: G. Barnes BORING NO.: 28GW9DW SHEET 2 OF 7

Baker
Baker Environmental, Inc

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: Site 28 - HPBD RI/FS MCB Camp Lejeune
S.O. NO.: 19231 BORING NO.: 28GW9DW

SAMPLE TYPE
S = Split Spoon A = Auger
T = Shelby Tube W = Wash
R = Air Rotary C = Core
D = Denison P = Piston
N = No Sample

DEFINITIONS
SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5')
RQD = Rock Quality Designation (%)
Lab Class. = USCS (ASTM D-2487) or AASHTO (ASTM D-3282)
Lab Moist. = Moisture Content (ASTM D-2216) Dry Weight Basis

Depth (Ft.)	Sample Type and No.	Samp. Rec. (Ft. & %)	SPT or RQD	Samp. Desig.	PID (ppm)	Visual Description	Well Installation Detail	Elevation
31 31.0	S-7	100%	32 35		BG	Continued from Sheet 2 trace silt and gravel. Brown, very dense, wet.	#0	
32 33 34 34.0							8" steel casing	
35 36 36.0	S-8	1.6/2.0 80%	18 27 36 54		BG	SAND, fine to medium grained w/ trace silt. organic material (.7') Brown to yellowish brown, very dense, wet		
37 38 39 39.0							#7	
40 41 41.0	S-9	.8/2.0 40%	20 37 59/2"		BG	SAND, fine to medium grained w/ trace silt Brown to yellowish brown, very dense, wet.		
42 43 44 44.0								
45 46 46.0	S-10	1.8/2.0 90%	45 100 100/5"		BG	SAND, fine to medium grained w/ trace silt Fine gravel (1.1' to 1.2') Brown, very dense, wet.	#0	
47 48 49 49.0								
50	S-11	1.2/2.0 60%	58 102		BG	SAND, fine to medium grained w/ Match to Sheet 4		

DRILLING CO.: EMTC
DRILLER: G. Barnes
BAKER REP.: J. E. Zimmerman
BORING NO.: 28GW9DW SHEET 3 OF 7

Baker Environmental, Inc.

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: Site 28 - HPBD RI/FS MCB Camp Lejeune
S.O. NO.: 19231 BORING NO.: 28GW90W

SAMPLE TYPE
S = Split Spoon A = Auger
T = Shelby Tube W = Wash
R = Air Rotary C = Core
D = Denison P = Piston
N = No Sample

DEFINITIONS
SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5')
RQD = Rock Quality Designation (%)
Lab Class. = USCS (ASTM D-2487) or AASHTO (ASTM D-3282)
Lab Moist. = Moisture Content (ASTM D-2216) Dry Weight Basis

Depth (Ft.)	Sample Type and No.	Samp. Rec. (Ft. & %)	SPT or RQD	Samp. Desig.	PID (ppm)	Visual Description	Well Installation Detail	Elevation
51 51.0	S-11	60%	100/4"		BG	Continued from Sheet 3 trace fine gravel (1.0 to 1.1'). Brown, very dense, wet.	8" steel casing; #0	
52								
53								
54 54.0								
55	S-12	1.5/2.0	53 67 77		BG	SAND, fine to medium grained w/ trace fine gravel. Brown, very dense, wet.		
56 56.0		75%	88					
57								
58								
59 59.0								
60	S-13	.6/2.0	68 115 103		BG	SAND, fine grained w/ trace silt. Green, very dense, wet	#7	
61 61.0		30%	123					
62								
63								
64 64.0								
65	S-14	.6/2.0	20 40 100/5"		BG	SAND, fine grained w/ trace silt. Green, very dense, wet.		
66 66.0		30%						
67								
68								
69 69.0							#	
70	S-15	.5/2.0	70 82		BG	SAND, fine grained w/ trace silt. Match to Sheet 5	0	

DRILLING CO.: EMTC BAKER REP.: J. E. Zimmerman
DRILLER: G. Moore BORING NO.: 28GW90W SHEET 4 OF 7

Baker Environmental, Inc

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: Site 28 - HPBD RI/FS MCB Camp Lejeune
S.O. NO.: 19231 BORING NO.: 28GW90W

SAMPLE TYPE
S = Split Spoon A = Auger
T = Shelby Tube W = Wash
R = Air Rotary C = Core
D = Denison P = Piston
N = No Sample

DEFINITIONS
SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5')
RQD = Rock Quality Designation (%)
Lab Class. = USCS (ASTM D-2487) or AASHTO (ASTM D-3282)
Lab Moist. = Moisture Content (ASTM D-2216) Dry Weight Basis

Depth (Ft.)	Sample Type and No.	Samp. Rec. (Ft. & %)	SPT or RQD	Samp. Desig.	PID (ppm)	Visual Description	Well Installation Detail	Elevation
71 71.0	S-15	25%	100/5"		BG	Continued from Sheet 4 Green, very dense, wet.	#0	
72								
73								
74 74.0		2.0	78			SAND, fine grained w/ trace silt. Gray to light green, very dense, wet.		
75	S-16		86		BG			
76 76.0			156 49					
17								
78								
79 79.0							#7	
80	S-17	2.0	17 35		BG	SAND, fine grained w/ trace silt and shell fragments. Gray to light green, very dense, wet.		
81 81.0			157 283					
82								
83								
84 84.0								
85	S-18	1.1	6 8		BG	SAND, fine grained w/ trace silt. Light green, very dense wet.		
86 86.0			27 47					
87								
88							#0	
9 89.0								
90	S-19	1.9	6 9		BG	SAND, fine grained w/ trace silt Match to Sheet 6		

DRILLING CO.: EMTC BAKER REP.: J. E. Zimmerman
DRILLER: G. Moore BORING NO.: 28GW90W SHEET 5 OF 7

Baker Environmental, Inc

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: Site 28 - HPBD RI/FS MCB Camp Lejeune
S.O. NO.: 19231 BORING NO.: 28GW9DW

SAMPLE TYPE
S = Split Spoon A = Auger
T = Shelby Tube W = Wash
R = Air Rotary C = Core
D = Denison P = Piston
N = No Sample

DEFINITIONS
SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5')
RQD = Rock Quality Designation (%)
Lab Class. = USCS (ASTM D-2487) or AASHTO (ASTM D-3282)
Lab Moist. = Moisture Content (ASTM D-2216) Dry Weight Basis

Depth (Ft.)	Sample Type and No.	Samp. Rec. (Ft. & %)	SPT or RQD	Samp. Desig.	PID (ppm)	Visual Description	Well Installation Detail	Elevation
91 91.0	S-19	95%	37 36		BG	Continued from Sheet 5 Light green, very dense, wet.	#0	
92								
93							#7	
94 94.0						SAND, fine grained w/ trace silt. Gray to		
95	S-20	1.0	28 69 91			FOSSILIFEROUS LIMESTONE (Castle Hane Fm)	#0	
96 96.0			30			Light green, very dense wet.		
97							#2	
98								
99 99.0								
100	S-21	1.1	70 75 45			SAND, fine to medium grained w/ trace shell material and micrite cement. Light green, very dense, wet	#7	
101 101.0			22					
102								
103								
104 104.0							#2	
105	S-22	1.8	23 31 52			SAND, fine to medium grained w/ trace shell material and micrite cement. Light green, very dense, wet.		
106 106.0			35				#5	
107								
108							#7	
109.0								
110	S-23	1.8	28 46			SAND, fine grained w/ trace silt Match to Sheet 7	#5	

DRILLING CO.: EMTC BAKER REP.: J. E. Zimmerman
DRILLER: G. Moore BORING NO.: 28GW9DW SHEET 6 OF 7

TEST BORING AND WELL CONSTRUCTION RECORD

Baker Environmental, Inc

PROJECT: Site 28 - HPBD RI/FS MCB Camp Lejeune
S.O. NO.: 19231 BORING NO.: 28GW90W

SAMPLE TYPE
S = Split Spoon A = Auger
T = Shelby Tube W = Wash
R = Air Rotary C = Core
D = Denison P = Piston
N = No Sample

DEFINITIONS
SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5')
RQD = Rock Quality Designation (%)
Lab Class. = USCS (ASTM D-2487) or AASHTO (ASTM D-3282)
Lab Moist. = Moisture Content (ASTM D-2216) Dry Weight Basis

Depth (Ft.)	Sample Type and No.	Samp. Rec. (Ft. & %)	SPT or RQD	Samp. Desig.	PID (ppm)	Visual Description	Well Installation Detail	Elevation
111 111.0	S-23	90%	48 65		BG	Continued from Sheet 6 Light green to gray, very dense, wet.	#5	
112								
113								
114 114.0								
115	S-24	.8/2.0	39 78 45		BG	SAND, fine grained w/ trace silt. Greenish gray very dense, wet.		
116 116.0		40%	65					
117								
118							#8	
119 119.0								
120	S-25	1.4/2.0	17 25 47		BG	SAND, fine grained w/ trace silt. Greenish gray, very dense, wet.		
121 121.0		70%	40					
122								
123								
124 124.0								
125	S-26	.8/2.0	17 32 45		BG	SAND, fine grained w/ trace silt. Greenish gray, very dense, wet.		
126 126.0		40%	106				#5	
127								
128 128.0								-121.09
						End of Boring TD 128.0'		
130						Match to Sheet ___		

DRILLING CO.: EMTC BAKER REP.: J.E. Zimmerman
DRILLER: G. Moore BORING NO.: 28GW90W SHEET 7 OF 7

SITE 30

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: Site 30 - SFRFTSA RI/FS MCB Camp Lejeune
S.O. NO.: 19231 BORING NO.: 30-PZ01
COORDINATES: EAST: 2512893.21 NORTH: 318827.90
ELEVATION: SURFACE: 32.5 TOP OF PVC CASING: 35.33

RIG: # 220									
	SPLIT SPOON	CASING	AUGERS	CORE BARREL	DATE	PROGRESS (FT)	WEATHER	WATER DEPTH (FT)	TIME
SIZE (DIAM.)	1-3/8" ID		4¼" ID		3-23-94	0-25.0	clear, mild (60's)	—	
LENGTH	2.0'		5.0'						
TYPE	Std.		HSA						
HAMMER WT.	140#								
FALL	30"								
STICK UP									

REMARKS: Boring not sampled. HNu background is .4 ppm.

SAMPLE TYPE
S = Split Spoon A = Auger
T = Shelby Tube W = Wash
R = Air Rotary C = Core
D = Denison P = Piston
N = No Sample

WELL INFORMATION	DIAM	TYPE	TOP DEPTH (FT)	BOTTOM DEPTH (FT)
Well Casing	2"	PVC Threaded - Sch. 40	+1.5'	20 (bgs)
Well Screen	2"	PVC Slotted No. 10 - Sch. 40	20 (bgs)	25 (bgs)

Depth (Ft.)	Sample Type and No.	Samp. Rec. Ft. & %	SPT or RQD	Samp. Desig.	PID (ppm)	Visual Description	Well Installation Detail	Elevation
1						No sampling completed	#0	
2								
3								
4								
5							#7	
6								
7								
8								
9							#0	
10						Match to Sheet 2		

DRILLING CO.: EMTC BAKER REP.: J. E. Zimmerman
DRILLER: G. Barnes BORING NO.: 30-PZ01 SHEET 1 OF 2

TEST BORING AND WELL CONSTRUCTION RECORD

Baker Environmental, Inc

PROJECT: Site 30 - SFRFTSA RI/FS MCB Camp Lejeune
S.O. NO.: 19231 BORING NO.: 30-PZ01

SAMPLE TYPE
S = Split Spoon A = Auger
T = Shelby Tube W = Wash
R = Air Rotary C = Core
D = Denison P = Piston
N = No Sample

DEFINITIONS
SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5')
RQD = Rock Quality Designation (%)
Lab. Class. = USCS (ASTM D-2487) or AASHTO (ASTM D-3282)
Lab. Moist. = Moisture Content (ASTM D-2216) Dry Weight Basis

Depth (Ft.)	Sample Type and No.	Samp. Rec. (Ft. & %)	SPT or RQD	Samp. Desig.	PID (ppm)	Visual Description	Well Installation Detail	Elevation
11–30						Continued from Sheet 1 No Sampling Completed End of Boring TD 26.0' Match to Sheet 3	#0, #7, #0, #2, #2, #7, #5, #8, #5	6.50

DRILLING CO.: EMTC BAKER REP.: J. E. Zimmerman
DRILLER: G. Barnes BORING NO.: 30-PZ01 SHEET 2 OF 2

TEST BORING AND WELL CONSTRUCTION RECORD

Baker Environmental, Inc

PROJECT: SITE 30 SFRFTSA RI/FS MCB CAMP LEJEUNE
S.O. NO.: 62470-231 BORING NO.: 30-GW-03
COORDINATES: EAST: 2514578.58 NORTH: 318923.62
ELEVATION: SURFACE: 40.5 TOP OF PVC CASING: 43.17

RIG: B-57	SPLIT SPOON	CASING	AUGERS	CORE BARREL	DATE	PROGRESS (FT)	WEATHER	WATER DEPTH (FT)	TIME
SIZE (DIAM.)	1 3/8" ID	2"	6¼" ID		3-24-94	17'	CLEAR & WARM	3'	
LENGTH	2.0	17.5'	5.0						
TYPE	STD	PVC SCH. 40	HSA						
HAMMER WT.	140#								
FALL	30"								
STICK UP									

REMARKS: HNU BACKGROUND (BG) =

SAMPLE TYPE
S = Split Spoon A = Auger
T = Shelby Tube W = Wash
R = Air Rotary C = Core
D = Denison P = Piston
N = No Sample

WELL INFORMATION	DIAM	TYPE	TOP DEPTH (FT)	BOTTOM DEPTH (FT)
Well Casing	2"	SCH. 40 PVC	0	2.47
Well Screen	2"	SCH 40 PVC .010	2.47	17.5

Depth (Ft.)	Sample Type and No.	Samp. Rec. Ft. & %	SPT or RQD	Lab. Class. or Pen. Rate	PID (ppm)	Visual Description	Well Installation Detail	Elevation
1	LAB	GRAB	100%	—	0	4" Top Soil SAND-FINE TRACE SILT BLACK TO LIGHT GRAY. DAMP	1 2 7 2	
2	LAB	S-1	.92/2 46%	2 3 3 2	01	SAND-FINE LITTLE SILT LIGHT BROWN. WET. LOOSE		
3						WATER @ 3'		
4		S-2	0/2 0%	3 1 2 4		NO RECOVERY		
5								
6		S-3	1.16/2 58%	3 3 4 2		SAND-FINE AND SILT. BLACK. WET LOOSE	5 8 5	
7								
8								
9		AN						

Match to Sheet 2

DRILLING CO.: EMTC BAKER REP.: KENNETH A. TIA
DRILLER: JIM MARSH BORING NO.: 30GW03 SHEET 1 OF 2

TEST BORING AND WELL CONSTRUCTION RECORD

Baker Environmental, Inc

PROJECT: Site 30 SERFTSA RI/FS MCB CAMP LEJEUNE
S.O. NO.: 62470-231 BORING NO.: 30GW03

SAMPLE TYPE
S = Split Spoon A = Auger
T = Shelby Tube W = Wash
R = Air Rotary C = Core
D = Denison P = Piston
N = No Sample

DEFINITIONS
SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5')
RQD = Rock Quality Designation (%)
Lab. Class. = USCS (ASTM D-2487) or AASHTO (ASTM D-3282)
Lab. Moist. = Moisture Content (ASTM D-2216) Dry Weight Basis
PID = Photoionization Detector

Depth (Ft.)	Sample Type and No.	Samp. Rec. (Ft. & %)	SPT or RQD	Lab. Class. or Pen. Rate	PID (ppm)	Visual Description	Well Installation Detail	Elevation
11	S-4	2/2	3 15 17			Continued from Sheet SAND-FINE AND SILT BLACK, WET DENSE	8	
12		100%	18				7	
13	A-N							
14							5 8 5	
15		2/2	8			SAND-FINE TRACE SAND-MEDIUM		
16	S-5		12 15			BLACK, WET MED-DENSE		
17		100%	17				7	25.67
	N					END OF BORING 17.5'		
18								
19								
20								
1								
2								
3								
4								
5								
6								
7								
8								
0						Match to Sheet		

DRILLING CO.: EMTC BAKER REP.: KENNETH A. TUA
DRILLER: JIM MARSH BORING NO.: 30GW03 SHEET 2 OF 2

APPENDIX C
CHAIN-OF-CUSTODY FORMS

SITE 1

COC # ~~01-00~~ 01001 0133 T 3-23-94

CHAIN OF CUSTODY

Original Chain of Custody goes to Laboratory

Page 1 of 1

Proj. #: 62470-231

Project name: 62470-231 Site 1

Samplers (Please print): Aaron Bernhart / Mike Muslim

DATE	Time	Comp./Grab.	Sample Identification	Sample Matrix	Number of containers	TCL VOA	TCL SVOA	TAL Metals	TCL Pest/PCBs					Remarks
03/22/94	1556	G	1-SD02-06	S	3	X	X	X	X					Routine
03/22/94	1600	G	1-SD02-612	S	3	X	X	X	X					Routine
03/22/94	1925	G	1-SDER-01	L	8	X	X	X	X					Routine
3/23/94	1300	G	1-TB-01	L	2	X								Routine

Relinquished by (Signature)	Date/Time	Received by (Signature)	Date/Time
[signature]	3/23/94 1530		

Remarks: - See Remarks for sample turnaround
- Airbill # 1630421995

CEIMIC Corporation 10 Dean Knauss Drive, Narragansett, RI 02882 (401) 782-8900 FAX (401) 782-8905

CHAIN OF CUSTODY

0141

Original Chain of Custody goes to Laboratory COC# 01002 Page 1 of 1

Proj. #	Project name	Sample Matrix	Number of containers	Analyses									Remarks *
	MC Base Camp Leicome Site 1			TCL SVOA, PEST/PCB	TAL Metals	TCL VOA							
Samplers (Please print) A. Barnhardt													
DATE / Time / Comp. Grab. / Sample Identification													
03-22-94 1605 G 1-SD01-06		S	6	X	X	X							Routine
03-23-94 1605 G 1-SD01-06D		S	3	X	X	X							Routine
03-23-94 1605 G 1-SD01-612		S	3	X	X	X							Routine
3-24-94 1400 G 1-[redacted]TB-01		L	2			X							Routine

Relinquished by (Signature)	Date/Time	Received by (Signature)	Date/Time
[signature]	3-24-94 1500		
Relinquished by (Signature)	Date/Time	Received by (Signature)	Date/Time
Relinquished by (Signature)	Date/Time	Received by (Signature)	Date/Time

Remarks:
* Turnaround Time
Airbill # 1630422006

CEIMIC Corporation 10 Dean Knauss Drive, Narragansett, RI 02882 (401) 782-8900 FAX (401) 782-8905

0106

CHAIN OF CUSTODY

COC # 01003

Original Chain of Custody goes to Laboratory

Page 1 of 1

Proj. #	Project name
62470-231	MCB Camp Lejeune - Site 1

Samplers (Please print): KTua (B) / A Bernhardt (C)

DATE	Time	Comp. / Grab.	Sample Identification	Sample Matrix	Number of containers	TCL VOA	TCL SVOA	TCL Pest/PCB	TAL Metals	TPH				Remarks
3-28 94	1015	G	1-SIER-01	L	8	X	X	X	X	X				Routine
3-28 94	1640	G	1-N-SB19-00	S	3	X	X	X	X	X				Routine
3-28 94	1659	G	1-N-SB19-04	S	3	X	X	X	X	X				7-day
3-28 94	1718	G	1-N-SB29-00	S	3	X	X	X	X	X				Routine
3-28 94	1727	G	1-N-SB29-02	S	3	X	X	X	X	X				7-day
3-28 94	1810	G	1-TB-03	L	2	X								Routine
3-29 94	0815	G	1-N-SB30-00	S	3	X	X	X	X	X				Routine
3-29 94	0839	G	1-N-SB30-03	S	3	X	X	X	X	X				7-day
3-29 94	0857	G	1-N-SB36-01	S	3	X	X	X	X	X				Routine
3-29 94	0932	G	1-N-SB36-06	S	3	X	X	X	X	X				7-day

Relinquished by (Signature)	Date/Time	Received by (Signature)	Date/Time
[signature]	3-29-94 1500		
Relinquished by (Signature)	Date/Time	Received by (Signature)	Date/Time
Relinquished by (Signature)	Date/Time	Received by (Signature)	Date/Time

Remarks:
- See Remarks for Sample Turnaround
- Airbill # 163042222 0

CEIMIC Corporation 10 Dean Knauss Drive, Narragansett, RI 02882 (401) 782-8900 FAX (401) 782-8905

CHAIN OF CUSTODY COC # 01004

Original Chain of Custody goes to Laboratory

0114

Page 1 of 2

Proj. #: 62470-231

Project name: MCB Camp Lejeune - Site 1

Samplers (Please print): J Zimmerman (A) / K Tua (B) / M Taube (A+)

DATE	Time	Comp. / Grab.	Sample Identification	Sample Matrix	Number of containers	TCL VOA	TCL SVOA	TCL Pest/PCB	TAL Metals	TPH				Remarks
3-29-94	0943	G	1-N-SB27-01	S	3	X	X	X	X	X				Routine
3-29-94	0956	G	1-N-SB27-05	S	3	X	X	X	X	X				7-day
3-29-94	1010	G	1-N-SB25-01	S	3	X	X	X	X	X				Routine
3-29-94	1041	G	1-N-SB25-06	S	3	X	X	X	X	X				7-day
3-29-94	1045	G	1-N-SB31-01	S	3	X	X	X	X	X				Routine
3-29-94	1055	G	1-N-SB31-04	S	3	X	X	X	X	X				7-day
3-29-94	1117	G	1-N-SB24-01	S	3	X	X	X	X	X				Routine
3-29-94	1152	G	1-N-SB24-04	S	3	X	X	X	X	X				Routine
3-29-94	1202	G	1-N-SB24-07	S	3	X	X	X	X	X				↓
3-29-94	1208	G	1-N-SB28-01	S	3	X	X	X	X	X				
3-29-94	1220	G	1-N-SB28-04	S	3	X	X	X	X	X				
3-29-94	1233	G	1-N-SB21-01	S	3	X	X	X	X	X				
3-29-94	1250	G	1-N-SB21-04	S	3	X	X	X	X	X				
3-29-94	1303	G	1-N-SB21-07	S	3	X	X	X	X	X				↓

Relinquished by (Signature)	Date/Time	Received by (Signature)	Date/Time
[signature]	3-30-94 1500		
Relinquished by (Signature)	Date/Time	Received by (Signature)	Date/Time
Relinquished by (Signature)	Date/Time	Received by (Signature)	Date/Time

Remarks:
- See Remarks for sample turn
- Airbill # 1630422194

CHAIN OF CUSTODY

COC # 01004

0120

Original Chain of Custody goes to Laboratory

Page 2 of 2

Proj. #	Project name			Sample Matrix	Number of containers	Analyses								
62470-231	MCB Camp Lejeune - Site 1													
Samplers (Please print)														
JZimmerman (A) / KTim (B) / MTaube (A)														
DATE	Time	Comp. / Grab.	Sample Identification			TCL VOA	TCL SVOA	TCL Pest/PCB	TAL Metals	TPH			*MS/MSD	Remarks
3-29-94	1320	G	1-N-SB37-01	S	3	X	X	X	X	X				Routine
3-29-94	1328	G	1-N-SB37-02	S	3	X	X	X	X	X				
3-29-94	1359	G	1-N-SB26-01D	S	3	X	X	X	X	X				
3-29-94	1359	G	1-N-SB26-01 TFT 3-30-94	S	~~3~~ 6	X	X	X	X	X			X	
3-29-94	1405	G	1-N-SB20-00	S	3	X	X	X	X	X				
3-29-94	1422	G	1-N-SB20-05	S	3	X	X	X	X	X				
3-30-94	0800	G	1-TB-04	L	2	X								

Relinquished by (Signature)	Date/Time	Received by (Signature)	Date/Time
Th J. Tschibl	3-30-94 1500		
Relinquished by (Signature)	Date/Time	Received by (Signature)	Date/Time
Relinquished by (Signature)	Date/Time	Received by (Signature)	Date/Time

Remarks:
- See Remarks for sample turn
- Airbill # 163042219 4
* MS/MSD

CEIMIC Corporation 10 Dean Knauss Drive, Narragansett, RI 02882 (401) 782-8900 FAX (401) 782-8905

CHAIN OF CUSTODY

Original Chain of Custody goes to Laboratory

COC # 01005

0116

Page 1 of 2

Proj. #	Project name
62470-231	MCB Camp Lejeune - Site 1

Samplers (Please print): (A) JZimmerman / (B) KTua / (A1) MTaube

DATE	Time	Comp. / Grab.	Sample Identification	Sample Matrix	Number of containers	TCL VOA	TCL SVOA	TCL Pest/PCB	TAL Metals	TPH			* MS/MSD	Remarks
3-29-94	1416	G	1-N-SB26-04	S	6	X	X	X	X	X			X	Routine
3-29-94	1416	G	1-N-SB26-04D	S	3	X	X	X	X	X				
3-29-94	1500	G	1-N-SB35-01	S	3	X	X	X	X	X				
3-29-94	1529	G	1-N-SB35-06	S	3	X	X	X	X	X				
3-29-94	1536	G	1-S-SB10-01	S	3	X	X	X	X	X				
3-29-94	1544	G	1-S-SB10-04	S	3	X	X	X	X	X				7-day
3-29-94	1602	G	1-S-SB10-08	S	3	X	X	X	X	X				7-day
3-29-94	1702	G	1-N-SB34-01	S	3	X	X	X	X	X				Routine
3-29-94	1745	G	1-N-SB34-03	S	3	X	X	X	X	X				Routine
3-29-94	1820	G	1-N-SB34-07	S	3	X	X	X	X	X				Routine
3-29-94	1715	G	1-S-SB01-01	S	3	X	X	X	X	X				Routine
3-29-94	1728	G	1-S-SB01-04	S	3	X	X	X	X	X				7-day
3-29-94	1738	G	1-S-SB01-08	S	3	X	X	X	X	X				7-day
3-30-94	0845	G	1-TB-05	L	2	X								Routine

Relinquished by (Signature)	Date/Time	Received by (Signature)	Date/Time
T. J. Tuhill	3-30-94 1500		
Relinquished by (Signature)	Date/Time	Received by (Signature)	Date/Time
Relinquished by (Signature)	Date/Time	Received by (Signature)	Date/Time

Remarks:
* MS/MSD
- See Remarks for sample turn
- Airbill # 1630422194

CEIMIC Corporation 10 Dean Knauss Drive, Narragansett, RI 02882 (401) 782-8900 FAX (401) 782-8905

CHAIN OF CUSTODY

0117

COC # 01005

Original Chain of Custody goes to Laboratory

Page 2 of 2

Proj. # 62470-231	Project name MCB Camp Lejeune - Site 1					Analyses								
Samplers (Please print) JZimmerman (A) / KTua (13) / MTaube (At)														
DATE	Time	Comp. / Grab.	Sample Identification	Sample Matrix	Number of containers	TCL VOA	TCL SVOA	TCL Pest/PCB	TAL Metals	TPH				Remarks
3-30 94	1100	G	231-FB-01	L	8	X	X	X	X	X				Routine

Relinquished by (Signature)	Date/Time	Received by (Signature)	Date/Time
Th J. Tabibl	3-30-94 1500		
Relinquished by (Signature)	Date/Time	Received by (Signature)	Date/Time
Relinquished by (Signature)	Date/Time	Received by (Signature)	Date/Time

Remarks:
- See Remarks for sample turn
- Airbill # 16304 22194

CEIMIC Corporation 10 Dean Knauss Drive, Narragansett, RI 02882 (401) 782-8900 FAX (401) 782-8905

CHAIN OF CUSTODY

COC#01006

Original Chain of Custody goes to Laboratory

Proj. # 62470-731

Project name: MCB Camp Lejeune - Site 1

Samplers (Please print): M Taube (A) / K Tug (B)

DATE	Time	Comp. Grab.	Sample Identification	Sample Matrix	Number of containers	TCL VOA	TCL SVOA	TCL Pest/PCB	TAL Metals	TPH				Remarks
3-30-94	0810	G	1-S-SB17-01	S	3	X	X	X	X	X				Routine
3-30-94	0821	G	1-S-SB17-03	S	3	↓	↓	↓	↓	↓				Routine
3-30-94	0835	G	1-S-SB17-06	S	3	↓	↓	↓	↓	↓				Routine
3-30-94	0822	G	1-S-SB11-01	S	3	↓	↓	↓	↓	↓				Routine
3-30-94	0827	G	1-S-SB11-03	S	3	↓	↓	↓	↓	↓				7-day
3-30-94	0834	G	1-S-SB11-06	S	3	↓	↓	↓	↓	↓				7-day
3-30-94	0924	G	1-S-SB03-01	S	3	↓	↓	↓	↓	↓				Routine
3-30-94	0932	G	1-S-SB03-03	S	3	↓	↓	↓	↓	↓				7-day
3-30-94	0940	G	1-S-SB03-06	S	3	↓	↓	↓	↓	↓				7-day
3-30-94	1033	G	1-S-SB07-01	S	3	↓	↓	↓	↓	↓				Routine
3-30-94	1042	G	1-S-SB07-04	S	3	↓	↓	↓	↓	↓				7-day
3-30-94	1049	G	1-S-SB07-07	S	3	↓	↓	↓	↓	↓				7-day
TFT 3-30-94 3-30-94	1100 ~~1224~~	G	1-SIER-02	L	8	↓	↓	↓	↓	↓				Hold
3-30-94	1229	G	1-S-SB05-01	S	3	↓	↓	↓	↓	↓				Routine

Relinquished by (Signature)	Date/Time	Received by (Signature)	Date/Time
[signature]	3-30-94 1500		
Relinquished by (Signature)	Date/Time	Received by (Signature)	Date/Time
Relinquished by (Signature)	Date/Time	Received by (Signature)	Date/Time

Remarks:
- See Remarks for Sample turn
- Airbill # 1630422194

CHAIN OF CUSTODY

0119

Original Chain of Custody goes to Laboratory

Page 2 of 2

Proj. #	Project name
62470-231	MCB Camp Lejeune - Site 1

Samplers (Please print): M Taube (A) / K Tua (B)

DATE	Time	Comp. / Grab.	Sample Identification	Sample Matrix	Number of containers	TCL VOA	TCL SVOA	TCL Pest/PCB	TAL Metals	TPH				Remarks
3-30-94	1243	G	1-S-SB05-04	S	3	X	X	X	X	X				7-day
3-30-94	1303	G	1-S-SB05-08	S	3	X	X	X	X	X				7-day
3-30-94	1340	G	1-TB-06	L	2	X								Routine

Relinquished by (Signature)	Date/Time	Received by (Signature)	Date/Time
[signature]	3-30-94 1500		
Relinquished by (Signature)	Date/Time	Received by (Signature)	Date/Time
Relinquished by (Signature)	Date/Time	Received by (Signature)	Date/Time

Remarks:
- See Remarks for sample turnaround
- Airbill # 163042194

CEIMIC Corporation 10 Dean Knauss Drive, Narragansett, RI 02882 (401) 782-8900 FAX (401) 782-8905

CHAIN OF CUSTODY

Original Chain of Custody goes to Laboratory COC# 01007

0123

Proj. # 62470-231

Project name: MCB Camp Lejeune - Site 1

Samplers (Please print): J Zimmerman Ⓐ / K Tua Ⓑ

DATE	Time	Comp./Grab.	Sample Identification	Sample Matrix	Number of containers	TCL VOA	TCL SVOA	TCL Pest/PCB	TAL Metals	TPH				Remarks
4-4-94	1300	G	1-SIER-03	L	8	X	X	X	X	X				Routine
4-5-94	0805	G	1-S-SB16-01	S	3	X	X	X	X	X				Routine
4-5 94	0935	G	1-S-SB16-04	S	3	X	X	X	X	X				7-day
4-5 94	0944	G	1-S-SB16-07	S	3	X	X	X	X	X				7-day
4-5 94	1027	G	1-S-SB15-01	S	3	X	X	X	X	X				Routine
4-5 94	1035	G	1-S-SB15-04	S	3	X	X	X	X	X				7-day
4-5 94	1041	G	1-S-SB15-06	S	3	X	X	X	X	X				7-day
4-5 94	1117	G	1-S-SB06-01	S	3	X	X	X	X	X				Routine
4-5 94	1125	G	1-S-SB06-04	S	3	X	X	X	X	X				7-day
4-5 94	1137	G	1-S-SB06-08	S	3	X	X	X	X	X				7-day
4-5 94	1403	G	1-N-SB32-01	S	3	X	X	X	X	X				Routine
4-5 94	1413	G	1-N-SB32-04	S	3	X	X	X	X	X				7-day
4-5 94	1424	G	1-N-SB32-07	S	3	X	X	X	X	X				7-day
4-5 94	1500	G	1-TB-07	L	2	X								Routine

Relinquished by (Signature)	Date/Time	Received by (Signature)	Date/Time	Remarks:
[signature]	4-5-94 1600			- See Remarks for sample turnaround - Airbill # 1630422172
Relinquished by (Signature)	Date/Time	Received by (Signature)	Date/Time	
Relinquished by (Signature)	Date/Time	Received by (Signature)	Date/Time	

CHAIN OF CUSTODY

COC # 01008

Original Chain of Custody goes to Laboratory

Proj. #	Project name			Sample Matrix	Number of containers	Analyses								Remarks
62470-231	MCB Camp Lejeune - Site 1													
Samplers (Please print): MTaube / BBruckno														
DATE	Time	Comp. / Grab.	Sample Identification			TCL SVOA	TCL Pest/PCB	TAL Metals	TPH					
4-6-94	0700	G	1-SIER-04	L	6	X	X	X	X					~~No~~ Hold TFT 4-6-94

Relinquished by (Signature)	Date/Time	Received by (Signature)	Date/Time
[signature]	4-6-94 1500		
Relinquished by (Signature)	Date/Time	Received by (Signature)	Date/Time
Relinquished by (Signature)	Date/Time	Received by (Signature)	Date/Time

Remarks:
- See Remarks for sample turnaround
- Airbill # 1630422010

CEIMIC Corporation 10 Dean Knauss Drive, Narragansett, RI 02882 (401) 782-8900 FAX (401) 782-8905

0164

CHAIN OF CUSTODY

COC # 01009

Original Chain of Custody goes to Laboratory

Page 1 of 2

Proj. #	Project name
62470-231	MCB Camp Lejeune - Site 1

Samplers (Please print): (A) JZimmerman / kTua (B)

DATE	Time	Comp. / Grab.	Sample Identification	Sample Matrix	Number of containers	TCL VOA	TCL SVOA	TCL Pest/PCB	TAL Metals	TPH				Remarks
4-5 94	1724	G	1-N-SB22-01	S	3	X	X	X	X	X				Routine
4-5 94	1724	G	1-N-SB22-01D	S	3	X	X	X	X	X				Routine
4-5 94	1758	G	1-N-SB22-06	S	3	X	X	X	X	X				7-day
4-5 94	1758	G	1-N-SB22-06D	S	3	X	X	X	X	X				7-day
4-5 94	1815	G	1-N-SB22-08	S	3	X	X	X	X	X				7-day
4-5 94	1514	G	1-N-SB23-01	S	3	X	X	X	X	X				Routine
4-5 94	1529	G	1-N-SB23-05	S	3	X	X	X	X	X				Routine
4-5 94	1557	G	1-N-SB23-08	S	3	X	X	X	X	X				Routine
4-5 94	1258	G	1-S-SB18-01	S	3	X	X	X	X	X				Routine
4-5 94	1307	G	1-S-SB18-04	S	3	X	X	X	X	X				Routine
4-5 94	1317	G	1-S-SB18-07	S	3	X	X	X	X	X				Routine
4-5 94	1410	G	1-S-SB09-01	S	3	X	X	X	X	X				Routine
4-5 94	1419	G	1-S-SB09-04	S	3	X	X	X	X	X				Routine
4-5 94	1426	G	1-S-SB09-07	S	3	X	X	X	X	X				Routine

Relinquished by (Signature)	Date/Time	Received by (Signature)	Date/Time
Th J. Tubiland	4-5-94 1500		
Relinquished by (Signature)	Date/Time	Received by (Signature)	Date/Time
Relinquished by (Signature)	Date/Time	Received by (Signature)	Date/Time

Remarks:
- See remarks for sample turnaround
- Airbill # 1630422010

0165

CHAIN OF CUSTODY

Original Chain of Custody goes to Laboratory COC # 01009

Proj. #	Project name
62470-231	MCB Camp Lejeune - Site 1

Samplers (Please print): J Zimmerman (A) / K Tuc (B)

DATE	Time	Comp. / Grab.	Sample Identification	Sample Matrix	Number of containers	TCL VOA	TCL SVOA	TCL Pest/PCB	TAL Metals	TPH			* MS/MSD	Remarks
				TFT 4-6-94		Analyses								
4-5 94	1550	G	1-S-SB08-01	S	6	X	X	X	X	X			X	Routine
4-5 94	1550	G	1-S-SB08-01D	S	3	X	X	X	X	X				Routine
4-5 94	1615	G	1-S-SB08-04	S	3	X	X	X	X	X				Routine
4-5 94	1630	G	1-S-SB08-07	S	6	X	X	X	X	X			X	Routine
4-5 94	1630	G	1-S-SB08-07D	S	3	X	X	X	X	X				Routine
4-6 94	0700	G	1-SIER-0405	L	2	X								Hold
4-6 94	1300	G	1-TB-08	L	2	X								

Relinquished by (Signature)	Date/Time	Received by (Signature)	Date/Time
Th J. Zelinski	4-5-94 1500		
Relinquished by (Signature)	Date/Time	Received by (Signature)	Date/Time
Relinquished by (Signature)	Date/Time	Received by (Signature)	Date/Time

Remarks:
* MS/MSD
- See remarks for sample turnaround
- Airbill # 163042201G

CEIMIC Corporation 10 Dean Knauss Drive, Narragansett, RI 02882 (401) 782-8900 FAX (401) 782-8905

0166

CHAIN OF CUSTODY

COC # 01010

Original Chain of Custody goes to Laboratory

Page 1 of 2

Proj. #	Project name
62470-231	MCB Camp Lejeune - Site 1

Samplers (Please print): J Zimmerman (A) / K Tug (B)

DATE	Time	Comp. / Grab.	Sample Identification	Sample Matrix	Number of containers	TCL VOA	TCL SVOA	TCL Pest/PCB	TAL Metals	TPH				Remarks
4-5 94	1740	G	1-S-SB04-01	S	3	X	X	X	X	X				Routine
4-5 94	1800	G	1-S-SB04-04	S	3	X	X	X	X	X				Routine
4-5 94	1806	G	1-S-SB04-06	S	3	X	X	X	X	X				Routine
4-6 94	0816	G	1-S-SB02-01	S	3	X	X	X	X	X				Routine
4-6 94	0827	G	1-S-SB02-04	S	3	X	X	X	X	X				Routine
4-6 94	0837	G	1-S-SB02-07	S	3	X	X	X	X	X				Routine
4-6 94	0931	G	1-S-SB14-01	S	3	X	X	X	X	X				Routine
4-6 94	0931	G	1-S-SB14-01D	S	3	X	X	X	X	X				Routine
4-6 94	0938	G	1-S-SB14-03	S	3	X	X	X	X	X				Routine
4-6 94	0950	G	1-S-SB14-06	S	3	X	X	X	X	X				Routine
4-6 94	0950	G	1-S-SB14-06D	S	3	X	X	X	X	X				Routine
4-6 94	0826	G	1-S-SB13-01	S	3	X	X	X	X	X				
4-6 94	0832	G	1-S-SB13-04	S	3	X	X	X	X	X				
4-6 94	0838	G	1-S-SB13-07	S	3	X	X	X	X	X				

Relinquished by (Signature)	Date/Time	Received by (Signature)	Date/Time
[signature]	4-6-94 1500		
Relinquished by (Signature)	Date/Time	Received by (Signature)	Date/Time
Relinquished by (Signature)	Date/Time	Received by (Signature)	Date/Time

Remarks:
- See Remarks for sample turnaround
- Airbill # 1630422010

CEIMIC Corporation 10 Dean Knauss Drive, Narragansett, RI 02882 (401) 782-8900 FAX (401) 782-8905

0167

CHAIN OF CUSTODY

COC# 01010

Original Chain of Custody goes to Laboratory

Page 2 of 2

Proj. #	Project name			Sample Matrix	Number of containers	Analyses									
62470-231	MCB Camp Lejeune - Site 1					TCL VOA	TCL SVOA	TCL Pest/PCB	TAL Metals	TPH					
Samplers (Please print)															
J Zimmerman (A) / KTua (B)															
DATE	Time	Comp. / Grab.	Sample Identification												Remarks
4-6 94	0928	G	1-S-SB12-01	S	3	X	X	X	X	X					Routine
4-6 94	0942	G	1-S-SB12-04	S	3	X	X	X	X	X					
4-6 94	0951	G	1-S-SB12-07	S	3	X	X	X	X	X					
4-6 94	1400 ~~1035~~	G	1-TB-09	L	2	X									
4-6 94	1035	G	1-BB-SB39-00	S	3	X	X	X	X						
4-6 94	1049		1-BB-SB39-04	S	3	X	X	X	X						
11-6 94	1055		1-BB-SB39-06	S	3	X	X	X	X						

Relinquished by (Signature)	Date/Time	Received by (Signature)	Date/Time
Th T. Tuhill	4-6-94 1500		
Relinquished by (Signature)	Date/Time	Received by (Signature)	Date/Time
Relinquished by (Signature)	Date/Time	Received by (Signature)	Date/Time

Remarks:
- See remarks for sample turnaround
- Airbill # 1630422010

CEIMIC Corporation 10 Dean Knauss Drive, Narragansett, RI 02882 (401) 782-8900 FAX (401) 782-8905

0174

CHAIN OF CUSTODY COC# 01011

Original Chain of Custody goes to Laboratory

Page 1 of 1

Proj. #	Project name			Sample Matrix	Number of containers	Analyses								
62470-231	MCB Camp Lejeune - Site 1													
Samplers (Please print)														
K Tua (E)														
DATE	Time	Comp. / Grab.	Sample Identification			TCL VOA	TCL SVOA	TCL Pest/PCB	TAL Metals					Remarks
4-6 94	1215	G	1-BB-SB38-00	S	3	X	X	X	X					Routine
4-6 94	1234	G	1-BB-SB38-05	S	3	X	X	X	X					↓

Relinquished by (Signature)	Date/Time	Received by (Signature)	Date/Time
Th F. Tschirch	4-7-94 1500		
Relinquished by (Signature)	Date/Time	Received by (Signature)	Date/Time
Relinquished by (Signature)	Date/Time	Received by (Signature)	Date/Time

Remarks:
- See Remarks for sample turnaround
- Airbill # 163041226 84
- Reference 28-TB-16 on COC # 28019 for Trip Blank (cross contamination)

CEIMIC Corporation 10 Dean Knauss Drive, Narragansett, RI 02882 (401) 782-8900 FAX (401) 782-8905

0179

CHAIN OF CUSTODY

COC #01012

Original Chain of Custody goes to Laboratory

Proj. #: 62470-231

Project name: MCB Camp Lejeune - OU # 7

Samplers (Please print): K Tua (B) / W Pelkey (S)

DATE	Time	Comp. / Grab.	Sample Identification	Sample Matrix	Number of containers	TCL VOA	TCL SVOA	TCL Pest/PCB	TAL Metals	TPH				Remarks
4-9 94	1538	G	1-GW13-00	S	3	X	X	X	X	X				Routine
4-9 94	1603	G	1-GW13-04	S	3	X	X	X	X	X				↓
4-9 94	1637	G	1-GW13-08	S	3	X	X	X	X	X				
4-10 94	0710	G	1-SIER-06	L	8	X	X	X	X	X				
4-10 94	0813	G	1-GW11-00	S	3	X	X	X	X	X				
4-10 94	0841	G	1-GW11-01	S	3	X	X	X	X	X				
4-10 94	1245	G	1-GW09-00	S	3	X	X	X	X	X				
4-10 94	1258	G	1-GW09-03	S	3	X	X	X	X	X				
4-10 94	1650	G	1-GW12-00	S	3	X	X	X	X	X				
4-10 94	1659	G	1-GW12-02	S	3	X	X	X	X	X				↓
4-11 94	0715	G	1-SIER-07	L	4	X				X				HOLD
4-11 94	1430	G	1-TB-10	L	2	X								

Relinquished by (Signature)	Date/Time	Received by (Signature)	Date/Time
[signature]	4-11-94 1600		
Relinquished by (Signature)	Date/Time	Received by (Signature)	Date/Time
Relinquished by (Signature)	Date/Time	Received by (Signature)	Date/Time

Remarks:
- See Remarks for sample turnaround
- Airbill # 1630422113

0180

CHAIN OF CUSTODY

COC # 01012

Original Chain of Custody goes to Laboratory

Page 1 of 1

Proj. #	Project name
62470-231	MCB Camp Lejeune - OU # 7

Samplers (Please print): KTua (B) / TTrebilcock (C)

DATE	Time	Comp. / Grab.	Sample Identification	Sample Matrix	Number of containers	TCL SVOA	TCL Pest/PCB	TAL Metals	TAL Dissolved Metals	EPA 601/602	TPH		Extra Volume	Remarks
4-11 94	0715	G	1-SIER-07	L	4	X	X	X			X			HOLD
4-11 94	1120	G	1-HP-638-01	L	4	X				X			X	7-day
4-11 94	1120	G	1-HP-638-01	L	3		X	X					X	Routine
4-11 94	1120	G	1-HP-638D-01	L	1				X					Routine
4-11 94	1500	G	1-TB-11	L	2					X				Routine

Relinquished by (Signature)	Date/Time	Received by (Signature)	Date/Time
Th T. Trebil	4-11-94 1600		
Relinquished by (Signature)	Date/Time	Received by (Signature)	Date/Time
Relinquished by (Signature)	Date/Time	Received by (Signature)	Date/Time

Remarks:
- See Remarks for sample turn around
- Airbill # 1630422113

CEIMIC Corporation 10 Dean Knauss Drive, Narragansett, RI 02882 (401) 782-8900 FAX (401) 782-8905

0181

CHAIN OF CUSTODY COC# 01013

Original Chain of Custody goes to Laboratory

Page 1 of 1

Proj. #	Project name			Sample Matrix	Number of containers	Analyses									
62470-231	MCB Camp Lejeune - OU#7														
Samplers (Please print)															
JZimmerman (A) / KTua (B) / MTaube (C)															
DATE	Time	Comp. / Grab.	Sample Identification	TFT 4-12-94		TCL VOA	TCL SVOA	TCL Pest/PCB	TAL Metals	TPH					Remarks
4-12 94	0730	G	1-SIER-08	~~S~~ L	8	X	X	X	X	X					Routine
4-11 94	1231	G	1-GW10-00	S	3	X	X	X	X	X					Routine
4-11 94	1243	G	1-GW10-03	S	3	X	X	X	X	X					Routine
4-11 94	1259	G	1-GW10-06	S	3	X	X	X	X	X					Routine
4-12 94	0935	G	1-GW07-00 TFT	S	3	X	X	X	X	X					Routine
4-12 94	0949	G	1-GW07-~~02~~ 03 4-12-94	S	3	X	X	X	X	X					Routine
4-12 94	1005	G	1-GW07-06	S	3	X	X	X	X	X					Routine
4-12 94	1400	G	1-TB-12	L	2	X									Routine

Relinquished by (Signature)	Date/Time	Received by (Signature)	Date/Time	Remarks:
Th T. Tehill	4-12-94 1600			- See Remarks for sample turn around - Airbill # 163042212 4
Relinquished by (Signature)	Date/Time	Received by (Signature)	Date/Time	
Relinquished by (Signature)	Date/Time	Received by (Signature)	Date/Time	

CEIMIC Corporation 10 Dean Knauss Drive, Narragansett, RI 02882 (401) 782-8900 FAX (401) 782-8905

0182

CHAIN OF CUSTODY

COC # 01014

Original Chain of Custody goes to Laboratory

Page 1 of 1

Proj. #	Project name
62470-231	MCB Camp Lejeune - OU# 7

Samplers (Please print): K Tua (B)

DATE	Time	Comp. / Grab.	Sample Identification	Sample Matrix	Number of containers	Analyses: TCL VOA	TCL SVOA	TCL Pest/PCB	TAL Metals	TPH			* MS/MSD	Remarks
4-12 94	1438	G	1-GW08-00	S	3	X	X	X	X	X				Routine
4-12 94	1515	G	1-GW08-03	S	3	X	X	X	X	X				
4-12 94	1532	G	1-GW08-06	S	3	X	X	X	X	X				
4-13 94	1010	G	1-GW16-00	S	6	X	X	X	X	X			X	
4-13 94	1010	G	1-GW16-00D	S	3	X	X	X	X	X				
4-13 94	1035	G	1-GW16-04	S	3	X	X	X	X	X				
4-13 94	1047	G	1-GW16-06	S	3	X	X	X	X	X				
4-13 94	1400	G	1-TB-13	L	2	X								
4-13 94	1430	G	231-FB-02	L										

Relinquished by (Signature)	Date/Time	Received by (Signature)	Date/Time
Th. T. Tebbutt	4-12-94 1600		
Relinquished by (Signature)	Date/Time	Received by (Signature)	Date/Time
Relinquished by (Signature)	Date/Time	Received by (Signature)	Date/Time

Remarks:
- See Remarks for sample turnaround
- Air bill # 163042214 6
* MS/MSD

CEIMIC Corporation 10 Dean Knauss Drive, Narragansett, RI 02882 (401) 782-8900 FAX (401) 782-8905

0183

CHAIN OF CUSTODY

COC # 01015

Original Chain of Custody goes to Laboratory

Page 1 of 1

Proj. #	Project name
62470-231	MCB Camp Lejeune - OU # 7

Samplers (Please print): K Tua (3)

DATE	Time	Comp. / Grab.	Sample Identification	Sample Matrix	Number of containers	TCL VOA	TCL SVOA	TCL Pest/PCB	TAL Metals	TPH	Full TCLP	RCRA Characteristics	Grain Size	Atterburg Limits	Remarks	* MS/MSD
4-18 94	1450	C	1-S-SB40	S	3						X	X	X	X	Routine	
4-18 94	1555	G	1-N-SB33-01	S	3	X	X	X	X							
4-18 94	1635	G	1-N-SB33-04	S	3	X	X	X	X							
4-18 94	1646	G	1-N-SB33-07	S	3	X	X	X	X							
4-19 94	0830	G	1-GW17-00	S	6	X	X	X	X	X						*
4-19 94	0830	G	1-GW17-00D	S	3	X	X	X	X	X						
4-19 94	0906	G	1-GW17-05	S	3	X	X	X	X	X						
4-19 94	0906	G	1-GW17-05D	S	3	X	X	X	X	X						
4-19 94	1530	G	1-SIER-09	L	5	X	X	X	X						HOLD	
4-19 94	1545	G	1-TB-14	L	2	X									Routine	

Relinquished by (Signature)	Date/Time	Received by (Signature)	Date/Time
Th T. Tillett	4-19-94 1600		
Relinquished by (Signature)	Date/Time	Received by (Signature)	Date/Time
Relinquished by (Signature)	Date/Time	Received by (Signature)	Date/Time

Remarks:
- See Remarks for sample turnaround
- Airbill # 163042 2150
- Full TCLP = VOA, SVOA, Pest/PCB, Herb, Metals
- RCRA Char. = Corrosivity, Reactivity, Ignit
- * MS/MSD

CEIMIC Corporation 10 Dean Knauss Drive, Narragansett, RI 02882 (401) 782-8900 FAX (401) 782-8905

CHAIN OF CUSTODY

COC # 01016/28029

0194

Original Chain of Custody goes to Laboratory

Proj. #	Project name												
62470-231	MCB Camp Lejeune - OU #7												

Samplers (Please print): K Tua (A)

DATE	Time	Comp. Grab.	Sample Identification	Sample Matrix	Number of containers	EPA 601/602	TCL SVOA	TAL Metals	TAL Dissolved Metals					Remarks
4-22-94	1330	G	1-GW01-01	L	6	X	X	X						Routine
4-22-94	1330	G	1-GW01D-01	L	1				X					↓
4-22-94	1430	G	1-GW02-01	L	6	X	X	X						↓
4-22-94	1430	G	1-GW02D-01	L	1				X					↓
4-22-94	1900	G	1-GWER-01	L	4	X	X	X						↓
4-22-94	1900	G	1-GWERD-01	L	1				X					↓
4-22-94	1800	G	1-GW03-01	L	3	X								↓
4-22-94	1930	G	1-TB-15	L	2	X								↓
4-23-94	0900	G	1-GW06-01	L	3	X								↓
4-23-94	1000	G	1-GW15-01	L	3	X								↓
4-23-94	1000	G	1-GW15-01D	L	2	X								↓
4-23-94	1145	G	1-GW13-01	L	3	X								↓
4-23-94	0800	G	28-GW05-01	L	3	X								Routine

Relinquished by (Signature)	Date/Time	Received by (Signature)	Date/Time
[signature]	4-23-94 1300		
Relinquished by (Signature)	Date/Time	Received by (Signature)	Date/Time
Relinquished by (Signature)	Date/Time	Received by (Signature)	Date/Time

Remarks:
- See Remarks for sample turnaround
- Airbill # 1630421940

CHAIN OF CUSTODY COC # 01017/28030 0195

Original Chain of Custody goes to Laboratory

Page 1 of 1

Proj. # 62470-231 | Project name: MCB Camp Lejeune OU#7

Samplers (Please print): KTua (A)

DATE	Time	Comp. / Grab.	Sample Identification	Sample Matrix	Number of containers	TCL SVOA	TCL Pest	TAL Metals	TAL Dissolved Metals					Remarks
4-23 94	0900	G	1-GW06-01	L	3	X		X						Routine
4-23 94	0900	G	1-GW06D-01	L	1				X					Routine
4-23 94	1145	G	1-GW13-01	L	3	X		X						↓
4-23 94	1145	G	1-GW13D-01	L	1				X					↓
~~4-23 94~~	~~1600~~	~~G~~	~~1-GW15-01~~ TFT 4-23-94											
			~~1-GW15D-01~~											
4-23 94	0800	G	28-GW05-01	L	4	X	X	X						Routine
4-23 94	0800	G	28-GW05D-01	L	1				X					Routine

Relinquished by (Signature)	Date/Time	Received by (Signature)	Date/Time
[signature]	4-23-94 1300		
Relinquished by (Signature)	Date/Time	Received by (Signature)	Date/Time
Relinquished by (Signature)	Date/Time	Received by (Signature)	Date/Time

Remarks:
- See Remarks for sample turnaround
- Airbill # 163041940

CEIMIC Corporation 10 Dean Knauss Drive, Narragansett, RI 02882 (401) 782-8900 FAX (401) 782-8905

CHAIN OF CUSTODY COC#01018

Original Chain of Custody goes to Laboratory

Proj. #	Project name			Sample Matrix	Number of containers	TCL SVOA	TAL Metals	TAL Dissolved Metals					Remarks
62470-231	MCB Camp Lejeune - OU#7												
Samplers (Please print)													
DATE	Time	Comp. / Grab.	Sample Identification										
4-23-94	1000	G	1-GW15-01	L	3	X	X						Routine
4-23-94	1000	G	1-GW15D-01	L	1			X					↓
4-23-94	1000	G	1-GW15-01D	L	2	X	X						↓
4-23-94	1000	G	1-GW15D-01D	L	1			X					↓

Relinquished by (Signature)	Date/Time	Received by (Signature)	Date/Time	Remarks:
[signature]	4-23-94 1300			- See Remarks for sample turnaround - Airbill # 163042940
Relinquished by (Signature)	Date/Time	Received by (Signature)	Date/Time	
Relinquished by (Signature)	Date/Time	Received by (Signature)	Date/Time	

CHAIN OF CUSTODY COC # 01019

0197

Original Chain of Custody goes to Laboratory

Page 1 of 2

Proj. # 62470-231 | Project name: MCB Camp Lejeune - OU#7

Samplers (Please print): K Tua / M Taube /

DATE	Time	Comp. / Grab.	Sample Identification	Sample Matrix	Number of containers	Analyses: EPA 601/602	TCL SVOA	TAL Metals	TAL Dissolved Metals	* MS/MSD					Remarks
4-22 94	1800	G	1-GW03-01	L	3		X	X							Routine
4-22 94	1800	G	1-GW03D-01	L	1				X						
4-24 94	0800	G	1-GWER-02	L	4	X	X	X							
4-24 94	0800	G	1-GWERD-02	L	1				X						
	0910	G	1-GW12-01	L	3	X									
	1000	G	1-GW11-01	L	3	X									
	1130	G	1-GW10-01	L	3	X									
	1300	G	1-GW04-01	L	7	X				X					
	1300	G	1-GW04-01D	L	2	X									
	1400	G	1-GW07-01	L	3	X									
	1510	G	1-GW08-01	L	3	X									
	1620	G	1-GW14-01	L	3	X									
	1640	G	1-GW09-01	L	3	X									
	1700	G	1-GW17-01	L	3	X									

Relinquished by (Signature)	Date/Time	Received by (Signature)	Date/Time
[signature]	4-25-94 1600		
Relinquished by (Signature)	Date/Time	Received by (Signature)	Date/Time
Relinquished by (Signature)	Date/Time	Received by (Signature)	Date/Time

Remarks:
- See Remarks for sample turnaround
- Airbill # 163042225 3
* MS/MSD

CEIMIC Corporation 10 Dean Knauss Drive, Narragansett, RI 02882 (401) 782-8900 FAX (401) 782-8905

CHAIN OF CUSTODY

COC # 01019/28030 0198

Original Chain of Custody goes to Laboratory

Page 2 of 2

Proj. #	Project name			Sample Matrix	Number of containers	Analyses								
(n2470-231	MCB Camp Lejeune - OU #7					EPA 601/602								
Samplers (Please print)														
KTua / M Taube														
DATE	Time	Comp. / Grab.	Sample Identification											Remarks
4-24 94	1740	G	1-GW16-01	L	3	X								Routine
4-25 94	1400	G	1-TB-16	L	2	X								Routine
4-25 94	1100	G	28-GW09DW-01	L	3	X								Routine
4-25 94	1240	G	28-GW01-01	L	3	X								Routine

Relinquished by (Signature)	Date/Time	Received by (Signature)	Date/Time	Remarks:
[signature]	4-25-94 1600			- See Remarks for sample turn around
Relinquished by (Signature)	Date/Time	Received by (Signature)	Date/Time	- Airbill # 1630422253
Relinquished by (Signature)	Date/Time	Received by (Signature)	Date/Time	

CEIMIC Corporation 10 Dean Knauss Drive, Narragansett, RI 02882 (401) 782-8900 FAX (401) 782-8905

CHAIN OF CUSTODY COC # 01020

0200

Original Chain of Custody goes to Laboratory

Page 1 of 1

Proj. # 62470-231 | Project name MCB Camp Lejeune - OU #7

Samplers (Please print): K Tua

DATE	Time	Comp. / Grab.	Sample Identification	Sample Matrix	Number of containers	TCL SVOA	TCL Pest/PCB	TAL Metals	TAL Dissolved Metals					Remarks
4-24 94	0910	G	1-GW12-01	L	3	X		X						Routine
	0910	G	1-GW12D-01	L	1				X					
	1000	G	1-GW11-01	L	4	X	X	X						
	1000	G	1-GW11D-01	L	1				X					
	1130	G	1-GW10-01 TPT 94 4-23	L	3	X		X						
	1130	G	1-GW10 ~~-01~~ D-01	L	1				X					
	1400	G	1-GW07-01	L	3	X		X						
	1400	G	1-GW07D-01	L	1				X					

1-GW10D-01

Relinquished by (Signature)	Date/Time	Received by (Signature)	Date/Time
Th T. Tuhl	4-25-94 1600		
Relinquished by (Signature)	Date/Time	Received by (Signature)	Date/Time
Relinquished by (Signature)	Date/Time	Received by (Signature)	Date/Time

Remarks:
- Airbill # 163042222 53
- See Remarks for sample turnaround

CEIMIC Corporation 10 Dean Knauss Drive, Narragansett, RI 02882 (401) 782-8900 FAX (401) 782-8905

CHAIN OF CUSTODY COC # 01021

0199

Original Chain of Custody goes to Laboratory

Page 1 of 1

Proj. #	Project name
62470-231	MCB Camp Lejeune

Samplers (Please print): K Tua

DATE	Time	Comp. / Grab.	Sample Identification	Sample Matrix (TFT 11-25-94)	Number of containers	Analyses: TCL SVOA	TAL Metals	TAL Dissolved Metals	TCL Pest/PCB	* MS/MSD				Remarks
4-24-94	1300	G	1-GW04-01	L	~~10~~ 11	X	X		X	X				Routine
4-24-94			1-GW04D-01	L	3			X		X				
			1-GW04-01D	L	3	X	X		X					
			1-GW04D-01D	L	1			X						

Relinquished by (Signature)	Date/Time	Received by (Signature)	Date/Time
K. Tua	11-25-94 1600		
Relinquished by (Signature)	Date/Time	Received by (Signature)	Date/Time
Relinquished by (Signature)	Date/Time	Received by (Signature)	Date/Time

Remarks:
- See Remarks for sample turn around
- Airbill # 163042225 3
* MS/MSD

CEIMIC Corporation 10 Dean Knauss Drive, Narragansett, RI 02882 (401) 782-8900 FAX (401) 782-8905

CHAIN OF CUSTODY

coc# 01022

0201

Original Chain of Custody goes to Laboratory

Page 1 of 1

Proj. #	Project name	Sample Matrix	Number of containers	Analyses									Remarks
624470-231	MCB Camp Lejeune - OU# 7			TCL SVOA	TCL Pest/PCB	TAL Metals	TAL Dissolved Metals	TKN, COD	BOD, TSS, TDS, Cl, F, Alkalinity				
Samplers (Please print): KTua / MTaube													
DATE	Time / Comp. Grab. / Sample Identification												
4-24-94	1510 G 1-GW08-01	L	3	X		X							Routine
	1510 1-GW08D-01	L	1				X						
	1620 1-GW14-01	L	3	X		X							
	1620 1-GW14D-01	L	1				X						
	1640 1-GW09-01	L	3	X		X							
	1640 1-GW09D-01	L	1				X						
	1700 1-GW17-01	L	6	X	X	X		X	X				
	1700 1-GW17D-01	L	1				X						

Relinquished by (Signature)	Date/Time	Received by (Signature)	Date/Time	Remarks
[signature]	4-25-94 1600			- See Remarks for sample turnaround
Relinquished by (Signature)	Date/Time	Received by (Signature)	Date/Time	- Airbill # 163042225 3
Relinquished by (Signature)	Date/Time	Received by (Signature)	Date/Time	

CEIMIC Corporation 10 Dean Knauss Drive, Narragansett, RI 02882 (401) 782-8900 FAX (401) 782-8905

CHAIN OF CUSTODY coc#01023/28031

0202

Original Chain of Custody goes to Laboratory

Page 1 of 1

Proj. #	Project name	Samplers (Please print)
62470-231	MCB Camp Lejeune	KTug

DATE	Time	Comp. / Grab.	Sample Identification	Sample Matrix	Number of containers	Analyses: TCL SVOA	TCL Pest/PCB	TAL Metals	TAL Dissolved	TCL Pest	TKN, COD	CL, F, BOD, TDS, TSS, Alkalinity		Remarks
4-24 94	1740	G	1-GW16-01	L	4	X	X	X						Routine
4-24 94	1740	G	1-GW16D-01	L	1				X					Routine
4-25 94	1100	G	28-GW09DW-01	L	4	X		X		X				Routine
4-25 94	1100	G	28-GW09DWD-01	L	1				X					Routine
4-25 94	1240	G	28-GW01-01	L	6	X		X		X	X	X		Routine
4-25 94	1240	G	28-GW01D-01	L	1				X					Routine

Relinquished by (Signature)	Date/Time	Received by (Signature)	Date/Time
[signature]	4-25-94 1600		
Relinquished by (Signature)	Date/Time	Received by (Signature)	Date/Time
Relinquished by (Signature)	Date/Time	Received by (Signature)	Date/Time

Remarks:
- See Remarks for sample turn around
- Airbill # 16304 22253

CEIMIC Corporation 10 Dean Knauss Drive, Narragansett, RI 02882 (401) 782-8900 FAX (401) 782-8905

CHAIN OF CUSTODY coc#01024/30011

0205

Original Chain of Custody goes to Laboratory

Page 1 of 1

Proj. #	Project name			Sample Matrix	Number of containers	Analyses								
62470-231	MCB Camp Lejeune - OU #7					TCL VOA	TCL SVOA	TCL Pest/PCB	TAL Metals	TPH	Full TCLP	RCRA Characteristics		Remarks
Samplers (Please print)														
M Taube / T Trebilcock														
DATE	Time	Comp. / Grab.	Sample Identification											
5-2-94	1500	G	1-GW16 DW-00	S	3	X	X	X	X	X				Routine
5-2-94	1519	G	1-GW16 DW-04	S	3	X	X	X	X	X				
5-2-94	1549	G	1-GW16 DW-07	S	3	X	X	X	X	X				
5-3-94	1500		1-TB-17	L	2	X								
5-3-94	0930	C	30-3DRMC	S	3						X	X		Routine

Relinquished by (Signature)	Date/Time	Received by (Signature)	Date/Time	Remarks:
Th J. Trebilcock	5-3-94 1600			- See Remarks for sample turn around
Relinquished by (Signature)	Date/Time	Received by (Signature)	Date/Time	- Airbill # 163042192 5
Relinquished by (Signature)	Date/Time	Received by (Signature)	Date/Time	

CEIMIC Corporation 10 Dean Knauss Drive, Narragansett, RI 02882 (401) 782-8900 FAX (401) 782-8905

0206

CHAIN OF CUSTODY COC# 01025/28032

Original Chain of Custody goes to Laboratory

Page 1 of 1

Proj. #	Project name			Sample Matrix	Number of containers	Analyses								
62470-231	MCB Camp Lejeune					TCL VOA	TCL SVOA	TCL Pest/PCB	TAL Metals	TPH	Full TCLP	RCRA Characteristics		Remarks
Samplers (Please print)														
MTaube / TTrebilcock														
DATE	Time	Comp. / Grab.	Sample Identification											
5-5 94	1420	G	1-GW17DW-00	S	3	X	X	X	X	X				Routine
5-5 94	1544	G	1-GW17DW-05	S	3	X	X	X	X	X				↓
5-6 94	1500	G	1-TB-18	L	2	X								↓
5-6 94	1340	C	28-RB01	S	3						X	X		7-day
5-6 94	1400	C	28-RB02	S	3						X	X		7-day

Relinquished by (Signature)	Date/Time	Received by (Signature)	Date/Time
Th T. Trebilcock	5-6-94 1600		
Relinquished by (Signature)	Date/Time	Received by (Signature)	Date/Time
Relinquished by (Signature)	Date/Time	Received by (Signature)	Date/Time

Remarks:
- See Remarks for sample turn around
- Airbill # 163042232 3
- Full TCLP = Volatiles, Semis, Pest/PCB, Herb & Metals
- RCRA Char. = Corrosivity, Ignitability, Reactivity

CEIMIC Corporation 10 Dean Knauss Drive, Narragansett, RI 02882 (401) 782-8900 FAX (401) 782-8905

CHAIN OF CUSTODY

COC # 01026/28034 0208

Original Chain of Custody goes to Laboratory

Page 1 of 1

Proj. #	Project name
62470-231	MCB Camp Lejeune - OU # 7

Samplers (Please print): M Taube / T Trebilcock

DATE	Time	Comp. / Grab.	Sample Identification	Sample Matrix	Number of containers	EPA 601/602	TCL SVOA	TCL Pest	TCL PCB	TAL Metals	TAL Dissolved Metals	RCRA Characteristics	Full TCLP	Remarks
5-8 94	0930	C	1-RB01	S	3							X	X	7-day
5-8 94	1830	C	1-RB02	S	3							X	X	7-day
5-8 94	2045	G	1-TB-19	L	2	X								Routine
5-9 94	1000	G	1-GW16DW-01	L	6	X	X			X				Routine
5-9 94	1000	G	1-GW16DWD-01	L	1						X			Routine
5-8 94	1645	G	28-GW07DW-01	L	3	X								Routine
5-8 94	1800	G	28-TKNR	L	3	X								Routine
5-8 94	1950	G	28-GWER-03	L	~~5~~ 2	X	X	X	X	X	~~X~~	TFT 5-8-94		Routine
5-8 94	1950	G	28-GWERD-03	L	1						X			Routine

Relinquished by (Signature)	Date/Time	Received by (Signature)	Date/Time
[signature]	5-9-94 1600		
Relinquished by (Signature)	Date/Time	Received by (Signature)	Date/Time
Relinquished by (Signature)	Date/Time	Received by (Signature)	Date/Time

Remarks:
- See Remarks for sample turn around
- Airbill # 1630422076
- RCRA = Ignitability, Corrosivity, Reactivity
- * Full TCLP = Herbicide, Pest, PCB, Metals SVOAs & VOAs

CEIMIC Corporation 10 Dean Knauss Drive, Narragansett, RI 02882 (401) 782-8900 FAX (401) 782-8905

CHAIN OF CUSTODY COC # 01027

0211

Original Chain of Custody goes to Laboratory

Page 1 of 1

Proj. #	Project name			Sample Matrix	Number of containers	Analyses								Remarks
62470-231	MCB Camp Lejeune - OU # 7					EPA 601/602	TCL Volatile	TCL SVOA	TCL Pest/PCB	TAL Metals	TAL Dissolved Metals			
Samplers (Please print)														
M Taube / Trebilcock														
DATE	Time	Comp. / Grab.	Sample Identification											
5-11-94	0730	C	203 - TNK	L	6	X		X	X	X	X			7-day
5-11-94	1200	G	1-TB-20	L	2	X								

Relinquished by (Signature)	Date/Time	Received by (Signature)	Date/Time	Remarks:
T. Trebilcock	5-11-94 1600			- See Remarks for sample turnaround
Relinquished by (Signature)	Date/Time	Received by (Signature)	Date/Time	- Airbill # 163042236O
Relinquished by (Signature)	Date/Time	Received by (Signature)	Date/Time	

CEIMIC Corporation 10 Dean Knauss Drive, Narragansett, RI 02882 (401) 782-8900 FAX (401) 782-8905

SITE 28

0154

CHAIN OF CUSTODY

COC # 28006

Original Chain of Custody goes to Laboratory

Page 1 of 2

Proj. #	Project name
62470-231	MCB Camp Lejeune - Site 28

Samplers (Please print) (A) JZimmerman / (B) KTug / ABernhardt

DATE	Time	Comp. / Grab.	Sample Identification	Sample Matrix	Number of containers	TCL VOA	TCL SVOA	TCL Pest/PCB	TAL Metals				* MS/MSD	Remarks
3-26-94	1130	G	28-W-SB04-00	S	6	X	X	X	X				X	Routine
3-26-94	1130	G	28-W-SB04-00D	S	3	X	X	X	X					
3-26-94	1149	G	28-W-SB04-03	S	3	X	X	X	X					
3-26-94	1215	G	28-W-SB04-06	S	3	X	X	X	X					
3-26-94	1135	G	28-E-SB32-00	S	3	X	X	X	X					
3-26-94	1148	G	28-E-SB32-03	S	1				X					
3-26-94	1210	G	28-E-SB32-06	S	1				X					
3-26-94	1435	G	28-E-SB26-00	S	3	X	X	X	X					
3-26-94	1449	G	28-E-SB26-03	S	1				X					
3-26-94	1436	G	28-W-SB07-00	S	3	X	X	X	X					
3-26-94	1441	G	28-W-SB07-01	S	2	X	X	X						
3-26-94	1511	G	28-W-SB07-06	S	2	X	X	X						
3-26-94	1548	G	28-W-SB10-00	S	3	X	X	X	X					
3-26-94	1611	G	28-W-SB10-03	S	3	X	X	X	X					

Relinquished by (Signature)	Date/Time	Received by (Signature)	Date/Time
Thom J. Tufill	3-26-94 1500		
Relinquished by (Signature)	Date/Time	Received by (Signature)	Date/Time
Relinquished by (Signature)	Date/Time	Received by (Signature)	Date/Time

Remarks:
* MS/MSD
- See Remarks for Sample turnaround

CEIMIC Corporation 10 Dean Knauss Drive, Narragansett, RI 02882 (401) 782-8900 FAX (401) 782-8905

0150

CHAIN OF CUSTODY

Original Chain of Custody goes to Laboratory

CoC # 28006

Page 2 of 2

Proj. #	Project name														
62470-231	MCB Camp Lejeune · Site 28														
Samplers (Please print) (A) J Zimmerman / (B) KTua / (C) A Bernhardt															
DATE	Time	Comp. / Grab.	Sample Identification	Sample Matrix	Number of containers	Analyses: TCL VOA	TCL SVOA	TCL Pest/PCB	TAL Metals						Remarks
3-26-94	1627	G	28-W-SB10-06	S	3	X	X	X	X						Routine
3-26-94	2000	G	28-TB-06	L	2	X									↓

Relinquished by (Signature)	Date/Time	Received by (Signature)	Date/Time	Remarks:
Th J. Tuhill	3-28-94 1500			- See Remarks for sample turnaround
Relinquished by (Signature)	Date/Time	Received by (Signature)	Date/Time	- Airbill # 16[illegible]304 22231
Relinquished by (Signature)	Date/Time	Received by (Signature)	Date/Time	

CEIMIC Corporation 10 Dean Knauss Drive, Narragansett, RI 02882 (401) 782-8900 FAX (401) 782-8905

CHAIN OF CUSTODY

COC # 28007

Original Chain of Custody goes to Laboratory

Proj. # 62470-231 | Project name: MCB Camp Lejeune - Site 28

Samplers (Please print): (A) J Zimmerman / (B) K Tua / (C) A Bernhardt

DATE	Time	Comp. / Grab.	Sample Identification	Sample Matrix	Number of containers	TCL VOA	TCL SVOA	TCL Pest/PCB	TAL Metals	TPH				Remarks
3-26-94	1520	G	28-E-SB29-00	S	3	X	X	X	X					Routine
3-26-94	1520	G	28-E-SB29-00D	S	3	X	X	X	X					↓
3-26-94	1541	G	28-E-SB29-02	S	1				X					↓
3-26-94	1625	G	28-E-SB30-00	S	3				X	X				↓
3-26-94	1641	G	28-E-SB30-03	S	3				X	X				↓
3-26-94	1649	G	28-E-SB30-05	S	3				X	X				↓
3-26-94	1735	G	28-E-SB22-00	S	3				X	X				↓
3-26-94	1743	G	28-E-SB22-02	S	3				X	X				↓
3-27-94	0750	G	28-SIER-03	L	8	X	X	X	X	X				↓
3-27-94	0800	G	28-E-SB35-00	S	3	X	X	X	X					↓
3-27-94	0836	G	28-E-SB~~#~~35-05	S	1 ~~3~~	TFT 3-27-94			X					↓
3-27-94	1210	G	28-W-SB14-00	S	3				X	X				↓
3-27-94	1230	G	28-W-SB14-02	S	3				X	X				↓
3-27-94	1258	G	28-W-SB18-00	S	3	X	X	X	X					↓

Relinquished by (Signature)	Date/Time	Received by (Signature)	Date/Time
[signature]	3-28-94 1500		
Relinquished by (Signature)	Date/Time	Received by (Signature)	Date/Time
Relinquished by (Signature)	Date/Time	Received by (Signature)	Date/Time

Remarks:
- See Remarks for sample turnaround
- Airbill # 1630422231

0156

CHAIN OF CUSTODY

Original Chain of Custody goes to Laboratory

COC# 28007

Proj. #	Project name
62470-231	MCB Camp Lejeune - Site 28

Samplers (Please print): (A) J Zimmerman / (B) K Tau / (C) A Bernhardt

DATE	Time	Comp. / Grab.	Sample Identification	Sample Matrix	Number of containers	TCL VOA	TAL Metals							Remarks
3-27-94	1302	G	28-W-SB18-01	S ~~G~~	1		X	JFT 3-27-94						Routine
3-27-94	2010	G	28-TB-07	L	2	X								↓

Relinquished by (Signature)	Date/Time	Received by (Signature)	Date/Time	Remarks:
[signature]	3-28-94 1500			- See Remarks for sample turnaround Airbill # 163042231
Relinquished by (Signature)	Date/Time	Received by (Signature)	Date/Time	
Relinquished by (Signature)	Date/Time	Received by (Signature)	Date/Time	

0157

CHAIN OF CUSTODY

Original Chain of Custody goes to Laboratory COC # 28008 Page 1 of 2

Proj. #	Project name
62470-231	MCB Camp Lejeune - Site 28

Samplers (Please print): JZimmerman / WPalkey

DATE	Time	Comp. / Grab.	Sample Identification	Sample Matrix	Number of containers	TCL VOA	TCL SVOA	TCL Pest/PCB	TAL Metals	TPH	Full TCLP	RCRA Characteristics	* MS/MSD	Remarks
3-27-94	0808	G	28-W-SB05-00	S	3	X	X	X	X					Routine
3-27-94	0914	G	28-W-SB06-00	S	3	X	X	X	X					
3-27-94	0933	G	28-W-SB08-04	S	3	X	X	X	X					
3-27-94	0945	C	28-W-SB08	S	3						X	X		
3-27-94	1700	C	28-W-SB41	S	3						X	X		
3-27-94	1012	G	28-W-SB11-00	S	3	X	X	X	X					
3-27-94	1027	G	28-W-SB11-03 TFT 3-28-94	S	6	X	X	X	X				X	
3-27-94	1027	G	28-W-SB11-03D	S	3	X	X	X	X					
3-27-94	1112	G	28-W-SB13-00	S	3	X	X	X	X					
3-27-94	1137	G	28-W-SB13-06	S	3	X	X	X	X					
3-27-94	1340	G	28-W-SB12-00	S	6	X	X	X	X				X	
3-27-94	1340	G	28-W-SB12-00D	S	3	X	X	X	X					
3-28-94	1040	G	28-TB-08	L	2	X								

Relinquished by (Signature)	Date/Time	Received by (Signature)	Date/Time
[signature]	3-28-94 1500		
Relinquished by (Signature)	Date/Time	Received by (Signature)	Date/Time
Relinquished by (Signature)	Date/Time	Received by (Signature)	Date/Time

Remarks:
- * MS/MSD
- See Remarks for sample turnaround
- Full TCLP = Herbicide, Volatile, Semi-Vol Pest/PCB, Metals
- RCRA = Ignitability, Reactivity, Corrosivity
- Airbill # 163042223 1

CEIMIC Corporation 10 Dean Knauss Drive, Narragansett, RI 02882 (401) 782-8900 FAX (401) 782-8905

0158

CHAIN OF CUSTODY

COC # 28008

Original Chain of Custody goes to Laboratory

Page 2 of 2

Proj. #	Project name			Sample Matrix	Number of containers	Analyses										Remarks
62470-731	MCB Camp Lejeune - Site 28					Grain Size	Atterburg Limits									
Samplers (Please print)																
J Zimmerman																
DATE	Time	Comp. / Grab.	Sample Identification													
3-27-94	1700	C	28-W-SB41	S	3	X	X									Routine

Relinquished by (Signature)	Date/Time	Received by (Signature)	Date/Time
Thomas Tuhill	3-28-94 1500		
Relinquished by (Signature)	Date/Time	Received by (Signature)	Date/Time
Relinquished by (Signature)	Date/Time	Received by (Signature)	Date/Time

Remarks:
- Airbill # 163042222 31
- See Remarks for sample turnaround

CEIMIC Corporation 10 Dean Knauss Drive, Narragansett, RI 02882 (401) 782-8900 FAX (401) 782-8905

0159

CHAIN OF CUSTODY

COC # 28009

Original Chain of Custody goes to Laboratory

Page 1 of 2

Proj. #	Project name	Samplers (Please print)
62470-231	MCB Camp Lejeune - Site 28	J Zimmerman / KTug

DATE	Time	Comp. / Grab.	Sample Identification	Sample Matrix	Number of containers	TCL VOA	TCL SVOA	TCL Pest/PCB	TAL Metals	TPH				Remarks
3-27 94	1413	G	28-W-SB12-05	S	3	X	X	X	X					Routine
3-27 94	1505	G	28-W-SB06-00	S	3	X	X	X	X	X				
3-27 94	1533	G	28-W-SB06-05	S	3	X	X	X	X	X				
3-27 94	1533	G	28-W-SB06-05D	S	3	X	X	X	X	X				
3-27 94	1608	G	28-W-SB16-00	S	3	X	X	X	X					
3-27 94	1621	G	28-W-SB16-04	S	1				X					
3-27 94	1915	G	28-SIER-04	L	5	X	X	X	X					HOLD
3-28 94	0820	G	28-E-SB34-00	S	3	X	X	X	X					Routine
3-28 94	0837	G	28-E-SB34-03	S	1				X					
3-28 94	0848	G	28-E-SB34-06	S	1				X					
3-28 94	0915	G	28-E-SB27-00	S	3	X	X	X	X					
3-28 94	0930	G	28-E-SB27-04	S	1				X					
3-28 94	1010	G	28-BB-SB38-00	S	3	X	X	X	X					
3-28 94	1027	G	28-BB-SB38-04	S	3	X	X	X	X					

Relinquished by (Signature)	Date/Time	Received by (Signature)	Date/Time
Th J. Tuttle			
Relinquished by (Signature)	Date/Time	Received by (Signature)	Date/Time
Relinquished by (Signature)	Date/Time	Received by (Signature)	Date/Time

Remarks:
- See Remarks for Sample turnaround
- Airbill # 163042223 1

CEIMIC Corporation 10 Dean Knauss Drive, Narragansett, RI 02882 (401) 782-8900 FAX (401) 782-8905

0160

CHAIN OF CUSTODY

COC # 28009

Original Chain of Custody goes to Laboratory

Page 2 of 2

Proj. #	Project name
62470-231	MCB Camp Lejeune - Site 28

Samplers (Please print): (A) JZimmerman / (B) KTua / (C) ABernhardt

DATE	Time	Comp. / Grab.	Sample Identification	Sample Matrix	Number of containers	Analyses: TCL VOA	TCL SVOA	TCL Pest/PCB	TAL Metals	RCRA Characteristics	Atterburg Limits	Grain Size	Remarks
3-28-94	1100	G	28-BB-SB37-00	S	3	X	X	X	X				Routine
3-28-94	1120	G	28-BB-SB37-03	S	3	X	X	X	X				
3-28-94	1135	C	28-E-SB42	S	3						X	X	
3-28-94 1300	1300	G	28-TB-09	L	2	X							

Relinquished by (Signature)	Date/Time	Received by (Signature)	Date/Time
H. J. Zimmerman	3-28-94 1500		
Relinquished by (Signature)	Date/Time	Received by (Signature)	Date/Time
Relinquished by (Signature)	Date/Time	Received by (Signature)	Date/Time

Remarks:
- See Remarks for Sample turnaround
- Airbill # 163041222 31

CEIMIC Corporation 10 Dean Knauss Drive, Narragansett, RI 02882 (401) 782-8900 FAX (401) 782-8905

0161

CHAIN OF CUSTODY

COC # 28010

Original Chain of Custody goes to Laboratory

Page 1 of 1

Proj. # 62470-231 | Project name: MCB Camp Lejeune - Site 28

Samplers (Please print): (B) K Tua / (C) A Bernhardt

DATE	Time	Comp. / Grab.	Sample Identification	Sample Matrix	Number of containers	TCL VOA	TCL SVOA	TCL Pest/PCB	TAL Metals	Full TCLP	RCRA Characteristics	Hardness		Remarks
3-28-94	1135	C	28-E-SB42	S	3					X	X			Routine
3-28-94	1135	C	28-E-SB42D	S	2					X				
3-27-94	0900	G	28-SDER-01	L	5	X	X	X	X					
3-27-94	1017	G	28-CC-SW02	L	6	X	X	X	X			X		
3-27-94	1038	G	28-CC-SD02-612	S	3	X	X	X	X					
3-27-94	1040	G	28-CC-SD02-06	S	3	X	X	X	X					
3-27-94	1110	G	28-CC-SW03	L	6	X	X	X	X			X		
3-27-94	1259	G	28-CC-SD05-612	S	3	X	X	X	X					
3-27-94	1301	G	28-CC-SD05-06	S	3	X	X	X	X					
3-27-94	1338	G	28-CC-SD07-612	S	3	X	X	X	X					
3-27-94	1330	G	28-TB-10	L	2	X								

Relinquished by (Signature)	Date/Time	Received by (Signature)	Date/Time
Ila J. Tuliba	3-28-94 1500		
Relinquished by (Signature)	Date/Time	Received by (Signature)	Date/Time
Relinquished by (Signature)	Date/Time	Received by (Signature)	Date/Time

Remarks:
- See Remarks for sample turnaround
- Airbill # 163042222 31
- Full TCLP = Herb, Pest/PCB, VOA, SVOA, Metal
- RCRA Char = Ignite, Flame, Corrosive

CEIMIC Corporation 10 Dean Knauss Drive, Narragansett, RI 02882 (401) 782-8900 FAX (401) 782-8905

0162

CHAIN OF CUSTODY

Original Chain of Custody goes to Laboratory COC # 28011 Page 1 of 1

Proj. #	Project name	Samplers (Please print)
62470-231	MCB Camp Lejeune - Site 28	A Bernhardt

DATE	Time	Comp. / Grab.	Sample Identification	Sample Matrix	Number of containers	Analyses: TCL VOA	TCL SVOA	TCL Pest/PCB	TAL Metals	Hardness				Remarks
3-27-94	1153	G	28-CC-SW04	L	6	X	X	X	X	X				Routine
3-27-94	1246	G	28-CC-SW05	L	6	X	X	X	X	X				
3-27-94	1340	G	28-CC-SD07-06	S	3	X	X	X	X					
3-27-94	1357	G	28-CC-SW07	L	6	X	X	X	X	X				
3-27-94	1735	G	28-CC-SW06	L	6	X	X	X	X	X				
3-27-94	1755	G	28-CC-SD06-612	S	3	X	X	X	X					
3-27-94	1757	G	28-CC-SD06-06	S	3	X	X	X	X					
3-27-94	1920	G	28-SDER-02	L	5	X	X	X	X					
3-28-94	1400	G	28-TB-11	L	2	X								

Relinquished by (Signature)	Date/Time	Received by (Signature)	Date/Time
[signature]	3-28-94 1500		
Relinquished by (Signature)	Date/Time	Received by (Signature)	Date/Time
Relinquished by (Signature)	Date/Time	Received by (Signature)	Date/Time

Remarks:
- See Remarks for sample turnaround
- Airbill # 1630422231

CEIMIC Corporation 10 Dean Knauss Drive, Narragansett, RI 02882 (401) 782-8900 FAX (401) 782-8905

0107

CHAIN OF CUSTODY

COC # 28012

Original Chain of Custody goes to Laboratory

Page 1 of 1

Proj. #	Project name			Sample Matrix	Number of containers	Analyses								
62470-231	MCB Camp Lejeune - Site 28					TCL VOA	TCL SVOA	TCL Pest/PCB	TAL Metals	Hardness			* MS/MSD	Remarks
Samplers (Please print)														
A Bernhardt (C)														
DATE	Time	Comp. / Grab.	Sample Identification											
3-28-94	1210	G	28-OP-SD01-612	S	3	X	X	X	X					Routine
3-28-94	1212	G	28-OP-SD01-06	S	6	X	X	X	X				X	
3-28-94	1212	G	28-OP-SD01-06D	S	3	X	X	X	X					
3-28-94	1500	G	28-OP-SD02-612	S	3	X	X	X	X					
3-28-94	1502	G	28-OP-SD02-06	S	1	X								
3-28-94	1600	G	28-CC-SD04-612	S	3	X	X	X	X					
3-28-94	1602	G	28-CC-SD04-06	S	3	X	X	X	X					
TFT 3-28-94 3-28-94	1330 1360	G	28-NR-SW01	L	6	X	X	X	X	X				
3-28-94	1355	G	28-NR-SW02	L	6	X	X	X	X	X				
3-28-94	1602	G	28-CC-SD04-06D	S	3	X	X	X	X					
3-28-94	1645	G	28-CC-SD03-612	S	3	X	X	X	X					
3-28-94	1647	G	28-CC-SD03-06	S	3	X	X	X	X					
3-28-94	2115	G	28-TB-12	L	2	X								

Relinquished by (Signature)	Date/Time	Received by (Signature)	Date/Time
Th T Tabb	3-29-94 1500		
Relinquished by (Signature)	Date/Time	Received by (Signature)	Date/Time
Relinquished by (Signature)	Date/Time	Received by (Signature)	Date/Time

Remarks:
* MS/MSD
- See Remarks for Sample turnaround
- Airbill # 1630422220

CEIMIC Corporation 10 Dean Knauss Drive, Narragansett, RI 02882 (401) 782-8900 FAX (401) 782-8905

CHAIN OF CUSTODY

COC # 28013

0108

Original Chain of Custody goes to Laboratory

Page 1 of 1

Proj. #	Project name
62470-231	MCB Camp Lejeune - Site 28

Samplers (Please print): A Bernhardt (E)

DATE	Time	Comp. / Grab.	Sample Identification	Sample Matrix	Number of containers	TCL VOA	TCL SVOA	TCL Pest/PCB	TAL Metals	Hardness			* MS/MSD	Remarks
3-28 94	1015	G	28-OP-SW01	L	12	X	X	X	X	X			X	Routine
3-28 94	1015	G	28-OP-SW01D	L	6	X	X	X	X	X				
3-28 94	1020	G	28-OP-SW02	L	6	X	X	X	X	X				
3-28 94	2200	G	28-TB-13	L	2	X								

Relinquished by (Signature)	Date/Time	Received by (Signature)	Date/Time
Th T. Bernhardt	3-29-94 1500		
Relinquished by (Signature)	Date/Time	Received by (Signature)	Date/Time
Relinquished by (Signature)	Date/Time	Received by (Signature)	Date/Time

Remarks: * MS/MSD
- See Remarks for sample turn around
- Airbill # 163042222 0

CEIMIC Corporation 10 Dean Knauss Drive, Narragansett, RI 02882 (401) 782-8900 FAX (401) 782-8905

CHAIN OF CUSTODY COC # 28014 0109

Original Chain of Custody goes to Laboratory

Proj. # 62470-231

Project name: MCB Camp Lejeune - Site 28

Samplers (Please print): A Bernhardt

DATE	Time	Comp. Grab.	Sample Identification	Sample Matrix	Number of containers	TCL VOA	TCL SVOA	TCL Pest/PCB	TAL Metals	Hardness				Remarks
3-28-94	1701	G	28-NR-SD01-612	S	3	X	X	X	X					Routine
3-28-94	1703	G	28-NR-SD01-06	S	3	X	X	X	X					↓
3-29-94	0720	G	28-SDER-03	S	5	X	X	X	X					↓
3-29-94	1300	G	28-CC-SW01	S	6	X	X	X	X	X				↓
3-29-94	1400	G	28-TB-14 TFT 3-29-94	~~S~~ L	2	X								↓

Relinquished by (Signature)	Date/Time	Received by (Signature)	Date/Time
[signature]	3-29-94 1500		
Relinquished by (Signature)	Date/Time	Received by (Signature)	Date/Time
Relinquished by (Signature)	Date/Time	Received by (Signature)	Date/Time

Remarks:
- See Remarks for sample turnaround
- Airbill # 1630422220

CHAIN OF CUSTODY

Lot # 28015

0110

Original Chain of Custody goes to Laboratory

Page 1 of 1

Proj. # 62470-231	Project name MCB Camp Lejeune - Site 28					Analyses									
Samplers (Please print) Aaron Bernhardt (E)															
DATE	Time	Comp. / Grab.	Sample Identification	Sample Matrix	Number of containers	TCL VOA	TCL SVOA	TCL Pest / PCB	TAL metals						Remarks
3-26-94	0800	G	28-FS04-SM01	F	1	X	X	X	X						Hold
3-26-94	0800	G	28-FS04-SM02	F	1	X	X	X	X						For
3-26-94	0800	G	28-FS04-SM03	F	1	X	X	X	X						groupings
3-26-94	0800	G	28-FS04-SM04	F	1	X	X	X	X						
3-27-94	0800	G	28-FS04-SM05	F	1	X	X	X	X						
3-27-94	0800	G	28-FS04-SM06	F	1	X	X	X	X						
3-28-94	0800	G	28-FS04-SM07	F	1	X	X	X	X						
3-28-94	0800	G	28-FS04-SM08	F	1	X	X	X	X						
3-28-94	0800	G	28-FS04-SM09	F	1	X	X	X	X						
3-28-94	0800	G	28-FS04-SM10	F	1	X	X	X	X						
3-28-94	0800	G	28-FS04-SM11	F	1	X	X	X	X						
3-28-94	0800	G	28-FS04-SM12	F	1	X	X	X	X						
3-29-94	0800	G	28-FS04-SM13	F	1	X	X	X	X						
3-29-94	0800	G	28-FS04-AM01	F	1	X	X	X	X						

Relinquished by (Signature)	Date/Time	Received by (Signature)	Date/Time	Remarks:
[signature]	3-29-94 1500			Airbill # 1630422216
Relinquished by (Signature)	Date/Time	Received by (Signature)	Date/Time	
Relinquished by (Signature)	Date/Time	Received by (Signature)	Date/Time	

CEIMIC Corporation 10 Dean Knauss Drive, Narragansett, RI 02882 (401) 782-8900 FAX (401) 782-8905

CHAIN OF CUSTODY

CoC # 28016 **0111**

Original Chain of Custody goes to Laboratory

Page 1 of 2

Proj. # 62470-231	Project name MCB Camp Lejeune - Site 28														
Samplers (Please print) Aaron Bernhardt (1)															
DATE	Time	Comp. / Grab.	Sample Identification	Sample Matrix	Number of containers	Analyses: TCL VOA	TCL SVOA	TCL PEST/PCB	TAL Metals						Remarks
3-24-94	0900	G	28-FS05-SS01	F	1	X	X	X	X						Hold
3-25-94	0900	G	28-FS05-SMAF01	F	1	X	X	X	X						For
3-26-94	0830	G	28-FS05-SMAF02	F	1	X	X	X	X						Groupings
3-26-94	0830	G	28-FS05-SMAF03	F	1	X	X	X	X						
3-27-94	0900	G	28-FS05-SMAF04	F	1	X	X	X	X						-
3-27-94	0900	G	28-FS05-SMAF05	F	1	X	X	X	X						
3-27-94	0900	G	28-FS05-SMAF06	F	1	X	X	X	X						
3-29-94	0900	G	28-FS05-SMAF07	F	1	X	X	X	X						
3-28-94	0900	G	28-FS04-SMAF01	F	1	X	X	X	X						
3-28-94	1000	G	28-OPFS-LB01	F	1	X	X	X	X						
3-28-94	1000	G	28-OPFS-LB02	F	1	X	X	X	X						
3-28-94	1000	G	28-OPFS-WM01	F	1	X	X	X	X						
3-28-94	1000	G	28-OPFS-WM01 SM01	F	1	X	X	X	X						
3-25-94	0900	G	~~28-SMAF-SM05~~ N=15 28-FS05-1	F	1	X	X	X	X						

Relinquished by (Signature)	Date/Time	Received by (Signature)	Date/Time	Remarks:
	3-29-94 1500			Airbill # 1630422216
Relinquished by (Signature)	Date/Time	Received by (Signature)	Date/Time	
Relinquished by (Signature)	Date/Time	Received by (Signature)	Date/Time	

CEIMIC Corporation 10 Dean Knauss Drive, Narragansett, RI 02882 (401) 782-8900 FAX (401) 782-8905

CHAIN OF CUSTODY

Original Chain of Custody goes to Laboratory

Proj. #	Project name												
62470-231	MCB Camp Lejeune												

Samplers (Please print): Aaron Bernhardt

DATE	Time	Comp. Grab.	Sample Identification	Sample Matrix	Number of containers	TCL VOA	TCL SVOA	TCL Pest/PCB	TAL Metals				Remarks
3-25-94	0800	G	28-FS05-SM02	F	1	X	X	X	X				Hold
3-26-94	1600	G	28-FS05-SM03	F	1	X	X	X	X				For
3-27-94	0800	G	28-FS05-SM04	F	1	X	X	X	X				Groupings
3-27-94	0800	G	28-FS05-SM05	F	1	X	X	X	X				
3-27-94	0900	G	28-FS05-SM06	F	1	X	X	X	X				
3-28-94	0800	G	28-FS04-BD01	F	1	X	X	X	X				

Relinquished by (Signature)	Date/Time	Received by (Signature)	Date/Time	Remarks:
[signature]	3-29-94 1500			Airbill # 1630422216
Relinquished by (Signature)	Date/Time	Received by (Signature)	Date/Time	
Relinquished by (Signature)	Date/Time	Received by (Signature)	Date/Time	

CHAIN OF CUSTODY

COC # 28017

Original Chain of Custody goes to Laboratory

Proj. #: 62470-231

Project name: MCB Camp Lejeune - Site 28

Samplers (Please print): A Bernhardt ©

DATE	Time	Comp. Grab.	Sample Identification	Sample Matrix	Number of containers	TCL VOA	TCL SVOA	TCL Pest/PCB	TAL Metal	Hardness			* MS/MSD	Remarks
3-29 94	1310	G	28-NR-SW04	L	11	X	X	X	X	X			X	Routine
3-29 94	1310	G	28-NR-SW04D	L	5	X	X	X	X					Routine
3-29 94	1340	G	28-NR-SW05	L	6	X	X	X	X	X				Routine
3-30 94	1000	G	28-TB-15	L	2	X								Routine

Relinquished by (Signature)	Date/Time	Received by (Signature)	Date/Time
[signature]	3-30-94 1500		
Relinquished by (Signature)	Date/Time	Received by (Signature)	Date/Time
Relinquished by (Signature)	Date/Time	Received by (Signature)	Date/Time

Remarks:
- See Remarks for sample turn
- Airbill # 1630422194

* MS/MSD

CEIMIC Corporation 10 Dean Knauss Drive, Narragansett, RI 02882 (401) 782-8900 FAX (401) 782-8905

0124

CHAIN OF CUSTODY

COC # 28018

Original Chain of Custody goes to Laboratory

Page 1 of 1

Proj. #	Project name			Sample Matrix	Number of containers	Analyses									
62470-231	MCB Camp Lejeune - Site 28														
Samplers (Please print)						TCL SVOA	TCL Pest/PCB	TAL Metals							
T Trebilcock / B Cummings															
DATE	Time	Comp. / Grab.	Sample Identification												Remarks
4-5 94	1855	G	28-CC-SW06	L	1		X								Routine
4-5 94	1930	G	28-CC-SW05	L	2	X	X								
4-5 94	1940	G	28-OP-SW02	L	1		X								

Relinquished by (Signature)	Date/Time	Received by (Signature)	Date/Time
Th T. Trebil	4-6-94 1500		
Relinquished by (Signature)	Date/Time	Received by (Signature)	Date/Time
Relinquished by (Signature)	Date/Time	Received by (Signature)	Date/Time

Remarks:
- Airbill # 163042201O
- See Remarks for sample turnaround
- Includes fractions broken during original shipment

CEIMIC Corporation 10 Dean Knauss Drive, Narragansett, RI 02882 (401) 782-8900 FAX (401) 782-8905

0175

CHAIN OF CUSTODY

COC # 28019

Original Chain of Custody goes to Laboratory

Page 1 of 1

Proj. #	Project name
62470-231	MCB Camp Lejeune - Site 28

Samplers (Please print): J Zimmerman (A) / K Tug (B)

DATE	Time	Comp. / Grab.	Sample Identification	Sample Matrix	Number of containers	TCL VOA	TCL SVOA	TCL Pest/PCB	TAL Metals				* MS/MSD	Remarks
4-7 94	1307	G	28-GW09DW-00	S	3	X	X	X	X					Routine
4-7 94	0935	G	28-GW09DW-01	S	3	X	X	X	X					
4-7 94	1010	G	28-GW05-00	S	~~3~~ 6	X	X	X	X	TFT 4-7-94			X	
4-7 94	1010	G	28-GW05-00D	S	3	X	X	X	X					
4-7 94	1022	G	28-GW05-04	S	3	X	X	X	X					
4-7 94	1420	G	28-SIER-05	L	5	X	X	X	X					
4-7 94	1430	G	28-TB-16	L	2	X								

Relinquished by (Signature)	Date/Time	Received by (Signature)	Date/Time
Thomas J. Trebible	4-7-94 1500		
Relinquished by (Signature)	Date/Time	Received by (Signature)	Date/Time
Relinquished by (Signature)	Date/Time	Received by (Signature)	Date/Time

Remarks: * MS/MSD
- See Remarks for sample turnaround
- Airbill # 163042268 4

CEIMIC Corporation 10 Dean Knauss Drive, Narragansett, RI 02882 (401) 782-8900 FAX (401) 782-8905

0177

CHAIN OF CUSTODY

COC # 28020

Original Chain of Custody goes to Laboratory

Page 1 of 1

Proj. #	Project name																
62470-231	MCB Camp Lejeune - OU7																
Samplers (Please print)																	
T Trebilcock (A) / J Zimmerman (B) / K Tug																	
DATE	Time	Comp. / Grab.	Sample Identification	Sample Matrix	Number of containers	Analyses: TCL VOA	TCL SVOA	TCL Pest/PCB	TAL Metals	EPA 601/602							Remarks
4-7 94	1440	G	28-GW06-00	S	3	X	X	X	X								Routine
4-7 94	1506	G	28-GW06-04	S	3	X	X	X	X								↓
4-7 94	1518	G	28-GW06-08	S	3	X	X	X	X								↓
4-7 94	1850	G	28-TGW01-01	L	4		X			X							7-day
4-8 94	1049	G	28-GW07-00	S	3	X	X	X	X								Routine
4-8 94	1102	G	28-GW07-01	S	3	X	X	X	X								Routine
4-8 94	1515	G	28-SIER-06	L	5	X	X	X	X								Hold
4-8 94	1530	G	28-TB-17	L	2	X											Routine

Relinquished by (Signature)	Date/Time	Received by (Signature)	Date/Time	Remarks:
T. Trebilcock	4-8-94 1600			- Remarks for sample turnaround
Relinquished by (Signature)	Date/Time	Received by (Signature)	Date/Time	- Airbill # 163042209 1
Relinquished by (Signature)	Date/Time	Received by (Signature)	Date/Time	

CEIMIC Corporation 10 Dean Knauss Drive, Narragansett, RI 02882 (401) 782-8900 FAX (401) 782-8905

0178

CHAIN OF CUSTODY

COC# 28021

Original Chain of Custody goes to Laboratory

Page 1 of 1

Proj. #	Project name			Sample Matrix	Number of containers	Analyses									
62470-231	MCB Camp Lejeune - OU#7					TCL VOA	TCL SVOA	TCL Pest/PCB	TAL Metals						
Samplers (Please print)															
J Zimmerman (A) / K Tua (B)															
DATE	Time	Comp. / Grab.	Sample Identification												Remarks
4-9 94	0812	G	28-GW08-00	S	3	X	X	X	X						Routine
4-9 94	0844	G	28-GW08-05	S	3	X	X	X	X						↓

Relinquished by (Signature)	Date/Time	Received by (Signature)	Date/Time
Th T Tubbs	4-11-94 1600		
Relinquished by (Signature)	Date/Time	Received by (Signature)	Date/Time
Relinquished by (Signature)	Date/Time	Received by (Signature)	Date/Time

Remarks:
- See Remarks for sample turnaround
- Airbill # 16[illegible]304ZZ113
- Reference 1-TB-10 on COC# 01012 for Trip Blank (Cross contamination)

CEIMIC Corporation 10 Dean Knauss Drive, Narragansett, RI 02882 (401) 782-8900 FAX (401) 782-8905

CHAIN OF CUSTODY

COC # 28022

Original Chain of Custody goes to Laboratory

Proj. #: 62470-231
Project name: MCB Camp Lejeune - OU #7
Samplers (Please print): K Tua (B)

DATE	Time	Comp. Grab.	Sample Identification	Sample Matrix	Number of containers	TCL VOA	TCL SVOA	TCL Pest/PCB	TAL Metals					Remarks
4-18 94	1425	G	28-GW07DW-01	S	3	X	X	X	X					Routine
4-18 94	1400	G	28-GW07DW-00	S	3	X	X	X	X					↓

Relinquished by (Signature)	Date/Time	Received by (Signature)	Date/Time
[signature]	4-19-94 1600		
Relinquished by (Signature)	Date/Time	Received by (Signature)	Date/Time
Relinquished by (Signature)	Date/Time	Received by (Signature)	Date/Time

Remarks:
- See Remarks for sample turn around
- Airbill # 1630422150
- Reference 1-TB-14 on COC # 01015 for trip blank (Cross contamination)

CHAIN OF CUSTODY

COC # ~~01916~~ 28023

0185

Original Chain of Custody goes to Laboratory

Page 1 of 1

Proj. # 62470-231 | Project name: MCB Camp Lejeune - OU # 7

Samplers (Please print): K Tua (13) / M Taube

DATE	Time	Comp. / Grab.	Sample Identification	Sample Matrix	Number of containers	TCL VOA	TCL SVOA	TCL Pest	TCL PCB	TAL Metals	EPA 601/602	TAL Diss. Metals		Remarks
4-20 94	0745	G	28-GW01-00	S	3	X	X	X	X	X				Routine
4-20 94	0800	G	28-GW01-01	S	3	X	X	X	X	X				
4-20 94	1300	G	28-TGWPA-01	L	8		X	X		X	X			
4-20 94	1300	G	28-TGWPAD-01	L	1							X		
4-20 94	1505	G	28-GWER-01	L	5		X	X		X	X			
4-20 94	1505	G	28-GWERD-01	L	1							X		
4-20 94	1530	G	28-TB-18	W	4	X					X			

Relinquished by (Signature)	Date/Time	Received by (Signature)	Date/Time
[signature]	4-20-94 1600		
Relinquished by (Signature)	Date/Time	Received by (Signature)	Date/Time
Relinquished by (Signature)	Date/Time	Received by (Signature)	Date/Time

Remarks:
- See Remarks for sample turn around
- Airbill # 163042 2135

CEIMIC Corporation 10 Dean Knauss Drive, Narragansett, RI 02882 (401) 782-8900 FAX (401) 782-8905

CHAIN OF CUSTODY

COC # 28024

0186

Original Chain of Custody goes to Laboratory

Page 1 of 1

Proj. # 62470-231

Project name: MCB Camp Lejeune - OU # 7

Samplers (Please print): K Tua (E)

DATE	Time	Comp. / Grab.	Sample Identification	Sample Matrix	Number of containers	Analyses: EPA 601/602	TCL VOA	TCL SVOA	TCL Pest	TCL PCB	TAL Metals	TAL Dissolved Metals		Remarks
4-20 94	1710	G	28-GW02-01	L	7	X		X	X		X			Routine
4-20 94	1710	G	28-GW02D-01	L	1							X		
4-20 94	1830	G	28-GW04-01	L	7	X		X	X		X			
4-20 94	1830	G	28-GW04D-01	L	1							X		
4-21 94	0730	G	28-TB-19	L	3	X	X							
4-21 94	0940	G	28-GW03-01	L	7	X		X	X		X			
4-21 94	0940	G	28-GW03D-01	L	1		TFT 4-21-94					X		
4-21 94	1215	G	28-MW13-01	L	7	X	~~X~~ NO ↑	X	X		X			
4-21 94	1215	G	28-MW13D-01	L	1							X		
4-21 94	1235	G	28-GW01DW-00	S	3		X	X	X	X	X			
4-21 94	1245	G	28-GW01DW-01	S	3		X	X	X	X	X			↓

Relinquished by (Signature)	Date/Time	Received by (Signature)	Date/Time
[signature]	4-21-94 1600		
Relinquished by (Signature)	Date/Time	Received by (Signature)	Date/Time
Relinquished by (Signature)	Date/Time	Received by (Signature)	Date/Time

Remarks:
- See Remarks for sample turn around
- Airbill # 163042186 6

CEIMIC Corporation 10 Dean Knauss Drive, Narragansett, RI 02882 (401) 782-8900 FAX (401) 782-8905

CoC # 28025

0188

CHAIN OF CUSTODY

Original Chain of Custody goes to Laboratory

Proj. # 62470-~~E70~~ 231 | Project name: MCB Camp Lejeune

Samplers (Please print): Aaron Bernhardt, Mike Musolin, Bill Jeffords (4)

DATE	Time	Comp. / Grab.	Sample Identification	Sample Matrix	Number of containers	Analyses: TCL Volatiles	TCL Semi-volatiles	TCL Pest/PCB	TAL Inorganics					Remarks
4-20	1910	C-G	28-CC-FS01-BC01	FS	1	X	X	X	X					
4-20	1910		28-CC-FS01-PS01			X	X	X	X					
4-20	1910		28-CC-FS01-PS02			X	X	X	X					
4-20	1910		28-CC-FS01-SM01			X	X	X	X					
4-19	0800		28-OPFS-WM01			X	X	X	X					
4-19	0800		28-OPFS-LMB03			X	X	X	X					
4-19	0800		28-OPFS-LMB04			X	X	X	X					
4-19	0800		28-OPFS-LMB05			X	X	X	X					
4-19	0800		28-OPFS-LMB06			X	X	X	X					
4-19	0800		28-OPFS-AE01			X	X	X	X					
4-19	0800		28-OPFS-AE02			X	X	X	X					
4-19	0800		28-OPFS-RS01			X	X	X	X					
4-19	0800		28-OPFS-RS02			X	X	X	X					
4-19	0800		28-OPFS-RS03	↓	↓	X	X	X	X					

Relinquished by (Signature)	Date/Time	Received by (Signature)	Date/Time
[signature]	4-21-94 1500		
Relinquished by (Signature)	Date/Time	Received by (Signature)	Date/Time
Relinquished by (Signature)	Date/Time	Received by (Signature)	Date/Time

Remarks: Hold for groupings.

CEIMIC Corporation 10 Dean Knauss Drive, Narragansett, RI 02882 (401) 782-8900 FAX (401) 782-8905

COC # ~~Z40026~~ Z40254

0187

CHAIN OF CUSTODY

Original Chain of Custody goes to Laboratory

Page 2 of 2

Proj. # 62470-~~GTO~~ 231 | Project name: MCB Camp Lejeune

Samplers (Please print): Aaron Bernhardt, Mike Mosaka, Bill Jeffords ©

DATE	Time	Comp. / Grab.	Sample Identification	Sample Matrix	Number of containers	Analyses: TCL Volatiles	TCL Semivolatiles	TCL Pest/PCB	TAL Inorganics					Remarks
4-19	0800	G-B	28-OPFS-RS04	FS	1	X	X	X	X					
4-19	0800		28-OPFS-RS05			X	X	X	X					
4-19	0800		28-OPFS-RS06			X	X	X	X					
4-19	0800		28-OPFS-RS07			X	X	X	X					
4-19	0800		28-OPFS-RS08			X	X	X	X					
4-19	0800	↓	28-OPFS-BG01	↓	↓	X	X	X	X					
~~4-21~~	~~1330~~	G	~~28-TB-20~~ AMD	L	1	X	—							

Relinquished by (Signature)	Date/Time	Received by (Signature)	Date/Time
[signature]	4-21-94 1540		
Relinquished by (Signature)	Date/Time	Received by (Signature)	Date/Time
Relinquished by (Signature)	Date/Time	Received by (Signature)	Date/Time

Remarks: Hold For groupings

CEIMIC Corporation 10 Dean Knauss Drive, Narragansett, RI 02882 (401) 782-8900 FAX (401) 782-8905

CHAIN OF CUSTODY coc # 28026 0190

Original Chain of Custody goes to Laboratory

Page 1 of 1

Proj. #	Project name			Sample Matrix	Number of containers	Analyses								
62470-231	MCB Camp Lejeune - OU #7					EPA 601/602	*MS/MSD							
Samplers (Please print)														
K Tua (A)														
DATE	Time	Comp. / Grab.	Sample Identification											Remarks
4-21 94	1340	G	28-GW06-01	L	3	X								Routine
4-21 94	1445	G	28-GW08-01	L	3	X								
4-22 94	1100	G	28-GW07-01	L	7	X	X							
4-22 94	1100	G	28-GW07-01D	L	2	X								

Relinquished by (Signature)	Date/Time	Received by (Signature)	Date/Time
K. Tua	4-22-94 1600		
Relinquished by (Signature)	Date/Time	Received by (Signature)	Date/Time
Relinquished by (Signature)	Date/Time	Received by (Signature)	Date/Time

Remarks:
- See Remarks for sample turnaround
- Airbill # 1630421944
- Reference 30-TB-04 on coc # 30009 for trip blank (cross contamination)
* MS/MSD

CEIMIC Corporation 10 Dean Knauss Drive, Narragansett, RI 02882 (401) 782-8900 FAX (401) 782-8905

CHAIN OF CUSTODY COC # 28027

0192

Original Chain of Custody goes to Laboratory

Page 1 of 1

Proj. #: 62470-231
Project name: MCB Camp Lejeune - OU #7
Samplers (Please print): K Tua (A)

DATE	Time	Comp. Grab.	Sample Identification	Sample Matrix	Number of containers	TCL SVOA	TCL Pest	TAL Metals	TAL Diss Metals	* MS/MSD				Remarks
4-21-94	1100	G	28-GW07-01	L	10 (7)	X	X	X		X				Routine
4-21-94	1100	G	28-GW07D-01	L	3				X	X				↓
4-21-94	1100	G	28-GW07-01D	L	3	X	X	X						↓
4-21-94	1100	G	28-GW07D-01D	L	1				X					↓

Relinquished by (Signature)	Date/Time	Received by (Signature)	Date/Time
[signature]	4-22-94 1600		

Remarks:
- See Remarks for sample turnaround
- * MS/MSD
- Airbill Fed Ex

CHAIN OF CUSTODY COC # 28028 0193

Original Chain of Custody goes to Laboratory

Page 1 of 1

Proj. # 62470-231

Project name: MCB Camplejeune OU#7

Samplers (Please print): K Tuc (A)

DATE	Time	Comp. Grab.	Sample Identification	Sample Matrix	Number of containers	TCL SVOA	TCL Pest	TAL Metals	TAL Dissolved Metals				Remarks
4-21-94	1340	G	28-GW06-01	L	4	X	X	X					Routine
4-21-94	1340	G	28-GW06D-01	L	1				X				↓
4-21-94	1445	G	28-GW08-01	L	4	X	X	X					↓
4-21-94	1445	G	28-GW08D-01	L	1				X				↓

Relinquished by (Signature)	Date/Time	Received by (Signature)	Date/Time
[signature]	4-22-94 1600		
Relinquished by (Signature)	Date/Time	Received by (Signature)	Date/Time
Relinquished by (Signature)	Date/Time	Received by (Signature)	Date/Time

Remarks: - See Remarks for sample turn

CHAIN OF CUSTODY COC # 01017/28030 0195

Original Chain of Custody goes to Laboratory

Page 1 of 1

Proj. # 62470-231	Project name MCB Camp Lejeune OU#7					Analyses									
Samplers (Please print) KTua (A)															
DATE	Time	Comp. / Grab.	Sample Identification	Sample Matrix	Number of containers	TCL SVOA	TCL Pest	TAL Metals	TAL Dissolved Metals						Remarks
4-23 94	0900	G	1-GW06-01	L	3	X		X							Routine
4-23 94	0900	G	1-GW06D-01	L	1				X						Routine
4-23 94	1145	G	1-GW13-01	L	3	X		X							↓
4-23 94	1145	G	1-GW13D-01	L	1				X						↓
~~4-23 94~~	~~1600~~	~~G~~	~~1-GW15-01~~ TFT 4-23-94												
			~~1-GW15D-01~~												
4-23 94	0800	G	28-GW05-01	L	4	X	X	X							Routine
4-23 94	0800	G	28-GW05D-01	L	1				X						Routine

Relinquished by (Signature)	Date/Time	Received by (Signature)	Date/Time	Remarks:
[signature]	4-23-94 1300			- See Remarks for sample turnaround
Relinquished by (Signature)	Date/Time	Received by (Signature)	Date/Time	- Airbill # 163042194O
Relinquished by (Signature)	Date/Time	Received by (Signature)	Date/Time	

CEIMIC Corporation 10 Dean Knauss Drive, Narragansett, RI 02882 (401) 782-8900 FAX (401) 782-8905

CHAIN OF CUSTODY

COC # 01016/28029

0194

Original Chain of Custody goes to Laboratory

Page 1 of 1

Proj. #	Project name
62470-231	MCB Camp Lejeune - OU #7

Samplers (Please print): K Tua (A)

DATE	Time	Comp. / Grab.	Sample Identification	Sample Matrix	Number of containers	Analyses: EPA 601/602	TCL SVOA	TAL Metals	TAL Dissolved Metals					Remarks
4-22 94	1330	G	1-GW01-01	L	6	X	X	X						Routine
4-22 94	1330	G	1-GW01D-01	L	1				X					
4-27 94	1430	G	1-GW02-01	L	6	X	X	X						
4-27 94	1430	G	1-GW02D-01	L	1				X					
4-27 94	1900	G	1-GWER-01	L	4	X	X	X						
4-22 94	1900	G	1-GWERD-01	L	1				X					
4-22 94	1800	G	1-GW03-01	L	3	X								
4-22 94	1930	G	1-TB-15	L	2	X								
4-23 94	0900	G	1-GW06-01	L	3	X								
4-23 94	1000	G	1-GW15-01	L	3	X								
4-23 94	1000	G	1-GW15-01D	L	2	X								
4-23 94	1145	G	1-GW13-01	L	3	X								
4-23 94	0800	G	28-GW05-01	L	3	X								Routine

Relinquished by (Signature)	Date/Time	Received by (Signature)	Date/Time
Th T. Tabibl	4-23-94 1300		
Relinquished by (Signature)	Date/Time	Received by (Signature)	Date/Time
Relinquished by (Signature)	Date/Time	Received by (Signature)	Date/Time

Remarks:
- See Remarks for sample turnaround

- Airbill # 1630421940

CEIMIC Corporation 10 Dean Knauss Drive, Narragansett, RI 02882 (401) 782-8900 FAX (401) 782-8905

CHAIN OF CUSTODY COC # 01019/28030 0198

Original Chain of Custody goes to Laboratory

Page 2 of 2

Proj. #: 62470-231

Project name: MCB Camp Lejeune - OU #7

Samplers (Please print): KTug / M Taube

DATE	Time	Comp. / Grab.	Sample Identification	Sample Matrix	Number of containers	EPA 601/602								Remarks
4-24-94	1740	G	1-GW16-01	L	3	X								Routine
4-25-94	1400	G	1-TB-16	L	2	X								Routine
4-25-94	1100	G	28-GW09DW-01	L	3	X								Routine
4-25-94	1240	G	28-GW01-01	L	3	X								Routine

Relinquished by (Signature)	Date/Time	Received by (Signature)	Date/Time
[signature]	4-25-94 1600		
Relinquished by (Signature)	Date/Time	Received by (Signature)	Date/Time
Relinquished by (Signature)	Date/Time	Received by (Signature)	Date/Time

Remarks:
- See Remarks for sample turn around
- Airbill # 1630422253

CEIMIC Corporation 10 Dean Knauss Drive, Narragansett, RI 02882 (401) 782-8900 FAX (401) 782-8905

CHAIN OF CUSTODY coc#01023/28031

0202

Original Chain of Custody goes to Laboratory

Page 1 of 1

Proj. #	Project name			Sample Matrix	Number of containers	Analyses								Remarks
62470-231	MCB Camp Lejeune					TCL SVOA	TCL Pest/PCB	TAL Metals	TAL Dissolved	TCL Pest	TKN, COD	CL, F, BOD, TDS, TSS, Alkalinity		
Samplers (Please print)														
KTua														
DATE	Time	Comp. / Grab.	Sample Identification											
4-24 94	1740	G	1-GW16-01	L	4	X	X	X						Routine
4-24 94	1740	G	1-GW16D-01	L	1				X					Routine
4-25 94	1100	G	28-GW09DW-01	L	4	X		X		X				Routine
4-25 94	1100	G	28-GW09DWD-01	L	1				X					Routine
4-25 94	1240	G	28-GW01-01	L	6	X		X		X	X	X		Routine
4-25 94	1240	G	28-GW01D-01	L	1				X					Routine

Relinquished by (Signature)	Date/Time	Received by (Signature)	Date/Time	Remarks:
[signature]	4-25-94 1600			- See Remarks for sample turn around
Relinquished by (Signature)	Date/Time	Received by (Signature)	Date/Time	- Airbill # 163042225 3
Relinquished by (Signature)	Date/Time	Received by (Signature)	Date/Time	

CEIMIC Corporation 10 Dean Knauss Drive, Narragansett, RI 02882 (401) 782-8900 FAX (401) 782-8905

CHAIN OF CUSTODY

COC # 01019/28030 0198

Original Chain of Custody goes to Laboratory

Page 2 of 2

Proj. #	Project name			Sample Matrix	Number of containers	Analyses								Remarks
62470-231	MCB Camp Lejeune - OU #7					EPA 601/602								
Samplers (Please print)														
KTuc / MTaube														
DATE	Time	Comp. / Grab.	Sample Identification											
4-24 94	1740	G	1-GW16-01	L	3	X								Routine
4-25 94	1400	G	1-TB-16	L	2	X								Routine
4-25 94	1100	G	28-GW09DW-01	L	3	X								Routine
4-25 94	1240	G	28-GW01-01	L	3	X								Routine

Relinquished by (Signature)	Date/Time	Received by (Signature)	Date/Time	Remarks:
Th T. Hill	4-25-94 1600			- See Remarks for sample turn around
Relinquished by (Signature)	Date/Time	Received by (Signature)	Date/Time	- Airbill # 1630422253
Relinquished by (Signature)	Date/Time	Received by (Signature)	Date/Time	

CEIMIC Corporation 10 Dean Knauss Drive, Narragansett, RI 02882 (401) 782-8900 FAX (401) 782-8905

0204

CHAIN OF CUSTODY COC# 28031

Original Chain of Custody goes to Laboratory

Page 1 of 1

Proj. # 62470-231

Project name: MCB Camp Lejeune - OU#7

Samplers (Please print):

DATE	Time	Comp. Grab.	Sample Identification	Sample Matrix	Number of containers	EPA 601/602	TCL SVOA	TCL Pest	TCL PCB	TAL Metals	TAL Dissolved Metals			Remarks
4-25-94	1350	G	28-GWER-02	L	5	X	X	X		X				Routine
4-25-94	1350	G	28-GWERD-02	L	1						X			↓
4-26-94	1230	G	231-FB-03	L	5	X	X	X	X	X				↓
4-26-94	1230	G	231-FBD-03	L	1						X			↓
4-26-94	1400	G	28-TB-20	L	2	X								↓

Relinquished by (Signature)	Date/Time	Received by (Signature)	Date/Time
[signature]	4-26-94 1600		

Remarks:
- See Remarks for sample turn around
- Airbill # 1630422275

0206

CHAIN OF CUSTODY COC# 01025/28032

Original Chain of Custody goes to Laboratory

Page 1 of 1

Proj. #	Project name
62470-231	MCB Camp Lejeune

Samplers (Please print): MTaube / TTrebilcock

DATE	Time	Comp. / Grab.	Sample Identification	Sample Matrix	Number of containers	Analyses: TCL VOA	TCL SVOA	TCL Pest/PCB	TAL Metals	TPH	Full TCLP	RCRA Characteristics	Remarks
5-5-94	1420	G	1-GW17DW-00	S	3	X	X	X	X	X			Routine
5-5-94	1544	G	1-GW17DW-05	S	3	X	X	X	X	X			↓
5-6-94	1500	G	1-TB-18	L	2	X							↓
5-6-94	1340	C	28-RB01	S	3						X	X	7-day
5-6-94	1400	C	28-RB02	S	3						X	X	7-day

Relinquished by (Signature)	Date/Time	Received by (Signature)	Date/Time
Th T. Trebil	5-6-94 1600		
Relinquished by (Signature)	Date/Time	Received by (Signature)	Date/Time
Relinquished by (Signature)	Date/Time	Received by (Signature)	Date/Time

Remarks:
- See Remarks for sample turn around
- Airbill # 163042232 3
- Full TCLP = Volatiles, Semis, Pest/PCB, Herb & Metals
- RCRA Char. = Corrosivity, Ignitability, Reactivity

CEIMIC Corporation 10 Dean Knauss Drive, Narragansett, RI 02882 (401) 782-8900 FAX (401) 782-8905

CHAIN OF CUSTODY COC # 28033

0207

Original Chain of Custody goes to Laboratory

Page 1 of 1

Proj. #	Project name
62470-231	IMCB Camp Lejeune - OU # 7

Samplers (Please print): M Taube

DATE	Time	Comp. / Grab.	Sample Identification	Sample Matrix	Number of containers	Analyses: EPA 601/602	TCL SVOA	TCL Pest	TCL PCB	TAL Total Metals	TAL Dissolved Metals	TKN & COD	Alkalinity, Cl, F, BOD, TSS, TDS	Remarks
5-7 94	0930	G	28-GW01DW-01	L	9	X	X	X		X		X	X	Routine
	0930	G	28-GW01DWD-01	L	1						X			
	0930	G	28-GW01DW-01D	L	7	X	X	X		X		X	X	
	0930	G	28-GW01DWD-01D	L	1						X			
	1245	G	28-TB-21	L	2	X								
	1145	G	231-FB-04	L	6	X	X	X	X	X				

Relinquished by (Signature)	Date/Time	Received by (Signature)	Date/Time
Th T. Tebill	5-7-94 1400		
Relinquished by (Signature)	Date/Time	Received by (Signature)	Date/Time
Relinquished by (Signature)	Date/Time	Received by (Signature)	Date/Time

Remarks:
- See Remarks for sample turnaround
- Airbill # 1630422290

CEIMIC Corporation 10 Dean Knauss Drive, Narragansett, RI 02882 (401) 782-8900 FAX (401) 782-8905

CHAIN OF CUSTODY

COC # 01026/28034 0208

Original Chain of Custody goes to Laboratory

Proj. #	Project name
62470-231	MCB Camp Lejeune - OU # 7

Samplers (Please print): M Taube / T Trebilcock

DATE	Time	Comp. Grab.	Sample Identification	Sample Matrix	Number of containers	EPA 601/602	TCL SVOA	TCL Pest	TCL PCB	TAL Metals	TAL Dissolved Metals	RCRA Characteristic	Full TCLP	Remarks
5-8 94	0930	C	1-RB01	S	3							X	X	7-day
5-8 94	1830	C	1-RB02	S	3							X	X	7-day
5-8 94	2045	G	1-TB-19	L	2	X								Routine
5-9 94	1000	G	1-GW16DW-01	L	6	X	X			X				Routine
5-9 94	1000	G	1-GW16DWD-01	L	1						X			Routine
5-8 94	1645	G	28-GW07DW-01	L	3	X								Routine
5-8 94	1800	G	28-TKNR	L	3	X								Routine
5-8 94	1950	G	28-GWER-03	L	5 ~~2~~	X	X	X	X	X	~~X~~	TFT 5-8-94		Routine
5-8 94	1950	G	28-GWERD-03	L	1						X			Routine

Relinquished by (Signature)	Date/Time	Received by (Signature)	Date/Time
[signature]	5-9-94 1600		
Relinquished by (Signature)	Date/Time	Received by (Signature)	Date/Time
Relinquished by (Signature)	Date/Time	Received by (Signature)	Date/Time

Remarks:
- See Remarks for sample turn around
- Airbill # 1630422076
- RCRA = Ignitability, Corrosivity, Reactivity
- Full TCLP = Herbicide, Pest, PCB, Metals SVOAs & VOAs

CHAIN OF CUSTODY COC # 28035

0210

Original Chain of Custody goes to Laboratory

Page 1 of 1

Proj. #	Project name			Sample Matrix	Number of containers	Analyses								
62470-231	MCB Camp Lejeune - OU #7													
Samplers (Please print)														
M Taube / T Trebilcock														
DATE	Time	Comp. / Grab.	Sample Identification			TCL SVOA	TCL Pest	TCL PCB	TAL Metals	TAL Dissolved Metals				Remarks
5-8 94	1645	G	28-GW07DW-01	L	4	X	X		X					Routine
5-8 94	1645	G	28-GW07DWID-01	L	1					X				Routine
5-8 94	1645	G	28-TKNR	L	4	X	X	X	X	X				7-day

Relinquished by (Signature)	Date/Time	Received by (Signature)	Date/Time	Remarks:
M T. Trebilcock	5-9-94 1600			- See Remarks for sample turn
Relinquished by (Signature)	Date/Time	Received by (Signature)	Date/Time	- Airbill # 163042076
Relinquished by (Signature)	Date/Time	Received by (Signature)	Date/Time	

CEIMIC Corporation 10 Dean Knauss Drive, Narragansett, RI 02882 (401) 782-8900 FAX (401) 782-8905

CHAIN OF CUSTODY COC # 01028

0212

Original Chain of Custody goes to Laboratory

Page 1 of 1

Proj. #	Project name			Sample Matrix	Number of containers	Analyses									
62470-231	MCB Camp Lejeune - OU # 7														
Samplers (Please print)															
T Trebilcock															
DATE	Time	Comp. / Grab.	Sample Identification			TCL VOA	TCL SVOA	TAL Total Metals	TAL Dissolved Metals						Remarks
5-25 94	1945	G	1-GW17DW-01	L	6	X	X	X							14-day
5-25 94	1945	G	1-GW17DWD-01	L	1				X						14-day
5-26 94	0930	G	1-TB-21	L	2	X									14-day

Relinquished by (Signature)	Date/Time	Received by (Signature)	Date/Time	Remarks:
Th T Trebilcock	5-26-94 1600			- See Remarks for Sample turnaround
Relinquished by (Signature)	Date/Time	Received by (Signature)	Date/Time	- Airbill # 163042235 6
Relinquished by (Signature)	Date/Time	Received by (Signature)	Date/Time	

CEIMIC Corporation 10 Dean Knauss Drive, Narragansett, RI 02882 (401) 782-8900 FAX (401) 782-8905

SITE 30

C.O.C. # 30004
0126

CHAIN OF CUSTODY

Original Chain of Custody goes to Laboratory

Page 1 of 3

Proj. #	Project name
62470-231	62470-231 SITE 30

Samplers (Please print): JOHN ZIMMERMAN / BILL PELKEY

DATE	Time	Comp. / Grab.	Sample Identification	Sample Matrix	Number of containers	Analyses: TCL-VOA	Analyses: TPH	Remarks
3/22/94	1105	G	30-SB01-00	S	1	X		Routine
3/22/94	1630	G	30-SB01-04	S	1	X	X	7 DAY TURN
3/22/94	1652	G	30-SB05-00	S	2	X		Routine *
3/22/94	1652	G	30-SB05-DUP	S	1	X		Routine
3/22/94	1705	G	30-SB05-02	S	1	X	X	7 DAY TURN *
3/22/94	1705	G	30-SB05-02D	S	1	X	X	7 DAY TURN
3/22/94	1727	G	30-SB07-00	S	1	X		Routine
3/22/94	1734	G	30-SB07-03	S	1	X	X	7 day Turn
3/22/94	1752	G	30-SB10-00	S	1	X		Routine
3/22/94	1752	G	30-SB10-00D	S	1	X		Routine
3/22/94	1758	G	30-SB10-03	S	1	X	X	7-day Turn
3/22/94	1812	G	30-SB11-03D	S	1	X	X	7 day Turn
3/22/94	1814	G	30-SB03-00	S	1	X		Routine
3/22/94	1820	G	30-SB03-03	S	1	X	X	7 day Turn

Relinquished by (Signature)	Date/Time	Received by (Signature)	Date/Time
W. J. Zimmerman	3-23-94 1500		
Relinquished by (Signature)	Date/Time	Received by (Signature)	Date/Time
Relinquished by (Signature)	Date/Time	Received by (Signature)	Date/Time

Remarks: * NOTE: SAMPLES SHOULD BE MS/MSD
- Airbill # 1630421995
- See Remarks for sample turn around

CEIMIC Corporation 10 Dean Knauss Drive, Narragansett, RI 02882 (401) 782-8900 FAX (401) 782-8905

0135

CHAIN OF CUSTODY

COC # 30001

Original Chain of Custody goes to Laboratory

Proj. # 62470-231 | Project name MCB Camp Lejeune - Site 30

Samplers (Please print) Ken Tuea, Marty Taube John Zimmerman Bill Pelky

DATE	Time	Comp. / Grab.	Sample Identification	Sample Matrix	Number of containers	Analyses: TCL VOA	TPH	TCL SVOA	TAL Metals					Remarks
3/22/94	1836	G	30-SB11-00	S	1	X								Routine
3/22/94	1844	G	30-SB11-03	S	1	X								Routine
3/23/94	0921	G	30-SB08-00	S	1	X								Routine
3/23/94	0926	G	30-SB08-02	S	1	X								"
3/23/94	0947	G	30-SB04-00	S	1	X								"
3/23/94	0958	G	30-SB04-03	S	1	X								"
3/23/94	1010	G	30-BB-SB12-00	S	1	X								"
3/23/94	1027	G	30-BB-SB12-03	S	1	X								"
3/23/94	1039	G	30-SB02-00	S	1	X								"
3/23/94	1045	G	30-SB02-03	S	1	X								"
3/23/94	1057	G	30-BB-SB13-00	S	1	X								"
3/23/94	1100	G	30-BB-SB13-01	S	1	X								"
3/23/94	1106	G	30-SB06-00	S	1	X								"
3/23/94	1116	G	30-SB06-03	S	1	X								"

Relinquished by (Signature)	Date/Time	Received by (Signature)	Date/Time
[signature]	3-23-94 1500		
Relinquished by (Signature)	Date/Time	Received by (Signature)	Date/Time
Relinquished by (Signature)	Date/Time	Received by (Signature)	Date/Time

Remarks: - See Remarks for Sample turnaround

- Airbill # 1630421995

CEIMIC Corporation 10 Dean Knauss Drive, Narragansett, RI 02882 (401) 782-8900 FAX (401) 782-8905

COC# 30001

0138

CHAIN OF CUSTODY

Original Chain of Custody goes to Laboratory

Page 3 of 3

Proj. # 62470-231

Project name: MCB Camp Lejeune - Site 30

Samplers (Please print): J Zimmerman / W Pelkey / M Taube / K Tua

DATE	Time	Comp. Grab.	Sample Identification	Sample Matrix	Number of containers	TCL VOA	TPH	TCL SVOA	TAL Metals					Remarks
3/23/94	1125	G	30-BB-SB14-00	S	1	X								Routine
3/23/94	1130	G	30-BB-SB14-01	S	1	X								"
3/23/94	1143	G	30-SB09-00	S	1	X								"
3/23/94	1150	G	30-SB09-02	S	1	X								
3/23/94	0800	G	30-SIER-02	L	2	X								*HOLD
3/23/94	1400	G	30-TB-01	L	2	X								Routine
3/22/94	0945	G	30-SIER-01	L	7	X	X	X	X					Routine

Relinquished by (Signature)	Date/Time	Received by (Signature)	Date/Time
[signature]	3-23-94 1500		

Remarks: - See Remarks for sample turn

- Airbill# 1630421995

C.O.C. # 3000 0127

CHAIN OF CUSTODY

Original Chain of Custody goes to Laboratory

Page 2 of 2

Proj. # 62470-231	Project name 62470-231 SITE 30			Sample Matrix	Number of containers	Analyses									Remarks
Samplers (Please print) TOM Zimmerman / Bill Pelkey						TCL-SVOA	TPH	TAL-METALS							
DATE	Time	Comp. / Grab.	Sample Identification												
3/22/94	1605	G	30-SB01-00	S	2	X		X							Routine
3/22/94	1630	G	30-SB01-04	S	2	X	X	X							7 Day Turn
3/22/94	1652	G	30-SB05-00	S	4	X		X							Routine X
3/22/94	1652	G	30-SB05-000	S	2	X		X							Routine
3/22/94	1705	G	30-SB05-03	S	4	X	X	X							7 Day Turn X
3/22/94	1705	G	30-SB05-030	S	2	X	X	X							7 Day Turn
3/22/94	1727	G	30-SB07-00	S	2	X		X							Routine
3/22/94	1724	G	30-SB07-03	S	2	X	X	X							7-Day Turn
3/22/94	1752	G	30-SB10-00	S	2	X		X							Routine
3/22/94	1752	G	30-SB10-000	S	2	X		X							Routine
3/22/94	1758	G	30-SB10-03	S	2	X	X	X							7-Day Turn
3/22/94	1758	G	30-SB10-030	S	2	X	X	X							7-Day Turn
3/22/94	1814	G	30-SB02-00	S	2	X	[illegible]	X							Routine
3/22/94	1820	G	30-SB02-03	S	2	X	X	X							7-DAY TURN

Relinquished by (Signature)	Date/Time	Received by (Signature)	Date/Time
Thom J. Zubiel	3-23-94 1500		
Relinquished by (Signature)	Date/Time	Received by (Signature)	Date/Time
Relinquished by (Signature)	Date/Time	Received by (Signature)	Date/Time

Remarks: * NOTE SAMPLE CONTAINS MS/MSD.
- See Remarks for Sample turnaround
- Airbill # 1630421995

CEIMIC Corporation 10 Dean Knauss Drive, Narragansett, RI 02882 (401) 782-8900 FAX (401) 782-8905

CHAIN OF CUSTODY

Original Chain of Custody goes to Laboratory

Proj. #: 62470-231
Project name: 62470-231 Site 30
Samplers (Please print): John Zimmermann / Bill Belkey

DATE	Time	Comp. / Grab.	Sample Identification	Sample Matrix	Number of containers	TCL-SVOA	TPH	TAL-Metals						Remarks
3/22/94	1836	G	30-SB11-00	S	2	X		X						Routine
3/22/94	1844	G	30-SB11-03	S	2	X		X						Routine

Relinquished by (Signature)	Date/Time	Received by (Signature)	Date/Time
[signature]	3-23-94 1500		

Remarks:
- See Remarks for sample turn around
- Fed Ex Airbill # 1630421995

COC # 30003 0136

CHAIN OF CUSTODY

Original Chain of Custody goes to Laboratory

BB

Proj. # ~~624~~ 62-170-231 | Project name: MCB Camp Lejeune - Site 30

Samplers (Please print): John Zimmerman / Bill Pelkey

DATE	Time	Comp. / Grab.	Sample Identification	Sample Matrix	Number of containers	Analyses: TCL SVOA	Analyses: TAL Metals	Remarks *
03-23-94	0921	G	30-SB08-00	S	2	X	X	Routine
03-23-94	0926	G	30-SB08-02	S	2	X	X	Routine
03-23-94	0947	G	30-SB04-00	S	2	X	X	Routine
03-23-94	0958	G	30-SB04-03	S	2	X	X	Routine
03-23-94	1010	G	30-BB-SB12-00	S	2	X	X	Routine
03-23-94	1027	G	30-BB-SB12-03	S	2	X	X	Routine
03-23-94	1039	G	30-SB02-00	S	2	X	X	Routine
03-23-94	1045	G	30-SB02-03	S	2	X	X	Routine
03-23-94	1057	G	30-BB-SB13-00	S	2	X	X	Routine
03-23-94	1100	G	30-BB-SB13-01	S	2	X	X	Routine
03-23-94	1106	G	30-SB06-00	S	2	X	X	Routine
03-23-94	1116	G	30-SB06-03	S	2	X	X	Routine
03-23-94	1125	G	30-BB-SB14-00	S	2	X	X	Routine
03-23-94	1130	G	30-BB-SB14-01	S	2	X	X	Routine

Relinquished by (Signature)	Date/Time	Received by (Signature)	Date/Time
[signature]	03-23-94 1500		
Relinquished by (Signature)	Date/Time	Received by (Signature)	Date/Time
Relinquished by (Signature)	Date/Time	Received by (Signature)	Date/Time

Remarks:
* Turn around Time
Fedex Airbill # 1630421995

CEIMIC Corporation 10 Dean Knauss Drive, Narragansett, RI 02882 (401) 782-8900 FAX (401) 782-8905

COC # 30003
0137

CHAIN OF CUSTODY

Original Chain of Custody goes to Laboratory

Page 2 of 2

Proj. # 62470-231

Project name: MCB Camp Lejeune - Site 30

Samplers (Please print): John Zimmerman / Bill Polkey

DATE	Time	Comp. / Grab.	Sample Identification	Sample Matrix	Number of containers	TCL SVOA	TAL Metals						Remarks *
03-23-94	1143	G	30-SB09-00	S	2	X	X						Routine
03-23-94	1150	G	30-SB09-02	S	2	X	X						Routine
03-23-94	0800	G	30-STER-02	L	2	X	X						Hold

Relinquished by (Signature)	Date/Time	Received by (Signature)	Date/Time
[signature]	03-23-94 1500		
Relinquished by (Signature)	Date/Time	Received by (Signature)	Date/Time
Relinquished by (Signature)	Date/Time	Received by (Signature)	Date/Time

Remarks:
* Turn Around time
Fedex Airbill # 1630121995

C.O.C 30004
0139

CHAIN OF CUSTODY

Original Chain of Custody goes to Laboratory

Page 1 of 1

Proj. #	Project name			Sample Matrix	Number of containers	Analyses								
62420-231	MCB Camp Lejeune Site 30					TCL VOA	TCL SVOA	TAL Metals					TAL-MSD	Remarks *
Samplers (Please print)														
K. Twa / M. Taube / A. Barnhart														
DATE	Time	Comp. / Grab.	Sample Identification											
03-23-94	1317	G	30-BB-SB15-00	S	3	X	X	X						Routine
03-23-94	1323	G	30-BB-SB15-01	S	3	X	X	X						Routine
03-23-94	1450	G	30-BB-SB16-00	S	3	X	X	X						Routine
03-23-94	1505	G	30-BB-SB16-02	S	3	X	X	X						Routine
03-23-94	1542	G	30-GW03-00	S	3	X	X	X						Routine
03-23-94	1550	G	30-GW03-01	S	3	X	X	X						Routine
03-23-94	1718	G	30-SW03	L	2	X		X						Routine
03-23-94	1853	G	30-SW02	L	3	X		X						Routine
03-23-94	1805	G	30-SW01	L	4 6	X		X	PB - 03-24-94				X	Routine
03-23-94	1815	G	30-SW01D	L	2	X		X						Routine
03-24-94	0930	G	30-TB-02	L	2	X								Routine

Relinquished by (Signature)	Date/Time	Received by (Signature)	Date/Time
Kim Rucks	03-24-94 1500		
Relinquished by (Signature)	Date/Time	Received by (Signature)	Date/Time
Relinquished by (Signature)	Date/Time	Received by (Signature)	Date/Time

Remarks:

* Turn Around Time

Fed Ex Airbill * 163041 2206

CEIMIC Corporation 10 Dean Knauss Drive, Narragansett, RI 02882 (401) 782-8900 FAX (401) 782-8905

CHAIN OF CUSTODY COC# 30005 0142

Original Chain of Custody goes to Laboratory

Page 1 of 1

Proj. #	Project name
62470-231	MCB Camp Lejeune - Site 30

Samplers (Please print) A Bernhardt
John Zimmerman, William Belkey

DATE	Time	Comp. / Grab.	Sample Identification	Sample Matrix	Number of containers	Analyses: TCL SVOA	Full TCLP	RCRA Chars.	Grain Size	Atterburg Limits			• MS/MSD	Remarks
3-23-94	1805	G	30-SW01	L	2	X							X	Routine
3-23-94	1805	G	30-SW01D	L	1	X								Routine
3-23-94	1120	C	30-SB17	S	6				X					

Relinquished by (Signature)	Date/Time	Received by (Signature)	Date/Time
Th. J. Talbot			
Relinquished by (Signature)	Date/Time	Received by (Signature)	Date/Time
Relinquished by (Signature)	Date/Time	Received by (Signature)	Date/Time

Remarks: • MS/MSD Included
- * Turn around time
Airbill # 163042200G
Full TCLP = Vols, SVols, Pest/PCB
Metals, Herb
RCRA = Corrosivity, Ignitability, Reactivity

CEIMIC Corporation 10 Dean Knauss Drive, Narragansett, RI 02882 (401) 782-8900 FAX (401) 782-8905

0146

CHAIN OF CUSTODY

Original Chain of Custody goes to Laboratory COC# 30006 Page 1 of 1

Proj. # 62470-231 | Project name: MCB Camp Lejeune - Site 30

Samplers (Please print): A Bernhardt / M Muslin

DATE	Time	Comp. Grab.	Sample Identification	Sample Matrix	Number of containers	TAL Metals	TCL VOA	TCL SVOA					MS/MSD	Remarks
03-24-94	1625	G	30-SD03-612	S	3	X	X	X						Routine
03-24-94	1635	G	30-SD03-06	S	3	X	X	X						↓
03-24-94	1725	G	30-SD02-06	S	3	X	X	X						
03-24-94	1725	G	30-SD02-612	S	3	X	X	X						
03-24-94	1830	G	30-SDER-01	L	~~4~~ 5	X	X	X	TFT 3-25-94					
3-25-94	1210	G	30-SD01-612	S	3	X	X	X						
3-25-94	1212	G	30-SD01-06	S	6	X	X	X					*	
3-25-94 (TFT 3-25-94)	~~1212~~	G	30-SD01-06D	S	3	X	X	X						
	1212													
3-25-94	1300	G	30-TB-03	L	2		X							
3-25-94	1440	G	30-SDER-02	L	5	X	X	X						↓

Relinquished by (Signature)	Date/Time	Received by (Signature)	Date/Time
[signature]	3-25-94 1500		

Remarks: * MS/MSD
- See Remarks for Sample turnaround
Airbill # 1630422205

CEIMIC Corporation 10 Dean Knauss Drive, Narragansett, RI 02882 (401) 782-8900 FAX (401) 782-8905

CHAIN OF CUSTODY

Original Chain of Custody goes to Laboratory

COC # 300067
TFT 3-30-94

Proj. # 62470-231

Project name: MCB Camp Lejeune - Site 30

Samplers (Please print): A Bernhardt ©

DATE	Time	Comp. / Grab.	Sample Identification (TFT 3-30-94)	Sample Matrix	Number of containers	Analyses: Hardness								Remarks
3-29-94	1127 ~~1103~~	G	30-SW01	L	1	X								Routine
3-29-94	1120	G	30-SW02	L	1	X								↓
3-29-94	1103	G	30-SW03	L	1	X								↓

Relinquished by (Signature)	Date/Time	Received by (Signature)	Date/Time
[signature]	3-30-94 1500		
Relinquished by (Signature)	Date/Time	Received by (Signature)	Date/Time
Relinquished by (Signature)	Date/Time	Received by (Signature)	Date/Time

Remarks:
- See Remarks for sample turn
- Airbill # 1630422194

CEIMIC Corporation 10 Dean Knauss Drive, Narragansett, RI 02882 (401) 782-8900 FAX (401) 782-8905

CHAIN OF CUSTODY

COC # 30008

Original Chain of Custody goes to Laboratory

Proj. # 62470-231

Project name: MCB Camp Lejeune - Site 1

Samplers (Please print): J Zimmerman (A) / K Tua (B)

DATE	Time	Comp. Grab.	Sample Identification	Sample Matrix	Number of containers	TAL Metals							* MS/MSD	Remarks
4-8 94	1215	G	30-SB19-00	S	2	X							X	Routine
4-8 94	1215	G	30-SB19-00D	S	1	X						TFT 4-8-94	~~X~~	Routine
4-8 94	1236	G	30-SB19-02	S	1	X								↓
4-8 94	1300	G	30-SB20-00	S	1	X								↓
4-8 94	1306	G	30-SB20-03	S	1	X								↓
4-8 94	1335	G	30-SB18-00	S	1	X								↓
4-8 94	1341	G	30-SB18-03	S	1	X								↓
4-8 94	1400	G	30-SIER-03	L	1	X								↓

Relinquished by (Signature)	Date/Time	Received by (Signature)	Date/Time
[signature]	4-8-94 1500		
Relinquished by (Signature)	Date/Time	Received by (Signature)	Date/Time
Relinquished by (Signature)	Date/Time	Received by (Signature)	Date/Time

Remarks:
* MS/MSD
- See Remarks for sample turnaround
- Airbill # 1630422091

CHAIN OF CUSTODY

COC # 30009

0189

Original Chain of Custody goes to Laboratory

Page 1 of 1

Proj. #	Project name
62470-231	MCB Camp Lejeune - OU #7

Samplers (Please print): kTua (A)

DATE	Time	Comp. / Grab.	Sample Identification	Sample Matrix	Number of containers	Analyses: EPA 601/602	TCL SVOA	TAL Metals	TAL Dissolved Metals	TKN & COD	BOD, TDS, TSS, Cl, Alkalinity, F	*MS/MSD		Remarks
4-21 94	1630	G	30-GW03-01	L	6	X	X	X						Routine
4-21 94	1630	G	30-GW03D-01	L	1				X					
4-21 94	1845	G	30-GW01-01 TFT 4-22-94	L	8	X	X	X		X	X			
4-21 94	1845	G	30-GW01D-01	L	1				X					
4-21 94	2305	G	30-TB-04	L	2	X								
4-21 94	1745	G	30-GW02-01	L	7	X						X		
4-21 94	1745	G	30-GW02-01D	L	2	X								

* 30-GW01-01

Relinquished by (Signature)	Date/Time	Received by (Signature)	Date/Time
T. Tuhill	4-22-94 1600		
Relinquished by (Signature)	Date/Time	Received by (Signature)	Date/Time
Relinquished by (Signature)	Date/Time	Received by (Signature)	Date/Time

Remarks:
- See Remarks for sample turnaround
- Air bill # 1630421914
* MS/MSD

CEIMIC Corporation 10 Dean Knauss Drive, Narragansett, RI 02882 (401) 782-8900 FAX (401) 782-8905

CHAIN OF CUSTODY COC # 30010

0191

Original Chain of Custody goes to Laboratory

Page 1 of 1

Proj. #	Project name
62470-231	MCB Camp Lejeune - OU #7

Samplers (Please print): KTua (A)

DATE	Time	Comp. / Grab.	Sample Identification	Sample Matrix	Number of containers	Analyses: TCL SVOA	TAL Metals	TAL Dissolved Metals	* MS/MSD					Remarks
4-21 94	1745	G	30-GW02-01	L	7	X	X		X					Routine
4-21 94	1745	G	30-GW02D-01	L	3			X	X					
4-21 94	1745	G	30-GW02-01D	L	2	X	X							
4-21 94	1745	G	30-GW02D-01D	L	1			X						

Relinquished by (Signature)	Date/Time	Received by (Signature)	Date/Time
[signature]	4-22-94 1600		
Relinquished by (Signature)	Date/Time	Received by (Signature)	Date/Time
Relinquished by (Signature)	Date/Time	Received by (Signature)	Date/Time

Remarks:
- Airbill # 163042191 4
- See Remarks for sample turn around
- * MS/MSD

CEIMIC Corporation 10 Dean Knauss Drive, Narragansett, RI 02882 (401) 782-8900 FAX (401) 782-8905

CHAIN OF CUSTODY COC# 01024/30011

0205

Original Chain of Custody goes to Laboratory

Proj. # 62470-231

Project name: MCB Camp Lejeune - OU #7

Samplers (Please print): M Taube / T Trebilcock

DATE	Time	Comp. / Grab.	Sample Identification	Sample Matrix	Number of containers	TCL VOA	TCL SVOA	TCL Pest/PCB	TAL Metals	TPH	Full TCLP	RCRA Characteristics		Remarks
5-2-94	1500	G	1-GW16DW-00	S	3	X	X	X	X	X				Routine
5-2-94	1519	G	1-GW16DW-04	S	3	X	X	X	X	X				↓
	1549	G	1-GW16DW-07	S	3	X	X	X	X	X				↓
5-3-94	1500		1-TB-17	L	2	X								↓
5-3-94	0930	C	30-3DRMC	S.	3						X	X		Routine

Relinquished by (Signature)	Date/Time	Received by (Signature)	Date/Time
[signature]	5-3-94 1600		
Relinquished by (Signature)	Date/Time	Received by (Signature)	Date/Time
Relinquished by (Signature)	Date/Time	Received by (Signature)	Date/Time

Remarks:
- See Remarks for sample turn around
- Airbill # 1630421925

APPENDIX D
FIELD WELL DEVELOPMENT RECORDS

SITE 1

FIELD WELL DEVELOPMENT RECORD

Baker Environmental, Inc.

PROJECT: Site 1 FLDA RI/FS MCB CAMP LEJEUNE

CTO NO.: 62470-231 WELL NO.: 1-GW07

DATE: 4-22-94

GEOLOGIST/ENGINEER: Bill Pelkey

TIME START	0830
TIME FINISH	0934
INITIAL WATER LEVEL (FT)	16.53
TOTAL WELL DEPTH (TD)	27.73
WELL DIAMETER (INCHES)	2.0
CALCULATED WELL VOLUME	1.9
BOREHOLE DIAMETER (INCHES)	
BOREHOLE VOLUME	
AMOUNT OF WATER ADDED DURING DRILLING	
DEVELOPMENT METHOD	Surge Block
PUMP TYPE	BK Pump
TOTAL TIME (A)	64 min
AVERAGE FLOW (GPM)(B)	
TOTAL ESTIMATED WITHDRAWAL AxB =	
HNU/OVA READING	0.6

DEVELOPMENT DATA

TIME	CUMULATIVE VOLUME (gallons)	pH	TEMP (°C)	SPEC. COND. (µmhos/cm)	TEMP (°C)	COLOR AND TURBIDITY
0830	2	5.13	17.5	105	18	LT. BROWN silty
0836	4	5.19	17.4	95	18	
0848	6	5.22	17.3	95	17.5	
0855	8	5.19	17.6	100	18	
0904	10	5.20	17.4	100	17.5	
0917	14	5.19	17.7	100	18	
0925	16	5.19	18.3	100	17.5	
0929	18	5.22	17.2	100	17.5	
0934	22	5.18	17.4	105	17.5	

OBSERVATIONS/NOTES

FIELD WELL DEVELOPMENT RECORD

Baker Environmental, Inc.

PROJECT: SITE 1 FCLDA MCB CAMP LEJEUNE

CTO NO.: 62470-231 WELL NO.: 1-GW08

DATE: 4-20-94

GEOLOGIST/ENGINEER: Bill PEIKEY

TIME START: 1503

TIME FINISH: 1559

INITIAL WATER LEVEL (FT): 16.73'

TOTAL WELL DEPTH (TD): 27.54'

WELL DIAMETER (INCHES): 2.0

CALCULATED WELL VOLUME: 1.8 GALS.

BOREHOLE DIAMETER (INCHES):

BOREHOLE VOLUME:

AMOUNT OF WATER ADDED DURING DRILLING:

DEVELOPMENT METHOD: SURGE BLOCK

PUMP TYPE: BK PUMP

TOTAL TIME (A): 56 MIN

AVERAGE FLOW (GPM)(B):

TOTAL ESTIMATED WITHDRAWAL AxB =

HNU/OVA READING: 0

DEVELOPMENT DATA

TIME	CUMULATIVE VOLUME (gallons)	pH	TEMP (°C)	SPEC. COND. (µmhos/cm)	TEMP (°C)	COLOR AND TURBIDITY
1503	3	5.69	20.7	150	23	LT. BROWN, SILTY
1507	5	5.54	21.3	145	21	
1517	7	5.61	20.1	130	22	
1521	9	5.42	16.9	130	18	
1526	14	5.38	17.4	125	19	
1540	16	5.83	18.0	145	24	
1555	22	5.58	20.1	130	20	
1559	25	5.54	16.5	128	18	

OBSERVATIONS/NOTES

FIELD WELL DEVELOPMENT RECORD

Baker Environmental, Inc.

PROJECT: SITE 1 FCLDA MCB CAMP LEJEUNE

CTO NO.: 62470 - 231 WELL NO.: 1-GW09

DATE: 4-20-94

GEOLOGIST/ENGINEER: BILL PELKEY

TIME START: 1048

TIME FINISH: 1315

INITIAL WATER LEVEL (FT): 12.05

TOTAL WELL DEPTH (TD): 23.82

WELL DIAMETER (INCHES): 2.0

CALCULATED WELL VOLUME: 2.0 GAL.

BOREHOLE DIAMETER (INCHES):

BOREHOLE VOLUME:

AMOUNT OF WATER ADDED DURING DRILLING:

DEVELOPMENT METHOD: SURGE BLOCK

PUMP TYPE: BK PUMP

TOTAL TIME (A): 147 MIN

AVERAGE FLOW (GPM)(B):

TOTAL ESTIMATED WITHDRAWAL AxB =

HNU/OVA READING:

DEVELOPMENT DATA

TIME	CUMULATIVE VOLUME (gallons)	pH	TEMP (°C)	SPEC. COND. (µmhos/cm)	TEMP (°C)	COLOR AND TURBIDITY
1048	4	6.47	13.9	70	18	BROWN TURBID
1051	8	6.56	15.8	110	17	
1057	10	7.29	16.5	190	17.5	
1101	15	7.41	16.1	205	17	
1105	20	7.50	15.7	190	17.5	
1110	24	7.57	17.1	200	18	
1255	26	7.47	17.8	190	20	
1302	30	7.36	14.4	220	18	
1306	36	7.67	13.8	225	19	
1310	40	7.65	14.4	235	19	
1315	42	7.67	14.8	210	19	WATER REMAINS BROWN, TURBID

OBSERVATIONS/NOTES

FIELD WELL DEVELOPMENT RECORD

Baker Environmental, Inc.

PROJECT: SITE 1 FLIDA RIPS CAMP LEJEUNE MCB.

CTO NO.: 62470-231 WELL NO.: 1 GW 10

DATE: 4-21-94

GEOLOGIST/ENGINEER: BILL PEIKEY

TIME START: 1216

TIME FINISH: 1247

INITIAL WATER LEVEL (FT): 12.08

TOTAL WELL DEPTH (TD): 26.82

WELL DIAMETER (INCHES): 2.0

CALCULATED WELL VOLUME: 2.5 GAL

BOREHOLE DIAMETER (INCHES):

BOREHOLE VOLUME:

AMOUNT OF WATER ADDED DURING DRILLING:

DEVELOPMENT METHOD: SURGE BLOCK

PUMP TYPE: BK. PUMP

TOTAL TIME (A): 31 MIN

AVERAGE FLOW (GPM)(B):

TOTAL ESTIMATED WITHDRAWAL AxB =

HNU/OVA READING:

DEVELOPMENT DATA

TIME	CUMULATIVE VOLUME (gallons)	pH	TEMP (°C)	SPEC. COND. (µmhos/cm)	TEMP (°C)	COLOR AND TURBIDITY
1216	5	8.39	19.3	450	20	DARK BROWN SILTY
1219	8	8.35	18.8	480	19	
1224	15	8.40	18.4	490	19	
1230	17	8.50	19.3	475	19	
1234	22	8.37	18.8	495	18	
1245	28	8.66	21.0	500	20	
1247	30	8.52	19.3	490	19	

OBSERVATIONS/NOTES

FIELD WELL DEVELOPMENT RECORD

Baker Environmental, Inc.

PROJECT: Site 1 FCLDA RIFS MCB CAMP LEJEUNE

CTO NO.: 62470 - 251 WELL NO.: 1-GW11

DATE: 4-21-94

GEOLOGIST/ENGINEER: Bill Peikey

TIME START: 0919

TIME FINISH: 0957

INITIAL WATER LEVEL (FT): 6.02'

TOTAL WELL DEPTH (TD): 19.68'

WELL DIAMETER (INCHES): 2.0

CALCULATED WELL VOLUME: 2.3 GAL

BOREHOLE DIAMETER (INCHES):

BOREHOLE VOLUME:

AMOUNT OF WATER ADDED DURING DRILLING:

DEVELOPMENT METHOD: Surge Block

PUMP TYPE: BK Pump

TOTAL TIME (A): 38 MIN

AVERAGE FLOW (GPM)(B):

TOTAL ESTIMATED WITHDRAWAL AxB =

HNU/OVA READING:

DEVELOPMENT DATA

TIME	CUMULATIVE VOLUME (gallons)	pH	TEMP (°C)	SPEC. COND. (µmhos/cm)	TEMP (°C)	COLOR AND TURBIDITY
0919	5	6.51	17.2	500	17	BROWN, TURBID
0923	10	6.73	16.1	525	17	
0926	14	6.90	15.9	475	16	
0929	18	6.91	16.6	500	18	
0941	20	6.84	16.7	510	17.5	
0944	25	6.87	16.8	475	17	
0949	30	6.97	16.7	475	17.5	
0957	38	7.29	16.3	480	17	

OBSERVATIONS/NOTES

FIELD WELL DEVELOPMENT RECORD

Baker Environmental, Inc.

PROJECT: Site 1 FCLDA RI/FS MCB CAMP LEJEUNE

CTO NO.: 62470 - 231 WELL NO.: 1-GW12

DATE: 4-23-94

GEOLOGIST/ENGINEER: BILL PEIKEY

TIME START: 1552

TIME FINISH: 1635

INITIAL WATER LEVEL (FT)

TOTAL WELL DEPTH (TD)

WELL DIAMETER (INCHES)

CALCULATED WELL VOLUME

BOREHOLE DIAMETER (INCHES)

BOREHOLE VOLUME

AMOUNT OF WATER ADDED DURING DRILLING

DEVELOPMENT METHOD: SURGE Block

PUMP TYPE: BK Pump

TOTAL TIME (A)

AVERAGE FLOW (GPM)(B)

TOTAL ESTIMATED WITHDRAWAL AxB =

HNU/OVA READING

DEVELOPMENT DATA

TIME	CUMULATIVE VOLUME (gallons)	pH	TEMP (°C)	SPEC. COND. (µmhos/cm)	TEMP (°C)	COLOR AND TURBIDITY
1552	2	7.67	20.5	200	19	
1555	6	6.27	17.1	180	18	
1602	8	6.07	17.7	185	20	
1606	10	6.16	18.0	180	18.5	
1610	13	6.08	19.7	180	19	
1622	15	5.76	19.6	175	19	
1630	18	5.87	18.3	175	18.5	
1635	20	5.82	17.7	165	18	

OBSERVATIONS/NOTES

FIELD WELL DEVELOPMENT RECORD

Baker Environmental, Inc.

PROJECT: Site 1 FCLDA RIFS MCB CAMP LEJEUNE

CTO NO.: 6247O -231 WELL NO.: 1 GW 13

DATE: 4-19-94 AND 4-20-94

GEOLOGIST/ENGINEER: Bill Pelkey

TIME START 19 / 20	1537 / 1343
TIME FINISH	1553 / 1432
INITIAL WATER LEVEL (FT)	19.9
TOTAL WELL DEPTH (TD)	33.65
WELL DIAMETER (INCHES)	2.0
CALCULATED WELL VOLUME	2.3 GAL
BOREHOLE DIAMETER (INCHES)	
BOREHOLE VOLUME	
AMOUNT OF WATER ADDED DURING DRILLING	
DEVELOPMENT METHOD	SURGE Block
PUMP TYPE	BK PUMP
TOTAL TIME (A)	65 MIN
AVERAGE FLOW (GPM)(B)	
TOTAL ESTIMATED WITHDRAWAL AxB =	
HNU/OVA READING	

DEVELOPMENT DATA

TIME	CUMULATIVE VOLUME (gallons)	pH	TEMP (°C)	SPEC. COND. (µmhos/cm)	TEMP (°C)	COLOR AND TURBIDITY
1537	2	5.07	21.2	75	24	LT. BROWN TURB.D, FINE SED
1541	6	4.75	21.8	70	22	
1546	10	4.70	20.7	75	22.5	
1553	16	4.58	20.6	75	23	
4-20-94						
1343	18	5.19	25.3	60	27	
1351	22	5.01	21.7	60	25	
1407	28	4.93	22.7	70	27	
1432	36	4.89	27.7	75	25	WATER REMAINS LT. BROWN

OBSERVATIONS/NOTES

THE SURGE Block BECAME LODGED IN WELL AND DEVELOPMENT CONTINUED THE NEXT DAY AFTER IT'S REMOVAL.

FIELD WELL DEVELOPMENT RECORD

Baker Environmental, Inc.

PROJECT: SITE 1 FCLDA RI/FS CAMP LEJEUNE

CTO NO.: 62470-231 WELL NO.: 1-GW16

DATE: 4-21-94

GEOLOGIST/ENGINEER: BILL PEIKEY

TIME START	1540
TIME FINISH	1611
INITIAL WATER LEVEL (FT)	16.98
TOTAL WELL DEPTH (TD)	29.73
WELL DIAMETER (INCHES)	2.0
CALCULATED WELL VOLUME	2.2 GALS.
BOREHOLE DIAMETER (INCHES)	
BOREHOLE VOLUME	
AMOUNT OF WATER ADDED DURING DRILLING	
DEVELOPMENT METHOD	SURGE BLOCK
PUMP TYPE	BK PUMP
TOTAL TIME (A)	31 MIN.
AVERAGE FLOW (GPM)(B)	
TOTAL ESTIMATED WITHDRAWAL AxB =	
HNU/OVA READING	0.3

DEVELOPMENT DATA

TIME	CUMULATIVE VOLUME (gallons)	pH	TEMP (°C)	SPEC. COND. (µmhos/cm)	TEMP (°C)	COLOR AND TURBIDITY
1540	3	7.00	20.7	265	23	LT. BROWN LITHIC SILT
1543	8	7.38	24.2	235	21	
1546	10	7.10	18.1	230	20	
1548	15	7.09	18.6	210	20	
1551	18	7.01	18.5	210	19.5	
1554	22	6.91	18.1	200	19.5	
1557	27	6.86	17.9	205	19.5	
1609	31	6.43	18.4	205	20	
1611	36	6.71	18.8	210	20	LT. BROWN.

OBSERVATIONS/NOTES

FIELD WELL DEVELOPMENT RECORD

Baker Environmental, Inc.

PROJECT: SITE 1 FCLWA RI/FS MCB CAMP LEJEUNE

CTO NO.: 62470-231 WELL NO.: 1-GW17S

DATE: 4-21-94

GEOLOGIST/ENGINEER: BILL PEIKEY

TIME START: 1420

TIME FINISH: 1510

INITIAL WATER LEVEL (FT): 15.17

TOTAL WELL DEPTH (TD): 27.69

WELL DIAMETER (INCHES): 2.0

CALCULATED WELL VOLUME: 2.1 GALS.

BOREHOLE DIAMETER (INCHES):

BOREHOLE VOLUME:

AMOUNT OF WATER ADDED DURING DRILLING:

DEVELOPMENT METHOD: SURGE BLOCK

PUMP TYPE: BK PUMP

TOTAL TIME (A): 50 MIN

AVERAGE FLOW (GPM)(B):

TOTAL ESTIMATED WITHDRAWAL AxB =

HNU/OVA READING: 0.2

DEVELOPMENT DATA

TIME	CUMULATIVE VOLUME (gallons)	pH	TEMP (°C)	SPEC. COND. (µmhos/cm)	TEMP (°C)	COLOR AND TURBIDITY
1420	2	6.99	23.4	550	24	LT. BROWN SILTY
1425	6	7.92	22.0	530	23	
1431	9	8.05	21.5	600	22	
1441	12	8.23	21.7	550	23	
1501	15	8.17	21.1	700	25	
1505	18	7.87	21.4	650	24	
1510	21	7.84	21.2	650	23	

OBSERVATIONS/NOTES

FIELD WELL DEVELOPMENT RECORD

Baker Environmental, Inc.

PROJECT: Site 1 FLCDA RIFS MCB CAMP LEJEUNE

CTO NO.: 62470-231 WELL NO.: 1GW16DW

DATE: 5-7-94

GEOLOGIST/ENGINEER: MARTY TAUBE

TIME START	1519
TIME FINISH	1620
INITIAL WATER LEVEL (FT)	17.0'
TOTAL WELL DEPTH (TD)	122'
WELL DIAMETER (INCHES)	2.0
CALCULATED WELL VOLUME	18.19
BOREHOLE DIAMETER (INCHES)	
BOREHOLE VOLUME	
AMOUNT OF WATER ADDED DURING DRILLING	
DEVELOPMENT METHOD	COMPRESSED AIR
PUMP TYPE	
TOTAL TIME (A)	61 MIN.
AVERAGE FLOW (GPM)(B)	
TOTAL ESTIMATED WITHDRAWAL AxB =	
rINU/OVA READING	

DEVELOPMENT DATA

TIME	CUMULATIVE VOLUME (gallons)	pH	TEMP (°C)	SPEC. COND. (µmhos/cm)	TEMP (°C)	COLOR AND TURBIDITY
1519	0	9.27	22.8	131	22	VERY TURBID
1524	25	10.56	20.3	465	19.5	
1527	38	10.07	19.9	340	20	
1533	57	9.75	20.3	282	20	
1539	76	9.53	20.6	249	19.5	
1543	95	9.40	19.9	231	19	
1550	114	9.29	20.5	229	19	
1558	133	9.15	20.5	222	20	
1605	152	9.08	20.1	218	20	
1612	171	9.00	20.5	210	20	
1620	190	8.94	20.6	210	20	CLEAR

OBSERVATIONS/NOTES

FIELD WELL DEVELOPMENT RECORD

Baker Environmental, Inc.

PROJECT: SITE 1 FLDA RIFS MCB CAMP LEJEUNE

CTO NO.: 62470-231 WELL NO.: 16W17DW

DATE: 5-10-94

GEOLOGIST/ENGINEER: MARTY TAUBE

TIME START	0846
TIME FINISH	0929
INITIAL WATER LEVEL (FT)	14.26
TOTAL WELL DEPTH (TD)	120.6'
WELL DIAMETER (INCHES)	2.0
CALCULATED WELL VOLUME	18.48
BOREHOLE DIAMETER (INCHES)	
BOREHOLE VOLUME	
AMOUNT OF WATER ADDED DURING DRILLING	
DEVELOPMENT METHOD	COMPRESSED AIR
PUMP TYPE	
TOTAL TIME (A)	43 MIN.
AVERAGE FLOW (GPM)(B)	
TOTAL ESTIMATED WITHDRAWAL AxB =	
HNU/OVA READING	

DEVELOPMENT DATA

TIME	CUMULATIVE VOLUME (gallons)	pH	TEMP (°C)	SPEC. COND. (µmhos/cm)	TEMP (°C)	COLOR AND TURBIDITY
0846	0	8.79	23.2	168	22.5	
0854	38	11.67	19.5	960	19	
0905	57	11.50	19.4	680	18.5	
0911	76	11.30	19.8	452	19	
0922	95	11.27	19.7	458	19.5	
0929	114	11.14	19.9	381	19.5	

OBSERVATIONS/NOTES

SITE 28

FIELD WELL DEVELOPMENT RECORD

Baker Environmental, Inc.

PROJECT: SITE 28 HPBD RI/FS MCB CAMP LEJEUNE

CTO NO.: 62470-231 WELL NO.: 28-GW015

DATE: 4-22-94

GEOLOGIST/ENGINEER: BILL PEIKEY

TIME START	1013
TIME FINISH	1102
INITIAL WATER LEVEL (FT)	6.02
TOTAL WELL DEPTH (TD)	19.49
WELL DIAMETER (INCHES)	2.0"
CALCULATED WELL VOLUME	2.3 GAL.
BOREHOLE DIAMETER (INCHES)	
BOREHOLE VOLUME	
AMOUNT OF WATER ADDED DURING DRILLING	
DEVELOPMENT METHOD	
PUMP TYPE	BK Pump
TOTAL TIME (A)	49 MIN.
AVERAGE FLOW (GPM)(B)	
TOTAL ESTIMATED WITHDRAWAL AxB =	
HNU/OVA READING	

DEVELOPMENT DATA

TIME	CUMULATIVE VOLUME (gallons)	pH	TEMP (°C)	SPEC. COND. (µmhos/cm)	TEMP (°C)	COLOR AND TURBIDITY
1013	2	7.50	16.7	390	17.5	HEAVY SILT BROWN/GREEN.
1017	6	7.51	17.0	380	18	
1026	8	7.39	17.9	365	19	
1030	15	7.26	17.3	395	18	
1037	18	7.11	17.2	395	18.5	
1041	25	7.10	17.0	430	17.5	
1044	29	7.06	17.2	430	17.5	
1056	32	7.01	17.3	440	18.5	
1059	38	7.05	17.2	435	18	
1102	40	7.12	17.4	430	17.5	

OBSERVATIONS/NOTES

FIELD WELL DEVELOPMENT RECORD

Baker Environmental, Inc.

PROJECT: Site 28 - HPBD RIFS MCB CAMP LEJEUNE

CTO NO.: 62470 - 231 WELL NO.: 28 GW 05

DATE: 4-11-94

GEOLOGIST/ENGINEER: William PELKEY

TIME START: 1536

TIME FINISH: 1557

INITIAL WATER LEVEL (FT): 12.75

TOTAL WELL DEPTH (TD): 24.98

WELL DIAMETER (INCHES): 2.0

CALCULATED WELL VOLUME: 2.1 GAL.

BOREHOLE DIAMETER (INCHES):

BOREHOLE VOLUME:

AMOUNT OF WATER ADDED DURING DRILLING:

DEVELOPMENT METHOD: SURGE Block BK ~~PUMP~~

PUMP TYPE: BK. PUMP

TOTAL TIME (A): 21 min

AVERAGE FLOW (GPM)(B):

TOTAL ESTIMATED WITHDRAWAL AxB =

HNU/OVA READING: 0 ppm

DEVELOPMENT DATA

TIME	CUMULATIVE VOLUME (gallons)	pH	TEMP (°C)	SPEC. COND. (µmhos/cm)	TEMP (°C)	COLOR AND TURBIDITY
1536	10	6.65	19.9	220	21	LT. BROWN VERY SILTY
1540	18	6.25	18.5	188	20	
1545	22	6.05	17.7	160	20	
1550	28	6.08	17.4	165	19	
1553	38	6.17	17.6	152	18	
1555	46	6.11	17.3	145	19	LT BROWN SLIGHTLY TURBID
1557	52	6.13	18.2	140	19	NOT QUITE CLEAR NO SILT

OBSERVATIONS/NOTES

FIELD WELL DEVELOPMENT RECORD

Baker Environmental, Inc.

PROJECT: Site 28 HPBD RI/FS MCB CAMP LEJEUNE

CTO NO.: 62470 -231 WELL NO.: 28-GW06

DATE: 4-18-94

GEOLOGIST/ENGINEER: Bill Peikey

TIME START: 1257

TIME FINISH: 1419

INITIAL WATER LEVEL (FT): 18.64

TOTAL WELL DEPTH (TD): 32.31

WELL DIAMETER (INCHES): 2.0

CALCULATED WELL VOLUME: 2.3 GAL.

BOREHOLE DIAMETER (INCHES):

BOREHOLE VOLUME:

AMOUNT OF WATER ADDED DURING DRILLING:

DEVELOPMENT METHOD: Surge Block

PUMP TYPE: BK Pump

TOTAL TIME (A): 82 min.

AVERAGE FLOW (GPM)(B):

TOTAL ESTIMATED WITHDRAWAL AxB =

HNU/OVA READING:

DEVELOPMENT DATA

TIME	CUMULATIVE VOLUME (gallons)	pH	TEMP (°C)	SPEC. COND. (µmhos/cm)	TEMP (°C)	COLOR AND TURBIDITY
1257	2.5	5.27	19.2	130	23	LT. Brown Silty
1302	5	5.42	20.2	130	22.5	
1311	10	5.41	19.6	125	23	
1353	12	5.76	20.6	125	26	
1358	15	5.48	20.1	120	22	
1406	18	5.63	24	118	24	
1419	22	5.46	20.5	115	23	CLEAR

OBSERVATIONS/NOTES

FIELD WELL DEVELOPMENT RECORD

Baker Environmental, Inc.

PROJECT: SITE 28 HPBD RI/FS MCB CAMP LEJEUNE

CTO NO.: 62470-231 WELL NO.: 28-GW07

DATE: 4-19-94

GEOLOGIST/ENGINEER: BILL PELKEY

TIME START	1015
TIME FINISH	1215
INITIAL WATER LEVEL (FT)	4.88
TOTAL WELL DEPTH (TD)	19.22
WELL DIAMETER (INCHES)	2.0
CALCULATED WELL VOLUME	2.4 GAL
BOREHOLE DIAMETER (INCHES)	
BOREHOLE VOLUME	
AMOUNT OF WATER ADDED DURING DRILLING	
DEVELOPMENT METHOD	SURGE BLOCK
PUMP TYPE	BK. PUMP
TOTAL TIME (A)	120 min.
AVERAGE FLOW (GPM)(B)	
TOTAL ESTIMATED WITHDRAWAL AxB =	
HNU/OVA READING	

DEVELOPMENT DATA

TIME	CUMULATIVE VOLUME (gallons)	pH	TEMP (°C)	SPEC. COND. (µmhos/cm)	TEMP (°C)	COLOR AND TURBIDITY
1035	2.5	6.76	22.8	1850	20	DARK BROWN SHEEN
1038	5	6.56	17.1	2100	18.5	
1042	15	6.16	17.5	2500	18	
1047	20	6.21	17.3	2450	19	
1051	25	6.69	16.7	2600	19	
1204	30	5.98	19.6	2300	18	
1208	35	6.72	16.9	2300	20	
1212	40	6.73	16.2	2350	19	
1215	45	6.37	17.1	2300	19	CLEAR.

OBSERVATIONS/NOTES

FIELD WELL DEVELOPMENT RECORD

Baker
Baker Environmental, Inc.

PROJECT: Site 28 HPBD RI/FS MCB CAMP LEJEUNE

CTO NO.: 62470 - 231 WELL NO.: 28-GW08

DATE: 4-11-94

GEOLOGIST/ENGINEER: Bill PEIKEY

TIME START: 1803

TIME FINISH: 1922

INITIAL WATER LEVEL (FT): 14.69

TOTAL WELL DEPTH (TD): 27.54

WELL DIAMETER (INCHES): 2.0

CALCULATED WELL VOLUME: 2.2 GAL

BOREHOLE DIAMETER (INCHES):

BOREHOLE VOLUME:

AMOUNT OF WATER ADDED DURING DRILLING:

DEVELOPMENT METHOD: SURGE Block

PUMP TYPE: BK Pump

TOTAL TIME (A): 69 MIN.

AVERAGE FLOW (GPM)(B):

TOTAL ESTIMATED WITHDRAWAL AxB =

HNU/OVA READING: 1.4 ppm

DEVELOPMENT DATA

TIME	CUMULATIVE VOLUME (gallons)	pH	TEMP (°C)	SPEC. COND. (µmhos/cm)	TEMP (°C)	COLOR AND TURBIDITY
1803	2.2	7.79	16.6	725	17.5	DARK BLACK SILTY, SHEEN
1808	6.6	7.68	16.7	800	18	
1811	15	7.78	17.2	1100	18.5	
1824	20	7.94	17.0	1375	18	
1837	25	8.37	16.8	1500	18	
1846	28	8.58	16.7	1575	18	
1857	30	8.46	16.6	1600	18	
1907	32	8.29	16.3	1600	18	LT. TAN SLIGHTLY TURBID
1915	36	8.07	16.5	1600	18	
1922	40	8.41	16.5	1600	17.5	

OBSERVATIONS/NOTES

FIELD WELL DEVELOPMENT RECORD

Baker Environmental, Inc.

PROJECT: Site 28 HPBD RI/FS MCB CAMP LEJEUNE

CTO NO.: 62470-231 WELL NO.: 28-T-6WPA.

DATE: 4/20/94

GEOLOGIST/ENGINEER: WILLIAM PELKEY

TIME START	0755
TIME FINISH	0825
INITIAL WATER LEVEL (FT)	14.53
TOTAL WELL DEPTH (TD)	22.56
WELL DIAMETER (INCHES)	2"
CALCULATED WELL VOLUME	1.37 GAL.
BOREHOLE DIAMETER (INCHES)	
BOREHOLE VOLUME	
AMOUNT OF WATER ADDED DURING DRILLING	
DEVELOPMENT METHOD	SURGE BLOCK
PUMP TYPE	BK. PUMP
TOTAL TIME (A)	30 MIN.
AVERAGE FLOW (GPM)(B)	
TOTAL ESTIMATED WITHDRAWAL AxB =	
HNU/OVA READING	0.2 PPM.

DEVELOPMENT DATA

TIME	CUMULATIVE VOLUME (gallons)	pH	TEMP (°C)	SPEC. COND. (µmhos/cm)	TEMP (°C)	COLOR AND TURBIDITY
0816	1.5	9.76	6.8	550	20	DARK color TO BLACK FINE SILT / PETROLEUM + ORGANIC odor.
0821	3	10.92	5.8	510	20	"SAME"
0825	4.5	11.08	6.1	775	20	"SAME"

OBSERVATIONS/NOTES

* NOTE pH METER EXPERIENCING ELECTRONIC DIFFICULTIES

FIELD WELL DEVELOPMENT RECORD

Baker

Baker Environmental, Inc.

PROJECT: SITE 28 HPBD RIFS MCB CAMP LEJEUNE

CTO NO.: 62470-231 WELL NO.: 28-GW01DW

DATE: 5-3-94

GEOLOGIST/ENGINEER: MARTY TAUBE

TIME START: 1022

TIME FINISH: 1217

INITIAL WATER LEVEL (FT): 3.68

TOTAL WELL DEPTH (TD): 134.2'

WELL DIAMETER (INCHES): 2.0"

CALCULATED WELL VOLUME: 22 GAL

BOREHOLE DIAMETER (INCHES):

BOREHOLE VOLUME:

AMOUNT OF WATER ADDED DURING DRILLING:

DEVELOPMENT METHOD: COMPRESSED AIR

PUMP TYPE:

TOTAL TIME (A): 115 min.

AVERAGE FLOW (GPM)(B):

TOTAL ESTIMATED WITHDRAWAL AxB =

HNU/OVA READING:

DEVELOPMENT DATA

TIME	CUMULATIVE VOLUME (gallons)	pH	TEMP (°C)	SPEC. COND. (µmhos/cm)	TEMP (°C)	COLOR AND TURBIDITY
1022	0	8.84	24.2	1510	20	VERY silty
1043	22	10.38	19.9	1520	19.5	
1047	44	9.77	19.8	2020	19	
1107	66	9.14	20.4	2890	19.5	
1112	88	8.92	19.7	3120	19.5	
1138	110	8.71	19.7	3330	20	
1150	132	8.61	19.8	3410	20	
1205	154	8.60	20.0	3470	19.5	
1217	176	8.50	20.2	3510	19.5	Almost CLEAR.

OBSERVATIONS/NOTES

FIELD WELL DEVELOPMENT RECORD

Baker Environmental, Inc.

PROJECT: SITE 28 HPBD RI/FS MCB CAMP LEJEUNE

CTO NO.: 62470-231 WELL NO.: 28GW07DW

DATE: 5-3-94 & 5-4-94 PAGE 1 OF 2

GEOLOGIST/ENGINEER: MARTY TAUBE

TIME START: 1423

TIME FINISH: 1834

INITIAL WATER LEVEL (FT): 4.58

TOTAL WELL DEPTH (TD): 112.0'

WELL DIAMETER (INCHES): 2.0"

CALCULATED WELL VOLUME: 18.3

BOREHOLE DIAMETER (INCHES):

BOREHOLE VOLUME:

AMOUNT OF WATER ADDED DURING DRILLING:

DEVELOPMENT METHOD: COMPRESSED AIR

PUMP TYPE:

TOTAL TIME (A): 4 HR. 11 MIN.

AVERAGE FLOW (GPM)(B):

TOTAL ESTIMATED WITHDRAWAL AxB =

HNU/OVA READING:

DEVELOPMENT DATA

TIME	CUMULATIVE VOLUME (gallons)	pH	TEMP (°C)	SPEC. COND. (µmhos/cm)	TEMP (°C)	COLOR AND TURBIDITY
1423	0	12.27	23.1	3790	22	MUDDY.
1432	19	12.10	21.0	3500	20.5	
1511	44	12.04	20.6	1900	20	
1542	66	11.75	20.9	1040	20.5	
1613	88	11.15	21.3	491	20.5	
1708	110	11.66	19.4	790	19	
1723	132	11.28	19.3	403	19	
1738	154	10.79	19.1	270	19	
1752	176	10.40	19.0	220	19	
1806	198	10.02	18.9	191	19	
1820	220	9.98	18.9	172	19	
1834	242	9.68	19.0	171	19	

OBSERVATIONS/NOTES

SEE PAGE 2 FOR 5-4-94 DEVELOPING OF THIS WELL TO TRY TO STABILIZE PH.

FIELD WELL DEVELOPMENT RECORD

Baker Environmental, Inc.

PROJECT: Site 28 HPBD RI/FS MCB CAMP LEJEUNE

CTO NO.: 62470-231 WELL NO.: 28 GW07DW

DATE: 5-4-94

GEOLOGIST/ENGINEER: MARTY TAUBE

TIME START: 0827

TIME FINISH: 0959

INITIAL WATER LEVEL (FT):

TOTAL WELL DEPTH (TD):

WELL DIAMETER (INCHES): 2.0"

CALCULATED WELL VOLUME: 18.3

BOREHOLE DIAMETER (INCHES):

BOREHOLE VOLUME:

AMOUNT OF WATER ADDED DURING DRILLING:

DEVELOPMENT METHOD: Compressed A.R.

PUMP TYPE:

TOTAL TIME (A): 92 min.

AVERAGE FLOW (GPM)(B):

TOTAL ESTIMATED WITHDRAWAL AxB =

HNU/OVA READING:

DEVELOPMENT DATA

TIME	CUMULATIVE VOLUME (gallons)	pH	TEMP (°C)	SPEC. COND. (µmhos/cm)	TEMP (°C)	COLOR AND TURBIDITY
0827	0	10.56	20.2	200	20	
0830	22	11.21	19.0	380	18.5	
0840	44	10.58	18.7	205	18	
0848	66	9.90	18.7	170	18	
0858	88	9.53	18.7	170	18	
0908	110	9.08	18.6	170	18.5	
0917	132	9.22	18.8	170	18.5	
0926	154	8.64	18.6	180	19	
0935	176	9.08	18.9	175	19	
0943	198	8.52	18.7	180	19	
0951	220	8.93	18.8	187	19	
0959	232	8.93	18.9	188	19	

OBSERVATIONS/NOTES

FIELD WELL DEVELOPMENT RECORD

Baker Environmental, Inc.

PROJECT: SITE 28 HPBD RI/FS MCB CAMP LEJEUNE

CTO NO.: 62470-231 WELL NO.: 28-GW09DW

DATE: 4-23-94

GEOLOGIST/ENGINEER: BILL PELKEY

TIME START	1026
TIME FINISH	1346
INITIAL WATER LEVEL (FT)	6.75'
TOTAL WELL DEPTH (TD)	128.42'
WELL DIAMETER (INCHES)	2.0
CALCULATED WELL VOLUME	20.7
BOREHOLE DIAMETER (INCHES)	
BOREHOLE VOLUME	
AMOUNT OF WATER ADDED DURING DRILLING	
DEVELOPMENT METHOD	COMPRESSED AIR DOWN WELL
PUMP TYPE	
TOTAL TIME (A)	200 MIN.
AVERAGE FLOW (GPM)(B)	
TOTAL ESTIMATED WITHDRAWAL AxB =	
HNU/OVA READING	

DEVELOPMENT DATA

TIME	CUMULATIVE VOLUME (gallons)	pH	TEMP (°C)	SPEC. COND. (µmhos/cm)	TEMP (°C)	COLOR AND TURBIDITY
1026	18	8.90	18.8	440	20	GRAY
1032	26	8.38	18.6	435	20	
1036	30	8.37	18.9	360	20	
1044	40	8.11	19.1	340	20.5	
1048	48	8.69	18.6	345	19.5	
1057	55	8.09	19.2	320	20.5	
1103	65	8.11	19.7	305	20.5	
1109	72	8.28	18.8	303	21	
1119	78	8.68	19.5	290	21	
1126	85	8.08	18.6	285	21	
1138	90	7.98	19.2	285	21	
1146	105	7.91	18.9	280	21	
1155	120	7.87	19.3	280	21.5	
1205	135	7.87	19.2	275	21	
1215	140	7.87	19.4	275	21.5	
1250	145	8.38	19.6	280	21.5	

OBSERVATIONS/NOTES

FIELD WELL DEVELOPMENT RECORD

Baker Environmental, Inc.

PROJECT: SITE 28 HPBD RI/FS MCB CAMP LEJEUNE

CTO NO.: 62470-231 WELL NO.: 28-GW090W

PAGE 2 OF 2

DATE: 4-23-94

GEOLOGIST/ENGINEER: BILL PEIKEY

TIME START	
TIME FINISH	
INITIAL WATER LEVEL (FT)	
TOTAL WELL DEPTH (TD)	
WELL DIAMETER (INCHES)	
CALCULATED WELL VOLUME	
BOREHOLE DIAMETER (INCHES)	
BOREHOLE VOLUME	
AMOUNT OF WATER ADDED DURING DRILLING	
DEVELOPMENT METHOD	
PUMP TYPE	
TOTAL TIME (A)	
AVERAGE FLOW (GPM)(B)	
TOTAL ESTIMATED WITHDRAWAL AxB =	
HNU/OVA READING	

DEVELOPMENT DATA

TIME	CUMULATIVE VOLUME (gallons)	pH	TEMP (°C)	SPEC. COND. (µmhos/cm)	TEMP (°C)	COLOR AND TURBIDITY
1301	155	8.15	19.2	275	22	
1310	165	7.91	19.8	273	21	
1318	175	7.84	19.8	270	21	
1327	185	7.80	19.7	270	21	
1333	190	7.79	19.7	270	20	
1340	200	7.80	20	270	21	
1346	205	7.73	18.8	268	21	LT. GRAY

OBSERVATIONS/NOTES

SITE 30

FIELD WELL DEVELOPMENT RECORD

Baker Environmental, Inc.

PROJECT: Site 30 SFRFTSA RI/FS MCB CAMP LEJEUNE

CTO NO.: 62470 - 231 WELL NO.: 30 - GW03

DATE: 4-9-94

GEOLOGIST/ENGINEER: KEN TUA

TIME START: 1805

TIME FINISH: 1821

INITIAL WATER LEVEL (FT):

TOTAL WELL DEPTH (TD):

WELL DIAMETER (INCHES): 2.0

CALCULATED WELL VOLUME:

BOREHOLE DIAMETER (INCHES):

BOREHOLE VOLUME:

AMOUNT OF WATER ADDED DURING DRILLING:

DEVELOPMENT METHOD: SURGE Block

PUMP TYPE: BK Pump

TOTAL TIME (A): 16 min

AVERAGE FLOW (GPM)(B):

TOTAL ESTIMATED WITHDRAWAL AxB =

HNU/OVA READING:

DEVELOPMENT DATA

TIME	CUMULATIVE VOLUME (gallons)	pH	TEMP (°C)	SPEC. COND. (µmhos/cm)	TEMP (°C)	COLOR AND TURBIDITY
1805	3	5.18	16.7	75	17.5	COFFEE C/OR. VERY ORGAINC.
1808	15	5.04	16.1	70	17.0	
1813	35	5.04	15.5	70	16	
1817	40	5.09	15.4	75	15	
1821	55	5.08	15.9	75	16	COFFEE COLOR VERY ORGANIC.

OBSERVATIONS/NOTES

INITIAL S.W.L. MEASURED BUT NOT RECORDED. SAME FOR WELL VOL. AREA WAS BUG INFESTED. SWARMING INSECTS MADE FOR QUICK WELL DEVELOPMENT. WATER WAS VERY ORGAINC AND D.O NOT CLEAR UP AS DEVELOPMENT PROGRESSED. WELL D.O PRODUCE MUCH WATER WITH NO DRAWDOWN.

APPENDIX E
INVESTIGATION DERIVED WASTE SUMMARY AND RECOMMENDATIONS

Baker

Baker Environmental, Inc.
Airport Office Park, Building 3
420 Rouser Road
Coraopolis, Pennsylvania 15108

(412) 269-6000
FAX (412) 269-2002

July 1, 1994

Commander
Atlantic Division
Naval Facilities Engineering Command
1510 Gilbert Street (Building N-26)
Norfolk, Virginia 23511-2699

Attn: Ms. Linda Berry, P.E.
Navy Technical Representative
Code 1823

Re: Contract N62470-89-D-4814
Navy CLEAN, District III
Contract Task Orders (CTOs) 0212 and 0231
Sites 41 (CTO 0212), 1, 28, and 30 (CTO 0231)
Investigation-Derived Waste (IDW) Disposal
Marine Corps Base (MCB), Camp Lejeune, North Carolina

Dear Ms. Berry:

This letter provides a summary of IDW disposal activities at those sites referenced above within Operable Units (OUs) No. 4 and No. 7, Marine Corps Base, Camp Lejeune, North Carolina. Both liquid and solid IDW were generated during remedial investigation activities. In addition, small quantities of IDW generated during field investigations associated with CTOs 0133, 0160, and 0177 were also disposed. The characterization and disposal of the IDW was performed in accordance with our recommendation letter dated May 19, 1994.

Disposal activities that occurred during the week of May 23, 1994 were:

- Approximately 40 cubic yards of non-hazardous IDW soil from Sites 1 and 28 were transported to Storage Lot 203 and graded onto the surface.
- Approximately two cubic yards of non-hazardous IDW soil from Sites 35 and 78 were graded onto the surface at Storage Lot 203.
- Two 55-gallon drums containing characteristically hazardous waste liquids were transported from Sites 6 and 41 by a licensed waste hauler to an offsite treatment storage and disposal facility (TSDF).
- A total of 6,154 gallons of non-hazardous waste liquids, generated during field investigations at Sites 1, 28, 30, and 41 were transported by a licensed waste hauler to an off-site TSDF.

Table 1 provides the source site, actual quantity, and disposal method for each investigation-derived waste streams discussed. Copies of the hazardous and non-hazardous waste manifests associated with these activities are included with this letter as Attachment A.

If you have any questions regarding this submittal, please do not hesitate to contact me at (412) 269-2016.

Sincerely,

BAKER ENVIRONMENTAL, INC.

Raymond P. Wattras
Activity Coordinator

Attachments

RPW/TFT/jc

cc: Ms. Katherine Landman, LANTDIV
Mr. Neal Paul, Activity
Ms. Beth Hacic, LANTDIV (w/o attachments)

TABLE 1
SUMMARY OF IDW AT MCB CAMP LEJEUNE

Site Location	IDW Media	Actual Quantity	RCRA Characterization	Disposal
Site 41	Liquid	250 Gallons	Non-Hazardous	Offsite TSDF
Site 41	Liquid	10 Gallons	Hazardous by lead (D008) characteristic	Offsite TSDF
Site 1	Soil	20 Cubic Yards	Non-Hazardous	Onsite disposal at Lot 203
Site 28	Soil	20 Cubic Yards	Non-Hazardous	Onsite disposal at Lot 203
Sites 1, 28, 30	Liquid	5,464 Gallons	Non-Hazardous	Offsite TSDF
Site 6	Liquid	55 Gallons	Hazardous by trichloroethylene (D040) characteristic	Offsite TSDF
Site 35	Soil	.5 Cubic Yard	Non-Hazardous	Onsite disposal at Lot 203
Site 78	Soil	1.5 Cubic Yard	Non-Hazardous	Onsite disposal at Lot 203
Sites 1, 28, 30	Liquid	440 Gallons	Non-Hazardous	Offsite TSDF

Attachment A
Manifests

NORTH CAROLINA HAZARDOUS WASTE MANIFEST

Please print or type. (Form designed for use on elite (12-pitch) typewriter.) Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No. N C 6 1 7 0 0 2 2 5 8 0 — Manifest Document No. 0 0 8 1 5

2. Page 1 of 1

Information in the shaded areas is not required by Federal law.

GENERATOR

3. Generator's Name and Mailing Address
Atn: Neal Paul
MCB Camp Lejeune
IR Division Bld. 67
CAmp Lejeune, NC 28542

4. Generator's Phone (919) 451-1725

5. Transporter 1 Company Name: Four Seasons Environmental, Inc.

6. US EPA ID Number: N C D 9 9 1 2 7 7 7 3 2

7. Transporter 2 Company Name

8. US EPA ID Number

9. Designated Facility Name and Site Address
Laidlaw Environemntal Services, Inc.
208 Watlington Industrial Road
Reidsville, NC 27320

10. US EPA ID Number: N C D 0 0 0 6 4 8 4 5 1

A. State Manifest Document Number

B. State Generator's ID

C. State Transporter's ID

D. Transporter's Phone: 910-273-2718

E. State Transporter's ID

F. Transporter's Phone

G. State Facility's ID

H. Facility's Phone: (910)342-6106

11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste No.
a. ~~Hazardous Waste Liquid, NOS, (lead), 9, NA3082 III~~ Thomas F. Trebilcock 5-25-94	~~0 0 1~~	~~D M~~		~~P~~	~~D008~~
b. ~~Hazardous Waste Liquid, NOS, (tetrachloroethylene), 9, NA3082, III~~ Thomas F. Trebilcock 5-25-94	~~0 0 1~~	~~D M~~		~~P~~	~~D039~~
c. Hazardous Waste Liquid, N.O.S., (Wastewater w/ Lead @11ppm), 9, ~~NA3082~~ NA3082, III	0 0 1	D M	00510	P	D008
d. Hazardous Waste Liquid, N.O.S., (Wastewater w/ Trichloroehhylene @ 0.5 ppm), 9, NA3082, III	0 0 1	D M	00510	P	D040

J. Additional Descriptions for Materials Listed Above

K. Handling Codes for Wastes Listed Above

15. Special Handling Instructions and Additional Information
Bill to: FSE
P.O. Box 16590
Greensboro, NC 27416
FSE Job#: 94-50094
24 HR Emergency #: 910-273-2718
HM Guide #: 31

16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations.

If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.

Printed/Typed Name: JOHN E. RIGGS — Signature — Month Day Year: 10 5 2 5 9 4

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name: Clayton Honeycutt — Signature — Month Day Year: 10 5 2 5 9 4

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name — Signature — Month Day Year

FACILITY

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.

Printed/Typed Name: Randy Lawson — Signature — Month Day Year: 10 5 27 9 4

EPA Form 8700-22 (Rev. 11-88) Previous editions are obsolete.

INSTRUCTIONS ON BACK SHEET

Four seasons environmental
A GREAT LAKES CHEMICAL CORPORATION COMPANY

№ 4080

P.O. Box 16590 • Greensboro, NC 27416-0590 • (919) 273-2718

NON-HAZARDOUS WASTE MANIFEST

Manifest # 00012 F.S.I.S. JOB # 94-50094 Date: May 25, 1994

Generator: MCB Camp Lejeune Phone No.: 919-451-1725

IR Division - Bldg. 67 EPA ID No.: NC6170022580

Camp Lejeune, NC 28542 Contact: Neal Paul

Process which generated waste: Groundwater Assessment

I certify that the materials described below are properly described, classified, packaged, marked & labeled, and are in proper condition to be transported in commerce under the applicable regulations of the State, the Environmental Protection Agency and the Department of Transportation. I certify that the waste described below is non-hazardous. I certify that the specific waste was delivered to the carrier named below for legal treatment, storage, or disposal at the site indicated.

Date May 25, 1994 Signature [signature]

Description of material	Circle Form	Quantity	Circle Units	Container No.	Container Type
Non-Regulated Groundwater	Solid (Liquid) Gas Sludge	2908	(Gallons) Cu. Yds. Pounds Tons	1	TT

Transporter: Four Seasons Environmental, Inc. Unit Number(s): 910

3107 S. Elm-Eugene Street Phone No.: 910-273-2718

Greensboro, NC 27406 EPA ID No.: NCD999277732

Vechicle License Tag Number(s): [illegible] Container: [illegible]

I certify that the specified material was transferred in a registered (licensed) vehicle to the disposal treatment, storage, or disposal facility named below and was accepted.

Pick-up Driver's Signature	Date	Delivering Driver's Signature	Date
[signature]	5-25-94	[signature]	5-25-94

Facility: Four Seasons Environmental, Inc. Phone No.: 910-273-2718

519 Patton Avenue

Greensboro, NC 27406 Contact: Eric McManus

Handling Method: PT532

I certify that the transporter above delivered the specified material to this TSD facility and was accepted and properly handled in the above manner. We are authorized and qualified by the State of NC to handle this material.

Date 5-26-94 Signature: [signature]

ORIGINAL-Destination Retain COPY 2 - Return to Generator COPY 3 - Transporter Retain COPY 4 - Generator Retain

FOUR SEASONS environmental
A GREAT LAKES CHEMICAL CORPORATION COMPANY

No 4083

P.O. Box 16590 • Greensboro, NC 27416-0590 • (919) 273-2718

NON-HAZARDOUS WASTE MANIFEST

Manifest # 00013 F.S.I.S. JOB # 94-50094 Date: May 26, 1994

Generator: MCB Camp Lejuene Phone No.: 910-451-1725

IR Division - Bldg. 67 EPA ID No.: NC6170022580

Camp Lejeune, NC 28542 Contact: Neal Paul

Process which generated waste: Groudwater assessment

I certify that the materials described below are properly described, classified, packaged, marked & labeled, and are in proper condition to be transported in commerce under the applicable regulations of the State, the Environmental Protection Agency and the Department of Transportation. I certify that the waste described below is non-hazardous. I certify that the specific waste was delivered to the carrier named below for legal treatment, storage, or disposal at the site indicated.

3196 - liquid
56 - sludge

Date May 25, 1994 Signature

Description of material	Circle Form	Quantity	Circle Units	Container No.	Container Type
Non-Regulated Groundwater	Solid (Liquid) Gas Sludge	3246	(Gallons) Cu. Yds. Pounds Tons	1	TT

Transporter: Four Seasons ENvironemntal, Inc. Unit Number(s) BT6 TH

3107 S. Elm-Eugene Phone No.: 910-273-2718

Greensboro, Nc 27406 EPA ID No.: NCD999277732

Vechicle License Tag Number(s) Container:

I certify that the specified material was transferred in a registered (licensed) vehicle to the disposal treatment, storage, or disposal facility named below and was accepted.

Pick-up Driver's Signature	Date	Delivering Driver's Signature	Date
	5-26-94		5-26-94

Facility: Four Seasons EnvironmenAal, Inc. Phone No.: 910-273-2718

519 Patton Avenue

Greensboro, NC 27406 Contact: Eric McManus

Handling Method: PT5041 PT5032

I certify that the transporter above delivered the specified material to this TSD facility and was accepted and properly handled in the above manner. We are authorized and qualified by the State of NC to handle this material.

Date 5-26-94 Signature:

ORIGINAL-Destination Retain COPY 2 - Return to Generator COPY 3 - Transporter Retain COPY 4 - Generator Retain

APPENDIX F
FIELD DUPLICATE SUMMARIES

SITE 1

SITE 1
FRENCH CREEK LIQUID DISPOSAL AREA
SURFACE SOIL - FIELD DUPLICATE SUMMARY
REMEDIAL INVESTIGATION CTO-19231
MCB CAMP LEJEUNE, NORTH CAROLINA
TOTAL METALS

Client Sample ID:		1-SD01-06	1-SD01-06D	1-GW16-00	1-GW16-00D	1-GW17-00	1-GW17-00D
Laboratory Sample ID:		940225-05	940225-06	940302-04	940302-05	940320-01	940320-02
Date Sampled:		3/23/94	3/23/94	4/13/94	4/13/94	4/19/94	4/19/94
	UNITS						
Aluminum	MG/KG	2220	1900	2670	2590	1850	1770
Antimony	MG/KG	7.4 UJ	7.1 UJ	6.8 U	7.4 U	7.2 UJ	6.8 UJ
Arsenic	MG/KG	0.73	0.62 U	0.73	0.65 U	1.2	0.60 U
Barium	MG/KG	6.8	5.4	9.9	9.6	6.7	6.9
Beryllium	MG/KG	0.22 U	0.21 U	0.20 U	0.22 U	0.21 U	0.20 U
Cadmium	MG/KG	1.6	1.6	2.0	1.3	0.63 U	0.60 U
Calcium	MG/KG	8730 J	5470 J	5480	4440	40900 J	45600 J
Chromium	MG/KG	7.8	5.5	5.7	3.5	5.9	5.4
Cobalt	MG/KG	1.4 U	0.83 U	0.80 U	0.87 U	0.84 U	0.80 U
Copper	MG/KG	10.0	3.6 U	4.9	3.7	2.7	2.4
Iron	MG/KG	1600	887	1620	1830	1160	1750
Lead	MG/KG	30.8	8.1	23.5	23.7	11.4	11.3
Magnesium	MG/KG	239	156	171	143	556	623
Manganese	MG/KG	5.5	5.6	8.9	10.0	11.4	14.8
Mercury	MG/KG	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Nickel	MG/KG	3.9 U	2.5 U	1.4 U	1.5 U	3.0	2.5
Potassium	MG/KG	112 U	91.0 U	101 J	56.4 J	106 J	105 J
Selenium	MG/KG	0.86 UJ	0.83 UJ	0.80 U	0.87 U	0.84 UJ	0.80 UJ
Silver	MG/KG	1.1 UJ	1.0 UJ	1.0 UJ	1.1 UJ	1.1 UJ	0.99 UJ
Sodium	MG/KG	52.7 U	36.0 U	41.4 U	40.1 U	138	182
Thallium	MG/KG	0.86 U	0.83 U	0.80 U	0.87 U	0.84 U	0.80 U
Vanadium	MG/KG	5.2	4.1	4.6	3.6	2.7	3.0
Zinc	MG/KG	104 J	21.5 J	25.2	20.6	12.0	10.9

SITE 1
FRENCH CREEK LIQUID DISPOSAL AREA
SURFACE SOIL - FIELD DUPLICATE SUMMARY
REMEDIAL INVESTIGATION CTO-19231
MCB CAMP LEJEUNE, NORTH CAROLINA
TCL ORGANICS

Client Sample ID:		1-SD01-06	1-SD01-06D	1-GW16-00	1-GW16-00D	1-GW17-00	1-GW17-00D
Laboratory Sample ID:		940225-05	940225-06	940302-04	940302-05	940320-01	940320-02
Date Sampled:		3/23/94	3/23/94	4/13/94	4/13/94	4/19/94	4/19/94
	UNITS						
VOLATILES							
Chloromethane	UG/KG	12 U	12 U	11 U	11 U	11 U	11 U
Bromomethane	UG/KG	12 U	12 U	11 U	11 U	11 U	11 U
Vinyl chloride	UG/KG	12 U	12 U	11 U	11 U	11 U	11 U
Chloroethane	UG/KG	12 U	12 U	11 U	11 U	11 U	11 U
Methylene chloride	UG/KG	12 U	12 U	11 U	11 U	11 U	11 U
Acetone	UG/KG	12 U	18 U	11 U	11 U	11 U	11 U
Carbon Disulfide	UG/KG	12 U	12 U	11 U	11 U	11 U	11 U
1,1-Dichloroethene	UG/KG	12 U	12 U	11 U	11 U	11 U	11 U
1,1-Dichloroethane	UG/KG	12 U	12 U	11 U	11 U	11 U	11 U
1,2-Dichloroethene(total)	UG/KG	12 U	12 U	11 U	11 U	11 U	11 U
Chloroform	UG/KG	12 U	12 U	11 U	11 U	11 U	11 U
1,2-Dichloroethane	UG/KG	12 U	12 U	11 U	11 U	11 U	11 U
2-Butanone	UG/KG	12 U	12 U	11 U	11 U	11 U	11 U
1,1,1-Trichloroethane	UG/KG	12 U	12 U	11 U	11 U	11 U	11 U
Carbon tetrachloride	UG/KG	12 U	12 U	11 U	11 U	11 U	11 U
Bromodichloromethane	UG/KG	12 U	12 U	11 U	11 U	11 U	11 U
1,2-Dichloropropane	UG/KG	12 U	12 U	11 U	11 U	11 U	11 U
cis-1,3-Dichloropropene	UG/KG	12 U	12 U	11 U	11 U	11 U	11 U
Trichloroethene	UG/KG	12 U	12 U	11 U	11 U	11 U	11 U
Dibromochloromethane	UG/KG	12 U	12 U	11 U	11 U	11 U	11 U
1,1,2-Trichloroethane	UG/KG	12 U	12 U	11 U	11 U	11 U	11 U
Benzene	UG/KG	12 U	12 U	11 U	11 U	11 U	11 U
trans-1,3-Dichloropropene	UG/KG	12 U	12 U	11 U	11 U	11 U	11 U
Bromoform	UG/KG	12 U	12 U	11 U	11 U	11 U	11 U
4-Methyl-2-pentanone	UG/KG	12 U	12 U	11 U	11 U	11 U	11 U
2-Hexanone	UG/KG	12 U	12 U	11 U	11 U	11 U	11 U
Tetrachloroethene	UG/KG	12 U	12 U	11 U	11 U	11 U	11 U
1,1,2,2-Tetrachloroethane	UG/KG	12 U	12 U	11 U	11 U	11 U	11 U
Toluene	UG/KG	12 U	12 U	11 U	11 U	11 U	11 U
Chlorobenzene	UG/KG	12 U	12 U	11 U	11 U	11 U	11 U
Ethylbenzene	UG/KG	12 U	12 U	11 U	11 U	11 U	11 U
Styrene	UG/KG	12 U	12 U	11 U	11 U	11 U	11 U
Xylenes (total)	UG/KG	12 U	12 U	11 U	11 U	11 U	11 U

SITE 1
FRENCH CREEK LIQUID DISPOSAL AREA
SURFACE SOIL - FIELD DUPLICATE SUMMARY
REMEDIAL INVESTIGATION CTO-19231
MCB CAMP LEJEUNE, NORTH CAROLINA
TCL ORGANICS

Client Sample ID:		1-SD01-06	1-SD01-06D	1-GW16-00	1-GW16-00D	1-GW17-00	1-GW17-00D
Laboratory Sample ID:		940225-05	940225-06	940302-04	940302-05	940320-01	940320-02
Date Sampled:		3/23/94	3/23/94	4/13/94	4/13/94	4/19/94	4/19/94
	UNITS						
SEMIVOLATILES							
Phenol	UG/KG	400 U	400 U	510 U	380 U	340 U	350 U
bis(2-Chloroethyl) ether	UG/KG	400 U	400 U	510 U	380 U	340 U	350 U
2-Chlorophenol	UG/KG	400 U	400 U	510 U	380 U	340 U	350 U
1,3-Dichlorobenzene	UG/KG	400 U	400 U	510 U	380 U	340 U	350 U
1,4-Dichlorobenzene	UG/KG	400 U	400 U	510 U	380 U	340 U	350 U
1,2-Dichlorobenzene	UG/KG	400 U	400 U	510 U	380 U	340 U	350 U
2-Methylphenol	UG/KG	400 U	400 U	510 U	380 U	340 U	350 U
2,2'-oxybis-(1-chloropropane)	UG/KG	400 U	400 U	510 U	380 U	340 U	350 U
4-Methylphenol	UG/KG	400 U	400 U	510 U	380 U	340 U	350 U
N-Nitroso-di-n-propylamine	UG/KG	400 U	400 U	510 U	380 U	340 U	350 U
Hexachloroethane	UG/KG	400 U	400 U	510 U	380 U	340 U	350 U
Nitrobenzene	UG/KG	400 U	400 U	510 U	380 U	340 U	350 U
Isophorone	UG/KG	400 U	400 U	510 U	380 U	340 U	350 U
2-Nitrophenol	UG/KG	400 U	400 U	510 U	380 U	340 U	350 U
2,4-Dimethylphenol	UG/KG	400 U	400 U	510 U	380 U	340 U	350 U
bis(2-Chloroethoxy) methane	UG/KG	400 U	400 U	510 U	380 U	340 U	350 U
2,4-Dichlorophenol	UG/KG	400 U	400 U	510 U	380 U	340 U	350 U
1,2,4-Trichlorobenzene	UG/KG	400 U	400 U	510 U	380 U	340 U	350 U
Naphthalene	UG/KG	400 U	400 U	510 U	380 U	340 U	350 U
4-Chloroaniline	UG/KG	400 U	400 U	510 UJ	380 UJ	340 U	350 U
Hexachlorobutadiene	UG/KG	400 U	400 U	510 U	380 U	340 U	350 U
4-Chloro-3-methylphenol	UG/KG	400 U	400 U	510 U	380 U	340 U	350 U
2-Methylnaphthalene	UG/KG	400 U	400 U	510 U	380 U	340 U	350 U
Hexachlorocyclopentadiene	UG/KG	400 U	400 U	510 U	380 U	340 U	350 U
2,4,6-Trichlorophenol	UG/KG	400 U	400 U	510 U	380 U	340 U	350 U
2,4,5-Trichlorophenol	UG/KG	960 U	980 U	1200 U	930 U	830 U	840 U
2-Chloronaphthalene	UG/KG	400 U	400 U	510 U	380 U	340 U	350 U
2-Nitroaniline	UG/KG	960 U	980 U	1200 U	930 U	830 U	840 U
Dimethyl phthalate	UG/KG	400 U	400 U	510 U	380 U	340 U	350 U
Acenaphthylene	UG/KG	400 U	400 U	510 U	380 U	340 U	350 U
2,6-Dinitrotoluene	UG/KG	400 U	400 U	510 U	380 U	340 U	350 U
3-Nitroaniline	UG/KG	960 U	980 U	1200 UJ	930 UJ	830 U	840 U
Acenaphthene	UG/KG	400 U	400 U	510 U	380 U	340 U	350 U

SITE 1
FRENCH CREEK LIQUID DISPOSAL AREA
SURFACE SOIL - FIELD DUPLICATE SUMMARY
REMEDIAL INVESTIGATION CTO-19231
MCB CAMP LEJEUNE, NORTH CAROLINA
TCL ORGANICS

Client Sample ID:		1-SD01-06	1-SD01-06D	1-GW16-00	1-GW16-00D	1-GW17-00	1-GW17-00D
Laboratory Sample ID:		940225-05	940225-06	940302-04	940302-05	940320-01	940320-02
Date Sampled:		3/23/94	3/23/94	4/13/94	4/13/94	4/19/94	4/19/94
SEMIVOLATILES cont.	UNITS						
2,4-Dinitrophenol	UG/KG	960 U	980 U	1200 UJ	930 UJ	830 U	840 U
4-Nitrophenol	UG/KG	960 U	980 U	1200 U	930 U	830 U	840 U
Dibenzofuran	UG/KG	400 U	400 U	510 U	380 U	340 U	350 U
2,4-Dinitrotoluene	UG/KG	400 U	400 U	510 U	380 U	340 U	350 U
Diethylphthalate	UG/KG	400 U	400 U	510 U	380 U	340 U	350 U
4-Chlorophenyl phenyl ether	UG/KG	400 U	400 U	510 U	380 U	340 U	350 U
Fluorene	UG/KG	400 U	400 U	510 U	380 U	340 U	350 U
4-Nitroaniline	UG/KG	960 U	980 U	1200 U	930 U	830 U	840 U
4,6-Dinitro-2-methylphenol	UG/KG	960 U	980 U	1200 U	930 U	830 U	840 U
N-nitrosodiphenylamine	UG/KG	400 U	400 U	510 U	380 U	340 U	350 U
4-Bromophenyl-phenylether	UG/KG	400 U	400 U	510 U	380 U	340 U	350 U
Hexachlorobenzene	UG/KG	400 U	400 U	510 U	380 U	340 U	350 U
Pentachlorophenol	UG/KG	960 U	980 U	1200 U	930 U	830 U	840 U
Phenanthrene	UG/KG	400 U	400 U	510 U	380 U	340 U	350 U
Anthracene	UG/KG	400 U	400 U	510 U	380 U	340 U	350 U
Carbazole	UG/KG	400 U	400 U	510 U	380 U	340 U	350 U
di-n-Butylphthalate	UG/KG	400 U	400 U	510 U	380 U	340 U	350 U
Fluoranthene	UG/KG	1200	400 U	510 U	380 U	340 U	350 U
Pyrene	UG/KG	880	400 U	510 U	78 J	340 U	350 U
Butyl benzyl phthalate	UG/KG	400 U	400 U	510 U	380 U	340 U	350 U
3,3'-Dichlorobenzidine	UG/KG	400 U	400 U	510 U	380 U	340 U	350 U
Benzo[a]anthracene	UG/KG	220 J	400 U	510 U	380 U	340 U	350 U
Chrysene	UG/KG	350 J	400 U	510 U	380 U	340 U	350 U
bis(2-Ethylhexyl)phthalate	UG/KG	140 J	810	77 J	70 J	350	350 U
di-n-Octylphthalate	UG/KG	400 U	400 U	510 U	380 U	340 U	350 U
Benzo[b]fluoranthene	UG/KG	110 J	400 U	510 U	380 U	340 U	350 U
Benzo[k]fluoranthene	UG/KG	140 J	400 U	510 U	380 U	340 U	350 U
Benzo[a]pyrene	UG/KG	78 J	400 U	510 U	380 U	340 U	350 U
Indeno[1,2,3-cd]pyrene	UG/KG	400 U	400 U	510 U	380 U	340 U	350 U
Dibenz[a,h]anthracene	UG/KG	400 U	400 U	510 U	380 U	340 U	350 U
Benzo[g,h,i]perylene	UG/KG	400 U	400 U	510 U	380 U	340 U	350 U

SITE 1
FRENCH CREEK LIQUID DISPOSAL AREA
SURFACE SOIL - FIELD DUPLICATE SUMMARY
REMEDIAL INVESTIGATION CTO-19231
MCB CAMP LEJEUNE, NORTH CAROLINA
TCL ORGANICS

Client Sample ID:		1-SD01-06	1-SD01-06D	1-GW16-00	1-GW16-00D	1-GW17-00	1-GW17-00D
Laboratory Sample ID:		940225-05	940225-06	940302-04	940302-05	940320-01	940320-02
Date Sampled:		3/23/94	3/23/94	4/13/94	4/13/94	4/19/94	4/19/94
PESTICIDES/PCBs	UNITS						
alpha-BHC	UG/KG	2.0 UJ	2.1 UJ	2.6 UJ	2.0 UJ	1.8 U	1.8 U
beta-BHC	UG/KG	2.0 UJ	2.1 UJ	2.6 UJ	2.0 UJ	1.8 U	1.8 U
delta-BHC	UG/KG	2.0 UJ	2.1 UJ	2.6 UJ	2.0 UJ	1.8 U	1.8 U
Lindane (gamma-BHC)	UG/KG	2.0 UJ	2.1 UJ	2.6 UJ	2.0 UJ	1.8 U	1.8 U
Heptachlor	UG/KG	2.0 UJ	2.1 UJ	2.6 UJ	2.0 UJ	1.8 U	1.8 U
Aldrin	UG/KG	2.0 UJ	2.1 UJ	2.6 UJ	2.0 UJ	1.8 U	1.8 U
Heptachlor epoxide	UG/KG	2.0 UJ	2.1 UJ	2.6 UJ	2.0 UJ	1.8 U	1.8 U
Endosulfan I	UG/KG	2.0 UJ	2.1 UJ	2.6 UJ	2.0 UJ	1.8 U	1.8 U
Dieldrin	UG/KG	3.9 UJ	4.0 UJ	5.1 UJ	3.8 UJ	4.3 J	3.4 J
4,4'-DDE	UG/KG	3.9 UJ	4.0 UJ	5.1 UJ	3.8 UJ	4.9	3.1 J
Endrin	UG/KG	3.9 UJ	4.0 UJ	5.1 UJ	3.8 UJ	3.4 U	3.4 U
Endosulfan II	UG/KG	3.9 UJ	4.0 UJ	5.1 UJ	3.8 UJ	3.4 U	3.4 U
4,4'-DDD	UG/KG	3.9 UJ	4.0 UJ	5.1 UJ	3.8 UJ	3.4 U	3.4 U
Endosulfan sulfate	UG/KG	19 NJ	4.0 UJ	5.1 UJ	3.8 UJ	3.4 U	3.4 U
4,4'-DDT	UG/KG	3.9 UJ	4.0 UJ	5.1 UJ	3.8 UJ	7.0 J	3.1 J
Methoxychlor	UG/KG	20 UJ	21 UJ	26 UJ	20 UJ	18 U	18 U
Endrin ketone	UG/KG	3.9 UJ	4.0 UJ	5.1 UJ	3.8 UJ	3.4 U	3.4 U
Endrin aldehyde	UG/KG	3.9 UJ	4.0 UJ	5.1 UJ	3.8 UJ	3.4 U	3.4 U
alpha-Chlordane	UG/KG	1.9 J	2.1 UJ	2.6 UJ	2.0 UJ	1.8 U	1.8 U
gamma-Chlordane	UG/KG	1.5 J	2.1 UJ	2.6 UJ	2.0 UJ	1.8 U	1.8 U
Toxaphene	UG/KG	200 UJ	210 UJ	260 UJ	200 UJ	180 U	180 U
Aroclor 1016	UG/KG	39 UJ	40 UJ	51 UJ	38 UJ	34 U	34 U
Aroclor 1221	UG/KG	80 UJ	82 UJ	100 UJ	78 UJ	69 U	69 U
Aroclor 1232	UG/KG	39 UJ	40 UJ	51 UJ	38 UJ	34 U	34 U
Aroclor 1242	UG/KG	39 UJ	40 UJ	51 UJ	38 UJ	34 U	34 U
Aroclor 1248	UG/KG	39 UJ	40 UJ	51 UJ	38 UJ	34 U	34 U
Aroclor 1254	UG/KG	39 UJ	40 UJ	51 UJ	38 UJ	34 U	34 U
Aroclor 1260	UG/KG	39 UJ	40 UJ	51 UJ	38 UJ	34 U	34 U

SITE 1
FRENCH CREEK LIQUID DISPOSAL AREA
SUBSURFACE SOIL - FIELD DUPLICATE SUMMARY
REMEDIAL INVESTIGATION CTO-19231
MCB CAMP LEJEUNE, NORTH CAROLINA
TOTAL METALS

Client Sample ID:		1-S-SB08-01	1-S-SB08-01D	1-S-SB08-07	1-S-SB08-07D	1-S-SB14-01	1-S-SB14-01D
Laboratory Sample ID:		940280-02	940280-03	940280-05	940280-06	940280-16	940280-17
Date Sampled:		4/5/94	4/5/94	4/5/94	4/5/94	4/6/94	4/6/94
	UNITS						
Aluminum	MG/KG	6710	6130	4190	3680	1710	1890
Antimony	MG/KG	6.3 UJ	7.0 UJ	6.9 UJ	6.6 UJ	5.7 UJ	5.0 UJ
Arsenic	MG/KG	1.0	0.61 U	0.61 U	0.59 U	0.50 U	0.44 U
Barium	MG/KG	16.9	14.7	5.1	4.4	10.3	10.6
Beryllium	MG/KG	0.18 U	0.20 U	0.20 U	0.20 U	0.17 U	0.15 U
Cadmium	MG/KG	0.55 U	0.61 U	0.61 U	0.59 U	0.50 U	0.44 U
Calcium	MG/KG	736 U	687 U	58.3 U	45.7 U	2810	14200
Chromium	MG/KG	6.5	5.7	8.8	5.4	2.0	2.9
Cobalt	MG/KG	0.74 U	0.82 U	0.81 U	0.78 U	0.67 U	0.59 U
Copper	MG/KG	2.1 U	1.6 U	1.7 U	3.8 U	1.5 U	1.6 U
Iron	MG/KG	2990	2790	857	478	615	671
Lead	MG/KG	4.7 J	4.1 J	3.9 J	4.1 J	6.1 J	6.5 J
Magnesium	MG/KG	208	182	68.0	37.9	87.1	260
Manganese	MG/KG	10.8	10.0	4.5	2.5	6.2	6.3
Mercury	MG/KG	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Nickel	MG/KG	2.9 U	1.4 U	2.1 U	1.4 U	1.2 U	1.0 U
Potassium	MG/KG	156 U	156 U	163 U	82.6 U	75.2 U	73.6 U
Selenium	MG/KG	0.74 U	0.82 U	0.81 U	0.78 U	0.67 U	0.59 U
Silver	MG/KG	0.92 UJ	1.0 UJ	1.0 UJ	0.98 UJ	0.83 UJ	0.74 UJ
Sodium	MG/KG	28.3 U	22.2 U	32.5 U	21.6 U	29.5 U	37.8 U
Thallium	MG/KG	0.74 U	0.82 U	0.81 U	0.78 U	0.67 U	0.59 U
Vanadium	MG/KG	9.5	8.7	3.0	1.6	2.5	3.0
Zinc	MG/KG	1.5	2.0	1.2	0.65	3.2	3.3

SITE 1
FRENCH CREEK LIQUID DISPOSAL AREA
SUBSURFACE SOIL - FIELD DUPLICATE SUMMARY
REMEDIAL INVESTIGATION CTO-19231
MCB CAMP LEJEUNE, NORTH CAROLINA
TOTAL METALS

Client Sample ID:		1-S-SB14-06	1-S-SB14-06D	1-N-SB22-01	1-N-SB22-01D	1-N-SB22-06	1-N-SB22-06D
Laboratory Sample ID:		940280-19	940280-20	940272-10	940272-11	940279-01	940279-02
Date Sampled:		4/6/94	4/6/94	4/5/94	4/6/94	4/5/94	4/5/94
	UNITS						
Aluminum	MG/KG	3620	5020	4980	5560	2180	1280
Antimony	MG/KG	5.4 UJ	6.6 UJ	6.8 UJ	6.6 UJ	6.8 UJ	6.4 UJ
Arsenic	MG/KG	1.5	2.8	0.73 J	0.97 J	0.60 U	0.57 U
Barium	MG/KG	8.0	10.1	8.2	8.7	3.5	1.9
Beryllium	MG/KG	0.16 U	0.20 U	0.20 U	0.20 U	0.20 U	0.19 U
Cadmium	MG/KG	0.48 U	0.59 U	0.60 U	0.58 U	0.60 U	0.57 U
Calcium	MG/KG	21500	16400	1200 J	2020 J	226 J	43.6 UJ
Chromium	MG/KG	6.2	7.2	5.8 J	7.7 J	3.7	2.4
Cobalt	MG/KG	0.63 U	0.78 U	0.80 UJ	0.78 UJ	0.80 U	0.75 U
Copper	MG/KG	1.8 U	4.1 U	1.6	1.3	1.2 U	1.1 U
Iron	MG/KG	2060	2860	2870	3630	484	313
Lead	MG/KG	5.1 J	4.4 J	5.4 J	8.0 J	2.2	5.0
Magnesium	MG/KG	504	493	130	134	67.6	40.2
Manganese	MG/KG	23.5	20.0	5.5 J	4.9 J	2.6 J	1.4 J
Mercury	MG/KG	0.04 U	0.04 U	0.06 U	0.05 U	0.05 U	0.05 U
Nickel	MG/KG	1.1 U	2.5 U	1.9 J	1.4 UJ	1.4 U	1.3 U
Potassium	MG/KG	235 U	365 J	136 J	155 J	101 J	57.6 J
Selenium	MG/KG	0.63 U	0.78 U	0.80 UJ	0.78 UJ	0.80 UJ	0.75 UJ
Silver	MG/KG	0.79 UJ	0.98 UJ	1.0 UJ	0.97 UJ	1.0 UJ	0.94 UJ
Sodium	MG/KG	38.3 U	62.3 U	21.0 U	42.0 U	12.4	22.9
Thallium	MG/KG	0.63 U	0.78 U	0.80 U	0.78 U	0.80 U	0.75 U
Vanadium	MG/KG	8.3	10.5	8.7	9.7	5.1	4.2
Zinc	MG/KG	1.6	3.4	3.2 J	3.7 J	1.1 J	0.57 UJ

SITE 1
FRENCH CREEK LIQUID DISPOSAL AREA
SUBSURFACE SOIL - FIELD DUPLICATE SUMMARY
REMEDIAL INVESTIGATION CTO-19231
MCB CAMP LEJEUNE, NORTH CAROLINA
TOTAL METALS

Client Sample ID:		1-N-SB26-01	1-N-SB26-01D	1-N-SB26-04	1-N-SB26-04D	1-GW17-05	1-GW17-05D
Laboratory Sample ID:		940260-10	940260-11	940260-12	940260-13	940320-03	940320-04
Date Sampled:		3/29/94	3/29/94	3/29/94	3/29/94	4/19/94	4/19/94
	UNITS						
Aluminum	MG/KG	3310	3800	6480	4360	1870	2100
Antimony	MG/KG	5.7 UJ	7.1 UJ	6.1 UJ	6.3 UJ	6.5 UJ	7.7 UJ
Arsenic	MG/KG	0.50 U	0.62 U	0.65	0.56 U	0.79	0.68 U
Barium	MG/KG	13.2	14.1	13.7	10.6	8.1	4.3
Beryllium	MG/KG	0.17 U	0.21 U	0.18 U	0.19 U	0.19 U	0.23 U
Cadmium	MG/KG	0.50 U	0.62 U	0.53 U	0.56 U	0.57 U	0.68 U
Calcium	MG/KG	36400 J	18400 J	298 J	217 J	35900 J	403 J
Chromium	MG/KG	9.7 J	9.2 J	6.7 J	5.6 J	6.6	2.1
Cobalt	MG/KG	0.67 UJ	0.83 UJ	0.71 UJ	0.75 UJ	0.76 U	0.90 U
Copper	MG/KG	5.0	5.1	1.4	1.1 U	3.9	1.4 U
Iron	MG/KG	1740	2100	1850	1260	1620	610
Lead	MG/KG	60.4 J	70.0 J	3.9 J	3.5 J	14.5	2.0
Magnesium	MG/KG	633	396	183	129	602	39.3
Manganese	MG/KG	17.1 J	20.9 J	5.3 J	4.9 J	18.4	3.0
Mercury	MG/KG	0.05 U	0.05 U	0.05 U	0.05 U	0.04 U	0.05 U
Nickel	MG/KG	1.3	1.5 U	1.2 U	1.3 U	2.6	1.6 U
Potassium	MG/KG	131 J	106 J	250 J	185 J	102 J	53.5 U
Selenium	MG/KG	0.67 UJ	0.83 UJ	0.71 UJ	0.75 UJ	0.76 UJ	0.90 UJ
Silver	MG/KG	0.84 UJ	1.0 UJ	0.89 UJ	0.93 UJ	0.95 UJ	1.1 UJ
Sodium	MG/KG	98.4 U	57.9 U	23.7 U	16.8 U	97.3 U	20.7 U
Thallium	MG/KG	0.67 U	0.83 U	0.71 U	0.75 U	0.76 U	0.90 U
Vanadium	MG/KG	5.1	5.2	10.2	7.6	2.8	2.0
Zinc	MG/KG	40.9 J	53.5 J	3.9 UJ	3.2 UJ	15.0	1.1 U

SITE 1
FRENCH CREEK LIQUID DISPOSAL AREA
SUBSURFACE SOIL - FIELD DUPLICATE SUMMARY
REMEDIAL INVESTIGATION CTO-19231
MCB CAMP LEJEUNE, NORTH CAROLINA
TCL ORGANICS

Client Sample ID:		1-S-SB08-01	1-S-SB08-01D	1-S-SB08-07	1-S-SB08-07D	1-S-SB14-01	1-S-SB14-01D
Laboratory Sample ID:		940280-02	940280-03	940280-05	940280-06	940280-16	940280-17
Date Sampled:		4/5/94	4/5/94	4/5/94	4/5/94	4/6/94	4/6/94
	UNITS						
VOLATILES							
Chloromethane	UG/KG	11 U	11 U	12 U	12 U	11 U	10 U
Bromomethane	UG/KG	11 U	11 U	12 U	12 U	11 U	10 U
Vinyl chloride	UG/KG	11 U	11 U	12 U	12 U	11 U	10 U
Chloroethane	UG/KG	11 U	11 U	12 U	12 U	11 U	10 U
Methylene chloride	UG/KG	11 U	11 U	12 U	12 U	11 U	10 U
Acetone	UG/KG	30	32	12 U	12 U	11 U	10 U
Carbon Disulfide	UG/KG	11 U	11 U	12 U	12 U	11 U	10 U
1,1-Dichloroethene	UG/KG	11 U	11 U	12 U	12 U	11 U	10 U
1,1-Dichloroethane	UG/KG	11 U	11 U	12 U	12 U	11 U	10 U
1,2-Dichloroethene(total)	UG/KG	11 U	11 U	12 U	12 U	11 U	10 U
Chloroform	UG/KG	11 U	11 U	12 U	12 U	11 U	10 U
1,2-Dichloroethane	UG/KG	11 U	11 U	12 U	12 U	11 U	10 U
2-Butanone	UG/KG	11 U	11 U	12 U	12 U	11 U	10 U
1,1,1-Trichloroethane	UG/KG	11 U	11 U	12 U	12 U	11 U	10 U
Carbon tetrachloride	UG/KG	11 U	11 U	12 U	12 U	11 U	10 U
Bromodichloromethane	UG/KG	11 U	11 U	12 U	12 U	11 U	10 U
1,2-Dichloropropane	UG/KG	11 U	11 U	12 U	12 U	11 U	10 U
cis-1,3-Dichloropropene	UG/KG	11 U	11 U	12 U	12 U	11 U	10 U
Trichloroethene	UG/KG	11 U	11 U	12 U	12 U	11 U	10 U
Dibromochloromethane	UG/KG	11 U	11 U	12 U	12 U	11 U	10 U
1,1,2-Trichloroethane	UG/KG	11 U	11 U	12 U	12 U	11 U	10 U
Benzene	UG/KG	11 U	11 U	12 U	12 U	11 U	10 U
trans-1,3-Dichloropropene	UG/KG	11 U	11 U	12 U	12 U	11 U	10 U
Bromoform	UG/KG	11 U	11 U	12 U	12 U	11 U	10 U
4-Methyl-2-pentanone	UG/KG	11 U	11 U	12 U	12 U	11 U	10 U
2-Hexanone	UG/KG	11 U	11 U	12 U	12 U	11 U	10 U
Tetrachloroethene	UG/KG	11 U	11 U	12 U	12 U	11 U	10 U
1,1,2,2-Tetrachloroethane	UG/KG	11 U	11 U	12 U	12 U	11 U	10 U
Toluene	UG/KG	11 U	11 U	12 U	12 U	11 U	10 U
Chlorobenzene	UG/KG	11 U	11 U	12 U	12 U	11 U	10 U
Ethylbenzene	UG/KG	11 U	11 U	12 U	12 U	11 U	10 U
Styrene	UG/KG	11 U	11 U	12 U	12 U	11 U	10 U
Xylenes (total)	UG/KG	11 U	11 U	12 U	12 U	11 U	10 U

SITE 1
FRENCH CREEK LIQUID DISPOSAL AREA
SUBSURFACE SOIL - FIELD DUPLICATE SUMMARY
REMEDIAL INVESTIGATION CTO-19231
MCB CAMP LEJEUNE, NORTH CAROLINA
TCL ORGANICS

Client Sample ID:		1-S-SB08-01	1-S-SB08-01D	1-S-SB08-07	1-S-SB08-07D	1-S-SB14-01	1-S-SB14-01D
Laboratory Sample ID:		940280-02	940280-03	940280-05	940280-06	940280-16	940280-17
Date Sampled:		4/5/94	4/5/94	4/5/94	4/5/94	4/6/94	4/6/94
	UNITS						
SEMIVOLATILES							
Phenol	UG/KG	380 U	370 U	340 U	390 U	370 U	360 U
bis(2-Chloroethyl) ether	UG/KG	380 U	370 U	340 U	390 U	370 U	360 U
2-Chlorophenol	UG/KG	380 U	370 U	340 U	390 U	370 U	360 U
1,3-Dichlorobenzene	UG/KG	380 U	370 U	340 U	390 U	370 U	360 U
1,4-Dichlorobenzene	UG/KG	380 U	370 U	340 U	390 U	370 U	360 U
1,2-Dichlorobenzene	UG/KG	380 U	370 U	340 U	390 U	370 U	360 U
2-Methylphenol	UG/KG	380 U	370 U	340 U	390 U	370 U	360 U
2,2'-oxybis-(1-chloropropane)	UG/KG	380 U	370 U	340 U	390 U	370 U	360 U
4-Methylphenol	UG/KG	380 U	370 U	340 U	390 U	370 U	360 U
N-Nitroso-di-n-propylamine	UG/KG	380 U	370 U	340 U	390 U	370 U	360 U
Hexachloroethane	UG/KG	380 U	370 U	340 U	390 U	370 U	360 U
Nitrobenzene	UG/KG	380 U	370 U	340 U	390 U	370 U	360 U
Isophorone	UG/KG	380 U	370 U	340 U	390 U	370 U	360 U
2-Nitrophenol	UG/KG	380 U	370 U	340 U	390 U	370 U	360 U
2,4-Dimethylphenol	UG/KG	380 U	370 U	340 U	390 U	370 U	360 U
bis(2-Chloroethoxy) methane	UG/KG	380 U	370 U	340 U	390 U	370 U	360 U
2,4-Dichlorophenol	UG/KG	380 U	370 U	340 U	390 U	370 U	360 U
1,2,4-Trichlorobenzene	UG/KG	380 U	370 U	340 U	390 U	370 U	360 U
Naphthalene	UG/KG	380 U	370 U	340 U	390 U	370 U	360 U
4-Chloroaniline	UG/KG	380 U	370 U	340 U	390 U	370 U	360 U
Hexachlorobutadiene	UG/KG	380 U	370 U	340 U	390 U	370 U	360 U
4-Chloro-3-methylphenol	UG/KG	380 U	370 U	340 U	390 U	370 U	360 U
2-Methylnaphthalene	UG/KG	380 U	370 U	340 U	390 U	370 U	360 U
Hexachlorocyclopentadiene	UG/KG	380 U	370 U	340 U	390 U	370 U	360 U
2,4,6-Trichlorophenol	UG/KG	380 U	370 U	340 U	390 U	370 U	360 U
2,4,5-Trichlorophenol	UG/KG	930 U	900 U	820 U	950 U	890 U	880 U
2-Chloronaphthalene	UG/KG	380 U	370 U	340 U	390 U	370 U	360 U
2-Nitroaniline	UG/KG	930 U	900 U	820 U	950 U	890 U	880 U
Dimethyl phthalate	UG/KG	380 U	370 U	340 U	390 U	370 U	360 U
Acenaphthylene	UG/KG	380 U	370 U	340 U	390 U	370 U	360 U
2,6-Dinitrotoluene	UG/KG	380 U	370 U	340 U	390 U	370 U	360 U
3-Nitroaniline	UG/KG	930 U	900 U	820 U	950 U	890 U	880 U
Acenaphthene	UG/KG	380 U	370 U	340 U	390 U	370 U	360 U

SITE 1
FRENCH CREEK LIQUID DISPOSAL AREA
SUBSURFACE SOIL - FIELD DUPLICATE SUMMARY
REMEDIAL INVESTIGATION CTO-19231
MCB CAMP LEJEUNE, NORTH CAROLINA
TCL ORGANICS

Client Sample ID:		1-S-SB08-01	1-S-SB08-01D	1-S-SB08-07	1-S-SB08-07D	1-S-SB14-01	1-S-SB14-01D
Laboratory Sample ID:		940280-02	940280-03	940280-05	940280-06	940280-16	940280-17
Date Sampled:		4/5/94	4/5/94	4/5/94	4/5/94	4/6/94	4/6/94
	UNITS						
SEMIVOLATILES Cont.							
2,4-Dinitrophenol	UG/KG	930 U	900 U	820 U	950 U	890 U	880 U
4-Nitrophenol	UG/KG	930 U	900 U	820 U	950 U	890 U	880 U
Dibenzofuran	UG/KG	380 U	370 U	340 U	390 U	370 U	360 U
2,4-Dinitrotoluene	UG/KG	380 U	370 U	340 U	390 U	370 U	360 U
Diethylphthalate	UG/KG	380 U	370 U	340 U	390 U	370 U	360 U
4-Chlorophenyl phenyl ether	UG/KG	380 U	370 U	340 U	390 U	370 U	360 U
Fluorene	UG/KG	380 U	370 U	340 U	390 U	370 U	360 U
4-Nitroaniline	UG/KG	930 UJ	900 UJ	820 UJ	950 UJ	890 UJ	880 U
4,6-Dinitro-2-methylphenol	UG/KG	930 U	900 U	820 U	950 U	890 U	880 U
N-nitrosodiphenylamine	UG/KG	380 U	370 U	340 U	390 U	370 U	360 U
4-Bromophenyl-phenylether	UG/KG	380 U	370 U	340 U	390 U	370 U	360 U
Hexachlorobenzene	UG/KG	380 U	370 U	340 U	390 U	370 U	360 U
Pentachlorophenol	UG/KG	930 U	900 U	820 U	950 U	890 U	880 U
Phenanthrene	UG/KG	380 U	370 U	340 U	390 U	370 U	360 U
Anthracene	UG/KG	380 U	370 U	340 U	390 U	370 U	360 U
Carbazole	UG/KG	380 UJ	370 UJ	340 UJ	390 UJ	370 UJ	360 U
di-n-Butylphthalate	UG/KG	380 U	370 U	340 U	390 U	370 U	360 U
Fluoranthene	UG/KG	380 U	370 U	340 U	390 U	370 U	360 U
Pyrene	UG/KG	380 U	370 U	340 U	390 U	370 U	360 U
Butyl benzyl phthalate	UG/KG	380 U	370 U	340 U	390 U	370 U	360 U
3,3'-Dichlorobenzidine	UG/KG	380 UJ	370 UJ	340 UJ	390 UJ	370 UJ	360 U
Benzo[a]anthracene	UG/KG	380 U	370 U	340 U	390 U	370 U	360 U
Chrysene	UG/KG	380 U	370 U	340 U	390 U	370 U	360 U
bis(2-Ethylhexyl)phthalate	UG/KG	710	56 J	92 J	52 J	49 J	610
di-n-Octylphthalate	UG/KG	380 U	370 U	390 UJ	390 U	370 U	360 U
Benzo[b]fluoranthene	UG/KG	380 U	370 U	390 UJ	390 U	370 U	360 U
Benzo[k]fluoranthene	UG/KG	380 U	370 U	390 UJ	390 U	370 U	360 U
Benzo[a]pyrene	UG/KG	380 U	370 U	390 UJ	390 U	370 U	360 U
Indeno[1,2,3-cd]pyrene	UG/KG	380 U	370 U	390 UJ	390 U	370 U	360 U
Dibenz[a,h]anthracene	UG/KG	380 U	370 U	390 UJ	390 U	370 U	360 U
Benzo[g,h,i]perylene	UG/KG	380 U	370 U	390 UJ	390 U	370 U	360 U

SITE 1
FRENCH CREEK LIQUID DISPOSAL AREA
SUBSURFACE SOIL - FIELD DUPLICATE SUMMARY
REMEDIAL INVESTIGATION CTO-19231
MCB CAMP LEJEUNE, NORTH CAROLINA
TCL ORGANICS

Client Sample ID:		1-S-SB08-01	1-S-SB08-01D	1-S-SB08-07	1-S-SB08-07D	1-S-SB14-01	1-S-SB14-01D
Laboratory Sample ID:		940280-02	940280-03	940280-05	940280-06	940280-16	940280-17
Date Sampled:		4/5/94	4/5/94	4/5/94	4/5/94	4/6/94	4/6/94
	UNITS						
PESTICIDES/PCBs							
alpha-BHC	UG/KG	2.0 UJ	1.9 UJ	1.7 UJ	2.0 R	1.9 UJ	1.9 U
beta-BHC	UG/KG	2.0 UJ	1.9 UJ	1.7 UJ	2.0 R	1.9 UJ	1.9 U
delta-BHC	UG/KG	2.0 UJ	1.9 UJ	1.7 UJ	2.0 R	1.9 UJ	1.9 U
Lindane (gamma-BHC)	UG/KG	2.0 UJ	1.9 UJ	1.7 UJ	2.0 R	1.9 UJ	1.9 U
Heptachlor	UG/KG	2.0 UJ	1.9 UJ	1.7 UJ	2.0 R	1.9 UJ	1.9 U
Aldrin	UG/KG	2.0 UJ	1.9 UJ	1.7 UJ	2.0 R	1.9 UJ	1.9 U
Heptachlor epoxide	UG/KG	2.0 UJ	1.9 UJ	1.7 UJ	2.0 R	1.9 UJ	1.9 U
Endosulfan I	UG/KG	2.0 UJ	1.9 UJ	1.7 UJ	2.0 R	1.9 UJ	1.9 U
Dieldrin	UG/KG	3.8 UJ	3.7 UJ	3.4 UJ	3.9 R	3.7 UJ	3.6 U
4,4'-DDE	UG/KG	3.8 UJ	3.7 UJ	3.4 UJ	3.9 R	3.7 UJ	3.6 U
Endrin	UG/KG	3.8 UJ	3.7 UJ	3.4 UJ	3.9 R	3.7 UJ	3.6 U
Endosulfan II	UG/KG	3.8 UJ	3.7 UJ	3.4 UJ	3.9 R	3.7 UJ	3.6 U
4,4'-DDD	UG/KG	3.8 UJ	3.7 UJ	3.4 UJ	3.9 R	3.7 UJ	3.6 U
Endosulfan sulfate	UG/KG	3.8 UJ	3.7 UJ	3.4 UJ	3.9 R	3.7 UJ	3.6 U
4,4'-DDT	UG/KG	1.6 J	5.2 J	3.4 UJ	3.9 R	3.7 UJ	3.6 U
Methoxychlor	UG/KG	20 UJ	19 UJ	17 UJ	20 R	19 UJ	19 U
Endrin ketone	UG/KG	3.8 UJ	3.7 UJ	3.4 UJ	3.9 R	3.7 UJ	3.6 U
Endrin aldehyde	UG/KG	3.8 UJ	3.7 UJ	3.4 UJ	3.9 R	3.7 UJ	3.6 U
alpha-Chlordane	UG/KG	2.0 UJ	1.9 UJ	1.7 UJ	2.0 R	1.9 UJ	1.9 U
gamma-Chlordane	UG/KG	2.0 UJ	1.9 UJ	1.7 UJ	2.0 R	1.9 UJ	1.9 U
Toxaphene	UG/KG	200 UJ	190 UJ	170 UJ	200 R	190 UJ	190 U
Aroclor 1016	UG/KG	38 UJ	37 UJ	34 UJ	39 R	37 UJ	36 U
Aroclor 1221	UG/KG	78 UJ	76 UJ	69 UJ	80 R	74 UJ	74 U
Aroclor 1232	UG/KG	38 UJ	37 UJ	39 UJ	39 R	37 UJ	36 U
Aroclor 1242	UG/KG	38 UJ	37 UJ	39 UJ	39 R	37 UJ	36 U
Aroclor 1248	UG/KG	38 UJ	37 UJ	39 UJ	39 R	37 UJ	36 U
Aroclor 1254	UG/KG	38 UJ	37 UJ	39 UJ	39 R	37 UJ	36 U
Aroclor 1260	UG/KG	38 UJ	37 UJ	39 UJ	39 R	37 UJ	36 U

SITE 1
FRENCH CREEK LIQUID DISPOSAL AREA
SUBSURFACE SOIL - FIELD DUPLICATE SUMMARY
REMEDIAL INVESTIGATION CTO-19231
MCB CAMP LEJEUNE, NORTH CAROLINA
TCL ORGANICS

Client Sample ID:		1-S-SB14-06	1-S-SB14-06D	1-N-SB22-01	1-N-SB22-01D	1-N-SB22-06	1-N-SB22-06D
Laboratory Sample ID:		940280-19	940280-20	940272-10	940272-11	940279-01	940279-02
Date Sampled:		4/6/94	4/6/94	4/5/94	4/6/94	4/5/94	4/5/94
	UNITS						
VOLATILES							
Chloromethane	UG/KG	11 U	11 U	11 U	11 U	11 U	11 U
Bromomethane	UG/KG	11 U	11 U	11 U	11 U	11 U	11 U
Vinyl chloride	UG/KG	11 U	11 U	11 U	11 U	11 U	11 U
Chloroethane	UG/KG	11 U	11 U	11 U	11 U	11 U	11 U
Methylene chloride	UG/KG	11 U	11 U	11 U	11 U	11 U	11 U
Acetone	UG/KG	11 U	11 U	70 U	110 U	9 J	11
Carbon Disulfide	UG/KG	11 U	11 U	11 U	11 U	11 U	11 U
1,1-Dichloroethene	UG/KG	11 U	11 U	11 U	11 U	11 U	11 U
1,1-Dichloroethane	UG/KG	11 U	11 U	11 U	11 U	11 U	11 U
1,2-Dichloroethene(total)	UG/KG	11 U	11 U	11 U	11 U	11 U	11 U
Chloroform	UG/KG	11 U	11 U	11 U	11 U	11 U	11 U
1,2-Dichloroethane	UG/KG	11 U	11 U	11 U	11 U	11 U	11 U
2-Butanone	UG/KG	11 U	11 U	11 U	11 U	11 U	11 U
1,1,1-Trichloroethane	UG/KG	11 U	11 U	11 U	11 U	11 U	11 U
Carbon tetrachloride	UG/KG	11 U	11 U	11 U	11 U	11 U	11 U
Bromodichloromethane	UG/KG	11 U	11 U	11 U	11 U	11 U	11 U
1,2-Dichloropropane	UG/KG	11 U	11 U	11 U	11 U	11 U	11 U
cis-1,3-Dichloropropene	UG/KG	11 U	11 U	11 U	11 U	11 U	11 U
Trichloroethene	UG/KG	11 U	11 U	11 U	11 U	11 U	11 U
Dibromochloromethane	UG/KG	11 U	11 U	11 U	11 U	11 U	11 U
1,1,2-Trichloroethane	UG/KG	11 U	11 U	11 U	11 U	11 U	11 U
Benzene	UG/KG	11 U	11 U	11 U	11 U	11 U	11 U
trans-1,3-Dichloropropene	UG/KG	11 U	11 U	11 U	11 U	11 U	11 U
Bromoform	UG/KG	11 U	11 U	11 U	11 U	11 U	11 U
4-Methyl-2-pentanone	UG/KG	11 U	11 U	11 U	11 U	11 U	11 U
2-Hexanone	UG/KG	11 U	11 U	11 U	11 U	11 U	11 U
Tetrachloroethene	UG/KG	11 U	11 U	11 U	11 U	11 U	11 U
1,1,2,2-Tetrachloroethane	UG/KG	11 U	11 U	11 U	11 U	11 U	11 U
Toluene	UG/KG	11 U	11 U	11 U	11 U	11 U	11 U
Chlorobenzene	UG/KG	11 U	11 U	11 U	11 U	11 U	11 U
Ethylbenzene	UG/KG	11 U	11 U	11 U	11 U	11 U	11 U
Styrene	UG/KG	11 U	11 U	11 U	11 U	11 U	11 U
Xylenes (total)	UG/KG	11 U	11 U	11 U	11 U	11 U	11 U

SITE 1
FRENCH CREEK LIQUID DISPOSAL AREA
SUBSURFACE SOIL - FIELD DUPLICATE SUMMARY
REMEDIAL INVESTIGATION CTO-19231
MCB CAMP LEJEUNE, NORTH CAROLINA
TCL ORGANICS

Client Sample ID:		1-S-SB14-06	1-S-SB14-06D	1-N-SB22-01	1-N-SB22-01D	1-N-SB22-06	1-N-SB22-06D
Laboratory Sample ID:		940280-19	940280-20	940272-10	940272-11	940279-01	940279-02
Date Sampled:		4/6/94	4/6/94	4/5/94	4/6/94	4/5/94	4/5/94
SEMIVOLATILES	UNITS						
Phenol	UG/KG	380 U	390 U	390 U	380 U	360 U	350 U
bis(2-Chloroethyl) ether	UG/KG	380 U	390 U	390 U	380 U	360 U	350 U
2-Chlorophenol	UG/KG	380 U	390 U	390 U	380 U	360 U	350 U
1,3-Dichlorobenzene	UG/KG	380 U	390 U	390 U	380 U	360 U	350 U
1,4-Dichlorobenzene	UG/KG	380 U	390 U	390 U	380 U	360 U	350 U
1,2-Dichlorobenzene	UG/KG	380 U	390 U	390 U	380 U	360 U	350 U
2-Methylphenol	UG/KG	380 U	390 U	390 U	380 U	360 U	350 U
2,2'-oxybis-(1-chloropropane)	UG/KG	380 U	390 U	390 U	380 U	360 U	350 U
4-Methylphenol	UG/KG	380 U	390 U	390 U	380 U	360 U	350 U
N-Nitroso-di-n-propylamine	UG/KG	380 U	390 U	390 U	380 U	360 U	350 U
Hexachloroethane	UG/KG	380 U	390 U	390 U	380 U	360 U	350 U
Nitrobenzene	UG/KG	380 U	390 U	390 U	380 U	360 U	350 U
Isophorone	UG/KG	380 U	390 U	390 U	380 U	360 U	350 U
2-Nitrophenol	UG/KG	380 U	390 U	390 U	380 U	360 U	350 U
2,4-Dimethylphenol	UG/KG	380 U	390 U	390 U	380 U	360 U	350 U
bis(2-Chloroethoxy) methane	UG/KG	380 U	390 U	390 U	380 U	360 U	350 U
2,4-Dichlorophenol	UG/KG	380 U	390 U	390 U	380 U	360 U	350 U
1,2,4-Trichlorobenzene	UG/KG	380 U	390 U	390 U	380 U	360 U	350 U
Naphthalene	UG/KG	380 U	390 U	390 U	380 U	360 U	350 U
4-Chloroaniline	UG/KG	380 U	390 U	390 U	380 U	360 UJ	350 UJ
Hexachlorobutadiene	UG/KG	380 U	390 U	390 U	380 U	360 U	350 U
4-Chloro-3-methylphenol	UG/KG	380 U	390 U	390 U	380 U	360 U	350 U
2-Methylnaphthalene	UG/KG	380 U	390 U	390 U	380 U	360 U	350 U
Hexachlorocyclopentadiene	UG/KG	380 U	390 U	390 U	380 U	360 U	350 U
2,4,6-Trichlorophenol	UG/KG	380 U	390 U	390 U	380 U	360 U	350 U
2,4,5-Trichlorophenol	UG/KG	930 U	950 U	940 U	920 U	880 U	840 U
2-Chloronaphthalene	UG/KG	380 U	390 U	390 U	380 U	360 U	350 U
2-Nitroaniline	UG/KG	930 U	950 U	940 U	920 U	880 U	840 U
Dimethyl phthalate	UG/KG	380 U	390 U	390 U	380 U	360 U	350 U
Acenaphthylene	UG/KG	380 U	390 U	390 U	380 U	360 U	350 U
2,6-Dinitrotoluene	UG/KG	380 U	390 U	390 U	380 U	360 U	350 U
3-Nitroaniline	UG/KG	930 U	950 U	940 U	920 U	880 U	840 U
Acenaphthene	UG/KG	380 U	390 U	390 U	380 U	360 U	350 U

SITE 1
FRENCH CREEK LIQUID DISPOSAL AREA
SUBSURFACE SOIL - FIELD DUPLICATE SUMMARY
REMEDIAL INVESTIGATION CTO-19231
MCB CAMP LEJEUNE, NORTH CAROLINA
TCL ORGANICS

Client Sample ID:		1-S-SB14-06	1-S-SB14-06D	1-N-SB22-01	1-N-SB22-01D	1-N-SB22-06	1-N-SB22-06D
Laboratory Sample ID:		940280-19	940280-20	940272-10	940272-11	940279-01	940279-02
Date Sampled:		4/6/94	4/6/94	4/5/94	4/6/94	4/5/94	4/5/94
	UNITS						
SEMIVOLATILES Cont.							
2,4-Dinitrophenol	UG/KG	930 U	950 U	940 U	920 U	880 U	840 U
4-Nitrophenol	UG/KG	930 U	950 U	940 U	920 U	880 U	840 U
Dibenzofuran	UG/KG	380 U	390 U	390 U	380 U	360 U	350 U
2,4-Dinitrotoluene	UG/KG	380 U	390 U	390 U	380 U	360 U	350 U
Diethylphthalate	UG/KG	380 U	390 U	390 U	380 U	360 U	350 U
4-Chlorophenyl phenyl ether	UG/KG	380 U	390 U	390 U	380 U	360 U	350 U
Fluorene	UG/KG	380 U	390 U	390 U	380 U	360 U	350 U
4-Nitroaniline	UG/KG	930 U	950 U	940 U	920 U	880 UJ	840 UJ
4,6-Dinitro-2-methylphenol	UG/KG	930 U	950 U	940 U	920 U	880 U	840 U
N-nitrosodiphenylamine	UG/KG	380 U	390 U	390 U	380 U	360 U	350 U
4-Bromophenyl-phenylether	UG/KG	380 U	390 U	390 U	380 U	360 U	350 U
Hexachlorobenzene	UG/KG	380 U	390 U	390 U	380 U	360 U	350 U
Pentachlorophenol	UG/KG	930 U	950 U	940 U	920 U	880 U	840 U
Phenanthrene	UG/KG	380 U	390 U	390 U	380 U	360 U	350 U
Anthracene	UG/KG	380 U	390 U	390 U	380 U	360 U	350 U
Carbazole	UG/KG	380 U	390 U	390 U	380 U	360 U	350 U
di-n-Butylphthalate	UG/KG	380 U	390 U	390 U	380 U	360 U	350 U
Fluoranthene	UG/KG	380 U	390 U	390 U	380 U	360 U	350 U
Pyrene	UG/KG	380 U	390 UJ	390 U	380 U	360 U	350 U
Butyl benzyl phthalate	UG/KG	380 U	390 UJ	390 U	380 U	360 U	350 U
3,3'-Dichlorobenzidine	UG/KG	380 U	390 UJ	390 U	380 U	360 U	350 U
Benzo[a]anthracene	UG/KG	380 U	390 UJ	390 U	380 U	360 U	350 U
Chrysene	UG/KG	380 U	390 UJ	390 U	380 U	360 U	350 U
bis(2-Ethylhexyl)phthalate	UG/KG	380 U	390 UJ	390 U	380 U	360 U	350 U
di-n-Octylphthalate	UG/KG	380 U	390 UJ	390 U	380 U	360 U	350 U
Benzo[b]fluoranthene	UG/KG	380 U	390 UJ	390 U	380 U	360 U	350 U
Benzo[k]fluoranthene	UG/KG	380 U	390 UJ	390 U	380 U	360 U	350 U
Benzo[a]pyrene	UG/KG	380 U	390 UJ	390 U	380 U	360 U	350 U
Indeno[1,2,3-cd]pyrene	UG/KG	380 U	390 UJ	390 U	380 U	360 U	350 U
Dibenz[a,h]anthracene	UG/KG	380 U	390 UJ	390 U	380 U	360 U	350 U
Benzo[g,h,i]perylene	UG/KG	380 U	390 UJ	390 U	380 U	360 U	350 U

SITE 1
FRENCH CREEK LIQUID DISPOSAL AREA
SUBSURFACE SOIL - FIELD DUPLICATE SUMMARY
REMEDIAL INVESTIGATION CTO-19231
MCB CAMP LEJEUNE, NORTH CAROLINA
TCL ORGANICS

Client Sample ID:		1-S-SB14-06	1-S-SB14-06D	1-N-SB22-01	1-N-SB22-01D	1-N-SB22-06	1-N-SB22-06D
Laboratory Sample ID:		940280-19	940280-20	940272-10	940272-11	940279-01	940279-02
Date Sampled:		4/6/94	4/6/94	4/5/94	4/6/94	4/5/94	4/5/94
PESTICIDES/PCBs	UNITS						
alpha-BHC	UG/KG	2.0 U	2.0 U	2.0 UJ	2.0 U	1.9 UJ	1.8 UJ
beta-BHC	UG/KG	2.0 U	2.0 U	2.0 UJ	2.0 U	1.9 UJ	1.8 UJ
delta-BHC	UG/KG	2.0 U	2.0 U	2.0 UJ	2.0 U	1.9 UJ	1.8 UJ
Lindane (gamma-BHC)	UG/KG	2.0 U	2.0 U	2.0 UJ	2.0 U	1.9 UJ	1.8 UJ
Heptachlor	UG/KG	2.0 U	2.0 U	2.0 UJ	2.0 U	1.9 UJ	1.8 UJ
Aldrin	UG/KG	2.0 U	2.0 U	2.0 UJ	2.0 U	1.9 UJ	1.8 UJ
Heptachlor epoxide	UG/KG	2.0 U	2.0 U	2.0 UJ	2.0 U	1.9 UJ	1.8 UJ
Endosulfan I	UG/KG	2.0 U	2.0 U	2.0 UJ	2.0 U	1.9 UJ	1.8 UJ
Dieldrin	UG/KG	3.8 U	3.9 U	3.9 UJ	3.8 U	3.6 UJ	3.5 UJ
4,4'-DDE	UG/KG	3.8 U	3.9 U	3.9 UJ	3.8 U	3.6 UJ	3.5 UJ
Endrin	UG/KG	3.8 U	3.9 U	3.9 UJ	3.8 U	3.6 UJ	3.5 UJ
Endosulfan II	UG/KG	3.8 U	3.9 U	3.9 UJ	3.8 U	3.6 UJ	3.5 UJ
4,4'-DDD	UG/KG	3.8 U	3.9 U	2.2 J	3.8 U	3.6 UJ	3.5 UJ
Endosulfan sulfate	UG/KG	3.8 U	3.9 U	3.9 UJ	3.8 U	3.6 UJ	3.5 UJ
4,4'-DDT	UG/KG	3.8 U	3.9 U	12 J	3.8 U	3.6 UJ	3.5 UJ
Methoxychlor	UG/KG	20 U	20 U	20 UJ	20 U	19 UJ	18 UJ
Endrin ketone	UG/KG	3.8 U	3.9 U	3.9 UJ	3.8 U	3.6 UJ	3.5 UJ
Endrin aldehyde	UG/KG	3.8 U	3.9 U	3.9 UJ	3.8 U	3.6 UJ	3.5 UJ
alpha-Chlordane	UG/KG	2.0 U	2.0 U	2.0 UJ	2.0 U	1.9 UJ	1.8 UJ
gamma-Chlordane	UG/KG	2.0 U	2.0 U	2.0 UJ	2.0 U	1.9 UJ	1.8 UJ
Toxaphene	UG/KG	200 U	200 U	200 UJ	200 U	190 UJ	180 UJ
Aroclor 1016	UG/KG	38 U	39 U	39 UJ	38 U	36 UJ	35 UJ
Aroclor 1221	UG/KG	78 U	80 U	78 UJ	77 U	73 UJ	70 UJ
Aroclor 1232	UG/KG	38 U	39 U	39 UJ	38 U	36 UJ	35 UJ
Aroclor 1242	UG/KG	38 U	39 U	39 UJ	38 U	36 UJ	35 UJ
Aroclor 1248	UG/KG	38 U	39 U	39 UJ	38 U	36 UJ	35 UJ
Aroclor 1254	UG/KG	38 U	39 U	39 UJ	38 U	36 UJ	35 UJ
Aroclor 1260	UG/KG	38 U	39 U	39 UJ	38 U	36 UJ	35 UJ

SITE 1
FRENCH CREEK LIQUID DISPOSAL AREA
SUBSURFACE SOIL - FIELD DUPLICATE SUMMARY
REMEDIAL INVESTIGATION CTO-19231
MCB CAMP LEJEUNE, NORTH CAROLINA
TCL ORGANICS

Client Sample ID:		1-N-SB26-01	1-N-SB26-01D	1-N-SB26-04	1-N-SB26-04D	1-GW17-05	1-GW17-05D
Laboratory Sample ID:		940260-10	940260-11	940260-12	940260-13	940320-03	940320-04
Date Sampled:		3/29/94	3/29/94	3/29/94	3/29/94	4/19/94	4/19/94
	UNITS						
VOLATILES							
Chloromethane	UG/KG	11 U	11 U	11 U	11 U	11 U	12 U
Bromomethane	UG/KG	11 U	11 U	11 U	11 U	11 U	12 U
Vinyl chloride	UG/KG	11 U	11 U	11 U	11 U	11 U	12 U
Chloroethane	UG/KG	11 U	11 U	11 U	11 U	11 U	12 U
Methylene chloride	UG/KG	11 U	11 U	11 U	11 U	11 U	12 U
Acetone	UG/KG	11 U	11 U	11 U	11 U	11 U	12 U
Carbon Disulfide	UG/KG	11 U	11 U	11 U	11 U	11 U	12 U
1,1-Dichloroethene	UG/KG	11 U	11 U	11 U	11 U	11 U	12 U
1,1-Dichloroethane	UG/KG	11 U	11 U	11 U	11 U	11 U	12 U
1,2-Dichloroethene(total)	UG/KG	11 U	11 U	11 U	11 U	11 U	12 U
Chloroform	UG/KG	11 U	11 U	11 U	11 U	11 U	12 U
1,2-Dichloroethane	UG/KG	11 U	11 U	11 U	11 U	11 U	12 U
2-Butanone	UG/KG	11 U	11 U	11 UJ	11 UJ	11 U	12 U
1,1,1-Trichloroethane	UG/KG	11 U	11 U	11 U	11 U	11 U	12 U
Carbon tetrachloride	UG/KG	11 U	11 U	11 U	11 U	11 U	12 U
Bromodichloromethane	UG/KG	11 U	11 U	11 U	11 U	11 U	12 U
1,2-Dichloropropane	UG/KG	11 U	11 U	11 U	11 U	11 U	12 U
cis-1,3-Dichloropropene	UG/KG	11 U	11 U	11 U	11 U	11 U	12 U
Trichloroethene	UG/KG	11 U	11 U	11 U	11 U	11 U	12 U
Dibromochloromethane	UG/KG	11 U	11 U	11 U	11 U	11 U	12 U
1,1,2-Trichloroethane	UG/KG	11 U	11 U	11 U	11 U	11 U	12 U
Benzene	UG/KG	11 U	11 U	11 U	11 U	11 U	12 U
trans-1,3-Dichloropropene	UG/KG	11 U	11 U	11 U	11 U	11 U	12 U
Bromoform	UG/KG	11 U	11 U	11 U	11 U	11 U	12 U
4-Methyl-2-pentanone	UG/KG	11 U	11 U	11 U	11 U	11 U	12 U
2-Hexanone	UG/KG	11 U	11 U	11 UJ	11 UJ	11 U	12 U
Tetrachloroethene	UG/KG	11 U	11 U	11 U	11 U	11 U	12 U
1,1,2,2-Tetrachloroethane	UG/KG	11 U	11 U	11 U	11 U	11 U	12 U
Toluene	UG/KG	11 U	11 U	11 U	11 U	11 U	12 U
Chlorobenzene	UG/KG	11 U	11 U	11 U	11 U	11 U	12 U
Ethylbenzene	UG/KG	11 U	11 U	11 U	11 U	11 U	12 U
Styrene	UG/KG	11 U	11 U	11 U	11 U	11 U	12 U
Xylenes (total)	UG/KG	11 U	11 U	11 U	11 U	11 U	12 U

SITE 1
FRENCH CREEK LIQUID DISPOSAL AREA
SUBSURFACE SOIL - FIELD DUPLICATE SUMMARY
REMEDIAL INVESTIGATION CTO-19231
MCB CAMP LEJEUNE, NORTH CAROLINA
TCL ORGANICS

Client Sample ID:		1-N-SB26-01	1-N-SB26-01D	1-N-SB26-04	1-N-SB26-04D	1-GW17-05	1-GW17-05D
Laboratory Sample ID:		940260-10	940260-11	940260-12	940260-13	940320-03	940320-04
Date Sampled:		3/29/94	3/29/94	3/29/94	3/29/94	4/19/94	4/19/94
SEMIVOLATILES	UNITS						
Phenol	UG/KG	360 U	350 U	1100 U	350 U	350 U	380 U
bis(2-Chloroethyl) ether	UG/KG	360 U	350 U	1100 U	350 U	350 U	380 U
2-Chlorophenol	UG/KG	360 U	350 U	1100 U	350 U	350 U	380 U
1,3-Dichlorobenzene	UG/KG	360 U	350 U	1100 U	350 U	350 U	380 U
1,4-Dichlorobenzene	UG/KG	360 U	350 U	1100 U	350 U	350 U	380 U
1,2-Dichlorobenzene	UG/KG	360 U	350 U	1100 U	350 U	350 U	380 U
2-Methylphenol	UG/KG	360 U	350 U	1100 U	350 U	350 U	380 U
2,2'-oxybis-(1-chloropropane)	UG/KG	360 U	350 U	1100 U	350 U	350 U	380 U
4-Methylphenol	UG/KG	360 U	350 U	1100 U	350 U	350 U	380 U
N-Nitroso-di-n-propylamine	UG/KG	360 U	350 U	1100 U	350 U	350 U	380 U
Hexachloroethane	UG/KG	360 U	350 U	1100 U	350 U	350 U	380 U
Nitrobenzene	UG/KG	360 U	350 U	1100 U	350 U	350 U	380 U
Isophorone	UG/KG	360 U	350 U	1100 U	350 U	350 U	380 U
2-Nitrophenol	UG/KG	360 U	350 U	1100 U	350 U	350 U	380 U
2,4-Dimethylphenol	UG/KG	360 U	350 U	1100 U	350 U	350 U	380 U
bis(2-Chloroethoxy) methane	UG/KG	360 U	350 U	1100 U	350 U	350 U	380 U
2,4-Dichlorophenol	UG/KG	360 U	350 U	1100 U	350 U	350 U	380 U
1,2,4-Trichlorobenzene	UG/KG	360 U	350 U	1100 U	350 U	350 U	380 U
Naphthalene	UG/KG	360 U	350 U	1100 U	350 U	350 U	380 U
4-Chloroaniline	UG/KG	360 U	350 U	1100 U	350 U	350 U	380 U
Hexachlorobutadiene	UG/KG	360 U	350 U	1100 U	350 U	350 U	380 U
4-Chloro-3-methylphenol	UG/KG	360 U	350 U	1100 U	350 U	350 U	380 U
2-Methylnaphthalene	UG/KG	360 U	350 U	1100 U	350 U	350 U	380 U
Hexachlorocyclopentadiene	UG/KG	360 U	350 U	1100 U	350 U	350 U	380 U
2,4,6-Trichlorophenol	UG/KG	360 U	350 U	1100 U	350 U	350 U	380 U
2,4,5-Trichlorophenol	UG/KG	880 U	860 U	2600 U	860 U	840 U	920 U
2-Chloronaphthalene	UG/KG	360 U	350 U	1100 U	350 U	350 U	380 U
2-Nitroaniline	UG/KG	880 U	860 U	2600 U	860 U	840 U	920 U
Dimethyl phthalate	UG/KG	360 U	350 U	1100 U	350 U	350 U	380 U
Acenaphthylene	UG/KG	360 U	350 U	1100 U	350 U	350 U	380 U
2,6-Dinitrotoluene	UG/KG	360 U	350 U	1100 U	350 U	350 U	380 U
3-Nitroaniline	UG/KG	880 U	860 U	2600 U	860 U	840 U	920 U
Acenaphthene	UG/KG	360 U	350 U	1100 U	350 U	350 U	380 U

SITE 1
FRENCH CREEK LIQUID DISPOSAL AREA
SUBSURFACE SOIL - FIELD DUPLICATE SUMMARY
REMEDIAL INVESTIGATION CTO-19231
MCB CAMP LEJEUNE, NORTH CAROLINA
TCL ORGANICS

Client Sample ID:		1-N-SB26-01	1-N-SB26-01D	1-N-SB26-04	1-N-SB26-04D	1-GW17-05	1-GW17-05D
Laboratory Sample ID:		940260-10	940260-11	940260-12	940260-13	940320-03	940320-04
Date Sampled:		3/29/94	3/29/94	3/29/94	3/29/94	4/19/94	4/19/94
	UNITS						
SEMIVOLATILES Cont.							
2,4-Dinitrophenol	UG/KG	880 U	860 U	2600 U	860 U	840 U	920 U
4-Nitrophenol	UG/KG	880 U	860 U	2600 U	860 U	840 U	920 U
Dibenzofuran	UG/KG	360 U	350 U	1100 U	350 U	350 U	380 U
2,4-Dinitrotoluene	UG/KG	360 U	350 U	1100 U	350 U	350 U	380 U
Diethylphthalate	UG/KG	360 U	350 U	1100 U	350 U	350 U	380 U
4-Chlorophenyl phenyl ether	UG/KG	360 U	350 U	1100 U	350 U	350 U	380 U
Fluorene	UG/KG	360 U	350 U	1100 U	350 U	350 U	380 U
4-Nitroaniline	UG/KG	880 U	860 U	2600 U	860 U	840 U	920 U
4,6-Dinitro-2-methylphenol	UG/KG	880 U	860 U	2600 U	860 U	840 U	920 U
N-nitrosodiphenylamine	UG/KG	360 U	350 U	1100 U	350 U	350 U	380 U
4-Bromophenyl-phenylether	UG/KG	360 U	350 U	1100 U	350 U	350 U	380 U
Hexachlorobenzene	UG/KG	360 U	350 U	1100 U	350 U	350 U	380 U
Pentachlorophenol	UG/KG	880 U	860 U	2600 U	860 U	840 U	920 U
Phenanthrene	UG/KG	360 U	350 U	1100 U	350 U	350 U	380 U
Anthracene	UG/KG	360 U	350 U	1100 U	350 U	350 U	380 U
Carbazole	UG/KG	360 U	350 U	1100 U	350 U	350 U	380 U
di-n-Butylphthalate	UG/KG	360 U	350 U	1100 U	350 U	350 U	380 U
Fluoranthene	UG/KG	360 U	350 U	1100 U	350 U	350 U	380 U
Pyrene	UG/KG	360 U	350 U	1100 U	350 U	350 U	380 U
Butyl benzyl phthalate	UG/KG	360 U	350 U	1100 U	350 U	350 U	380 U
3,3'-Dichlorobenzidine	UG/KG	360 U	350 U	1100 U	350 U	350 U	380 U
Benzo[a]anthracene	UG/KG	360 U	350 U	1100 U	350 U	350 U	380 U
Chrysene	UG/KG	360 U	350 U	1100 U	350 U	350 U	380 U
bis(2-Ethylhexyl)phthalate	UG/KG	360 U	350 U	8700	350 U	49 J	380 U
di-n-Octylphthalate	UG/KG	360 U	350 U	1100 U	350 R	350 U	380 U
Benzo[b]fluoranthene	UG/KG	360 U	350 U	1100 U	350 U	350 U	380 U
Benzo[k]fluoranthene	UG/KG	360 U	350 U	1100 U	350 U	350 U	380 U
Benzo[a]pyrene	UG/KG	360 U	350 U	1100 U	350 U	350 U	380 U
Indeno[1,2,3-cd]pyrene	UG/KG	360 U	350 U	1100 U	350 U	350 U	380 U
Dibenz[a,h]anthracene	UG/KG	360 U	350 U	1100 U	350 U	350 U	380 U
Benzo[g,h,i]perylene	UG/KG	360 U	350 U	1100 U	350 U	350 U	380 U

SITE 1
FRENCH CREEK LIQUID DISPOSAL AREA
SUBSURFACE SOIL - FIELD DUPLICATE SUMMARY
REMEDIAL INVESTIGATION CTO-19231
MCB CAMP LEJEUNE, NORTH CAROLINA
TCL ORGANICS

Client Sample ID:		1-N-SB26-01	1-N-SB26-01D	1-N-SB26-04	1-N-SB26-04D	1-GW17-05	1-GW17-05D
Laboratory Sample ID:		940260-10	940260-11	940260-12	940260-13	940320-03	940320-04
Date Sampled:		3/29/94	3/29/94	3/29/94	3/29/94	4/19/94	4/19/94
	UNITS						
PESTICIDES/PCBs							
alpha-BHC	UG/KG	9.3 U	9.1 UJ	1.8 U	1.8 U	1.8 U	2.0 U
beta-BHC	UG/KG	9.3 U	9.1 UJ	1.8 U	1.8 U	1.8 U	2.0 U
delta-BHC	UG/KG	9.3 U	9.1 UJ	1.8 U	1.8 U	1.8 U	2.0 U
Lindane (gamma-BHC)	UG/KG	9.3 U	9.1 UJ	1.8 U	1.8 U	1.8 U	2.0 U
Heptachlor	UG/KG	9.3 U	9.1 UJ	1.8 U	1.8 U	1.8 U	2.0 U
Aldrin	UG/KG	9.3 U	9.1 UJ	1.8 U	1.8 U	1.8 U	2.0 U
Heptachlor epoxide	UG/KG	9.3 U	9.1 UJ	1.8 U	1.8 U	1.8 U	2.0 U
Endosulfan I	UG/KG	9.3 U	9.1 UJ	1.8 U	1.8 U	1.8 U	2.0 U
Dieldrin	UG/KG	39 J	31 J	3.6 U	3.5 U	7.1 J	3.8 U
4,4'-DDE	UG/KG	120	110 J	3.6 U	3.5 U	11.0	3.8 U
Endrin	UG/KG	18 U	18 UJ	3.6 U	3.5 U	3.5 U	3.8 U
Endosulfan II	UG/KG	18 U	18 UJ	3.6 U	3.5 U	3.5 U	3.8 U
4,4'-DDD	UG/KG	28 J	28 J	3.6 U	3.5 U	3.5 U	3.8 U
Endosulfan sulfate	UG/KG	18 U	18 UJ	3.6 U	3.5 U	3.5 U	3.8 U
4,4'-DDT	UG/KG	18 J	22 J	3.6 U	3.5 U	7.8	3.8 U
Methoxychlor	UG/KG	93 U	91 UJ	18 U	18 U	18 U	20 U
Endrin ketone	UG/KG	18 U	18 UJ	3.6 U	3.5 U	3.5 U	3.8 U
Endrin aldehyde	UG/KG	18 U	18 UJ	3.6 U	3.5 U	3.5 U	3.8 U
alpha-Chlordane	UG/KG	4.2 NJ	4.0 NJ	1.8 U	1.8 U	1.8 U	2.0 U
gamma-Chlordane	UG/KG	2.9 NJ	3.2 NJ	1.8 U	1.8 U	1.8 U	2.0 U
Toxaphene	UG/KG	930 U	910 UJ	180 U	180 U	180 U	200 U
Aroclor 1016	UG/KG	180 U	180 UJ	36 U	35 U	35 U	38 U
Aroclor 1221	UG/KG	370 U	360 UJ	73 UJ	72 U	71 U	77 U
Aroclor 1232	UG/KG	180 U	180 UJ	36 UJ	35 U	35 U	38 U
Aroclor 1242	UG/KG	180 U	180 UJ	36 UJ	35 U	35 U	38 U
Aroclor 1248	UG/KG	180 U	180 UJ	36 UJ	35 U	35 U	38 U
Aroclor 1254	UG/KG	180 U	180 UJ	36 UJ	35 U	35 U	38 U
Aroclor 1260	UG/KG	180 U	180 UJ	36 UJ	35 U	35 U	38 U

SITE 1
FRENCH CREEK LIQUID DISPOSAL AREA
SHALLOW GROUNDWATER - FIELD DUPLICATE SUMMARY
REMEDIAL INVESTIGATION CTO-19231
MCB CAMP LEJEUNE, NORTH CAROLINA
DISSOLVED METALS

Client Sample ID:		1-GW04D-01	1-GW04D-01D	1-GW15D-01	1-GW15D-01D
Laboratory Sample ID:		940341-07	940341-08	940334-31	940334-32
Date Sampled:		4/24/94	4/24/94	4/23/94	4/23/94
	UNITS				
Aluminum	UG/L	64.4 J	52.5 J	33.0 UJ	35.2 UJ
Antimony	UG/L	34.0 UJ	34 UJ	51.4 J	51.4 J
Arsenic	UG/L	3.0 U	3 U	3.0 U	3 U
Barium	UG/L	36.6	38	28.2	32.2
Beryllium	UG/L	1.0 U	1 U	1.0 U	1 U
Cadmium	UG/L	3.0 U	3 U	3.0 U	3 U
Calcium	UG/L	13700	17900	107000	117000
Chromium	UG/L	7.0 UJ	7 UJ	7.0 UJ	7 UJ
Cobalt	UG/L	4.6	4 U	4.0 UJ	4 UJ
Copper	UG/L	6.0 U	6 U	6.0 U	6 U
Iron	UG/L	171	32.5 U	45.0 UJ	30.9 UJ
Lead	UG/L	1.9 U	1 U	1.0 UJ	1 UJ
Magnesium	UG/L	5920	6870	3000	3260
Manganese	UG/L	12.4	8.1	1.6	2.2 U
Mercury	UG/L	0.13 U	0.13 U	0.13 U	0.13 U
Nickel	UG/L	7.0 U	11	7.0 U	7 U
Potassium	UG/L	832 J	944 J	1910 J	2180 J
Selenium	UG/L	4.0 U	4 U	4.0 UJ	4 UJ
Silver	UG/L	5.0 UJ	5 UJ	5.0 UJ	5 UJ
Sodium	UG/L	9630	10800	3830	4380
Thallium	UG/L	4.0 U	4 U	4.0 U	4 U
Vanadium	UG/L	3.0 UJ	3 UJ	3.0 U	3 U
Zinc	UG/L	12.4	5.8	3.9 U	5.2 U

SITE 1
FRENCH CREEK LIQUID DISPOSAL AREA
SHALLOW GROUNDWATER - FIELD DUPLICATE SUMMARY
REMEDIAL INVESTIGATION CTO-19231
MCB CAMP LEJEUNE, NORTH CAROLINA
TOTAL METALS

Client Sample ID:		1-GW04-01	1-GW04-01D	1-GW15-01	1-GW15-01D
Laboratory Sample ID:		940341-05	940341-06	940334-29	940334-30
Date Sampled:		4/24/94	4/24/94	4/23/94	4/23/94
	UNITS				
Aluminum	UG/L	62500 J	44100 J	133000 J	122000 J
Antimony	UG/L	34.0 UJ	34.0 UJ	56.6 J	34.0 UJ
Arsenic	UG/L	13.4	13.9	292	291
Barium	UG/L	261	221	726	729
Beryllium	UG/L	5.0	4.1	50.1	50.6
Cadmium	UG/L	5.6	3.0 U	34.2	40.8
Calcium	UG/L	16300	13400	720000	758000
Chromium	UG/L	226 J	162 J	594 J	558 J
Cobalt	UG/L	49.4	38.0	71.2	71.2
Copper	UG/L	24.5	19.4	47.8	46.0
Iron	UG/L	68700	51700	338000 J	335000 J
Lead	UG/L	26.1	22.3	79.1 J	78.6 J
Magnesium	UG/L	12500	10800	30900	29700
Manganese	UG/L	380	270	1320	1370
Mercury	UG/L	0.13 U	0.13 U	0.53	0.50
Nickel	UG/L	126	74.9	259	267
Potassium	UG/L	6350 J	5150 J	17700 J	16400 J
Selenium	UG/L	4.0 U	4.0 U	4.0 UJ	4.0 UJ
Silver	UG/L	5.0 UJ	5.0 UJ	8.2 J	8.9 J
Sodium	UG/L	9380	9800	5080	5200
Thallium	UG/L	4.0 U	4.0 U	4.0 U	4.0 U
Vanadium	UG/L	205 J	144 J	479	447
Zinc	UG/L	299	207	935	932

SITE 1
FRENCH CREEK LIQUID DISPOSAL AREA
SHALLOW GROUNDWATER - FIELD DUPLICATE SUMMARY
REMEDIAL INVESTIGATION CTO-19231
MCB CAMP LEJEUNE, NORTH CAROLINA
TCL ORGANICS

Client Sample ID:		1-GW04-01	1-GW04-01D	1-GW15-01	1-GW15-01D
Laboratory Sample ID:		940341-05	940341-06	940334-29	940334-30
Date Sampled:		4/24/94	4/24/94	4/23/94	4/23/94
	UNITS				
VOLATILES					
Chloromethane	UG/L	2 U	2 U	10 U	2 U
Bromomethane	UG/L	2 U	2 U	10 U	2 U
Vinyl chloride	UG/L	2 U	2 U	10 U	2 U
Chloroethane	UG/L	2 U	2 U	10 U	2 U
Methylene chloride	UG/L	2 U	2 U	10 U	2 U
1,1-Dichloroethene	UG/L	2 U	2 U	10 U	2 U
1,1-Dichloroethane	UG/L	2 U	2 U	10 U	2 U
1,2-Dichloroethene(total)	UG/L	2 U	2 U	10 U	2 U
Chloroform	UG/L	2 U	2 U	10 U	2 U
1,2-Dichloroethane	UG/L	2 U	2 U	10 U	2 U
1,1,1-Trichloroethane	UG/L	2 U	2 U	10 U	2 U
Carbon tetrachloride	UG/L	2 U	2 U	10 U	2 U
Bromodichloromethane	UG/L	2 U	2 U	10 U	2 U
1,2-Dichloropropane	UG/L	2 U	2 U	10 U	2 U
cis-1,3-Dichloropropene	UG/L	2 U	2 U	10 U	2 U
Trichloroethene	UG/L	2 U	2 U	10 U	2 U
Dibromochloromethane	UG/L	2 U	2 U	10 U	2 U
1,1,2-Trichloroethane	UG/L	2 U	2 U	10 U	2 U
Benzene	UG/L	2 U	2 U	10 U	2 U
trans-1,3-Dichloropropene	UG/L	2 U	2 U	10 U	2 U
2-Chloroethylvinylether	UG/L	2 U	2 U	10 U	2 U
Bromoform	UG/L	2 U	2 U	10 U	2 U
Tetrachloroethene	UG/L	2 U	2 U	10 U	2 U
1,1,2,2-Tetrachloroethane	UG/L	2 U	2 U	10 U	2 U
Toluene	UG/L	2 U	2 U	10 U	2 U
Chlorobenzene	UG/L	2 U	2 U	10 U	2 U
Ethylbenzene	UG/L	2 U	2 U	10 U	2 U
Xylene (total)	UG/L	2 U	2 U	10 U	2 U
1,3-Dichlorobenzene	UG/L	2 U	2 U	2 U	2 U
1,4-Dichlorobenzene	UG/L	2 U	2 U	2 U	2 U
1,2-Dichlorobenzene	UG/L	2 U	2 U	2 U	2 U
Trichlorofluoromethane	UG/L	2 U	2 U	2 U	2 U

SITE 1
FRENCH CREEK LIQUID DISPOSAL AREA
SHALLOW GROUNDWATER - FIELD DUPLICATE SUMMARY
REMEDIAL INVESTIGATION CTO-19231
MCB CAMP LEJEUNE, NORTH CAROLINA
TCL ORGANICS

Client Sample ID:		1-GW04-01	1-GW04-01D	1-GW15-01	1-GW15-01D
Laboratory Sample ID:		940341-05	940341-06	940334-29	940334-30
Date Sampled:		4/24/94	4/24/94	4/23/94	4/23/94
	UNITS				
SEMIVOLATILES					
Phenol	UG/L	10 U	10 U	10 U	10 U
bis(2-Chloroethyl) ether	UG/L	10 U	10 U	10 U	10 U
2-Chlorophenol	UG/L	10 U	10 U	10 U	10 U
1,3-Dichlorobenzene	UG/L	10 U	10 U	10 U	10 U
1,4-Dichlorobenzene	UG/L	10 U	10 U	10 U	10 U
1,2-Dichlorobenzene	UG/L	10 U	10 U	10 U	10 U
2-Methylphenol	UG/L	10 U	10 U	10 U	10 U
2,2'-oxybis-(1-chloropropane)	UG/L	10 U	10 U	10 U	10 U
4-Methylphenol	UG/L	10 U	10 U	10 U	10 U
N-Nitroso-di-n-propylamine	UG/L	10 U	10 U	10 U	10 U
Hexachloroethane	UG/L	10 U	10 U	10 U	10 U
Nitrobenzene	UG/L	10 U	10 U	10 U	10 U
Isophorone	UG/L	10 U	10 U	10 U	10 U
2-Nitrophenol	UG/L	10 U	10 U	10 U	10 U
2,4-Dimethylphenol	UG/L	10 U	10 U	10 U	10 U
bis(2-Chloroethoxy) methane	UG/L	10 U	10 U	10 U	10 U
2,4-Dichlorophenol	UG/L	10 U	10 U	10 U	10 U
1,2,4-Trichlorobenzene	UG/L	10 U	10 U	10 U	10 U
Naphthalene	UG/L	10 U	10 U	10 U	10 U
4-Chloroaniline	UG/L	10 U	10 U	10 U	10 U
Hexachlorobutadiene	UG/L	10 U	10 U	10 U	10 U
4-Chloro-3-methylphenol	UG/L	10 U	10 U	10 U	10 U
2-Methylnaphthalene	UG/L	10 U	10 U	10 U	10 U
Hexachlorocyclopentadiene	UG/L	10 U	10 U	10 U	10 U
2,4,6-Trichlorophenol	UG/L	10 U	10 U	10 U	10 U
2,4,5-Trichlorophenol	UG/L	25 U	25 U	25 U	25 U
2-Chloronaphthalene	UG/L	10 U	10 U	10 U	10 U
2-Nitroaniline	UG/L	25 U	25 U	25 U	25 U
Dimethyl phthalate	UG/L	10 U	10 U	10 U	10 U
Acenaphthylene	UG/L	10 U	10 U	10 U	10 U
2,6-Dinitrotoluene	UG/L	10 U	10 U	10 U	10 U
3-Nitroaniline	UG/L	25 U	25 U	25 U	25 U
Acenaphthene	UG/L	10 U	10 U	10 U	10 U

SITE 1
FRENCH CREEK LIQUID DISPOSAL AREA
SHALLOW GROUNDWATER - FIELD DUPLICATE SUMMARY
REMEDIAL INVESTIGATION CTO-19231
MCB CAMP LEJEUNE, NORTH CAROLINA
TCL ORGANICS

Client Sample ID:		1-GW04-01	1-GW04-01D	1-GW15-01	1-GW15-01D
Laboratory Sample ID:		940341-05	940341-06	940334-29	940334-30
Date Sampled:		4/24/94	4/24/94	4/23/94	4/23/94
	UNITS				
SEMIVOLATILES Cont.					
2,4-Dinitrophenol	UG/L	25 U	25 U	25 U	25 U
4-Nitrophenol	UG/L	25 R	25 R	25 U	25 U
Dibenzofuran	UG/L	10 U	10 U	10 U	10 U
2,4-Dinitrotoluene	UG/L	10 U	10 U	10 U	10 U
Diethylphthalate	UG/L	10 U	10 U	10 U	10 U
4-Chlorophenyl phenyl ether	UG/L	10 U	10 U	10 U	10 U
Fluorene	UG/L	10 U	10 U	10 U	10 U
4-Nitroaniline	UG/L	25 UJ	25 UJ	25 U	25 U
4,6-Dinitro-2-methylphenol	UG/L	25 U	25 U	25 U	25 U
N-nitrosodiphenylamine	UG/L	10 U	10 U	10 U	10 U
4-Bromophenyl-phenylether	UG/L	10 U	10 U	10 U	10 U
Hexachlorobenzene	UG/L	10 U	10 U	10 U	10 U
Pentachlorophenol	UG/L	25 U	25 U	25 U	25 U
Phenanthrene	UG/L	10 U	10 U	10 U	10 U
Anthracene	UG/L	10 U	10 U	10 U	10 U
Carbazole	UG/L	10 U	10 U	10 U	10 U
di-n-Butylphthalate	UG/L	10 U	10 U	10 U	10 U
Fluoranthene	UG/L	10 U	10 U	10 U	10 U
Pyrene	UG/L	10 U	10 U	10 U	10 U
Butyl benzyl phthalate	UG/L	10 U	10 U	10 U	10 U
3,3'-Dichlorobenzidine	UG/L	10 R	10 R	10 U	10 U
Benzo[a]anthracene	UG/L	10 U	10 U	10 U	10 U
Chrysene	UG/L	10 U	10 U	10 U	10 U
bis(2-Ethylhexyl)phthalate	UG/L	10 U	10 U	10 U	10 U
di-n-Octylphthalate	UG/L	10 U	10 U	10 U	10 U
Benzo[b]fluoranthene	UG/L	10 U	10 U	10 U	10 U
Benzo[k]fluoranthene	UG/L	10 U	10 U	10 U	10 U
Benzo[a]pyrene	UG/L	10 U	10 U	10 U	10 U
Indeno[1,2,3-cd]pyrene	UG/L	10 U	10 U	10 U	10 U
Dibenz[a,h]anthracene	UG/L	10 U	10 U	10 U	10 U
Benzo[g,h,i]perylene	UG/L	10 U	10 U	10 U	10 U

SITE 1
FRENCH CREEK LIQUID DISPOSAL AREA
SHALLOW GROUNDWATER - FIELD DUPLICATE SUMMARY
REMEDIAL INVESTIGATION CTO-19231
MCB CAMP LEJEUNE, NORTH CAROLINA
TCL ORGANICS

Client Sample ID:		1-GW04-01	1-GW04-01D	1-GW15-01	1-GW15-01D
Laboratory Sample ID:		940341-05	940341-06	940334-29	940334-30
Date Sampled:		4/24/94	4/24/94	4/23/94	4/23/94
	UNITS				
PESTICIDES/PCBs	UG/L				
alpha-BHC	UG/L	0.05 UJ	0.05 UJ	N/A	N/A
beta-BHC	UG/L	0.05 UJ	0.05 UJ	N/A	N/A
delta-BHC	UG/L	0.05 UJ	0.05 UJ	N/A	N/A
Lindane (gamma-BHC)	UG/L	0.05 UJ	0.05 UJ	N/A	N/A
Heptachlor	UG/L	0.05 UJ	0.05 UJ	N/A	N/A
Aldrin	UG/L	0.05 UJ	0.05 UJ	N/A	N/A
Heptachlor epoxide	UG/L	0.05 UJ	0.05 UJ	N/A	N/A
Endosulfan I	UG/L	0.05 UJ	0.05 UJ	N/A	N/A
Dieldrin	UG/L	0.10 UJ	0.10 UJ	N/A	N/A
4,4'-DDE	UG/L	0.10 UJ	0.10 UJ	N/A	N/A
Endrin	UG/L	0.10 UJ	0.10 UJ	N/A	N/A
Endosulfan II	UG/L	0.10 UJ	0.10 UJ	N/A	N/A
4,4'-DDD	UG/L	0.10 UJ	0.10 UJ	N/A	N/A
Endosulfan sulfate	UG/L	0.10 UJ	0.10 UJ	N/A	N/A
4,4'-DDT	UG/L	0.10 UJ	0.10 UJ	N/A	N/A
Methoxychlor	UG/L	0.50 UJ	0.50 UJ	N/A	N/A
Endrin ketone	UG/L	0.10 UJ	0.10 UJ	N/A	N/A
Endrin aldehyde	UG/L	0.10 UJ	0.10 UJ	N/A	N/A
alpha-Chlordane	UG/L	0.05 UJ	0.05 UJ	N/A	N/A
gamma-Chlordane	UG/L	0.05 UJ	0.05 UJ	N/A	N/A
Toxaphene	UG/L	5.0 UJ	5.0 UJ	N/A	N/A
Aroclor 1016	UG/L	1.0 UJ	1.0 UJ	N/A	N/A
Aroclor 1221	UG/L	2.0 UJ	2.0 UJ	N/A	N/A
Aroclor 1232	UG/L	1.0 UJ	1.0 UJ	N/A	N/A
Aroclor 1242	UG/L	1.0 UJ	1.0 UJ	N/A	N/A
Aroclor 1248	UG/L	1.0 UJ	1.0 UJ	N/A	N/A
Aroclor 1254	UG/L	1.0 UJ	1.0 UJ	N/A	N/A
Aroclor 1260	UG/L	1.0 UJ	1.0 UJ	N/A	N/A

SITE 28

SITE 28
HADNOT POINT BURN DUMP
SURFACE SOILS - FIELD DUPLICATE SUMMARY
REMEDIAL INVESTIGATION CTO-19231
MCB CAMP LEJEUNE, NORTH CAROLINA
TOTAL METALS

Client Sample ID:		28-W-SB04-00	28-W-SB04-00D	28-W-SB12-00	28-W-SB12-00D	28-E-SB23-00	28E-SB23-00D
Laboratory Sample ID:		940250-16	940250-17	940248-14	940248-15	940241-10	940241-11
Date Sampled:		3/26/94	3/26/94	3/27/94	3/27/94	3/26/94	3/26/94
Percent Solids		82	80.0	89.0	85.0	80.0	80.0
	UNITS						
Aluminum	MG/KG	2310	1900	7150 J	6210 J	2100	2180
Antimony	MG/KG	8.0 UJ	7.8 UJ	7.2 UJ	7.3 UJ	7.4 UJ	6.6 UJ
Arsenic	MG/KG	0.71 UJ	0.69 UJ	1.1	1.2	1.3 J	0.74 J
Barium	MG/KG	8.0	8.5	58.1	40.9	8.9	7.9
Beryllium	MG/KG	0.24 U	0.23 U	0.21 U	0.21 U	0.22 U	0.19 U
Cadmium	MG/KG	0.71 U	0.69 U	2.4	2.4	0.65 U	0.58 U
Calcium	MG/KG	2260	3040	2030 J	1500 J	291	265
Chromium	MG/KG	3.3	4.0	11.8 J	10.4 J	4.5	3.4
Cobalt	MG/KG	0.95 U	0.92 U	1.1	1.4	0.87 U	0.77 U
Copper	MG/KG	9.9	6.2	119 J	34.6 J	2.9	3.0
Iron	MG/KG	2820	2220	5430 J	8300 J	2800	2080
Lead	MG/KG	13.9	16.8	128 J	137 J	5.0	4.9
Magnesium	MG/KG	241	187	199 J	216 J	76.8	82.9
Manganese	MG/KG	20.1 J	21.8 J	94.2 J	196 J	2.4 J	3.9 J
Mercury	MG/KG	0.05 U	0.06 U	0.21	0.27	0.05 U	0.07
Nickel	MG/KG	1.7 U	1.6 U	4.1 J	6.7 J	1.5 U	1.4 U
Potassium	MG/KG	429 J	184 J	201 J	236 J	115 J	125 J
Selenium	MG/KG	0.95 U	0.92 U	0.85 UJ	0.86 UJ	0.87 U	0.77 U
Silver	MG/KG	1.2 UJ	1.1 UJ	2.2 J	1.2 J	1.1 UJ	1.1 UJ
Sodium	MG/KG	35.4 U	38.8 U	74.2 U	75.9 U	17.1	22.8 U
Thallium	MG/KG	0.95 U	0.92 U	0.85 U	0.86 U	0.87 U	0.77 U
Vanadium	MG/KG	6.4	5.4	7.9	7.6	6.0	4.9
Zinc	MG/KG	25.2 J	29.2 J	519 J	393 J	3.1 U	3.2 U

SITE 28
HADNOT POINT BURN DUMP
SURFACE SOILS - FIELD DUPLICATE SUMMARY
REMEDIAL INVESTIGATION CTO-19231
MCB CAMP LEJEUNE, NORTH CAROLINA
TOTAL METALS

Client Sample ID:		28-E-SB29-00	28-E-SB29-00D	28-GW05-00	28-GW05-00D
Laboratory Sample ID:		940246-23	940246-24	940281-04	940281-05
Date Sampled:		3/26/94	3/26/94	4/7/94	4/7/94
Percent Solids		90.0	92.0	91.0	94.0
	UNITS				
Aluminum	MG/KG	1200 J	1610 J	3630	3560
Antimony	MG/KG	6.1 UJ	7.5 UJ	6.4 UJ	9.1 J
Arsenic	MG/KG	0.54 U	0.66 U	1.4	1.6
Barium	MG/KG	10.2	13.9	14.6	14.4
Beryllium	MG/KG	0.18 U	0.22 U	0.19 U	0.21 U
Cadmium	MG/KG	0.54 U	0.66 U	0.57 U	0.63 U
Calcium	MG/KG	3920 J	6030 J	41900	39400
Chromium	MG/KG	1.4 J	3.2 J	6.2	6.6
Cobalt	MG/KG	0.72 U	0.88 U	1.2	0.97
Copper	MG/KG	4.5 J	8.9 J	5.5	4.7
Iron	MG/KG	638 J	899 J	3960	3560
Lead	MG/KG	6.9 J	9.2 J	11.4 J	10.3 J
Magnesium	MG/KG	52.2 J	77.5 J	370	335
Manganese	MG/KG	9.4 J	11.0 J	21.1	18.7
Mercury	MG/KG	0.25	0.16	0.07	0.07
Nickel	MG/KG	2.0 UJ	3.3 UJ	1.6 U	1.9 U
Potassium	MG/KG	26.3 J	52.2 J	171	210
Selenium	MG/KG	0.72 UJ	0.88 UJ	0.76 U	0.84 U
Silver	MG/KG	0.90 UJ	1.1 UJ	0.95 UJ	1.0 UJ
Sodium	MG/KG	26.2 U	32.8 U	25.4	20.0
Thallium	MG/KG	0.80	0.88 U	0.76 U	0.84 U
Vanadium	MG/KG	2.0	3.0	7.4	8.1
Zinc	MG/KG	9.8 J	14.9 J	19.8	17.2

SITE 28
HADNOT POINT BURN DUMP
SURFACE SOILS - FIELD DUPLICATE SUMMARY
REMEDIAL INVESTIGATION CTO-19231
MCB CAMP LEJEUNE, NORTH CAROLINA
TCL ORGANICS

Client Sample ID:		28-W-SB04-00	28-W-SB04-00D	28-W-SB12-00	28-W-SB12-00D	28-E-SB23-00	28E-SB23-00D
Laboratory Sample ID:		940250-16	940250-17	940248-14	940248-15	940241-10	940241-11
Date Sampled:		3/26/94	3/26/94	3/27/94	3/27/94	3/26/94	3/26/94
	UNITS						
VOLATILES							
Chloromethane	UG/KG	12 U	12 U	11 U	11 U	12 U	12 U
Bromomethane	UG/KG	12 U	12 U	11 U	11 U	12 U	12 U
Vinyl chloride	UG/KG	12 U	12 U	11 U	11 U	12 U	12 U
Chloroethane	UG/KG	12 U	12 U	11 U	11 U	12 U	12 U
Methylene chloride	UG/KG	12 U	12 U	11 U	11 U	12 U	12 U
Acetone	UG/KG	12 U	12 U	11 U	11 U	12 U	15 U
Carbon Disulfide	UG/KG	12 U	12 U	11 U	11 U	12 U	12 U
1,1-Dichloroethene	UG/KG	12 U	12 U	11 U	11 U	12 U	12 U
1,1-Dichloroethane	UG/KG	12 U	12 U	11 U	11 U	12 U	12 U
1,2-Dichloroethene(total)	UG/KG	12 U	12 U	11 U	11 U	12 U	12 U
Chloroform	UG/KG	12 U	12 U	11 U	11 U	12 U	12 U
1,2-Dichloroethane	UG/KG	12 U	12 U	11 U	11 U	12 U	12 U
2-Butanone	UG/KG	12 U	12 U	11 U	11 U	12 U	12 U
1,1,1-Trichloroethane	UG/KG	12 U	12 U	11 U	11 U	12 U	12 U
Carbon tetrachloride	UG/KG	12 U	12 U	11 U	11 U	12 U	12 U
Bromodichloromethane	UG/KG	12 U	12 U	11 U	11 U	12 U	12 U
1,2-Dichloropropane	UG/KG	12 U	12 U	11 U	11 U	12 U	12 U
cis-1,3-Dichloropropene	UG/KG	12 U	12 U	11 U	11 U	12 U	12 U
Trichloroethene	UG/KG	12 U	12 U	11 U	11 U	12 U	12 U
Dibromochloromethane	UG/KG	12 U	12 U	11 U	11 U	12 U	12 U
1,1,2-Trichloroethane	UG/KG	12 U	12 U	11 U	11 U	12 U	12 U
Benzene	UG/KG	12 U	12 U	11 U	11 U	12 U	12 U
trans-1,3-Dichloropropene	UG/KG	12 U	12 U	11 U	11 U	12 U	12 U
Bromoform	UG/KG	12 U	12 U	11 U	11 U	12 U	12 U
4-Methyl-2-pentanone	UG/KG	12 U	12 U	11 U	11 U	12 U	12 U
2-Hexanone	UG/KG	12 U	12 U	11 U	11 U	12 U	12 U
Tetrachloroethene	UG/KG	12 U	12 U	11 U	11 U	12 U	12 U
1,1,2,2-Tetrachloroethane	UG/KG	12 U	12 U	11 U	11 U	12 U	12 U
Toluene	UG/KG	12 U	12 U	11 U	11 U	12 U	12 U
Chlorobenzene	UG/KG	12 U	12 U	11 U	11 U	12 U	12 U
Ethylbenzene	UG/KG	12 U	12 U	11 U	11 U	12 U	12 U
Styrene	UG/KG	12 U	12 U	11 U	11 U	12 U	12 U
Xylenes (total)	UG/KG	12 U	12 U	11 U	11 U	12 U	12 U

SITE 28
HADNOT POINT BURN DUMP
SURFACE SOILS - FIELD DUPLICATE SUMMARY
REMEDIAL INVESTIGATION CTO-19231
MCB CAMP LEJEUNE, NORTH CAROLINA
TCL ORGANICS

Client Sample ID:		28-W-SB04-00	28-W-SB04-00D	28-W-SB12-00	28-W-SB12-00D	28-E-SB23-00	28E-SB23-00D
Laboratory Sample ID:		940250-16	940250-17	940248-14	940248-15	940241-10	940241-11
Date Sampled:		3/26/94	3/26/94	3/27/94	3/27/94	3/26/94	3/26/94
	UNITS						
SEMIVOLATILES							
Phenol	UG/KG	400 U	410 U	370 U	390 U	410 U	410 U
bis(2-Chloroethyl) ether	UG/KG	400 U	410 U	370 U	390 U	410 U	410 U
2-Chlorophenol	UG/KG	400 U	410 U	370 U	390 U	410 U	410 U
1,3-Dichlorobenzene	UG/KG	400 U	410 U	370 U	390 U	410 U	410 U
1,4-Dichlorobenzene	UG/KG	400 U	410 U	370 U	390 U	410 U	410 U
1,2-Dichlorobenzene	UG/KG	400 U	410 U	370 U	390 U	410 U	410 U
2-Methylphenol	UG/KG	400 U	410 U	370 U	390 U	410 U	410 U
2,2'-oxybis-(1-chloropropane)	UG/KG	400 U	410 U	370 U	390 U	410 UJ	410 UJ
4-Methylphenol	UG/KG	400 U	410 U	370 U	390 U	410 U	410 U
N-Nitroso-di-n-propylamine	UG/KG	400 U	410 U	370 U	390 U	410 U	410 U
Hexachloroethane	UG/KG	400 U	410 U	370 U	390 U	410 U	410 U
Nitrobenzene	UG/KG	400 U	410 U	370 U	390 U	410 U	410 U
Isophorone	UG/KG	400 U	410 U	370 U	390 U	410 U	410 U
2-Nitrophenol	UG/KG	400 U	410 U	370 U	390 U	410 U	410 U
2,4-Dimethylphenol	UG/KG	400 U	410 U	370 U	390 U	410 U	410 U
bis(2-Chloroethoxy) methane	UG/KG	400 U	410 U	370 U	390 U	410 U	410 U
2,4-Dichlorophenol	UG/KG	400 U	410 U	370 U	390 U	410 U	410 U
1,2,4-Trichlorobenzene	UG/KG	400 U	410 U	370 U	390 U	410 U	410 U
Naphthalene	UG/KG	400 U	410 U	370 U	390 U	410 U	410 U
4-Chloroaniline	UG/KG	400 U	410 U	370 U	390 U	410 U	410 U
Hexachlorobutadiene	UG/KG	400 U	410 U	370 U	390 U	410 U	410 U
4-Chloro-3-methylphenol	UG/KG	400 U	410 U	370 U	390 U	410 U	410 U
2-Methylnaphthalene	UG/KG	400 U	410 U	370 U	390 U	410 U	410 U
Hexachlorocyclopentadiene	UG/KG	400 U	410 U	370 U	390 U	410 U	410 U
2,4,6-Trichlorophenol	UG/KG	400 U	410 U	370 U	390 U	410 U	410 U
2,4,5-Trichlorophenol	UG/KG	960 U	990 U	890 U	940 U	980 U	990 U
2-Chloronaphthalene	UG/KG	400 U	410 U	370 U	390 U	410 U	410 U
2-Nitroaniline	UG/KG	960 U	990 U	890 U	940 U	980 U	990 U
Dimethyl phthalate	UG/KG	400 U	410 U	370 U	390 U	410 U	410 U
Acenaphthylene	UG/KG	400 U	410 U	370 U	390 U	410 U	410 U
2,6-Dinitrotoluene	UG/KG	400 U	410 U	370 U	390 U	410 U	410 U
3-Nitroaniline	UG/KG	960 U	990 U	890 U	940 U	980 U	990 U
Acenaphthene	UG/KG	400 U	410 U	370 U	390 U	410 U	410 U

SITE 28
HADNOT POINT BURN DUMP
SURFACE SOILS - FIELD DUPLICATE SUMMARY
REMEDIAL INVESTIGATION CTO-19231
MCB CAMP LEJEUNE, NORTH CAROLINA
TCL ORGANICS

Client Sample ID:		28-W-SB04-00	28-W-SB04-00D	28-W-SB12-00	28-W-SB12-00D	28-E-SB23-00	28E-SB23-00D
Laboratory Sample ID:		940250-16	940250-17	940248-14	940248-15	940241-10	940241-11
Date Sampled:		3/26/94	3/26/94	3/27/94	3/27/94	3/26/94	3/26/94
SEMIVOLATILES cont.	UNITS						
2,4-Dinitrophenol	UG/KG	960 UJ	990 UJ	890 U	940 U	980 U	990 U
4-Nitrophenol	UG/KG	960 U	990 U	890 U	940 U	980 U	990 U
Dibenzofuran	UG/KG	400 U	410 U	370 U	390 U	410 U	410 U
2,4-Dinitrotoluene	UG/KG	400 U	410 U	370 U	390 U	410 U	410 U
Diethylphthalate	UG/KG	400 U	410 U	370 U	390 U	410 U	410 U
4-Chlorophenyl phenyl ether	UG/KG	400 U	410 U	370 U	390 U	410 U	410 U
Fluorene	UG/KG	400 U	410 U	370 U	390 U	410 U	410 U
4-Nitroaniline	UG/KG	960 U	990 U	890 U	940 U	980 U	990 U
4,6-Dinitro-2-methylphenol	UG/KG	960 UJ	990 UJ	890 U	940 U	980 U	990 U
N-nitrosodiphenylamine	UG/KG	400 U	410 U	370 U	390 U	410 U	410 U
4-Bromophenyl-phenylether	UG/KG	400 U	410 U	370 U	390 U	410 U	410 U
Hexachlorobenzene	UG/KG	400 U	410 U	370 U	390 U	410 U	410 U
Pentachlorophenol	UG/KG	960 U	990 U	890 U	940 U	980 U	990 U
Phenanthrene	UG/KG	43 J	52 J	370 U	390 U	410 U	46 J
Anthracene	UG/KG	400 U	410 U	370 U	390 U	410 U	410 U
Carbazole	UG/KG	400 U	410 U	370 U	390 U	410 U	410 U
di-n-Butylphthalate	UG/KG	400 U	410 U	370 U	390 U	410 U	410 U
Fluoranthene	UG/KG	79 J	110 J	370 U	390 U	410 U	72 J
Pyrene	UG/KG	79 J	94 J	370 U	390 U	410 U	64 J
Butyl benzyl phthalate	UG/KG	400 U	410 U	370 U	390 U	410 U	410 U
3,3'-Dichlorobenzidine	UG/KG	400 U	410 U	370 U	390 U	410 U	410 U
Benzo[a]anthracene	UG/KG	400 U	410 U	370 U	390 U	410 U	410 U
Chrysene	UG/KG	400 U	410 U	370 U	390 U	410 U	410 U
bis(2-Ethylhexyl)phthalate	UG/KG	400 U	410 U	120 J	62 J	410 U	410 U
di-n-Octylphthalate	UG/KG	400 U	410 U	370 U	390 U	410 U	410 U
Benzo[b]fluoranthene	UG/KG	41 J	46 J	370 U	390 U	410 U	410 U
Benzo[k]fluoranthene	UG/KG	400 U	410 U	370 U	390 U	410 U	410 U
Benzo[a]pyrene	UG/KG	400 U	410 U	370 U	390 U	410 U	410 U
Indeno[1,2,3-cd]pyrene	UG/KG	400 U	410 U	370 U	390 U	410 U	410 U
Dibenz[a,h]anthracene	UG/KG	400 U	410 U	370 U	390 U	410 U	410 U
Benzo[g,h,i]perylene	UG/KG	400 U	410 U	370 U	390 U	410 U	410 U

SITE 28
HADNOT POINT BURN DUMP
SURFACE SOILS - FIELD DUPLICATE SUMMARY
REMEDIAL INVESTIGATION CTO-19231
MCB CAMP LEJEUNE, NORTH CAROLINA
TCL ORGANICS

Client Sample ID:		28-W-SB04-00	28-W-SB04-00D	28-W-SB12-00	28-W-SB12-00D	28-E-SB23-00	28E-SB23-00D
Laboratory Sample ID:		940250-16	940250-17	940248-14	940248-15	940241-10	940241-11
Date Sampled:		3/26/94	3/26/94	3/27/94	3/27/94	3/26/94	3/26/94
	UNITS						
PESTICIDES/PCBs							
alpha-BHC	UG/KG	2 U	2.1 UJ	1.9 UJ	2.0 UJ	2.1 U	2.1 U
beta-BHC	UG/KG	2 U	2.1 UJ	1.9 UJ	2.0 UJ	2.1 U	2.1 U
delta-BHC	UG/KG	2 U	2.1 UJ	1.9 UJ	2.0 UJ	2.1 U	2.1 U
Lindane (gamma-BHC)	UG/KG	2 U	2.1 UJ	1.9 UJ	2.0 UJ	2.1 U	2.1 U
Heptachlor	UG/KG	2 U	2.1 UJ	1.9 UJ	2.0 UJ	2.1 U	2.1 U
Aldrin	UG/KG	2.0 U	2.1 UJ	1.9 UJ	2.0 UJ	2.1 U	2.1 U
Heptachlor epoxide	UG/KG	2.0 U	2.1 UJ	8.0 J	2.0 UJ	2.1 U	2.1 U
Endosulfan I	UG/KG	2.0 U	2.1 UJ	1.9 UJ	2.0 UJ	2.1 U	2.1 U
Dieldrin	UG/KG	4.0 U	4.1 UJ	3.7 R	3.9 R	4.1 U	4.1 U
4,4'-DDE	UG/KG	4.0 U	4.1 UJ	4.7 J	3.9 UJ	4.1 U	4.1 U
Endrin	UG/KG	4.0 U	4.1 UJ	3.7 R	3.9 R	4.1 U	4.1 U
Endosulfan II	UG/KG	4.0 U	4.1 UJ	3.7 UJ	3.9 UJ	4.1 U	4.1 U
4,4'-DDD	UG/KG	4.0 U	4.1 UJ	3.7 UJ	3.9 UJ	4.1 U	4.1 U
Endosulfan sulfate	UG/KG	4.0 U	4.1 UJ	3.7 UJ	3.9 UJ	4.1 U	4.1 U
4,4'-DDT	UG/KG	4.0 U	4.1 UJ	3.7 UJ	3.9 UJ	4.1 U	4.1 U
Methoxychlor	UG/KG	20 U	21 UJ	19 UJ	20 UJ	21 U	21 U
Endrin ketone	UG/KG	4.0 U	4.1 UJ	3.7 UJ	3.9 UJ	4.1 U	4.1 U
Endrin aldehyde	UG/KG	4.0 U	4.1 UJ	3.7 UJ	3.9 UJ	4.1 U	4.1 U
alpha-Chlordane	UG/KG	2.0 U	2.1 UJ	13 J	11 J	2.1 U	2.1 U
gamma-Chlordane	UG/KG	2.0 U	2.1 UJ	1.9 NJ	2.0 UJ	2.1 U	2.1 U
Toxaphene	UG/KG	200 U	210 UJ	190 UJ	200 UJ	210 U	210 U
Aroclor 1016	UG/KG	40 U	41 UJ	37 UJ	39 UJ	41 U	41 U
Aroclor 1221	UG/KG	80 U	83 UJ	75 UJ	79 UJ	82 U	83 U
Aroclor 1232	UG/KG	40 U	41 UJ	37 UJ	39 UJ	41 U	41 U
Aroclor 1242	UG/KG	40 U	41 UJ	37 UJ	39 UJ	41 U	41 U
Aroclor 1248	UG/KG	40 U	41 UJ	37 UJ	39 UJ	41 U	41 U
Aroclor 1254	UG/KG	40 U	41 UJ	58 J	51 J	41 U	41 U
Aroclor 1260	UG/KG	40 U	41 UJ	37 UJ	39 UJ	41 U	41 U

SITE 28
HADNOT POINT BURN DUMP
SURFACE SOILS - FIELD DUPLICATE SUMMARY
REMEDIAL INVESTIGATION CTO-19231
MCB CAMP LEJEUNE, NORTH CAROLINA
TCL ORGANICS

Client Sample ID:		28-E-SB29-00	28-E-SB29-00D	28-GW05-00	28-GW05-00D
Laboratory Sample ID:		940246-23	940246-24	940281-04	940281-05
Date Sampled:		3/26/94	3/26/94	4/7/94	4/7/94
	UNITS				
VOLATILES					
Chloromethane	UG/KG	11 U	11 U	11 U	11 U
Bromomethane	UG/KG	11 U	11 U	11 U	11 U
Vinyl chloride	UG/KG	11 U	11 U	11 U	11 U
Chloroethane	UG/KG	11 U	11 U	11 U	11 U
Methylene chloride	UG/KG	11 U	11 U	11 U	11 U
Acetone	UG/KG	11 U	11 U	11 U	11 U
Carbon Disulfide	UG/KG	11 U	11 U	11 U	11 U
1,1-Dichloroethene	UG/KG	11 U	11 U	11 U	11 U
1,1-Dichloroethane	UG/KG	11 U	11 U	11 U	11 U
1,2-Dichloroethene(total)	UG/KG	11 U	11 U	11 U	11 U
Chloroform	UG/KG	11 U	11 U	11 U	11 U
1,2-Dichloroethane	UG/KG	11 U	11 U	11 U	11 U
2-Butanone	UG/KG	11 U	11 U	11 U	11 U
1,1,1-Trichloroethane	UG/KG	11 U	11 U	11 U	11 U
Carbon tetrachloride	UG/KG	11 U	11 U	11 U	11 U
Bromodichloromethane	UG/KG	11 U	11 U	11 U	11 U
1,2-Dichloropropane	UG/KG	11 U	11 U	11 U	11 U
cis-1,3-Dichloropropene	UG/KG	11 U	11 U	11 U	11 U
Trichloroethene	UG/KG	11 U	11 U	11 U	11 U
Dibromochloromethane	UG/KG	11 U	11 U	11 U	11 U
1,1,2-Trichloroethane	UG/KG	11 U	11 U	11 U	11 U
Benzene	UG/KG	11 U	11 U	11 U	11 U
trans-1,3-Dichloropropene	UG/KG	11 U	11 U	11 U	11 U
Bromoform	UG/KG	11 U	11 U	11 U	11 U
4-Methyl-2-pentanone	UG/KG	11 U	11 U	11 U	11 U
2-Hexanone	UG/KG	11 U	11 U	11 U	11 U
Tetrachloroethene	UG/KG	11 U	11 U	11 U	11 U
1,1,2,2-Tetrachloroethane	UG/KG	11 U	11 U	11 U	11 U
Toluene	UG/KG	11 U	11 U	11 U	11 U
Chlorobenzene	UG/KG	11 U	11 U	11 U	11 U
Ethylbenzene	UG/KG	11 U	11 U	11 U	11 U
Styrene	UG/KG	11 U	11 U	11 U	11 U
Xylenes (total)	UG/KG	11 U	11 U	11 U	11 U

SITE 28
HADNOT POINT BURN DUMP
SURFACE SOILS - FIELD DUPLICATE SUMMARY
REMEDIAL INVESTIGATION CTO-19231
MCB CAMP LEJEUNE, NORTH CAROLINA
TCL ORGANICS

Client Sample ID:		28-E-SB29-00	28-E-SB29-00D	28-GW05-00	28-GW05-00D
Laboratory Sample ID:		940246-23	940246-24	940281-04	940281-05
Date Sampled:		3/26/94	3/26/94	4/7/94	4/7/94
	UNITS				
SEMIVOLATILES					
Phenol	UG/KG	360 U	360 U	360 U	350 U
bis(2-Chloroethyl) ether	UG/KG	360 U	360 U	360 U	350 U
2-Chlorophenol	UG/KG	360 U	360 U	360 U	350 U
1,3-Dichlorobenzene	UG/KG	360 U	360 U	360 U	350 U
1,4-Dichlorobenzene	UG/KG	360 U	360 U	360 U	350 U
1,2-Dichlorobenzene	UG/KG	360 U	360 U	360 U	350 U
2-Methylphenol	UG/KG	360 U	360 U	360 U	350 U
2,2'-oxybis-(1-chloropropane)	UG/KG	360 U	360 U	360 U	350 U
4-Methylphenol	UG/KG	360 U	360 U	360 U	350 U
N-Nitroso-di-n-propylamine	UG/KG	360 U	360 U	360 U	350 U
Hexachloroethane	UG/KG	360 U	360 U	360 U	350 U
Nitrobenzene	UG/KG	360 U	360 U	360 U	350 U
Isophorone	UG/KG	360 U	360 U	360 U	350 U
2-Nitrophenol	UG/KG	360 U	360 U	360 U	350 U
2,4-Dimethylphenol	UG/KG	360 U	360 U	360 U	350 U
bis(2-Chloroethoxy) methane	UG/KG	360 U	360 U	360 U	350 U
2,4-Dichlorophenol	UG/KG	360 U	360 U	360 U	350 U
1,2,4-Trichlorobenzene	UG/KG	360 U	360 U	360 U	350 U
Naphthalene	UG/KG	360 U	360 U	360 U	350 U
4-Chloroaniline	UG/KG	360 U	360 UJ	360 U	350 U
Hexachlorobutadiene	UG/KG	360 U	360 U	360 U	350 U
4-Chloro-3-methylphenol	UG/KG	360 U	360 U	360 U	350 U
2-Methylnaphthalene	UG/KG	360 U	360 U	360 U	350 U
Hexachlorocyclopentadiene	UG/KG	360 UJ	360 U	360 U	350 U
2,4,6-Trichlorophenol	UG/KG	360 UJ	360 U	360 U	350 U
2,4,5-Trichlorophenol	UG/KG	880 UJ	860 U	880 U	840 U
2-Chloronaphthalene	UG/KG	360 UJ	360 U	360 U	350 U
2-Nitroaniline	UG/KG	880 UJ	860 U	880 U	840 U
Dimethyl phthalate	UG/KG	360 UJ	360 U	360 U	350 U
Acenaphthylene	UG/KG	360 UJ	360 U	360 U	350 U
2,6-Dinitrotoluene	UG/KG	360 UJ	360 U	360 U	350 U
3-Nitroaniline	UG/KG	880 UJ	860 U	880 U	840 U
Acenaphthene	UG/KG	360 UJ	360 U	360 U	350 U

SITE 28
HADNOT POINT BURN DUMP
SURFACE SOILS - FIELD DUPLICATE SUMMARY
REMEDIAL INVESTIGATION CTO-19231
MCB CAMP LEJEUNE, NORTH CAROLINA
TCL ORGANICS

Client Sample ID:		28-E-SB29-00	28-E-SB29-00D	28-GW05-00	28-GW05-00D
Laboratory Sample ID:		940246-23	940246-24	940281-04	940281-05
Date Sampled:		3/26/94	3/26/94	4/7/94	4/7/94
	UNITS				
SEMIVOLATILES cont.					
2,4-Dinitrophenol	UG/KG	880 UJ	860 U	880 U	840 U
4-Nitrophenol	UG/KG	880 UJ	860 U	880 U	840 U
Dibenzofuran	UG/KG	360 UJ	360 U	360 U	350 U
2,4-Dinitrotoluene	UG/KG	360 UJ	360 U	360 U	350 U
Diethylphthalate	UG/KG	360 UJ	360 U	360 U	350 U
4-Chlorophenyl phenyl ether	UG/KG	360 UJ	360 U	360 U	350 U
Fluorene	UG/KG	360 UJ	360 U	360 U	350 U
4-Nitroaniline	UG/KG	880 UJ	860 U	880 U	840 U
4,6-Dinitro-2-methylphenol	UG/KG	880 U	860 U	880 U	840 U
N-nitrosodiphenylamine	UG/KG	360 U	360 U	360 U	350 U
4-Bromophenyl-phenylether	UG/KG	360 U	360 U	360 U	350 U
Hexachlorobenzene	UG/KG	360 U	360 U	360 U	350 U
Pentachlorophenol	UG/KG	880 U	860 U	880 U	840 U
Phenanthrene	UG/KG	360 U	360 U	360 U	350 U
Anthracene	UG/KG	360 U	360 U	360 U	350 U
Carbazole	UG/KG	360 U	360 U	360 U	350 U
di-n-Butylphthalate	UG/KG	360 U	360 U	360 U	350 U
Fluoranthene	UG/KG	360 U	360 U	360 U	350 U
Pyrene	UG/KG	360 U	360 U	360 U	350 U
Butyl benzyl phthalate	UG/KG	360 U	360 U	360 U	350 U
3,3'-Dichlorobenzidine	UG/KG	360 U	360 U	360 U	350 U
Benzo[a]anthracene	UG/KG	360 U	360 U	360 U	350 U
Chrysene	UG/KG	360 U	360 U	360 U	350 U
bis(2-Ethylhexyl)phthalate	UG/KG	360 U	360 U	360 U	350 U
di-n-Octylphthalate	UG/KG	360 U	360 U	360 U	350 U
Benzo[b]fluoranthene	UG/KG	360 U	360 U	360 U	350 U
Benzo[k]fluoranthene	UG/KG	360 U	360 U	360 U	350 U
Benzo[a]pyrene	UG/KG	360 U	360 U	360 U	350 U
Indeno[1,2,3-cd]pyrene	UG/KG	360 U	360 U	360 U	350 U
Dibenz[a,h]anthracene	UG/KG	360 U	360 U	360 U	350 U
Benzo[g,h,i]perylene	UG/KG	360 U	360 U	360 U	350 U

SITE 28
HADNOT POINT BURN DUMP
SURFACE SOILS - FIELD DUPLICATE SUMMARY
REMEDIAL INVESTIGATION CTO-19231
MCB CAMP LEJEUNE, NORTH CAROLINA
TCL ORGANICS

Client Sample ID:		28-E-SB29-00	28-E-SB29-00D	28-GW05-00	28-GW05-00D
Laboratory Sample ID:		940246-23	940246-24	940281-04	940281-05
Date Sampled:		3/26/94	3/26/94	4/7/94	4/7/94
	UNITS				
PESTICIDES/PCBs					
alpha-BHC	UG/KG	1.9 UJ	1.8 UJ	19 U	18 U
beta-BHC	UG/KG	1.9 UJ	1.8 UJ	19 U	18 U
delta-BHC	UG/KG	1.9 UJ	1.8 UJ	19 U	18 U
Lindane (gamma-BHC)	UG/KG	1.9 UJ	1.8 UJ	19 U	18 U
Heptachlor	UG/KG	1.9 UJ	1.8 UJ	19 U	18 U
Aldrin	UG/KG	1.9 UJ	1.8 UJ	19 U	18 U
Heptachlor epoxide	UG/KG	1.9 UJ	1.8 UJ	19 U	18 U
Endosulfan I	UG/KG	1.9 UJ	1.8 UJ	19 U	18 U
Dieldrin	UG/KG	3.6 UJ	3.6 UJ	36 U	35 U
4,4'-DDE	UG/KG	20 J	53 J	22 J	23 J
Endrin	UG/KG	3.6 UJ	3.6 UJ	36 U	35 U
Endosulfan II	UG/KG	3.6 UJ	3.6 UJ	36 U	35 U
4,4'-DDD	UG/KG	3.6 UJ	3.6 UJ	33 J	44 J
Endosulfan sulfate	UG/KG	3.6 UJ	3.6 UJ	36 U	35 U
4,4'-DDT	UG/KG	20 J	22 J	21 J	20 J
Methoxychlor	UG/KG	19 UJ	18 UJ	190 U	180 U
Endrin ketone	UG/KG	3.6 UJ	3.6 UJ	36 U	35 U
Endrin aldehyde	UG/KG	3.6 UJ	3.6 UJ	36 U	35 U
alpha-Chlordane	UG/KG	1.9 UJ	1.8 UJ	38 J	37 J
gamma-Chlordane	UG/KG	1.9 UJ	1.8 UJ	18 J	19 J
Toxaphene	UG/KG	190 UJ	180 UJ	1900 U	1800 U
Aroclor 1016	UG/KG	36 UJ	36 UJ	360 U	350 U
Aroclor 1221	UG/KG	74 UJ	72 UJ	740 U	700 U
Aroclor 1232	UG/KG	36 UJ	36 UJ	360 U	350 U
Aroclor 1242	UG/KG	36 UJ	36 UJ	360 U	350 U
Aroclor 1248	UG/KG	36 UJ	36 UJ	360 U	350 U
Aroclor 1254	UG/KG	36 UJ	36 UJ	360 U	350 U
Aroclor 1260	UG/KG	36 UJ	36 UJ	360 U	350 U

SITE 28
HADNOT POINT BURN DUMP
SUBSURFACE SOILS - DUPLICATE SUMMARY
REMEDIAL INVESTIGATION CTO-19231
MCB CAMP LEJEUNE, NORTH CAROLINA
TOTAL METALS

Client Sample ID:		28-W-SB06-05	28-W-SB06-05D	28-W-SB11-03	28-W-SB11-03D
Laboratory Sample ID:		940248-06	940248-07	940248-12	940248-13
Date Sampled:		3/27/94	3/27/94	3/27/94	3/27/94
Percent Solids		79.0	82.0	85.0	86.0
	UNITS				
Aluminum	MG/KG	10800 J	9720 J	3050 J	5200 J
Antimony	MG/KG	20.6 J	27.5 J	9.8 J	7.5 UJ
Arsenic	MG/KG	25.1	24.8	3.3	3.2
Barium	MG/KG	198	161	40.2	54.5
Beryllium	MG/KG	0.24 U	0.22 U	0.22 U	0.22 U
Cadmium	MG/KG	14.8	10.6	2.3	6.8
Calcium	MG/KG	17200 J	12900 J	63200 J	32400 J
Chromium	MG/KG	98.5 J	70.3 J	34.7 J	20.9 J
Cobalt	MG/KG	15.4	12.5	2.8	1.9
Copper	MG/KG	697 J	702 J	33.8 J	952 J
Iron	MG/KG	95400 J	154000 J	35500 J	26000 J
Lead	MG/KG	1700 J	1850 J	146 J	244 J
Magnesium	MG/KG	1060 J	866 J	3660 J	421 J
Manganese	MG/KG	1340 J	909 J	325 J	246 J
Mercury	MG/KG	0.60	0.42	0.05 U	0.15
Nickel	MG/KG	102 J	52.0 J	38.5 J	11.8 J
Potassium	MG/KG	583 J	594 J	216 J	226 J
Selenium	MG/KG	0.95 UJ	0.90 UJ	0.87 UJ	0.88 UJ
Silver	MG/KG	9.6 J	12.2 J	1.5 U	3.4 J
Sodium	MG/KG	267	395	105 U	91.3 U
Thallium	MG/KG	0.95 U	0.90 U	0.87 U	0.88 U
Vanadium	MG/KG	31.8	33.8	16.7	12.0
Zinc	MG/KG	1510 J	1330 J	343 J	898 J

SITE 28
HADNOT POINT BURN DUMP
SUBSURFACE SOILS - FIELD DUPLICATE SUMMARY
REMEDIAL INVESTIGATION CTO-19231
MCB CAMP LEJEUNE, NORTH CAROLINA
TCL ORGANICS

Client Sample ID:		28-W-SB06-05	28-W-SB06-05D	28-W-SB11-03	28-W-SB11-03D
Laboratory Sample ID:		940248-06	940248-07	940248-12	940248-13
Date Sampled:		3/27/94	3/27/94	3/27/94	3/27/94
	UNITS				
VOLATILES					
Chloromethane	UG/KG	12 U	12 U	11 U	12 U
Bromomethane	UG/KG	12 U	12 U	11 U	12 U
Vinyl chloride	UG/KG	12 U	12 U	11 U	12 U
Chloroethane	UG/KG	12 U	12 U	11 U	12 U
Methylene chloride	UG/KG	12 U	12 U	11 U	12 U
Acetone	UG/KG	12 UJ	12 UJ	15 U	17 U
Carbon Disulfide	UG/KG	12 U	12 U	11 U	12 U
1,1-Dichloroethene	UG/KG	12 U	12 U	11 U	12 U
1,1-Dichloroethane	UG/KG	12 U	12 U	11 U	12 U
1,2-Dichloroethene(total)	UG/KG	12 U	12 U	11 U	12 U
Chloroform	UG/KG	12 U	12 U	11 U	12 U
1,2-Dichloroethane	UG/KG	12 U	12 U	11 U	12 U
2-Butanone	UG/KG	12 UJ	12 UJ	11 U	12 U
1,1,1-Trichloroethane	UG/KG	12 U	12 U	11 U	12 U
Carbon tetrachloride	UG/KG	12 U	12 U	11 U	12 U
Bromodichloromethane	UG/KG	12 U	12 U	11 U	12 U
1,2-Dichloropropane	UG/KG	12 U	12 U	11 U	12 U
cis-1,3-Dichloropropene	UG/KG	12 U	12 U	11 U	12 U
Trichloroethene	UG/KG	12 U	12 U	11 U	12 U
Dibromochloromethane	UG/KG	12 U	12 U	11 U	12 U
1,1,2-Trichloroethane	UG/KG	12 U	12 U	11 U	12 U
Benzene	UG/KG	12 U	12 U	11 U	12 U
trans-1,3-Dichloropropene	UG/KG	12 U	12 U	11 U	12 U
Bromoform	UG/KG	12 U	12 U	11 U	12 U
4-Methyl-2-pentanone	UG/KG	12 U	12 U	11 U	12 U
2-Hexanone	UG/KG	12 UJ	12 U	11 U	12 U
Tetrachloroethene	UG/KG	12 U	12 U	5 J	12 U
1,1,2,2-Tetrachloroethane	UG/KG	12 U	12 U	11 U	12 U
Toluene	UG/KG	12 U	12 U	11 U	12 U
Chlorobenzene	UG/KG	12 U	12 U	11 U	12 U
Ethylbenzene	UG/KG	12 U	12 U	11 U	12 U
Styrene	UG/KG	12 U	12 U	11 U	12 U
Xylenes (total)	UG/KG	12 U	12 U	11 U	12 U

SITE 28
HADNOT POINT BURN DUMP
SUBSURFACE SOILS - FIELD DUPLICATE SUMMARY
REMEDIAL INVESTIGATION CTO-19231
MCB CAMP LEJEUNE, NORTH CAROLINA
TCL ORGANICS

Client Sample ID:		28-W-SB06-05	28-W-SB06-05D	28-W-SB11-03	28-W-SB11-03D
Laboratory Sample ID:		940248-06	940248-07	940248-12	940248-13
Date Sampled:		3/27/94	3/27/94	3/27/94	3/27/94
	UNITS				
SEMIVOLATILES					
Phenol	UG/KG	410 U	400 U	3900 U	380 U
bis(2-Chloroethyl) ether	UG/KG	410 U	400 U	3900 U	380 U
2-Chlorophenol	UG/KG	410 U	400 U	3900 U	380 U
1,3-Dichlorobenzene	UG/KG	410 U	400 U	3900 U	380 U
1,4-Dichlorobenzene	UG/KG	44 J	400 U	3900 U	380 U
1,2-Dichlorobenzene	UG/KG	410 U	400 U	3900 U	380 U
2-Methylphenol	UG/KG	410 U	400 U	3900 U	380 U
2,2'-oxybis-(1-chloropropane)	UG/KG	410 U	400 U	3900 U	380 U
4-Methylphenol	UG/KG	410 U	400 U	3900 U	380 U
N-Nitroso-di-n-propylamine	UG/KG	410 U	400 U	3900 U	380 U
Hexachloroethane	UG/KG	410 U	400 U	3900 U	380 U
Nitrobenzene	UG/KG	410 U	400 U	3900 U	380 U
Isophorone	UG/KG	410 U	400 U	3900 U	380 U
2-Nitrophenol	UG/KG	410 U	400 U	3900 U	380 U
2,4-Dimethylphenol	UG/KG	410 U	400 U	3900 U	380 U
bis(2-Chloroethoxy) methane	UG/KG	410 U	400 U	3900 U	380 U
2,4-Dichlorophenol	UG/KG	410 U	400 U	3900 U	380 U
1,2,4-Trichlorobenzene	UG/KG	410 U	400 U	3900 U	380 U
Naphthalene	UG/KG	410 U	400 U	730 J	150 J
4-Chloroaniline	UG/KG	410 UJ	400 UJ	3900 UJ	380 U
Hexachlorobutadiene	UG/KG	410 U	400 U	3900 U	380 U
4-Chloro-3-methylphenol	UG/KG	410 U	400 U	3900 U	380 U
2-Methylnaphthalene	UG/KG	410 U	400 U	3900 U	380 U
Hexachlorocyclopentadiene	UG/KG	410 U	400 U	3900 U	380 U
2,4,6-Trichlorophenol	UG/KG	410 U	400 U	3900 U	380 U
2,4,5-Trichlorophenol	UG/KG	1000 U	980 U	9400 U	920 U
2-Chloronaphthalene	UG/KG	410 U	400 U	3900 U	380 U
2-Nitroaniline	UG/KG	1000 U	980 U	9400 U	920 U
Dimethyl phthalate	UG/KG	410 U	400 U	3900 U	380 U
Acenaphthylene	UG/KG	410 U	400 U	3900 U	380 U
2,6-Dinitrotoluene	UG/KG	410 U	400 U	3900 U	380 U
3-Nitroaniline	UG/KG	1000 U	980 U	9400 U	920 U
Acenaphthene	UG/KG	410 U	400 U	2500 J	260 J

SITE 28
HADNOT POINT BURN DUMP
SUBSURFACE SOILS - FIELD DUPLICATE SUMMARY
REMEDIAL INVESTIGATION CTO-19231
MCB CAMP LEJEUNE, NORTH CAROLINA
TCL ORGANICS

Client Sample ID:		28-W-SB06-05	28-W-SB06-05D	28-W-SB11-03	28-W-SB11-03D
Laboratory Sample ID:		940248-06	940248-07	940248-12	940248-13
Date Sampled:		3/27/94	3/27/94	3/27/94	3/27/94
	UNITS				
SEMIVOLATILES Cont.					
2,4-Dinitrophenol	UG/KG	1000 U	980 U	9400 U	920 U
4-Nitrophenol	UG/KG	1000 U	980 U	9400 U	920 U
Dibenzofuran	UG/KG	410 U	400 U	1300 J	130 J
2,4-Dinitrotoluene	UG/KG	410 U	400 U	3900 U	380 U
Diethylphthalate	UG/KG	410 U	400 U	3900 U	380 U
4-Chlorophenyl phenyl ether	UG/KG	410 U	400 U	3900 U	380 U
Fluorene	UG/KG	410 U	400 U	2600 J	210 J
4-Nitroaniline	UG/KG	1000 U	980 UJ	9400 U	920 U
4,6-Dinitro-2-methylphenol	UG/KG	1000 U	980 U	9400 U	920 U
N-nitrosodiphenylamine	UG/KG	410 U	400 U	3900 U	380 U
4-Bromophenyl-phenylether	UG/KG	410 U	400 U	3900 U	380 U
Hexachlorobenzene	UG/KG	410 U	400 U	3900 U	380 U
Pentachlorophenol	UG/KG	1000 U	980 U	9400 U	920 U
Phenanthrene	UG/KG	410 U	400 U	27000	1600
Anthracene	UG/KG	410 U	400 U	8600	480
Carbazole	UG/KG	410 U	400 U	4700	200 J
di-n-Butylphthalate	UG/KG	410 U	400 U	3900 U	380 U
Fluoranthene	UG/KG	410 U	400 U	53000 R	2500
Pyrene	UG/KG	410 U	400 U	32000 R	1700
Butyl benzyl phthalate	UG/KG	410 U	400 U	3900 U	380 U
3,3'-Dichlorobenzidine	UG/KG	410 U	400 U	3900 U	380 U
Benzo[a]anthracene	UG/KG	410 U	400 U	24000	1200
Chrysene	UG/KG	410 U	400 U	22000	1100
bis(2-Ethylhexyl)phthalate	UG/KG	1100	75 J	960 J	1100
di-n-Octylphthalate	UG/KG	410 U	400 U	3900 U	380 U
Benzo[b]fluoranthene	UG/KG	410 U	400 U	21000	1600
Benzo[k]fluoranthene	UG/KG	410 U	400 U	18000	110 J
Benzo[a]pyrene	UG/KG	410 U	400 U	21000	1200
Indeno[1,2,3-cd]pyrene	UG/KG	410 U	400 U	11000	500
Dibenz[a,h]anthracene	UG/KG	410 U	400 U	2800 J	54 J
Benzo[g,h,i]perylene	UG/KG	410 U	400 U	10000	450

SITE 28
HADNOT POINT BURN DUMP
SUBSURFACE SOILS - FIELD DUPLICATE SUMMARY
REMEDIAL INVESTIGATION CTO-19231
MCB CAMP LEJEUNE, NORTH CAROLINA
TCL ORGANICS

Client Sample ID:		28-W-SB06-05	28-W-SB06-05D	28-W-SB11-03	28-W-SB11-03D
Laboratory Sample ID:		940248-06	940248-07	940248-12	940248-13
Date Sampled:		3/27/94	3/27/94	3/27/94	3/27/94
	UNITS				
PESTICIDES/PCBs					
alpha-BHC	UG/KG	21 UJ	21 UJ	2.0 UJ	2.0 UJ
beta-BHC	UG/KG	21 U	21 UJ	2.0 UJ	2.0 UJ
delta-BHC	UG/KG	21 U	21 UJ	2.0 UJ	2.0 UJ
Lindane (gamma-BHC)	UG/KG	21 UJ	21 UJ	2.0 UJ	2.0 UJ
Heptachlor	UG/KG	21 U	21 UJ	2.0 UJ	2.0 UJ
Aldrin	UG/KG	21 U	21 UJ	2.0 UJ	2.0 UJ
Heptachlor epoxide	UG/KG	21 U	21 UJ	2.0 UJ	2.0 UJ
Endosulfan I	UG/KG	21 U	21 UJ	2.0 UJ	2.0 UJ
Dieldrin	UG/KG	41 U	40 UJ	3.9 UJ	3.8 UJ
4,4'-DDE	UG/KG	500	330 J	41 J	21 J
Endrin	UG/KG	41 U	40 UJ	3.9 UJ	3.8 UJ
Endosulfan II	UG/KG	41 U	40 UJ	3.9 UJ	3.8 UJ
4,4'-DDD	UG/KG	130	72 J	60 J	7.5 J
Endosulfan sulfate	UG/KG	41 U	40 UJ	3.9 UJ	3.8 UJ
4,4'-DDT	UG/KG	41 UJ	40 UJ	3.9 UJ	6.1 J
Methoxychlor	UG/KG	210 U	210 UJ	20 UJ	20 UJ
Endrin ketone	UG/KG	41 U	40 UJ	3.9 UJ	3.8 UJ
Endrin aldehyde	UG/KG	41 U	40 UJ	3.9 UJ	3.8 UJ
alpha-Chlordane	UG/KG	45 J	23 J	2.0 UJ	2.5 J
gamma-Chlordane	UG/KG	21 U	21 UJ	2.7 J	2.0 UJ
Toxaphene	UG/KG	2100 U	2100 UJ	200 UJ	200 UJ
Aroclor 1016	UG/KG	410 U	400 UJ	39 UJ	38 UJ
Aroclor 1221	UG/KG	840 U	820 UJ	79 UJ	77 UJ
Aroclor 1232	UG/KG	410 U	400 UJ	39 UJ	38 UJ
Aroclor 1242	UG/KG	410 U	400 UJ	39 UJ	38 UJ
Aroclor 1248	UG/KG	410 U	400 UJ	39 UJ	38 UJ
Aroclor 1254	UG/KG	410 U	400 UJ	39 UJ	38 UJ
Aroclor 1260	UG/KG	410 U	400 UJ	39 UJ	38 UJ

SITE 28
HADNOT POINT BURN DUMP
SHALLOW AND DEEP GROUNDWATER
FIELD DUPLICATE SUMMARY
REMEDIAL INVESTIGATION CTO-19231
MCB CAMP LEJEUNE, NORTH CAROLINA
DISSOLVED METALS

Client Sample ID:		28-GW01DWD-01	28-GW01DWD-01D	28-GW07D-01	28-GW07D-01D
Laboratory Sample ID:		940389-06	940389-07	940334-05	940334-06
Date Sampled:		5/7/94	5/7/94	4/21/94	4/21/94
	UNITS				
Aluminum	UG/KG	33.0 U	33.0 U	33 U	33.0 U
Antimony	UG/KG	34.0 U	39.9	34.0 U	47.1
Arsenic	UG/KG	4.6	4.9	4.0	3.5
Barium	UG/KG	23.8	27.2	412	437
Beryllium	UG/KG	1.0 U	1.0 U	1.0 U	1.0 U
Cadmium	UG/KG	3.0 UJ	3.0 UJ	3.0 U	3.0 U
Calcium	UG/KG	90400	92600	105000	110000
Chromium	UG/KG	7.0 UJ	7.0 UJ	7.0 UJ	7.0 UJ
Cobalt	UG/KG	4.0 U	4.0 U	4.0 U	4.0 U
Copper	UG/KG	6.0 U	6.0 U	6.0 U	6.0 U
Iron	UG/KG	23.4 U	33.4 U	15100	23300
Lead	UG/KG	1.0 U	1.0 U	1.0 U	1.0 U
Magnesium	UG/KG	13900	14200	41200	41500
Manganese	UG/KG	31.0	31.0	264	269
Mercury	UG/KG	0.13 U	0.13 U	0.14 U	0.14 U
Nickel	UG/KG	7.1	7.0 U	7.0 U	7.0 U
Potassium	UG/KG	17300	17900	61700	59900
Selenium	UG/KG	4.0 UJ	4.0 UJ	4.0 UJ	4.0 UJ
Silver	UG/KG	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ
Sodium	UG/KG	778000	757000	233000	229000
Thallium	UG/KG	4.0 UJ	4.3 J	4.0 UJ	4.0 UJ
Vanadium	UG/KG	3.0 U	3.0 U	3.0 U	3.0 U
Zinc	UG/KG	4.8 U	3.0 U	17.4 U	14.0 U

SITE 28
HADNOT POINT BURN DUMP
SHALLOW AND DEEP GROUNDWATER
FIELD DUPLICATE SUMMARY
REMEDIAL INVESTIGATION CTO-19231
MCB CAMP LEJEUNE, NORTH CAROLINA
TOTAL METALS

Client Sample ID:		28-GW01DW-01	28GW01DW-01D	28-GW07-01	28-GW07-01D
Laboratory Sample ID:		*940389-04*	*940389-05*	*940334-03*	*940334-04*
Date Sampled:		5/7/94	5/7/94	4/21/94	4/21/94
	UNITS				
Aluminum	UG/L	253	207	72800	56600
Antimony	UG/L	34.0 U	34.0 U	5340	4170
Arsenic	UG/L	5.2	4.3	76.7	59.7
Barium	UG/L	29.1	26.0	1980	1540
Beryllium	UG/L	1.0 U	1.0 U	3.5	3.3
Cadmium	UG/L	3.0 UJ	3.0 UJ	35.4	24.8
Calcium	UG/L	96200	88900	200000	155000
Chromium	UG/L	7.0 UJ	7.0 UJ	308 J	232 J
Cobalt	UG/L	5.2 U	4.0 U	30.4	21.4
Copper	UG/L	6.0 U	6.0 U	2250	1660
Iron	UG/L	417	333	245000	179000
Lead	UG/L	1.5	1.0 U	4810	3720
Magnesium	UG/L	13600	12600	52900	45500
Manganese	UG/L	29.6	29.8	3330	2290
Mercury	UG/L	0.13 U	0.14 U	2.0 J	2.4 J
Nickel	UG/L	10.4	7.0 U	165	126
Potassium	UG/L	17100	15800	63500	60200
Selenium	UG/L	4.0 UJ	4.0 UJ	5.6 J	4.0 UJ
Silver	UG/L	5.0 UJ	5.0 UJ	37.9 J	29.0 J
Sodium	UG/L	744000	613000	223000	215000
Thallium	UG/L	6.9 J	4.8 J	4.0 UJ	4.0 UJ
Vanadium	UG/L	3.0 U	3.5	120	91.2
Zinc	UG/L	14.9 U	12.8 U	9220	6710

SITE 28
HADNOT POINT BURN DUMP
SHALLOW AND DEEP GROUNDWATER
FIELD DUPLICATE SUMMARY
REMEDIAL INVESTIGATION CTO-19231
MCB CAMP LEJEUNE, NORTH CAROLINA
TCL ORGANICS

Client Sample ID:		28-GW01DW-01	28-GW01DW-01D	28-GW07-01	28-GW07-01D
Laboratory Sample ID:		940389-04	940389-05	940334-03	940334-04
Date Sampled:		5/7/94	5/7/94	4/21/94	4/21/94
	UNITS				
VOLATILES					
Chloromethane	UG/L	2 U	2 U	2 U	2 U
Bromomethane	UG/L	2 U	2 U	2 U	2 U
Vinyl chloride	UG/L	2 U	2 U	2 U	2 U
Chloroethane	UG/L	2 U	2 U	2 U	2 U
Methylene chloride	UG/L	2 U	2 U	2 U	2 U
1,1-Dichloroethene	UG/L	2 U	2 U	2 U	2 U
1,1-Dichloroethane	UG/L	2 U	2 U	2 U	2 U
1,2-Dichloroethene(total)	UG/L	2 U	2 U	2 U	2 U
Chloroform	UG/L	2 U	2 U	2 U	2 U
1,2-Dichloroethane	UG/L	2 U	2 U	2 U	2 U
1,1,1-Trichloroethane	UG/L	2 U	2 U	2 U	2 U
Carbon tetrachloride	UG/L	2 U	2 U	2 U	2 U
Bromodichloromethane	UG/L	2 U	2 U	2 U	2 U
1,2-Dichloropropane	UG/L	2 U	2 U	2 U	2 U
cis-1,3-Dichloropropene	UG/L	2 U	2 U	2 U	2 U
Trichloroethene	UG/L	2 U	2 U	2 U	2 U
Dibromochloromethane	UG/L	2 U	2 U	2 U	2 U
1,1,2-Trichloroethane	UG/L	2 U	2 U	2 U	2 U
Benzene	UG/L	2 U	2 U	2 U	2 U
trans-1,3-Dichloropropene	UG/L	2 U	2 U	2 U	2 U
2-Chloroethylvinylether	UG/L	2 R	2 R	2 U	2 U
Bromoform	UG/L	2 U	2 U	2 U	2 U
Tetrachloroethene	UG/L	2 U	2 U	2 U	2 U
1,1,2,2-Tetrachloroethane	UG/L	2 U	2 U	2 U	2 U
Toluene	UG/L	2 U	2 U	3	2 U
Chlorobenzene	UG/L	2 U	2 U	2 U	2 U
Ethylbenzene	UG/L	2 U	2 U	2 U	2 U
Xylene (total)	UG/L	2 U	2 U	2 U	2 U
1,3-Dichlorobenzene	UG/L	2 U	2 U	2 U	2 U
1,4-Dichlorobenzene	UG/L	2 U	2 U	2 U	2 U
1,2-Dichlorobenzene	UG/L	2 U	2 U	2 U	2 U
Trichlorofluoromethane	UG/L	2 U	2 U	2 U	2 U

SITE 28
HADNOT POINT BURN DUMP
SHALLOW AND DEEP GROUNDWATER
FIELD DUPLICATE SUMMARY
REMEDIAL INVESTIGATION CTO-19231
MCB CAMP LEJEUNE, NORTH CAROLINA
TCL ORGANICS

Client Sample ID:		28-GW01DW-01	28-GW01DW-01D	28-GW07-01	28-GW07-01D
Laboratory Sample ID:		940389-04	940389-05	940334-03	940334-04
Date Sampled:		5/7/94	5/7/94	4/21/94	4/21/94
	UNITS				
SEMIVOLATILES					
Phenol	UG/L	10 U	10 U	10 U	10 U
bis(2-Chloroethyl) ether	UG/L	10 U	10 U	10 U	10 U
2-Chlorophenol	UG/L	10 U	10 U	10 U	10 U
1,3-Dichlorobenzene	UG/L	10 U	10 U	10 U	10 U
1,4-Dichlorobenzene	UG/L	10 U	10 U	10 U	10 U
1,2-Dichlorobenzene	UG/L	10 U	10 U	10 U	10 U
2-Methylphenol	UG/L	10 U	10 U	1 J	10 U
2,2'-oxybis-(1-chloropropane)	UG/L	10 U	10 U	10 U	10 U
4-Methylphenol	UG/L	10 U	10 U	29	15
N-Nitroso-di-n-propylamine	UG/L	10 U	10 U	10 U	10 U
Hexachloroethane	UG/L	10 U	10 U	10 U	10 U
Nitrobenzene	UG/L	10 U	10 U	10 U	10 U
Isophorone	UG/L	10 U	10 U	10 U	10 U
2-Nitrophenol	UG/L	10 U	10 U	10 U	10 U
2,4-Dimethylphenol	UG/L	10 U	10 U	2 J	1 J
bis(2-Chloroethoxy) methane	UG/L	10 U	10 U	10 U	10 U
2,4-Dichlorophenol	UG/L	10 U	10 U	10 U	10 U
1,2,4-Trichlorobenzene	UG/L	10 U	10 U	10 U	10 U
Naphthalene	UG/L	10 U	10 U	10 U	10 U
4-Chloroaniline	UG/L	10 U	10 U	10 U	10 U
Hexachlorobutadiene	UG/L	10 U	10 U	10 U	10 U
4-Chloro-3-methylphenol	UG/L	10 U	10 U	10 U	10 U
2-Methylnaphthalene	UG/L	10 U	10 U	10 U	10 U
Hexachlorocyclopentadiene	UG/L	10 U	10 U	10 U	10 U
2,4,6-Trichlorophenol	UG/L	10 U	10 U	10 U	10 U
2,4,5-Trichlorophenol	UG/L	25 U	25 U	25 U	25 U
2-Chloronaphthalene	UG/L	10 U	10 U	10 U	10 U
2-Nitroaniline	UG/L	25 U	25 U	25 U	25 U
Dimethyl phthalate	UG/L	10 U	10 U	10 U	10 U
Acenaphthylene	UG/L	10 U	10 U	10 U	10 U
2,6-Dinitrotoluene	UG/L	10 U	10 U	10 U	10 U
3-Nitroaniline	UG/L	25 U	25 U	25 U	25 U

SITE 28
HADNOT POINT BURN DUMP
SHALLOW AND DEEP GROUNDWATER
FIELD DUPLICATE SUMMARY
REMEDIAL INVESTIGATION CTO-19231
MCB CAMP LEJEUNE, NORTH CAROLINA
TCL ORGANICS

Client Sample ID:		28-GW01DW-01	28-GW01DW-01D	28-GW07-01	28-GW07-01D
Laboratory Sample ID:		940389-04	940389-05	940334-03	940334-04
Date Sampled:		5/7/94	5/7/94	4/21/94	4/21/94
	UNITS				
SEMIVOLATILES cont.					
Acenaphthene	UG/L	10 U	10 U	10 U	10 U
2,4-Dinitrophenol	UG/L	25 U	25 U	25 U	25 UJ
4-Nitrophenol	UG/L	25 U	25 U	25 U	25 U
Dibenzofuran	UG/L	10 U	10 U	10 U	10 U
2,4-Dinitrotoluene	UG/L	10 U	10 U	10 U	10 U
Diethylphthalate	UG/L	10 U	10 U	10 U	10 UJ
4-Chlorophenyl phenyl ether	UG/L	10 U	10 U	10 U	10 U
Fluorene	UG/L	10 U	10 U	10 U	10 UJ
4-Nitroaniline	UG/L	25 U	25 U	25 U	25 U
4,6-Dinitro-2-methylphenol	UG/L	25 U	25 U	25 U	25 U
N-nitrosodiphenylamine	UG/L	10 U	10 U	10 U	10 U
4-Bromophenyl-phenylether	UG/L	10 U	10 U	10 U	10 U
Hexachlorobenzene	UG/L	10 U	10 U	10 U	10 U
Pentachlorophenol	UG/L	25 U	25 U	25 U	25 U
Phenanthrene	UG/L	10 U	10 U	10 U	10 U
Anthracene	UG/L	10 U	10 U	10 U	10 U
Carbazole	UG/L	10 U	10 U	10 U	10 U
di-n-Butylphthalate	UG/L	10 U	10 U	10 U	10 U
Fluoranthene	UG/L	10 U	10 U	10 U	10 U
Pyrene	UG/L	10 U	10 U	10 U	10 U
Butyl benzyl phthalate	UG/L	10 U	10 U	10 U	10 U
3,3'-Dichlorobenzidine	UG/L	10 U	10 U	10 UJ	10 UJ
Benzo[a]anthracene	UG/L	10 U	10 U	10 U	10 U
Chrysene	UG/L	10 U	10 U	10 U	10 U
bis(2-Ethylhexyl)phthalate	UG/L	10 U	10 U	17	10 U
di-n-Octylphthalate	UG/L	10 U	10 U	10 U	10 U
Benzo[b]fluoranthene	UG/L	10 U	10 U	10 U	10 U
Benzo[k]fluoranthene	UG/L	10 U	10 U	10 U	10 U
Benzo[a]pyrene	UG/L	10 U	10 U	10 U	10 U
Indeno[1,2,3-cd]pyrene	UG/L	10 U	10 U	10 U	10 U
Dibenz[a,h]anthracene	UG/L	10 U	10 U	10 U	10 U
Benzo[g,h,i]perylene	UG/L	10 U	10 U	10 U	10 U

SITE 28
HADNOT POINT BURN DUMP
SHALLOW AND DEEP GROUNDWATER
FIELD DUPLICATE SUMMARY
REMEDIAL INVESTIGATION CTO-19231
MCB CAMP LEJEUNE, NORTH CAROLINA
TCL ORGANICS

Client Sample ID:		28-GW01DW-01	28-GW01DW-01D	28-GW07-01	28-GW07-01D
Laboratory Sample ID:		940389-04	940389-05	940334-03	940334-04
Date Sampled:		5/7/94	5/7/94	4/21/94	4/21/94
	UNITS				
PESTICIDES/PCBs					
alpha-BHC	UG/L	0.05 U	0.05 UJ	0.50 U	0.05 UJ
beta-BHC	UG/L	0.05 U	0.05 UJ	0.50 U	0.05 U
delta-BHC	UG/L	0.05 UJ	0.05 UJ	0.50 U	0.05 U
Lindane (gamma-BHC)	UG/L	0.05 UJ	0.05 UJ	0.50 U	0.05 U
Heptachlor	UG/L	0.05 UJ	0.05 UJ	0.50 U	0.05 U
Aldrin	UG/L	0.05 UJ	0.05 UJ	0.50 U	0.05 U
Heptachlor epoxide	UG/L	0.05 UJ	0.05 UJ	0.50 U	0.05 U
Endosulfan I	UG/L	0.05 UJ	0.05 UJ	0.50 U	0.05 U
Dieldrin	UG/L	0.10 UJ	0.10 UJ	1.0 U	0.10 U
4,4'-DDE	UG/L	0.10 UJ	0.10 UJ	0.67 J	0.047 J
Endrin	UG/L	0.10 UJ	0.10 UJ	1.0 U	0.10 U
Endosulfan II	UG/L	0.10 UJ	0.10 UJ	1.0 U	0.10 U
4,4'-DDD	UG/L	0.10 UJ	0.10 UJ	9.0	0.63
Endosulfan sulfate	UG/L	0.10 UJ	0.10 UJ	1.0 U	0.10 U
4,4'-DDT	UG/L	0.10 UJ	0.10 UJ	1.0 U	0.10 U
Methoxychlor	UG/L	0.50 UJ	0.50 UJ	5.0 U	0.50 U
Endrin ketone	UG/L	0.10 UJ	0.10 UJ	1.0 U	0.10 U
Endrin aldehyde	UG/L	0.10 UJ	0.10 UJ	1.0 U	0.10 U
alpha-Chlordane	UG/L	0.05 UJ	0.05 UJ	0.50 U	0.05 U
gamma-Chlordane	UG/L	0.05 UJ	0.05 UJ	0.50 U	0.05 U
Toxaphene	UG/L	5.0 UJ	5.0 UJ	50 U	5.0 U
Aroclor 1016	UG/L	1.0 UJ	1.0 UJ	10 U	1.0 U
Aroclor 1221	UG/L	2.0 UJ	2.0 UJ	20 U	2.0 U
Aroclor 1232	UG/L	1.0 UJ	1.0 UJ	10 U	1.0 U
Aroclor 1242	UG/L	1.0 UJ	1.0 UJ	10 U	1.0 U
Aroclor 1248	UG/L	1.0 UJ	1.0 UJ	10 U	1.0 U
Aroclor 1254	UG/L	1.0 UJ	1.0 UJ	10 U	1.0 U
Aroclor 1260	UG/L	1.0 UJ	1.0 UJ	10 U	1.0 U

SITE 28
HADNOT POINT BURN DUMP - ORDE POND
SURFACE WATER - FIELD DUPLICATE SUMMARY
REMEDIAL INVESTIGATION CTO-19231
MCB CAMP LEJEUNE, NORTH CAROLINA
TOTAL METALS

Client Sample ID:		28-OP-SW01	28-OP-SW01D
Laboratory Sample ID:		940250-04	940250-05
Date Sampled:		3/28/94	3/28/94
	UNITS		
Aluminum	UG/KG	170	142
Antimony	UG/KG	34.0 U	34.0 U
Arsenic	UG/KG	3.0 U	3.0 U
Barium	UG/KG	7.0 U	7.0 U
Beryllium	UG/KG	1.0 U	1.0 U
Cadmium	UG/KG	3.0 U	3.0 U
Calcium	UG/KG	7610	8270
Chromium	UG/KG	7.0 U	7.0 U
Cobalt	UG/KG	4.0 U	4.0 U
Copper	UG/KG	6.0 U	6.0 U
Iron	UG/KG	421 J	444 J
Lead	UG/KG	1.0 U	1.0 U
Magnesium	UG/KG	693	729
Manganese	UG/KG	1.0 UJ	1.0 UJ
Mercury	UG/KG	0.13 U	0.14 U
Nickel	UG/KG	7.0 U	7.0 U
Potassium	UG/KG	1100 J	1080 J
Selenium	UG/KG	4.0 U	4.0 U
Silver	UG/KG	5.0 UJ	5.0 UJ
Sodium	UG/KG	3070 J	3330 J
Thallium	UG/KG	4.0 U	4.0 U
Vanadium	UG/KG	3.0 U	3.0 U
Zinc	UG/KG	3.8 U	3.5 U

SITE 28
HADNOT POINT BURN DUMP - ORDE POND
SURFACE WATER - FIELD DUPLICATE SUMMARY
REMEDIAL INVESTIGATION CTO-19231
MCB CAMP LEJEUNE, NORTH CAROLINA
TCL ORGANICS

Client Sample ID:		28-OP-SW01	28-OP-SW01D
Laboratory Sample ID:		940250-04	940250-05
Date Sampled:		3/28/94	3/28/94
	UNITS		
VOLATILES			
Chloromethane	UG/L	10 U	10 U
Bromomethane	UG/L	10 U	10 U
Vinyl chloride	UG/L	10 U	10 U
Chloroethane	UG/L	10 U	10 U
Methylene chloride	UG/L	10	10 U
Acetone	UG/L	10 U	11 U
Carbon Disulfide	UG/L	10 U	10 U
1,1-Dichloroethene	UG/L	10 U	10 U
1,1-Dichloroethane	UG/L	10 U	10 U
1,2-Dichloroethene(total)	UG/L	10 U	10 U
Chloroform	UG/L	10 U	10 U
1,2-Dichloroethane	UG/L	10 U	10 U
2-Butanone	UG/L	10 U	10 U
1,1,1-Trichloroethane	UG/L	10 U	10 U
Carbon tetrachloride	UG/L	10 U	10 U
Bromodichloromethane	UG/L	10 U	10 U
1,2-Dichloropropane	UG/L	10 U	10 U
cis-1,3-Dichloropropene	UG/L	10 U	10 U
Trichloroethene	UG/L	10 U	10 U
Dibromochloromethane	UG/L	10 U	10 U
1,1,2-Trichloroethane	UG/L	10 U	10 U
Benzene	UG/L	10 U	10 U
trans-1,3-Dichloropropene	UG/L	10 U	10 U
Bromoform	UG/L	10 U	10 U
4-Methyl-2-pentanone	UG/L	10 U	10 U
2-Hexanone	UG/L	10 U	10 U
Tetrachloroethene	UG/L	10 U	10 U
1,1,2,2-Tetrachloroethane	UG/L	10 U	10 U
Toluene	UG/L	10 U	10 U
Chlorobenzene	UG/L	10 U	10 U
Ethylbenzene	UG/L	10 U	10 U
Styrene	UG/L	10 U	10 U
Xylenes (total)	UG/L	10 U	10 U

SITE 28
HADNOT POINT BURN DUMP - ORDE POND
SURFACE WATER - FIELD DUPLICATE SUMMARY
REMEDIAL INVESTIGATION CTO-19231
MCB CAMP LEJEUNE, NORTH CAROLINA
TCL ORGANICS

Client Sample ID:		28-OP-SW01	28-OP-SW01D
Laboratory Sample ID:		940250-04	940250-05
Date Sampled:		3/28/94	3/28/94
	UNITS		
SEMIVOLATILES			
Phenol	UG/L	10 U	10 U
bis(2-Chloroethyl) ether	UG/L	10 U	10 U
2-Chlorophenol	UG/L	10 U	10 U
1,3-Dichlorobenzene	UG/L	10 U	10 U
1,4-Dichlorobenzene	UG/L	10 U	10 U
1,2-Dichlorobenzene	UG/L	10 U	10 U
2-Methylphenol	UG/L	10 U	10 U
2,2'-oxybis-(1-chloropropane)	UG/L	10 U	10 U
4-Methylphenol	UG/L	10 U	10 U
N-Nitroso-di-n-propylamine	UG/L	10 U	10 U
Hexachloroethane	UG/L	10 U	10 U
Nitrobenzene	UG/L	10 U	10 U
Isophorone	UG/L	10 U	10 U
2-Nitrophenol	UG/L	10 U	10 U
2,4-Dimethylphenol	UG/L	10 U	10 U
bis(2-Chloroethoxy) methane	UG/L	10 U	10 U
2,4-Dichlorophenol	UG/L	10 U	10 U
1,2,4-Trichlorobenzene	UG/L	10 U	10 U
Naphthalene	UG/L	10 U	10 U
4-Chloroaniline	UG/L	10 U	10 U
Hexachlorobutadiene	UG/L	10 U	10 U
4-Chloro-3-methylphenol	UG/L	10 U	10 U
2-Methylnaphthalene	UG/L	10 U	10 U
Hexachlorocyclopentadiene	UG/L	10 U	10 U
2,4,6-Trichlorophenol	UG/L	10 U	10 U
2,4,5-Trichlorophenol	UG/L	25 U	25 U
2-Chloronaphthalene	UG/L	10 U	10 U
2-Nitroaniline	UG/L	25 U	25 U
Dimethyl phthalate	UG/L	10 U	10 U
Acenaphthylene	UG/L	10 U	10 U
2,6-Dinitrotoluene	UG/L	10 U	10 U
3-Nitroaniline	UG/L	25 U	25 U
Acenaphthene	UG/L	10 U	10 U

SITE 28
HADNOT POINT BURN DUMP - ORDE POND
SURFACE WATER - FIELD DUPLICATE SUMMARY
REMEDIAL INVESTIGATION CTO-19231
MCB CAMP LEJEUNE, NORTH CAROLINA
TCL ORGANICS

Client Sample ID:		28-OP-SW01	28-OP-SW01D
Laboratory Sample ID:		940250-04	940250-05
Date Sampled:		3/28/94	3/28/94
SEMIVOLATILES Cont.	UNITS		
2,4-Dinitrophenol	UG/L	25 U	25 U
4-Nitrophenol	UG/L	25 U	25 U
Dibenzofuran	UG/L	10 U	10 U
2,4-Dinitrotoluene	UG/L	10 U	10 U
Diethylphthalate	UG/L	10 U	10 U
4-Chlorophenyl phenyl ether	UG/L	10 U	10 U
Fluorene	UG/L	10 U	10 U
4-Nitroaniline	UG/L	25 U	25 U
4,6-Dinitro-2-methylphenol	UG/L	25 U	25 U
N-nitrosodiphenylamine	UG/L	10 U	10 U
4-Bromophenyl-phenylether	UG/L	10 U	10 U
Hexachlorobenzene	UG/L	10 U	10 U
Pentachlorophenol	UG/L	25 U	25 U
Phenanthrene	UG/L	10 U	10 U
Anthracene	UG/L	10 U	10 U
Carbazole	UG/L	10 UJ	10 UJ
di-n-Butylphthalate	UG/L	10 U	10 U
Fluoranthene	UG/L	10 U	10 U
Pyrene	UG/L	10 U	10 U
Butyl benzyl phthalate	UG/L	10 U	10 U
3,3'-Dichlorobenzidine	UG/L	10 U	10 U
Benzo[a]anthracene	UG/L	10 U	10 U
Chrysene	UG/L	10 U	10 U
bis(2-Ethylhexyl)phthalate	UG/L	10 U	10 U
di-n-Octylphthalate	UG/L	10 U	10 U
Benzo[b]fluoranthene	UG/L	10 U	10 U
Benzo[k]fluoranthene	UG/L	10 U	10 U
Benzo[a]pyrene	UG/L	10 U	10 U
Indeno[1,2,3-cd]pyrene	UG/L	10 U	10 U
Dibenz[a,h]anthracene	UG/L	10 U	10 U
Benzo[g,h,i]perylene	UG/L	10 U	10 U

SITE 28
HADNOT POINT BURN DUMP - ORDE POND
SURFACE WATER - FIELD DUPLICATE SUMMARY
REMEDIAL INVESTIGATION CTO-19231
MCB CAMP LEJEUNE, NORTH CAROLINA
TCL ORGANICS

Client Sample ID:	28-OP-SW01	28-OP-SW01D
Laboratory Sample ID:	940250-04	940250-05
Date Sampled:	3/28/94	3/28/94

PESTICIDES/PCBs	UNITS		
alpha-BHC	UG/L	0.05 U	NA
beta-BHC	UG/L	0.05 U	NA
delta-BHC	UG/L	0.05 U	NA
Lindane (gamma-BHC)	UG/L	0.05 U	NA
Heptachlor	UG/L	0.05 U	NA
Aldrin	UG/L	0.05 U	NA
Heptachlor epoxide	UG/L	0.05 U	NA
Endosulfan I	UG/L	0.05 U	NA
Dieldrin	UG/L	0.10 U	NA
4,4'-DDE	UG/L	0.10 U	NA
Endrin	UG/L	0.10 U	NA
Endosulfan II	UG/L	0.10 U	NA
4,4'-DDD	UG/L	0.10 U	NA
Endosulfan sulfate	UG/L	0.10 U	NA
4,4'-DDT	UG/L	0.10 U	NA
Methoxychlor	UG/L	0.50 U	NA
Endrin ketone	UG/L	0.10 U	NA
Endrin aldehyde	UG/L	0.10 U	NA
alpha-Chlordane	UG/L	0.05 U	NA
gamma-Chlordane	UG/L	0.05 U	NA
Toxaphene	UG/L	5.0 U	NA
Aroclor 1016	UG/L	1.0 U	NA
Aroclor 1221	UG/L	2.0 U	NA
Aroclor 1232	UG/L	1.0 U	NA
Aroclor 1242	UG/L	1.0 U	NA
Aroclor 1248	UG/L	1.0 U	NA
Aroclor 1254	UG/L	1.0 U	NA
Aroclor 1260	UG/L	1.0 U	NA

SITE 28
HADNOT POINT BURN DUMP - NEW RIVER
SURFACE WATER - FIELD DUPLICATE SUMMARY
REMEDIAL INVESTIGATION CTO-19231
MCB CAMP LEJEUNE, NORTH CAROLINA
TOTAL METALS

Client Sample ID:	28-NR-SW04	28-NR-SW04D
Laboratory Sample ID:	940250-27	940250-28
Date Sampled:	3/29/94	3/29/94

	UNITS		
Aluminum	UG/L	817	753
Antimony	UG/L	34.0 U	34.0 U
Arsenic	UG/L	3.0 U	3.0 U
Barium	UG/L	17.3	18.5
Beryllium	UG/L	1.0 U	1.0 U
Cadmium	UG/L	3.0 U	3.0 U
Calcium	UG/L	36700	38200
Chromium	UG/L	7.0 U	7.0 U
Cobalt	UG/L	4.0 U	4.0 U
Copper	UG/L	6.0 U	6.0 U
Iron	UG/L	1190	1170
Lead	UG/L	1.0 U	1.0 U
Magnesium	UG/L	4910 J	4660 J
Manganese	UG/L	49.8	53.8
Mercury	UG/L	0.14 U	0.14 U
Nickel	UG/L	7.0 U	7.0 U
Potassium	UG/L	2310 J	2170 J
Selenium	UG/L	4.0 U	4.0 U
Silver	UG/L	5.0 UJ	5.0 UJ
Sodium	UG/L	31100 J	28200 J
Thallium	UG/L	5.6 J	4.0 U
Vanadium	UG/L	3.0 U	3.0 U
Zinc	UG/L	9.2 U	269

SITE 28
HADNOT POINT BURN DUMP - NEW RIVER
SURFACE WATER - FIELD DUPLICATE SUMMARY
REMEDIAL INVESTIGATION CTO-19231
MCB CAMP LEJEUNE, NORTH CAROLINA
TCL ORGANICS

Client Sample ID:	28-NR-SW04	28-NR-SW04D
Laboratory Sample ID:	940250-27	940250-28
Date Sampled:	3/29/94	3/29/94

	UNITS		
VOLATILES			
Chloromethane	UG/L	10 U	10 U
Bromomethane	UG/L	10 U	10 U
Vinyl chloride	UG/L	10 U	10 U
Chloroethane	UG/L	10 U	10 U
Methylene chloride	UG/L	10 U	10 U
Acetone	UG/L	10 U	13 J
Carbon Disulfide	UG/L	10 U	10 U
1,1-Dichloroethene	UG/L	10 U	10 U
1,1-Dichloroethane	UG/L	10 U	10 U
1,2-Dichloroethene(total)	UG/L	10 U	10 U
Chloroform	UG/L	10 U	10 U
1,2-Dichloroethane	UG/L	10 U	10 U
2-Butanone	UG/L	10 U	10 U
1,1,1-Trichloroethane	UG/L	10 U	10 U
Carbon tetrachloride	UG/L	10 U	10 U
Bromodichloromethane	UG/L	10 U	10 U
1,2-Dichloropropane	UG/L	10 U	10 U
cis-1,3-Dichloropropene	UG/L	10 U	10 U
Trichloroethene	UG/L	10 U	10 U
Dibromochloromethane	UG/L	10 U	10 U
1,1,2-Trichloroethane	UG/L	10 U	10 U
Benzene	UG/L	10 U	10 U
trans-1,3-Dichloropropene	UG/L	10 U	10 U
Bromoform	UG/L	10 U	10 U
4-Methyl-2-pentanone	UG/L	10 U	10 U
2-Hexanone	UG/L	10 U	10 U
Tetrachloroethene	UG/L	10 U	10 U
1,1,2,2-Tetrachloroethane	UG/L	10 U	10 U
Toluene	UG/L	10 U	10 U
Chlorobenzene	UG/L	10 U	10 U
Ethylbenzene	UG/L	10 U	10 U
Styrene	UG/L	10 U	10 U
Xylenes (total)	UG/L	10 U	10 U

SITE 28
HADNOT POINT BURN DUMP - NEW RIVER
SURFACE WATER - FIELD DUPLICATE SUMMARY
REMEDIAL INVESTIGATION CTO-19231
MCB CAMP LEJEUNE, NORTH CAROLINA
TCL ORGANICS

Client Sample ID:	28-NR-SW04	28-NR-SW04D
Laboratory Sample ID:	940250-27	940250-28
Date Sampled:	3/29/94	3/29/94

	UNITS		
SEMIVOLATILES			
Phenol	UG/L	10 U	10 R
bis(2-Chloroethyl) ether	UG/L	10 U	10 R
2-Chlorophenol	UG/L	10 U	10 R
1,3-Dichlorobenzene	UG/L	10 U	10 U
1,4-Dichlorobenzene	UG/L	10 U	10 U
1,2-Dichlorobenzene	UG/L	10 U	10 U
2-Methylphenol	UG/L	10 U	10 R
2,2'-oxybis-(1-chloropropane)	UG/L	10 U	10 U
4-Methylphenol	UG/L	10 U	10 R
N-Nitroso-di-n-propylamine	UG/L	10 U	10 R
Hexachloroethane	UG/L	10 U	10 U
Nitrobenzene	UG/L	10 U	10 U
Isophorone	UG/L	10 U	10 U
2-Nitrophenol	UG/L	10 U	10 R
2,4-Dimethylphenol	UG/L	10 U	10 R
bis(2-Chloroethoxy) methane	UG/L	10 U	10 R
2,4-Dichlorophenol	UG/L	10 U	10 R
1,2,4-Trichlorobenzene	UG/L	10 U	10 U
Naphthalene	UG/L	10 U	10 U
4-Chloroaniline	UG/L	10 U	10 U
Hexachlorobutadiene	UG/L	10 U	10 U
4-Chloro-3-methylphenol	UG/L	10 U	10 R
2-Methylnaphthalene	UG/L	10 U	10 U
Hexachlorocyclopentadiene	UG/L	10 U	10 U
2,4,6-Trichlorophenol	UG/L	10 U	10 R
2,4,5-Trichlorophenol	UG/L	25 U	25 R
2-Chloronaphthalene	UG/L	10 U	10 U
2-Nitroaniline	UG/L	25 U	25 U
Dimethyl phthalate	UG/L	10 U	1 J
Acenaphthylene	UG/L	10 U	10 U
2,6-Dinitrotoluene	UG/L	10 U	10 U
3-Nitroaniline	UG/L	25 U	25 U
Acenaphthene	UG/L	10 U	10 U

SITE 28
HADNOT POINT BURN DUMP - NEW RIVER
SURFACE WATER - FIELD DUPLICATE SUMMARY
REMEDIAL INVESTIGATION CTO-19231
MCB CAMP LEJEUNE, NORTH CAROLINA
TCL ORGANICS

Client Sample ID:	28-NR-SW04	28-NR-SW04D
Laboratory Sample ID:	940250-27	940250-28
Date Sampled:	3/29/94	3/29/94

SEMIVOLATILES Cont.	UNITS		
2,4-Dinitrophenol	UG/L	25 U	25 R
4-Nitrophenol	UG/L	25 U	25 R
Dibenzofuran	UG/L	10 U	10 U
2,4-Dinitrotoluene	UG/L	10 U	10 U
Diethylphthalate	UG/L	10 U	10 U
4-Chlorophenyl phenyl ether	UG/L	10 U	10 R
Fluorene	UG/L	10 U	10 U
4-Nitroaniline	UG/L	25 U	25 U
4,6-Dinitro-2-methylphenol	UG/L	25 U	25 R
N-nitrosodiphenylamine	UG/L	10 U	10 R
4-Bromophenyl-phenylether	UG/L	10 U	10 R
Hexachlorobenzene	UG/L	10 U	10 U
Pentachlorophenol	UG/L	25 U	25 R
Phenanthrene	UG/L	10 U	10 U
Anthracene	UG/L	10 U	10 U
Carbazole	UG/L	10 UJ	10 UJ
di-n-Butylphthalate	UG/L	10 U	10 U
Fluoranthene	UG/L	10 U	10 U
Pyrene	UG/L	10 U	10 U
Butyl benzyl phthalate	UG/L	10 U	10 U
3,3'-Dichlorobenzidine	UG/L	10 U	10 U
Benzo[a]anthracene	UG/L	10 U	10 U
Chrysene	UG/L	10 U	10 U
bis(2-Ethylhexyl)phthalate	UG/L	1 J	10 U
di-n-Octylphthalate	UG/L	10 U	10 UJ
Benzo[b]fluoranthene	UG/L	10 U	10 UJ
Benzo[k]fluoranthene	UG/L	10 U	10 UJ
Benzo[a]pyrene	UG/L	10 U	10 UJ
Indeno[1,2,3-cd]pyrene	UG/L	10 U	10 UJ
Dibenz[a,h]anthracene	UG/L	10 U	10 UJ
Benzo[g,h,i]perylene	UG/L	10 U	10 UJ

SITE 28
HADNOT POINT BURN DUMP - NEW RIVER
SURFACE WATER - FIELD DUPLICATE SUMMARY
REMEDIAL INVESTIGATION CTO-19231
MCB CAMP LEJEUNE, NORTH CAROLINA
TCL ORGANICS

Client Sample ID:		28-NR-SW04	28-NR-SW04D
Laboratory Sample ID:		940250-27	940250-28
Date Sampled:		3/29/94	3/29/94
	UNITS		
PESTICIDES/PCBs			
alpha-BHC	UG/L	0.05 UJ	0.05 U
beta-BHC	UG/L	0.05 UJ	0.05 U
delta-BHC	UG/L	0.05 UJ	0.05 U
Lindane (gamma-BHC)	UG/L	0.05 UJ	0.05 U
Heptachlor	UG/L	0.05 UJ	0.05 U
Aldrin	UG/L	0.05 UJ	0.05 U
Heptachlor epoxide	UG/L	0.05 UJ	0.05 U
Endosulfan I	UG/L	0.05 UJ	0.05 U
Dieldrin	UG/L	0.10 UJ	0.10 U
4,4'-DDE	UG/L	0.10 UJ	0.10 U
Endrin	UG/L	0.10 UJ	0.10 U
Endosulfan II	UG/L	0.10 UJ	0.10 U
4,4'-DDD	UG/L	0.10 UJ	0.10 U
Endosulfan sulfate	UG/L	0.10 UJ	0.10 U
4,4'-DDT	UG/L	0.10 UJ	0.10 U
Methoxychlor	UG/L	0.50 UJ	0.50 U
Endrin ketone	UG/L	0.10 UJ	0.10 U
Endrin aldehyde	UG/L	0.10 UJ	0.10 U
alpha-Chlordane	UG/L	0.05 UJ	0.05 U
gamma-Chlordane	UG/L	0.05 UJ	0.05 U
Toxaphene	UG/L	5.0 UJ	5.0 U
Aroclor 1016	UG/L	1.0 UJ	1.0 U
Aroclor 1221	UG/L	2.0 UJ	2.0 U
Aroclor 1232	UG/L	1.0 UJ	1.0 U
Aroclor 1242	UG/L	1.0 UJ	1.0 U
Aroclor 1248	UG/L	1.0 UJ	1.0 U
Aroclor 1254	UG/L	1.0 UJ	1.0 U
Aroclor 1260	UG/L	1.0 UJ	1.0 U

SITE 28
HADNOT POINT BURN DUMP - ORDE POND
SEDIMENT - FIELD DUPLICATE SUMMARY
REMEDIAL INVESTIGATION CTO-19231
MCB CAMP LEJEUNE, NORTH CAROLINA
TOTAL METALS

Client Sample ID:		28-OP-SD01-06	28-OP-SD01-06D
Laboratory Sample ID:		940248-33	940248-34
Date Sampled:		3/28/94	3/28/94
Percent Solids		70	88.0
	UNITS		
Aluminum	MG/KG	4340 J	2750 J
Antimony	MG/KG	9.3 R	8.7 R
Arsenic	MG/KG	2.3	2.7
Barium	MG/KG	13.5	10.1
Beryllium	MG/KG	0.27 U	0.26 U
Cadmium	MG/KG	1 U	0.77 U
Calcium	MG/KG	1540 J	1340 J
Chromium	MG/KG	10.9	6.9
Cobalt	MG/KG	1.1 U	1.1
Copper	MG/KG	1.7	1.5 U
Iron	MG/KG	4050 J	2740 J
Lead	MG/KG	8.3	6.4
Magnesium	MG/KG	298	250
Manganese	MG/KG	6.9	6.6
Mercury	MG/KG	0.06 U	0.06 U
Nickel	MG/KG	2.1	1.8 U
Potassium	MG/KG	253 J	116 J
Selenium	MG/KG	1.1 U	1.0 U
Silver	MG/KG	1.4 UJ	1.3 UJ
Sodium	MG/KG	52.4 U	51.3 U
Thallium	MG/KG	1.1 U	1.0 U
Vanadium	MG/KG	11.3	8.9
Zinc	MG/KG	4.2	3.0

SITE 28
HADNOT POINT BURN DUMP - ORDE POND
SEDIMENT - FIELD DUPLICATE SUMMARY
REMEDIAL INVESTIGATION CTO-19231
MCB CAMP LEJEUNE, NORTH CAROLINA
TCL ORGANICS

Client Sample ID:		28-OP-SD01-06	28-OP-SD01-06D
Laboratory Sample ID:		940248-33	940248-34
Date Sampled:		3/28/94	3/28/94
	UNITS		
VOLATILES			
Chloromethane	UG/KG	14 U	14 U
Bromomethane	UG/KG	14 U	14 U
Vinyl chloride	UG/KG	14 U	14 U
Chloroethane	UG/KG	14 U	14 U
Methylene chloride	UG/KG	14 U	14 U
Acetone	UG/KG	79 J	66
Carbon Disulfide	UG/KG	14 U	14 U
1,1-Dichloroethene	UG/KG	14 U	14 U
1,1-Dichloroethane	UG/KG	14 U	14 U
1,2-Dichloroethene(total)	UG/KG	14 U	14 U
Chloroform	UG/KG	14 U	14 U
1,2-Dichloroethane	UG/KG	14 U	14 U
2-Butanone	UG/KG	19 J	14 U
1,1,1-Trichloroethane	UG/KG	14 U	14 U
Carbon tetrachloride	UG/KG	14 U	14 U
Bromodichloromethane	UG/KG	14 U	14 U
1,2-Dichloropropane	UG/KG	14 U	14 U
cis-1,3-Dichloropropene	UG/KG	14 U	14 U
Trichloroethene	UG/KG	14 U	14 U
Dibromochloromethane	UG/KG	14 U	14 U
1,1,2-Trichloroethane	UG/KG	14 U	14 U
Benzene	UG/KG	14 U	14 U
trans-1,3-Dichloropropene	UG/KG	14 U	14 U
Bromoform	UG/KG	14 U	14 U
4-Methyl-2-pentanone	UG/KG	14 U	14 U
2-Hexanone	UG/KG	14 U	14 U
Tetrachloroethene	UG/KG	14 U	14 U
1,1,2,2-Tetrachloroethane	UG/KG	14 U	14 U
Toluene	UG/KG	14 U	14 U
Chlorobenzene	UG/KG	14 U	14 U
Ethylbenzene	UG/KG	14 U	14 U
Styrene	UG/KG	14 U	14 U
Xylenes (total)	UG/KG	14 U	14 U

SITE 28
HADNOT POINT BURN DUMP - ORDE POND
SEDIMENT - FIELD DUPLICATE SUMMARY
REMEDIAL INVESTIGATION CTO-19231
MCB CAMP LEJEUNE, NORTH CAROLINA
TCL ORGANICS

Client Sample ID:		28-OP-SD01-06	28-OP-SD01-06D
Laboratory Sample ID:		940248-33	940248-34
Date Sampled:		3/28/94	3/28/94
	UNITS		
SEMIVOLATILES			
Phenol	UG/KG	470 U	370 U
bis(2-Chloroethyl) ether	UG/KG	470 U	370 U
2-Chlorophenol	UG/KG	470 U	370 U
1,3-Dichlorobenzene	UG/KG	470 U	370 U
1,4-Dichlorobenzene	UG/KG	470 U	370 U
1,2-Dichlorobenzene	UG/KG	470 U	370 U
2-Methylphenol	UG/KG	470 U	370 U
2,2'-oxybis-(1-chloropropane)	UG/KG	470 U	370 U
4-Methylphenol	UG/KG	470 U	370 U
N-Nitroso-di-n-propylamine	UG/KG	470 U	370 U
Hexachloroethane	UG/KG	470 U	370 U
Nitrobenzene	UG/KG	470 U	370 U
Isophorone	UG/KG	470 U	370 U
2-Nitrophenol	UG/KG	470 U	370 U
2,4-Dimethylphenol	UG/KG	470 U	370 U
bis(2-Chloroethoxy) methane	UG/KG	470 U	370 U
2,4-Dichlorophenol	UG/KG	470 U	370 U
1,2,4-Trichlorobenzene	UG/KG	470 U	370 U
Naphthalene	UG/KG	470 U	370 U
4-Chloroaniline	UG/KG	470 UJ	370 U
Hexachlorobutadiene	UG/KG	470 U	370 U
4-Chloro-3-methylphenol	UG/KG	470 U	370 U
2-Methylnaphthalene	UG/KG	470 U	370 U
Hexachlorocyclopentadiene	UG/KG	470 U	370 U
2,4,6-Trichlorophenol	UG/KG	470 U	370 U
2,4,5-Trichlorophenol	UG/KG	1100 U	910 U
2-Chloronaphthalene	UG/KG	470 U	370 U
2-Nitroaniline	UG/KG	1100 U	910 U
Dimethyl phthalate	UG/KG	470 U	370 U
Acenaphthylene	UG/KG	470 U	370 U
2,6-Dinitrotoluene	UG/KG	470 U	370 U
3-Nitroaniline	UG/KG	1100 U	910 U
Acenaphthene	UG/KG	470 U	370 U

SITE 28
HADNOT POINT BURN DUMP - ORDE POND
SEDIMENT - FIELD DUPLICATE SUMMARY
REMEDIAL INVESTIGATION CTO-19231
MCB CAMP LEJEUNE, NORTH CAROLINA
TCL ORGANICS

Client Sample ID:	28-OP-SD01-06	28-OP-SD01-06D
Laboratory Sample ID:	940248-33	940248-34
Date Sampled:	3/28/94	3/28/94

	UNITS		
SEMIVOLATILES Cont.			
2,4-Dinitrophenol	UG/KG	1100 U	910 U
4-Nitrophenol	UG/KG	1100 U	910 U
Dibenzofuran	UG/KG	470 U	370 U
2,4-Dinitrotoluene	UG/KG	470 U	370 U
Diethylphthalate	UG/KG	470 U	370 U
4-Chlorophenyl phenyl ether	UG/KG	470 U	370 U
Fluorene	UG/KG	470 U	370 U
4-Nitroaniline	UG/KG	1100 UJ	910 U
4,6-Dinitro-2-methylphenol	UG/KG	1100 U	910 U
N-nitrosodiphenylamine	UG/KG	470 U	370 U
4-Bromophenyl-phenylether	UG/KG	470 U	370 U
Hexachlorobenzene	UG/KG	470 U	370 U
Pentachlorophenol	UG/KG	1100 U	910 U
Phenanthrene	UG/KG	470 U	370 U
Anthracene	UG/KG	470 U	370 U
Carbazole	UG/KG	470 U	370 U
di-n-Butylphthalate	UG/KG	470 U	370 U
Fluoranthene	UG/KG	470 U	370 U
Pyrene	UG/KG	470 U	370 U
Butyl benzyl phthalate	UG/KG	470 U	370 U
3,3'-Dichlorobenzidine	UG/KG	470 U	370 U
Benzo[a]anthracene	UG/KG	470 U	370 U
Chrysene	UG/KG	470 U	370 U
bis(2-Ethylhexyl)phthalate	UG/KG	120 J	95 J
di-n-Octylphthalate	UG/KG	470 U	370 U
Benzo[b]fluoranthene	UG/KG	470 U	370 U
Benzo[k]fluoranthene	UG/KG	470 U	370 U
Benzo[a]pyrene	UG/KG	470 U	370 U
Indeno[1,2,3-cd]pyrene	UG/KG	470 U	370 U
Dibenz[a,h]anthracene	UG/KG	470 U	370 U
Benzo[g,h,i]perylene	UG/KG	470 U	370 U

SITE 28
HADNOT POINT BURN DUMP - ORDE POND
SEDIMENT - FIELD DUPLICATE SUMMARY
REMEDIAL INVESTIGATION CTO-19231
MCB CAMP LEJEUNE, NORTH CAROLINA
TCL ORGANICS

Client Sample ID:		28-OP-SD01-06	28-OP-SD01-06D
Laboratory Sample ID:		940248-33	940248-34
Date Sampled:		3/28/94	3/28/94
	UNITS		
PESTICIDES/PCBs			
alpha-BHC	UG/KG	2.4 UJ	1.9 UJ
beta-BHC	UG/KG	2.4 UJ	1.9 UJ
delta-BHC	UG/KG	2.4 UJ	1.9 UJ
Lindane (gamma-BHC)	UG/KG	2.4 UJ	1.9 UJ
Heptachlor	UG/KG	2.4 UJ	1.9 UJ
Aldrin	UG/KG	2.4 UJ	1.9 UJ
Heptachlor epoxide	UG/KG	2.4 UJ	1.9 UJ
Endosulfan I	UG/KG	2.4 UJ	1.9 UJ
Dieldrin	UG/KG	4.7 UJ	3.7 UJ
4,4'-DDE	UG/KG	4.7 UJ	3.7 UJ
Endrin	UG/KG	4.7 R	3.7 R
Endosulfan II	UG/KG	4.7 UJ	3.7 UJ
4,4'-DDD	UG/KG	8.3 J	3.7 UJ
Endosulfan sulfate	UG/KG	4.7 UJ	3.7 UJ
4,4'-DDT	UG/KG	4.7 UJ	3.7 UJ
Methoxychlor	UG/KG	24 UJ	19 UJ
Endrin ketone	UG/KG	4.7 UJ	3.7 UJ
Endrin aldehyde	UG/KG	4.7 UJ	3.7 UJ
alpha-Chlordane	UG/KG	2.4 UJ	1.9 UJ
gamma-Chlordane	UG/KG	2.4 UJ	1.9 UJ
Toxaphene	UG/KG	240 UJ	190 UJ
Aroclor 1016	UG/KG	47 UJ	37 UJ
Aroclor 1221	UG/KG	95 UJ	76 UJ
Aroclor 1232	UG/KG	47 UJ	37 UJ
Aroclor 1242	UG/KG	47 UJ	37 UJ
Aroclor 1248	UG/KG	47 UJ	37 UJ
Aroclor 1254	UG/KG	47 UJ	37 UJ
Aroclor 1260	UG/KG	47 UJ	37 UJ

SITE 28
HADNOT POINT BURN DUMP - COGDELS CREEK
SEDIMENT - FIELD DUPLICATE SUMMARY
REMEDIAL INVESTIGATION CTO-19231
MCB CAMP LEJEUNE, NORTH CAROLINA
TOTAL METALS

Client Sample ID:		28-CC-SD04-06	28-CC-SD04-06D
Laboratory Sample ID:		940248-28	940248-29
Date Sampled:		3/28/94	3/28/94
Percent Solids		76	65.0
	UNITS		
Aluminum	MG/KG	864 J	7100 J
Antimony	MG/KG	9 R	14.4 R
Arsenic	MG/KG	0.79 U	2.8
Barium	MG/KG	47.8	254
Beryllium	MG/KG	0.26 U	0.42 U
Cadmium	MG/KG	1.3 U	2.2 U
Calcium	MG/KG	496 J	3580 J
Chromium	MG/KG	4	15.4
Cobalt	MG/KG	1.1 U	1.7 U
Copper	MG/KG	5.3	23.5
Iron	MG/KG	1980 J	8890 J
Lead	MG/KG	15.3	61.7
Magnesium	MG/KG	412	1940
Manganese	MG/KG	17.7	49.5
Mercury	MG/KG	0.06 U	0.10
Nickel	MG/KG	1.8 U	3.0 U
Potassium	MG/KG	129 J	763 J
Selenium	MG/KG	1.1 U	1.7 U
Silver	MG/KG	1.3 UJ	2.1 UJ
Sodium	MG/KG	104	400
Thallium	MG/KG	1.1 U	1.7 U
Vanadium	MG/KG	3.1	17.2
Zinc	MG/KG	22	144

SITE 28
HADNOT POINT BURN DUMP - COGDELS CREEK
SEDIMENT - FIELD DUPLICATE SUMMARY
REMEDIAL INVESTIGATION CTO-19231
MCB CAMP LEJEUNE, NORTH CAROLINA
TCL ORGANICS

Client Sample ID:		28-CC-SD04-06	28-CC-SD04-06D
Laboratory Sample ID:		940248-28	940248-29
Date Sampled:		3/28/94	3/28/94
	UNITS		
VOLATILES			
Chloromethane	UG/KG	18 U	20 U
Bromomethane	UG/KG	18 U	20 U
Vinyl chloride	UG/KG	18 U	20 U
Chloroethane	UG/KG	18 U	20 U
Methylene chloride	UG/KG	18 U	20 U
Acetone	UG/KG	46 J	58
Carbon Disulfide	UG/KG	18 U	20 U
1,1-Dichloroethene	UG/KG	18 U	20 U
1,1-Dichloroethane	UG/KG	18 U	20 U
1,2-Dichloroethene(total)	UG/KG	18 U	20 U
Chloroform	UG/KG	18 U	20 U
1,2-Dichloroethane	UG/KG	18 U	20 U
2-Butanone	UG/KG	16 J	20 U
1,1,1-Trichloroethane	UG/KG	18 U	20 U
Carbon tetrachloride	UG/KG	18 U	20 U
Bromodichloromethane	UG/KG	18 U	20 U
1,2-Dichloropropane	UG/KG	18 U	20 U
cis-1,3-Dichloropropene	UG/KG	18 U	20 U
Trichloroethene	UG/KG	18 U	20 U
Dibromochloromethane	UG/KG	18 U	20 U
1,1,2-Trichloroethane	UG/KG	18 U	20 U
Benzene	UG/KG	18 U	20 U
trans-1,3-Dichloropropene	UG/KG	18 U	20 U
Bromoform	UG/KG	18 U	20 U
4-Methyl-2-pentanone	UG/KG	18 U	20 U
2-Hexanone	UG/KG	18 U	20 U
Tetrachloroethene	UG/KG	18 U	20 U
1,1,2,2-Tetrachloroethane	UG/KG	18 U	20 U
Toluene	UG/KG	18 U	20 U
Chlorobenzene	UG/KG	18 U	20 U
Ethylbenzene	UG/KG	18 U	20 U
Styrene	UG/KG	18 U	20 U
Xylenes (total)	UG/KG	18 U	20 U

SITE 28
HADNOT POINT BURN DUMP - COGDELS CREEK
SEDIMENT - FIELD DUPLICATE SUMMARY
REMEDIAL INVESTIGATION CTO-19231
MCB CAMP LEJEUNE, NORTH CAROLINA
TCL ORGANICS

Client Sample ID:		28-CC-SD04-06	28-CC-SD04-06D
Laboratory Sample ID:		940248-28	940248-29
Date Sampled:		3/28/94	3/28/94
	UNITS		
SEMIVOLATILES			
Phenol	UG/KG	430 U	500 U
bis(2-Chloroethyl) ether	UG/KG	430 U	500 U
2-Chlorophenol	UG/KG	430 U	500 U
1,3-Dichlorobenzene	UG/KG	430 U	500 U
1,4-Dichlorobenzene	UG/KG	430 U	500 U
1,2-Dichlorobenzene	UG/KG	430 U	500 U
2-Methylphenol	UG/KG	430 U	500 U
2,2'-oxybis-(1-chloropropane)	UG/KG	430 U	500 U
4-Methylphenol	UG/KG	430 U	500 U
N-Nitroso-di-n-propylamine	UG/KG	430 U	500 U
Hexachloroethane	UG/KG	430 U	500 U
Nitrobenzene	UG/KG	430 U	500 U
Isophorone	UG/KG	430 U	500 U
2-Nitrophenol	UG/KG	430 U	500 U
2,4-Dimethylphenol	UG/KG	430 U	500 U
bis(2-Chloroethoxy) methane	UG/KG	430 U	500 U
2,4-Dichlorophenol	UG/KG	430 U	500 U
1,2,4-Trichlorobenzene	UG/KG	430 U	500 U
Naphthalene	UG/KG	430 U	500 U
4-Chloroaniline	UG/KG	430 U	500 U
Hexachlorobutadiene	UG/KG	430 U	500 U
4-Chloro-3-methylphenol	UG/KG	430 U	500 U
2-Methylnaphthalene	UG/KG	430 U	500 U
Hexachlorocyclopentadiene	UG/KG	430 U	500 U
2,4,6-Trichlorophenol	UG/KG	430 U	500 U
2,4,5-Trichlorophenol	UG/KG	1000 U	1200 U
2-Chloronaphthalene	UG/KG	430 U	500 U
2-Nitroaniline	UG/KG	1000 U	1200 U
Dimethyl phthalate	UG/KG	430 U	500 U
Acenaphthylene	UG/KG	430 U	500 U
2,6-Dinitrotoluene	UG/KG	430 U	500 U
3-Nitroaniline	UG/KG	1000 U	1200 U
Acenaphthene	UG/KG	430 U	500 U

SITE 28
HADNOT POINT BURN DUMP - COGDELS CREEK
SEDIMENT - FIELD DUPLICATE SUMMARY
REMEDIAL INVESTIGATION CTO-19231
MCB CAMP LEJEUNE, NORTH CAROLINA
TCL ORGANICS

Client Sample ID:	28-CC-SD04-06	28-CC-SD04-06D
Laboratory Sample ID:	940248-28	940248-29
Date Sampled:	3/28/94	3/28/94

	UNITS		
SEMIVOLATILES Cont.			
2,4-Dinitrophenol	UG/KG	1000 U	1200 U
4-Nitrophenol	UG/KG	1000 U	1200 U
Dibenzofuran	UG/KG	430 U	500 U
2,4-Dinitrotoluene	UG/KG	430 U	500 U
Diethylphthalate	UG/KG	430 U	500 U
4-Chlorophenyl phenyl ether	UG/KG	430 U	500 U
Fluorene	UG/KG	430 U	500 U
4-Nitroaniline	UG/KG	1000 U	1200 U
4,6-Dinitro-2-methylphenol	UG/KG	1000 U	1200 U
N-nitrosodiphenylamine	UG/KG	430 U	500 U
4-Bromophenyl-phenylether	UG/KG	430 U	500 U
Hexachlorobenzene	UG/KG	430 U	500 U
Pentachlorophenol	UG/KG	1000 U	1200 U
Phenanthrene	UG/KG	430 U	500 U
Anthracene	UG/KG	430 U	500 U
Carbazole	UG/KG	430 U	500 U
di-n-Butylphthalate	UG/KG	430 U	500 U
Fluoranthene	UG/KG	430 U	500 U
Pyrene	UG/KG	430 U	52 J
Butyl benzyl phthalate	UG/KG	430 U	500 U
3,3'-Dichlorobenzidine	UG/KG	430 U	500 U
Benzo[a]anthracene	UG/KG	430 U	500 U
Chrysene	UG/KG	430 U	500 U
bis(2-Ethylhexyl)phthalate	UG/KG	110 J	240 J
di-n-Octylphthalate	UG/KG	430 U	500 UJ
Benzo[b]fluoranthene	UG/KG	430 U	500 UJ
Benzo[k]fluoranthene	UG/KG	430 U	500 UJ
Benzo[a]pyrene	UG/KG	440	500 UJ
Indeno[1,2,3-cd]pyrene	UG/KG	430 U	500 UJ
Dibenz[a,h]anthracene	UG/KG	430 U	500 UJ
Benzo[g,h,i]perylene	UG/KG	430 U	500 UJ

SITE 28
HADNOT POINT BURN DUMP - COGDELS CREEK
SEDIMENT - FIELD DUPLICATE SUMMARY
REMEDIAL INVESTIGATION CTO-19231
MCB CAMP LEJEUNE, NORTH CAROLINA
TCL ORGANICS

Client Sample ID:		28-CC-SD04-06	28-CC-SD04-06D
Laboratory Sample ID:		940248-28	940248-29
Date Sampled:		3/28/94	3/28/94
PESTICIDES/PCBs	UNITS		
alpha-BHC	UG/KG	2.2 UJ	2.6 UJ
beta-BHC	UG/KG	2.2 UJ	2.6 UJ
delta-BHC	UG/KG	2.2 UJ	2.6 UJ
Lindane (gamma-BHC)	UG/KG	2.2 UJ	2.6 UJ
Heptachlor	UG/KG	2.2 UJ	2.6 UJ
Aldrin	UG/KG	2.2 UJ	2.6 UJ
Heptachlor epoxide	UG/KG	2.2 UJ	2.6 UJ
Endosulfan I	UG/KG	2.2 UJ	2.6 UJ
Dieldrin	UG/KG	4.3 UJ	5.0 UJ
4,4'-DDE	UG/KG	4.3 UJ	5.0 UJ
Endrin	UG/KG	4.3 UJ	5.0 UJ
Endosulfan II	UG/KG	4.3 UJ	5.0 UJ
4,4'-DDD	UG/KG	4.3 UJ	5.0 UJ
Endosulfan sulfate	UG/KG	4.3 UJ	5.0 UJ
4,4'-DDT	UG/KG	4.3 UJ	5.0 UJ
Methoxychlor	UG/KG	22 UJ	26 UJ
Endrin ketone	UG/KG	4.3 UJ	5.0 UJ
Endrin aldehyde	UG/KG	4.3 UJ	5.0 UJ
alpha-Chlordane	UG/KG	2.2 UJ	2.6 UJ
gamma-Chlordane	UG/KG	2.2 UJ	2.6 UJ
Toxaphene	UG/KG	220 UJ	260 UJ
Aroclor 1016	UG/KG	43 UJ	50 UJ
Aroclor 1221	UG/KG	87 UJ	100 UJ
Aroclor 1232	UG/KG	43 UJ	50 UJ
Aroclor 1242	UG/KG	43 UJ	50 UJ
Aroclor 1248	UG/KG	43 UJ	50 UJ
Aroclor 1254	UG/KG	43 UJ	50 UJ
Aroclor 1260	UG/KG	43 UJ	50 UJ

SITE 30

SITE 30
SNEADS FERRY ROAD FUEL TANK SLUDGE AREA
SURFACE SOIL - FIELD DUPLICATE SUMMARY
REMEDIAL INVESTIGATION CTO-19231
MCB CAMP LEJEUNE, NORTH CAROLINA
TOTAL METALS

Client Sample ID:		30-SB05-00	30-SB05-00D	30-SB10-00	30-SB10-00D	30-SB19-00	30SB1900D
Laboratory Sample ID:		940226-13	940226-14	940226-22	940226-23	940283-05	940283-06
Date Sampled:		3/22/94	3/22/94	3/22/94	3/22/94	4/8/94	4/8/94
	UNITS						
Aluminum	MG/KG	596	576	237	228	1060	1220
Antimony	MG/KG	5.9 U	6.2 U	5.3 U	6.7 U	7.2 U	7.2 U
Arsenic	MG/KG	0.52 U	0.55 U	0.46 U	0.59 U	0.64 U	0.63 U
Barium	MG/KG	2.2	2.0	1.5	1.4	2.1	2.5
Beryllium	MG/KG	0.17 U	0.18 U	0.15 U	0.20 U	0.21 U	0.21 U
Cadmium	MG/KG	0.52 U	0.55 U	0.46 U	0.59 U	0.64 U	0.63 U
Calcium	MG/KG	32.1 U	34.8 U	14.4 U	12.9 U	92.1 J	99.4 J
Chromium	MG/KG	1.2 U	1.3 U	1.1 U	1.4 U	2.8 U	2.7 U
Cobalt	MG/KG	0.70 U	0.73 U	0.62 U	0.79 U	0.85 U	0.84 U
Copper	MG/KG	2.3	1.4	0.93 U	1.2 U	1.5	1.3
Iron	MG/KG	470	364	247	407	607	655
Lead	MG/KG	3.2	2.7	3.7	5.2	2.7	2.9
Magnesium	MG/KG	13.3	14.8	7.4	6.7	39.4	38.8
Manganese	MG/KG	6.0 J	6.3 J	2.6 J	3.7 J	7.8	6.1
Mercury	MG/KG	0.04 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Nickel	MG/KG	1.2 U	1.3 U	1.5 U	3.0 U	1.5 UJ	1.5 UJ
Potassium	MG/KG	24.2 U	19.6 U	8.5	2.0 U	45.9 U	53.1 U
Selenium	MG/KG	0.70 U	0.73 U	0.62 U	0.79 U	0.85 UJ	0.84 UJ
Silver	MG/KG	0.87 UJ	0.91 UJ	0.77 UJ	0.99 UJ	1.1 UJ	1.1 UJ
Sodium	MG/KG	19.2	10.6	7.9 U	10.1 U	17.3 U	17.2 U
Thallium	MG/KG	0.70 U	0.73 U	0.62 U	0.79 U	0.85 U	0.84 U
Vanadium	MG/KG	1.8	1.5	1.2	1.4	3.1	2.7
Zinc	MG/KG	5.7	7.0	1.7 U	1.7 U	3.1	2.4

SITE 30
SNEADS FERRY ROAD FUEL TANK SLUDGE AREA
SURFACE SOIL - FIELD DUPLICATE SUMMARY
REMEDIAL INVESTIGATION CTO-19231
MCB CAMP LEJEUNE, NORTH CAROLINA
VOLATILES AND SEMIVOLATILES

Client Sample ID:		30-SB05-00	30-SB05-00D	30-SB10-00	30-SB10-00D
Laboratory Sample ID:		940226-13	940226-14	940226-22	940226-23
Date Sampled:		3/22/94	3/22/94	3/22/94	3/22/94
VOLATILES	UNITS				
Chloromethane	UG/KG	11 U	10 U	12 U	11 U
Bromomethane	UG/KG	11 U	10 U	12 U	11 U
Vinyl chloride	UG/KG	11 U	10 U	12 U	11 U
Chloroethane	UG/KG	11 U	10 U	12 U	11 U
Methylene chloride	UG/KG	11 U	10 U	12 U	11 U
Acetone	UG/KG	21 U	8 J	12 U	11 U
Carbon Disulfide	UG/KG	11 U	10 U	12 U	11 U
1,1-Dichloroethene	UG/KG	11 U	10 U	12 U	11 U
1,1-Dichloroethane	UG/KG	11 U	10 U	12 U	11 U
1,2-Dichloroethene(total)	UG/KG	11 U	10 U	12 U	11 U
Chloroform	UG/KG	11 U	10 U	12 U	11 U
1,2-Dichloroethane	UG/KG	11 U	10 U	12 U	11 U
2-Butanone	UG/KG	11 U	10 U	12 U	11 U
1,1,1-Trichloroethane	UG/KG	11 U	2 J	12 U	11 U
Carbon tetrachloride	UG/KG	11 U	10 U	12 U	11 U
Bromodichloromethane	UG/KG	11 U	10 U	12 U	11 U
1,2-Dichloropropane	UG/KG	11 U	10 U	12 U	11 U
cis-1,3-Dichloropropene	UG/KG	11 U	10 U	12 U	11 U
Trichloroethene	UG/KG	11 U	10 U	12 U	11 U
Dibromochloromethane	UG/KG	11 U	10 U	12 U	11 U
1,1,2-Trichloroethane	UG/KG	11 U	10 U	12 U	11 U
Benzene	UG/KG	11 U	10 U	12 U	11 U
trans-1,3-Dichloropropene	UG/KG	11 U	10 U	12 U	11 U
Bromoform	UG/KG	11 U	10 U	12 U	11 U
4-Methyl-2-pentanone	UG/KG	11 U	10 U	12 UJ	11 UJ
2-Hexanone	UG/KG	11 U	10 U	12 UJ	11 UJ
Tetrachloroethene	UG/KG	11 U	10 U	12 UJ	11 UJ
1,1,2,2-Tetrachloroethane	UG/KG	11 U	10 U	12 UJ	11 UJ
Toluene	UG/KG	11 U	10 U	12 UJ	11 UJ
Chlorobenzene	UG/KG	11 U	10 U	12 UJ	11 UJ
Ethylbenzene	UG/KG	11 U	10 U	12 UJ	11 UJ
Styrene	UG/KG	11 U	10 U	12 UJ	11 UJ
Xylenes (total)	UG/KG	11 U	10 U	12 UJ	11 UJ

SITE 30
SNEADS FERRY ROAD FUEL TANK SLUDGE AREA
SURFACE SOIL - FIELD DUPLICATE SUMMARY
REMEDIAL INVESTIGATION CTO-19231
MCB CAMP LEJEUNE, NORTH CAROLINA
VOLATILES AND SEMIVOLATILES

Client Sample ID:		30-SB05-00	30-SB05-00D	30-SB10-00	30-SB10-00D
Laboratory Sample ID:		940226-13	940226-14	940226-22	940226-23
Date Sampled:		3/22/94	3/22/94	3/22/94	3/22/94
	UNITS				
SEMIVOLATILES					
Phenol	UG/KG	360 U	360 U	360 U	360 U
bis(2-Chloroethyl) ether	UG/KG	360 U	360 U	360 U	360 U
2-Chlorophenol	UG/KG	360 U	360 U	360 U	360 U
1,3-Dichlorobenzene	UG/KG	360 U	360 U	360 U	360 U
1,4-Dichlorobenzene	UG/KG	360 U	360 U	360 U	360 U
1,2-Dichlorobenzene	UG/KG	360 U	360 U	360 U	360 U
2-Methylphenol	UG/KG	360 U	360 U	360 U	360 U
2,2'-oxybis-(1-chloropropane)	UG/KG	360 U	360 U	360 U	360 U
4-Methylphenol	UG/KG	360 U	360 U	360 U	360 U
N-Nitroso-di-n-propylamine	UG/KG	360 U	360 U	360 U	360 U
Hexachloroethane	UG/KG	360 U	360 U	360 U	360 U
Nitrobenzene	UG/KG	360 U	360 U	360 U	360 U
Isophorone	UG/KG	360 U	360 U	360 U	360 U
2-Nitrophenol	UG/KG	360 U	360 U	360 U	360 U
2,4-Dimethylphenol	UG/KG	360 U	360 U	360 U	360 U
bis(2-Chloroethoxy) methane	UG/KG	360 U	360 U	360 U	360 U
2,4-Dichlorophenol	UG/KG	360 U	360 U	360 U	360 U
1,2,4-Trichlorobenzene	UG/KG	360 U	360 U	360 U	360 U
Naphthalene	UG/KG	360 U	360 U	360 U	360 U
4-Chloroaniline	UG/KG	360 U	360 U	360 U	360 U
Hexachlorobutadiene	UG/KG	360 U	360 U	360 U	360 U
4-Chloro-3-methylphenol	UG/KG	360 U	360 U	360 U	360 U
2-Methylnaphthalene	UG/KG	360 U	360 U	360 U	360 U
Hexachlorocyclopentadiene	UG/KG	360 U	360 U	360 U	360 U
2,4,6-Trichlorophenol	UG/KG	360 U	360 U	360 U	360 U
2,4,5-Trichlorophenol	UG/KG	860 U	870 U	880 U	880 U
2-Chloronaphthalene	UG/KG	360 U	360 U	360 U	360 U
2-Nitroaniline	UG/KG	860 U	870 U	880 U	880 U
Dimethyl phthalate	UG/KG	360 U	360 U	360 U	360 U
Acenaphthylene	UG/KG	360 U	360 U	360 U	360 U
2,6-Dinitrotoluene	UG/KG	360 U	360 U	360 U	360 U
3-Nitroaniline	UG/KG	860 U	870 U	880 U	880 U
Acenaphthene	UG/KG	360 U	360 U	360 U	360 U

SITE 30
SNEADS FERRY ROAD FUEL TANK SLUDGE AREA
SURFACE SOIL - FIELD DUPLICATE SUMMARY
REMEDIAL INVESTIGATION CTO-19231
MCB CAMP LEJEUNE, NORTH CAROLINA
VOLATILES AND SEMIVOLATILES

Client Sample ID:		30-SB05-00	30-SB05-00D	30-SB10-00	30-SB10-00D
Laboratory Sample ID:		940226-13	940226-14	940226-22	940226-23
Date Sampled:		3/22/94	3/22/94	3/22/94	3/22/94
	UNITS				
SEMIVOLATILES Cont.					
2,4-Dinitrophenol	UG/KG	860 U	870 U	880 U	880 U
4-Nitrophenol	UG/KG	860 U	870 U	880 U	880 U
Dibenzofuran	UG/KG	360 U	360 U	360 U	360 U
2,4-Dinitrotoluene	UG/KG	360 U	360 U	360 U	360 U
Diethylphthalate	UG/KG	360 U	360 U	360 U	360 U
4-Chlorophenyl phenyl ether	UG/KG	360 U	360 U	360 U	360 U
Fluorene	UG/KG	360 U	360 U	360 U	360 U
4-Nitroaniline	UG/KG	860 U	870 U	880 U	880 U
4,6-Dinitro-2-methylphenol	UG/KG	860 U	870 U	880 U	880 U
N-nitrosodiphenylamine	UG/KG	360 U	360 U	360 U	360 U
4-Bromophenyl-phenylether	UG/KG	360 U	360 U	360 U	360 U
Hexachlorobenzene	UG/KG	360 U	360 U	360 U	360 U
Pentachlorophenol	UG/KG	860 U	870 U	880 U	880 U
Phenanthrene	UG/KG	360 U	360 U	360 U	360 U
Anthracene	UG/KG	360 U	360 U	360 U	360 U
Carbazole	UG/KG	360 U	360 U	360 U	360 U
di-n-Butylphthalate	UG/KG	360 U	360 U	360 U	360 U
Fluoranthene	UG/KG	360 U	360 U	360 U	360 U
Pyrene	UG/KG	360 U	360 U	360 U	360 U
Butyl benzyl phthalate	UG/KG	360 U	360 U	360 U	360 U
3,3'-Dichlorobenzidine	UG/KG	360 U	360 U	360 U	360 U
Benzo[a]anthracene	UG/KG	360 U	360 U	360 U	360 U
Chrysene	UG/KG	360 U	360 U	360 U	360 U
bis(2-Ethylhexyl)phthalate	UG/KG	360 U	360 U	360 U	190 J
di-n-Octylphthalate	UG/KG	360 U	360 U	360 U	360 U
Benzo[b]fluoranthene	UG/KG	360 U	360 U	360 U	360 U
Benzo[k]fluoranthene	UG/KG	360 U	360 U	360 U	360 U
Benzo[a]pyrene	UG/KG	360 U	360 U	360 U	360 U
Indeno[1,2,3-cd]pyrene	UG/KG	360 U	360 U	360 U	360 U
Dibenz[a,h]anthracene	UG/KG	360 U	360 U	360 U	360 U
Benzo[g,h,i]perylene	UG/KG	360 U	360 U	360 U	360 U

SITE 30
SNEADS FERRY ROAD FUEL TANK SLUDGE AREA
SUBSURFACE SOIL - FIELD DUPLICATE SUMMARY
REMEDIAL INVESTIGATION CTO-19231
MCB CAMP LEJEUNE, NORTH CAROLINA
TOTAL METALS

Client Sample ID:		30-SB10-03	30-SB10-03D	30-SB05-03	30-SB05-03D
Laboratory Sample ID:		940227-06	940227-07	940227-03	940227-04
Date Sampled:		3/22/94	3/22/94	3/22/94	3/22/94
Percent Solids		89	88.0	71	95.0
	UNITS				
Aluminum	MG/KG	6130 J	3690 J	3200 J	2330 J
Antimony	MG/KG	7 UJ	6.4 UJ	7 UJ	6.8 UJ
Arsenic	MG/KG	1	0.57 U	1	0.60 U
Barium	MG/KG	5	2.9	3	2.3
Beryllium	MG/KG	0 U	0.19 U	0 U	0.20 U
Cadmium	MG/KG	1 U	0.57 U	1 U	0.60 U
Calcium	MG/KG	38 U	25.6 U	25 U	22.3 U
Chromium	MG/KG	11 J	9.0 J	4	2.9 J
Cobalt	MG/KG	1 U	0.75 U	1 U	0.80 U
Copper	MG/KG	3	2.4	1	1.2 U
Iron	MG/KG	2850 J	2050 J	1610 J	1280 J
Lead	MG/KG	3	2.8	3	1.9
Magnesium	MG/KG	66	31.5	39	29.3
Manganese	MG/KG	6 J	5.5 J	10 J	6.5 J
Mercury	MG/KG	0	0.05	0 U	0.05 U
Nickel	MG/KG	3	1.3 U	2	1.4 U
Potassium	MG/KG	58	23.2	41	15.1
Selenium	MG/KG	1 U	0.75 U	1 U	0.80 U
Silver	MG/KG	1 UJ	0.94 UJ	1 UJ	1.0 UJ
Sodium	MG/KG	13 U	20.8 U	10 U	12.3 U
Thallium	MG/KG	1 U	0.75 U	1 U	0.80 U
Vanadium	MG/KG	6	4.0	4	3.1
Zinc	MG/KG	2	0.87	1	1.2

SITE 30
SNEADS FERRY ROAD FUEL TANK SLUDGE AREA
SUBSURFACE SOIL - FIELD DUPLICATE SUMMARY
REMEDIAL INVESTIGATION CTO-19231
MCB CAMP LEJEUNE, NORTH CAROLINA
VOLATILES AND SEMIVOLATILES

Client Sample ID:		30-SB05-03	30-SB05-03D	30-SB10-03	30-SB10-03D
Laboratory Sample ID:		940227-03	940227-04	940227-06	940227-07
Date Sampled:		3/22/94	3/22/94	3/22/94	3/22/94
	UNITS				
VOLATILES					
Chloromethane	UG/KG	11 U	11 U	11 U	12 U
Bromomethane	UG/KG	11 U	11 U	11 U	12 U
Vinyl chloride	UG/KG	11 U	11 U	11 U	12 U
Chloroethane	UG/KG	11 U	11 U	11 U	12 U
Methylene chloride	UG/KG	11 U	11 U	11 U	12 U
Acetone	UG/KG	11 U	11 U	51 U	74
Carbon Disulfide	UG/KG	11 U	11 U	11 U	12 U
1,1-Dichloroethene	UG/KG	11 U	11 U	11 U	12 U
1,1-Dichloroethane	UG/KG	11 U	11 U	11 U	12 U
1,2-Dichloroethene(total)	UG/KG	11 U	11 U	11 U	12 U
Chloroform	UG/KG	11 U	11 U	11 U	12 U
1,2-Dichloroethane	UG/KG	11 U	11 U	11 U	12 U
2-Butanone	UG/KG	11 U	11 U	11 U	12 U
1,1,1-Trichloroethane	UG/KG	11 U	11 U	11 U	12 U
Carbon tetrachloride	UG/KG	11 U	11 U	11 U	12 U
Bromodichloromethane	UG/KG	11 U	11 U	11 U	12 U
1,2-Dichloropropane	UG/KG	11 U	11 U	11 U	12 U
cis-1,3-Dichloropropene	UG/KG	11 U	11 U	11 U	12 U
Trichloroethene	UG/KG	11 U	11 U	11 U	12 U
Dibromochloromethane	UG/KG	11 U	11 U	11 U	12 U
1,1,2-Trichloroethane	UG/KG	11 U	11 U	11 U	12 U
Benzene	UG/KG	11 U	11 U	11 U	12 U
trans-1,3-Dichloropropene	UG/KG	11 U	11 U	11 U	12 U
Bromoform	UG/KG	11 U	11 U	11 U	12 U
4-Methyl-2-pentanone	UG/KG	11 U	11 U	11 U	12 U
2-Hexanone	UG/KG	11 U	11 U	11 U	12 U
Tetrachloroethene	UG/KG	11 U	11 U	11 U	12 U
1,1,2,2-Tetrachloroethane	UG/KG	11 U	11 U	11 U	12 U
Toluene	UG/KG	11 U	11 U	11 U	12 U
Chlorobenzene	UG/KG	11 U	11 U	11 U	12 U
Ethylbenzene	UG/KG	11 U	11 U	11 U	12 U
Styrene	UG/KG	11 U	11 U	11 U	12 U
Xylenes (total)	UG/KG	11 U	11 U	11 U	12 U

SITE 30
SNEADS FERRY ROAD FUEL TANK SLUDGE AREA
SUBSURFACE SOIL - FIELD DUPLICATE SUMMARY
REMEDIAL INVESTIGATION CTO-19231
MCB CAMP LEJEUNE, NORTH CAROLINA
VOLATILES AND SEMIVOLATILES

Client Sample ID:		30-SB05-03	30-SB05-03D	30-SB10-03	30-SB10-03D
Laboratory Sample ID:		940227-03	940227-04	940227-06	940227-07
Date Sampled:		3/22/94	3/22/94	3/22/94	3/22/94
	UNITS				
SEMIVOLATILES					
Phenol	UG/KG	460 U	350 U	370 U	370 U
bis(2-Chloroethyl) ether	UG/KG	460 U	350 U	370 U	370 U
2-Chlorophenol	UG/KG	460 U	350 U	370 U	370 U
1,3-Dichlorobenzene	UG/KG	460 U	350 U	370 U	370 U
1,4-Dichlorobenzene	UG/KG	460 U	350 U	370 U	370 U
1,2-Dichlorobenzene	UG/KG	460 U	350 U	370 U	370 U
2-Methylphenol	UG/KG	460 U	350 U	370 U	370 U
2,2'-oxybis-(1-chloropropane)	UG/KG	460 U	350 U	370 U	370 U
4-Methylphenol	UG/KG	460 U	350 U	370 U	370 U
N-Nitroso-di-n-propylamine	UG/KG	460 U	350 U	370 U	370 U
Hexachloroethane	UG/KG	460 U	350 U	370 U	370 U
Nitrobenzene	UG/KG	460 U	350 U	370 U	370 U
Isophorone	UG/KG	460 U	350 U	370 U	370 U
2-Nitrophenol	UG/KG	460 U	350 U	370 U	370 U
2,4-Dimethylphenol	UG/KG	460 U	350 U	370 U	370 U
bis(2-Chloroethoxy) methane	UG/KG	460 U	350 U	370 U	370 U
2,4-Dichlorophenol	UG/KG	460 U	350 U	370 U	370 U
1,2,4-Trichlorobenzene	UG/KG	460 U	350 U	370 U	370 U
Naphthalene	UG/KG	460 U	350 U	370 U	370 U
4-Chloroaniline	UG/KG	460 U	350 U	370 U	370 U
Hexachlorobutadiene	UG/KG	460 U	350 U	370 U	370 U
4-Chloro-3-methylphenol	UG/KG	460 U	350 U	370 U	370 U
2-Methylnaphthalene	UG/KG	460 U	350 U	370 U	370 U
Hexachlorocyclopentadiene	UG/KG	460 U	350 U	370 U	370 U
2,4,6-Trichlorophenol	UG/KG	460 U	350 U	370 U	370 U
2,4,5-Trichlorophenol	UG/KG	1100 U	840 U	900 U	900 U
2-Chloronaphthalene	UG/KG	460 U	350 U	370 U	370 U
2-Nitroaniline	UG/KG	1100 U	840 U	900 U	900 U
Dimethyl phthalate	UG/KG	460 U	350 U	370 U	370 U
Acenaphthylene	UG/KG	460 U	350 U	370 U	370 U
2,6-Dinitrotoluene	UG/KG	460 U	350 U	370 U	370 U
3-Nitroaniline	UG/KG	1100 U	840 U	900 U	900 U
Acenaphthene	UG/KG	460 U	350 U	370 U	370 U

SITE 30
SNEADS FERRY ROAD FUEL TANK SLUDGE AREA
SUBSURFACE SOIL - FIELD DUPLICATE SUMMARY
REMEDIAL INVESTIGATION CTO-19231
MCB CAMP LEJEUNE, NORTH CAROLINA
VOLATILES AND SEMIVOLATILES

Client Sample ID:		30-SB05-03	30-SB05-03D	30-SB10-03	30-SB10-03D
Laboratory Sample ID:		940227-03	940227-04	940227-06	940227-07
Date Sampled:		3/22/94	3/22/94	3/22/94	3/22/94
	UNITS				
SEMIVOLATILES Cont.					
2,4-Dinitrophenol	UG/KG	1100 U	840 U	900 U	900 U
4-Nitrophenol	UG/KG	1100 U	840 U	900 U	900 U
Dibenzofuran	UG/KG	460 U	350 U	370 U	370 U
2,4-Dinitrotoluene	UG/KG	460 U	350 U	370 U	370 U
Diethylphthalate	UG/KG	460 U	350 U	370 U	370 U
4-Chlorophenyl phenyl ether	UG/KG	460 U	350 U	370 U	370 U
Fluorene	UG/KG	460 U	350 U	370 U	370 U
4-Nitroaniline	UG/KG	1100 U	840 U	900 U	900 U
4,6-Dinitro-2-methylphenol	UG/KG	1100 U	840 U	900 U	900 U
N-nitrosodiphenylamine	UG/KG	460 U	350 U	370 U	370 U
4-Bromophenyl-phenylether	UG/KG	460 U	350 U	370 U	370 U
Hexachlorobenzene	UG/KG	460 U	350 U	370 U	370 U
Pentachlorophenol	UG/KG	1100 U	840 U	900 U	900 U
Phenanthrene	UG/KG	460 U	350 U	370 U	370 U
Anthracene	UG/KG	460 U	350 U	370 U	370 U
Carbazole	UG/KG	460 U	350 U	370 U	370 U
di-n-Butylphthalate	UG/KG	460 U	350 U	370 U	370 U
Fluoranthene	UG/KG	460 U	350 U	370 U	370 U
Pyrene	UG/KG	460 U	350 U	370 U	370 U
Butyl benzyl phthalate	UG/KG	460 U	350 U	370 U	370 U
3,3'-Dichlorobenzidine	UG/KG	460 U	350 U	370 U	370 U
Benzo[a]anthracene	UG/KG	460 U	350 U	370 U	370 U
Chrysene	UG/KG	460 U	350 U	370 U	370 U
bis(2-Ethylhexyl)phthalate	UG/KG	100 J	67 J	380	210 J
di-n-Octylphthalate	UG/KG	460 U	350 U	370 U	370 U
Benzo[b]fluoranthene	UG/KG	460 U	350 U	370 U	370 U
Benzo[k]fluoranthene	UG/KG	460 U	350 U	370 U	370 U
Benzo[a]pyrene	UG/KG	460 U	350 U	370 U	370 U
Indeno[1,2,3-cd]pyrene	UG/KG	460 U	350 U	370 U	370 U
Dibenz[a,h]anthracene	UG/KG	460 U	350 U	370 U	370 U
Benzo[g,h,i]perylene	UG/KG	460 U	350 U	370 U	370 U

SITE 30
SNEADS FERRY ROAD FUEL TANK SLUDGE AREA
GROUNDWATER - FIELD DUPLICATE SUMMARY
REMEDIAL INVESTIGATION CTO-19231
MCB CAMP LEJEUNE, NORTH CAROLINA
TOTAL METALS

Client Sample ID:		30-GW02-01	30-GW02-01D
Laboratory Sample ID:		940334-11	940334-12
Date Sampled:		4/21/94	4/21/94
	UNITS		
Aluminum	UG/L	136000 J	61200
Antimony	UG/L	34 UJ	34.0 U
Arsenic	UG/L	25.8	14.4
Barium	UG/L	126	62.1
Beryllium	UG/L	1 U	1.0 U
Cadmium	UG/L	3 U	3.0 U
Calcium	UG/L	2220	2000
Chromium	UG/L	111 J	49.9 J
Cobalt	UG/L	10.5 J	7.7
Copper	UG/L	27.8	16.8
Iron	UG/L	41400 J	18900
Lead	UG/L	27.6 J	12.8
Magnesium	UG/L	7300	3450
Manganese	UG/L	181	101
Mercury	UG/L	0.13	0.14 U
Nickel	UG/L	61.2	25.9
Potassium	UG/L	7440 J	2630
Selenium	UG/L	4 UJ	4.0 UJ
Silver	UG/L	5 UJ	5.0 UJ
Sodium	UG/L	8980	8260
Thallium	UG/L	4 U	4.0 UJ
Vanadium	UG/L	123	53.6
Zinc	UG/L	237	123

SITE 30
SNEADS FERRY ROAD FUEL TANK SLUDGE AREA
GROUNDWATER - FIELD DUPLICATE SUMMARY
REMEDIAL INVESTIGATION CTO-19231
MCB CAMP LEJEUNE, NORTH CAROLINA
DISSOLVED METALS

Client Sample ID:		30-GW02D-01	30-GW02D-01D
Laboratory Sample ID:		940334-13	940334-14
Date Sampled:		4/21/94	4/21/94
	UNITS		
Aluminum	UG/L	130 UJ	106
Antimony	UG/L	37.9 J	34.0 U
Arsenic	UG/L	3 U	3.0 U
Barium	UG/L	17.3	11.3
Beryllium	UG/L	1 U	1.0 U
Cadmium	UG/L	3 U	3.0 U
Calcium	UG/L	2560	1990
Chromium	UG/L	7 UJ	7.0 UJ
Cobalt	UG/L	4 U	4.0 U
Copper	UG/L	6 U	7.8
Iron	UG/L	141 J	127 U
Lead	UG/L	1 UJ	1.0 U
Magnesium	UG/L	1170	1010
Manganese	UG/L	46.4	47.6
Mercury	UG/L	0.13 U	0.13 U
Nickel	UG/L	7 U	7.0 U
Potassium	UG/L	625 J	590
Selenium	UG/L	4 UJ	4.0 UJ
Silver	UG/L	5 UJ	5.0 UJ
Sodium	UG/L	9810	8370
Thallium	UG/L	4 U	4.0 UJ
Vanadium	UG/L	3 U	3.0 U
Zinc	UG/L	23.3 U	26.2 U

SITE 30
SNEADS FERRY ROAD FUEL TANK SLUDGE AREA
GROUNDWATER - FIELD DUPLICATE SUMMARY
REMEDIAL INVESTIGATION CTO-19231
MCB CAMP LEJEUNE, NORTH CAROLINA
VOLATILES AND SEMIVOLATILES

Client Sample ID:		30-GW02-01	30-GW02-01D
Laboratory Sample ID:		940334-11	940334-12
Date Sampled:		4/21/94	4/21/94
	UNITS		
VOLATILES			
Chloromethane	UG/L	2 U	2 U
Bromomethane	UG/L	2 U	2 U
Vinyl chloride	UG/L	2 U	2 U
Chloroethane	UG/L	2 U	2 U
Methylene chloride	UG/L	2 U	2 U
1,1-Dichloroethene	UG/L	2 U	2 U
1,1-Dichloroethane	UG/L	2 U	2 U
1,2-Dichloroethene(total)	UG/L	2 U	2 U
Chloroform	UG/L	2 U	2 U
1,2-Dichloroethane	UG/L	2 U	2 U
1,1,1-Trichloroethane	UG/L	2 U	2 U
Carbon tetrachloride	UG/L	2 U	2 U
Bromodichloromethane	UG/L	2 U	2 U
1,2-Dichloropropane	UG/L	2 U	2 U
cis-1,3-Dichloropropene	UG/L	2 U	2 U
Trichloroethene	UG/L	2 U	2 U
Dibromochloromethane	UG/L	2 U	2 U
1,1,2-Trichloroethane	UG/L	2 U	2 U
Benzene	UG/L	2 U	2 U
trans-1,3-Dichloropropene	UG/L	2 U	2 U
2-Chloroethylvinylether	UG/L	2 U	2 U
Bromoform	UG/L	2 U	2 U
Tetrachloroethene	UG/L	2 U	2 U
1,1,2,2-Tetrachloroethane	UG/L	2 U	2 U
Toluene	UG/L	2 U	2 U
Chlorobenzene	UG/L	2 U	2 U
Ethylbenzene	UG/L	2 U	2 U
Xylene (total)	UG/L	2 U	2 U
1,3-Dichlorobenzene	UG/L	2 U	2 U
1,4-Dichlorobenzene	UG/L	2 U	2 U
1,2-Dichlorobenzene	UG/L	2 U	2 U
Trichlorofluoromethane	UG/L	2 U	2 U

SITE 30
SNEADS FERRY ROAD FUEL TANK SLUDGE AREA
GROUNDWATER - FIELD DUPLICATE SUMMARY
REMEDIAL INVESTIGATION CTO-19231
MCB CAMP LEJEUNE, NORTH CAROLINA
VOLATILES AND SEMIVOLATILES

Client Sample ID:		30-GW02-01	30-GW02-01D
Laboratory Sample ID:		940334-11	940334-12
Date Sampled:		4/21/94	4/21/94
	UNITS		
SEMIVOLATILES			
Phenol	UG/L	10 U	10 U
bis(2-Chloroethyl) ether	UG/L	10 U	10 U
2-Chlorophenol	UG/L	10 U	10 U
1,3-Dichlorobenzene	UG/L	10 U	10 U
1,4-Dichlorobenzene	UG/L	10 U	10 U
1,2-Dichlorobenzene	UG/L	10 U	10 U
2-Methylphenol	UG/L	10 U	10 U
2,2'-oxybis-(1-chloropropane)	UG/L	10 UJ	10 UJ
4-Methylphenol	UG/L	10 U	10 U
N-Nitroso-di-n-propylamine	UG/L	10 U	10 U
Hexachloroethane	UG/L	10 U	10 U
Nitrobenzene	UG/L	10 U	10 U
Isophorone	UG/L	10 U	10 U
2-Nitrophenol	UG/L	10 U	10 U
2,4-Dimethylphenol	UG/L	10 U	10 U
bis(2-Chloroethoxy) methane	UG/L	10 U	10 U
2,4-Dichlorophenol	UG/L	10 U	10 U
1,2,4-Trichlorobenzene	UG/L	10 U	10 U
Naphthalene	UG/L	10 U	10 U
4-Chloroaniline	UG/L	10 U	10 U
Hexachlorobutadiene	UG/L	10 U	10 U
4-Chloro-3-methylphenol	UG/L	10 U	10 U
2-Methylnaphthalene	UG/L	10 U	10 U
Hexachlorocyclopentadiene	UG/L	10 U	10 U
2,4,6-Trichlorophenol	UG/L	10 U	10 U
2,4,5-Trichlorophenol	UG/L	25 U	25 U
2-Chloronaphthalene	UG/L	10 U	10 U
2-Nitroaniline	UG/L	25 U	25 U
Dimethyl phthalate	UG/L	10 U	10 U
Acenaphthylene	UG/L	10 U	10 U
2,6-Dinitrotoluene	UG/L	10 U	10 U
3-Nitroaniline	UG/L	25 U	25 U
Acenaphthene	UG/L	10 U	10 U

SITE 30
SNEADS FERRY ROAD FUEL TANK SLUDGE AREA
GROUNDWATER - FIELD DUPLICATE SUMMARY
REMEDIAL INVESTIGATION CTO-19231
MCB CAMP LEJEUNE, NORTH CAROLINA
VOLATILES AND SEMIVOLATILES

Client Sample ID:		30-GW02-01	30-GW02-01D
Laboratory Sample ID:		940334-11	940334-12
Date Sampled:		4/21/94	4/21/94
	UNITS		
SEMIVOLATILES Cont.			
2,4-Dinitrophenol	UG/L	25 U	25 U
4-Nitrophenol	UG/L	25 U	25 U
Dibenzofuran	UG/L	10 U	10 U
2,4-Dinitrotoluene	UG/L	10 U	10 U
Diethylphthalate	UG/L	10 U	10 U
4-Chlorophenyl phenyl ether	UG/L	10 U	10 U
Fluorene	UG/L	10 U	10 U
4-Nitroaniline	UG/L	25 U	25 U
4,6-Dinitro-2-methylphenol	UG/L	25 U	25 U
N-nitrosodiphenylamine	UG/L	10 U	10 U
4-Bromophenyl-phenylether	UG/L	10 U	10 U
Hexachlorobenzene	UG/L	10 U	10 U
Pentachlorophenol	UG/L	25 U	25 U
Phenanthrene	UG/L	10 U	10 U
Anthracene	UG/L	10 U	10 U
Carbazole	UG/L	10 U	10 U
di-n-Butylphthalate	UG/L	10 U	10 U
Fluoranthene	UG/L	10 U	10 U
Pyrene	UG/L	10 U	10 U
Butyl benzyl phthalate	UG/L	10 U	10 U
3,3'-Dichlorobenzidine	UG/L	10 U	10 U
Benzo[a]anthracene	UG/L	10 U	10 U
Chrysene	UG/L	10 U	10 U
bis(2-Ethylhexyl)phthalate	UG/L	10 U	10 U
di-n-Octylphthalate	UG/L	10 U	10 U
Benzo[b]fluoranthene	UG/L	10 U	10 U
Benzo[k]fluoranthene	UG/L	10 U	10 U
Benzo[a]pyrene	UG/L	10 U	10 U
Indeno[1,2,3-cd]pyrene	UG/L	10 U	10 U
Dibenz[a,h]anthracene	UG/L	10 U	10 U
Benzo[g,h,i]perylene	UG/L	10 U	10 U

SITE 30
SNEADS FERRY ROAD FUEL TANK SLUDGE AREA
SURFACE WATER - FIELD DUPLICATE SUMMARY
REMEDIAL INVESTIGATION CTO-19231
MCB CAMP LEJEUNE, NORTH CAROLINA
TOTAL METALS

Client Sample ID:		30-SW01	30-SW01D
Laboratory Sample ID:		940226-36	940226-37
Date Sampled:		3/23/94	3/23/94
	UNITS		
Aluminum	UG/L	1480	559
Antimony	UG/L	34 U	34.0 U
Arsenic	UG/L	3 U	3.0 U
Barium	UG/L	10.2	7.0 U
Beryllium	UG/L	1 U	1.0 U
Cadmium	UG/L	3 U	3.0 U
Calcium	UG/L	2080	1830
Chromium	UG/L	7 U	7.0 U
Cobalt	UG/L	4 U	4.0 U
Copper	UG/L	6	6.0 U
Iron	UG/L	829	443
Lead	UG/L	2.3 J	1.0 UJ
Magnesium	UG/L	650	580
Manganese	UG/L	5.5 J	3.8 J
Mercury	UG/L	0.15	0.13 U
Nickel	UG/L	10.8 U	8.0 U
Potassium	UG/L	220	192
Selenium	UG/L	4 U	4.0 U
Silver	UG/L	5 UJ	5.0 UJ
Sodium	UG/L	4440	4160
Thallium	UG/L	4 U	4.0 U
Vanadium	UG/L	3 U	3.0 U
Zinc	UG/L	22 U	20.0 U

SITE 30
SNEADS FERRY ROAD FUEL TANK SLUDGE AREA
SURFACE WATER - FIELD DUPLICATE SUMMARY
REMEDIAL INVESTIGATION CTO-19231
MCB CAMP LEJEUNE, NORTH CAROLINA
VOLATILES AND SEMIVOLATILES

Client Sample ID:		30-SW01	30-SW01D
Laboratory Sample ID:		940226-36	940226-37
Date Sampled:		3/23/94	3/23/94
	UNITS		
VOLATILES			
Chloromethane	UG/L	10 U	10 U
Bromomethane	UG/L	10 U	10 U
Vinyl chloride	UG/L	10 U	10 U
Chloroethane	UG/L	10 U	10 U
Methylene chloride	UG/L	10 U	10 U
Acetone	UG/L	13 U	10 U
Carbon Disulfide	UG/L	10 U	10 U
1,1-Dichloroethene	UG/L	10 U	10 U
1,1-Dichloroethane	UG/L	10 U	10 U
1,2-Dichloroethene(total)	UG/L	10 U	10 U
Chloroform	UG/L	10 U	10 U
1,2-Dichloroethane	UG/L	10 U	10 U
2-Butanone	UG/L	10 U	10 U
1,1,1-Trichloroethane	UG/L	10 U	10 U
Carbon tetrachloride	UG/L	10 U	10 U
Bromodichloromethane	UG/L	10 U	10 U
1,2-Dichloropropane	UG/L	10 U	10 U
cis-1,3-Dichloropropene	UG/L	10 U	10 U
Trichloroethene	UG/L	10 U	10 U
Dibromochloromethane	UG/L	10 U	10 U
1,1,2-Trichloroethane	UG/L	10 U	10 U
Benzene	UG/L	10 U	10 U
trans-1,3-Dichloropropene	UG/L	10 U	10 U
Bromoform	UG/L	10 U	10 U
4-Methyl-2-pentanone	UG/L	10 U	10 U
2-Hexanone	UG/L	10 U	10 U
Tetrachloroethene	UG/L	10 U	10 U
1,1,2,2-Tetrachloroethane	UG/L	10 U	10 U
Toluene	UG/L	10 U	10 U
Chlorobenzene	UG/L	10 U	10 U
Ethylbenzene	UG/L	10 U	10 U
Styrene	UG/L	10 U	10 U
Xylenes (total)	UG/L	10 U	10 U

SITE 30
SNEADS FERRY ROAD FUEL TANK SLUDGE AREA
SURFACE WATER - FIELD DUPLICATE SUMMARY
REMEDIAL INVESTIGATION CTO-19231
MCB CAMP LEJEUNE, NORTH CAROLINA
VOLATILES AND SEMIVOLATILES

Client Sample ID:		30-SW01	30-SW01D
Laboratory Sample ID:		940226-36	940226-37
Date Sampled:		3/23/94	3/23/94
	UNITS		
SEMIVOLATILES			
Phenol	UG/L	10 U	10 U
bis(2-Chloroethyl) ether	UG/L	10 U	10 U
2-Chlorophenol	UG/L	10 U	10 U
1,3-Dichlorobenzene	UG/L	10 U	10 U
1,4-Dichlorobenzene	UG/L	10 U	10 U
1,2-Dichlorobenzene	UG/L	10 U	10 U
2-Methylphenol	UG/L	10 U	10 U
2,2'-oxybis-(1-chloropropane)	UG/L	10 U	10 U
4-Methylphenol	UG/L	10 U	10 U
N-Nitroso-di-n-propylamine	UG/L	10 U	10 U
Hexachloroethane	UG/L	10 U	10 U
Nitrobenzene	UG/L	10 U	10 U
Isophorone	UG/L	10 U	10 U
2-Nitrophenol	UG/L	10 U	10 U
2,4-Dimethylphenol	UG/L	10 U	10 U
bis(2-Chloroethoxy) methane	UG/L	10 U	10 U
2,4-Dichlorophenol	UG/L	10 U	10 U
1,2,4-Trichlorobenzene	UG/L	10 U	10 U
Naphthalene	UG/L	10 U	10 U
4-Chloroaniline	UG/L	10 U	10 U
Hexachlorobutadiene	UG/L	10 U	10 U
4-Chloro-3-methylphenol	UG/L	10 U	10 U
2-Methylnaphthalene	UG/L	10 U	10 U
Hexachlorocyclopentadiene	UG/L	10 U	10 U
2,4,6-Trichlorophenol	UG/L	10 U	10 U
2,4,5-Trichlorophenol	UG/L	25 U	25 U
2-Chloronaphthalene	UG/L	10 U	10 U
2-Nitroaniline	UG/L	25 U	25 U
Dimethyl phthalate	UG/L	10 U	10 U
Acenaphthylene	UG/L	10 U	10 U
2,6-Dinitrotoluene	UG/L	10 U	10 U
3-Nitroaniline	UG/L	25 U	25 U
Acenaphthene	UG/L	10 U	10 U

SITE 30
SNEADS FERRY ROAD FUEL TANK SLUDGE AREA
SURFACE WATER - FIELD DUPLICATE SUMMARY
REMEDIAL INVESTIGATION CTO-19231
MCB CAMP LEJEUNE, NORTH CAROLINA
VOLATILES AND SEMIVOLATILES

Client Sample ID:		30-SW01	30-SW01D
Laboratory Sample ID:		940226-36	940226-37
Date Sampled:		3/23/94	3/23/94
	UNITS		
SEMIVOLATILES Cont.			
2,4-Dinitrophenol	UG/L	25 U	25 U
4-Nitrophenol	UG/L	25 U	25 U
Dibenzofuran	UG/L	10 U	10 U
2,4-Dinitrotoluene	UG/L	10 U	10 U
Diethylphthalate	UG/L	10 U	10 U
4-Chlorophenyl phenyl ether	UG/L	10 U	10 U
Fluorene	UG/L	10 U	10 U
4-Nitroaniline	UG/L	25 U	25 U
4,6-Dinitro-2-methylphenol	UG/L	25 U	25 U
N-nitrosodiphenylamine	UG/L	10 U	10 U
4-Bromophenyl-phenylether	UG/L	10 U	10 U
Hexachlorobenzene	UG/L	10 U	10 U
Pentachlorophenol	UG/L	25 U	25 U
Phenanthrene	UG/L	10 U	10 U
Anthracene	UG/L	10 U	10 U
Carbazole	UG/L	10 U	10 U
di-n-Butylphthalate	UG/L	10 U	10 U
Fluoranthene	UG/L	10 U	10 U
Pyrene	UG/L	10 U	10 U
Butyl benzyl phthalate	UG/L	10 U	10 U
3,3'-Dichlorobenzidine	UG/L	10 U	10 U
Benzo[a]anthracene	UG/L	10 U	10 U
Chrysene	UG/L	10 U	10 U
bis(2-Ethylhexyl)phthalate	UG/L	10 U	10 U
di-n-Octylphthalate	UG/L	10 U	10 U
Benzo[b]fluoranthene	UG/L	10 U	10 U
Benzo[k]fluoranthene	UG/L	10 U	10 U
Benzo[a]pyrene	UG/L	10 U	10 U
Indeno[1,2,3-cd]pyrene	UG/L	10 U	10 U
Dibenz[a,h]anthracene	UG/L	10 U	10 U
Benzo[g,h,i]perylene	UG/L	10 U	10 U

SITE 30
SNEADS FERRY ROAD FUEL TANK SLUDGE AREA
SEDIMENT - FIELD DUPLICATE SUMMARY
REMEDIAL INVESTIGATION CTO-19231
MCB CAMP LEJEUNE, NORTH CAROLINA
TOTAL METALS

Client Sample ID:		30-SD01-06	30-SD01-06D
Laboratory Sample ID:		940238-06	940238-07
Date Sampled:		3/25/94	3/25/94
	UNITS		
Aluminum	MG/KG	2320	4810
Antimony	MG/KG	19.5 U	18.1 U
Arsenic	MG/KG	1.7 U	1.6 U
Barium	MG/KG	9.1	12.7
Beryllium	MG/KG	0.57 U	0.53 U
Cadmium	MG/KG	1.7 U	1.6 U
Calcium	MG/KG	646	721
Chromium	MG/KG	7.5	9.7
Cobalt	MG/KG	2.3 U	2.1 U
Copper	MG/KG	9.5	18.0
Iron	MG/KG	755	1350
Lead	MG/KG	15.5	16.7
Magnesium	MG/KG	133	174
Manganese	MG/KG	19.0	11.7
Mercury	MG/KG	0.14 U	0.11 U
Nickel	MG/KG	4.0 UJ	3.7 UJ
Potassium	MG/KG	102	236
Selenium	MG/KG	2.3 U	2.1 U
Silver	MG/KG	2.9 UJ	2.7 UJ
Sodium	MG/KG	73.9 U	112 U
Thallium	MG/KG	2.3 U	2.1 U
Vanadium	MG/KG	5.3	7.6
Zinc	MG/KG	11.3	11.8

SITE 30
SNEADS FERRY ROAD FUEL TANK SLUDGE AREA
SEDIMENT - FIELD DUPLICATE SUMMARY
REMEDIAL INVESTIGATION CTO-19231
MCB CAMP LEJEUNE, NORTH CAROLINA
VOLATILES AND SEMIVOLATILES

Client Sample ID:		30-SD01-06	30-SD01-06D
Laboratory Sample ID:		940238-06	940238-07
Date Sampled:		3/25/94	3/25/94
	UNITS		
VOLATILES			
Chloromethane	UG/KG	33 U	34 U
Bromomethane	UG/KG	33 U	34 U
Vinyl chloride	UG/KG	33 U	34 U
Chloroethane	UG/KG	33 U	34 U
Methylene chloride	UG/KG	33 U	34 U
Acetone	UG/KG	33 U	65 U
Carbon Disulfide	UG/KG	33 U	34 U
1,1-Dichloroethene	UG/KG	33 U	34 U
1,1-Dichloroethane	UG/KG	33 U	34 U
1,2-Dichloroethene(total)	UG/KG	33 U	34 U
Chloroform	UG/KG	33 U	34 U
1,2-Dichloroethane	UG/KG	33 U	34 U
2-Butanone	UG/KG	33 U	22 J
1,1,1-Trichloroethane	UG/KG	33 U	34 U
Carbon tetrachloride	UG/KG	33 U	34 U
Bromodichloromethane	UG/KG	33 U	34 U
1,2-Dichloropropane	UG/KG	33 U	34 U
cis-1,3-Dichloropropene	UG/KG	33 U	34 U
Trichloroethene	UG/KG	33 U	34 U
Dibromochloromethane	UG/KG	33 U	34 U
1,1,2-Trichloroethane	UG/KG	33 U	34 U
Benzene	UG/KG	33 U	34 U
trans-1,3-Dichloropropene	UG/KG	33 U	34 U
Bromoform	UG/KG	33 U	34 U
4-Methyl-2-pentanone	UG/KG	33 U	34 U
2-Hexanone	UG/KG	33 U	34 U
Tetrachloroethene	UG/KG	33 U	34 U
1,1,2,2-Tetrachloroethane	UG/KG	33 U	34 U
Toluene	UG/KG	33 U	34 U
Chlorobenzene	UG/KG	33 U	34 U
Ethylbenzene	UG/KG	33 U	34 U
Styrene	UG/KG	33 U	34 U
Xylenes (total)	UG/KG	33 U	34 U

SITE 30
SNEADS FERRY ROAD FUEL TANK SLUDGE AREA
SEDIMENT - FIELD DUPLICATE SUMMARY
REMEDIAL INVESTIGATION CTO-19231
MCB CAMP LEJEUNE, NORTH CAROLINA
VOLATILES AND SEMIVOLATILES

Client Sample ID:		30-SD01-06	30-SD01-06D
Laboratory Sample ID:		940238-06	940238-07
Date Sampled:		3/25/94	3/25/94
	UNITS		
SEMIVOLATILES			
Phenol	UG/KG	1100 U	1100 U
bis(2-Chloroethyl) ether	UG/KG	1100 U	1100 U
2-Chlorophenol	UG/KG	1100 U	1100 U
1,3-Dichlorobenzene	UG/KG	1100 U	1100 U
1,4-Dichlorobenzene	UG/KG	1100 U	1100 U
1,2-Dichlorobenzene	UG/KG	1100 U	1100 U
2-Methylphenol	UG/KG	1100 U	1100 U
2,2'-oxybis-(1-chloropropane)	UG/KG	1100 UJ	1100 UJ
4-Methylphenol	UG/KG	1100 U	1100 U
N-Nitroso-di-n-propylamine	UG/KG	1100 U	1100 U
Hexachloroethane	UG/KG	1100 U	1100 U
Nitrobenzene	UG/KG	1100 U	1100 U
Isophorone	UG/KG	1100 U	1100 U
2-Nitrophenol	UG/KG	1100 U	1100 U
2,4-Dimethylphenol	UG/KG	1100 U	1100 U
bis(2-Chloroethoxy) methane	UG/KG	1100 U	1100 U
2,4-Dichlorophenol	UG/KG	1100 U	1100 U
1,2,4-Trichlorobenzene	UG/KG	1100 U	1100 U
Naphthalene	UG/KG	1100 U	1100 U
4-Chloroaniline	UG/KG	1100 U	1100 U
Hexachlorobutadiene	UG/KG	1100 U	1100 U
4-Chloro-3-methylphenol	UG/KG	1100 U	1100 U
2-Methylnaphthalene	UG/KG	1100 U	1100 U
Hexachlorocyclopentadiene	UG/KG	1100 U	1100 U
2,4,6-Trichlorophenol	UG/KG	1100 U	1100 U
2,4,5-Trichlorophenol	UG/KG	2600 U	2700 U
2-Chloronaphthalene	UG/KG	1100 U	1100 U
2-Nitroaniline	UG/KG	2600 U	2700 U
Dimethyl phthalate	UG/KG	1100 U	1100 U
Acenaphthylene	UG/KG	1100 U	1100 U
2,6-Dinitrotoluene	UG/KG	1100 U	1100 U
3-Nitroaniline	UG/KG	2600 U	2700 U
Acenaphthene	UG/KG	1100 U	1100 U

SITE 30
SNEADS FERRY ROAD FUEL TANK SLUDGE AREA
SEDIMENT - FIELD DUPLICATE SUMMARY
REMEDIAL INVESTIGATION CTO-19231
MCB CAMP LEJEUNE, NORTH CAROLINA
VOLATILES AND SEMIVOLATILES

Client Sample ID:		30-SD01-06	30-SD01-06D
Laboratory Sample ID:		940238-06	940238-07
Date Sampled:		3/25/94	3/25/94
	UNITS		
SEMIVOLATILES Cont.			
2,4-Dinitrophenol	UG/KG	2600 U	2700 U
4-Nitrophenol	UG/KG	2600 U	2700 U
Dibenzofuran	UG/KG	1100 U	1100 U
2,4-Dinitrotoluene	UG/KG	1100 U	1100 U
Diethylphthalate	UG/KG	1100 U	1100 U
4-Chlorophenyl phenyl ether	UG/KG	1100 U	1100 U
Fluorene	UG/KG	1100 U	1100 U
4-Nitroaniline	UG/KG	2600 U	2700 U
4,6-Dinitro-2-methylphenol	UG/KG	2600 U	2700 U
N-nitrosodiphenylamine	UG/KG	1100 U	1100 U
4-Bromophenyl-phenylether	UG/KG	1100 U	1100 U
Hexachlorobenzene	UG/KG	1100 U	1100 U
Pentachlorophenol	UG/KG	2600 U	2700 U
Phenanthrene	UG/KG	1100 U	1100 U
Anthracene	UG/KG	1100 U	1100 U
Carbazole	UG/KG	1100 U	1100 U
di-n-Butylphthalate	UG/KG	1100 U	150 J
Fluoranthene	UG/KG	1100 U	1100 U
Pyrene	UG/KG	1100 U	1100 U
Butyl benzyl phthalate	UG/KG	1100 U	1100 U
3,3'-Dichlorobenzidine	UG/KG	1100 U	1100 U
Benzo[a]anthracene	UG/KG	1100 U	1100 U
Chrysene	UG/KG	1100 U	1100 U
bis(2-Ethylhexyl)phthalate	UG/KG	500 J	630 J
di-n-Octylphthalate	UG/KG	1100 U	1100 U
Benzo[b]fluoranthene	UG/KG	1100 U	1100 U
Benzo[k]fluoranthene	UG/KG	1100 U	1100 U
Benzo[a]pyrene	UG/KG	1100 U	1100 U
Indeno[1,2,3-cd]pyrene	UG/KG	1100 U	1100 U
Dibenz[a,h]anthracene	UG/KG	1100 U	1100 U
Benzo[g,h,i]perylene	UG/KG	1100 U	1100 U

APPENDIX G
TCLP RESULTS

SITE 1

INORGANIC ANALYTES

Client: Baker Environmental

Client ID: 1-S-SB40

Laboratory ID: 940320-08

Date Sample Received: 4/20/94

Date Sampled: 4/19/94

Target Analyte	Result	Units	Method Reporting Limit	Date Analyzed
Flashpoint	NC	°F	200	4/24/94
pH	4.59	S.U.	---	4/22/94
Reactive Cyanide	ND	mg/kg*	0.6	4/25/94
Reactive Sulfide	ND	mg/kg*	1.4	4/25/94

NC = No Combustion
ND = Not detected

* Reported on a dry weight basis, total solids = 88.9%

1632

TCLP METALS
1

INORGANIC ANALYSIS DATA SHEET

SAMPLE ID
1-S-SB40

Lab Name: CEIMIC CORPORATION Contract: BAKER

Lab Code: CEIMIC Case No.: 19231 SAS No.: SDG No.: GW1700

Matrix (soil/water): WATER Lab Sample ID: 942320-08 S

Level (low/med): LOW Date Received: 04/20/94

% Solids: 0.0

Concentration Units (ug/L or mg/Kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7440-38-2	Arsenic	25.0	U		P
7440-39-2	Barium	655	B		P
7440-43-9	Cadmium	3.0	U		P
7440-47-3	Chromium	7.0	U		P
7439-92-1	Lead	61.0	U		P
7439-97-6	Mercury	0.13	U		AV
7782-49-2	Selenium	49.0	U		P
7440-22-4	Silver	5.0	U		P

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

TOXICITY CHARACTERISTIC LEACHING PROCEDURE (TCLP)

ORGANOCHLORINE HERBICIDES

EPA Method 8150

Client: Baker Environmental

Client ID: 1-S-SB40 Laboratory ID: 940320-08

Date Sample Received: 4/22/94 Date Sample Prepared: 4/27/94

Date Sample Analyzed: 5/13/94 Concentration in: µg/L (ppb)

Target Analyte	Sample Concentration	Method Reporting Limits
2,4-D	ND	33
2,4,5-TP (Silvex)	ND	10

ND = Not detected

1568

TOXICITY CHARACTERISTIC LEACHING PROCEDURE (TCLP)

ORGANOCHLORINE PESTICIDES

EPA Method 8080

Client: Baker Environmental

Client Sample ID: 1-S-SB40 Laboratory ID: 940320-08

Date Sample Received: 4/20/94 Date Sample Prepared: 4/27/94

Date Sample Analyzed: 5/16/94 Concentration in: µg/L (ppb)

Target Analyte	Sample Concentration	Method Reporting Limt
gamma-BHC (Lindane)	ND	0.17
Heptachlor	ND	0.17
Heptachlor Epoxide	ND	0.17
Endrin	ND	0.33
Methoxychlor	ND	1.7
Toxaphene	ND	17
Chlordane	ND	1.7

ND = Not detected

1551

ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.: 1-S-SB40

Lab Name: CEIMIC CORP Contract: BAKER

Lab Code: CEIMIC Case No.: 19231 SAS No.: SDG No.: GW1700

Matrix: (soil/water) WATER Lab Sample ID: 940320-00

Sample wt/vol: 60.0 (g/mL) ML Lab File ID: 19401

Level: (low/med) LOW Date Received: 04/20/94

% Moisture: decanted: (Y/N) N Date Extracted: 04/27/94

Concentrated Extract Volume: 1000(uL) Date Analyzed: 04/28/94

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
110-86-1	Pyridine	170	U
106-46-7	1,4-Dichlorobenzene	170	U
	Methylphenols (total)	170	U
67-72-1	Hexachloroethane	170	U
98-95-3	Nitrobenzene	170	U
87-68-3	Hexachlorobutadiene	170	U
88-06-2	2,4,6-Trichlorophenol	170	U
95-95-4	2,4,5-Trichlorophenol	420	U
121-14-2	2,4-Dinitrotoluene	170	U
118-74-1	Hexachlorobenzene	170	U
87-86-5	Pentachlorophenol	420	U

1X
ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.
1-S-SB40

Lab Name: CEIMIC CORP Contract: BAKER

Lab Code: CEIMIC Case No.: 19231 SAS No.: _____ SDG No.: GW1700

Matrix: (soil/water) WATER Lab Sample ID: 940320-08

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: FC367

Level: (low/med) LOW Date Received: 04/20/94

% Moisture: not dec. _____ Heated Purge: N Date Analyzed: 04/25/94

GC Column: HP-624 ID: 0.53(mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
75-01-4	Vinyl Chloride	10	U
75-35-4	1,1-Dichloroethene	10	U
67-66-3	Chloroform	10	U
107-06-2	1,2-Dichloroethane	10	U
78-93-3	2-Butanone	10	U
56-23-5	Carbon Tetrachloride	10	U
79-01-6	Trichloroethene	10	U
71-43-2	Benzene	10	U
127-18-4	Tetrachloroethene	10	U
108-90-7	Chlorobenzene	10	U

INORGANIC ANALYTES

Client: Baker Environmental

Client ID: 1-RB01

Laboratory ID: 940398-01

Date Sample Received: 5/10/94

Date Sampled: 5/08/94

Target Analyte	Result	Units	Method Reporting Limit	Date Analyzed
Flashpoint	NC	°F	200	5/12/94
pH	7.86	S.U.	---	5/12/94
Reactive Cyanide	ND	mg/kg*	0.6	5/16/94
Reactive Sulfide	49.8	mg/kg*	1.4	5/16/94

NC = No Combustion

ND = Not detected

* Reported on a dry weight basis, total solids = 90.3%

TCLP METALS
1

SAMPLE ID
1-RB01

INORGANIC ANALYSIS DATA SHEET

Lab Name: CEIMIC CORPORATION Contract: BAKER

Lab Code: CEIMIC Case No.: 19231 SAS No.: SDG No.: L1RB01

Matrix (soil/water): WATER Lab Sample ID: 942398-01 S

Level (low/med): LOW Date Received: 05/10/94

% Solids: 0.0

Concentration Units (ug/L or mg/Kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7440-38-2	Arsenic	25.0	U		P
7440-39-2	Barium	369	B		P
7440-43-9	Cadmium	3.0	U		P
7440-47-3	Chromium	7.0	U		P
7439-92-1	Lead	107	B		P
7439-97-6	Mercury	0.10	U		AV
7782-49-2	Selenium	4.0	U		P
7440-22-4	Silver	5.0	U		P

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

TOXICITY CHARACTERISTIC LEACHING PROCEDURE (TCLP)

ORGANOCHLORINE HERBICIDES

EPA Method 8150

Client: Baker Environmental

Client ID: 1-RB01 Laboratory ID: 940398-01

Date Sample Received: 5/10/94 Date Sample Prepared: 5/12/94

Date Sample Analyzed: 5/14/94 Concentration in: µg/L (ppb)

Target Analyte	Sample Concentration	Method Reporting Limits
2,4-D	ND	33
2,4,5-TP (Silvex)	ND	10

ND = Not detected

TOXICITY CHARACTERISTIC LEACHING PROCEDURE (TCLP)

ORGANOCHLORINE PESTICIDES

EPA Method 8080

Client: Baker Environmental

Client Sample ID: 1-RB01 Laboratory ID: 940398-01

Date Sample Received: 5/10/94 Date Sample Prepared: 5/13/94

Date Sample Analyzed: 5/17/94 Concentration in: µg/L (ppb)

Target Analyte	Sample Concentration	Method Reporting Limt
gamma-BHC (Lindane)	ND	.05
Heptachlor	ND	.05
Heptachlor Epoxide	ND	.05
Endrin	ND	.1
Methoxychlor	ND	.5
Toxaphene	ND	5
Chlordane	ND	5

ND = Not detected

IV
ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.
1-RB01

Lab Name: CEIMIC CORP Contract: BAKER

Lab Code: CEIMIC Case No.: 19231 SAS No.: SDG No.: 1-RB01

Matrix: (soil/water) WATER Lab Sample ID: 940298-01

Sample wt/vol: 250.0 (g/mL) ML Lab File ID: J8627

Level: (low/med) LOW Date Received: 05/10/94

% Moisture: decanted: (Y/N) N Date Extracted: 05/12/94

Concentrated Extract Volume: 1000(uL) Date Analyzed: 05/14/94

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
110-86-1	Pyridine	40	U
106-46-7	1,4-Dichlorobenzene	40	U
----------	Methylphenols (total)	40	U
67-72-1	Hexachloroethane	40	U
98-95-3	Nitrobenzene	40	U
87-68-3	Hexachlorobutadiene	40	U
88-06-2	2,4,6-Trichlorophenol	40	U
95-95-4	2,4,5-Trichlorophenol	100	U
121-14-2	2,4-Dinitrotoluene	40	U
118-74-1	Hexachlorobenzene	40	U
87-86-5	Pentachlorophenol	100	U

407

1X

ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

1-RB01

Lab Name: CEIMIC CORP Contract: BAKER

Lab Code: CEIMIC Case No.: 19231 SAS No.: _____ SDG No.: 1-RB01

Matrix: (soil/water) WATER Lab Sample ID: 940398-01

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: G7827

Level: (low/med) LOW Date Received: 05/10/94

% Moisture: not dec. _____ Heated Purge: N Date Analyzed: 05/12/94

GC Column: DB-624 ID: 0.53(mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
75-01-4	Vinyl Chloride	10	U
75-35-4	1,1-Dichloroethene	10	U
67-66-3	Chloroform	10	U
107-06-2	1,2-Dichloroethane	10	U
78-93-3	2-Butanone	10	U
56-23-5	Carbon Tetrachloride	10	U
79-01-6	Trichloroethene	10	U
71-43-2	Benzene	10	U
127-18-4	Tetrachloroethene	10	U
108-90-7	Chlorobenzene	10	U

INORGANIC ANALYTES

Client: Baker Environmental

Client ID: 1-RB02

Laboratory ID: 940398-02

Date Sample Received: 5/10/94

Date Sampled: 5/08/94

Target Analyte	Result	Units	Method Reporting Limit	Date Analyzed
Flashpoint	NC	°F	200	5/12/94
pH	12.03	S.U.	---	5/12/94
Reactive Cyanide	ND	mg/kg*	0.7	5/16/94
Reactive Sulfide	ND	mg/kg*	1.7	5/16/94

NC = No Combustion

ND = Not detected

* Reported on a dry weight basis, total solids = 73.0%

TCLP METALS
1

INORGANIC ANALYSIS DATA SHEET

SAMPLE ID
1-RB02

Lab Name: CEIMIC CORPORATION Contract: BAKER

Lab Code: CEIMIC Case No.: 19231 SAS No.: SDG No.: L1RB01

Matrix (soil/water): WATER Lab Sample ID: 942398-02 S

Level (low/med): LOW Date Received: 05/10/94

% Solids: 0.0

Concentration Units (ug/L or mg/Kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7440-38-2	Arsenic	25.0	U		P
7440-39-2	Barium	400	B		P
7440-43-9	Cadmium	3.0	U		P
7440-47-3	Chromium	7.0	U		P
7439-92-1	Lead	61.0	U		P
7439-97-6	Mercury	0.13	U		AV
7782-49-2	Selenium	40.0	U		P
7440-22-4	Silver	5.0	U		P

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

TOXICITY CHARACTERISTIC LEACHING PROCEDURE (TCLP)

ORGANOCHLORINE HERBICIDES

EPA Method 8150

Client: Baker Environmental

Client ID: 1-RB02 Laboratory ID: 940398-02

Date Sample Received: 5/10/94 Date Sample Prepared: 5/12/94

Date Sample Analyzed: 5/14/94 Concentration in: µg/L (ppb)

Target Analyte	Sample Concentration	Method Reporting Limits
2,4-D	ND	33
2,4,5-TP (Silvex)	ND	10

ND = Not detected

TOXICITY CHARACTERISTIC LEACHING PROCEDURE (TCLP)

ORGANOCHLORINE PESTICIDES

EPA Method 8080

Client: Baker Environmental

Client Sample ID: 1-RB02 Laboratory ID: 940398-02

Date Sample Received: 5/10/94 Date Sample Prepared: 5/13/94

Date Sample Analyzed: 5/17/94 Concentration in: µg/L (ppb)

Target Analyte	Sample Concentration	Method Reporting Limt
gamma-BHC (Lindane)	ND	.05
Heptachlor	ND	.05
Heptachlor Epoxide	ND	.05
Endrin	ND	.1
Methoxychlor	ND	.5
Toxaphene	ND	5
Chlordane	ND	5

ND = Not detected

1X

ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

1-RB02

Lab Name: CEIMIC CORP Contract: BAKER

Lab Code: CEIMIC Case No.: 19231 SAS No.: SDG No.: 1-RB01

Matrix: (soil/water) WATER Lab Sample ID: 940398-02

Sample wt/vol: 250.0 (g/mL) ML Lab File ID: J0628

Level: (low/med) LOW Date Received: 05/10/94

% Moisture: decanted: (Y/N) N Date Extracted: 05/12/94

Concentrated Extract Volume: 1000(uL) Date Analyzed: 05/14/94

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
110-86-1	Pyridine	40	U
106-46-7	1,4-Dichlorobenzene	40	U
----------	Methylphenols (total)	40	U
67-72-1	Hexachloroethane	40	U
98-95-3	Nitrobenzene	40	U
87-68-3	Hexachlorobutadiene	40	U
88-06-2	2,4,6-Trichlorophenol	40	U
95-95-4	2,4,5-Trichlorophenol	100	U
121-14-2	2,4-Dinitrotoluene	40	U
118-74-1	Hexachlorobenzene	40	U
87-86-5	Pentachlorophenol	100	U

1X

ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

1-RB02

Lab Name: CEIMIC CORP Contract: BAKER

Lab Code: CEIMIC Case No.: 19231 SAS No.: _____ SDG No.: 1-RB01

Matrix: (soil/water) WATER Lab Sample ID: 940398-02

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: B7828

Level: (low/med) LOW Date Received: 05/10/94

% Moisture: not dec. ____ Heated Purge: N Date Analyzed: 05/12/94

GC Column: DB-624 ID: 0.53(mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
75-01-4	Vinyl Chloride	10	U
75-35-4	1,1-Dichloroethene	10	U
67-66-3	Chloroform	10	U
107-06-2	1,2-Dichloroethane	10	U
78-93-3	2-Butanone	10	U
56-23-5	Carbon Tetrachloride	10	U
79-01-6	Trichloroethene	10	U
71-43-2	Benzene	10	U
127-18-4	Tetrachloroethene	10	U
108-90-7	Chlorobenzene	10	U

SITE 28

INORGANIC ANALYTES

Client: Baker Environmental

Client ID: 28 W SB-1

Laboratory ID: 940248-25

Date Sample Received: 3/29/94

Date Sampled: 3/27/94

Target Analyte	Result	Units	Method Reporting Limit	Date Analyzed
Flashpoint	NC	°F	200	3/30/94
pH	7.36	S.U.	---	3/30/94
Reactive Cyanide*	ND	mg/kg	0.6	3/29/94
Reactive Sulfide*	4.1	mg/kg	1.5	3/29/94

NC = No combustion

ND = Not detected

* Reported on a dry weight basis, total solids = 85.6%

1446

TCLP METALS
1

INORGANIC ANALYSIS DATA SHEET

SAMPLE ID
28-W-SB41

Lab Name: CEIMIC CORPORATION Contract: BAKER

Lab Code: CEIMIC Case No.: 19231 SAS No.: SDG No.: SB16-00

Matrix (soil/water): WATER Lab Sample ID: 943248-25 S

Level (low/med): LOW Date Received: 03/29/94

% Solids: 0.0

Concentration Units (ug/L or mg/Kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7440-38-2	Arsenic	25.0	U		P
7440-39-2	Barium	1180			P
7440-43-9	Cadmium	38.4			P
7440-47-3	Chromium	14.1	B		P
7439-92-1	Lead	1340			P
7439-97-6	Mercury	0.14	U		AV
7782-49-2	Selenium	155	B		P
7440-22-4	Silver	5.0	U		P

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

FORM I - IN IM2.0

TOXICITY CHARACTERISTIC LEACHING PROCEDURE (TCLP)

ORGANOCHLORINE HERBICIDES

EPA Method 8150

Client: Baker Environmental

Client Sample ID: 28-W-SB41 Laboratory ID: 940248-25

Date Sample Received: 3/30/94 Date Sample Prepared: 4/05/94

Date Sample Analyzed: 4/12/94 Concentration in: µg/L (ppb)

Target Analyte	Sample Concentration	Method Reporting Limit
2,4-D	ND	10
2,4,5-TP (Silvex)	ND	10

ND = Not detected

1378

TOXICITY CHARACTERISTIC LEACHING PROCEDURE (TCLP)

ORGANOCHLORINE PESTICIDES

EPA Method 8080

Client: Baker Environmental

Client Sample ID: 28-W-SB41 Laboratory ID: 940248-25

Date Sample Received: 3/30/94 Date Sample Prepared: 4/05/94

Date Sample Analyzed: 4/06/94 Concentration in: µg/L (ppb)

Target Analyte	Sample Concentration	Method Reporting Limit
gamma-BHC (Lindane)	ND	.17
Heptachlor	ND	.17
Heptachlor Epoxide	ND	.17
Endrin	ND	.33
Methoxychlor	ND	1.7
Toxaphene	ND	17.0
Chlordane	ND	1.7

ND = Not detected

1353

ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.: 28-W-SB41

Lab Name: CEIMIC CORP Contract: BAKER

Lab Code: CEIMIC Case No.: 19231 SAS No.: SDG No.: SB1600

Matrix: (soil/water) WATER Lab Sample ID: 940248-25

Sample wt/vol: 300.0 (g/mL) ML Lab File ID: DC710

Level: (low/med) LOW Date Received: 03/29/94

% Moisture: decanted: (Y/N) N Date Extracted: 04/05/94

Concentrated Extract Volume: 1000(uL) Date Analyzed: 04/06/94

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
110-86-1	Pyridine	33	U
106-46-7	1,4-Dichlorobenzene	33	U
	Methylphenols (total)	33	U
67-72-1	Hexachloroethane	33	U
98-95-3	Nitrobenzene	33	U
87-68-3	Hexachlorobutadiene	33	U
88-06-2	2,4,6-Trichlorophenol	33	U
95-95-4	2,4,5-Trichlorophenol	83	U
121-14-2	2,4-Dinitrotoluene	33	U
118-74-1	Hexachlorobenzene	33	U
87-86-5	Pentachlorophenol	83	U

1X

ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

28-W-SB41

Lab Name: CEIMIC CORP Contract: BAKER

Lab Code: CEIMIC Case No.: 19231 SAS No.: _____ SDG No.: SB1600

Matrix: (soil/water) WATER Lab Sample ID: 940248-25

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: H4395

Level: (low/med) LOW Date Received: 03/29/94

% Moisture: not dec. _____ Heated Purge: N Date Analyzed: 04/07/94

GC Column: DB-624 ID: 0.53(mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
75-01-4	Vinyl Chloride	10	U
75-35-4	1,1-Dichloroethene	10	U
67-66-3	Chloroform	10	U
107-06-2	1,2-Dichloroethane	10	U
78-93-3	2-Butanone	10	U
56-23-5	Carbon Tetrachloride	10	U
79-01-6	Trichloroethene	10	U
71-43-2	Benzene	1	J
127-18-4	Tetrachloroethene	10	U
108-90-7	Chlorobenzene	10	U

INORGANIC ANALYTES

Client: Baker Environmental

Client ID: 28-W-SB08

Laboratory ID: 940248-08

Date Sample Received: 3/29/94

Date Sampled: 3/27/94

Target Analyte	Result	Units	Method Reporting Limit	Date Analyzed
Flashpoint	NC	°F	200	3/30/94
pH	7.53	S.U.	---	3/30/94
Reactive Cyanide*	ND	mg/kg	0.6	3/29/94
Reactive Sulfide*	ND	mg/kg	1.6	3/29/94

NC = No combustion

ND = Not detected

* Reported on a dry weight basis, total solids = 79.5%

1811

TCLP METALS
1

INORGANIC ANALYSIS DATA SHEET

SAMPLE ID
28-W-SB08

Lab Name: CEIMIC CORPORATION Contract: BAKER

Lab Code: CEIMIC Case No.: 19231 SAS No.: SDG No.: 28TB-09

Matrix (soil/water): WATER Lab Sample ID: 942248-08 S

Level (low/med): LOW Date Received: 03/29/94

% Solids: 0.0

Concentration Units (ug/L or mg/Kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7440-38-2	Arsenic	25.0	U		P
7440-39-2	Barium	912	B		P
7440-43-9	Cadmium	19.6			P
7440-47-3	Chromium	11.0	B		P
7439-92-1	Lead	1330			P
7439-97-6	Mercury	0.10	U		AV
7782-49-2	Selenium	49.0	U		P
7440-22-4	Silver	5.0	U		P

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

1769

TOXICITY CHARACTERISTIC LEACHING PROCEDURE (TCLP)

ORGANOCHLORINE HERBICIDES

EPA Method 8150

Client: Baker Environmental

Client Sample ID: 28-W-SB08 Laboratory ID: 940248-08

Date Sample Received: 3/30/94 Date Sample Prepared: 4/05/94

Date Sample Analyzed: 4/12/94 Concentration in: µg/L (ppb)

Target Analyte	Sample Concentration	Method Reporting Limit
2,4-D	ND	10
2,4,5-TP (Silvex)	ND	10

ND = Not detected

1742

TOXICITY CHARACTERISTIC LEACHING PROCEDURE (TCLP)

ORGANOCHLORINE PESTICIDES

EPA Method 8080

Client: Baker Environmental

Client Sample ID: 28-W-SB08 Laboratory ID: 940248-08

Date Sample Received: 3/30/94 Date Sample Prepared: 4/05/94

Date Sample Analyzed: 4/06/94 Concentration in: µg/L (ppb)

Target Analyte	Sample Concentration	Method Reporting Limit
gamma-BHC (Lindane)	ND	.17
Heptachlor	ND	.17
Heptachlor Epoxide	ND	.17
Endrin	ND	.33
Methoxychlor	ND	1.7
Toxaphene	ND	17.0
Chlordane	ND	1.7

ND = Not detected

1718

ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

28-W-SB08

Lab Name: CEIMIC CORP Contract: BAKER

Lab Code: CEIMIC Case No.: 19231 SAS No.: SDG No.: 28TB09

Matrix: (soil/water) WATER Lab Sample ID: 940248-08

Sample wt/vol: 300.0 (g/mL) ML Lab File ID: DC709

Level: (low/med) LOW Date Received: 03/29/94

% Moisture: decanted: (Y/N) N Date Extracted: 04/05/94

Concentrated Extract Volume: 1000(uL) Date Analyzed: 04/06/94

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
110-86-1	Pyridine	33	U
106-46-7	1,4-Dichlorobenzene	33	U
----------	Methylphenols (total)	33	U
67-72-1	Hexachloroethane	33	U
98-95-3	Nitrobenzene	33	U
87-68-3	Hexachlorobutadiene	33	U
88-06-2	2,4,6-Trichlorophenol	33	U
95-95-4	2,4,5-Trichlorophenol	83	U
121-14-2	2,4-Dinitrotoluene	33	U
118-74-1	Hexachlorobenzene	33	U
87-86-5	Pentachlorophenol	83	U

IX

ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

28-W-SB08

Lab Name: CEIMIC CORP Contract: BAKER

Lab Code: CEIMIC Case No.: 19231 SAS No.: _____ SDG No.: 28TB09

Matrix: (soil/water) WATER Lab Sample ID: 940248-08

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: H4394

Level: (low/med) LOW Date Received: 03/29/94

% Moisture: not dec. _____ Heated Purge: N Date Analyzed: 04/07/94

GC Column: DB-624 ID: 0.53(mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
75-01-4	Vinyl Chloride	10	U
75-35-4	1,1-Dichloroethene	10	U
67-66-3	Chloroform	10	U
107-06-2	1,2-Dichloroethane	10	U
78-93-3	2-Butanone	10	U
56-23-5	Carbon Tetrachloride	10	U
79-01-6	Trichloroethene	10	U
71-43-2	Benzene	4	J
127-18-4	Tetrachloroethene	10	U
108-90-7	Chlorobenzene	10	U

TOXICITY CHARACTERISTIC LEACHING PROCEDURE (TCLP)

ORGANOCHLORINE HERBICIDES

EPA Method 8150

Client: Baker Environmental

Client Sample ID: 28-E-SB42D

Laboratory ID: 940246-35

Date Sample Received: 3/29/94

Date Sample Prepared: 4/05/94

Date Sample Analyzed: 4/12/94

Concentration in: µg/L (ppb)

Target Analyte	Sample Concentration	Method Reporting Limit
2,4-D	ND	10
2,4,5-TP (Silvex)	ND	10

ND = Not detected

1230

TOXICITY CHARACTERISTIC LEACHING PROCEDURE (TCLP)

ORGANOCHLORINE PESTICIDES

EPA Method 8080

Client: Baker Environmental

Client Sample ID: 28-E-SB42D

Laboratory ID: 940246-35

Date Sample Received: 3/29/94

Date Sample Prepared: 4/05/94

Date Sample Analyzed: 4/06/94

Concentration in: µg/L (ppb)

Target Analyte	Sample Concentration	Method Reporting Limit
gamma-BHC (Lindane)	ND	.17
Heptachlor	ND	.17
Heptachlor Epoxide	ND	.17
Endrin	ND	.33
Methoxychlor	ND	1.7
Toxaphene	ND	17.0
Chlordane	ND	1.7

ND = Not detected

1204

TCLP METALS
1

INORGANIC ANALYSIS DATA SHEET

SAMPLE ID
28-E-SB42D

Lab Name: CEIMIC CORPORATION Contract: BAKER

Lab Code: CEIMIC Case No.: 19231 SAS No.: SDG No.: SB27-00

Matrix (soil/water): WATER Lab Sample ID: 942246-35 S

Level (low/med): LOW Date Received: 03/29/94

% Solids: 0.0

Concentration Units (ug/L or mg/Kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7440-38-2	Arsenic	25.0	U		P
7440-39-2	Barium	497	B		P
7440-43-9	Cadmium	3.0	U		P
7440-47-3	Chromium	8.8	B		P
7439-92-1	Lead	63.1	B		P
7439-97-6	Mercury	0.14	U		AV
7782-49-2	Selenium	49.0	U		P
7440-22-4	Silver	5.0	U		P

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

1X
ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.
28-E-SB42D

Lab Name: CEIMIC CORP Contract: BAKER

Lab Code: CEIMIC Case No.: 19231 SAS No.: _____ SDG No.: SB2700

Matrix: (soil/water) WATER Lab Sample ID: 940246-35

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: EC171

Level: (low/med) LOW Date Received: 03/29/94

% Moisture: not dec. _____ Heated Purge: N Date Analyzed: 04/07/94

GC Column: HP-624 ID: 0.53(mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
75-01-4	Vinyl Chloride	10	U
75-35-4	1,1-Dichloroethene	10	U
67-66-3	Chloroform	10	U
107-06-2	1,2-Dichloroethane	10	U
78-93-3	2-Butanone	10	U
56-23-5	Carbon Tetrachloride	10	U
79-01-6	Trichloroethene	10	U
71-43-2	Benzene	10	U
127-18-4	Tetrachloroethene	10	U
108-90-7	Chlorobenzene	10	U

1X
ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.
28-E-SB42D

Lab Name: CEIMIC CORP Contract: BAKER

Lab Code: CEIMIC Case No.: 19231 SAS No.: SDG No.: SB2700

Matrix: (soil/water) WATER Lab Sample ID: 940246-35

Sample wt/vol: 300.0 (g/mL) ML Lab File ID: DC708

Level: (low/med) LOW Date Received: 03/29/94

% Moisture: decanted: (Y/N) N Date Extracted: 04/05/94

Concentrated Extract Volume: 1000(uL) Date Analyzed: 04/06/94

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
110-86-1	Pyridine	33	U
106-46-7	1,4-Dichlorobenzene	33	U
	Methylphenols (total)	33	U
67-72-1	Hexachloroethane	33	U
98-95-3	Nitrobenzene	33	U
87-68-3	Hexachlorobutadiene	33	U
88-06-2	2,4,6-Trichlorophenol	33	U
95-95-4	2,4,5-Trichlorophenol	83	U
121-14-2	2,4-Dinitrotoluene	33	U
118-74-1	Hexachlorobenzene	33	U
87-86-5	Pentachlorophenol	83	U

INORGANIC ANALYTES

Client: Baker Environmental

Client ID: 28-E-SB42

Laboratory ID: 940246-34

Date Sample Received: 3/29/94

Date Sampled: 3/28/94

Target Analyte	Result	Units	Method Reporting Limit	Date Analyzed
Flashpoint	NC	°F	200	3/30/94
pH	5.60	S.U.	---	3/30/94
Reactive Cyanide*	ND	mg/kg	0.6	3/29/94
Reactive Sulfide*	ND	mg/kg	1.4	3/29/94

NC = No combustion

ND = Not detected

* Reported on a dry weight basis, total solids = 87.4%

TCLP METALS
1

INORGANIC ANALYSIS DATA SHEET

SAMPLE ID
28-E-SB42

Lab Name: CEIMIC CORPORATION Contract: BAKER

Lab Code: CEIMIC Case No.: 19231 SAS No.: SDG No.: SB27-00

Matrix (soil/water): WATER Lab Sample ID: 942246-34 S

Level (low/med): LOW Date Received: 03/29/94

% Solids: 0.0

Concentration Units (ug/L or mg/Kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7440-38-2	Arsenic	25.0	U		P
7440-39-2	Barium	332	B		P
7440-43-9	Cadmium	3.0	U		P
7440-47-3	Chromium	7.2	B		P
7439-92-1	Lead	63.1	B		P
7439-97-6	Mercury	0.14	U		AV
7782-49-2	Selenium	49.0	U		P
7440-22-4	Silver	5.0	U		P

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

1240A

TOXICITY CHARACTERISTIC LEACHING PROCEDURE (TCLP)

ORGANOCHLORINE HERBICIDES

EPA Method 8150

Client: Baker Environmental

Client Sample ID: 28-E-SB42 Laboratory ID: 940246-34

Date Sample Received: 3/29/94 Date Sample Prepared: 4/05/94

Date Sample Analyzed: 4/12/94 Concentration in: µg/L (ppb)

Target Analyte	Sample Concentration	Method Reporting Limit
2,4-D	ND	10
2,4,5-TP (Silvex)	ND	10

ND = Not detected

1227

TOXICITY CHARACTERISTIC LEACHING PROCEDURE (TCLP)

ORGANOCHLORINE HERBICIDES

EPA Method 8150

Client: Baker Environmental

Client Sample ID: 28-E-SB42 Laboratory ID: 940246-34

Date Sample Received: 3/29/94 Date Sample Prepared: 4/05/94

Date Sample Analyzed: 4/12/94 Concentration in: µg/L (ppb)

Target Analyte	Sample Concentration	Method Reporting Limit
2,4-D	ND	10
2,4,5-TP (Silvex)	ND	10

ND = Not detected

1X

ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

28-E-SB42

Lab Name: CEIMIC CORP Contract: BAKER

Lab Code: CEIMIC Case No.: 19231 SAS No.: _____ SDG No.: SB2700

Matrix: (soil/water) WATER Lab Sample ID: 940246-34

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: H4392

Level: (low/med) LOW Date Received: 03/29/94

% Moisture: not dec. _____ Heated Purge: N Date Analyzed: 04/07/94

GC Column: DB-624 ID: 0.53(mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
75-01-4	Vinyl Chloride	10	U
75-35-4	1,1-Dichloroethene	10	U
67-66-3	Chloroform	10	U
107-06-2	1,2-Dichloroethane	10	U
78-93-3	2-Butanone	10	U
56-23-5	Carbon Tetrachloride	10	U
79-01-6	Trichloroethene	10	U
71-43-2	Benzene	10	U
127-18-4	Tetrachloroethene	10	U
108-90-7	Chlorobenzene	10	U

FORM I X-1 3/90

1063

1X
ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.
28-E-SB42

Lab Name: CEIMIC CORP Contract: BAKER

Lab Code: CEIMIC Case No.: 19231 SAS No.: SDG No.: SB2700

Matrix: (soil/water) WATER Lab Sample ID: 940246-34

Sample wt/vol: 300.0 (g/mL) ML Lab File ID: DC707

Level: (low/med) LOW Date Received: 03/29/94

% Moisture: decanted: (Y/N) N Date Extracted: 04/05/94

Concentrated Extract Volume: 1000(uL) Date Analyzed: 04/06/94

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
110-86-1	Pyridine	33	U
106-46-7	1,4-Dichlorobenzene	33	U
----------	Methylphenols (total)	33	U
67-72-1	Hexachloroethane	33	U
98-95-3	Nitrobenzene	33	U
87-68-3	Hexachlorobutadiene	33	U
88-06-2	2,4,6-Trichlorophenol	33	U
95-95-4	2,4,5-Trichlorophenol	83	U
121-14-2	2,4-Dinitrotoluene	33	U
118-74-1	Hexachlorobenzene	33	U
87-86-5	Pentachlorophenol	83	U

TOXICITY CHARACTERISTIC LEACHING PROCEDURE (TCLP)

ORGANOCHLORINE PESTICIDES

EPA Method 8080

Client: Baker Environmental

Client Sample ID: 28-E-SB42 Laboratory ID: 940246-34

Date Sample Received: 3/29/94 Date Sample Prepared: 4/05/94

Date Sample Analyzed: 4/06/94 Concentration in: µg/L (ppb)

Target Analyte	Sample Concentration	Method Reporting Limit
gamma-BHC (Lindane)	ND	.17
Heptachlor	ND	.17
Heptachlor Epoxide	ND	.17
Endrin	ND	.33
Methoxychlor	ND	1.7
Toxaphene	ND	17.0
Chlordane	ND	1.7

ND = Not detected

1201

INORGANIC ANALYTES

Client: Baker Environmental

Client ID: 28-RB01

Laboratory ID: 940390-01

Date Sample Received: 5/07/94

Date Sampled: 5/06/94

Target Analyte	Result	Units	Method Reporting Limit	Date Analyzed
Flashpoint	NC	°F	200	5/10/94
pH	10.09	S.U.	---	5/09/94
Reactive Cyanide	ND	mg/kg*	0.6	5/09/94
Reactive Sulfide	17.3	mg/kg*	1.6	5/09/94

NC = No Combustion

ND = Not detected

* Reported on a dry weight basis, total solids = 79.4%

TCLP METALS
1

INORGANIC ANALYSIS DATA SHEET

SAMPLE ID: 28-RB01

Lab Name: CEIMIC CORPORATION Contract: BAKER

Lab Code: CEIMIC Case No.: 19231 SAS No.: SDG No.: 28RB01

Matrix (soil/water): WATER Lab Sample ID: 940390-01 S

Level (low/med): LOW Date Received: 05/07/94

% Solids: 0.0

Concentration Units (ug/L or mg/Kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7440-38-2	Arsenic	25.0	U		P
7440-39-2	Barium	278	B		P
7440-43-9	Cadmium	3.0	U		P
7440-47-3	Chromium	7.0	U		P
7439-92-1	Lead	61.0	U		P
7439-97-6	Mercury	0.13	U		AV
7782-49-2	Selenium	49.0	U		P
7440-22-4	Silver	5.0	U		P

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

TOXICITY CHARACTERISTIC LEACHING PROCEDURE (TCLP)

ORGANOCHLORINE HERBICIDES

EPA Method 8150

Client: Baker Environmental

Client ID: 28-RB01 Laboratory ID: 940390-01

Date Sample Received: 5/07/94 Date Sample Prepared: 5/12/94

Date Sample Analyzed: 5/14/94 Concentration in: µg/L (ppb)

Target Analyte	Sample Concentration	Method Reporting Limits
2,4-D	ND	33
2,4,5-TP (Silvex)	ND	10

ND = Not detected

TOXICITY CHARACTERISTIC LEACHING PROCEDURE (TCLP)

ORGANOCHLORINE PESTICIDES

EPA Method 8080

Client: Baker Environmental

Client Sample ID: 28-RB02 Laboratory ID: 940390-02

Date Sample Received: 5/07/94 Date Sample Prepared: 5/10/94

Date Sample Analyzed: 5/14/94 Concentration in: µg/L (ppb)

Target Analyte	Sample Concentration	Method Reporting Limt
gamma-BHC (Lindane)	ND	0.2
Heptachlor	ND	0.2
Heptachlor Epoxide	ND	0.2
Endrin	ND	0.4
Methoxychlor	ND	8
Toxaphene	ND	20
Chlordane	ND	20

ND = Not detected

ORGANICS ANALYSIS DATA SHEET 1X

SAMPLE NO.

28-RB01

Lab Name: CEIMIC CORP Contract: BAKER

Lab Code: CEIMIC Case No.: 19231 SAS No.: SDG No.: 28RB01

Matrix: (soil/water) WATER Lab Sample ID: 940390-01

Sample wt/vol: 250.0 (g/mL) ML Lab File ID: J8652

Level: (low/med) LOW Date Received: 05/07/94

% Moisture: decanted: (Y/N) N Date Extracted: 05/11/94

Concentrated Extract Volume: 1000(uL) Date Analyzed: 05/15/94

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
110-86-1	Pyridine	40	U
106-46-7	1,4-Dichlorobenzene	40	U
----------	Methylphenols (total)	40	U
67-72-1	Hexachloroethane	40	U
98-95-3	Nitrobenzene	40	U
87-68-3	Hexachlorobutadiene	40	U
88-06-2	2,4,6-Trichlorophenol	40	U
95-95-4	2,4,5-Trichlorophenol	100	U
121-14-2	2,4-Dinitrotoluene	40	U
118-74-1	Hexachlorobenzene	40	U
87-86-5	Pentachlorophenol	100	U

1X
ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.
28-RB01

Lab Name: CEIMIC CORP Contract: BAKER

Lab Code: CEIMIC Case No.: 19231 SAS No.: _____ SDG No.: 28RB01

Matrix: (soil/water) WATER Lab Sample ID: 940390-01

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: G7773

Level: (low/med) LOW Date Received: 05/07/94

% Moisture: not dec. _____ Heated Purge: N Date Analyzed: 05/10/94

GC Column: DB-624 ID: 0.53(mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
75-01-4	Vinyl Chloride	10	U
75-35-4	1,1-Dichloroethene	10	U
67-66-3	Chloroform	10	U
107-06-2	1,2-Dichloroethane	10	U
78-93-3	2-Butanone	10	U
56-23-5	Carbon Tetrachloride	10	U
79-01-6	Trichloroethene	10	U
71-43-2	Benzene	10	U
127-18-4	Tetrachloroethene	10	U
108-90-7	Chlorobenzene	10	U

INORGANIC ANALYTES

Client: Baker Environmental

Client ID: 28-RB02

Laboratory ID: 940390-02

Date Sample Received: 5/07/94

Date Sampled: 5/06/94

Target Analyte	Result	Units	Method Reporting Limit	Date Analyzed
Flashpoint	NC	°F	200	5/10/94
pH	12.06	S.U.	---	5/09/94
Reactive Cyanide	ND	mg/kg*	1.5	5/09/94
Reactive Sulfide	5.3	mg/kg*	3.8	5/09/94

NC = No Combustion

ND = Not detected

* Reported on a dry weight basis, total solids = 32.9%

232

TCLP METALS
1

INORGANIC ANALYSIS DATA SHEET

SAMPLE ID
28-RB02

Lab Name: CEIMIC CORPORATION Contract: BAKER

Lab Code: CEIMIC Case No.: 19231 SAS No.: SDG No.: 28RB01

Matrix (soil/water): WATER Lab Sample ID: 940390-02 S

Level (low/med): LOW Date Received: 05/07/94

% Solids: 0.0

Concentration Units (ug/L or mg/Kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7440-38-2	Arsenic	45.6	B		P
7440-39-2	Barium	17.2	B		P
7440-43-9	Cadmium	3.0	U		P
7440-47-3	Chromium	7.0	U		P
7439-92-1	Lead	61.0	U		P
7439-97-6	Mercury	0.13	U		AV
7782-49-2	Selenium	49.0	U		P
7440-22-4	Silver	5.0	U		P

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

TOXICITY CHARACTERISTIC LEACHING PROCEDURE (TCLP)

ORGANOCHLORINE HERBICIDES

EPA Method 8150

Client: Baker Environmental

Client ID: 28-RB02 Laboratory ID: 940390-02

Date Sample Received: 5/07/94 Date Sample Prepared: 5/12/94

Date Sample Analyzed: 5/14/94 Concentration in: µg/L (ppb)

Target Analyte	Sample Concentration	Method Reporting Limits
2,4-D	ND	33
2,4,5-TP (Silvex)	ND	10

ND = Not detected

1 of 4

TOXICITY CHARACTERISTIC LEACHING PROCEDURE (TCLP)

ORGANOCHLORINE PESTICIDES

EPA Method 8080

Client: Baker Environmental

Client Sample ID: 28-RB01 Laboratory ID: 940390-01

Date Sample Received: 5/07/94 Date Sample Prepared: 5/10/94

Date Sample Analyzed: 5/14/94 Concentration in: µg/L (ppb)

Target Analyte	Sample Concentration	Method Reporting Limt
gamma-BHC (Lindane)	ND	0.2
Heptachlor	ND	0.2
Heptachlor Epoxide	ND	0.2
Endrin	ND	0.4
Methoxychlor	ND	8
Toxaphene	ND	20
Chlordane	ND	20

ND = Not detected

1X

ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

28-RB02

Lab Name: CEIMIC CORP Contract: BAKER

Lab Code: CEIMIC Case No.: 19231 SAS No.: SDG No.: 28RB01

Matrix: (soil/water) WATER Lab Sample ID: 940390-02

Sample wt/vol: 250.0 (g/mL) ML Lab File ID: J8653

Level: (low/med) LOW Date Received: 05/07/94

% Moisture: decanted: (Y/N) N Date Extracted: 05/11/94

Concentrated Extract Volume: 1000(uL) Date Analyzed: 05/15/94

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
110-86-1	Pyridine	40	U
106-46-7	1,4-Dichlorobenzene	40	U
	Methylphenols (total)	40	U
67-72-1	Hexachloroethane	40	U
98-95-3	Nitrobenzene	40	U
87-68-3	Hexachlorobutadiene	40	U
88-06-2	2,4,6-Trichlorophenol	40	U
95-95-4	2,4,5-Trichlorophenol	100	U
121-14-2	2,4-Dinitrotoluene	40	U
118-74-1	Hexachlorobenzene	40	U
87-86-5	Pentachlorophenol	100	U

1X
ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.
28-RB02

Lab Name: CEIMIC CORP Contract: BAKER

Lab Code: CEIMIC Case No.: 19231 SAS No.: _____ SDG No.: 28RB01

Matrix: (soil/water) WATER Lab Sample ID: 940390-02

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: G7767

Level: (low/med) LOW Date Received: 05/07/94

% Moisture: not dec. _____ Heated Purge: N Date Analyzed: 05/10/94

GC Column: DB-624 ID: 0.53(mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
75-01-4	Vinyl Chloride	10	U
75-35-4	1,1-Dichloroethene	10	U
67-66-3	Chloroform	10	U
107-06-2	1,2-Dichloroethane	10	U
78-93-3	2-Butanone	10	U
56-23-5	Carbon Tetrachloride	10	U
79-01-6	Trichloroethene	10	U
71-43-2	Benzene	10	U
127-18-4	Tetrachloroethene	10	U
108-90-7	Chlorobenzene	10	U

SITE 30

INORGANIC ANALYTES

Client: Baker Environmental

Client ID: 30-SB17

Laboratory ID: 940226-35

Date Sample Received: 3/25/94

Date Sampled: 3/24/94

Target Analyte	Result	Units	Method Reporting Limit	Date Analyzed
Flashpoint	NC	°F	200	3/30/94
pH	4.70	S.U.	---	3/29/94
Reactive Cyanide*	ND	mg/kg	0.5	3/28/94
Reactive Sulfide*	ND	mg/kg	1.3	3/28/94

NC = No Combustion
ND = Not detected

* Reported on a dry weight basis, total solids = 94.4%

TCLP METALS
1

INORGANIC ANALYSIS DATA SHEET

SAMPLE ID
L30-SB17

Lab Name: CEIMIC CORPORATION Contract: BAKER

Lab Code: CEIMIC Case No.: 19231 SAS No.: SDG No.: SB0902

Matrix (soil/water): WATER Lab Sample ID: 942226-35 S

Level (low/med): LOW Date Received: 03/25/94

% Solids: 0.0

Concentration Units (ug/L or mg/Kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7440-38-2	Arsenic	25.0	U		P
7440-39-2	Barium	450	B		P
7440-43-9	Cadmium	3.0	U		P
7440-47-3	Chromium	7.0	U		P
7439-92-1	Lead	61.0	U		P
7439-97-6	Mercury	0.14	U		AV
7782-49-2	Selenium	49.0	U		P
7440-22-4	Silver	5.0	U		P

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

1214

TOXICITY CHARACTERISTIC LEACHING PROCEDURE (TCLP)

ORGANOCHLORINE HERBICIDES

EPA Method 8150

Client: Baker Environmental

Client Sample ID: 30-SB17 Laboratory ID: 940226-35

Date Sample Received: 3/25/94 Date Sample Prepared: 3/30/94

Date Sample Analyzed: 4/12/94 Concentration in: µg/L (ppb)

Target Analyte	Sample Concentration	Method Reporting Limit
2,4-D	ND	10
2,4,5-TP (Silvex)	ND	10

ND = Not detected

1187

TOXICITY CHARACTERISTIC LEACHING PROCEDURE (TCLP)

ORGANOCHLORINE PESTICIDES

EPA Method 8080

Client: Baker Environmental

Client Sample ID: 30-SB17 Laboratory ID: 940226-35

Date Sample Received: 3/25/94 Date Sample Prepared: 3/29/94

Date Sample Analyzed: 4/11/94 Concentration in: µg/L (ppb)

Target Analyte	Sample Concentration	Method Reporting Limit
gamma-BHC (Lindane)	ND	.17
Heptachlor	ND	.17
Heptachlor Epoxide	ND	.17
Endrin	ND	.33
Methoxychlor	ND	1.7
Toxaphene	ND	17.0
Chlordane	ND	1.7

ND = Not detected

1150

CEIMIC
CORPORATION
"Analytical Chemistry for Environmental Management"

TOXICITY CHARACTERISTICS LEACHING PROCEDURE (TCLP)

SEMIVOLATILE ORGANICS TARGET ANALYTES

Client: Baker Environmental
Client Sample ID: 30-SB17
Laboratory ID: 940226-35
Concentration in: ug/L (ppb)

Date Sampled: 3/24/94
TCLP Performed: 3/27/94
Date Leachate Extracted: 3/30/94
Date Extract Analyzed: 3/31/94

Target Analyte	Sample Concentration	Method Reporting Limits
Pyridine	ND	33
2,4-Dinitrotoluene	ND	33
Hexachlorobenzene	ND	33
Hexachloro-1,3-butadiene	ND	33
Hexachloroethane	ND	33
Nitrobenzene	ND	33
1,4-Dichlorobenzene	ND	33
Methylphenols (total)	ND	33
Pentachlorophenol	ND	83
2,4,5-Trichlorophenol	ND	83
2,4,6-Trichlorophenol	ND	33

ND = Not detected

Reported by: DO Approved by: 1111

10 Dean Knauss Drive, Narragansett, R.I. 02882 • (401) 782-8900 • FAX (401) 782-8905

1X

ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

30-SB17

Lab Name: CEIMIC CORP Contract: BAKER

Lab Code: CEIMIC Case No.: 19231 SAS No.: _____ SDG No.: SB0902

Matrix: (soil/water) WATER Lab Sample ID: 940226-35

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: FB965

Level: (low/med) LOW Date Received: 03/25/94

% Moisture: not dec. _____ Heated Purge: N Date Analyzed: 03/29/94

GC Column: HP-624 ID: 0.53(mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
75-01-4	Vinyl Chloride	10	U
75-35-4	1,1-Dichloroethene	10	U
67-66-3	Chloroform	10	U
107-06-2	1,2-Dichloroethane	10	U
78-93-3	2-Butanone	10	U
56-23-5	Carbon Tetrachloride	10	U
79-01-6	Trichloroethene	10	U
71-43-2	Benzene	10	U
127-18-4	Tetrachloroethene	10	U
108-90-7	Chlorobenzene	10	U

1062

INORGANIC ANALYTES

Client: Baker Environmental

Client ID: 30-3DRMC

Laboratory ID: 940370-01

Date Sample Received: 5/04/94

Date Sampled: 5/03/94

Target Analyte	Result	Units	Method Reporting Limit	Date Analyzed
Flashpoint	NC	°F	200	5/05/94
pH	7.08	S.U.	---	5/04/94
Reactive Cyanide	ND	mg/kg*	0.6	5/04/94
Reactive Sulfide	ND	mg/kg*	1.5	5/04/94

NC = No Combustion

ND = Not detected

* Reported on a dry weight basis, total solids = 81.5%

TCLP METALS
1

INORGANIC ANALYSIS DATA SHEET

SAMPLE ID
30-3DRMC

Lab Name: CEIMIC CORPORATION Contract: BAKER

Lab Code: CEIMIC Case No.: 19231 SAS No.: SDG No.: 03DRMC

Matrix (soil/water): WATER Lab Sample ID: 940370-01 S

Level (low/med): LOW Date Received: 05/04/94

% Solids: 0.0

Concentration Units (ug/L or mg/Kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7440-38-2	Arsenic	45.8	B		P
7440-39-2	Barium	313	B		P
7440-43-9	Cadmium	3.0	U		P
7440-47-3	Chromium	7.0	U		P
7439-92-1	Lead	61.0	U		P
7439-97-6	Mercury	0.10	U		AV
7782-49-2	Selenium	49.0	U		P
7440-22-4	Silver	5.0	U		P

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

TOXICITY CHARACTERISTIC LEACHING PROCEDURE (TCLP)

ORGANOCHLORINE HERBICIDES

EPA Method 8150

Client: Baker Environmental

Client ID: 30-3DRMC

Laboratory ID: 940370-01

Date Sample Received: 5/04/94

Date Sample Prepared: 5/07/94

Date Sample Analyzed: 5/09/94

Concentration in: ug/L (ppb)

Target Analyte	Sample Concentration	Method Reporting Limits
2,4-D	ND	33
2,4,5-TP (Silvex)	ND	10

ND = Not detected

100

TOXICITY CHARACTERISTIC LEACHING PROCEDURE (TCLP)

ORGANOCHLORINE PESTICIDES

EPA Method 8080

Client: Baker Environmental

Client Sample ID: 30-3DRMC | Laboratory ID: 940370-01

Date Sample Received: 5/04/94 | Date Sample Prepared: 5/07/94

Date Sample Analyzed: 5/08/94 | Concentration in: µg/L (ppb)

Target Analyte	Sample Concentration	Method Reporting Limt
gamma-BHC (Lindane)	ND	0.17
Heptachlor	ND	0.17
Heptachlor Epoxide	ND	0.17
Endrin	ND	0.33
Methoxychlor	ND	1.7
Toxaphene	ND	17
Chlordane	ND	1.7

ND = Not detected

ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

30-3DRMC

Lab Name: CEIMIC CORP Contract: BAKER

Lab Code: CEIMIC Case No.: 19231 SAS No.: SDG No.: 03DRMC

Matrix: (soil/water) WATER Lab Sample ID: 940370-01

Sample wt/vol: 250.0 (g/mL) ML Lab File ID: J8546

Level: (low/med) LOW Date Received: 05/04/94

% Moisture: decanted: (Y/N) N Date Extracted: 05/07/94

Concentrated Extract Volume: 1000(uL) Date Analyzed: 05/08/94

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
110-86-1	Pyridine	40	U
106-46-7	1,4-Dichlorobenzene	40	U
----------	Methylphenols (total)	6	JX
67-72-1	Hexachloroethane	40	U
98-95-3	Nitrobenzene	40	U
87-68-3	Hexachlorobutadiene	40	U
88-06-2	2,4,6-Trichlorophenol	40	U
95-95-4	2,4,5-Trichlorophenol	100	U
121-14-2	2,4-Dinitrotoluene	40	U
118-74-1	Hexachlorobenzene	40	U
87-86-5	Pentachlorophenol	100	U

1X

ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

30-3DRMC

Lab Name: CEIMIC CORP Contract: BAKER

Lab Code: CEIMIC Case No.: 19231 SAS No.: _____ SDG No.: Q3DRMC

Matrix: (soil/water) WATER Lab Sample ID: 940370-01

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: H4723

Level: (low/med) LOW Date Received: 05/04/94

% Moisture: not dec. ____ Heated Purge: N Date Analyzed: 05/06/94

GC Column: DB-624 ID: 0.53(mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
75-01-4	Vinyl Chloride	10	U
75-35-4	1,1-Dichloroethene	10	U
67-66-3	Chloroform	10	U
107-06-2	1,2-Dichloroethane	10	U
78-93-3	2-Butanone	10	U
56-23-5	Carbon Tetrachloride	10	U
79-01-6	Trichloroethene	10	U
71-43-2	Benzene	10	U
127-18-4	Tetrachloroethene	10	U
108-90-7	Chlorobenzene	10	U

APPENDIX H
GRAIN SIZE AND WET CHEMISTRY RESULTS

SITE 1

9403320-08

GEOTECHNICAL TESTING DATA AND RESULTS

PROJECT	CEIMIC Corporation	PROJECT SAMPLE I.D.	1-S-SB40	PROJECT ANALYST	SPM
JOB NUMBER	9404X008	ETL SAMPLE NUMBER	001	QA/QC ANALYST	RWF
W. O. NUMBER		DATE RECEIVED	04/21/94	DATE COMPLETED	04/28/94

PARTICLE SIZE DISTRIBUTION

U. S. Standard Sieve Size	Diameter mm	% Finer
3"	75.00	100.0
1 1/2"	37.50	100.0
3/4"	19.00	100.0
3/8"	9.500	99.7
#4	4.750	99.5
#10	2.000	99.4
#20	0.850	99.3
#50	0.300	98.4
#100	0.150	50.6
#200	0.075	15.6
HYDROMETER	0.0484	13.8
	0.0347	12.2
	0.0247	11.4
	0.0174	11.4
	0.0127	11.4
	0.0091	10.6
	0.0064	9.8
	0.0046	9.0
	0.0033	8.2
	0.0023	8.2
	0.0013	8.4
	0.0009	7.6

EFFECTIVE SIZES

% Finer	Diameter mm
60	0.180
30	0.106
10	NA
Uniformity Coefficient	Gradation Coefficient
NA	NA

SAMPLE DESCRIPTION

light brown silty SAND
with 16% silt of low plasticity

Unified Soil Classification System (USCS) Group Symbol

SM

INDEX PROPERTIES

% moisture dry basis

Liquid Limit	Plastic Limit	Plasticity Index
non-cohesive, non-plastic		

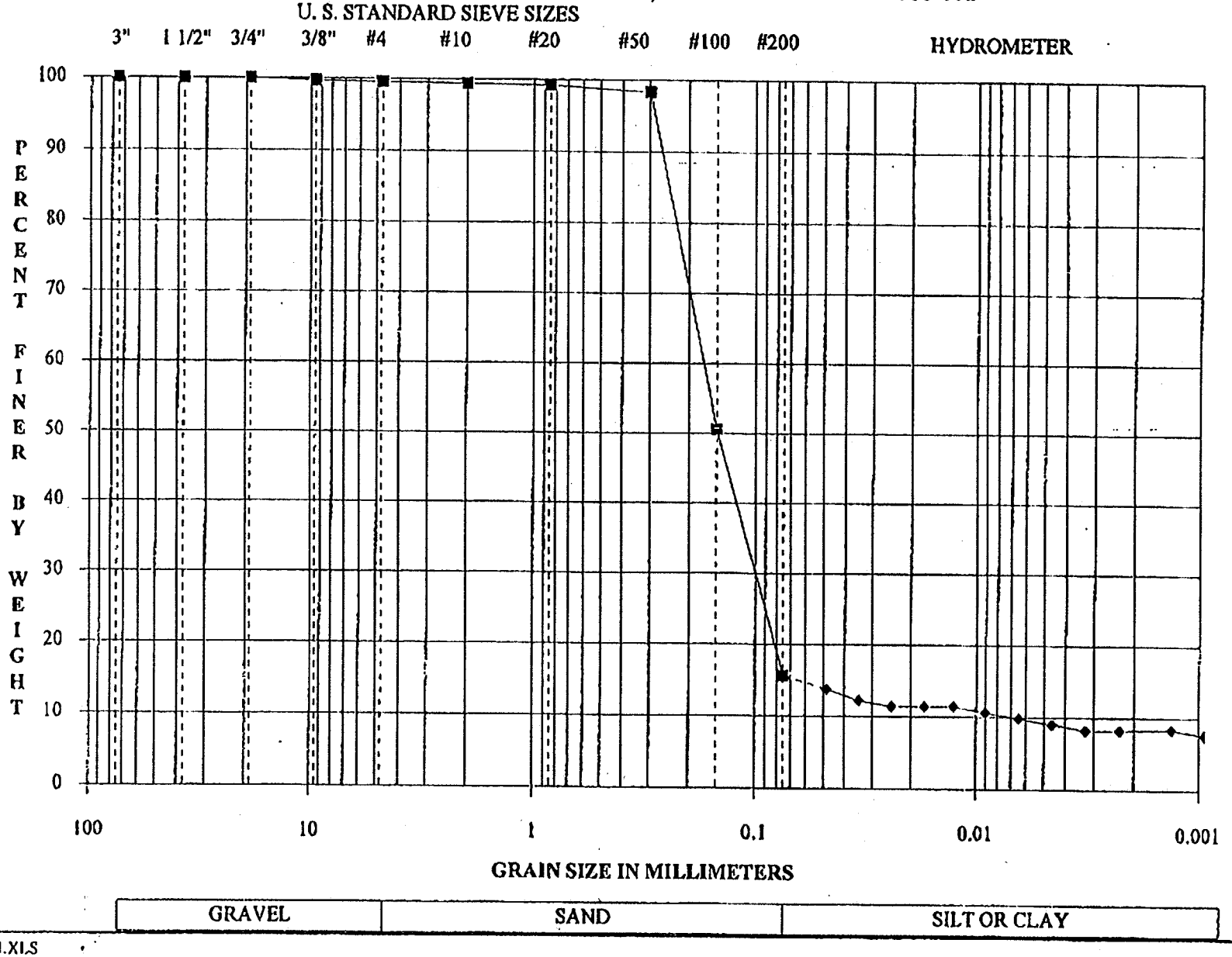
NOTES

NA=NOT APPLICABLE

1633

GSC1.XLS

PARTICLE-SIZE DISTRIBUTION CURVE FOR
PROJECT SAMPLE 1-S-SB40, ETL SAMPLE 9404X008-001



1634

GSC1.XLS

INORGANIC ANALYTES

Client: Baker Environmental

Client ID: 1-GW17-01

Laboratory ID: 940341-25

Date Sample Received: 4/26/94

Date Sampled: 4/24/94

Target Analyte	Result	Units	Method Reporting Limit	Date Analyzed
Alkalinity (as $CaCO_3$)	480	mg/L	2.0	5/03/94
Biochemical Oxygen Demand (BOD)	ND	mg/L	2.0	4/26/94
Chemical Oxygen Demand (COD)	19.5	mg/L	5.0	5/03/94
Chloride	6.3	mg/L	2.0	5/03/94
Fluoride	0.20	mg/L	0.10	5/05/94
Total Dissolved Solids (TDS)	403	mg/L	5.0	4/29/94
Total Kjeldahl Nitrogen (TKN as N)	2.09	mg/L	0.20	5/03/94
Total Suspended Solids (TSS)	552	mg/L	5.0	4/29/94

ND = Not detected

SITE 28

ROY F. WESTON, INC. ENVIRONMENTAL TECHNOLOGY LABORATORY

in Work Package.

GEOTECHNICAL TESTING DATA AND RESULTS

9402126-33

PROJECT	Cemic Corporation	PROJECT SAMPLE I.D.	28-E-SB42	PROJECT ANALYST	WB
JOB NUMBER	9403X004	ETL SAMPLE NUMBER	002	QA/QC ANALYST	RWF
W. O. NUMBER	05899-001-001-0012-00	DATE RECEIVED	03/31/94	DATE COMPLETED	04/08/94

PARTICLE SIZE DISTRIBUTION

U. S. Standard Sieve Size	Diameter mm	% Finer
3"	75.00	100.0
1 1/2"	37.50	100.0
3/4"	19.00	99.7
3/8"	9.500	98.1
#4	4.750	97.1
#10	2.000	96.5
#20	0.850	95.2
#50	0.300	88.6
#100	0.150	45.5
#200	0.075	20.7
HYDROMETER	0.0442	19.5
	0.0317	18.1
	0.0226	17.3
	0.0161	16.6
	0.0119	15.2
	0.0085	13.8
	0.0061	12.4
	0.0043	11.7
	0.0031	11.0
	0.0022	10.1
	0.0013	9.4
	0.0009	8.7

EFFECTIVE SIZES

% Finer	Diameter mm
60	0.201
30	0.103
10	NA
Uniformity Coefficient	Gradation Coefficient
NA	NA

SAMPLE DESCRIPTION

brown silty SAND
with 3% gravel and 21% silt of low plasticity

Unified Soil Classification System (USCS) Group Symbol

SM

INDEX PROPERTIES

% moisture dry basis

Liquid Limit	Plastic Limit	Plasticity Index
non-cohesive, non-plastic		

NOTES

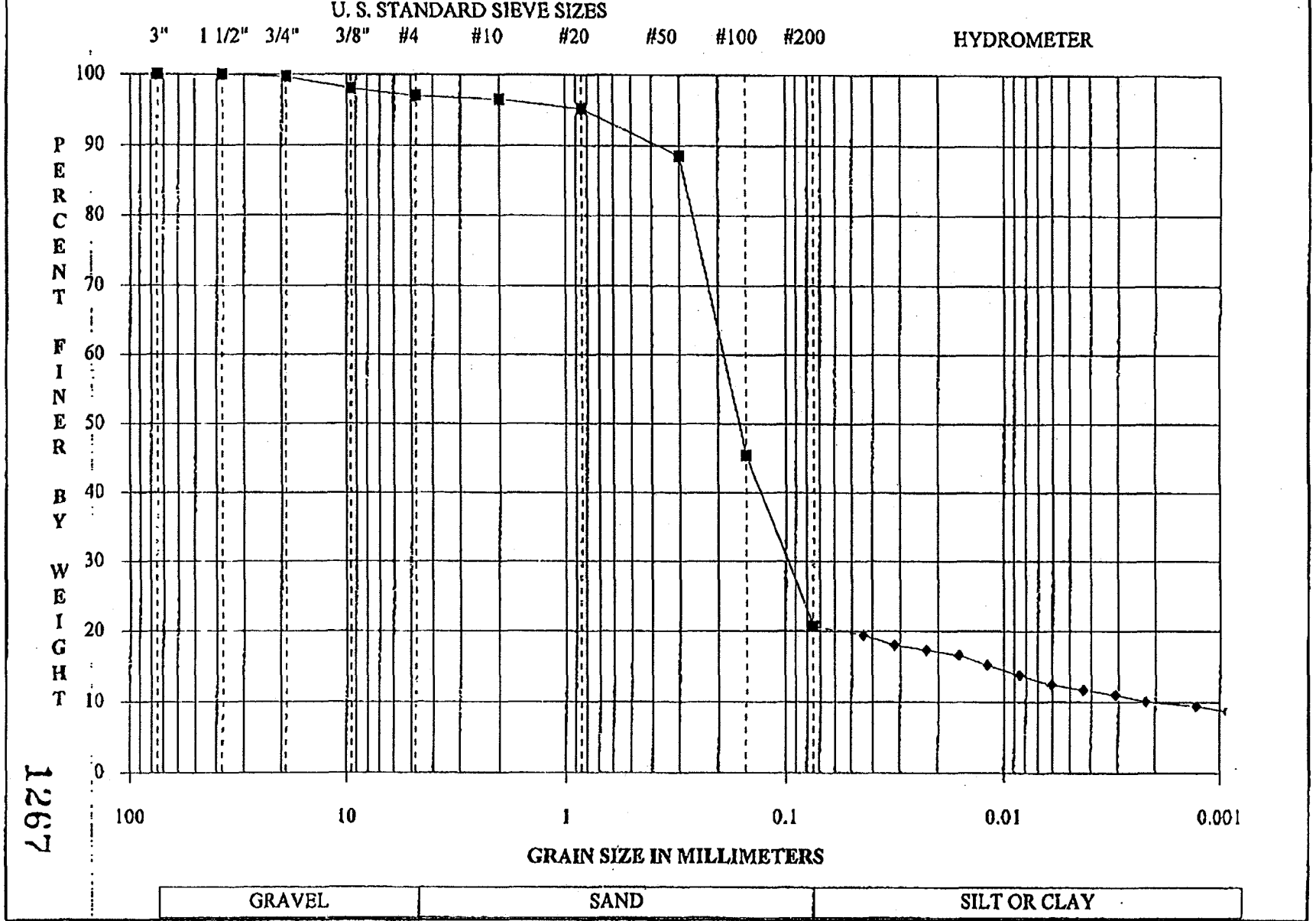
NA=NOT APPLICABLE

GSC2.XLS

9402126-33 / 30

PARTICLE-SIZE DISTRIBUTION CURVE FOR

PROJECT SAMPLE 28-E-SB42, ETL SAMPLE 9403X004-002



1267

GSC2.XLS

3/30 940248-25

ROY F. WESTON, INC. ENVIRONMENTAL TECHNOLOGY LABORATORY

GEOTECHNICAL TESTING DATA AND RESULTS

940248-25

PROJECT	Cemic Corporation	PROJECT SAMPLE I.D.	28-W-SB41	PROJECT ANALYST	WB
JOB NUMBER	9405X004	ETL SAMPLE NUMBER	003	QA/QC ANALYST	RWF
W. O. NUMBER	05899-001-001-0012-00	DATE RECEIVED	03/31/94	DATE COMPLETED	04/08/94

PARTICLE SIZE DISTRIBUTION

U. S. Standard Sieve Size	Diameter mm	% Finer
3"	75.00	100.0
1 1/2"	37.50	100.0
3/4"	19.00	97.9
3/8"	9.500	94.1
#4	4.750	89.2
#10	2.000	85.9
#20	0.850	82.1
#50	0.300	74.0
#100	0.150	38.4
#200	0.075	20.5
HYDROMETER	0.0418	17.6
	0.0321	16.2
	0.0229	15.5
	0.0163	14.9
	0.0120	14.2
	0.0086	12.8
	0.0061	12.1
	0.0044	9.4
	0.0032	8.0
	0.0023	7.1
	0.0013	6.4
	0.0009	5.1

EFFECTIVE SIZES

% Finer	Diameter mm
60	0.241
30	0.115
10	NA
Uniformity Coefficient	Gradation Coefficient
NA	NA

SAMPLE DESCRIPTION

dark brown silty SAND
with 11% gravel and 20% silt of low plasticity

Unified Soil Classification System (USCS) Group Symbol

SM

INDEX PROPERTIES

% moisture dry basis

Liquid Limit	Plastic Limit	Plasticity Index
non-cohesive, non-plastic		

NOTES

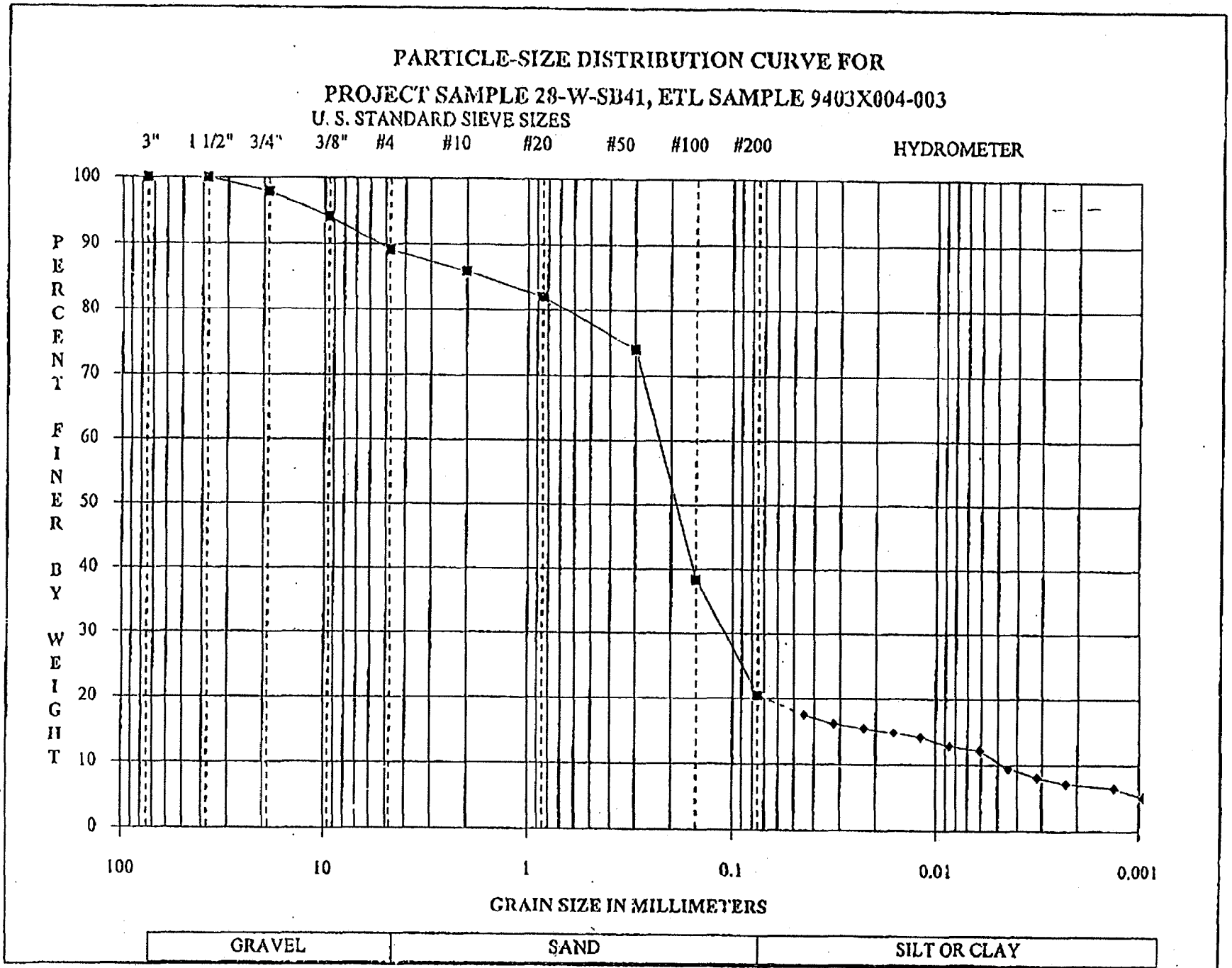
NA=NOT APPLICABLE

1814

GSC3.XLS

PARTICLE-SIZE DISTRIBUTION CURVE FOR

PROJECT SAMPLE 28-W-SB41, ETL SAMPLE 9403X004-003



GSC3.XLS

INORGANIC ANALYTES

Client: Baker Environmental

Client ID: 28-GW01DW-01D

Laboratory ID: 940389-05

Date Sample Received: 5/09/94

Data Sampled: 5/07/94

Target Analyte	Result	Units	Method Reporting Limit	Date Analyzed
Alkalinity (as $CaCO_3$)	200	mg/L	2.0	5/10/94
Biochemical Oxygen Demand (BOD)	ND	mg/L	2.0	5/09/94
Chemical Oxygen Demand (COD)	19.9	mg/L	5.0	5/23/94
Chloride	1,110	mg/L	2.0	5/11/94
Fluoride	0.52	mg/L	0.10	5/23/94
Total Dissolved Solids (TDS)	2,490	mg/L	5.0	5/09/94
Total Kjeldahl Nitrogen (TKN as N)	1.04	mg/L	0.20	5/16/94
Total Suspended Solids (TSS)	38.0	mg/L	5.0	5/09/94

ND = Not detected

INORGANIC ANALYTES

Client: Baker Environmental

Client ID: 28-GW01-01

Laboratory ID: 940341-28

Date Sample Received: 4/26/94

Date Sampled: 4/25/94

Target Analyte	Result	Units	Method Reporting Limit	Date Analyzed
Alkalinity (as $CaCO_3$)	221	mg/L	2.0	5/03/94
Biochemical Oxygen Demand (BOD)	12.1	mg/L	2.0	4/26/94
Chemical Oxygen Demand (COD)	26.2	mg/L	5.0	5/03/94
Chloride	31.0	mg/L	2.0	5/03/94
Fluoride	0.25	mg/L	0.10	5/05/94
Total Dissolved Solids (TDS)	334	mg/L	5.0	4/29/94
Total Kjeldahl Nitrogen (TKN as N)	3.08	mg/L	0.20	5/03/94
Total Suspended Solids (TSS)	2,040	mg/L	5.0	4/29/94

SITE 30

940226-35

GEOTECHNICAL TESTING DATA AND RESULTS

PROJECT	Cemic Corporation	PROJECT SAMPLE I.D.	30-SB17	PROJECT ANALYST	WB
JOB NUMBER	9403X004	ETL SAMPLE NUMBER	001	QA/QC ANALYST	RWF
W. O. NUMBER	05899-001-001-0012-00	DATE RECEIVED	03/31/94	DATE COMPLETED	04/08/94

940240-35 / 130

PARTICLE SIZE DISTRIBUTION

U. S. Standard Sieve Size	Diameter mm	% Finer
3"	75.00	100.0
1 1/2"	37.50	100.0
3/4"	19.00	100.0
3/8"	9.500	100.0
#4	4.750	99.9
#10	2.000	99.9
#20	0.850	99.2
#50	0.300	89.5
#100	0.150	20.1
#200	0.075	3.7
HYDROMETER	0.0508	4.1
	0.0359	4.1
	0.0254	4.1
	0.0180	4.1
	0.0131	4.1
	0.0093	4.1
	0.0066	3.4
	0.0047	3.4
	0.0033	2.7
	0.0024	1.7
	0.0014	1.7
	0.0010	1.7

EFFECTIVE SIZES

% Finer	Diameter mm
60	0.236
30	0.171
10	0.104
Uniformity Coefficient	Gradation Coefficient
2.3	1.2

SAMPLE DESCRIPTION

brown poorly graded SAND
with 4% silt of low plasticity

Unified Soil Classification System (USCS) Group Symbol

SP

INDEX PROPERTIES

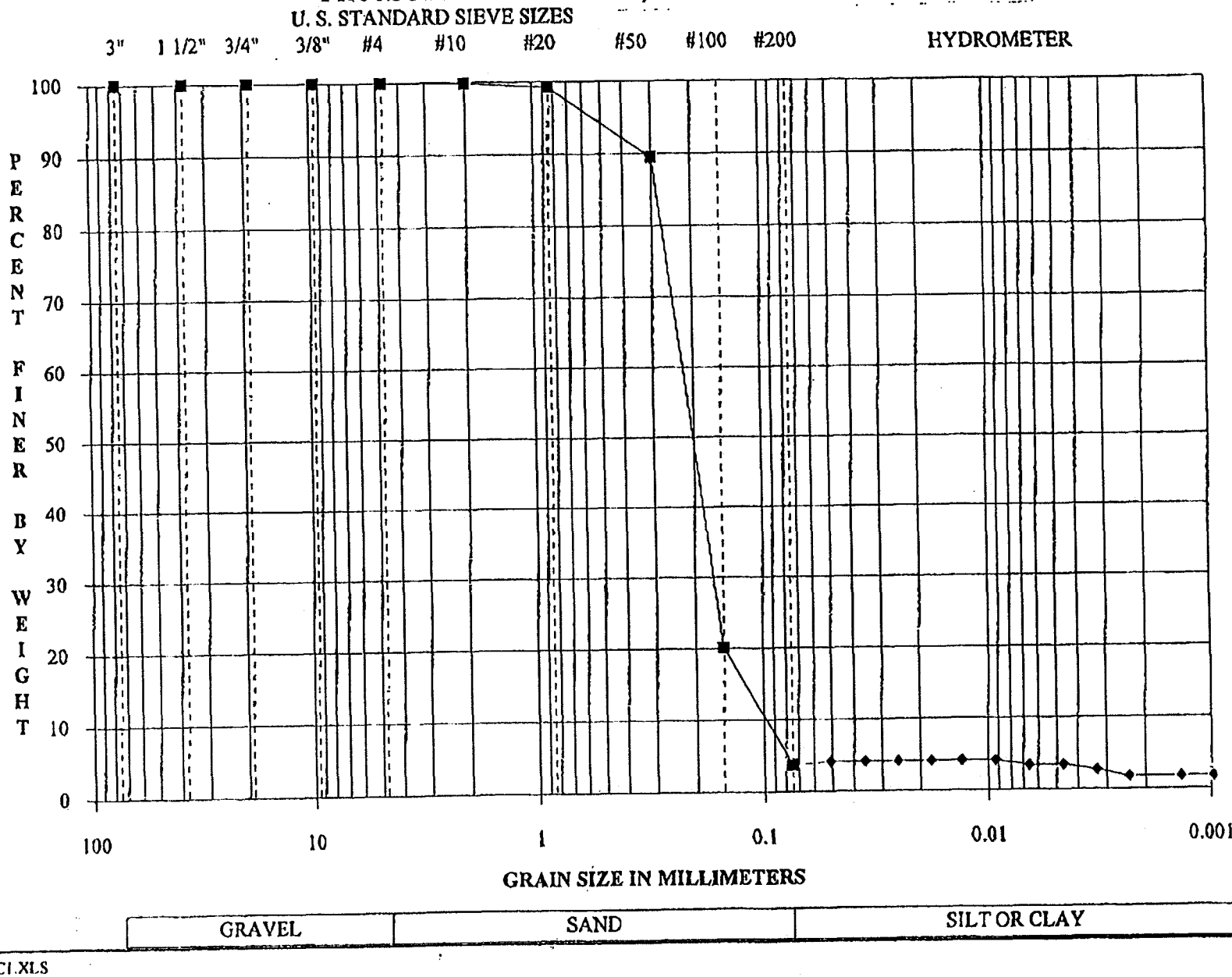
% moisture dry basis

Liquid Limit	Plastic Limit	Plasticity Index
non-cohesive, non-plastic		

NOTES

1291

PARTICLE-SIZE DISTRIBUTION CURVE FOR
PROJECT SAMPLE 30-SB17, ETL SAMPLE 9403X004-001



1281A

GSC1.XLS

INORGANIC ANALYTES

Client: Baker Environmental

Client ID: 30-GW01-01

Laboratory ID: 940334-09

Date Sample Received: 4/23/94

Date Sampled: 4/21/94

Target Analyte	Result	Units	Method Reporting Limit	Date Analyzed
Alkalinity (as $CaCO_3$)	ND	mg/L	2.0	5/03/94
Biochemical Oxygen Demand (BOD)	ND	mg/L	2.0	4/25/94
Chemical Oxygen Demand (COD)	96.4	mg/L	5.0	5/03/94
Chloride	7.3	mg/L	2.0	5/03/94
Fluoride	ND	mg/L	0.10	5/05/94
Total Dissolved Solids (TDS)	75.0	mg/L	5.0	4/27/94
Total Kjeldahl Nitrogen (TKN as N)	2.37	mg/L	0.20	5/03/94
Total Suspended Solids (TSS)	657	mg/L	5.0	4/27/94

ND = Not detected

1116

APPENDIX I
QA/QC SUMMARY

SITES 1, 28, AND 30
QA/QC SAMPLES
REMEDIAL INVESTIGATION CTO-19231
MCB CAMP LEJEUNE, NORTH CAROLINA
GC VOLATILES

Client Sample ID:		1-GWER-01	1-GWER-02	1-TB-11	1-TB-15	1-TB-19	1-TB-20
Laboratory Sample ID:		940334-18	940341-01	940289-23	940334-33	940389-12	940405-02
Date Sampled:		4/22/94	4/24/94	4/11/94	4/22/94	5/9/94	5/11/94
	UNITS						
VOLATILES							
Chloromethane	UG/L	2 U	2 U	2 U	2 U	2 U	2 U
Bromomethane	UG/L	2 U	2 U	2 U	2 U	2 U	2 U
Vinyl chloride	UG/L	2 U	2 U	2 U	2 U	2 U	2 U
Chloroethane	UG/L	2 U	2 U	2 U	2 U	2 U	2 U
Methylene chloride	UG/L	2 U	2 U	2 U	2 U	2 U	2 U
1,1-Dichloroethene	UG/L	2 U	2 U	2 U	2 U	2 U	2 U
1,1-Dichloroethane	UG/L	2 U	2 U	2 U	2 U	2 U	2 U
1,2-Dichloroethene(total)	UG/L	2 U	2 U	2 U	2 U	2 U	2 U
Chloroform	UG/L	2 U	2 U	2 U	2 U	2 U	2 U
1,2-Dichloroethane	UG/L	2 U	2 U	2 U	2 U	2 U	2 U
1,1,1-Trichloroethane	UG/L	2 U	2 U	2 U	2 U	2 U	2 U
Carbon tetrachloride	UG/L	2 U	2 U	2 U	2 U	2 U	2 U
Bromodichloromethane	UG/L	2 U	2 U	2 U	2 U	2 U	2 U
1,2-Dichloropropane	UG/L	2 U	2 U	2 U	2 U	2 U	2 U
cis-1,3-Dichloropropene	UG/L	2 U	2 U	2 U	2 U	2 U	2 U
Trichloroethene	UG/L	2 U	2 U	2 U	2 U	2 U	2 U
Dibromochloromethane	UG/L	2 U	2 U	2 U	2 U	2 U	2 U
1,1,2-Trichloroethane	UG/L	2 U	2 U	2 U	2 U	2 U	2 U
Benzene	UG/L	2 U	2 U	2 U	2 U	2 U	2 U
trans-1,3-Dichloropropene	UG/L	2 U	2 U	2 U	2 U	2 U	2 U
2-Chloroethylvinylether	UG/L	2 U	2 U	2 U	2 U	2 R	2 R
Bromoform	UG/L	2 U	2 U	2 U	2 U	2 U	2 U
Tetrachloroethene	UG/L	2 U	2 U	2 U	2 U	2 U	2 U
1,1,2,2-Tetrachloroethane	UG/L	2 U	2 U	2 U	2 U	2 U	2 U
Toluene	UG/L	2 U	2 U	2 U	2 U	2 U	2 U
Chlorobenzene	UG/L	2 U	2 U	2 U	2 U	2 U	2 U
Ethylbenzene	UG/L	2 U	2 U	2 U	2 U	2 U	2 U
Xylene (total)	UG/L	2 U	2 U	2 U	2 U	2 U	2 U
1,3-Dichlorobenzene	UG/L	2 U	2 U	2 U	2 U	2 U	2 U
1,4-Dichlorobenzene	UG/L	2 U	2 U	2 U	2 U	2 U	2 U
1,2-Dichlorobenzene	UG/L	2 U	2 U	2 U	2 U	2 U	2 U
Trichlorofluoromethane	UG/L	2 U	2 U	2 U	2 U	2 U	2 U

SITES 1, 28, AND 30
QA/QC SAMPLES
REMEDIAL INVESTIGATION CTO-19231
MCB CAMP LEJEUNE, NORTH CAROLINA
GC VOLATILES

Client Sample ID:		28-GWER-01	28-GWER-02	28-GWER-03	28-TB-18	28-TB-18	28-TB-19
Laboratory Sample ID:		940320-15	940341-32	940389-13	940289-08	940320-17	940320-30
Date Sampled:		4/20/94	4/25/94	5/8/94	4/8/94	4/20/94	4/21/94
	UNITS						
VOLATILES							
Chloromethane	UG/L	2 U	2 U	2 U	2 U	2 U	2 U
Bromomethane	UG/L	2 U	2 U	2 U	2 U	2 U	2 U
Vinyl chloride	UG/L	2 U	2 U	2 U	2 U	2 U	2 U
Chloroethane	UG/L	2 U	2 U	2 U	2 U	2 U	2 U
Methylene chloride	UG/L	2 U	2 U	2 U	2 U	2 U	2 U
1,1-Dichloroethene	UG/L	2 U	2 U	2 U	2 U	2 U	2 U
1,1-Dichloroethane	UG/L	2 U	2 U	2 U	2 U	2 U	2 U
1,2-Dichloroethene(total)	UG/L	2 U	2 U	2 U	2 U	2 U	2 U
Chloroform	UG/L	2 U	2 U	2 U	2 U	2 U	2 U
1,2-Dichloroethane	UG/L	2 U	2 U	2 U	2 U	2 U	2 U
1,1,1-Trichloroethane	UG/L	2 U	2 U	2 U	2 U	2 U	2 U
Carbon tetrachloride	UG/L	2 U	2 U	2 U	2 U	2 U	2 U
Bromodichloromethane	UG/L	2 U	2 U	2 U	2 U	2 U	2 U
1,2-Dichloropropane	UG/L	2 U	2 U	2 U	2 U	2 U	2 U
cis-1,3-Dichloropropene	UG/L	2 U	2 U	2 U	2 U	2 U	2 U
Trichloroethene	UG/L	2 U	2 U	2 U	2 U	2 U	2 U
Dibromochloromethane	UG/L	2 U	2 U	2 U	2 U	2 U	2 U
1,1,2-Trichloroethane	UG/L	2 U	2 U	2 U	2 U	2 U	2 U
Benzene	UG/L	2 U	2 U	2 U	2 U	2 U	2 U
trans-1,3-Dichloropropene	UG/L	2 U	2 U	2 U	2 U	2 U	2 U
2-Chloroethylvinylether	UG/L	2 U	2 R	2 R	2 U	2 U	2 U
Bromoform	UG/L	2 U	2 U	2 U	2 U	2 U	2 U
Tetrachloroethene	UG/L	2 U	2 U	2 U	2 U	2 U	2 U
1,1,2,2-Tetrachloroethane	UG/L	2 U	2 U	2 U	2 U	2 U	2 U
Toluene	UG/L	2 U	2 U	2 U	2 U	2 U	2 U
Chlorobenzene	UG/L	2 U	2 U	2 U	2 U	2 U	2 U
Ethylbenzene	UG/L	2 U	2 U	2 U	2 U	2 U	2 U
Xylene (total)	UG/L	2 U	2 U	2 U	2 U	2 U	2 U
1,3-Dichlorobenzene	UG/L	2 U	2 U	2 U	2 U	2 U	2 U
1,4-Dichlorobenzene	UG/L	2 U	2 U	2 U	2 U	2 U	2 U
1,2-Dichlorobenzene	UG/L	2 U	2 U	2 U	2 U	2 U	2 U
Trichlorofluoromethane	UG/L	2 U	2 U	2 U	2 U	2 U	2 U

SITES 1, 28, AND 30
QA/QC SAMPLES
REMEDIAL INVESTIGATION CTO-19231
MCB CAMP LEJEUNE, NORTH CAROLINA
GC VOLATILES

Client Sample ID:		28-TB-20	28-TB-21	30-TB-04	4-TB-16	231FB03	231FB04
Laboratory Sample ID:		940341-34	940389-08	940334-17	940341-27	940341-35	940389-09
Date Sampled:		4/25/94	5/7/94	4/21/94	4/24/94	4/26/94	5/7/94
	UNITS						
VOLATILES							
Chloromethane	UG/L	2 U	2 U	2 U	2 U	2 U	2 U
Bromomethane	UG/L	2 U	2 U	2 U	2 U	2 U	2 U
Vinyl chloride	UG/L	2 U	2 U	2 U	2 U	2 U	2 U
Chloroethane	UG/L	2 U	2 U	2 U	2 U	2 U	2 U
Methylene chloride	UG/L	2 U	2 U	3 U	2 U	2 U	2 U
1,1-Dichloroethene	UG/L	2 U	2 U	2 U	2 U	2 U	2 U
1,1-Dichloroethane	UG/L	2 U	2 U	2 U	2 U	2 U	2 U
1,2-Dichloroethene(total)	UG/L	2 U	2 U	2 U	2 U	2 U	2 U
Chloroform	UG/L	2 U	2 U	2 U	2 U	2 U	13
1,2-Dichloroethane	UG/L	2 U	2 U	2 U	2 U	2 U	2 U
1,1,1-Trichloroethane	UG/L	2 U	2 U	2 U	2 U	2 U	2 U
Carbon tetrachloride	UG/L	2 U	2 U	2 U	2 U	2 U	2 U
Bromodichloromethane	UG/L	2 U	2 U	2 U	2 U	2 U	6
1,2-Dichloropropane	UG/L	2 U	2 U	2 U	2 U	2 U	2 U
cis-1,3-Dichloropropene	UG/L	2 U	2 U	2 U	2 U	2 U	2 U
Trichloroethene	UG/L	2 U	2 U	2 U	2 U	2 U	2 U
Dibromochloromethane	UG/L	2 U	2 U	2 U	2 U	2 U	3
1,1,2-Trichloroethane	UG/L	2 U	2 U	2 U	2 U	2 U	2 U
Benzene	UG/L	2 U	2 U	2 U	2 U	2 U	2 U
trans-1,3-Dichloropropene	UG/L	2 U	2 U	2 U	2 U	2 U	2 U
2-Chloroethylvinylether	UG/L	2 U	2 R	2 U	2 R	2 R	2 R
Bromoform	UG/L	2 U	2 U	2 U	2 U	2 U	2 U
Tetrachloroethene	UG/L	2 U	2 U	2 U	2 U	2 U	2 U
1,1,2,2-Tetrachloroethane	UG/L	2 U	2 U	2 U	2 U	2 U	2 U
Toluene	UG/L	2 U	2 U	2 U	2 U	2 U	2 U
Chlorobenzene	UG/L	2 U	2 U	2 U	2 U	2 U	2 U
Ethylbenzene	UG/L	2 U	2 U	2 U	2 U	2 U	2 U
Xylene (total)	UG/L	2 U	2 U	2 U	2 U	2 U	2 U
1,3-Dichlorobenzene	UG/L	2 U	2 U	2 U	2 U	2 U	2 U
1,4-Dichlorobenzene	UG/L	2 U	2 U	2 U	2 U	2 U	2 U
1,2-Dichlorobenzene	UG/L	2 U	2 U	2 U	2 U	2 U	2 U
Trichlorofluoromethane	UG/L	2 U	2 U	2 U	2 U	2 U	2 U

SITES 1, 28, AND 30
QA/QC SAMPLES
REMEDIAL INVESTIGATION CTO-19231
MCB CAMP LEJEUNE, NORTH CAROLINA
GC VOLATILES

Client Sample ID: Laboratory Sample ID: Date Sampled:		MINIMUM NONDETECTED	MAXIMUM NONDETECTED	MINIMUM DETECTED	MAXIMUM DETECTED	LOCATION OF MAXIMUM DETECTED	FREQUENCY OF DETECTION
	UNITS						
VOLATILES							
Chloromethane	UG/L	2 U	2 U	ND	ND		0/18
Bromomethane	UG/L	2 U	2 U	ND	ND		0/18
Vinyl chloride	UG/L	2 U	2 U	ND	ND		0/18
Chloroethane	UG/L	2 U	2 U	ND	ND		0/18
Methylene chloride	UG/L	2 U	3 U	ND	ND		0/18
1,1-Dichloroethene	UG/L	2 U	2 U	ND	ND		0/18
1,1-Dichloroethane	UG/L	2 U	2 U	ND	ND		0/18
1,2-Dichloroethene(total)	UG/L	2 U	2 U	ND	ND		0/18
Chloroform	UG/L	2 U	2 U	13	13	231FB04	1/18
1,2-Dichloroethane	UG/L	2 U	2 U	ND	ND		0/18
1,1,1-Trichloroethane	UG/L	2 U	2 U	ND	ND		0/18
Carbon tetrachloride	UG/L	2 U	2 U	ND	ND		0/18
Bromodichloromethane	UG/L	2 U	2 U	6	6	231FB04	1/18
1,2-Dichloropropane	UG/L	2 U	2 U	ND	ND		0/18
cis-1,3-Dichloropropene	UG/L	2 U	2 U	ND	ND		0/18
Trichloroethene	UG/L	2 U	2 U	ND	ND		0/18
Dibromochloromethane	UG/L	2 U	2 U	3	3	231FB04	1/18
1,1,2-Trichloroethane	UG/L	2 U	2 U	ND	ND		0/18
Benzene	UG/L	2 U	2 U	ND	ND		0/18
trans-1,3-Dichloropropene	UG/L	2 U	2 U	ND	ND		0/18
2-Chloroethylvinylether	UG/L	2 U	2 U	2 R	2 R	231FB04	8/18
Bromoform	UG/L	2 U	2 U	ND	ND		0/18
Tetrachloroethene	UG/L	2 U	2 U	ND	ND		0/18
1,1,2,2-Tetrachloroethane	UG/L	2 U	2 U	ND	ND		0/18
Toluene	UG/L	2 U	2 U	ND	ND		0/18
Chlorobenzene	UG/L	2 U	2 U	ND	ND		0/18
Ethylbenzene	UG/L	2 U	2 U	ND	ND		0/18
Xylene (total)	UG/L	2 U	2 U	ND	ND		0/18
1,3-Dichlorobenzene	UG/L	2 U	2 U	ND	ND		0/18
1,4-Dichlorobenzene	UG/L	2 U	2 U	ND	ND		0/18
1,2-Dichlorobenzene	UG/L	2 U	2 U	ND	ND		0/18
Trichlorofluoromethane	UG/L	2 U	2 U	ND	ND		0/18

SITES 1, 28, AND 30
QA/QC SAMPLES
REMEDIAL INVESTIGATION CTO-19231
MCB CAMP LEJEUNE, NORTH CAROLINA
TCL VOLATILES

Client Sample ID:		1-SDER-01	1-SIER-01	1-SIER-02	1-SIER-03	1-SIER-06	1-SIER-08
Laboratory Sample ID:		940225-01	940225-13	940225-22	940272-02	940289-20	940289-32
Date Sampled:		3/22/94	3/28/94	3/30/94	4/4/94	4/10/94	4/12/94
	UNITS						
VOLATILES							
Chloromethane	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
Bromomethane	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
Vinyl chloride	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
Chloroethane	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
Methylene chloride	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
Acetone	UG/L	10 U	10	7 J	9 J	10	10
Carbon Disulfide	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
1,1-Dichloroethene	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
1;1-Dichloroethane	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
1,2-Dichloroethene(total)	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
Chloroform	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
1,2-Dichloroethane	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
2-Butanone	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
1,1,1-Trichloroethane	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
Carbon tetrachloride	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
Bromodichloromethane	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
1,2-Dichloropropane	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
cis-1,3-Dichloropropene	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
Trichloroethene	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
Dibromochloromethane	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
1,1,2-Trichloroethane	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
Benzene	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
trans-1,3-Dichloropropene	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
Bromoform	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
4-Methyl-2-pentanone	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
2-Hexanone	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
Tetrachloroethene	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
1,1,2,2-Tetrachloroethane	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
Toluene	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
Chlorobenzene	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
Ethylbenzene	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
Styrene	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
Xylenes (total)	UG/L	10 U	10 U	10 U	10 U	10 U	10 U

SITES 1, 28, AND 30
QA/QC SAMPLES
REMEDIAL INVESTIGATION CTO-19231
MCB CAMP LEJEUNE, NORTH CAROLINA
TCL VOLATILES

Client Sample ID:		1-TB-01	1-TB-02	1-TB-03	1-TB-03	1-TB-04	1-TB-05
Laboratory Sample ID:		940225-04	940225-08	940225-14	940225-14	940261-03	940261-04
Date Sampled:		3/23/94	3/24/94	3/28/94	3/28/94	3/30/94	3/30/94
	UNITS						
VOLATILES							
Chloromethane	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
Bromomethane	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
Vinyl chloride	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
Chloroethane	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
Methylene chloride	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
Acetone	UG/L	22	17 U	10 U	10 U	10 U	10 U
Carbon Disulfide	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
1,1-Dichloroethene	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
1,1-Dichloroethane	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
1,2-Dichloroethene(total)	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
Chloroform	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
1,2-Dichloroethane	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
2-Butanone	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
1,1,1-Trichloroethane	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
Carbon tetrachloride	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
Bromodichloromethane	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
1,2-Dichloropropane	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
cis-1,3-Dichloropropene	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
Trichloroethene	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
Dibromochloromethane	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
1,1,2-Trichloroethane	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
Benzene	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
trans-1,3-Dichloropropene	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
Bromoform	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
4-Methyl-2-pentanone	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
2-Hexanone	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
Tetrachloroethene	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
1,1,2,2-Tetrachloroethane	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
Toluene	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
Chlorobenzene	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
Ethylbenzene	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
Styrene	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
Xylenes (total)	UG/L	10 U	10 U	10 U	10 U	10 U	10 U

SITES 1, 28, AND 30
QA/QC SAMPLES
REMEDIAL INVESTIGATION CTO-19231
MCB CAMP LEJEUNE, NORTH CAROLINA
TCL VOLATILES

Client Sample ID:		1-TB-05	1-TB-07	1-TB-08	1-TB-09	1-TB-10	1-TB-12
Laboratory Sample ID:		940225-23	940272-06	940280-24	940280-25	940289-22	940289-33
Date Sampled:		3/30/94	4/5/94	4/6/94	4/6/94	4/11/94	4/12/94
	UNITS						
VOLATILES							
Chloromethane	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
Bromomethane	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
Vinyl chloride	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
Chloroethane	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
Methylene chloride	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
Acetone	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
Carbon Disulfide	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
1,1-Dichloroethene	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
1,1-Dichloroethane	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
1,2-Dichloroethene(total)	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
Chloroform	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
1,2-Dichloroethane	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
2-Butanone	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
1,1,1-Trichloroethane	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
Carbon tetrachloride	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
Bromodichloromethane	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
1,2-Dichloropropane	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
cis-1,3-Dichloropropene	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
Trichloroethene	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
Dibromochloromethane	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
1,1,2-Trichloroethane	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
Benzene	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
trans-1,3-Dichloropropene	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
Bromoform	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
4-Methyl-2-pentanone	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
2-Hexanone	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
Tetrachloroethene	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
1,1,2,2-Tetrachloroethane	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
Toluene	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
Chlorobenzene	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
Ethylbenzene	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
Styrene	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
Xylenes (total)	UG/L	10 U	10 U	10 U	10 U	10 U	10 U

SITES 1, 28, AND 30
QA/QC SAMPLES
REMEDIAL INVESTIGATION CTO-19231
MCB CAMP LEJEUNE, NORTH CAROLINA
TCL VOLATILES

Client Sample ID:		1-TB-13	1-TB-14	1-TB-17	1-TB-18	1-TB-21	28-SDER-01
Laboratory Sample ID:		940302-08	940320-10	940369-04	940389-03	940460-03	940246-36
Date Sampled:		4/13/94	4/19/94	5/3/94	5/6/94	5/26/94	3/27/94
	UNITS						
VOLATILES							
Chloromethane	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
Bromomethane	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
Vinyl chloride	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
Chloroethane	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
Methylene chloride	UG/L	2 J	10 U	10 U	10 U	2 J	10 U
Acetone	UG/L	10 U	10 U	10 U	10 UJ	6 J	10 U
Carbon Disulfide	UG/L	10 U	2 J	10 U	10 U	10 U	10 U
1,1-Dichloroethene	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
1,1-Dichloroethane	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
1,2-Dichloroethene(total)	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
Chloroform	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
1,2-Dichloroethane	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
2-Butanone	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
1,1,1-Trichloroethane	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
Carbon tetrachloride	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
Bromodichloromethane	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
1,2-Dichloropropane	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
cis-1,3-Dichloropropene	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
Trichloroethene	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
Dibromochloromethane	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
1,1,2-Trichloroethane	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
Benzene	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
trans-1,3-Dichloropropene	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
Bromoform	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
4-Methyl-2-pentanone	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
2-Hexanone	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
Tetrachloroethene	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
1,1,2,2-Tetrachloroethane	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
Toluene	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
Chlorobenzene	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
Ethylbenzene	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
Styrene	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
Xylenes (total)	UG/L	10 U	10 U	10 U	10 U	10 U	10 U

SITES 1, 28, AND 30
QA/QC SAMPLES
REMEDIAL INVESTIGATION CTO-19231
MCB CAMP LEJEUNE, NORTH CAROLINA
TCL VOLATILES

Client Sample ID:		28-SDER-02	28-SDER-03	28-SIER-01	28-SIER-02	28-SIER-03	28-SIER-05
Laboratory Sample ID:		940246-37	940250-07	940241-06	940241-07	940246-38	940281-09
Date Sampled:		3/28/94	3/29/94	3/24/94	3/25/94	3/27/94	4/7/94
	UNITS						
VOLATILES							
Chloromethane	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
Bromomethane	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
Vinyl chloride	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
Chloroethane	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
Methylene chloride	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
Acetone	UG/L	10 U	24	12	11	17	17
Carbon Disulfide	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
1,1-Dichloroethene	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
1,1-Dichloroethane	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
1,2-Dichloroethene(total)	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
Chloroform	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
1,2-Dichloroethane	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
2-Butanone	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
1,1,1-Trichloroethane	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
Carbon tetrachloride	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
Bromodichloromethane	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
1,2-Dichloropropane	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
cis-1,3-Dichloropropene	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
Trichloroethene	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
Dibromochloromethane	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
1,1,2-Trichloroethane	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
Benzene	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
trans-1,3-Dichloropropene	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
Bromoform	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
4-Methyl-2-pentanone	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
2-Hexanone	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
Tetrachloroethene	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
1,1,2,2-Tetrachloroethane	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
Toluene	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
Chlorobenzene	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
Ethylbenzene	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
Styrene	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
Xylenes (total)	UG/L	10 U	10 U	10 U	10 U	10 U	10 U

SITES 1, 28, AND 30
QA/QC SAMPLES
REMEDIAL INVESTIGATION CTO-19231
MCB CAMP LEJEUNE, NORTH CAROLINA
TCL VOLATILES

Client Sample ID:		28-TB-02	28-TB-03	28-TB-04	28-TB-05	28-TB-06	28-TB-08
Laboratory Sample ID:		940241-09	940241-33	940241-17	940241-23	940250-26	940246-40
Date Sampled:		3/25/94	3/25/94	3/26/94	3/26/94	3/26/94	3/28/94
	UNITS						
VOLATILES							
Chloromethane	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
Bromomethane	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
Vinyl chloride	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
Chloroethane	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
Methylene chloride	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
Acetone	UG/L	10 U	10 U	20 U	10 U	10 U	10 U
Carbon Disulfide	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
1,1-Dichloroethene	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
1,1-Dichloroethane	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
1,2-Dichloroethene(total)	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
Chloroform	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
1,2-Dichloroethane	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
2-Butanone	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
1,1,1-Trichloroethane	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
Carbon tetrachloride	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
Bromodichloromethane	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
1,2-Dichloropropane	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
cis-1,3-Dichloropropene	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
Trichloroethene	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
Dibromochloromethane	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
1,1,2-Trichloroethane	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
Benzene	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
trans-1,3-Dichloropropene	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
Bromoform	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
4-Methyl-2-pentanone	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
2-Hexanone	UG/L	10 U	10 UJ	10 U	10 UJ	10 U	10 U
Tetrachloroethene	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
1,1,2,2-Tetrachloroethane	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
Toluene	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
Chlorobenzene	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
Ethylbenzene	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
Styrene	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
Xylenes (total)	UG/L	10 U	10 U	10 U	10 U	10 U	10 U

SITES 1, 28, AND 30
QA/QC SAMPLES
REMEDIAL INVESTIGATION CTO-19231
MCB CAMP LEJEUNE, NORTH CAROLINA
TCL VOLATILES

Client Sample ID:		28-TB-09	28-TB-10	28-TB-11	28-TB-12	28-TB-13	28-TB-14
Laboratory Sample ID:		940248-01	940248-02	940248-03	940248-38	940250-08	940250-09
Date Sampled:		3/28/94	3/27/94	3/28/94	3/28/94	3/28/94	3/29/94
	UNITS						
VOLATILES							
Chloromethane	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
Bromomethane	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
Vinyl chloride	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
Chloroethane	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
Methylene chloride	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
Acetone	UG/L	10 U	10 U	22	10 U	9 J	10 U
Carbon Disulfide	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
1,1-Dichloroethene	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
1,1-Dichloroethane	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
1,2-Dichloroethene(total)	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
Chloroform	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
1,2-Dichloroethane	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
2-Butanone	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
1,1,1-Trichloroethane	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
Carbon tetrachloride	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
Bromodichloromethane	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
1,2-Dichloropropane	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
cis-1,3-Dichloropropene	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
Trichloroethene	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
Dibromochloromethane	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
1,1,2-Trichloroethane	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
Benzene	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
trans-1,3-Dichloropropene	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
Bromoform	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
4-Methyl-2-pentanone	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
2-Hexanone	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
Tetrachloroethene	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
1,1,2,2-Tetrachloroethane	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
Toluene	UG/L	2 J	10 U	10 U	10 U	10 U	10 U
Chlorobenzene	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
Ethylbenzene	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
Styrene	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
Xylenes (total)	UG/L	10 U	10 U	10 U	10 U	10 U	10 U

SITES 1, 28, AND 30
QA/QC SAMPLES
REMEDIAL INVESTIGATION CTO-19231
MCB CAMP LEJEUNE, NORTH CAROLINA
TCL VOLATILES

Client Sample ID:		28-TB-15	28-TB-16	28-TB-17	28-TB-18	28-TB-19	30-SDER-01
Laboratory Sample ID:		940250-30	940281-10	940289-07	940320-17	940320-30	940238-04
Date Sampled:		3/30/94	4/7/94	4/8/94	4/20/94	4/21/94	3/24/94
	UNITS						
VOLATILES							
Chloromethane	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
Bromomethane	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
Vinyl chloride	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
Chloroethane	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
Methylene chloride	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
Acetone	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
Carbon Disulfide	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
1,1-Dichloroethene	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
1,1-Dichloroethane	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
1,2-Dichloroethene(total)	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
Chloroform	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
1,2-Dichloroethane	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
2-Butanone	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
1,1,1-Trichloroethane	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
Carbon tetrachloride	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
Bromodichloromethane	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
1,2-Dichloropropane	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
cis-1,3-Dichloropropene	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
Trichloroethene	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
Dibromochloromethane	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
1,1,2-Trichloroethane	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
Benzene	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
trans-1,3-Dichloropropene	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
Bromoform	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
4-Methyl-2-pentanone	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
2-Hexanone	UG/L	10 U	10 U	10 U	10 U	10 U	10 UJ
Tetrachloroethene	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
1,1,2,2-Tetrachloroethane	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
Toluene	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
Chlorobenzene	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
Ethylbenzene	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
Styrene	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
Xylenes (total)	UG/L	10 U	10 U	10 U	10 U	10 U	10 U

SITES 1, 28, AND 30
QA/QC SAMPLES
REMEDIAL INVESTIGATION CTO-19231
MCB CAMP LEJEUNE, NORTH CAROLINA
TCL VOLATILES

Client Sample ID:		30-SDER-02	30-SIER-01	30-TB-01	30-TB-02	30-TB-03	231FB01
Laboratory Sample ID:		940238-05	940226-26	940226-28	940226-40	940238-13	940261-05
Date Sampled:		3/25/94	3/22/94	3/23/94	3/24/94	3/25/94	3/30/94
	UNITS						
VOLATILES							
Chloromethane	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
Bromomethane	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
Vinyl chloride	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
Chloroethane	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
Methylene chloride	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
Acetone	UG/L	11 U	10	7 J	10 U	16 U	17
Carbon Disulfide	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
1,1-Dichloroethene	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
1,1-Dichloroethane	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
1,2-Dichloroethene(total)	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
Chloroform	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
1,2-Dichloroethane	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
2-Butanone	UG/L	10 U	10 U	10 U	10 U	10 U	7 J
1,1,1-Trichloroethane	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
Carbon tetrachloride	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
Bromodichloromethane	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
1,2-Dichloropropane	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
cis-1,3-Dichloropropene	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
Trichloroethene	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
Dibromochloromethane	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
1,1,2-Trichloroethane	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
Benzene	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
trans-1,3-Dichloropropene	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
Bromoform	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
4-Methyl-2-pentanone	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
2-Hexanone	UG/L	10 UJ	10 U	10 U	10 U	10 UJ	10 U
Tetrachloroethene	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
1,1,2,2-Tetrachloroethane	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
Toluene	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
Chlorobenzene	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
Ethylbenzene	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
Styrene	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
Xylenes (total)	UG/L	10 U	10 U	10 U	10 U	10 U	10 U

SITES 1, 28, AND 30
QA/QC SAMPLES
REMEDIAL INVESTIGATION CTO-19231
MCB CAMP LEJEUNE, NORTH CAROLINA
TCL VOLATILES

Client Sample ID:	231FB02
Laboratory Sample ID:	940302-09
Date Sampled:	4/13/94

VOLATILES	UNITS	
Chloromethane	UG/L	10 U
Bromomethane	UG/L	10 U
Vinyl chloride	UG/L	10 U
Chloroethane	UG/L	10 U
Methylene chloride	UG/L	2 J
Acetone	UG/L	9 J
Carbon Disulfide	UG/L	10 U
1,1-Dichloroethene	UG/L	10 U
1,1-Dichloroethane	UG/L	10 U
1,2-Dichloroethene(total)	UG/L	10 U
Chloroform	UG/L	8 J
1,2-Dichloroethane	UG/L	10 U
2-Butanone	UG/L	10 U
1,1,1-Trichloroethane	UG/L	10 U
Carbon tetrachloride	UG/L	10 U
Bromodichloromethane	UG/L	5 J
1,2-Dichloropropane	UG/L	10 U
cis-1,3-Dichloropropene	UG/L	10 U
Trichloroethene	UG/L	10 U
Dibromochloromethane	UG/L	3 J
1,1,2-Trichloroethane	UG/L	10 U
Benzene	UG/L	10 U
trans-1,3-Dichloropropene	UG/L	10 U
Bromoform	UG/L	10 U
4-Methyl-2-pentanone	UG/L	10 U
2-Hexanone	UG/L	10 U
Tetrachloroethene	UG/L	10 U
1,1,2,2-Tetrachloroethane	UG/L	10 U
Toluene	UG/L	10 U
Chlorobenzene	UG/L	10 U
Ethylbenzene	UG/L	10 U
Styrene	UG/L	10 U
Xylenes (total)	UG/L	10 U

SITES 1, 28, AND 30
QA/QC SAMPLES
REMEDIAL INVESTIGATION CTO-19231
MCB CAMP LEJEUNE, NORTH CAROLINA
TCL VOLATILES

Client Sample ID: Laboratory Sample ID: Date Sampled:		MINIMUM NONDETECTED	MAXIMUM NONDETECTED	MINIMUM DETECTED	MAXIMUM DETECTED	LOCATION OF MAXIMUM DETECTED	FREQUENCY OF DETECTION
	UNITS						
VOLATILES							
Chloromethane	UG/L	10 U	10 U	ND	ND		0/55
Bromomethane	UG/L	10 U	10 U	ND	ND		0/55
Vinyl chloride	UG/L	10 U	10 U	ND	ND		0/55
Chloroethane	UG/L	10 U	10 U	ND	ND		0/55
Methylene chloride	UG/L	10 U	10 U	2 J	2 J	231FB02	3/55
Acetone	UG/L	10 U	20 U	6 J	24	28-SDER-03	18/55
Carbon Disulfide	UG/L	10 U	10 U	2 J	2 J	1-TB-14	1/55
1,1-Dichloroethene	UG/L	10 U	10 U	ND	ND		0/55
1,1-Dichloroethane	UG/L	10 U	10 U	ND	ND		0/55
1,2-Dichloroethene(total)	UG/L	10 U	10 U	ND	ND		0/55
Chloroform	UG/L	10 U	10 U	8 J	8 J	231FB02	1/55
1,2-Dichloroethane	UG/L	10 U	10 U	ND	ND		0/55
2-Butanone	UG/L	10 U	10 U	7 J	7 J	231FB01	1/55
1,1,1-Trichloroethane	UG/L	10 U	10 U	ND	ND		0/55
Carbon tetrachloride	UG/L	10 U	10 U	ND	ND		0/55
Bromodichloromethane	UG/L	10 U	10 U	5 J	5 J	231FB02	1/55
1,2-Dichloropropane	UG/L	10 U	10 U	ND	ND		0/55
cis-1,3-Dichloropropene	UG/L	10 U	10 U	ND	ND		0/55
Trichloroethene	UG/L	10 U	10 U	ND	ND		0/55
Dibromochloromethane	UG/L	10 U	10 U	3 J	3 J	231FB02	1/55
1,1,2-Trichloroethane	UG/L	10 U	10 U	ND	ND		0/55
Benzene	UG/L	10 U	10 U	ND	ND		0/55
trans-1,3-Dichloropropene	UG/L	10 U	10 U	ND	ND		0/55
Bromoform	UG/L	10 U	10 U	ND	ND		0/55
4-Methyl-2-pentanone	UG/L	10 U	10 U	ND	ND		0/55
2-Hexanone	UG/L	10 U	10 U	ND	ND		0/55
Tetrachloroethene	UG/L	10 U	10 U	ND	ND		0/55
1,1,2,2-Tetrachloroethane	UG/L	10 U	10 U	ND	ND		0/55
Toluene	UG/L	10 U	10 U	2 J	2 J	28-TB-09	1/55
Chlorobenzene	UG/L	10 U	10 U	ND	ND		0/55
Ethylbenzene	UG/L	10 U	10 U	ND	ND		0/55
Styrene	UG/L	10 U	10 U	ND	ND		0/55
Xylenes (total)	UG/L	10 U	10 U	ND	ND		0/55

SITES 1, 28, AND 30
QA/QC SAMPLES
REMEDIAL INVESTIGATION CTO-19231
MCB CAMP LEJEUNE, NORTH CAROLINA
TCL SEMIVOLATILES

Client Sample ID:		1-GWER-01	1-GWER-02	1-SDER-01	1-SIER-01	1-SIER-02	1-SIER-03
Laboratory Sample ID:		940334-18	940341-01	940225-01	940225-13	940225-22	940272-02
Date Sampled:		4/22/94	4/24/94	3/22/94	3/28/94	3/30/94	4/4/94
	UNITS						
SEMIVOLATILES							
Phenol	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
bis(2-Chloroethyl) ether	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
2-Chlorophenol	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
1,3-Dichlorobenzene	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
1,4-Dichlorobenzene	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
1,2-Dichlorobenzene	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
2-Methylphenol	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
2,2'-oxybis-(1-chloropropane)	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
4-Methylphenol	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
N-Nitroso-di-n-propylamine	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
Hexachloroethane	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
Nitrobenzene	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
Isophorone	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
2-Nitrophenol	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
2,4-Dimethylphenol	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
bis(2-Chloroethoxy) methane	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
2,4-Dichlorophenol	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
1,2,4-Trichlorobenzene	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
Naphthalene	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
4-Chloroaniline	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
Hexachlorobutadiene	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
4-Chloro-3-methylphenol	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
2-Methylnaphthalene	UG/L	10 U	10 U	10 U	10 U	3 J	10 U
Hexachlorocyclopentadiene	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
2,4,6-Trichlorophenol	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
2,4,5-Trichlorophenol	UG/L	25 U	25 U	25 U	25 U	25 U	25 U
2-Chloronaphthalene	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
2-Nitroaniline	UG/L	25 U	25 U	25 U	25 U	25 U	25 U
Dimethyl phthalate	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
Acenaphthylene	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
2,6-Dinitrotoluene	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
3-Nitroaniline	UG/L	25 U	25 U	25 U	25 U	25 U	25 U
Acenaphthene	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
2,4-Dinitrophenol	UG/L	25 U	25 U	25 U	25 U	25 U	25 U

SITES 1, 28, AND 30
QA/QC SAMPLES
REMEDIAL INVESTIGATION CTO-19231
MCB CAMP LEJEUNE, NORTH CAROLINA
TCL SEMIVOLATILES

Client Sample ID:		1-GWER-01	1-GWER-02	1-SDER-01	1-SIER-01	1-SIER-02	1-SIER-03
Laboratory Sample ID:		940334-18	940341-01	940225-01	940225-13	940225-22	940272-02
Date Sampled:		4/22/94	4/24/94	3/22/94	3/28/94	3/30/94	4/4/94
	UNITS						
SEMIVOLATILES Cont.							
4-Nitrophenol	UG/L	25 U	25 U	25 U	25 U	25 U	25 U
Dibenzofuran	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
2,4-Dinitrotoluene	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
Diethylphthalate	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
4-Chlorophenyl phenyl ether	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
Fluorene	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
4-Nitroaniline	UG/L	25 U	25 U	25 U	25 U	25 U	25 U
4,6-Dinitro-2-methylphenol	UG/L	25 U	25 U	25 U	25 U	25 U	25 U
N-nitrosodiphenylamine	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
4-Bromophenyl-phenylether	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
Hexachlorobenzene	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
Pentachlorophenol	UG/L	25 U	25 U	25 U	25 U	25 U	25 U
Phenanthrene	UG/L	10 U	10 U	10 U	10 U	1 J	10 U
Anthracene	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
Carbazole	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
di-n-Butylphthalate	UG/L	10 U	10 U	10 U	10 U	10 U	1 J
Fluoranthene	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
Pyrene	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
Butyl benzyl phthalate	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
3,3'-Dichlorobenzidine	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
Benzo[a]anthracene	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
Chrysene	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
bis(2-Ethylhexyl)phthalate	UG/L	1 J	10 U	10 U	10 U	1 J	10 U
di-n-Octylphthalate	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
Benzo[b]fluoranthene	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
Benzo[k]fluoranthene	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
Benzo[a]pyrene	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
Indeno[1,2,3-cd]pyrene	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
Dibenz[a,h]anthracene	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
Benzo[g,h,i]perylene	UG/L	10 U	10 U	10 U	10 U	10 U	10 U

SITES 1, 28, AND 30
QA/QC SAMPLES
REMEDIAL INVESTIGATION CTO-19231
MCB CAMP LEJEUNE, NORTH CAROLINA
TCL SEMIVOLATILES

Client Sample ID:		1-SIER-06	1-SIER-08	28-GWER-01	28-GWER-02	28-GWER-03	28-SDER-01
Laboratory Sample ID:		940289-20	940289-32	940320-15	940341-32	940389-13	940246-36
Date Sampled:		4/10/94	4/12/94	4/20/94	4/25/94	5/8/94	3/27/94
	UNITS						
SEMIVOLATILES							
Phenol	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
bis(2-Chloroethyl) ether	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
2-Chlorophenol	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
1,3-Dichlorobenzene	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
1,4-Dichlorobenzene	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
1,2-Dichlorobenzene	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
2-Methylphenol	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
2,2'-oxybis-(1-chloropropane)	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
4-Methylphenol	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
N-Nitroso-di-n-propylamine	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
Hexachloroethane	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
Nitrobenzene	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
Isophorone	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
2-Nitrophenol	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
2,4-Dimethylphenol	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
bis(2-Chloroethoxy) methane	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
2,4-Dichlorophenol	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
1,2,4-Trichlorobenzene	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
Naphthalene	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
4-Chloroaniline	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
Hexachlorobutadiene	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
4-Chloro-3-methylphenol	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
2-Methylnaphthalene	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
Hexachlorocyclopentadiene	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
2,4,6-Trichlorophenol	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
2,4,5-Trichlorophenol	UG/L	25 U	25 U	25 U	25 U	25 U	25 U
2-Chloronaphthalene	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
2-Nitroaniline	UG/L	25 U	25 U	25 U	25 U	25 U	25 U
Dimethyl phthalate	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
Acenaphthylene	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
2,6-Dinitrotoluene	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
3-Nitroaniline	UG/L	25 U	25 U	25 U	25 U	25 U	25 U
Acenaphthene	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
2,4-Dinitrophenol	UG/L	25 U	25 U	25 U	25 U	25 U	25 U

SITES 1, 28, AND 30
QA/QC SAMPLES
REMEDIAL INVESTIGATION CTO-19231
MCB CAMP LEJEUNE, NORTH CAROLINA
TCL SEMIVOLATILES

Client Sample ID:		1-SIER-06	1-SIER-08	28-GWER-01	28-GWER-02	28-GWER-03	28-SDER-01
Laboratory Sample ID:		940289-20	940289-32	940320-15	940341-32	940389-13	940246-36
Date Sampled:		4/10/94	4/12/94	4/20/94	4/25/94	5/8/94	3/27/94
	UNITS						
SEMIVOLATILES Cont.							
4-Nitrophenol	UG/L	25 U	25 U	25 U	25 U	25 U	25 U
Dibenzofuran	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
2,4-Dinitrotoluene	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
Diethylphthalate	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
4-Chlorophenyl phenyl ether	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
Fluorene	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
4-Nitroaniline	UG/L	25 U	25 U	25 U	25 U	25 U	25 U
4,6-Dinitro-2-methylphenol	UG/L	25 U	25 U	25 U	25 U	25 U	25 U
N-nitrosodiphenylamine	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
4-Bromophenyl-phenylether	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
Hexachlorobenzene	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
Pentachlorophenol	UG/L	25 U	25 U	25 U	25 U	25 U	25 U
Phenanthrene	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
Anthracene	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
Carbazole	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
di-n-Butylphthalate	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
Fluoranthene	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
Pyrene	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
Butyl benzyl phthalate	UG/L	10 U	10 U	10 U	10 U	10 UJ	10 U
3,3'-Dichlorobenzidine	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
Benzo[a]anthracene	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
Chrysene	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
bis(2-Ethylhexyl)phthalate	UG/L	10 U	10 U	10 U	10 U	1 J	10 U
di-n-Octylphthalate	UG/L	10 U	10 U	10 U	10 U	10 UJ	10 U
Benzo[b]fluoranthene	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
Benzo[k]fluoranthene	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
Benzo[a]pyrene	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
Indeno[1,2,3-cd]pyrene	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
Dibenz[a,h]anthracene	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
Benzo[g,h,i]perylene	UG/L	10 U	10 U	10 U	10 U	10 U	10 U

SITES 1, 28, AND 30
QA/QC SAMPLES
REMEDIAL INVESTIGATION CTO-19231
MCB CAMP LEJEUNE, NORTH CAROLINA
TCL SEMIVOLATILES

Client Sample ID:		28-SDER-02	28-SDER-03	28-SIER-01	28-SIER-02	28-SIER-03	28-SIER-05
Laboratory Sample ID:		940246-37	940250-07	940241-06	940241-07	940246-38	940281-09
Date Sampled:		3/28/94	3/29/94	3/24/94	3/25/94	3/27/94	4/7/94
	UNITS						
SEMIVOLATILES							
Phenol	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
bis(2-Chloroethyl) ether	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
2-Chlorophenol	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
1,3-Dichlorobenzene	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
1,4-Dichlorobenzene	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
1,2-Dichlorobenzene	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
2-Methylphenol	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
2,2'-oxybis-(1-chloropropane)	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
4-Methylphenol	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
N-Nitroso-di-n-propylamine	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
Hexachloroethane	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
Nitrobenzene	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
Isophorone	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
2-Nitrophenol	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
2,4-Dimethylphenol	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
bis(2-Chloroethoxy) methane	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
2,4-Dichlorophenol	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
1,2,4-Trichlorobenzene	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
Naphthalene	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
4-Chloroaniline	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
Hexachlorobutadiene	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
4-Chloro-3-methylphenol	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
2-Methylnaphthalene	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
Hexachlorocyclopentadiene	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
2,4,6-Trichlorophenol	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
2,4,5-Trichlorophenol	UG/L	25 U	25 U	25 U	25 U	25 U	25 U
2-Chloronaphthalene	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
2-Nitroaniline	UG/L	25 U	25 U	25 U	25 U	25 U	25 U
Dimethyl phthalate	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
Acenaphthylene	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
2,6-Dinitrotoluene	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
3-Nitroaniline	UG/L	25 U	25 U	25 U	25 U	25 U	25 U
Acenaphthene	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
2,4-Dinitrophenol	UG/L	25 U	25 U	25 U	25 U	25 U	25 U

SITES 1, 28, AND 30
QA/QC SAMPLES
REMEDIAL INVESTIGATION CTO-19231
MCB CAMP LEJEUNE, NORTH CAROLINA
TCL SEMIVOLATILES

Client Sample ID:		28-SDER-02	28-SDER-03	28-SIER-01	28-SIER-02	28-SIER-03	28-SIER-05
Laboratory Sample ID:		940246-37	940250-07	940241-06	940241-07	940246-38	940281-09
Date Sampled:		3/28/94	3/29/94	3/24/94	3/25/94	3/27/94	4/7/94
	UNITS						
SEMIVOLATILES Cont.							
4-Nitrophenol	UG/L	25 U	25 U	25 U	25 U	25 U	25 U
Dibenzofuran	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
2,4-Dinitrotoluene	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
Diethylphthalate	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
4-Chlorophenyl phenyl ether	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
Fluorene	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
4-Nitroaniline	UG/L	25 U	25 U	25 U	25 U	25 U	25 U
4,6-Dinitro-2-methylphenol	UG/L	25 U	25 U	25 U	25 U	25 U	25 U
N-nitrosodiphenylamine	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
4-Bromophenyl-phenylether	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
Hexachlorobenzene	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
Pentachlorophenol	UG/L	25 U	25 U	25 U	25 U	25 U	25 U
Phenanthrene	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
Anthracene	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
Carbazole	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
di-n-Butylphthalate	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
Fluoranthene	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
Pyrene	UG/L	10 U	10 U	10 U	10 U	10 U	10 UJ
Butyl benzyl phthalate	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
3,3'-Dichlorobenzidine	UG/L	10 U	10 U	10 U	10 U	10 U	10 UJ
Benzo[a]anthracene	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
Chrysene	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
bis(2-Ethylhexyl)phthalate	UG/L	10 U	1 J	10 U	10 U	10 U	10 U
di-n-Octylphthalate	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
Benzo[b]fluoranthene	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
Benzo[k]fluoranthene	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
Benzo[a]pyrene	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
Indeno[1,2,3-cd]pyrene	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
Dibenz[a,h]anthracene	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
Benzo[g,h,i]perylene	UG/L	10 U	10 U	10 U	10 U	10 U	10 U

SITES 1, 28, AND 30
QA/QC SAMPLES
REMEDIAL INVESTIGATION CTO-19231
MCB CAMP LEJEUNE, NORTH CAROLINA
TCL SEMIVOLATILES

Client Sample ID:		30-SDER-01	30-SDER-02	30-SIER-01	231FB01	231FB02	231FB03
Laboratory Sample ID:		940238-04	940238-05	940226-26	940261-05	940302-09	940341-35
Date Sampled:		3/24/94	3/25/94	3/22/94	3/30/94	4/13/94	4/26/94
	UNITS						
SEMIVOLATILES							
Phenol	UG/L	10 U	10 U	10 U	10 U	10 R	10 U
bis(2-Chloroethyl) ether	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
2-Chlorophenol	UG/L	10 U	10 U	10 U	10 U	10 R	10 U
1,3-Dichlorobenzene	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
1,4-Dichlorobenzene	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
1,2-Dichlorobenzene	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
2-Methylphenol	UG/L	10 U	10 U	10 U	10 U	10 R	10 U
2,2'-oxybis-(1-chloropropane)	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
4-Methylphenol	UG/L	10 U	10 U	10 U	10 U	10 R	10 U
N-Nitroso-di-n-propylamine	UG/L	10 U	10 U	10 U	10 U	10 R	10 U
Hexachloroethane	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
Nitrobenzene	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
Isophorone	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
2-Nitrophenol	UG/L	10 U	10 U	10 U	10 U	10 R	10 U
2,4-Dimethylphenol	UG/L	10 U	10 U	10 U	10 U	10 R	10 U
bis(2-Chloroethoxy) methane	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
2,4-Dichlorophenol	UG/L	10 U	10 U	10 U	10 U	10 R	10 U
1,2,4-Trichlorobenzene	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
Naphthalene	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
4-Chloroaniline	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
Hexachlorobutadiene	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
4-Chloro-3-methylphenol	UG/L	10 U	10 U	10 U	10 U	10 R	10 U
2-Methylnaphthalene	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
Hexachlorocyclopentadiene	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
2,4,6-Trichlorophenol	UG/L	10 U	10 U	10 U	10 U	10 R	10 U
2,4,5-Trichlorophenol	UG/L	25 U	25 U	25 U	25 U	25 R	25 U
2-Chloronaphthalene	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
2-Nitroaniline	UG/L	25 U	25 U	25 U	25 U	25 U	25 U
Dimethyl phthalate	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
Acenaphthylene	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
2,6-Dinitrotoluene	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
3-Nitroaniline	UG/L	25 U	25 U	25 U	25 U	25 U	25 U
Acenaphthene	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
2,4-Dinitrophenol	UG/L	25 U	25 U	25 U	25 U	25 R	25 U

SITES 1, 28, AND 30
QA/QC SAMPLES
REMEDIAL INVESTIGATION CTO-19231
MCB CAMP LEJEUNE, NORTH CAROLINA
TCL SEMIVOLATILES

Client Sample ID:		30-SDER-01	30-SDER-02	30-SIER-01	231FB01	231FB02	231FB03
Laboratory Sample ID:		940238-04	940238-05	940226-26	940261-05	940302-09	940341-35
Date Sampled:		3/24/94	3/25/94	3/22/94	3/30/94	4/13/94	4/26/94
	UNITS						
SEMIVOLATILES Cont.							
4-Nitrophenol	UG/L	25 U	25 U	25 U	25 U	25 R	25 U
Dibenzofuran	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
2,4-Dinitrotoluene	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
Diethylphthalate	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
4-Chlorophenyl phenyl ether	UG/L	10 U	10 U	10 U	10 U	10 R	10 U
Fluorene	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
4-Nitroaniline	UG/L	25 U	25 U	25 U	25 U	25 U	25 U
4,6-Dinitro-2-methylphenol	UG/L	25 U	25 U	25 U	25 U	25 R	25 U
N-nitrosodiphenylamine	UG/L	10 U	10 U	10 U	10 U	10 R	10 U
4-Bromophenyl-phenylether	UG/L	10 U	10 U	10 U	10 U	10 R	10 U
Hexachlorobenzene	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
Pentachlorophenol	UG/L	25 U	25 U	25 U	25 U	25 R	25 U
Phenanthrene	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
Anthracene	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
Carbazole	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
di-n-Butylphthalate	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
Fluoranthene	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
Pyrene	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
Butyl benzyl phthalate	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
3,3'-Dichlorobenzidine	UG/L	10 U	10 U	10 U	10 U	10 U	10 UJ
Benzo[a]anthracene	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
Chrysene	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
bis(2-Ethylhexyl)phthalate	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
di-n-Octylphthalate	UG/L	10 U	10 U	10 U	10 U	10 UJ	10 U
Benzo[b]fluoranthene	UG/L	10 U	10 U	10 U	10 U	10 UJ	10 U
Benzo[k]fluoranthene	UG/L	10 U	10 U	10 U	10 U	10 UJ	10 U
Benzo[a]pyrene	UG/L	10 U	10 U	10 U	10 U	10 UJ	10 U
Indeno[1,2,3-cd]pyrene	UG/L	10 U	10 U	10 U	10 U	10 UJ	10 U
Dibenz[a,h]anthracene	UG/L	10 U	10 U	10 U	10 U	10 UJ	10 U
Benzo[g,h,i]perylene	UG/L	10 U	10 U	10 U	10 U	10 UJ	10 U

SITES 1, 28, AND 30
QA/QC SAMPLES
REMEDIAL INVESTIGATION CTO-19231
MCB CAMP LEJEUNE, NORTH CAROLINA
TCL SEMIVOLATILES

Client Sample ID:	231FB04
Laboratory Sample ID:	940389-09
Date Sampled:	5/7/94

SEMIVOLATILES	UNITS	
Phenol	UG/L	10 U
bis(2-Chloroethyl) ether	UG/L	10 U
2-Chlorophenol	UG/L	10 U
1,3-Dichlorobenzene	UG/L	10 U
1,4-Dichlorobenzene	UG/L	10 U
1,2-Dichlorobenzene	UG/L	10 U
2-Methylphenol	UG/L	10 U
2,2'-oxybis-(1-chloropropane)	UG/L	10 U
4-Methylphenol	UG/L	10 U
N-Nitroso-di-n-propylamine	UG/L	10 U
Hexachloroethane	UG/L	10 U
Nitrobenzene	UG/L	10 U
Isophorone	UG/L	10 U
2-Nitrophenol	UG/L	10 U
2,4-Dimethylphenol	UG/L	10 U
bis(2-Chloroethoxy) methane	UG/L	10 U
2,4-Dichlorophenol	UG/L	10 U
1,2,4-Trichlorobenzene	UG/L	10 U
Naphthalene	UG/L	10 U
4-Chloroaniline	UG/L	10 U
Hexachlorobutadiene	UG/L	10 U
4-Chloro-3-methylphenol	UG/L	10 U
2-Methylnaphthalene	UG/L	10 U
Hexachlorocyclopentadiene	UG/L	10 U
2,4,6-Trichlorophenol	UG/L	10 U
2,4,5-Trichlorophenol	UG/L	25 U
2-Chloronaphthalene	UG/L	10 U
2-Nitroaniline	UG/L	25 U
Dimethyl phthalate	UG/L	10 U
Acenaphthylene	UG/L	10 U
2,6-Dinitrotoluene	UG/L	10 U
3-Nitroaniline	UG/L	25 U
Acenaphthene	UG/L	10 U
2,4-Dinitrophenol	UG/L	25 U

SITES 1, 28, AND 30
QA/QC SAMPLES
REMEDIAL INVESTIGATION CTO-19231
MCB CAMP LEJEUNE, NORTH CAROLINA
TCL SEMIVOLATILES

Client Sample ID:	231FB04
Laboratory Sample ID:	940389-09
Date Sampled:	5/7/94

SEMIVOLATILES Cont.	UNITS	
4-Nitrophenol	UG/L	25 UJ
Dibenzofuran	UG/L	10 U
2,4-Dinitrotoluene	UG/L	10 U
Diethylphthalate	UG/L	10 U
4-Chlorophenyl phenyl ether	UG/L	10 U
Fluorene	UG/L	10 U
4-Nitroaniline	UG/L	25 U
4,6-Dinitro-2-methylphenol	UG/L	25 U
N-nitrosodiphenylamine	UG/L	10 U
4-Bromophenyl-phenylether	UG/L	10 U
Hexachlorobenzene	UG/L	10 U
Pentachlorophenol	UG/L	25 U
Phenanthrene	UG/L	10 U
Anthracene	UG/L	10 U
Carbazole	UG/L	10 U
di-n-Butylphthalate	UG/L	10 U
Fluoranthene	UG/L	10 U
Pyrene	UG/L	10 UJ
Butyl benzyl phthalate	UG/L	10 UJ
3,3'-Dichlorobenzidine	UG/L	10 UJ
Benzo[a]anthracene	UG/L	10 UJ
Chrysene	UG/L	10 UJ
bis(2-Ethylhexyl)phthalate	UG/L	10 UJ
di-n-Octylphthalate	UG/L	10 U
Benzo[b]fluoranthene	UG/L	10 U
Benzo[k]fluoranthene	UG/L	10 U
Benzo[a]pyrene	UG/L	10 U
Indeno[1,2,3-cd]pyrene	UG/L	10 U
Dibenz[a,h]anthracene	UG/L	10 U
Benzo[g,h,i]perylene	UG/L	10 U

SITES 1, 28, AND 30
QA/QC SAMPLES
REMEDIAL INVESTIGATION CTO-19231
MCB CAMP LEJEUNE, NORTH CAROLINA
TCL SEMIVOLATILES

Client Sample ID: Laboratory Sample ID: Date Sampled:		MINIMUM NONDETECTED	MAXIMUM NONDETECTED	MINIMUM DETECTED	MAXIMUM DETECTED	LOCATION OF MAXIMUM DETECTED	FREQUENCY OF DETECTION
	UNITS						
SEMIVOLATILES							
Phenol	UG/L	10 U	10 U	10 R	10 R	231FB02	1/25
bis(2-Chloroethyl) ether	UG/L	10 U	10 U	ND	ND		0/25
2-Chlorophenol	UG/L	10 U	10 U	10 R	10 R	231FB02	1/25
1,3-Dichlorobenzene	UG/L	10 U	10 U	ND	ND		0/25
1,4-Dichlorobenzene	UG/L	10 U	10 U	ND	ND		0/25
1,2-Dichlorobenzene	UG/L	10 U	10 U	ND	ND		0/25
2-Methylphenol	UG/L	10 U	10 U	10 R	10 R	231FB02	1/25
2,2'-oxybis-(1-chloropropane)	UG/L	10 U	10 U	ND	ND		0/25
4-Methylphenol	UG/L	10 U	10 U	10 R	10 R	231FB02	1/25
N-Nitroso-di-n-propylamine	UG/L	10 U	10 U	10 R	10 R	231FB02	1/25
Hexachloroethane	UG/L	10 U	10 U	ND	ND		0/25
Nitrobenzene	UG/L	10 U	10 U	ND	ND		0/25
Isophorone	UG/L	10 U	10 U	ND	ND		0/25
2-Nitrophenol	UG/L	10 U	10 U	10 R	10 R	231FB02	1/25
2,4-Dimethylphenol	UG/L	10 U	10 U	10 R	10 R	231FB02	1/25
bis(2-Chloroethoxy) methane	UG/L	10 U	10 U	ND	ND		0/25
2,4-Dichlorophenol	UG/L	10 U	10 U	10 R	10 R	231FB02	1/25
1,2,4-Trichlorobenzene	UG/L	10 U	10 U	ND	ND		0/25
Naphthalene	UG/L	10 U	10 U	ND	ND		0/25
4-Chloroaniline	UG/L	10 U	10 U	ND	ND		0/25
Hexachlorobutadiene	UG/L	10 U	10 U	ND	ND		0/25
4-Chloro-3-methylphenol	UG/L	10 U	10 U	10 R	10 R	231FB02	1/25
2-Methylnaphthalene	UG/L	10 U	10 U	3.2 J	3.2 J	1-SIER-02	1/25
Hexachlorocyclopentadiene	UG/L	10 U	10 U	ND	ND		0/25
2,4,6-Trichlorophenol	UG/L	10 U	10 U	10 R	10 R	231FB02	1/25
2,4,5-Trichlorophenol	UG/L	25 U	25 U	25 R	25 R	231FB02	1/25
2-Chloronaphthalene	UG/L	10 U	10 U	ND	ND		0/25
2-Nitroaniline	UG/L	25 U	25 U	ND	ND		0/25
Dimethyl phthalate	UG/L	10 U	10 U	ND	ND		0/25
Acenaphthylene	UG/L	10 U	10 U	ND	ND		0/25
2,6-Dinitrotoluene	UG/L	10 U	10 U	ND	ND		0/25
3-Nitroaniline	UG/L	25 U	25 U	ND	ND		0/25
Acenaphthene	UG/L	10 U	10 U	ND	ND		0/25
2,4-Dinitrophenol	UG/L	25 U	25 U	25 R	25 R	231FB02	1/25

SITES 1, 28, AND 30
QA/QC SAMPLES
REMEDIAL INVESTIGATION CTO-19231
MCB CAMP LEJEUNE, NORTH CAROLINA
TCL SEMIVOLATILES

Client Sample ID: Laboratory Sample ID: Date Sampled:	UNITS	MINIMUM NONDETECTED	MAXIMUM NONDETECTED	MINIMUM DETECTED	MAXIMUM DETECTED	LOCATION OF MAXIMUM DETECTED	FREQUENCY OF DETECTION
SEMIVOLATILES Cont.							
4-Nitrophenol	UG/L	25 U	25 U	25 R	25 R	231FB02	1/25
Dibenzofuran	UG/L	10 U	10 U	ND	ND		0/25
2,4-Dinitrotoluene	UG/L	10 U	10 U	ND	ND		0/25
Diethylphthalate	UG/L	10 U	10 U	ND	ND		0/25
4-Chlorophenyl phenyl ether	UG/L	10 U	10 U	10 R	10 R	231FB02	1/25
Fluorene	UG/L	10 U	10 U	ND	ND		0/25
4-Nitroaniline	UG/L	25 U	25 U	ND	ND		0/25
4,6-Dinitro-2-methylphenol	UG/L	25 U	25 U	25 R	25 R	231FB02	1/25
N-nitrosodiphenylamine	UG/L	10 U	10 U	10 R	10 R	231FB02	1/25
4-Bromophenyl-phenylether	UG/L	10 U	10 U	10 R	10 R	231FB02	1/25
Hexachlorobenzene	UG/L	10 U	10 U	ND	ND		0/25
Pentachlorophenol	UG/L	25 U	25 U	25 R	25 R	231FB02	1/25
Phenanthrene	UG/L	10 U	10 U	1.4 J	1.4 J	1-SIER-02	1/25
Anthracene	UG/L	10 U	10 U	ND	ND		0/25
Carbazole	UG/L	10 U	10 U	ND	ND		0/25
di-n-Butylphthalate	UG/L	10 U	10 U	1.2 J	1.2 J	1-SIER-03	1/25
Fluoranthene	UG/L	10 U	10 U	ND	ND		0/25
Pyrene	UG/L	10 U	10 U	ND	ND		0/25
Butyl benzyl phthalate	UG/L	10 U	10 U	ND	ND		0/25
3,3'-Dichlorobenzidine	UG/L	10 U	10 U	ND	ND		0/25
Benzo[a]anthracene	UG/L	10 U	10 U	ND	ND		0/25
Chrysene	UG/L	10 U	10 U	ND	ND		0/25
bis(2-Ethylhexyl)phthalate	UG/L	10 U	10 U	1 J	1.4 J	28-GWER-03	4/25
di-n-Octylphthalate	UG/L	10 U	10 U	ND	ND		0/25
Benzo[b]fluoranthene	UG/L	10 U	10 U	ND	ND		0/25
Benzo[k]fluoranthene	UG/L	10 U	10 U	ND	ND		0/25
Benzo[a]pyrene	UG/L	10 U	10 U	ND	ND		0/25
Indeno[1,2,3-cd]pyrene	UG/L	10 U	10 U	ND	ND		0/25
Dibenz[a,h]anthracene	UG/L	10 U	10 U	ND	ND		0/25
Benzo[g,h,i]perylene	UG/L	10 U	10 U	ND	ND		0/25

SITES 1, 28, AND 30
QA/QC SAMPLES
REMEDIAL INVESTIGATION CTO-19231
MCB CAMP LEJEUNE, NORTH CAROLINA
TCL PESTICIDES/PCBs

Client Sample ID:		1-SDER-01	1-SIER-01	1-SIER-02	1-SIER-03	1-SIER-06	1-SIER-08
Laboratory Sample ID:		940225-01	940225-13	940225-22	940272-02	940289-20	940289-32
Date Sampled:		3/22/94	3/28/94	3/30/94	4/4/94	4/10/94	4/12/94
PESTICIDE/PCBs	UNITS						
alpha-BHC	UG/L	0.05 UJ	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
beta-BHC	UG/L	0.05 UJ	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
delta-BHC	UG/L	0.05 UJ	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Lindane (gamma-BHC)	UG/L	0.05 UJ	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Heptachlor	UG/L	0.05 UJ	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Aldrin	UG/L	0.05 UJ	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Heptachlor epoxide	UG/L	0.05 UJ	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Endosulfan I	UG/L	0.05 UJ	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Dieldrin	UG/L	0.10 UJ	0.10 U	0.10 U	0.1 U	0.10 U	0.10 U
4,4'-DDE	UG/L	0.10 UJ	0.10 U	0.10 U	0.1 U	0.10 U	0.10 U
Endrin	UG/L	0.10 UJ	0.10 U	0.10 U	0.1 U	0.10 U	0.10 U
Endosulfan II	UG/L	0.10 UJ	0.10 U	0.10 U	0.1 U	0.10 U	0.10 U
4,4'-DDD	UG/L	0.10 UJ	0.10 U	0.10 U	0.1 U	0.10 U	0.10 U
Endosulfan sulfate	UG/L	0.10 UJ	0.10 U	0.10 U	0.1 U	0.10 U	0.10 U
4,4'-DDT	UG/L	0.10 UJ	0.10 U	0.10 U	0.1 U	0.10 U	0.10 U
Methoxychlor	UG/L	0.50 UJ	0.50 U	0.50 U	0.5 U	0.50 U	0.50 U
Endrin ketone	UG/L	0.10 UJ	0.10 U	0.10 U	0.1 U	0.10 U	0.10 U
Endrin aldehyde	UG/L	0.10 UJ	0.10 U	0.10 U	0.1 U	0.10 U	0.10 U
alpha-Chlordane	UG/L	0.05 UJ	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
gamma-Chlordane	UG/L	0.05 UJ	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Toxaphene	UG/L	5.0 UJ	5.0 U	5.0 U	5 U	5.0 U	5.0 U
Aroclor 1016	UG/L	1.0 UJ	1.0 U	1.0 U	1 U	1.0 U	1.0 U
Aroclor 1221	UG/L	2.0 UJ	2.0 U	2.0 U	2 U	2.0 U	2.0 U
Aroclor 1232	UG/L	1.0 UJ	1.0 U	1.0 U	1 U	1.0 U	1.0 U
Aroclor 1242	UG/L	1.0 UJ	1.0 U	1.0 U	1 U	1.0 U	1.0 U
Aroclor 1248	UG/L	1.0 UJ	1.0 U	1.0 U	1 U	1.0 U	1.0 U
Aroclor 1254	UG/L	1.0 UJ	1.0 U	1.0 U	1 U	1.0 U	1.0 U
Aroclor 1260	UG/L	1.0 UJ	1.0 U	1.0 U	1 U	1.0 U	1.0 U

SITES 1, 28, AND 30
QA/QC SAMPLES
REMEDIAL INVESTIGATION CTO-19231
MCB CAMP LEJEUNE, NORTH CAROLINA
TCL PESTICIDES/PCBs

Client Sample ID:		28-GWER-01	28-GWER-02	28-GWER-03	28-SDER-01	28-SDER-03	28-SIER-01
Laboratory Sample ID:		940320-15	940341-32	940389-13	940246-36	940250-07	940241-06
Date Sampled:		4/20/94	4/25/94	5/8/94	3/27/94	3/29/94	3/24/94
PESTICIDE/PCBs	UNITS						
alpha-BHC	UG/L	0.05 R	0.05 U	0.05 UJ	0.05 U	0.05 U	0.05 U
beta-BHC	UG/L	0.05 R	0.05 U	0.05 UJ	0.05 U	0.05 U	0.05 U
delta-BHC	UG/L	0.05 R	0.05 U	0.05 UJ	0.05 U	0.05 U	0.05 U
Lindane (gamma-BHC)	UG/L	0.05 R	0.05 U	0.05 UJ	0.05 U	0.05 U	0.05 U
Heptachlor	UG/L	0.05 R	0.05 U	0.05 UJ	0.05 U	0.05 U	0.05 U
Aldrin	UG/L	0.05 R	0.05 U	0.05 UJ	0.05 U	0.05 U	0.05 U
Heptachlor epoxide	UG/L	0.05 R	0.05 U	0.05 UJ	0.05 U	0.05 U	0.05 U
Endosulfan I	UG/L	0.05 R	0.05 U	0.05 UJ	0.05 U	0.05 U	0.05 U
Dieldrin	UG/L	0.10 R	0.10 U	0.10 UJ	0.10 U	0.10 U	0.10 U
4,4'-DDE	UG/L	0.10 R	0.10 U	0.10 UJ	0.10 U	0.10 U	0.10 U
Endrin	UG/L	0.10 R	0.10 U	0.10 UJ	0.10 U	0.10 U	0.10 U
Endosulfan II	UG/L	0.10 R	0.10 U	0.10 UJ	0.10 U	0.10 U	0.10 U
4,4'-DDD	UG/L	0.10 R	0.10 U	0.10 UJ	0.10 U	0.10 U	0.10 U
Endosulfan sulfate	UG/L	0.10 R	0.10 U	0.10 UJ	0.10 U	0.10 U	0.10 U
4,4'-DDT	UG/L	0.10 R	0.10 U	0.10 UJ	0.10 U	0.10 U	0.10 U
Methoxychlor	UG/L	0.50 R	0.50 U	0.50 UJ	0.50 U	0.50 U	0.50 U
Endrin ketone	UG/L	0.10 R	0.10 U	0.10 UJ	0.10 U	0.10 U	0.10 U
Endrin aldehyde	UG/L	0.10 R	0.10 U	0.10 UJ	0.10 U	0.10 U	0.10 U
alpha-Chlordane	UG/L	0.05 R	0.05 U	0.05 UJ	0.05 U	0.05 U	0.05 U
gamma-Chlordane	UG/L	0.05 R	0.05 U	0.05 UJ	0.05 U	0.05 U	0.05 U
Toxaphene	UG/L	5.0 R	5.0 U	5.0 UJ	5.0 U	5.0 U	5.0 U
Aroclor 1016	UG/L	1.0 R	1.0 U	1.0 UJ	1.0 U	1.0 U	1.0 U
Aroclor 1221	UG/L	2.0 R	2.0 U	2.0 UJ	2.0 U	2.0 U	2.0 U
Aroclor 1232	UG/L	1.0 R	1.0 U	1.0 UJ	1.0 U	1.0 U	1.0 U
Aroclor 1242	UG/L	1.0 R	1.0 U	1.0 UJ	1.0 U	1.0 U	1.0 U
Aroclor 1248	UG/L	1.0 R	1.0 U	1.0 UJ	1.0 U	1.0 U	1.0 U
Aroclor 1254	UG/L	1.0 R	1.0 U	1.0 UJ	1.0 U	1.0 U	1.0 U
Aroclor 1260	UG/L	1.0 R	1.0 U	1.0 UJ	1.0 U	1.0 U	1.0 U

SITES 1, 28, AND 30
QA/QC SAMPLES
REMEDIAL INVESTIGATION CTO-19231
MCB CAMP LEJEUNE, NORTH CAROLINA
TCL PESTICIDES/PCBs

Client Sample ID:		28-SIER-02	28-SIER-03	28-SIER-05	231FB01	231FB02	231FB03
Laboratory Sample ID:		940241-07	940246-38	940281-09	940261-05	940302-09	940341-35
Date Sampled:		3/25/94	3/27/94	4/7/94	3/30/94	4/13/94	4/26/94
PESTICIDE/PCBs	UNITS						
alpha-BHC	UG/L	0.05 U	0.05 U	0.05 UJ	0.05 U	0.05 UJ	0.05 U
beta-BHC	UG/L	0.05 U	0.05 U	0.05 UJ	0.05 U	0.05 U	0.05 U
delta-BHC	UG/L	0.05 U	0.05 U	0.05 UJ	0.05 U	0.05 U	0.05 U
Lindane (gamma-BHC)	UG/L	0.05 U	0.05 U	0.05 UJ	0.05 U	0.05 UJ	0.05 U
Heptachlor	UG/L	0.05 U	0.05 U	0.05 UJ	0.05 U	0.05 U	0.05 U
Aldrin	UG/L	0.05 U	0.05 U	0.05 UJ	0.05 U	0.05 U	0.05 U
Heptachlor epoxide	UG/L	0.05 U	0.05 U	0.05 UJ	0.05 U	0.05 U	0.05 U
Endosulfan I	UG/L	0.05 U	0.05 U	0.05 UJ	0.05 U	0.05 U	0.05 U
Dieldrin	UG/L	0.10 U	0.10 U	0.05 UJ	0.10 U	0.10 U	0.10 U
4,4'-DDE	UG/L	0.10 U	0.10 U	0.1 UJ	0.10 U	0.10 U	0.10 U
Endrin	UG/L	0.10 U	0.10 U	0.1 UJ	0.10 U	0.10 U	0.10 U
Endosulfan II	UG/L	0.10 U	0.10 U	0.1 UJ	0.10 U	0.10 U	0.10 U
4,4'-DDD	UG/L	0.10 U	0.10 U	0.1 UJ	0.10 U	0.10 U	0.10 U
Endosulfan sulfate	UG/L	0.10 U	0.10 U	0.1 UJ	0.10 U	0.10 U	0.10 U
4,4'-DDT	UG/L	0.10 U	0.10 U	0.1 UJ	0.10 U	0.10 U	0.10 U
Methoxychlor	UG/L	0.50 U	0.50 U	0.5 UJ	0.50 U	0.50 U	0.50 U
Endrin ketone	UG/L	0.10 U	0.10 U	0.1 UJ	0.10 U	0.10 U	0.10 U
Endrin aldehyde	UG/L	0.10 U	0.10 U	0.1 UJ	0.10 U	0.10 U	0.10 U
alpha-Chlordane	UG/L	0.05 U	0.05 U	0.05 UJ	0.05 U	0.05 U	0.05 U
gamma-Chlordane	UG/L	0.05 U	0.05 U	0.05 UJ	0.05 U	0.05 U	0.05 U
Toxaphene	UG/L	5.0 U	5.0 U	5 UJ	5.0 U	5.0 U	5.0 U
Aroclor 1016	UG/L	1.0 U	1.0 U	1 UJ	1.0 U	1.0 U	1.0 U
Aroclor 1221	UG/L	2.0 U	2.0 U	2 UJ	2.0 U	2.0 U	2.0 U
Aroclor 1232	UG/L	1.0 U	1.0 U	1 UJ	1.0 U	1.0 U	1.0 U
Aroclor 1242	UG/L	1.0 U	1.0 U	1 UJ	1.0 U	1.0 U	1.0 U
Aroclor 1248	UG/L	1.0 U	1.0 U	1 UJ	1.0 U	1.0 U	1.0 U
Aroclor 1254	UG/L	1.0 U	1.0 U	1 UJ	1.0 U	1.0 U	1.0 U
Aroclor 1260	UG/L	1.0 U	1.0 U	1 UJ	1.0 U	1.0 U	1.0 U

SITES 1, 28, AND 30
QA/QC SAMPLES
REMEDIAL INVESTIGATION CTO-19231
MCB CAMP LEJEUNE, NORTH CAROLINA
TCL PESTICIDES/PCBs

Client Sample ID:	231FB04
Laboratory Sample ID:	940389-09
Date Sampled:	5/7/94

PESTICIDE/PCBs	UNITS	
alpha-BHC	UG/L	0.05 R
beta-BHC	UG/L	0.05 R
delta-BHC	UG/L	0.05 R
Lindane (gamma-BHC)	UG/L	0.05 R
Heptachlor	UG/L	0.05 R
Aldrin	UG/L	0.05 R
Heptachlor epoxide	UG/L	0.05 R
Endosulfan I	UG/L	0.05 R
Dieldrin	UG/L	0.10 R
4,4'-DDE	UG/L	0.10 R
Endrin	UG/L	0.10 R
Endosulfan II	UG/L	0.10 R
4,4'-DDD	UG/L	0.10 R
Endosulfan sulfate	UG/L	0.10 R
4,4'-DDT	UG/L	0.10 R
Methoxychlor	UG/L	0.50 R
Endrin ketone	UG/L	0.10 R
Endrin aldehyde	UG/L	0.10 R
alpha-Chlordane	UG/L	0.05 R
gamma-Chlordane	UG/L	0.05 R
Toxaphene	UG/L	5.0 R
Aroclor 1016	UG/L	1.0 R
Aroclor 1221	UG/L	2.0 R
Aroclor 1232	UG/L	1.0 R
Aroclor 1242	UG/L	1.0 R
Aroclor 1248	UG/L	1.0 R
Aroclor 1254	UG/L	1.0 R
Aroclor 1260	UG/L	1.0 R

SITES 1, 28, AND 30
QA/QC SAMPLES
REMEDIAL INVESTIGATION CTO-19231
MCB CAMP LEJEUNE, NORTH CAROLINA
TCL PESTICIDES/PCBs

Client Sample ID: Laboratory Sample ID: Date Sampled:		MINIMUM NONDETECTED	MAXIMUM NONDETECTED	MINIMUM DETECTED	MAXIMUM DETECTED	LOCATION OF MAXIMUM DETECTED	FREQUENCY OF DETECTION
PESTICIDE/PCBs	UNITS						
alpha-BHC	UG/L	0.05 UJ	0.05 UJ	0.05 R	0.05 R	231FB04	2/19
beta-BHC	UG/L	0.05 UJ	0.05 UJ	0.05 R	0.05 R	231FB04	2/19
delta-BHC	UG/L	0.05 UJ	0.05 UJ	0.05 R	0.05 R	231FB04	2/19
Lindane (gamma-BHC)	UG/L	0.05 UJ	0.05 UJ	0.05 R	0.05 R	231FB04	2/19
Heptachlor	UG/L	0.05 UJ	0.05 UJ	0.05 R	0.05 R	231FB04	2/19
Aldrin	UG/L	0.05 UJ	0.05 UJ	0.05 R	0.05 R	231FB04	2/19
Heptachlor epoxide	UG/L	0.05 UJ	0.05 UJ	0.05 R	0.05 R	231FB04	2/19
Endosulfan I	UG/L	0.05 UJ	0.05 UJ	0.05 R	0.05 R	231FB04	2/19
Dieldrin	UG/L	0.05 UJ	0.1 UJ	0.1 R	0.1 R	231FB04	2/19
4,4'-DDE	UG/L	0.1 UJ	0.1 UJ	0.1 R	0.1 R	231FB04	2/19
Endrin	UG/L	0.1 UJ	0.1 UJ	0.1 R	0.1 R	231FB04	2/19
Endosulfan II	UG/L	0.1 UJ	0.1 UJ	0.1 R	0.1 R	231FB04	2/19
4,4'-DDD	UG/L	0.1 UJ	0.1 UJ	0.1 R	0.1 R	231FB04	2/19
Endosulfan sulfate	UG/L	0.1 UJ	0.1 UJ	0.1 R	0.1 R	231FB04	2/19
4,4'-DDT	UG/L	0.1 UJ	0.1 UJ	0.1 R	0.1 R	231FB04	2/19
Methoxychlor	UG/L	0.5 UJ	0.5 UJ	0.5 R	0.5 R	231FB04	2/19
Endrin ketone	UG/L	0.1 UJ	0.1 UJ	0.1 R	0.1 R	231FB04	2/19
Endrin aldehyde	UG/L	0.1 UJ	0.1 UJ	0.1 R	0.1 R	231FB04	2/19
alpha-Chlordane	UG/L	0.05 UJ	0.05 UJ	0.05 R	0.05 R	231FB04	2/19
gamma-Chlordane	UG/L	0.05 UJ	0.05 UJ	0.05 R	0.05 R	231FB04	2/19
Toxaphene	UG/L	5 UJ	5 UJ	5 R	5 R	231FB04	2/19
Aroclor 1016	UG/L	1 UJ	1 UJ	1 R	1 R	231FB04	2/19
Aroclor 1221	UG/L	2 UJ	2 UJ	2 R	2 R	231FB04	2/19
Aroclor 1232	UG/L	1 UJ	1 UJ	1 R	1 R	231FB04	2/19
Aroclor 1242	UG/L	1 UJ	1 UJ	1 R	1 R	231FB04	2/19
Aroclor 1248	UG/L	1 UJ	1 UJ	1 R	1 R	231FB04	2/19
Aroclor 1254	UG/L	1 UJ	1 UJ	1 R	1 R	231FB04	2/19
Aroclor 1260	UG/L	1 UJ	1 UJ	1 R	1 R	231FB04	2/19

SITES 1, 28, AND 30
QA/QC SAMPLES
REMEDIAL INVESTIGATION CTO-19231
MCB CAMP LEJEUNE, NORTH CAROLINA
TOTAL METALS

Client Sample ID:		1-GWER-01	1-GWER-02	1-SDER-01	1-SIER-01	1-SIER-02	1-SIER-03
Laboratory Sample ID:		940334-18	940341-01	940225-01	940225-13	940225-22	940272-02
Date Sampled:		4/22/94	4/24/94	3/22/94	3/28/94	3/30/94	4/4/94
	UNITS						
Aluminum	UG/L	33.0 U	33.0 UJ	33.0 U	55.9 U	33.0 U	77.8 U
Antimony	UG/L	39.4	53.3 J	34.0 U	34.0 U	56.6 U	34.0 U
Arsenic	UG/L	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U
Barium	UG/L	7.0 U	7.0 U	9.4	10.8	7.0 U	7.0 U
Beryllium	UG/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Cadmium	UG/L	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U
Calcium	UG/L	95.2 U	175	11800	12300	140 U	159 U
Chromium	UG/L	7.0 UJ	7.0 UJ	15.6	7.0 U	7.0 U	7.0 U
Cobalt	UG/L	4.0 U	4.6	4.0 U	4.0 U	4.0 U	4.0 U
Copper	UG/L	6.0 U	6.0 U	20.8 U	17.9 U	6.0 U	6.0 U
Iron	UG/L	35.0 U	10.6 U	65.1 U	117	16.1 U	59.2 U
Lead	UG/L	1.0 U	1.4 U	2.8 U	1.6 U	1.0 U	1.0 U
Magnesium	UG/L	27.0 U	41.0	1900	2000	27.0 U	61.2 U
Manganese	UG/L	1.5 U	1.1	1.0 UJ	1.0 UJ	1.0 UJ	9.1
Mercury	UG/L	0.13 U	0.13 U	0.13 U	0.10 U	0.13 U	0.13 U
Nickel	UG/L	7.0 U	7.0 U	15.5 U	10.2 U	7.0 U	7.0 U
Potassium	UG/L	10.0 U	146 J	1570	1380	10.0 UJ	29.5 U
Selenium	UG/L	4.0 UJ	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U
Silver	UG/L	5.0 UJ	5.0 UJ	9.0 U	5.0 U	5.0 U	5.0 U
Sodium	UG/L	140 U	132 U	35800	38500	140 U	424 U
Thallium	UG/L	4.0 UJ	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U
Vanadium	UG/L	3.0 U	3.0 UJ	3.0 U	3.0 U	3.0 U	3.0 U
Zinc	UG/L	3.0 U	3.0 U	14.3 U	12.6 U	4.0 U	3.5

SITES 1, 28, AND 30
QA/QC SAMPLES
REMEDIAL INVESTIGATION CTO-19231
MCB CAMP LEJEUNE, NORTH CAROLINA
TOTAL METALS

Client Sample ID:		1-SIER-06	1-SIER-08	28-GWER-01	28-GWER-02	28-GWER-03	28-SDER-01
Laboratory Sample ID:		940289-20	940289-32	940320-15	940341-32	940389-13	940246-36
Date Sampled:		4/10/94	4/12/94	4/20/94	4/25/94	5/6/94	3/27/94
	UNITS						
Aluminum	UG/L	99.8	33.0 U	33.0 U	40.9 J	33.0 U	79.1
Antimony	UG/L	34.0 U	34.0 U	47.7	34.0 UJ	34.0 U	34.0 U
Arsenic	UG/L	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U
Barium	UG/L	7.0 U	7.0 U	7.0 U	31.7	7.0 U	7.0 U
Beryllium	UG/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Cadmium	UG/L	3.0 U	3.0 U	3.0 U	3.0 U	3.0 UJ	3.0 U
Calcium	UG/L	792	124 U	91.9 U	13300	89.5 U	141 U
Chromium	UG/L	7.0 U	7.0 U	7.0 U	7.0 UJ	7.0 UJ	7.5
Cobalt	UG/L	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U
Copper	UG/L	6.0 U	6.0 U	6.0 U	13.0	6.0 U	6.8
Iron	UG/L	34.2 J	5.0 U	49.4 U	199 J	35.0 U	40.1 U
Lead	UG/L	1.0 U	1.0 U	1.0 U	8.2	1.0 U	1.2
Magnesium	UG/L	63.7	31.9 U	37.0 U	1750	27.0 U	47.8
Manganese	UG/L	1.0 U	1.0 U	1.2 U	2.8 J	3.6 U	1.0 U
Mercury	UG/L	0.13 U	0.13 U	0.10 U	0.13 U	0.13 U	0.13 U
Nickel	UG/L	7.0 U	7.0 U	7.0 U	7.0 UJ	7.0 U	17.4 U
Potassium	UG/L	99.1	29.7 U	44.0 U	1540 J	10.0 U	155 U
Selenium	UG/L	4.0 U	4.0 U	4.0 U	4.0 U	4.0 UJ	4.0 UJ
Silver	UG/L	5.0 U	5.0 U	5.0 U	5.0 UJ	5.0 UJ	5.0 U
Sodium	UG/L	1340	189 U	317 U	44700	95.9 U	340 U
Thallium	UG/L	4.0 U	4.0 U	4.0 U	4.0 U	4.0 UJ	4.0 U
Vanadium	UG/L	3.0 U	3.0 U	3.0 U	3.0 UJ	3.0 U	3.0 U
Zinc	UG/L	11.4 U	7.2 U	3.0 U	13.7	11.8 U	10.4 U

SITES 1, 28, AND 30
QA/QC SAMPLES
REMEDIAL INVESTIGATION CTO-19231
MCB CAMP LEJEUNE, NORTH CAROLINA
TOTAL METALS

Client Sample ID:		28-SDER-02	28-SDER-03	28-SIER-01	28-SIER-02	28-SIER-03	28-SIER-05
Laboratory Sample ID:		940246-37	940250-07	940241-06	940241-07	940246-38	940281-09
Date Sampled:		3/28/94	3/29/94	3/24/94	3/25/94	3/27/94	4/7/94
	UNITS						
Aluminum	UG/L	40.0	33.0 U	33.0 U	33.0 U	33.0 U	33.0 U
Antimony	UG/L	34.0 U	34.0 U	34.0 UJ	34.0 UJ	34.0 U	34.0 U
Arsenic	UG/L	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U
Barium	UG/L	7.0 U	7.0 U	7.0 U	7.0 U	7.0 U	7.0 U
Beryllium	UG/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Cadmium	UG/L	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U
Calcium	UG/L	118 U	117 U	209 U	84.8 U	116 U	97.5 U
Chromium	UG/L	7.0 U	7.0 U	7.0 U	7.0 U	7.0 U	7.0 U
Cobalt	UG/L	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U
Copper	UG/L	6.0 U	6.0 U	6.0 U	6.0 U	6.0 U	6.0 U
Iron	UG/L	147 U	13.5 U	27.0 U	41.6 U	26.6 U	5.0 U
Lead	UG/L	2.4	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Magnesium	UG/L	27.0 U	27.0 U	47.3 U	27.0 U	27.0 U	27.0 U
Manganese	UG/L	1.7	1.0 U	1.0 UJ	1.0 UJ	1.0 U	1.0 U
Mercury	UG/L	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U
Nickel	UG/L	10.2 U	13.7	7.0 UJ	10.1 J	7.4 U	7.0 U
Potassium	UG/L	10.0 U	10.0 U	68.3 U	10.0 U	10.0 U	29.4 U
Selenium	UG/L	4.0 UJ	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U
Silver	UG/L	5.0 U	5.0 UJ	5.0 U	6.2	5.0 U	5.0 U
Sodium	UG/L	355 U	300 U	180 U	298 U	351 U	159 U
Thallium	UG/L	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U
Vanadium	UG/L	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U
Zinc	UG/L	9.7 U	3.0 U	5.4 U	5.0 U	3.2 U	3.0 U

SITES 1, 28, AND 30
QA/QC SAMPLES
REMEDIAL INVESTIGATION CTO-19231
MCB CAMP LEJEUNE, NORTH CAROLINA
TOTAL METALS

Client Sample ID:		30-SDER-01	30-SDER-02	30-SIER-01	30-SIER-03	231FB01	231FB02
Laboratory Sample ID:		940238-04	940238-05	940226-26	940283-10	940261-05	940302-09
Date Sampled:		3/24/94	3/25/94	3/22/94	4/8/94	3/30/94	4/13/94
	UNITS						
Aluminum	UG/L	62.5 U	33.0 U	44.3	45.8	38.8	57.3
Antimony	UG/L	34.0 U	34.0 U	34.0 U	34.0 U	34.0 U	34.0 U
Arsenic	UG/L	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U
Barium	UG/L	7.0 U	7.0 U	7.0 U	8.8	7.0 U	7.0 U
Beryllium	UG/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Cadmium	UG/L	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U
Calcium	UG/L	237 U	133 U	106 U	11700	162 U	16000
Chromium	UG/L	7.0 U	7.0 U	7.0 U	13.7 U	7.0 U	7.0 U
Cobalt	UG/L	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U
Copper	UG/L	6.0 U	6.0 U	6.0 U	12.9	6.0 U	6.0 U
Iron	UG/L	41.6 U	19.3 U	31.6 U	77.7 U	35.9 U	38.8 U
Lead	UG/L	1.8	1.0 U	1.0 UJ	1.0 U	1.0 U	2.4
Magnesium	UG/L	43.5 U	27.0 U	27.0 U	1930	27.0 U	1810
Manganese	UG/L	1.3	1.0 U	1.0 UJ	6.4	1.0 U	1.0 U
Mercury	UG/L	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U
Nickel	UG/L	7.0 U	7.0 U	11.9 U	7.0 U	7.0 U	7.0 UJ
Potassium	UG/L	69.1 U	49.3 U	10.0 U	1340	69.0 U	1340
Selenium	UG/L	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U
Silver	UG/L	5.0 U	5.0 U	5.0 UJ	5.0 U	5.0 U	5.0 U
Sodium	UG/L	128 U	145 U	106 U	37000	165 U	8020
Thallium	UG/L	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U
Vanadium	UG/L	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U
Zinc	UG/L	8.8 U	5 U	9.5 U	11.8	4.1 U	6.4 U

SITES 1, 28, AND 30
QA/QC SAMPLES
REMEDIAL INVESTIGATION CTO-19231
MCB CAMP LEJEUNE, NORTH CAROLINA
TOTAL METALS

Client Sample ID:		231FB03	231FB04
Laboratory Sample ID:		940341-35	940389-09
Date Sampled:		4/26/94	5/7/94
	UNITS		
Aluminum	UG/L	33.0 UJ	125000
Antimony	UG/L	43.6 UJ	34.0 U
Arsenic	UG/L	3.0 U	63.3
Barium	UG/L	7.0 U	5210
Beryllium	UG/L	1.0 U	25.8
Cadmium	UG/L	3.0 U	12.5 J
Calcium	UG/L	80.7 U	146000
Chromium	UG/L	7.0 UJ	7.0 UJ
Cobalt	UG/L	4.0 U	31.9 U
Copper	UG/L	6.0 U	59.0
Iron	UG/L	5.0 UJ	102000
Lead	UG/L	1.3 U	606
Magnesium	UG/L	27.0 U	46200
Manganese	UG/L	1.0 UJ	4520
Mercury	UG/L	0.13 U	0.14 U
Nickel	UG/L	7.0 UJ	25.2
Potassium	UG/L	64.2 U	20100
Selenium	UG/L	4.0 U	4.0 UJ
Silver	UG/L	5.0 UJ	5.0 UJ
Sodium	UG/L	145 U	239000
Thallium	UG/L	4.0 U	4.0 UJ
Vanadium	UG/L	3.0 UJ	34.6
Zinc	UG/L	3.0 U	780

SITES 1, 28, AND 30
QA/QC SAMPLES
REMEDIAL INVESTIGATION CTO-19231
MCB CAMP LEJEUNE, NORTH CAROLINA
TOTAL METALS

Client Sample ID: Laboratory Sample ID: Date Sampled:		MINIMUM NONDETECTED	MAXIMUM NONDETECTED	MINIMUM DETECTED	MAXIMUM DETECTED	LOCATION OF MAXIMUM DETECTED	FREQUENCY OF DETECTION
	UNITS						
Aluminum	UG/L	33 U	77.8 U	38.8	125000	231FB04	9/26
Antimony	UG/L	34 U	56.6 U	39.4	53.3 J	1-GWER-02	3/26
Arsenic	UG/L	3 U	3 U	63.3	63.3	231FB04	1/26
Barium	UG/L	7 U	7 U	8.8	5210	231FB04	5/26
Beryllium	UG/L	1 U	1 U	25.8	25.8	231FB04	1/26
Cadmium	UG/L	3 U	3 U	12.5 J	12.5 J	231FB04	1/26
Calcium	UG/L	80.7 U	237 U	175	146000	231FB04	8/26
Chromium	UG/L	7 UJ	13.7 U	7.5	15.6	1-SDER-01	2/26
Cobalt	UG/L	4 U	31.9 U	4.6	4.6	1-GWER-02	1/26
Copper	UG/L	6 U	20.8 U	6.8	59	231FB04	4/26
Iron	UG/L	5 U	147 U	34.2 J	102000	231FB04	4/26
Lead	UG/L	1 U	2.8 U	1.2	606	231FB04	6/26
Magnesium	UG/L	27 U	61.2 U	41	46200	231FB04	9/26
Manganese	UG/L	1 UJ	3.6 U	1.1	4520	231FB04	7/26
Mercury	UG/L	0.1 U	0.14 U	ND	ND		0/26
Nickel	UG/L	7 U	17.4 U	10.1 J	25.2	231FB04	3/26
Potassium	UG/L	10 U	155 U	99.1	20100	231FB04	8/26
Selenium	UG/L	4 UJ	4 UJ	ND	ND		0/26
Silver	UG/L	5 UJ	9 U	6.2	6.2	28-SIER-02	1/26
Sodium	UG/L	95.9 U	424 U	1340	239000	231FB04	7/26
Thallium	UG/L	4 UJ	4 UJ	ND	ND		0/26
Vanadium	UG/L	3 U	3 U	34.6	34.6	231FB04	1/26
Zinc	UG/L	3 U	14.3 U	3.5	780	231FB04	4/26

SITES 1, 28, AND 30
QA/QC SAMPLES
REMEDIAL INVESTIGATION CTO-19231
MCB CAMP LEJEUNE, NORTH CAROLINA
DISSOLVED METALS

Client Sample ID:		1-GWERD-01	1-GWERD-02	28-GWERD-01	28-GWERD-02	28-GWERD-03	231FBD03
Laboratory Sample ID:		940334-19	940341-02	940320-16	940341-33	940389-14	940341-36
Date Sampled:		4/22/94	4/24/94	4/20/94	4/25/94	5/8/94	4/26/94
	UNITS						
Aluminum	UG/L	33.0 U	33.0 UJ	33.0 U	33.0 UJ	33.0 U	33.0 UJ
Antimony	UG/L	47.5	66.3 J	34.0 U	52.1 UJ	34.0 U	34.0 UJ
Arsenic	UG/L	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U
Barium	UG/L	7.0 U	7.0 U	7.0 U	7.0 U	7.0 U	7.0 U
Beryllium	UG/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Cadmium	UG/L	3.0 U	3.0 U	3.0 U	3.0 U	3.0 UJ	3.0 U
Calcium	UG/L	185 U	185 U	147 U	13100	119 U	144 U
Chromium	UG/L	7.0 UJ	7.0 UJ	9.8	7.0 UJ	7.0 UJ	7.0 UJ
Cobalt	UG/L	4.0 U	4.1	4.0 U	4.0 U	4.0 U	4.0 U
Copper	UG/L	6.0 U	6.0 U	6.0 U	6.0 U	6.0 U	6.0 U
Iron	UG/L	30.7 U	27.1 U	64.8 U	5.0 UJ	19.8 U	5.0 UJ
Lead	UG/L	1.0 U	1.5 U	1.0 U	1.1 U	1.0 U	1.3 U
Magnesium	UG/L	35.8	27.0 U	40.4 U	1720	27.0 U	27.0 U
Manganese	UG/L	4.4 U	1.4	3.4 U	1.0 UJ	2.4 U	1.0 UJ
Mercury	UG/L	0.14 U	0.13 U	0.10 U	0.13 U	0.13 U	0.13 U
Nickel	UG/L	7.0 U	7.0 U	8.2	7.0 UJ	7.0 U	7.0 UJ
Potassium	UG/L	19.0 U	78.7 J	96.7 U	1590 J	10.0 U	10.0 U
Selenium	UG/L	4.0 UJ	4.0 U	4.0 U	4.0 U	4.0 UJ	4.0 U
Silver	UG/L	5.0 UJ	5.0 UJ	5.3 U	5.0 UJ	5.0 UJ	5.0 UJ
Sodium	UG/L	232 U	230 U	364 U	44300	123 U	209 U
Thallium	UG/L	4.0 U	4.0 U	4.0 U	4.0 U	4.0 UJ	4.0 U
Vanadium	UG/L	3.0 U	3.0 UJ	3.0 U	3.0 UJ	3.0 U	3.0 UJ
Zinc	UG/L	7.7 U	3.1	3.5 U	4.3	3.0 U	5.0

SITES 1, 28, AND 30
QA/QC SAMPLES
REMEDIAL INVESTIGATION CTO-19231
MCB CAMP LEJEUNE, NORTH CAROLINA
DISSOLVED METALS

Client Sample ID: Laboratory Sample ID: Date Sampled:		MINIMUM NONDETECTED	MAXIMUM NONDETECTED	MINIMUM DETECTED	MAXIMUM DETECTED	LOCATION OF MAXIMUM DETECTED	FREQUENCY OF DETECTION
	UNITS						
Aluminum	UG/L	33 U	33 U	ND	ND		0/6
Antimony	UG/L	34 U	52.1 UJ	47.5	66.3 J	1-GWERD-02	2/6
Arsenic	UG/L	3 U	3 U	ND	ND		0/6
Barium	UG/L	7 U	7 U	ND	ND		0/6
Beryllium	UG/L	1 U	1 U	ND	ND		0/6
Cadmium	UG/L	3 U	3 U	ND	ND		0/6
Calcium	UG/L	119 U	185 U	13100	13100	28-GWERD-02	1/6
Chromium	UG/L	7 UJ	7 UJ	9.8	9.8	28-GWERD-01	1/6
Cobalt	UG/L	4 U	4 U	4.1	4.1	1-GWERD-02	1/6
Copper	UG/L	6 U	6 U	ND	ND		0/6
Iron	UG/L	5 UJ	64.8 U	ND	ND		0/6
Lead	UG/L	1 U	1.5 U	ND	ND		0/6
Magnesium	UG/L	27 U	40.4 U	35.8	1720	28-GWERD-02	2/6
Manganese	UG/L	1 UJ	4.4 U	1.4	1.4	1-GWERD-02	1/6
Mercury	UG/L	0.1 U	0.14 U	ND	ND		0/6
Nickel	UG/L	7 U	7 U	8.2	8.2	28-GWERD-01	1/6
Potassium	UG/L	10 U	96.7 U	78.7 J	1590 J	28-GWERD-02	2/6
Selenium	UG/L	4 UJ	4 UJ	ND	ND		0/6
Silver	UG/L	5 UJ	5.3 U	ND	ND		0/6
Sodium	UG/L	123 U	364 U	44300	44300	28-GWERD-02	1/6
Thallium	UG/L	4 U	4 U	ND	ND		0/6
Vanadium	UG/L	3 U	3 U	ND	ND		0/6
Zinc	UG/L	3 U	7.7 U	3.1	5	231FBD03	3/6

ROUND TWO

SITE 1

SITE 1
SNEADS FERRY ROAD FUEL TANK SLUDGE AREA
GROUNDWATER - QA/QC SAMPLE SUMMARY
ROUND 2
REMEDIAL INVESTIGATION CTO - 0231
MCB, CAMP LEJEUNE, NORTH CAROLINA
TOTAL AND DISSOLVED METALS

Sample ID:		1-GW07-02D	1-GW07D-02D	1-GWER-02	1-GWERD-02	1-GWER-03	1-GWERD-03	1-GWER2-01	1-GWER2D-01
Date Sampled:		11/14/94	11/14/94	11/15/94	11/15/94	11/16/94	11/16/94	11/13/94	11/13/94
	UNITS								
Aluminum	UG/L	419	40.5 U	22 U	16 U	16 U	116 U	17.6 U	16 U
Antimony	UG/L	37 U	40.6 B	37 U	37 U	37 U	37 U	37 U	37 U
Arsenic	UG/L	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
Barium	UG/L	13.4 B	7.3 B	3 U	3 U	3 U	3 U	3 U	3 U
Beryllium	UG/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Cadmium	UG/L	4 U	4 U	4 U	4 U	4 U	4 U	4 U	4 U
Calcium	UG/L	848 B	992 B	229 U	124 U	144 U	202 U	269 U	191 U
Chromium	UG/L	7 U	7 U	7 U	7 U	7 U	7 U	7 U	7 U
Cobalt	UG/L	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Copper	UG/L	5 U	12.2 B	5 U	5 U	5 U	5 U	5 U	5 U
Iron	UG/L	206 U	86.9 U	28.1 U	28.9 U	16.8 U	88.8 U	27.5 U	34.7 U
Lead	UG/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Magnesium	UG/L	843 B	758 B	28.4 U	22 U	27.8 U	39.2 U	22 U	22 U
Manganese	UG/L	4.4 U	19.1	1.4 U	1 U	1 U	1.1 B	1 U	1 U
Mercury	UG/L	0.19 B	0.13 U	0.13 U	0.15 B	0.13 U	0.14 U	0.12 U	0.12 U
Nickel	UG/L	12 U	12 U	12 U	12 U	12 U	12 U	12 U	12 U
Potassium	UG/L	737 B	788 B	161 U	161 U	161 U	161 U	161 U	161 U
Selenium	UG/L	4 U	4 U	4 U	4 U	4 U	4 U	4 U	4 U
Silver	UG/L	4 U	4 U	4 U	4 U	4 U	4 U	4 U	4 U
Sodium	UG/L	1350 B	1650 B	219 U	368 U	306 U	463 U	329 U	513 U
Thallium	UG/L	2.3 U	2.2 U	4.7 U	4.6 U	3.8 U	2.8 U	4.3 U	5.2 U
Vanadium	UG/L	3 U	3 U	3 U	3 U	3 U	3 U	3 U	3 U
Zinc	UG/L	13.9 U	15.7 U	11.7 U	7.7 U	7.9 U	7.9 U	11.6 U	8.1 U

SITE 1
SNEADS FERRY ROAD FUEL TANK SLUDGE AREA
GROUNDWATER - QA/QC SAMPLE SUMMARY
ROUND 2
REMEDIAL INVESTIGATION CTO - 0231
MCB, CAMP LEJEUNE, NORTH CAROLINA
TOTAL AND DISSOLVED METALS

	Sample ID:	1GW11-02		1GW11D-02	
	Date Sampled:	11/12/94		11/12/94	
	UNITS				
Aluminum	UG/L	64.4	U	23.5	U
Antimony	UG/L	37	U	37	U
Arsenic	UG/L	8.8	B	3.1	B
Barium	UG/L	32.6	B	27.1	B
Beryllium	UG/L	1	U	1	U
Cadmium	UG/L	4	U	4	U
Calcium	UG/L	90200	J	95700	J
Chromium	UG/L	7	U	7	U
Cobalt	UG/L	11.9	B	12.9	B
Copper	UG/L	5	U	8	B
Iron	UG/L	14700	J	8830	J
Lead	UG/L	1	U	1	U
Magnesium	UG/L	2990	J	3250	J
Manganese	UG/L	1010	J	1070	J
Mercury	UG/L	0.13	R	0.29	J
Nickel	UG/L	12	U	12	U
Potassium	UG/L	921	B	1040	B
Selenium	UG/L	4	U	4	U
Silver	UG/L	4	R	4	R
Sodium	UG/L	5850	J	6150	J
Thallium	UG/L	2.8	U	3.3	U
Vanadium	UG/L	3	U	3	U
Zinc	UG/L	13.5	U	15.4	U

TABLE 1
SNEADS FERRY ROAD FUEL TANK SLUDGE AREA
GROUNDWATER - QA/QC SAMPLE SUMMARY
ROUND 2
REMEDIAL INVESTIGATION CTO - 0231
MCB, CAMP LEJEUNE, NORTH CAROLINA
TCL VOLATILES

	Sample ID:	1-GWER-01	1-TB2-02	1-GW11-02D	1-TB2-01	1-GW11-02MS	1-GW11-02MSD
	Date Sampled:	11/16/94	11/16/94	11/12/94	11/11/94	11/12/94	11/12/94
	UNITS						
Chloromethane	UG/L	10 U	2 J	10 U	10 U	10 U	10 U
Bromomethane	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
Vinyl Chloride	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
Chloroethane	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
Methylene Chloride	UG/L	10 U	10 U	10 U	10 U	1 BJ	2 BJ
Acetone	UG/L	13 U	15 U	10 U	10 U	10	6 J
Carbon Disulfide	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
1,1-Dichloroethene	UG/L	10 U	10 U	10 U	10 U	41	42
1,1-Dichloroethane	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
1,2-Dichloroethene (total)	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
Chloroform	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
1,2-Dichloroethane	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
2-Butanone	UG/L	10 U	10 U	10 U	10 U	3 J	2 J
1,1,1-Trichloroethane	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
Carbon Tetrachloride	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
Bromodichloro	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
1,2-Dichloropropane	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
cis-1,3-Dichloropropene	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
Trichloroethene	UG/L	10 U	10 U	1 J	10 U	53	52
Dibromochloro	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
1,1,2-Trichloroethane	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
Benzene	UG/L	10 U	10 U	10 U	10 U	47	47
trans-1,3-Dichloropropene	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
Bromoform	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
4-Methyl-2-Pentanone	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
2-Hexanone	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
Tetrachloroethene	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
1,1,2,2-Tetrachloroethane	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
Toluene	UG/L	10 U	10 U	10 U	10 U	47	45
Chlorobenzene	UG/L	10 U	10 U	10 U	10 U	51	49
Ethylbenzene	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
Styrene	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
Xylene (total)	UG/L	10 U	10 U	10 U	10 U	10 U	10 U

SITE 28

SITE 28
HADNOT POINT BURN DUMP
GROUNDWATER - QA/QC SAMPLE SUMMARY
ROUND 2
REMEDIAL INVESTIGATION CTO - 0231
MCB, CAMP LEJEUNE, NORTH CAROLINA
TOTAL AND DISSOLVED METALS

	Sample ID:	28-GW04D-02	28-GW04-02	231-FB-10	231-FBD-1	28-GW07-02	28-GW07DW	28-GWO7D-02
	Date Sampled:	11/15/94	11/15/94	11/16/94	11/16/94	11/17/94	11/17/94	11/17/94
	UNITS							
Aluminum	UG/L	16 U	57.2 U	16 U	23 U	132 U	29 U	39 U
Antimony	UG/L	37 U	37 U	37 U	37 U	37 U	37 U	37 U
Arsenic	UG/L	2 U	2 U	2 U	2 U	6 B	2.2 B	5.6 B
Barium	UG/L	13.3 B	14 B	3 U	3 U	320	10.2 B	281
Beryllium	UG/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Cadmium	UG/L	4 U	4 U	4 U	4 U	4 U	4 U	4 U
Calcium	UG/L	83000	85800	161 U	143 U	177000	36800	170000
Chromium	UG/L	7 U	7 U	7 U	7 U	7 U	7 U	7 U
Cobalt	UG/L	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Copper	UG/L	5.4 B	5 U	5 U	5 U	13.6 B	13.3 B	5.8 B
Iron	UG/L	86.1 B	177 J	39.6 U	65.2 U	38900	53 U	32600
Lead	UG/L	1.2 B	1 U	1 U	1 U	8	1 U	1 U
Magnesium	UG/L	2620 B	2640 B	22 U	22 U	24000	176 U	21900
Manganese	UG/L	52.3	56.8	1 U	1 U	672	2.3 U	641
Mercury	UG/L	0.57 U	0.13 U	0.11 U	0.13 U	0.11 U	0.13 U	0.11 U
Nickel	UG/L	12 U	12 U	12 U	12 U	12.6 B	12 U	12 U
Potassium	UG/L	1320 B	1300 B	161 U	161 U	18900	2260 B	16700
Selenium	UG/L	4 U	4 U	4 U	4 U	4 U	4 U	4 U
Silver	UG/L	4 R	4 R	4 U	4 U	4 U	4 U	4 U
Sodium	UG/L	13900	13700	223 U	244 U	70100	9030	63900
Thallium	UG/L	4.4 U	2.1 U	2 U	4.5 U	3.3 U	3.6 U	3.6 U
Vanadium	UG/L	3 U	3 U	3 U	3 U	3 U	6 B	3 U
Zinc	UG/L	10 U	9.7 U	9 U	7.1 U	25.1 U	10.7 U	12.6 U

SITE 28
HADNOT POINT BURN DUMP
GROUNDWATER - QA/QC SAMPLE SUMMARY
ROUND 2
REMEDIAL INVESTIGATION CTO - 0231
MCB, CAMP LEJEUNE, NORTH CAROLINA
TCL VOLATILES

Sample ID:		231-FB-10
Date Sampled:		11/16/94
	UNITS	
Chloromethane	UG/L	10 U
Bromomethane	UG/L	4 J
Vinyl Chloride	UG/L	10 U
Chloroethane	UG/L	10 U
Methylene Chloride	UG/L	10 U
Acetone	UG/L	25 U
Carbon Disulfide	UG/L	10 U
1,1-Dichloroethene	UG/L	10 U
1,1-Dichloroethane	UG/L	10 U
1,2-Dichloroethene (total)	UG/L	10 U
Chloroform	UG/L	10 U
1,2-Dichloroethane	UG/L	10 U
2-Butanone	UG/L	4 J
1,1,1-Trichloroethane	UG/L	10 U
Carbon Tetrachloride	UG/L	10 U
Bromodichloro	UG/L	10 U
1,2-Dichloropropane	UG/L	10 U
cis-1,3-Dichloropropene	UG/L	10 U
Trichloroethene	UG/L	10 U
Dibromochloro	UG/L	10 U
1,1,2-Trichloroethane	UG/L	10 U
Benzene	UG/L	10 U
trans-1,3-Dichloropropene	UG/L	10 U
Bromoform	UG/L	10 U
4-Methyl-2-Pentanone	UG/L	10 U
2-Hexanone	UG/L	10 U
Tetrachloroethene	UG/L	10 U
1,1,2,2-Tetrachloroethane	UG/L	10 U
Toluene	UG/L	10 U
Chlorobenzene	UG/L	10 U
Ethylbenzene	UG/L	10 U
Styrene	UG/L	10 U
Xylene (total)	UG/L	10 U

Sl[illegible]28

HADNOT POINT BURN DUMP
GROUNDWATER - QA/QC SAMPLE SUMMARY
ROUND 2
REMEDIAL INVESTIGATION CTO - 0231
MCB, CAMP LEJEUNE, NORTH CAROLINA
TCL PESTICIDES/PCBs

Sample ID:		231-FB-10	28-GW07-02D
Date Sampled:		11/16/94	11/17/94
	UNITS		
alpha-BHC	UG/L	0.05 UJ	0.05 UJ
beta-BHC	UG/L	0.05 UJ	0.05 UJ
delta-BHC	UG/L	0.05 UJ	0.05 UJ
gamma-BHC (Lindane)	UG/L	0.05 UJ	0.05 UJ
Heptachlor	UG/L	0.05 UJ	0.05 UJ
Aldrin	UG/L	0.05 UJ	0.05 UJ
Heptachlor epoxide	UG/L	0.05 UJ	0.05 UJ
Endosulfan I	UG/L	0.05 UJ	0.05 UJ
Dieldrin	UG/L	0.1 UJ	0.1 UJ
4,4'-DDE	UG/L	0.1 UJ	0.1 UJ
Endrin	UG/L	0.1 UJ	0.1 UJ
Endosulfan II	UG/L	0.1 UJ	0.1 UJ
4,4'-DDD	UG/L	0.1 UJ	0.1 UJ
Endosulfan sulfate	UG/L	0.1 UJ	0.1 UJ
4,4'-DDT	UG/L	0.1 UJ	0.1 UJ
Methoxychlor	UG/L	0.5 UJ	0.5 UJ
Endrin ketone	UG/L	0.1 UJ	0.1 UJ
Endrin aldehyde	UG/L	0.1 UJ	0.1 UJ
alpha-Chlordane	UG/L	0.05 UJ	0.05 UJ
gamma-Chlordane	UG/L	0.05 UJ	0.05 UJ
Toxaphene	UG/L	5 UJ	5 UJ
Aroclor-1016	UG/L	1 UJ	1 UJ
Aroclor-1221	UG/L	2 UJ	2 UJ
Aroclor-1232	UG/L	1 UJ	1 UJ
Aroclor-1242	UG/L	1 UJ	1 UJ
Aroclor-1248	UG/L	1 UJ	1 UJ
Aroclor-1254	UG/L	1 UJ	1 UJ
Aroclor-1260	UG/L	1 UJ	1 UJ

HADNOT POINT BURN DUMP
GROUNDWATER - QA/QC SAMPLE SUMMARY
ROUND 2
REMEDIAL INVESTIGATION CTO - 0231
MCB, CAMP LEJEUNE, NORTH CAROLINA
TCL SEMIVOLATILES

Sample ID:	231-FB-10
Date Sampled:	11/16/94

	UNITS		
	UG/L	10	U
Phenol	UG/L	10	U
bis(2-Chloroethyl)ether	UG/L	10	U
2-Chlorophenol	UG/L	10	U
1,3-Dichlorobenzene	UG/L	10	U
1,4-Dichlorobenzene	UG/L	10	U
1,2-Dichlorobenzene	UG/L	10	U
2-Methylphenol	UG/L	10	U
2,2'-oxybis(1-Chloropropane)	UG/L	10	U
4-Methylphenol	UG/L	10	U
N-Nitroso-di-n-propylamine	UG/L	10	U
Hexachloroethane	UG/L	10	U
Nitrobenzene	UG/L	10	U
Isophorone	UG/L	10	U
2-Nitrophenol	UG/L	10	U
2,4-Dimethylphenol	UG/L	10	U
bis(2-Chloroethoxy)	UG/L	10	U
2,4-Dichlorophenol	UG/L	10	U
1,2,4-Trichlorobenzene	UG/L	10	U
Naphthalene	UG/L	10	U
4-Chloroaniline	UG/L	10	U
Hexachlorobutadiene	UG/L	10	U
4-Chloro-3-methylphenol	UG/L	10	U
2-Methylnaphthalene	UG/L	10	U
Hexachlorocyclopentadiene	UG/L	10	U
2,4,6-Trichlorophenol	UG/L	10	U
2,4,5-Trichlorophenol	UG/L	25	U
2-Chloronaphthalene	UG/L	10	U
2-Nitroaniline	UG/L	25	U
Dimethylphthalate	UG/L	10	U
Acenaphthylene	UG/L	10	U
2,6-Dinitrotoluene	UG/L	10	U

HADNOT POINT BURN DUMP
GROUNDWATER - QA/QC SAMPLE SUMMARY
ROUND 2
REMEDIAL INVESTIGATION CTO - 0231
MCB, CAMP LEJEUNE, NORTH CAROLINA
TCL SEMIVOLATILES

Sample ID:	231-FB-10
Date Sampled:	11/16/94

	UNITS		
3-Nitroaniline	UG/L	25	U
Acenaphthene	UG/L	10	U
2,4-Dinitrophenol	UG/L	25	U
4-Nitrophenol	UG/L	25	U
Dibenzofuran	UG/L	10	U
2,4-Dinitrotoluene	UG/L	10	U
Diethylphthalate	UG/L	10	U
4-Chlorophenyl-phenylether	UG/L	10	U
Fluorene	UG/L	10	U
4-Nitroaniline	UG/L	25	U
4,6-Dinitro-2-methylphenol	UG/L	25	U
N-Nitrosodiphenylamine	UG/L	10	U
4-Bromophenyl-phenylether	UG/L	10	U
Hexachlorobenzene	UG/L	10	U
Pentachlorophenol	UG/L	25	U
Phenanthrene	UG/L	10	U
Anthracene	UG/L	10	U
Carbazole	UG/L	10	U
Di-n-butylphthalate	UG/L	10	U
Fluoranthene	UG/L	10	U
Pyrene	UG/L	10	U
Butylbenzylphthalate	UG/L	10	U
3,3'-Dichlorobenzidine	UG/L	10	U
Benzo(a)anthracene	UG/L	10	U
Chrysene	UG/L	10	U
bis(2-Ethylhexyl)phthalate	UG/L	10	U
Di-n-octylphthalate	UG/L	10	U
Benzo(b)fluoranthene	UG/L	10	U
Benzo(k)fluoranthene	UG/L	10	U
Benzo(a)pyrene	UG/L	10	U
Indeno(1,2,3-cd)pyrene	UG/L	10	U
Dibenz(a,h)anthracene	UG/L	10	U
Benzo(g,h,i)perylene	UG/L	10	U