FINAL

PHASE II SWMU CONFIRMATORY SAMPLING REPORT

MCB CAMP LEJEUNE, NORTH CAROLINA

CONTRACT TASK ORDER 0143

APRIL 2005

Prepared for:

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

Under the:

LANTDIV CLEAN Program
Contract N62470-95-D-6007

Prepared by:

BAKER ENVIRONMENTAL, INC.
Coraopolis, Pennsylvania

LIST OF APPENDICES

A	Test Boring and Well Construction Records
B	Groundwater Technical Memo
C	Chain-of-custody and Sample Tracking Forms
D	Well Parameters
E	QA/QC Results
F	Field Duplicate Results
G	Analytical Laboratory Results
H	Geophysical Survey Results
I	Data Validation Reports
J	TOC Analytical Results
K	IM Report, OHM

APPENDIX A
TEST BORING AND WELL CONSTRUCTION RECORDS

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation
PROJ. NO.: CTO-0143 BORING NO.: SWMU43-TW01
COORDINATES: EAST: NORTH:
ELEVATION: SURFACE: 19.95 TOP OF PVC 20.01

Rig:	Macro Core	Casing	Augers	Acetate Sleeve	Date	Progress (Ft.)	Comments	Depth to Water (Ft.)
Size (ID)	2"		3.25	2"	3/25/02	20	estimated	16
Length	4'		5'	4'				
Type	SS		S	Acetate				
Hammer Wt.	NA		NA	NA				
Fall	NA		NA	NA				

Remarks:

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

WELL INFORMATION

Type		Diam.	Top Depth (Ft.)	Bottom Depth (Ft.)
PVC	Riser (Schedule 40)	1"	20.01	15.01
PVC	Screen (Schedule 40)	1"	15.01	5.01

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	Lab ID	LEL %	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
1	M-1	3.8 95%	SWMU43-TW01-00	0.0%	0.0 / 0.0	brown/grey fine sand w/silt	riser	
2						2.0		18.01
3						brown fine sand w/ silt and clay	bentonite	
4						3.4 grey/brown mottled clay 4.0	riser	16.61 16.01
5	A-N						sand	
6							screen	
7							sand	
8						8.0		12.01
9	M-2			0.0%	0.0 / 0.0	(damp) sand w/silt	screen	
10						Match to Sheet 2	sand	

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: R. Marks
DRILLER: Louis LaFever BORING NO.: SWMU43-TW01 SHEET 1 OF 2

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation
PROJ. NO.: CTO-0143 BORING NO.: SWMU43-TW01
COORDINATES: EAST: NORTH:
ELEVATION: SURFACE: 19.95 TOP OF PVC 20.01

Rig:	Macro Core	Casing	Augers	Acetate Sleeve	Date	Progress (Ft.)	Comments	Depth to Water (Ft.)
Size (ID)	2"		3.25	2"	3/25/02	20	estimated	16
Length	4'		5'	4'				
Type	SS		S	Acetate				
Hammer Wt.	NA		NA	NA				
Fall	NA		NA	NA				

Remarks:

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

WELL INFORMATION

Type		Diam.	Top Depth (Ft.)	Bottom Depth (Ft.)
PVC	Riser (Schedule 40)	1"	20.01	15.01
PVC	Screen (Schedule 40)	1"	15.01	5.01

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	Lab ID	LEL %	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
1	M-1	3.8 95%	SWMU43-TW01-00	0.0%	0.0 / 0.0	brown/grey fine sand w/silt	riser	
2						2.0		18.01
3						brown fine sand w/ silt and clay	bentonite	
4						3.4 grey/brown mottled clay 4.0	riser	16.61 16.01
5	A-N						sand	
6							screen	
7							sand	
8						8.0		12.01
9	M-2			0.0%	0.0 / 0.0	(damp) sand w/silt	screen	
10						Match to Sheet 2	sand	

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: R. Marks
DRILLER: Louis LaFever BORING NO.: SWMU43-TW01 SHEET 1 OF 2

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation
CTO NO.: CTO-0143 BORING NO.: SWMU43-TW01

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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
BG/PS = Background/Point Source

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	SPT	Lab ID	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
31						Continued from Sheet 2		
32								
33								
34								
35								
36								
37								
38								
39								
40								
41								
42								
43								
44								
45								
46								
47								
48								
49								
50						Match to Sheet 4		

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: R. Marks
DRILLER: Louis LaFever BORING NO.: SWMU43-TW SHEET 3 OF 2

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation
CTO NO.: CTO-0143 BORING NO.: SWMU43-TW01

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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
BG/PS = Background/Point Source

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	SPT	Lab ID	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
51						Continued from Sheet 3		
52								
53								
54								
55								
56								
57								
58								
59								
60								
61								
62								
63								
64								
65								
66								
67								
68								
69								
70						Match to Sheet 5		

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: R. Marks
DRILLER: Louis LaFever BORING NO.: SWMU43-TW SHEET 4 OF 2

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation
CTO NO.: CTO-0143 BORING NO.: SWMU43-TW01

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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
BG/PS = Background/Point Source

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	SPT	Lab ID	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
71						Continued from Sheet 5		
72								
73								
74								
75								
76								
77								
78								
79								
80								
81								
82								
83								
84								
85								
86								
87								
88								
89								
90						Match to Sheet 6		

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: R. Marks
DRILLER: Louis LaFever BORING NO.: SWMU43-TW SHEET 5 OF 2

Baker
Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation
CTO NO.: CTO-0143 BORING NO.: SWMU43-TW01

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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
ps/bg = point source/background

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	SPT	Lab ID	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
91						Continued from Sheet 1		
92								
93								
94								
95								
96								
97								
98								
99								
100								
101								
102								
103								
104								
105								
106								
107								
108								
109								
110								

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: R. Marks
DRILLER: Louis LaFever BORING NO.: SWMU43-TW SHEET 6 OF 2

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation
PROJ. NO.: CTO-0143 BORING NO.: SWMU43-TW02
COORDINATES: EAST: NORTH:
ELEVATION: SURFACE: 20.6 TOP OF PVC 20.53

Rig:	Macro Core	Casing	Augers	Acetate Sleeve	Date	Progress (Ft.)	Comments	Depth to Water (Ft.)
Size (ID)	2"		3.25	2"	3/25/02	20	estimated	16
Length	4'		5'	4'				
Type	SS		S	Acetate				
Hammer Wt.	NA		NA	NA				
Fall	NA		NA	NA				

Remarks:

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

WELL INFORMATION

Type	Diam.	Top Depth (Ft.)	Bottom Depth (Ft.)
PVC Riser (Schedule 40)	1"	20.53	15.53
PVC Screen (Schedule 40)	1"	15.53	0.53

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	Lab ID	LEL %	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
1	M-1		SWMU43-TW02-00	0.0%	0.0 / 0.0	brown/grey fine sand w/silt	riser	
2								18.53
3						brown fine sand w/ silt and clay	bentonite	
4						grey/brown mottled clay	riser	17.13
5	A-N						sand	16.53
6							screen	
7							sand	
8								12.53
9	M-2			0.0%	0.0 / 0.0	(damp) sand w/silt	screen	
10						Match to Sheet 2	sand	

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: R. Marks
DRILLER: Louis LaFever BORING NO.: SWMU43-TW02 SHEET 1 OF 2

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation
CTO NO.: CTO-0143 BORING NO.: SWMU43-TW02

SAMPLE TYPE
M = Macro Core 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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
ps/bg = point source/background

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	Lab ID	LEL %	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
11						Continued from Sheet 1	sand	
12							12 screen	8.5
13	M-3		SWMU43-TW02-06	0.0%	0.0 / 0.0	(wet) lt. Grey sand	sand	
14							screen	
15								
16	▼					(saturated)	16 sand	4.5
17						For complete geology see log SWMU43-TW03	screen	
18								
19	A-N						sand	
20								0.5
21						End of Boring = 20.0		
22								
23								
24								
25								
26								
27								
28								
29								
30						Match to Sheet 3		

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: R. Marks
DRILLER: Louis LaFever BORING NO.: SWMU43-TW02 SHEET 2 OF 2

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation
CTO NO.: CTO-0143 BORING NO.: SWMU43-TW02

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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
BG/PS = Background/Point Source

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	SPT	Lab ID	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
31						Continued from Sheet 2		
32								
33								
34								
35								
36								
37								
38								
39								
40								
41								
42								
43								
44								
45								
46								
47								
48								
49								
50						Match to Sheet 4		

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: R. Marks
DRILLER: Louis LaFever BORING NO.: SWMU43-TW SHEET 3 OF 2

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation
CTO NO.: CTO-0143 BORING NO.: SWMU43-TW02

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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
BG/PS = Background/Point Source

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	SPT	Lab ID	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
51						Continued from Sheet 3		
52								
53								
54								
55								
56								
57								
58								
59								
60								
61								
62								
63								
64								
65								
66								
67								
68								
69								
70						Match to Sheet 5		

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: R. Marks
DRILLER: Louis LaFever BORING NO.: SWMU43-TW SHEET 4 OF 2

Baker
Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation
CTO NO.: CTO-0143 BORING NO.: SWMU43-TW02

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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
BG/PS = Background/Point Source

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	SPT	Lab ID	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
71						Continued from Sheet 5		
72								
73								
74								
75								
76								
77								
78								
79								
80								
81								
82								
83								
84								
85								
86								
87								
88								
89								
90						Match to Sheet 6		

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: R. Marks
DRILLER: Louis LaFever BORING NO.: SWMU43-TW SHEET 5 OF 2

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation
CTO NO.: CTO-0143 BORING NO.: SWMU43-TW02

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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
ps/bg = point source/background

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	SPT	Lab ID	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
91						Continued from Sheet 1		
92								
93								
94								
95								
96								
97								
98								
99								
100								
101								
102								
103								
104								
105								
106								
107								
108								
109								
110								

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: R. Marks
DRILLER: Louis LaFever BORING NO.: SWMU43-TW SHEET 6 OF 2

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation
PROJ. NO.: CTO-0143 BORING NO.: SWMU43-TW03
COORDINATES: EAST: 2496888.635 NORTH: 343449.933
ELEVATION: SURFACE: 20.13 TOP OF PVC 20.46

Rig:	Macro Core	Casing	Augers	Acetate Sleeve	Date	Progress (Ft.)	Comments	Depth to Water (Ft.)
Size (ID)	2"		3.25	2"	3/24/02	22	above clay	2.1
Length	4'		5'	4'			estimated	14
Type	SS		S	Acetate				
Hammer Wt.	NA		NA	NA				
Fall	NA		NA	NA				

Remarks:

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

WELL INFORMATION

Type	Diam.	Top Depth (Ft.)	Bottom Depth (Ft.)
PVC Riser (Schedule 40)	1"	20.46	18.46
PVC Screen (Schedule 40)	1"	18.46	-1.51

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	Lab ID	LEL %	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
1	M-1	3.8 95%	SWMU43-TW03-00	0.0%	0.0 / 0.0	Dk. Grey v.f. sand w/silt	bentonite	19.46
2						lt.brown f. sand w/silt	riser	18.46
3						sandy silt/clay	sand	
4							screen	
5	M-2	3.6 90%		0.0%	0.0 / 0.0		sand	15.06
6							screen	
7						grey/brown mottled clay some sand	sand	
8								
9	M-3			0.0%	0.0 / 0.0		screen	
10						note: M-3 stuck in macrocore	sand	

Match to Sheet 2

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: R. Marks
DRILLER: Louis LaFever BORING NO.: SWMU43-TW03 SHEET 1 OF 2

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation
CTO NO.: CTO-0143 BORING NO.: SWMU43-TW03

SAMPLE TYPE
M = Macro Core 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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
ps/bg = point source/background

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	Lab ID	LEL %	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
11						Continued from Sheet 1	sand	
12			SWMU43-TW03-06				screen	8.46
13		3.0		0.0%	0.0		sand	
14	M-4	75%			0.0	lt. Grey sand	screen	
15								
16							sand	4.46
17							screen	
18								
19							sand	
20	A-N							
21							screen	
22							sand	-1.54
23						End of Boring = 22		
24								
25								
26								
27								
28								
29								
30						Match to Sheet 3		

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: R. Marks
DRILLER: Louis LaFever BORING NO.: SWMU43-TW03 SHEET 2 OF 2

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT:	SWMU Investigation			
PROJ. NO.:	CTO-0143		BORING NO.:	SWMU46-TW01
COORDINATES:	EAST:	2476410.400	NORTH:	359502.2672
ELEVATION:	SURFACE:	17.361	TOP OF PVC CASING:	17.574

Rig:	A-200 Ingersol Ram							
	Macro Core	Casing	Augers	Acetate sleave	Date	Progress (Ft.)	Comment	Depth to Water (Ft.)
Size (ID)	2"		3.25	2"	3/23/02	17	estimated	10.4
Length	4		5'	4'				
Type	SS		S	Acetate				
Hammer Wt.	NA		NA	NA				
Fall	NA		NA	NA				

Remarks:

SAMPLE TYPE

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

WELL INFORMATION

Type	Diam.	Top Depth (Ft.)	Bottom Depth (Ft.)
PVC Riser (Schedule 40)	1"	17.574	10.574
PVC screen (Schedule 40) 0.010"	1"	10.574	0.574

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	Lab ID	LEL %	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL) 17.6
1			SWMU46-TW01-00			Fine sand, trace silt, moist, dark brown (1.2)	cuttings	16.4
2	M-1	4.0 100%		0.0%	0.0 / 0.0	Clay, trace sand, moist, semi-plastic, gray, orange stainin; (2.0)	riser	15.6
3						Fine sand, some silt, moist, dark brown, orange staining (3.6)	cuttings	
4						Fine sand, trace silt, moist, orangish brown (4.0)	riser	14.0 13.6
5	A-N						bentonite	
6							sand / riser	
7	A-N						sand	
8						(8.0)	screen	9.6
9			SWMU46-TW01-04			Fine sand, trace silt, moist, light brown, trace orange staining	screen	
10	M-2	2.9 73%		0.0%	0.0 / 0.0	(10.4)	sand	7.2

DRILLING CO.:	Parratt Wolff Inc.	BAKER REP.:	David D. Schilling
DRILLER:	Mark Eaves / Jim Robertson	BORING NO.:	SWMU46-TW01 SHEET 1 OF 2

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation
CTO NO.: CTO-0143 BORING NO.: SWMU46-TW01

SAMPLE TYPE
M = Macro Core 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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
ps/bg = point source/background

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	Lab ID	LEL %	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL) 7.1
11						Continued from Sheet 1		
12						Fine sand, trace silt, wet, light gray, orange staining	sand	5.6
13	A-N					12.0	screen	
14								
15	A-N						sand	
16								
17	A-N					17.0	screen	0.6
18						End of Boring = 17.0		
19								
20								
21								
22								
23								
24								
25								
26								
27								
28								
29								
30								

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: David D. Schilling
DRILLER: Mark Eaves / Jim Robertson BORING NO.: SWMU46-TW01 SHEET 2 OF 2

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT:	SWMU Investigation		
PROJ. NO.:	CTO-0143	BORING NO.:	SWMU46-TW02
COORDINATES:	EAST: 2476310.738	NORTH:	359648.0068
ELEVATION:	SURFACE: 17.070	TOP OF PVC CASING:	17.385

Rig: A-200 Ingersol Ram	Macro Core	Casing	Augers	Acetate sleave	Date	Progress (Ft.)	Comment	Depth to Water (Ft.)
Size (ID)	2"		3.25	2"	3/23/02	16	estimated	8.9
Length	4		5'	4'				
Type	SS		S	Acetate				
Hammer Wt.	NA		NA	NA				
Fall	NA		NA	NA				

Remarks: During intrusive augering activities a bed spring was encountered between 4 and 8 feet below ground surface, the spring wrapped around the auger and needed to be physically removed by the drillers

SAMPLE TYPE

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

WELL INFORMATION

Type	Diam.	Top Depth (Ft.)	Bottom Depth (Ft.)
PVC Riser (Schedule 40)	1"	17.385	11.385
PVC screen (Schedule 40) 0.010"	1"	11.385	1.385

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	Lab ID	LEL %	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL) 17.4
1			SWMU46-TW02-00			Fine sand, trace silt, moist, brown (0.4–1.2)	cuttings	17.0 / 16.2
2	M-1	3.8 95%		0.0%	0.0 / 0.0	Fine sand, trace silt, moist, orangish brown	riser	
3						Fine sand, trace silt, moist, dark gray (2.8)	bentonite	14.6
4						Clay, trace sand, firm, semi-plastic, moist, gray and orange mottled (4.0)	riser	13.4
5	A-N						sand	
6						* see remarks section	riser	
7	A-N						sand	
8						(8.0)	screen	9.4
9	▼		SWMU46-TW02-04			Fine sand, trace silt, moist, orange & light gray mottled (8.9)		8.5
10	M-2	1.5 38%		0.0%	0.0 / 0.0	Fine sand, trace silt, wet, orangish brown	screen / sand	

DRILLING CO.:	Parratt Wolff Inc.	BAKER REP.:	David D. Schilling
DRILLER:	Mark Eaves / Jim Robertson	BORING NO.:	SWMU46-TW02 SHEET 1 OF 2

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation
CTO NO.: CTO-0143 BORING NO.: SWMU46-TW02

SAMPLE TYPE
M = Macro Core 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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
ps/bg = point source/background

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	Lab ID	LEL %	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL) 6.9
11						Continued from Sheet 1		
12						Fine sand, trace silt, wet, orangish brown 12.0	sand	5.4
13	A-N						screen	
14								
15	A-N						sand	
16						16.0	screen	1.4
17						End of Boring = 16.0		
18								
19								
20								
21								
22								
23								
24								
25								
26								
27								
28								
29								
30								

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: David D. Schilling
DRILLER: Mark Eaves / Jim Robertson BORING NO.: SWMU46-TW02 SHEET 2 OF 2

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT:	SWMU Investigation			
PROJ. NO.:	CTO-0143		BORING NO.:	SWMU46-TW03
COORDINATES:	EAST:	2476319.723	NORTH:	359771.0649
ELEVATION:	SURFACE:	17.786	TOP OF PVC CASING:	18.062

Rig: A-200 Ingersol Ram	Macro Core	Casing	Augers	Acetate sleave	Date	Progress (Ft.)	Comment	Depth to Water (Ft.)
Size (ID)	2"		3.25	2"	3/23/02	17	estimated	8.9
Length	4		5'	4'				
Type	SS		S	Acetate				
Hammer Wt.	NA		NA	NA				
Fall	NA		NA	NA				

Remarks: Macro Core #1 refusal at 2.0', Augered through wood to a depth of 4.0' and began Macro Core #2

SAMPLE TYPE

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

WELL INFORMATION

Type	Diam.	Top Depth (Ft.)	Bottom Depth (Ft.)
PVC Riser (Schedule 40)	1"	18.062	11.062
PVC screen (Schedule 40) 0.010"	1"	11.062	1.062

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	Lab ID	LEL %	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL) 18.1
1	M-1	2.0 50%	SWMU46-TW03-00	0.0%	0.0 / 0.0	Fine sand, trace silt, moist, brown	cuttings	
2						wood, *refusal @ 2.0* 1.9	riser	16.2
3	A-N						cuttings	
4						4.0	riser	14.1
5	M-2	0.9 23%		0.0%	0.0 / 0.0	Fine sand, trace silt, moist, light brown	bentonite	
6							sand / riser	
7							sand	
8						8.5	screen	9.6
9	▼		SWMU46-TW03-04			Fine sand, little silt, moist, grayish brown 8.9		9.2
10	M-3	2.6 65%		0.0%	0.0 / 0.0	Fine sand, trace silt, wet, gray	screen / sand	

DRILLING CO.:	Parratt Wolff Inc.	BAKER REP.:	David D. Schilling
DRILLER:	Mark Eaves / Jim Robertson	BORING NO.:	SWMU46-TW03 SHEET 1 OF 2

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation
CTO NO.: CTO-0143 BORING NO.: SWMU43-TW03

SAMPLE TYPE
M = Macro Core 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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
ps/bg = point source/background

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	Lab ID	LEL %	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
11						Continued from Sheet 1	sand	
12			SWMU43-TW03-06				12 screen	8.46
13		3.0		0.0%	0.0		sand	
14	M-4	75%			0.0	lt. Grey sand		
15							screen	
16							16 sand	4.46
17								
18							screen	
19							sand	
20	A-N							
21							screen	
22							sand	-1.54
23						End of Boring = 22		
24								
25								
26								
27								
28								
29								
30						Match to Sheet 3		

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: R. Marks
DRILLER: Louis LaFever BORING NO.: SWMU43-TW03 SHEET 2 OF 2

Baker
Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation
PROJ. NO.: CTO-0143 BORING NO.: SWMU46-TW04
COORDINATES: EAST: 2476460.408 NORTH: 359553.4372
ELEVATION: SURFACE: 16.922 TOP OF PVC CASING: 17.218

Rig:	A-200 Ingersol Ram				Date	Progress (Ft.)	Comment	Depth to Water (Ft.)
	Macro Core	Casing	Augers	Acetate sleave				
Size (ID)	2"		3.25	2"	3/23/02	17	estimated	9.0
Length	4		5'	4'				
Type	SS		S	Acetate				
Hammer Wt.	NA		NA	NA				
Fall	NA		NA	NA				

Remarks:

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

WELL INFORMATION

Type	Diam.	Top Depth (Ft.)	Bottom Depth (Ft.)
PVC Riser (Schedule 40)	1"	17.218	10.218
PVC screen (Schedule 40) 0.010"	1"	10.218	0.218

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	Lab ID	LEL %	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL) 17.2
1			SWMU46-TW04-00			Fine sand, trace silt, moist, brown orange staining, glass fragments 0.8	cuttings	16.4
2	M-1	3.2 80%		0.0%	0.0 / 0.0	Clay, trace sand, moist, semi-plastic, gray and orangish brown mottled 2.4	riser / cuttings	14.8
3						Fine sand, trace silt, moist, light tan 4.0	riser	13.2
4							bentonite	
5	A-N						sand	
6							riser	
7	A-N						sand	
8						8.0	screen	9.2
9	▼		SWMU46-TW04-04			Fine sand, trace silt, moist, light orangish brown 9.0		8.2
10	M-2	2.9 73%		0.0%	0.0 / 0.0	Fine sand, trace silt, wet, gray	screen / sand	

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: David D. Schilling
DRILLER: Mark Eaves / Jim Robertson BORING NO.: SWMU46-TW04 SHEET 1 OF 2

Baker Environmental

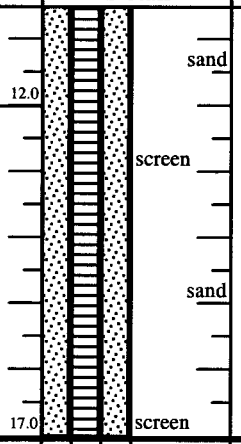
TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation
CTO NO.: CTO-0143 BORING NO.: SWMU46-TW04

SAMPLE TYPE
M = Macro Core 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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
ps/bg = point source/background

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	Lab ID	LEL %	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL) 6.7
11						Continued from Sheet 1		
12						Fine sand, trace silt, wet, gray	sand	5.2
13	A-N						screen	
14								
15	A-N						sand	
16								
17	A-N						screen	0.2
18						End of Boring = 17.0		
19								
20								
21								
22								
23								
24								
25								
26								
27								
28								
29								
30								



DRILLING CO.: Parratt Wolff Inc. BAKER REP.: David D. Schilling
DRILLER: Mark Eaves / Jim Robertson BORING NO.: SWMU46-TW04 SHEET 2 OF 2

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation
PROJ. NO.: CTO-0143 BORING NO.: SWMU46-TW05
COORDINATES: EAST: 2476535.129 NORTH: 359468.9317
ELEVATION: SURFACE: 16.099 TOP OF PVC CASING: 16.460

Rig: A-200 Ingersol Ram	Macro Core	Casing	Augers	Acetate sleave	Date	Progress (Ft.)	Comment	Depth to Water (Ft.)
Size (ID)	2"		3.25	2"	3/23/02	16	estimated	10.1
Length	4		5'	4'				
Type	SS		S	Acetate				
Hammer Wt.	NA		NA	NA				
Fall	NA		NA	NA				

Remarks:

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

WELL INFORMATION

Type	Diam.	Top Depth (Ft.)	Bottom Depth (Ft.)
PVC Riser (Schedule 40)	1"	16.460	10.460
PVC screen (Schedule 40) 0.010"	1"	10.460	0.460

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	Lab ID	LEL %	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL) 16.5
1			SWMU46-TW05-00			Fine sand, trace silt, moist, dark brown (0.5)	cuttings	16.0
2	M-1	4.0 100%		0.0%	0.0 / 0.0	Fine sand, little silt, moist, brownish gray (1.3)	riser	15.2
3						Clay, trace sand, firm, semi-plastic, moist, gray, orange staining (3.4)	bentonite / riser	13.1
4						Fine sand, trace silt, moist, gray, orange staining (4.0)		12.5
5	A-N						sand	
6	A-N						riser	
7							sand	
8						(8.0)	screen	8.5
9						Fine sand, trace silt, moist, orangish brown		
10	M-2	3.1 78%	SWMU46-TW05-05	0.0%	0.0 / 0.0	(10.1) Fine sand, trace silt, wet, light	screen / sand	6.4

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: David D. Schilling
DRILLER: Mark Eaves / Jim Robertson BORING NO.: SWMU46-TW05 SHEET 1 OF 2

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation
CTO NO.: CTO-0143 BORING NO.: SWMU46-TW05

SAMPLE TYPE
M = Macro Core 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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
ps/bg = point source/background

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	Lab ID	LEL %	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL) 6.0
11						Continued from Sheet 1		
12						gray, orange staining	sand	4.5
13	A-N					12.0	screen	
14								
15	A-N						sand	
16						16.0	screen	0.5
17						End of Boring = 16.0		
18								
19								
20								
21								
22								
23								
24								
25								
26								
27								
28								
29								
30								

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: David D. Schilling
DRILLER: Mark Eaves / Jim Robertson BORING NO.: SWMU46-TW05 SHEET 2 OF 2

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT:	SWMU Investigation				
PROJ. NO.:	CTO-0143		BORING NO.:	SWMU46-TW06	
COORDINATES:	EAST:	2476496.253	NORTH:	359405.5645	
ELEVATION:	SURFACE:	14.581	TOP OF PVC CASING:	15.122	

Rig: A-200 Ingersol Ram	Macro Core	Casing	Augers	Acetate sleave	Date	Progress (Ft.)	Comment	Depth to Water (Ft.)
Size (ID)	2"		3.25	2"	3/23/02	16	estimated	8.2
Length	4		5'	4'				
Type	SS		S	Acetate				
Hammer Wt.	NA		NA	NA				
Fall	NA		NA	NA				

Remarks:

SAMPLE TYPE

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

WELL INFORMATION

Type	Diam.	Top Depth (Ft.)	Bottom Depth (Ft.)
PVC Riser (Schedule 40)	1"	15.122	9.122
PVC screen (Schedule 40) 0.010"	1"	9.122	-0.878

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	Lab ID	LEL %	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL) 15.1
1			SWMU46-TW06-00			Fine sand, trace silt, moist, dark brown 0.8	cuttings	14.3
2	M-1	4.0 100%		0.0%	0.0 / 0.0	Fine sand, trace silt, moist, orangish brown 1.6	riser	13.5
3						Clay, trace sand, semi-plastic, moist, gray, orange staining	bentonite	-
4						3.6 Fine sand, trace silt, moist 4.0	riser	11.5 11.1
5	A-N					gray, orange staining		
6	A-N						sand riser	
7						7.0	sand	8.1
8			SWMU46-TW06-04			Fine sand, trace silt, moist, dark brown 7.8	screen	7.3
9	M-2	4.0 100%		0.0%	0.0 / 0.0	Clay, trace sand, moist, plastic, dark brown 8.2		6.9
10						Fine sand, trace silt, wet, orange and light gray mottled	screen sand	

DRILLING CO.:	Parratt Wolff Inc.	BAKER REP.:	David D. Schilling
DRILLER:	Mark Eaves / Jim Robertson	BORING NO.:	SWMU46-TW06 SHEET 1 OF 2

Baker
Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation
CTO NO.: CTO-0143 BORING NO.: SWMU46-TW06

SAMPLE TYPE
M = Macro Core 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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
ps/bg = point source/background

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	Lab ID	LEL %	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL) 4.6
11						Continued from Sheet 1		4.1
11.0								
12	A-N						sand	
13	A-N						screen	
14								
15	A-N						sand	
16							screen	-0.9
16.0						End of Boring = 16.0		
17								
18								
19								
20								
21								
22								
23								
24								
25								
26								
27								
28								
29								
30								

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: David D. Schilling
DRILLER: Mark Eaves / Jim Robertson BORING NO.: SWMU46-TW06 SHEET 2 OF 2

Baker Environmental

TEST BORING RECORD

PROJECT: SWMU Investigation
PROJ. NO.: CTO-0143 BORING NO.: SWMU53-SB01
COORDINATES: EAST: 2499073.889 NORTH: 337697.543
ELEVATION: SURFACE:

Rig: A-200 Ingersol Ram	Macro Core	Casing	Augers	Acetate Sleave	Date	Progress (Ft.)	Comments	Depth to Water (Ft.)
Size (ID)	2"		3.25	2"	3/21/02	8	estimated	6.4
Length	4'		5'	4'				
Type	SS		S	Acetate				
Hammer Wt.	NA		NA	NA				
Fall	NA		NA	NA				

Remarks:

SAMPLE TYPE
M = Macro Core 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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
BG/PS = Background/Point Source
ppm = parts per million

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	Lab ID	LEL %	PID (ppm) ps/bg	Visual Description	Elevation (Ft. MSL)
1			SWMU53 SB01-00			Fine sand, trace silt, moist, dark brown, roots (0.8)	
2	M-1	3.4 85%		0.0%	0.0 / 0.0	Fine sand, trace silt, moist, light orangish brown	
3						(3.0)	
4						Fine sand, trace silt, moist, dark, brown (4.6)	
5						Fine sand, trace silt, moist, light orangish brown	
6	▼ M-2	3.7 93%	SWMU53 SB01-03, 03MS, & 03MSD	0.0%	0.0 / 0.0	(6.4)	
7						Wood, wet (7.4)	
8						Fine sand, trace silt, wet, gray (8.0)	
9						End of Boring = 8.0'	
10							

DRILLING COMPANY: Parratt Wolff Inc. BAKER REP.: David D. Schilling
DRILLER: Mark Eaves/Jim Robertson BORING NO.: SWMU53-SB01 SHEET 1 OF 1

Baker Environmental

TEST BORING RECORD

PROJECT: SWMU Investigation
PROJ. NO.: CTO-0143 BORING NO.: SWMU53-SB02
COORDINATES: EAST: 2499055.814 NORTH: 337952.012
ELEVATION: SURFACE:

Rig: A-200 Ingersol Ram	Macro Core	Casing	Augers	Acetate Sleave	Date	Progress (Ft.)	Comments	Depth to Water (Ft.)
Size (ID)	2"		3.25	2"	3/21/02	8	estimated	7.8
Length	4'		5'	4'				
Type	SS		S	Acetate				
Hammer Wt.	NA		NA	NA				
Fall	NA		NA	NA				

Remarks:

SAMPLE TYPE
M = Macro Core 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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
BG/PS = Background/Point Source
ppm = parts per million

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	Lab ID	LEL %	PID (ppm) ps/bg	Visual Description	Elevation (Ft. MSL)
1–4	M-1	4.0 100%	SWMU53 SB02-00	0.0%	0.0 / 0.0	Fine sand, trace silt, damp, dark brown, coal fragments (3.0) Fine sand, some clay, moist, semi-plastic, brownish gray	
5–8	M-2	4.0 100%	SWMU53 SB02-04,	0.0%	0.0 / 0.0	(6.2) Fine sand, little clay, moist, orangish brown (7.8) Fine sand, trace clay, wet, orangish brown (8.0)	
9–10						End of Boring = 8.0'	

DRILLING COMPANY: Parratt Wolff Inc. BAKER REP.: David D. Schilling
DRILLER: Mark Eaves/Jim Robertson BORING NO.: SWMU53-SB02 SHEET 1 OF 1

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT:	SWMU Investigation			
PROJ. NO.:	CTO-0143		BORING NO.:	SWMU53-TW01
COORDINATES:	EAST:	2498835.618	NORTH:	337514.0224
ELEVATION:	SURFACE:	28.749	TOP OF PVC CASING:	28.634

Rig: A-200 Ingersol Ram	Macro Core	Casing	Augers	Acetate sleave	Date	Progress (Ft.)	Comment	Depth to Water (Ft.)
Size (ID)	2"		3.25	2"	3/21/02	16	estimated	4.9
Length	4		5'	4'				
Type	SS		S	Acetate				
Hammer Wt.	NA		NA	NA				
Fall	NA		NA	NA				

Remarks:

SAMPLE TYPE

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

WELL INFORMATION

Type	Diam.	Top Depth (Ft.)	Bottom Depth (Ft.)
PVC Riser (Schedule 40)	1"	28.634	23.634
PVC screen (Schedule 40) 0.010"	1"	23.634	13.634

Depth (Ft.)		Sample Type & No.	Sample Rec. (Ft.,%)	Lab ID	LEL %	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL) 28.6
1				SWMU53-TW01-00			Fine sand, trace silt, damp, dark brown, coal fragments	cuttings	
2		M-1	3.5 88%		0.0%	0.0 / 0.0		riser	
3							2.7	bentonite	25.9
4							Fine sand, trace silt, damp, orangish brown	riser	
							4.0		24.6
5	▼			SWMU53-TW01-03			Fine sand, trace silt, moist, dark grayish brown	sand	23.7
							4.9		
6		M-2	2.3 58%		0.0%	0.0 / 0.0	Fine sand, trace silt, wet, light gray	screen	
7									
8								sand	
							8.3		20.3
9							Clay, little silt, trace sand, wet, plastic, firm, gray	screen	
10		M-3	4.0 100%		0.0%	0.0 / 0.0		sand	

DRILLING CO.:	Parratt Wolff Inc.	BAKER REP.:	David D. Schilling
DRILLER:	Mark Eaves / Jim Robertson	BORING NO.:	SWMU53-TW01 SHEET 1 OF 2

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation
CTO NO.: CTO-0143 BORING NO.: SWMU53-TW01

SAMPLE TYPE
M = Macro Core 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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
ps/bg = point source/background

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	Lab ID	LEL %	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL) 18.1
11						Continued from Sheet 1		
12						11.9	sand	16.7
13						Clay and silt, trace sand, wet, plastic, gray 12.0	screen	16.6
14	M-4	4.0 100%		0.0%	0.0 / 0.0	Clay and sand, trace silt, wet, Plastic, gray 14.0		14.6
15						Clay, trace silt, wet, firm, plastic blueish gray 15.0	sand	13.6
16						16.0		12.6
17						End of Boring = 16.0		
18								
19								
20								
21								
22								
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24								
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27								
28								
29								
30								

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: David D. Schilling
DRILLER: Mark Eaves / Jim Robertson BORING NO.: SWMU53-TW01 SHEET 2 OF 2

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT:	SWMU Investigation		
PROJ. NO.:	CTO-0143	BORING NO.:	SWMU53-TW02
COORDINATES:	EAST: 2498970.214	NORTH:	337610.3679
ELEVATION:	SURFACE: 29.130	TOP OF PVC CASING:	29.243

Rig: A-200 Ingersol Ram	Macro Core	Casing	Augers	Acetate sleave	Date	Progress (Ft.)	Comment	Depth to Water (Ft.)
Size (ID)	2"		3.25	2"	3/21/02	15	estimated	6.7
Length	4		5'	4'				
Type	SS		S	Acetate				
Hammer Wt.	NA		NA	NA				
Fall	NA		NA	NA				

Remarks:

SAMPLE TYPE

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

WELL INFORMATION

Type	Diam.	Top Depth (Ft.)	Bottom Depth (Ft.)
PVC Riser (Schedule 40)	1"	29.243	24.243
PVC screen (Schedule 40) 0.010"	1"	24.243	14.243

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	Lab ID	LEL %	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL) 29.2
1			SWMU53-TW02-00			Fine sand and coal fragments damp, dark brown to black 0.7	cuttings	28.5
2	M-1	3.1 78%		0.0%	0.0 / 0.0	Fine sand, silt lenses, moist, light brown	riser	
3							bentonite	
4							riser	25.2
5						Fine sand and clay, moist, gray 4.7	sand	24.5
6	M-2	3.3 83%	SWMU53-TW02-03	0.0%	0.0 / 0.0	Fine sand, trace silt, moist, brown 6.7	screen	22.5
7	▼					Fine sand, trace silt, wet, light brown	sand	
8						8.0		21.2
9						Fine sand, some clay, wet 8.5 brownish gray	screen	20.7
10	M-3	2.8 70%		0.0%	0.0 / 0.0	Clay, some fine sand, wet, plastic, light gray	sand	

DRILLING CO.:	Parratt Wolff Inc.	BAKER REP.:	David D. Schilling
DRILLER:	Mark Eaves / Jim Robertson	BORING NO.:	SWMU53-TW02 SHEET 1 OF 2

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation
CTO NO.: CTO-0143 BORING NO.: SWMU53-TW02

SAMPLE TYPE
M = Macro Core 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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
ps/bg = point source/background

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	Lab ID	LEL %	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL) 18.7
11						Continued from Sheet 1		
12						Clay, some fine sand, wet, plastic, light gray	sand	17.2
13	A-N					12.0	screen	
14								
15						15.0	sand	14.2
16						End of Boring = 15.0		
17								
18								
19								
20								
21								
22								
23								
24								
25								
26								
27								
28								
29								
30								

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: David D. Schilling
DRILLER: Mark Eaves / Jim Robertson BORING NO.: SWMU53-TW02 SHEET 2 OF 2

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation
PROJ. NO.: CTO-0143 BORING NO.: SWMU253-TW01
COORDINATES: EAST: 2501362.250 NORTH: 338897.5461
ELEVATION: SURFACE: 30.519 TOP OF PVC CASING: 30.366

Rig: A-200 Ingersol Ram	Macro Core	Casing	Augers	Acetate sleave	Date	Progress (Ft.)	Comment	Depth to Water (Ft.)
Size (ID)	2"		3.25	2"	3/22/02	19	estimated	11.4
Length	4		5'	4'				
Type	SS		S	Acetate				
Hammer Wt.	NA		NA	NA				
Fall	NA		NA	NA				

Remarks:

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

WELL INFORMATION

Type	Diam.	Top Depth (Ft.)	Bottom Depth (Ft.)
PVC Riser (Schedule 40)	1"	30.366	21.366
PVC screen (Schedule 40) 0.010"	1"	21.366	11.366

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	Lab ID	LEL %	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL) 30.4
1			SWMU253-TW01-00			Fine sand, some gravel, fill material (0.3)	cuttings	30.1
2	M-1	3.3 83%		0.0%	0.0 / 0.0	Fine sand, trace silt, moist, brown	riser	
3							cuttings	
4						(4.0)	riser	26.4
5							cuttings	
6	A-N						bentonite	
7							sand	
8	A-N						riser	
9						(9.0)		21.4
10	M-2	3.4 85%	SWMU253-TW01-06,	0.0%	0.0 / 0.0	Fine sand, trace silt, moist, light gray, orange staining	screen / sand	

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: David D. Schilling
DRILLER: Mark Eaves / Jim Robertson BORING NO.: SWMU253-TW01 SHEET 1 OF 2

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation
CTO NO.: CTO-0143 BORING NO.: SWMU253-TW01

SAMPLE TYPE
M = Macro Core 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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
ps/bg = point source/background

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	Lab ID	LEL %	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL) 19.9
11 ▼						Continued from Sheet 1		
						11.4	sand	19.0
12						Fine sand, trace silt, wet, light gray, orange staining		
13						13.0	screen	17.4
14	A-N							
15							sand	
16	A-N							
17							screen	
18	A-N							
19						19.0	sand	11.4
20						End of Boring = 19.0		
21								
22								
23								
24								
25								
26								
27								
28								
29								
30								

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: David D. Schilling
DRILLER: Mark Eaves / Jim Robertson BORING NO.: SWMU253-TW01 SHEET 2 OF 2

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation
PROJ. NO.: CTO-0143 BORING NO.: SWMU253-TW02
COORDINATES: EAST: 2501388.856 NORTH: 338916.9334
ELEVATION: SURFACE: 30.252 TOP OF PVC CASING: 30.237

Rig:	A-200 Ingersol Ram				Date	Progress (Ft.)	Comment	Depth to Water (Ft.)
	Macro Core	Casing	Augers	Acetate sleave				
Size (ID)	2"		3.25	2"	3/22/02	18	estimated	9.2
Length	4		5'	4'				
Type	SS		S	Acetate				
Hammer Wt.	NA		NA	NA				
Fall	NA		NA	NA				

Remarks:

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

WELL INFORMATION

Type	Diam.	Top Depth (Ft.)	Bottom Depth (Ft.)
PVC Riser (Schedule 40)	1"	30.237	22.237
PVC screen (Schedule 40) 0.010"	1"	22.237	12.237

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	Lab ID	LEL %	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL) 30.2
1			SWMU253-TW02-00			Fine sand and small gravel, fill material, light brown 0.4	cuttings	29.8
2	M-1	3.4 85%		0.0%	0.0 / 0.0	fine sand, trace silt, moist, dark grayish brown	riser	
3						2.8	cuttings	27.4
4						Fine sand, trace silt, moist, gray 4.0	riser	26.2
5	A-N						bentonite	
6							riser	
7	A-N						sand	
8						8.0	riser	22.2
9	▼					Fine sand, trace silt, moist, light gray, orange staining 9.2		21.0
10	M-2	3.4 85%	SWMU253-TW02-05	0.0%	0.0 / 0.0	Fine sand, trace silt, wet, light gray	screen / sand	

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: David D. Schilling
DRILLER: Mark Eaves / Jim Robertson BORING NO.: SWMU253-TW02 SHEET 1 OF 2

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation
CTO NO.: CTO-0143 BORING NO.: SWMU253-TW02

SAMPLE TYPE
M = Macro Core 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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
ps/bg = point source/background

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	Lab ID	LEL %	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL) 19.7
11						Continued from Sheet 1		
12						Fine sand, trace silt, wet, light gray	sand	18.2
12.0								
13							screen	
14	A-N							
15							sand	
16	A-N							
17							screen	
18	A-N							12.2
18.0							sand	
19						End of Boring = 18.0		
20								
21								
22								
23								
24								
25								
26								
27								
28								
29								
30								

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: David D. Schilling
DRILLER: Mark Eaves / Jim Robertson BORING NO.: SWMU253-TW02 SHEET 2 OF 2

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation
PROJ. NO.: CTO-0143 BORING NO.: SWMU253-TW03
COORDINATES: EAST: 2501389.278 NORTH: 338899.5772
ELEVATION: SURFACE: 30.389 TOP OF PVC CASING: 30.253

Rig: A-200 Ingersol Ram	Macro Core	Casing	Augers	Acetate sleave	Date	Progress (Ft.)	Comment	Depth to Water (Ft.)
Size (ID)	2"		3.25	2"	3/22/02	20	estimated	10.6
Length	4		5'	4'				
Type	SS		S	Acetate				
Hammer Wt.	NA		NA	NA				
Fall	NA		NA	NA				

Remarks:

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

WELL INFORMATION

Type	Diam.	Top Depth (Ft.)	Bottom Depth (Ft.)
PVC Riser (Schedule 40)	1"	30.253	21.253
PVC screen (Schedule 40) 0.010"	1"	21.253	11.253

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	Lab ID	LEL %	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL) 30.3
1			SWMU253-TW03-00			Fine sand and small gravel, moist, fill material, brown (1.1)	cuttings	29.2
2	M-1	3.2 80%		0.0%	0.0 / 0.0	Fine sand, trace silt, moist, brown, orange staining	riser	
3							cuttings	
4						(4.0)	riser	26.3
5						Fine sand, trace silt, moist, light gray, orange staining	cuttings	
6	M-2	3.0 75%		0.0%	0.0 / 0.0		bentonite	
7							sand	
8							riser	
9			SWMU253-TW03-06, & 06D				screen	
10	M-3	3.1 78%		0.0%	0.0 / 0.0	(10.6)	sand	19.7

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: David D. Schilling
DRILLER: Mark Eaves / Jim Robertson BORING NO.: SWMU253-TW03 SHEET 1 OF 2

Baker
Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation
CTO NO.: CTO-0143 BORING NO.: SWMU253-TW03

SAMPLE TYPE
M = Macro Core 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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
ps/bg = point source/background

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	Lab ID	LEL %	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL) 19.8
11						Continued from Sheet 1		
12						Fine sand, trace silt, wet, gray	sand	
13							screen	
14	M-4	3.3 83%		0.0%	0.0 / 0.0	14.0		16.3
15						Fine sand, trace silt, some clay, semi-plastic, wet, gray, orange staining	sand	
16								
17							screen	
18	M-5	2.9 73%		0.0%	0.0 / 0.0	18.2	sand	12.10
19						Fine to medium grained sand, trace silt, wet, orangish gray		
20						20.0		10.3
21						End of Boring = 20.0'		
22								
23								
24								
25								
26								
27								
28								
29								
30								

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: David D. Schilling
DRILLER: Mark Eaves / Jim Robertson BORING NO.: SWMU253-TW03 SHEET 2 OF 2

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation
PROJ. NO.: CTO-0143 BORING NO.: SWMU254-TW01
COORDINATES: EAST: 2500432.187 NORTH: 338016.307
ELEVATION: SURFACE: 25.01 TOP OF PVC 24.71

Rig:	Macro Core	Casing	Augers	Acetate Sleeve	Date	Progress (Ft.)	Comments	Depth to Water (Ft.)
Size (ID)	2"		3.25	2"	3/22/02	18	estimated	8.5
Length	4'		5'	4'				
Type	SS		S	Acetate				
Hammer Wt.	NA		NA	NA				
Fall	NA		NA	NA				

Remarks:

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

WELL INFORMATION

Type	Diam.	Top Depth (Ft.)	Bottom Depth (Ft.)
PVC Riser (Schedule 40)	1"	24.71	16.71
PVC Screen (Schedule 40)	1"	16.71	6.71

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	Lab ID	LEL %	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
1	M-1		SWMU254-TW01-00	0.0%	0.0 / 0.0	Dk. Grey v.f sandy silt		23.7
1.0								
2						brown, v.f. sand w/silt	cuttings	
3							riser	
4								20.7
4.0								
5	A-N						bentonite	
6							riser	
7							sand	
8								16.7
8.0								
9	M-2		SWMU254-TW01-04	0.0%	0.0 / 0.0	(damp) grey, fine sand	screen	14.7
9.3						lt. Orange fine sand		
10						Match to Sheet 2	sand	

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: R. Marks
DRILLER: Louis LaFever BORING NO.: SWMU254-TW01 SHEET 1 OF 2

Baker
Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation
CTO NO.: CTO-0143 BORING NO.: SWMU254-TW01

SAMPLE TYPE
M = Macro Core 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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
ps/bg = point source/background

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	Lab ID	LEL %	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
11						Continued from Sheet 1	sand	
12						12.0	screen	
13						See Log SWMU254-TW02 for complete geology	sand	
14	A-N							
15							screen	
16							sand	
17	A-N							
18						18.0	screen	6.7
19						End of Boring = 18.0		
20								
21								
22								
23								
24								
25								
26								
27								
28								
29								
30						Match to Sheet 3		

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: R. Marks
DRILLER: Louis LaFever BORING NO.: SWMU254-TW01 SHEET 2 OF 2

Baker
Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation
CTO NO.: CTO-0143 BORING NO.: SWMU254-TW01

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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
BG/PS = Background/Point Source

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	SPT	Lab ID	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
31						Continued from Sheet 2		
32								
33								
34								
35								
36								
37								
38								
39								
40								
41								
42								
43								
44								
45								
46								
47								
48								
49								
50						Match to Sheet 4		

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: R. Marks
DRILLER: Louis LaFever BORING NO.: SWMU254-TV SHEET 3 OF 2

Baker

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation

CTO NO.: CTO-0143 BORING NO.: SWMU254-TW01

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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
BG/PS = Background/Point Source

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	SPT	Lab ID	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
51						Continued from Sheet 3		
52								
53								
54								
55								
56								
57								
58								
59								
60								
61								
62								
63								
64								
65								
66								
67								
68								
69								
70						Match to Sheet 5		

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: R. Marks

DRILLER: Louis LaFever BORING NO.: SWMU254-TW SHEET 4 OF 2

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation
CTO NO.: CTO-0143 BORING NO.: SWMU254-TW01

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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
BG/PS = Background/Point Source

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	SPT	Lab ID	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
71						Continued from Sheet 5		
72								
73								
74								
75								
76								
77								
78								
79								
80								
81								
82								
83								
84								
85								
86								
87								
88								
89								
90						Match to Sheet 6		

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: R. Marks
DRILLER: Louis LaFever BORING NO.: SWMU254-TV SHEET 5 OF 2

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation
CTO NO.: CTO-0143 BORING NO.: SWMU254-TW01

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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
ps/bg = point source/background

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	SPT	Lab ID	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
91						Continued from Sheet 1		
92								
93								
94								
95								
96								
97								
98								
99								
100								
101								
102								
103								
104								
105								
106								
107								
108								
109								
110								

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: R. Marks
DRILLER: Louis LaFever BORING NO.: SWMU254-TV SHEET 6 OF 2

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT:	SWMU Investigation		
PROJ. NO.:	CTO-0143	BORING NO.:	SWMU254-TW02
COORDINATES:	EAST: 2500421.527	NORTH:	338007.829
ELEVATION:	SURFACE: 24.86	TOP OF] PVC	24.43

Rig:	Macro Core	Casing	Augers	Acetate Sleeve	Date	Progress (Ft.)	Comments	Depth to Water (Ft.)
Size (ID)	2"		3.25	2"	3/22/02	18	estimated	8.5
Length	4'		5'	4'				
Type	SS		S	Acetate				
Hammer Wt.	NA		NA	NA				
Fall	NA		NA	NA				

Remarks:

SAMPLE TYPE

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

WELL INFORMATION

Type		Diam.	Top Depth (Ft.)	Bottom Depth (Ft.)
PVC	Riser (Schedule 40)	1"	24.43	16.43
PVC	Screen (Schedule 40)	1"	16.43	6.43

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	Lab ID	LEL %	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
1–4	M-1	3.2 80%	SWMU254-TW02-00	0.0%	0.0 / 0.0	Dk. Grey v.f sandy silt (1.0); brown, v.f. sand w/silt	cuttings; riser	23.4; 20.4
5–6	M-2	3.6 90%		0.0%	0.0 / 0.0	silt w/clay little sand (6.0)	bentonite; riser	18.4
7–8			SWMU254-TW02-04			grey, fine sand (damp)	sand; screen	
9–10	M-3	3.8 95%		0.0%	0.0 / 0.0	(9.3) lt. Orange fine sand Match to Sheet 2	sand	15.1

DRILLING CO.:	Parratt Wolff Inc.	BAKER REP.:	R. Marks
DRILLER:	Louis LaFever	BORING NO.:	SWMU254-TW02 SHEET 1 OF 2

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation
CTO NO.: CTO-0143 BORING NO.: SWMU254-TW02

SAMPLE TYPE
M = Macro Core 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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
ps/bg = point source/background

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	Lab ID	LEL %	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
11						Continued from Sheet 1	sand	
12						12.0	screen	12.4
13		1.6					sand	
14	M-4	40%		0.0%	0.0 / 0.0	dk. Grey fine sand w/silt		
15							screen	
16						16.0	sand	8.4
17	A-N						screen	
18						18.0		6.4
19						End of Boring = 18.0		
20								
21								
22								
23								
24								
25								
26								
27								
28								
29								
30						Match to Sheet 3		

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: R. Marks
DRILLER: Louis LaFever BORING NO.: SWMU254-TW02 SHEET 2 OF 2

Baker

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation

CTO NO.: CTO-0143 BORING NO.: SWMU254-TW02

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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
BG/PS = Background/Point Source

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	SPT	Lab ID	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
31						Continued from Sheet 2		
32								
33								
34								
35								
36								
37								
38								
39								
40								
41								
42								
43								
44								
45								
46								
47								
48								
49								
50						Match to Sheet 4		

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: R. Marks

DRILLER: Louis LaFever BORING NO.: SWMU254-TV SHEET 3 OF 2

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation
CTO NO.: CTO-0143 BORING NO.: SWMU254-TW01

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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
BG/PS = Background/Point Source

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	SPT	Lab ID	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
31						Continued from Sheet 2		
32								
33								
34								
35								
36								
37								
38								
39								
40								
41								
42								
43								
44								
45								
46								
47								
48								
49								
50						Match to Sheet 4		

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: R. Marks
DRILLER: Louis LaFever BORING NO.: SWMU254-TW SHEET 3 OF 2

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation
CTO NO.: CTO-0143 BORING NO.: SWMU254-TW02

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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
BG/PS = Background/Point Source

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	SPT	Lab ID	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
51						Continued from Sheet 3		
52								
53								
54								
55								
56								
57								
58								
59								
60								
61								
62								
63								
64								
65								
66								
67								
68								
69								
70						Match to Sheet 5		

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: R. Marks
DRILLER: Louis LaFever BORING NO.: SWMU254-TV SHEET 4 OF 2

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation
CTO NO.: CTO-0143 BORING NO.: SWMU254-TW02

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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
BG/PS = Background/Point Source

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	SPT	Lab ID	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
71						Continued from Sheet 5		
72								
73								
74								
75								
76								
77								
78								
79								
80								
81								
82								
83								
84								
85								
86								
87								
88								
89								
90						Match to Sheet 6		

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: R. Marks
DRILLER: Louis LaFever BORING NO.: SWMU254-TV SHEET 5 OF 2

Baker
Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation
CTO NO.: CTO-0143 BORING NO.: SWMU254-TW02

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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
ps/bg = point source/background

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	SPT	Lab ID	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
91						Continued from Sheet 1		
92								
93								
94								
95								
96								
97								
98								
99								
100								
101								
102								
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104								
105								
106								
107								
108								
109								
110								

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: R. Marks
DRILLER: Louis LaFever BORING NO.: SWMU254-TV SHEET 6 OF 2

Baker
Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation
PROJ. NO.: CTO-0143 BORING NO.: SWMU254-TW03
COORDINATES: EAST: 2500439.026 NORTH: 338001.125
ELEVATION: SURFACE: 25.18 TOP OF PVC 24.78

Rig:	Macro Core	Casing	Augers	Acetate Sleeve	Date	Progress (Ft.)	Comments	Depth to Water (Ft.)
Size (ID)	2"		3.25	2"	3/22/02	18	estimated	8.5
Length	4'		5'	4'				
Type	SS		S	Acetate				
Hammer Wt.	NA		NA	NA				
Fall	NA		NA	NA				

Remarks:

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

WELL INFORMATION

Type		Diam.	Top Depth (Ft.)	Bottom Depth (Ft.)
PVC	Riser (Schedule 40)	1"	24.78	16.78
PVC	Screen (Schedule 40)	1"	16.78	6.78

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	Lab ID	LEL %	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
1	M-1		SWMU254-TW03-00	0.0%	0.0 / 0.0	Dk. Grey v.f sandy silt		23.8
1.0								
2						brown, v.f. sand w/silt	cuttings	
3							riser	
4								20.8
4.0								
5	A-N						bentonite	
6							riser	
7							sand	
8								16.8
8.0								
9	M-2		SWMU254-TW03-04	0.0%	0.0 / 0.0	(damp) grey, fine sand	screen	15.5
9.3								
10						lt. Orange fine sand	sand	
						Match to Sheet 2		

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: R. Marks
DRILLER: Louis LaFever BORING NO.: SWMU254-TW03 SHEET 1 OF 2

Baker
Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation
CTO NO.: CTO-0143 BORING NO.: SWMU254-TW03

SAMPLE TYPE
M = Macro Core 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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
ps/bg = point source/background

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	Lab ID	LEL %	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
11						Continued from Sheet 1	sand	
12						12.0	screen	12.8
13						See boring log SWMU254-TW02 for complete geology	sand	
14	A-N							
15							screen	
16							sand	
17	A-N							
18						18.0	screen	6.8
19						End of Boring = 18.0		
20								
21								
22								
23								
24								
25								
26								
27								
28								
29								
30						Match to Sheet 3		

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: R. Marks
DRILLER: Louis LaFever BORING NO.: SWMU254-TW03 SHEET 2 OF 2

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation
CTO NO.: CTO-0143 BORING NO.: SWMU254-TW03

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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
BG/PS = Background/Point Source

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	SPT	Lab ID	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
31						Continued from Sheet 2		
32								
33								
34								
35								
36								
37								
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50						Match to Sheet 4		

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: R. Marks
DRILLER: Louis LaFever BORING NO.: SWMU254-TV SHEET 3 OF 2

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation
CTO NO.: CTO-0143 BORING NO.: SWMU254-TW03

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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
BG/PS = Background/Point Source

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	SPT	Lab ID	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
51						Continued from Sheet 3		
52								
53								
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56								
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61								
62								
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64								
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69								
70						Match to Sheet 5		

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: R. Marks
DRILLER: Louis LaFever BORING NO.: SWMU254-TW SHEET 4 OF 2

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation
CTO NO.: CTO-0143 BORING NO.: SWMU254-TW03

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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
BG/PS = Background/Point Source

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	SPT	Lab ID	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
71						Continued from Sheet 5		
72								
73								
74								
75								
76								
77								
78								
79								
80								
81								
82								
83								
84								
85								
86								
87								
88								
89								
90						Match to Sheet 6		

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: R. Marks
DRILLER: Louis LaFever BORING NO.: SWMU254-TV SHEET 5 OF 2

Baker
Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation
CTO NO.: CTO-0143 BORING NO.: SWMU254-TW03

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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
ps/bg = point source/background

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	SPT	Lab ID	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
91						Continued from Sheet 1		
92								
93								
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105								
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110								

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: R. Marks
DRILLER: Louis LaFever BORING NO.: SWMU254-TV SHEET 6 OF 2

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation
PROJ. NO.: CTO-0143 BORING NO.: SWMU255-TW01
COORDINATES: EAST: 2499886.029 NORTH: 338414.374
ELEVATION: SURFACE: 24.21 TOP OF PVC 24.18

Rig:	Macro Core	Casing	Augers	Acetate Sleeve	Date	Progress (Ft.)	Comments	Depth to Water (Ft.)
Size (ID)	2"		3.25	2"	3/22/02	18	estimated	9
Length	4'		5'	4'				
Type	SS		S	Acetate				
Hammer Wt.	NA		NA	NA				
Fall	NA		NA	NA				

Remarks:

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

WELL INFORMATION

Type		Diam.	Top Depth (Ft.)	Bottom Depth (Ft.)
PVC	Riser (Schedule 40)	1"	24.18	16.18
PVC	Screen (Schedule 40)	1"	16.18	6.18

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	Lab ID	LEL %	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
1–4	M-1	3.0 75%	SWMU255-TW01-00	0.0%	0.0 / 0.0	Brown, fine sand w/silt; black v.f sand w/silt	2.2 cuttings; riser	22.0
5–8	M-2	3.2 80%		0.0%	0.0 / 0.0	lt. Grey/brown v.f. sandy silt	4.7 bentonite; riser; sand	19.5
9–10	M-3	3.6 90%	SWMU255-TW01-04	0.0%	0.0 / 0.0	Match to Sheet 2	screen; sand	

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: R. Marks
DRILLER: Louis LaFever BORING NO.: SWMU255-TW01 SHEET 1 OF 2

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation
CTO NO.: CTO-0143 BORING NO.: SWMU255-TW01

SAMPLE TYPE
M = Macro Core 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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
ps/bg = point source/background

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	Lab ID	LEL %	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
11						Continued from Sheet 1	sand	
12							screen	
13		1.8					sand	
14	M-4	45%		0.0%	0.0 / 0.0		13.4	10.8
15						black v.f. sand w/silt	screen	
16							16.0 sand	8.2
17	A-N						screen	
18							18.0	6.2
19						End of Boring = 18.0		
20								
21								
22								
23								
24								
25								
26								
27								
28								
29								
30						Match to Sheet 3		

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: R. Marks
DRILLER: Louis LaFever BORING NO.: SWMU255-TW01 SHEET 2 OF 2

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation
CTO NO.: CTO-0143 BORING NO.: SWMU255-TW01

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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
BG/PS = Background/Point Source

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	SPT	Lab ID	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
31						Continued from Sheet 2		
32								
33								
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45								
46								
47								
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49								
50						Match to Sheet 4		

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: R. Marks
DRILLER: Louis LaFever BORING NO.: SWMU255-TW SHEET 3 OF 2

Baker
Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation
CTO NO.: CTO-0143 BORING NO.: SWMU255-TW01

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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
BG/PS = Background/Point Source

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	SPT	Lab ID	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
51						Continued from Sheet 3		
52								
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69								
70						Match to Sheet 5		

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: R. Marks
DRILLER: Louis LaFever BORING NO.: SWMU255-TW SHEET 4 OF 2

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation
CTO NO.: CTO-0143 BORING NO.: SWMU255-TW01

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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
BG/PS = Background/Point Source

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	SPT	Lab ID	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
71						Continued from Sheet 5		
72								
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88								
89								
90						Match to Sheet 6		

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: R. Marks
DRILLER: Louis LaFever BORING NO.: SWMU255-TV SHEET 5 OF 2

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation
CTO NO.: CTO-0143 BORING NO.: SWMU255-TW01

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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
ps/bg = point source/background

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	SPT	Lab ID	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
91						Continued from Sheet 1		
92								
93								
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DRILLING CO.: Parratt Wolff Inc. BAKER REP.: R. Marks
DRILLER: Louis LaFever BORING NO.: SWMU255-TV SHEET 6 OF 2

Baker
Baker Environmental

TEST BORING RECORD

PROJECT: SWMU Investigation
PROJ. NO.: CTO-0143 BORING NO.: SWMU256-SB01
COORDINATES: EAST: 2499203.130 NORTH: 337880.242
ELEVATION: SURFACE:

Rig: A-200 Ingersol Ram	Macro Core	Casing	Augers	Acetate Sleave	Date	Progress (Ft.)	Comments	Depth to Water (Ft.)
Size (ID)	2"		3.25	2"	3/21/02	8	estimated	5.6
Length	4'		5'	4'				
Type	SS		S	Acetate				
Hammer Wt.	NA		NA	NA				
Fall	NA		NA	NA				

Remarks:

SAMPLE TYPE
M = Macro Core 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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
BG/PS = Background/Point Source
ppm = parts per million

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	Lab ID	LEL %	PID (ppm) ps/bg	Visual Description	Elevation (Ft. MSL)
1–4	M-1	4.0 100%	SWMU256 SB01-00	0.0%	0.0 / 0.0	Fine sand, trace silt, moist, dark brown (3.8) Fine sand, trace silt, moist, orangish brown	
5–8	M-2	4.0 100%	SWMU256 SB01-03,	0.0%	0.0 / 0.0	(5.6) Clay and sand, wet, plastic, firm, gray (8.0)	
9–10						End of Boring = 8.0'	

DRILLING COMPANY: Parratt Wolff Inc. BAKER REP.: David D. Schilling
DRILLER: Mark Eaves/Jim Robertson BORING NO.: SWMU256-SB01 SHEET 1 OF 1

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT:	SWMU Investigation		
PROJ. NO.:	CTO-0143	BORING NO.:	SWMU256-TW01
COORDINATES:	EAST: 2499131.513	NORTH:	337797.8612
ELEVATION:	SURFACE: 30.372	TOP OF PVC CASING:	30.223

Rig: A-200 Ingersol Ram	Macro Core	Casing	Augers	Acetate sleave	Date	Progress (Ft.)	Comment	Depth to Water (Ft.)
Size (ID)	2"		3.25	2"	3/21/02	15	estimated	5.4
Length	4		5'	4'				
Type	SS		S	Acetate				
Hammer Wt.	NA		NA	NA				
Fall	NA		NA	NA				

Remarks:

SAMPLE TYPE

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

WELL INFORMATION

Type	Diam.	Top Depth (Ft.)	Bottom Depth (Ft.)
PVC Riser (Schedule 40)	1"	30.223	25.223
PVC screen (Schedule 40) 0.010"	1"	25.223	15.223

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	Lab ID	LEL %	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL) 30.2
1			SWMU256-TW01-00			Fine sand, trace silt, moist, brown, coal and gravel fragments	cuttings	
2	M-1	3.4 85%		0.0%	0.0 / 0.0		riser	
3						2.4 Fine sand, little silt, moist, brownish gray	bentonite	27.8
4						4.0	riser	28.2
5	▼		SWMU256-TW01-03			Fine sand, trace silt, moist, gray 5.4	sand	24.8
6	M-2	3.7 93%		0.0%	0.0 / 0.0	Fine sand, some clay, wet, light gray	screen	
7								
8						8.0	sand	22.2
9							screen	
10	A-N						sand	

DRILLING CO.:	Parratt Wolff Inc.	BAKER REP.:	David D. Schilling
DRILLER:	Mark Eaves / Jim Robertson	BORING NO.:	SWMU256-TW01 SHEET 1 OF 2

Baker
Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation
CTO NO.: CTO-0143 BORING NO.: SWMU256-TW01

SAMPLE TYPE
M = Macro Core 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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
ps/bg = point source/background

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	Lab ID	LEL %	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL) 19.7
11						Continued from Sheet 1		
12	A-N						sand	
13							screen	
14								
15	A-N					15.0	sand	15.2
16						End of Boring = 15.0		
17								
18								
19								
20								
21								
22								
23								
24								
25								
26								
27								
28								
29								
30								

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: David D. Schilling
DRILLER: Mark Eaves / Jim Robertson BORING NO.: SWMU256-TW01 SHEET 2 OF 2

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation
PROJ. NO.: CTO-0143 BORING NO.: SWMU256-TW02
COORDINATES: EAST: 2499139.674 NORTH: 337753.5068
ELEVATION: SURFACE: 30.024 TOP OF PVC CASING: 30.154

Rig:	A-200 Ingersol Ram				Date	Progress (Ft.)	Comment	Depth to Water (Ft.)
	Macro Core	Casing	Augers	Acetate sleave				
Size (ID)	2"		3.25	2"	3/21/02	15	estimated	5.8
Length	4		5'	4'				
Type	SS		S	Acetate				
Hammer Wt.	NA		NA	NA				
Fall	NA		NA	NA				

Remarks:

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

WELL INFORMATION

Type	Diam.	Top Depth (Ft.)	Bottom Depth (Ft.)
PVC Riser (Schedule 40)	1"	30.154	25.154
PVC screen (Schedule 40) 0.010"	1"	25.154	15.154

Depth (Ft.)		Sample Type & No.	Sample Rec. (Ft.,%)	Lab ID	LEL %	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL) 30.2
1				SWMU256-TW02-00			Fine sand, trace silt, damp, dark brown, roots (0.3)	cuttings	29.9
2		M-1	3.0 75%		0.0%	0.0 / 0.0	Fine sand, trace silt, damp, dark brown, coal fragments, gravel fragments	riser	
3								bentonite	
4								riser	
5							(4.4) Fine sand, trace silt, moist, brownish gray	sand	25.8
6	▼	M-2	2.4 60%	SWMU256-TW02-03	0.0%	0.0 / 0.0	(5.8) Fine sand, trace silt, wet, gray	screen	24.4
7								sand	
8							(8.0) Clay, trace sand, firm, plastic, wet, gray		22.2
9							(9.6) Sand, little clay, wet, gray	screen	20.6
10		M-3	4.0 100%		0.0%	0.0 / 0.0		sand	

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: David D. Schilling
DRILLER: Mark Eaves / Jim Robertson BORING NO.: SWMU256-TW02 SHEET 1 OF 2

Baker
Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation
CTO NO.: CTO-0143 BORING NO.: SWMU256-TW02

SAMPLE TYPE
M = Macro Core 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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
ps/bg = point source/background

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	Lab ID	LEL %	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL) 19.7
11						Continued from Sheet 1		
12						Sand, little clay, wet, gray	sand	18.2
13	A-N						screen	
14								
15						15.0	sand	15.2
16						End of Boring = 15.0		
17								
18								
19								
20								
21								
22								
23								
24								
25								
26								
27								
28								
29								
30								

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: David D. Schilling
DRILLER: Mark Eaves / Jim Robertson BORING NO.: SWMU256-TW02 SHEET 2 OF 2

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT:	SWMU Investigation			
PROJ. NO.:	CTO-0143		BORING NO.:	SWMU256-TW03
COORDINATES:	EAST:	2499099.771	NORTH:	337797.8612
ELEVATION:	SURFACE:	30.032	TOP OF PVC CASING:	30.063

Rig: A-200 Ingersol Ram	Macro Core	Casing	Augers	Acetate sleave	Date	Progress (Ft.)	Comment	Depth to Water (Ft.)
Size (ID)	2"		3.25	2"	3/21/02	15	estimated	5.6
Length	4		5'	4'				
Type	SS		S	Acetate				
Hammer Wt.	NA		NA	NA				
Fall	NA		NA	NA				

Remarks:

SAMPLE TYPE

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

WELL INFORMATION

Type	Diam.	Top Depth (Ft.)	Bottom Depth (Ft.)
PVC Riser (Schedule 40)	1"	30.063	25.063
PVC screen (Schedule 40) 0.010"	1"	25.063	15.063

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	Lab ID	LEL %	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL) 30.1
1–4	M-1	3.1 78%	SWMU256-TW03-00	0.0%	0.0 / 0.0	Fine sand, trace silt, damp, dark brown	cuttings; riser; bentonite; riser	
5–8	M-2	2.6 65%	SWMU256-TW03-03	0.0%	0.0 / 0.0	Fine sand, trace silt, wet, gray, orange staining	sand; 5.6; screen; sand; 8.0	24.5; 22.1
9–10	A-N						screen; sand	

DRILLING CO.:	Parratt Wolff Inc.	BAKER REP.:	David D. Schilling
DRILLER:	Mark Eaves / Jim Robertson	BORING NO.:	SWMU256-TW03 SHEET 1 OF 2

Baker
Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation
CTO NO.: CTO-0143 BORING NO.: SWMU256-TW03

SAMPLE TYPE
M = Macro Core 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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
ps/bg = point source/background

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	Lab ID	LEL %	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL) 19.6
11						Continued from Sheet 1		
12	A-N						sand	
13							screen	
14								
15	A-N					15.0	sand	15.1
16						End of Boring = 15.0		
17								
18								
19								
20								
21								
22								
23								
24								
25								
26								
27								
28								
29								
30								

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: David D. Schilling
DRILLER: Mark Eaves / Jim Robertson BORING NO.: SWMU256-TW03 SHEET 2 OF 2

Baker
Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation
PROJ. NO.: CTO-0143 BORING NO.: SWMU256-TW04
COORDINATES: EAST: 2499177.821 NORTH: 337904.3227
ELEVATION: SURFACE: 27.824 TOP OF PVC CASING: 27.953

Rig: A-200 Ingersol Ram	Macro Core	Casing	Augers	Acetate sleave	Date	Progress (Ft.)	Comment	Depth to Water (Ft.)
Size (ID)	2"		3.25	2"	3/21/02	15	estimated	6.1
Length	4		5'	4'				
Type	SS		S	Acetate				
Hammer Wt.	NA		NA	NA				
Fall	NA		NA	NA				

Remarks:

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

WELL INFORMATION

Type	Diam.	Top Depth (Ft.)	Bottom Depth (Ft.)
PVC Riser (Schedule 40)	1"	27.953	22.953
PVC screen (Schedule 40) 0.010"	1"	22.953	12.953

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	Lab ID	LEL %	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL) 28.0
1			SWMU256-TW04-00			Fine sand, trace silt, moist, dark brown (0.8)	cuttings	27.2
2	M-1	4.0 100%		0.0%	0.0 / 0.0	Fine sand, trace silt, moist, orangish brown	riser	
3							bentonite	
4						(3.5)	riser	24.5
						Fine sand, trace silt, moist, light brown (4.0)		24.0
5						(4.6) Fine sand, trace silt, moist dark brown	sand	23.4
6	▼ M-2	2.6 65%	SWMU256-TW04-03	0.0%	0.0 / 0.0	Fine sand and clay, moist, light gray, orange staining (6.1)	screen	21.9
7						Clay and fine sand, wet, gray		
8						(8.0)	sand	20.0
9							screen	
10	A-N						sand	

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: David D. Schilling
DRILLER: Mark Eaves / Jim Robertson BORING NO.: SWMU256-TW04 SHEET 1 OF 2

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation
CTO NO.: CTO-0143 BORING NO.: SWMU256-TW04

SAMPLE TYPE
M = Macro Core 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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
ps/bg = point source/background

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	Lab ID	LEL %	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL) 17.5
11						Continued from Sheet 1		
12	A-N						sand	
13							screen	
14								
15	A-N					15.0	sand	13.0
16						End of Boring = 15.0		
17								
18								
19								
20								
21								
22								
23								
24								
25								
26								
27								
28								
29								
30								

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: David D. Schilling
DRILLER: Mark Eaves / Jim Robertson BORING NO.: SWMU256-TW04 SHEET 2 OF 2

Baker Environmental

TEST BORING RECORD

PROJECT: SWMU Investigation
PROJ. NO.: CTO-0143 BORING NO.: SWMU258-IS05
COORDINATES: EAST: 2499670.274 NORTH: 337019.92
ELEVATION: SURFACE:

Rig: A-200 Ingersol Ram								
	Macro Core	Casing	Augers	Acetate Sleave	Date	Progress (Ft.)	Comments	Depth to Water (Ft.)
Size (ID)	2"		3.25	2"	3/22/02	4		
Length	4'		5'	4'				
Type	SS		S	Acetate				
Hammer Wt.	NA		NA	NA				
Fall	NA		NA	NA				

Remarks:

SAMPLE TYPE
M = Macro Core 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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
BG/PS = Background/Point Source
ppm = parts per million

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	Lab ID	LEL %	PID (ppm) ps/bg	Visual Description	Elevation (Ft. MSL)
1			SWMU258 IS05-00			Gravel and sand, dark gray, fill material 0.4 Fine sand, some small gravel, moist, orangish brown 1.6	
2	M-1	2.4 60%		0.0%	0.0 / 0.0	Fine sand, trace small gravel, silt, moist, grayish brown	
3							
4						4.0	
5						End of Boring = 4.0'	
6							
7							
8							
9							
10							

DRILLING COMPANY: Parratt Wolff Inc. BAKER REP.: David D. Schilling
DRILLER: Mark Eaves/Jim Robertson BORING NO.: SWMU258-IS05 SHEET 1 OF 1

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT:	SWMU Investigation				
PROJ. NO.:	CTO-0143		BORING NO.:	SWMU258-TW01	
COORDINATES:	EAST:	2499627.359	NORTH:	337013.3855	
ELEVATION:	SURFACE:	29.143	TOP OF PVC CASING:	29.024	

Rig: A-200 Ingersol Ram	Macro Core	Casing	Augers	Acetate sleave	Date	Progress (Ft.)	Comment	Depth to Water (Ft.)
Size (ID)	2"		3.25	2"	3/22/02	13	estimated	4.0
Length	4		5'	4'				
Type	SS		S	Acetate				
Hammer Wt.	NA		NA	NA				
Fall	NA		NA	NA				

Remarks:

SAMPLE TYPE

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

WELL INFORMATION

Type	Diam.	Top Depth (Ft.)	Bottom Depth (Ft.)
PVC Riser (Schedule 40)	1"	29.024	26.024
PVC screen (Schedule 40) 0.010"	1"	26.024	16.024

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	Lab ID	LEL %	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL) 29.0
1			SWMU258-TW01-00			Fine sand & gravel, fill material 0.6	bentonite	28.4
2	M-1	3.3 83%		0.0%	0.0 / 0.0	Fine sand, trace silt, moist, brownish gray	riser	
3							sand	
4	▼		SWMU258-TW01-02			4.0	screen	25.0
5						Fine sand, little silt, wet, light gray	sand	
6	M-2	2.7 68%		0.0%	0.0 / 0.0		screen	
7							sand	
8						8.0		21.0
9	A-N						screen	
10	A-N						sand	

DRILLING CO.:	Parratt Wolff Inc.	BAKER REP.:	David D. Schilling
DRILLER:	Mark Eaves / Jim Robertson	BORING NO.:	SWMU258-TW01 SHEET 1 OF 2

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation
CTO NO.: CTO-0143 BORING NO.: SWMU258-TW01

SAMPLE TYPE
M = Macro Core 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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
ps/bg = point source/background

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	Lab ID	LEL %	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL) 18.5
11						Continued from Sheet 1		
12	A-N						sand	
13	A-N					13.0	screen	16.0
14						End of Boring = 13.0		
15								
16								
17								
18								
19								
20								
21								
22								
23								
24								
25								
26								
27								
28								
29								
30								

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: David D. Schilling
DRILLER: Mark Eaves / Jim Robertson BORING NO.: SWMU258-TW01 SHEET 2 OF 2

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT:	SWMU Investigation		
PROJ. NO.:	CTO-0143	BORING NO.:	SWMU258-TW02
COORDINATES:	EAST: 2499656.621	NORTH:	337037.8872
ELEVATION:	SURFACE: 29.026	TOP OF PVC CASING:	28.839

Rig:	A-200 Ingersol Ram							
	Macro Core	Casing	Augers	Acetate sleave	Date	Progress (Ft.)	Comment	Depth to Water (Ft.)
Size (ID)	2"		3.25	2"	3/22/02	13	estimated	4.6
Length	4		5'	4'				
Type	SS		S	Acetate				
Hammer Wt.	NA		NA	NA				
Fall	NA		NA	NA				

Remarks:

SAMPLE TYPE

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

WELL INFORMATION

Type	Diam.	Top Depth (Ft.)	Bottom Depth (Ft.)
PVC Riser (Schedule 40)	1"	28.839	25.839
PVC screen (Schedule 40) 0.010"	1"	25.839	15.839

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	Lab ID	LEL %	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
1			SWMU258-TW02-00			Gravel and sand, fill material dark gray (0.4)	bentonite	28.4
2	M-1	3.6 90%		0.0%	0.0 / 0.0	Fine sand, trace silt, moist, dark brown	riser	
3							sand	
4						(3.4) Fine sand, trace silt, moist, light gray, orange staining (4.6)	screen	25.4
5	▼		SWMU258-TW02-02			Fine sand, trace silt, wet, gray	sand	24.2
6	M-2	3.1 78%		0.0%	0.0 / 0.0		screen	
7								
8						(8.0)	sand	20.8
9	A-N						screen	
10	A-N						sand	

DRILLING CO.:	Parratt Wolff Inc.	BAKER REP.:	David D. Schilling
DRILLER:	Mark Eaves / Jim Robertson	BORING NO.:	SWMU258-TW02 SHEET 1 OF 2

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation
CTO NO.: CTO-0143 BORING NO.: SWMU258-TW02

SAMPLE TYPE
M = Macro Core 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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
ps/bg = point source/background

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	Lab ID	LEL %	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL) 18.3
11						Continued from Sheet 1		
12	A-N						sand	
13	A-N					13.0	screen	15.8
14						End of Boring = 13.0		
15								
16								
17								
18								
19								
20								
21								
22								
23								
24								
25								
26								
27								
28								
29								
30								

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: David D. Schilling
DRILLER: Mark Eaves / Jim Robertson BORING NO.: SWMU258-TW02 SHEET 2 OF 2

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT:	SWMU Investigation		
PROJ. NO.:	CTO-0143	BORING NO.:	SWMU258-TW03
COORDINATES:	EAST: 2499674.805	NORTH:	337053.8023
ELEVATION:	SURFACE: 29.054	TOP OF PVC CASING:	28.931

Rig: A-200 Ingersol Ram	Macro Core	Casing	Augers	Acetate sleave	Date	Progress (Ft.)	Comment	Depth to Water (Ft.)
Size (ID)	2"		3.25	2"	3/22/02	13	estimated	4.3
Length	4		5'	4'				
Type	SS		S	Acetate				
Hammer Wt.	NA		NA	NA				
Fall	NA		NA	NA				

Remarks:

SAMPLE TYPE

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

WELL INFORMATION

Type	Diam.	Top Depth (Ft.)	Bottom Depth (Ft.)
PVC Riser (Schedule 40)	1"	28.931	25.931
PVC screen (Schedule 40) 0.010"	1"	25.931	15.931

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	Lab ID	LEL %	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL) 28.9
1–4	M-1	3.7 93%	SWMU258-TW03-00	0.0%	0.0 / 0.0	Gravel and sand, fill material (0.4); Fine sand, trace silt, moist, brown	bentonite; riser; sand; screen (4.0)	28.5; 24.9
5–8	M-2	2.8 70%	SWMU258-TW03-02	0.0%	0.0 / 0.0	Fine sand, trace silt, moist, brownish gray (4.3); Fine sand, trace silt, wet, gray	sand; screen; sand (8.0)	24.6; 20.9
9–10	M-3	0.6 15%		0.0%	0.0 / 0.0	Fine sand and silt, wet, gray	screen; sand	

DRILLING CO.:	Parratt Wolff Inc.	BAKER REP.:	David D. Schilling
DRILLER:	Mark Eaves / Jim Robertson	BORING NO.:	SWMU258-TW03 SHEET 1 OF 2

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation
CTO NO.: CTO-0143 BORING NO.: SWMU258-TW03

SAMPLE TYPE
M = Macro Core 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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
ps/bg = point source/background

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	Lab ID	LEL %	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL) 18.4
11						Continued from Sheet 1		
12						Fine sand and silt, wet, gray	sand	16.9
13	A-N					12.0 / 13.0	screen	15.9
14						End of Boring = 13.0		
15								
16								
17								
18								
19								
20								
21								
22								
23								
24								
25								
26								
27								
28								
29								
30								

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: David D. Schilling
DRILLER: Mark Eaves / Jim Robertson BORING NO.: SWMU258-TW03 SHEET 2 OF 2

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation
PROJ. NO.: CTO-0143 BORING NO.: SWMU261-TW01
COORDINATES: EAST: 2500699.810 NORTH: 335395.867
ELEVATION: SURFACE: 23.49 TOP OF PVC CASING: 23.54

Rig:	Macro Core	Casing	Augers	Acetate Sleeve	Date	Progress (Ft.)	Comments	Depth to Water (Ft.)
Size (ID)	2"		3.25	2"	3/25/02	12	estimated	1.5
Length	4'		5'	4'				
Type	SS		S	Acetate				
Hammer Wt.	NA		NA	NA				
Fall	NA		NA	NA				

Remarks:

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

WELL INFORMATION

Type		Diam.	Top Depth (Ft.)	Bottom Depth (Ft.)
PVC	Riser (Schedule 40)	1"	23.54	21.54
PVC	Screen (Schedule 40)	1"	21.54	11.54

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	Lab ID	LEL %	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
1	M-1		SWMU261 TW01-00 SWMU261 TW01-01	0.0%	0.0 / 0.0	black/brown sandy silt	bentonite, riser, sand	
2						2.0	riser	21.5
3						grey fine sand w/ silt	screen	
4						4.0	sand	19.5
5	A-N					See boring log SWMU261-TW04 for complete geology	screen	
6								
7							sand	
8								
9	A-N						screen	
10						Match to Sheet 2		

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: R. Marks
DRILLER: Louis LaFever BORING NO.: SWMU261-TW01 SHEET 1 OF 2

Baker
Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation
CTO NO.: CTO-0143 BORING NO.: SWMU261-TW01

SAMPLE TYPE
M = Macro Core 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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
ps/bg = point source/background

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	Lab ID	LEL %	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
11						Continued from Sheet 1	sand	
12							12.0 screen	11.5
13						End of Boring = 12.0		
14								
15								
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29								
30						Match to Sheet 3		

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: R. Marks
DRILLER: Louis LaFever BORING NO.: SWMU261-TW01 SHEET 2 OF 2

Baker
Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation
CTO NO.: CTO-0143 BORING NO.: SWMU261-TW01

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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
BG/PS = Background/Point Source

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	SPT	Lab ID	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
31						Continued from Sheet 2		
32								
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49								
50						Match to Sheet 4		

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: R. Marks
DRILLER: Louis LaFever BORING NO.: SWMU261-TV SHEET 3 OF 2

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation
CTO NO.: CTO-0143 BORING NO.: SWMU261-TW01

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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
BG/PS = Background/Point Source

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	SPT	Lab ID	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
51						Continued from Sheet 3		
52								
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70						Match to Sheet 5		

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: R. Marks
DRILLER: Louis LaFever BORING NO.: SWMU261-TW SHEET 4 OF 2

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation
CTO NO.: CTO-0143 BORING NO.: SWMU261-TW01

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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
BG/PS = Background/Point Source

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	SPT	Lab ID	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
71						Continued from Sheet 5		
72								
73								
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90						Match to Sheet 6		

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: R. Marks
DRILLER: Louis LaFever BORING NO.: SWMU261-TV SHEET 5 OF 2

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation
CTO NO.: CTO-0143 BORING NO.: SWMU261-TW01

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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
ps/bg = point source/background

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	SPT	Lab ID	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
91						Continued from Sheet 1		
92								
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DRILLING CO.: Parratt Wolff Inc. BAKER REP.: R. Marks
DRILLER: Louis LaFever BORING NO.: SWMU261-TV SHEET 6 OF 2

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation
PROJ. NO.: CTO-0143 BORING NO.: SWMU261-TW02
COORDINATES: EAST: 2500712.409 NORTH: 335365.886
ELEVATION: SURFACE: 19.15 TOP OF PVC CASING: 18.75

Rig:	Macro Core	Casing	Augers	Acetate Sleeve	Date	Progress (Ft.)	Comments	Depth to Water (Ft.)
Size (ID)	2"		3.25	2"	3/25/02	12	estimated	1.5
Length	4'		5'	4'				
Type	SS		S	Acetate				
Hammer Wt.	NA		NA	NA				
Fall	NA		NA	NA				

Remarks:

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

WELL INFORMATION

Type		Diam.	Top Depth (Ft.)	Bottom Depth (Ft.)
PVC	Riser (Schedule 40)	1"	18.75	16.75
PVC	Screen (Schedule 40)	1"	16.75	6.75

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	Lab ID	LEL %	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
1	M-1		SWMU261 TW02-00	0.0%	0.0 / 0.0	black/brown sandy silt	bentonite, riser, sand	
2			SWMU261 TW02-01			2.0	riser	16.8
3						grey fine sand w/ silt	screen	
4						4.0	sand	14.8
5	A-N					See SWMU261-TW04 for complete geology	screen	
6								
7							sand	
8								
9	A-N						screen	
10						Match to Sheet 2		

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: R. Marks
DRILLER: Louis LaFever BORING NO.: SWMU261-TW02 SHEET 1 OF 2

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation
CTO NO.: CTO-0143 BORING NO.: SWMU261-TW02

SAMPLE TYPE
M = Macro Core 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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
ps/bg = point source/background

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	Lab ID	LEL %	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
11						Continued from Sheet 1	sand	
12							12.0 screen	6.8
13						End of Boring = 12.0		
14								
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30						Match to Sheet 3		

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: R. Marks
DRILLER: Louis LaFever BORING NO.: SWMU261-TW02 SHEET 2 OF 2

Baker
Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation
CTO NO.: CTO-0143 BORING NO.: SWMU261-TW02

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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
BG/PS = Background/Point Source

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	SPT	Lab ID	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
31						Continued from Sheet 2		
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50						Match to Sheet 4		

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: R. Marks
DRILLER: Louis LaFever BORING NO.: SWMU261-TV SHEET 3 OF 2

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation
CTO NO.: CTO-0143 BORING NO.: SWMU261-TW02

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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
BG/PS = Background/Point Source

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	SPT	Lab ID	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
51						Continued from Sheet 3		
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70						Match to Sheet 5		

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: R. Marks
DRILLER: Louis LaFever BORING NO.: SWMU261-TV SHEET 4 OF 2

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation
CTO NO.: CTO-0143 BORING NO.: SWMU261-TW02

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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
BG/PS = Background/Point Source

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	SPT	Lab ID	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
71						Continued from Sheet 5		
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90						Match to Sheet 6		

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: R. Marks
DRILLER: Louis LaFever BORING NO.: SWMU261-TV SHEET 5 OF 2

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation
CTO NO.: CTO-0143 BORING NO.: SWMU261-TW02

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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
ps/bg = point source/background

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	SPT	Lab ID	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
91						Continued from Sheet 1		
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DRILLING CO.: Parratt Wolff Inc. BAKER REP.: R. Marks
DRILLER: Louis LaFever BORING NO.: SWMU261-TV SHEET 6 OF 2

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation
PROJ. NO.: CTO-0143 BORING NO.: SWMU261-TW03
COORDINATES: EAST: 2500689.841 NORTH: 335353.984
ELEVATION: SURFACE: 18.9 TOP OF PVC CASING: 18.62

Rig:	Macro Core	Casing	Augers	Acetate Sleeve	Date	Progress (Ft.)	Comments	Depth to Water (Ft.)
Size (ID)	2"		3.25	2"	3/25/02	12	estimated	1.5
Length	4'		5'	4'				
Type	SS		S	Acetate				
Hammer Wt.	NA		NA	NA				
Fall	NA		NA	NA				

Remarks:

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

WELL INFORMATION

Type	Diam.	Top Depth (Ft.)	Bottom Depth (Ft.)
PVC Riser (Schedule 40)	1"	18.62	16.62
PVC Screen (Schedule 40)	1"	16.62	6.62

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	Lab ID	LEL %	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
1	M-1		SWMU261 TW03-00	0.0%	0.0	black/brown sandy silt	bentonite, riser	
2			SWMU261 TW03-01		0.0		sand, riser (2.0)	16.6
3							screen	
4						grey fine sand w/ silt	sand (4.0)	14.6
5	A-N					See SWMU261-TW04 for complete geology	screen	
6								
7								
8							sand	
9	A-N						screen	
10						Match to Sheet 2		

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: R. Marks
DRILLER: Louis LaFever BORING NO.: SWMU261-TW03 SHEET 1 OF 2

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation
CTO NO.: CTO-0143 BORING NO.: SWMU261-TW03

SAMPLE TYPE
M = Macro Core 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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
ps/bg = point source/background

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	Lab ID	LEL %	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
11						Continued from Sheet 1	sand	
12						12.0	screen	6.6
13						End of Boring = 12.0		
14								
15								
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30						Match to Sheet 3		

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: R. Marks
DRILLER: Louis LaFever BORING NO.: SWMU261-TW03 SHEET 2 OF 2

Baker
Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation
CTO NO.: CTO-0143 BORING NO.: SWMU261-TW03

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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
BG/PS = Background/Point Source

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	SPT	Lab ID	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
31						Continued from Sheet 2		
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50						Match to Sheet 4		

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: R. Marks
DRILLER: Louis LaFever BORING NO.: SWMU261-TV SHEET 3 OF 2

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation
CTO NO.: CTO-0143 BORING NO.: SWMU261-TW03

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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
BG/PS = Background/Point Source

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	SPT	Lab ID	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
51						Continued from Sheet 3		
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70						Match to Sheet 5		

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: R. Marks
DRILLER: Louis LaFever BORING NO.: SWMU261-TW SHEET 4 OF 2

Baker
Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation
CTO NO.: CTO-0143 BORING NO.: SWMU261-TW03

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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
BG/PS = Background/Point Source

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	SPT	Lab ID	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
71						Continued from Sheet 5		
72								
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90						Match to Sheet 6		

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: R. Marks
DRILLER: Louis LaFever BORING NO.: SWMU261-TW SHEET 5 OF 2

Baker
Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation
CTO NO.: CTO-0143 BORING NO.: SWMU261-TW03

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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
ps/bg = point source/background

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	SPT	Lab ID	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
91						Continued from Sheet 1		
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DRILLING CO.: Parratt Wolff Inc. BAKER REP.: R. Marks
DRILLER: Louis LaFever BORING NO.: SWMU261-TV SHEET 6 OF 2

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation
PROJ. NO.: CTO-0143 BORING NO.: SWMU261-TW04
COORDINATES: EAST: 2500677.375 NORTH: 335384.776
ELEVATION: SURFACE: 20.27 TOP OF PVC CASING: 20.13

Rig:	Macro Core	Casing	Augers	Acetate Sleeve	Date	Progress (Ft.)	Comments	Depth to Water (Ft.)
Size (ID)	2"		3.25	2"	3/25/02	12	estimated	1.5
Length	4'		5'	4'				
Type	SS		S	Acetate				
Hammer Wt.	NA		NA	NA				
Fall	NA		NA	NA				

Remarks:

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

WELL INFORMATION

Type		Diam.	Top Depth (Ft.)	Bottom Depth (Ft.)
PVC	Riser (Schedule 40)	1"	20.13	18.13
PVC	Screen (Schedule 40)	1"	18.13	8.13

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	Lab ID	LEL %	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
1–4	M-1	1.5 38%	SWMU261 TW04-00 SWMU261 TW04-01	0.0%	0.0 / 0.0	black/brown sandy silt	bentonite; riser; sand; 2.0; riser; screen; sand	18.1
5–8	M-2	4.0 100%		0.0%	0.0 / 0.0	grey fine sand w/ silt	screen; sand	
9–10	M-3	4.0 100%		0.0%	0.0 / 0.0	grey fine sand w/silt	screen	

Match to Sheet 2

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: R. Marks
DRILLER: Louis LaFever BORING NO.: SWMU261-TW04 SHEET 1 OF 2

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation
CTO NO.: CTO-0143 BORING NO.: SWMU261-TW04

SAMPLE TYPE
M = Macro Core 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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
ps/bg = point source/background

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	Lab ID	LEL %	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
11						Continued from Sheet 1	sand	
12							12.0 screen	8.13
13						End of Boring = 12.0		
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30						Match to Sheet 3		

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: R. Marks
DRILLER: Louis LaFever BORING NO.: SWMU261-TW04 SHEET 2 OF 2

Baker
Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation
CTO NO.: CTO-0143 BORING NO.: SWMU261-TW04

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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
BG/PS = Background/Point Source

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	SPT	Lab ID	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
31						Continued from Sheet 2		
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50						Match to Sheet 4		

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: R. Marks
DRILLER: Louis LaFever BORING NO.: SWMU261-TV SHEET 3 OF 2

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation
CTO NO.: CTO-0143 BORING NO.: SWMU261-TW04

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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
BG/PS = Background/Point Source

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	SPT	Lab ID	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
51						Continued from Sheet 3		
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70						Match to Sheet 5		

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: R. Marks
DRILLER: Louis LaFever BORING NO.: SWMU261-TW SHEET 4 OF 2

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation
CTO NO.: CTO-0143 BORING NO.: SWMU261-TW04

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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
BG/PS = Background/Point Source

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	SPT	Lab ID	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
71						Continued from Sheet 5		
72								
73								
74								
75								
76								
77								
78								
79								
80								
81								
82								
83								
84								
85								
86								
87								
88								
89								
90						Match to Sheet 6		

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: R. Marks
DRILLER: Louis LaFever BORING NO.: SWMU261-TV SHEET 5 OF 2

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation
CTO NO.: CTO-0143 BORING NO.: SWMU261-TW04

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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
ps/bg = point source/background

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	SPT	Lab ID	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
91						Continued from Sheet 1		
92								
93								
94								
95								
96								
97								
98								
99								
100								
101								
102								
103								
104								
105								
106								
107								
108								
109								
110								

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: R. Marks
DRILLER: Louis LaFever BORING NO.: SWMU261-TV SHEET 6 OF 2

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT:	SWMU Investigation		
PROJ. NO.:	CTO-0143	BORING NO.:	SWMU264-TW01
COORDINATES:	EAST: 2487469.337	NORTH:	351565.4111
ELEVATION:	SURFACE: 16.625	TOP OF PVC CASING:	16.327

Rig: A-200 Ingersol Ram	Macro Core	Casing	Augers	Acetate sleave	Date	Progress (Ft.)	Comment	Depth to Water (Ft.)
Size (ID)	2"		3.25	2"	3/24/02	16	estimated	8.6
Length	4		5'	4'				
Type	SS		S	Acetate				
Hammer Wt.	NA		NA	NA				
Fall	NA		NA	NA				

Remarks:

SAMPLE TYPE

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

WELL INFORMATION

Type	Diam.	Top Depth (Ft.)	Bottom Depth (Ft.)
PVC Riser (Schedule 40)	1"	16.327	10.327
PVC screen (Schedule 40) 0.010"	1"	10.327	0.327

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	Lab ID	LEL %	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL) 16.3
1			SWMU264-TW01-00			Asphalt 0.1	cuttings	16.2
						Gravel and sand 0.9		15.4
2	M-1	3.7 93%		0.0%	0.0 / 0.0	Fine sand, trace silt, moist, orangish brown 2.2	riser	14.1
3						Clay, trace sand, moist, semi-plastic, orangish brown		
4							bentonite	
5						5.1	riser	11.2
6	M-2	3.0 75%		0.0%	0.0 / 0.0	Fine sand, trace silt, moist, orange and gray mottled	sand	
7							screen	
8							sand	
9	▼		SWMU264-TW01-04			8.6	screen	7.7
						Fine sand, trace silt, wet, orangish brown		
10	M-3	2.8 70%		0.0%	0.0 / 0.0	10.5	sand	5.8

DRILLING CO.:	Parratt Wolff Inc.	BAKER REP.:	David D. Schilling
DRILLER:	Mark Eaves / Jim Robertson	BORING NO.:	SWMU264-TW01 SHEET 1 OF 2

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation
CTO NO.: CTO-0143 BORING NO.: SWMU264-TW01

SAMPLE TYPE
M = Macro Core 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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
ps/bg = point source/background

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	Lab ID	LEL %	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL) 5.8
11						continued from sheet 1	sand	
12						Fine sand, little silt, wet, dark gray 12.0	screen	4.3
13						Sand, some silt, wet, dark gray wood fragments	sand	
14	M-4	3.8 95%		0.0%	0.0 / 0.0		screen	
15							sand	
16						16.0	screen	0.3
17						End of Boring = 16.0'		
18								
19								
20								
21								
22								
23								
24								
25								
26								
27								
28								
29								
30								

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: David D. Schilling
DRILLER: Mark Eaves / Jim Robertson BORING NO.: SWMU264-TW01 SHEET 2 OF 2

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT:	SWMU Investigation			
PROJ. NO.:	CTO-0143		BORING NO.:	SWMU264-TW02
COORDINATES:	EAST:	2487446.430	NORTH:	351576.9965
ELEVATION:	SURFACE:	17.494	TOP OF PVC CASING:	17.186

Rig:	A-200 Ingersol Ram				Date	Progress (Ft.)	Comment	Depth to Water (Ft.)
	Macro Core	Casing	Augers	Acetate sleave				
Size (ID)	2"		3.25	2"	3/25/02	16	estimated	8.8
Length	4		5'	4'				
Type	SS		S	Acetate				
Hammer Wt.	NA		NA	NA				
Fall	NA		NA	NA				

Remarks:

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

WELL INFORMATION

Type	Diam.	Top Depth (Ft.)	Bottom Depth (Ft.)
PVC Riser (Schedule 40)	1"	17.186	11.186
PVC screen (Schedule 40) 0.010"	1"	11.186	1.186

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	Lab ID	LEL %	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL) 17.2
1			SWMU264-TW02-00			Asphalt and concrete 0.9	cuttings	16.3
2	M-1	3.4 85%		0.0%	0.0 / 0.0	Clay, trace sand, moist, firm, plastic, orangish brown 2.4	riser	14.8
3						Clay, trace sand, moist, firm, plastic, mottled gray and orangish brown 4.0	bentonite	
4								13.2
5	A-N						riser	
6							sand	
7	A-N						screen	
8						8.0	sand	9.2
9	▼		SWMU264-TW02-04, & 04D			Fine sand, trace silt, moist, orange and gray mottled 8.8	screen	8.4
10	M-2	2.9 73%		0.0%	0.0 / 0.0	Fine sand, trace silt, wet, orangish brown	sand	

DRILLING CO.:	Parratt Wolff Inc.	BAKER REP.:	David D. Schilling
DRILLER:	Mark Eaves / Jim Robertson	BORING NO.:	SWMU264-TW02 SHEET 1 OF 2

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation
CTO NO.: CTO-0143 BORING NO.: SWMU264-TW02

SAMPLE TYPE
M = Macro Core 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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
ps/bg = point source/background

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	Lab ID	LEL %	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL) 6.7
11						continued from sheet 1	sand	
12						Fine sand, trace silt, wet, orangish brown	screen	5.2
13	A-N					12.0	sand	
14							screen	
15	A-N						sand	
16						16.0	screen	1.2
17						End of Boring = 16.0'		
18								
19								
20								
21								
22								
23								
24								
25								
26								
27								
28								
29								
30								

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: David D. Schilling
DRILLER: Mark Eaves / Jim Robertson BORING NO.: SWMU264-TW02 SHEET 2 OF 2

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT:	SWMU Investigation			
PROJ. NO.:	CTO-0143		BORING NO.:	SWMU264-TW03
COORDINATES:	EAST:	2487478.901	NORTH:	351504.1326
ELEVATION:	SURFACE:	14.551	TOP OF PVC CASING:	14.363

Rig:	A-200 Ingersol Ram				Date	Progress (Ft.)	Comment	Depth to Water (Ft.)
	Macro Core	Casing	Augers	Acetate sleave				
Size (ID)	2"		3.25	2"	3/26/02	14	estimated	7.0
Length	4		5'	4'				
Type	SS		S	Acetate				
Hammer Wt.	NA		NA	NA				
Fall	NA		NA	NA				

Remarks:

SAMPLE TYPE

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

WELL INFORMATION

Type	Diam.	Top Depth (Ft.)	Bottom Depth (Ft.)
PVC Riser (Schedule 40)	1"	14.363	10.363
PVC screen (Schedule 40) 0.010"	1"	10.363	0.363

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	Lab ID	LEL %	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL) 14.4
1			SWMU264-TW03-00			Asphalt 0.2		14.2
						Gravel and fine sand, gray, moist 0.8	bentonite	13.6
2	M-1	4.0 100%		0.0%	0.0 / 0.0		riser	
3							sand	
4						4.0	riser	10.4
5	A-N						sand	
6						6.0	screen	8.4
7	▼		SWMU264-TW03-03			Fine sand, trace silt, moist, grayish brown 7.0	sand	7.4
8	M-2	1.2 30%		0.0%	0.0 / 0.0	Fine sand, trace silt, wet, orangish brown	screen	
9							sand	
10						10.0	screen	4.4
	A-N							

DRILLING CO.:	Parratt Wolff Inc.	BAKER REP.:	David D. Schilling
DRILLER:	Mark Eaves / Jim Robertson	BORING NO.:	SWMU264-TW03 SHEET 1 OF 2

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation
CTO NO.: CTO-0143 BORING NO.: SWMU264-TW03

SAMPLE TYPE
M = Macro Core 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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
ps/bg = point source/background

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	Lab ID	LEL %	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL) 3.9
11						continued from sheet 1		
12	A-N						sand / screen	
13	A-N						sand	
14						14.0	screen	0.4
15						End of Boring = 14.0'		
16								
17								
18								
19								
20								
21								
22								
23								
24								
25								
26								
27								
28								
29								
30								

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: David D. Schilling
DRILLER: Mark Eaves / Jim Robertson BORING NO.: SWMU264-TW03 SHEET 2 OF 2

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation
PROJ. NO.: CTO-0143 BORING NO.: SWMU265-TW01
COORDINATES: EAST: 2487422.939 NORTH: 351934.3772
ELEVATION: SURFACE: 20.055 TOP OF PVC CASING: 19.805

Rig:	A-200 Ingersol Ram				Date	Progress (Ft.)	Comment	Depth to Water (Ft.)
	Macro Core	Casing	Augers	Acetate sleave				
Size (ID)	2"		3.25	2"	3/24/02	17	estimated	9.8
Length	4		5'	4'				
Type	SS		S	Acetate				
Hammer Wt.	NA		NA	NA				
Fall	NA		NA	NA				

Remarks:

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

WELL INFORMATION

Type	Diam.	Top Depth (Ft.)	Bottom Depth (Ft.)
PVC Riser (Schedule 40)	1"	19.805	12.805
PVC screen (Schedule 40) 0.010"	1"	12.805	2.805

Depth (Ft.)		Sample Type & No.	Sample Rec. (Ft.,%)	Lab ID	LEL %	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL) 19.8
1				SWMU265-TW01-00			Gravel and fine sand, moist (0.9)	cuttings	18.9
2		M-1	3.6 90%		0.0%	0.0 / 0.0	Sand and Clay, moist, semi-plastic, orangish brown (1.2)	riser	18.6
3							Fine sand, trace silt, moist, orangish brown	cuttings	
4							(4.0)	bentonite	15.8
5		A-N						riser	
6								sand	
7		A-N						riser	
8							(8.0)	sand	11.8
9							Fine sand, trace silt, moist, orange and gray mottled	screen	
10	▼	M-2	3.3 83%	SWMU265-TW01-05	0.0%	0.0 / 0.0	(9.8) Fine sand, trace silt, wet, gray	screen / sand	10.0

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: David D. Schilling
DRILLER: Mark Eaves / Jim Robertson BORING NO.: SWMU265-TW01 SHEET 1 OF 2

Baker
Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation
CTO NO.: CTO-0143 BORING NO.: SWMU265-TW01

SAMPLE TYPE
M = Macro Core 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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
ps/bg = point source/background

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	Lab ID	LEL %	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL) 9.3
11						continued from sheet 1	sand	
12						Fine sand, trace silt, wet, gray	screen	7.8
13	A-N						sand	
14							screen	
15	A-N						sand	
16							screen	
17	A-N					17.0	sand	2.8
18						End of Boring = 17.0'		
19								
20								
21								
22								
23								
24								
25								
26								
27								
28								
29								
30								

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: David D. Schilling
DRILLER: Mark Eaves / Jim Robertson BORING NO.: SWMU265-TW01 SHEET 2 OF 2

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT:	SWMU Investigation		
PROJ. NO.:	CTO-0143	BORING NO.:	SWMU265-TW02
COORDINATES:	EAST: 2487425.893	NORTH:	351912.3645
ELEVATION:	SURFACE: 19.599	TOP OF PVC CASING:	19.426

Rig:	A-200 Ingersol Ram				Date	Progress (Ft.)	Comment	Depth to Water (Ft.)
	Macro Core	Casing	Augers	Acetate sleave				
Size (ID)	2"		3.25	2"	3/24/02	17	estimated	9.7
Length	4		5'	4'				
Type	SS		S	Acetate				
Hammer Wt.	NA		NA	NA				
Fall	NA		NA	NA				

Remarks:

SAMPLE TYPE

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

WELL INFORMATION

Type	Diam.	Top Depth (Ft.)	Bottom Depth (Ft.)
PVC Riser (Schedule 40)	1"	19.426	12.426
PVC screen (Schedule 40) 0.010"	1"	12.426	2.426

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	Lab ID	LEL %	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL) 19.4
1			SWMU265-TW02-00			Gravel and fine sand, moist 0.6	cuttings	18.8
2	M-1	3.5 88%		0.0%	0.0 / 0.0	Fine sand, little clay, moist, orangish brown	riser	
3							cuttings	
4						4.0	bentonite	15.4
5	A-N						riser	
6							sand	
7	A-N						riser	
8						8.0	sand	11.4
9						Fine sand, trace silt, moist, orange and gray mottled 9.7	screen	
10	M-2	3.3 83%	SWMU265-TW02-05	0.0%	0.0 / 0.0	Fine sand, trace silt, wet, gray	screen / sand	9.7

DRILLING CO.:	Parratt Wolff Inc.	BAKER REP.:	David D. Schilling
DRILLER:	Mark Eaves / Jim Robertson	BORING NO.:	SWMU265-TW02 SHEET 1 OF 2

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation
CTO NO.: CTO-0143 BORING NO.: SWMU265-TW02

SAMPLE TYPE
M = Macro Core 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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
ps/bg = point source/background

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	Lab ID	LEL %	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL) 8.9
11						continued from sheet 1	sand	
12						Fine sand, trace silt, wet, gray 12.0	screen	7.4
13	A-N						sand	
14							screen	
15	A-N						sand	
16							screen	
17	A-N					17.0	sand	2.4
18						End of Boring = 17.0'		
19								
20								
21								
22								
23								
24								
25								
26								
27								
28								
29								
30								

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: David D. Schilling
DRILLER: Mark Eaves / Jim Robertson BORING NO.: SWMU265-TW02 SHEET 2 OF 2

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT:	SWMU Investigation		
PROJ. NO.:	CTO-0143	BORING NO.:	SWMU265-TW03
COORDINATES:	EAST: 2487462.765	NORTH:	351950.1627
ELEVATION:	SURFACE: 19.639	TOP OF PVC CASING:	19.563

Rig:	A-200 Ingersol Ram							
	Macro Core	Casing	Augers	Acetate sleave	Date	Progress (Ft.)	Comment	Depth to Water (Ft.)
Size (ID)	2"		3.25	2"	3/24/02	17	estimated	9.8
Length	4		5'	4'				
Type	SS		S	Acetate				
Hammer Wt.	NA		NA	NA				
Fall	NA		NA	NA				

Remarks:

SAMPLE TYPE

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

WELL INFORMATION

Type	Diam.	Top Depth (Ft.)	Bottom Depth (Ft.)
PVC Riser (Schedule 40)	1"	19.563	12.563
PVC screen (Schedule 40) 0.010"	1"	12.563	2.563

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	Lab ID	LEL %	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL) 19.6
1			SWMU265-TW03-00			Gravel and fine sand, moist (0.7)	cuttings	18.9
2	M-1	3.8 95%		0.0%	0.0 / 0.0	Fine sand, trace silt, moist, orangish brown	riser	
3						(3.0)	cuttings	16.6
4						Fine sand, trace silt, moist, gray and orangish brown mottled (4.0)	bentonite	15.6
5						Clay, trace sand, moist, firm, plastic, gray, orange staining	riser	
6	M-2	4.0 100%		0.0%	0.0 / 0.0		sand	
7						(6.7)	riser	12.9
8						Clay, some sand, moist, firm, plastic, gray, orange staining	sand	
9						(8.7)	screen	10.9
10	▼ M-3	3.3 83%	SWMU265-TW03-05	0.0%	0.0 / 0.0	Fine sand, trace silt, moist, orange and gray mottled (9.8)	screen	9.8
						Fine sand, trace silt, wet,	sand	

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: David D. Schilling
DRILLER: Mark Eaves / Jim Robertson BORING NO.: SWMU265-TW03 SHEET 1 OF 2

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation
CTO NO.: CTO-0143 BORING NO.: SWMU265-TW03

SAMPLE TYPE
M = Macro Core 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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
ps/bg = point source/background

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	Lab ID	LEL %	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL) 9.1
11						orange and gray mottled 10.7	sand	8.9
12						Fine sand, trace silt, wet, gray 12.0	screen	7.6
13						Fine sand, trace silt, wet, light brown	sand	
14	M-4	2.0 50%		0.0%	0.0 / 0.0		screen	
15							sand	
16						16.0	screen	3.6
17	A-N					17.0	sand	2.6
18						End of Boring = 17.0'		
19								
20								
21								
22								
23								
24								
25								
26								
27								
28								
29								
30								

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: David D. Schilling
DRILLER: Mark Eaves / Jim Robertson BORING NO.: SWMU265-TW03 SHEET 2 OF 2

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT:	SWMU Investigation				
PROJ. NO.:	CTO-0143		BORING NO.:	SWMU269-TW01	
COORDINATES:	EAST:	2502214.605	NORTH:	332236.7133	
ELEVATION:	SURFACE:	23.434	TOP OF PVC CASING:	23.601	

Rig: A-200 Ingersol Ram	Macro Core	Casing	Augers	Acetate sleave	Date	Progress (Ft.)	Comment	Depth to Water (Ft.)
Size (ID)	2"		3.25	2"	3/25/02	20	estimated	12.7
Length	4		5'	4'				
Type	SS		S	Acetate				
Hammer Wt.	NA		NA	NA				
Fall	NA		NA	NA				

Remarks:

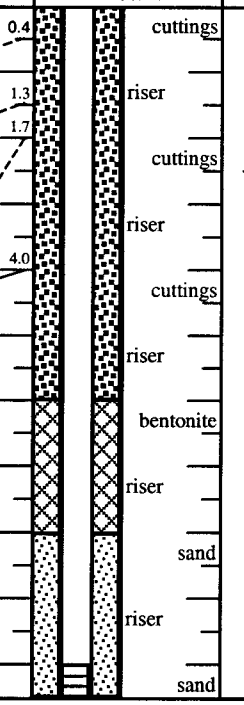
SAMPLE TYPE

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

WELL INFORMATION

Type	Diam.	Top Depth (Ft.)	Bottom Depth (Ft.)
PVC Riser (Schedule 40)	1"	23.601	13.601
PVC screen (Schedule 40) 0.010"	1"	13.601	3.601

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	Lab ID	LEL %	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL) 23.6
1			SWMU269-TW01-00			Gravel and fine sand, moist brown (0.4)	cuttings	23.2
2	M-1	2.7 68%		0.0%	0.0 / 0.0	Fine sand, trace silt, moist brown (1.3)	riser	22.3
3						Fine sand, trace silt, moist, wood fragments, dark gray, creosode odor (1.7)	cuttings	21.9
4						Fine sand, trace silt, moist, brown (4.0)	riser	19.6
5	A-N						cuttings	
6							riser	
7							bentonite	
8	A-N						riser	
9							sand	
10							riser	
	A-N						sand	



DRILLING CO.:	Parratt Wolff Inc.	BAKER REP.:	David D. Schilling
DRILLER:	Mark Eaves / Jim Robertson	BORING NO.:	SWMU269-TW01 SHEET 1 OF 2

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation
CTO NO.: CTO-0143 BORING NO.: SWMU269-TW01

SAMPLE TYPE
M = Macro Core 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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
ps/bg = point source/background

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	Lab ID	LEL %	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL) 13.1
11								
	A-N					continued from sheet 1	sand	
12						12.0	screen	11.6
13 ▼			SWMU269-TW01-06			Fine sand, trace silt, moist, greenish brown 12.7	sand	10.9
14	M-2	4.0 100%		0.0%	359 0.0	Fine sand, little clay, wet, greenish brown, strong petroleum odor (gasoline)	screen	
15							sand	
16						16.0	screen	7.6
17	A-N						sand	
18							screen	
19	A-N						sand	
20						20.0	screen	3.6
21						End of Boring = 20.0'		
22								
23								
24								
25								
26								
27								
28								
29								
30								

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: David D. Schilling
DRILLER: Mark Eaves / Jim Robertson BORING NO.: SWMU269-TW01 SHEET 2 OF 2

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation
PROJ. NO.: CTO-0143 BORING NO.: SWMU269-TW02
COORDINATES: EAST: 2502187.218 NORTH: 332209.9642
ELEVATION: SURFACE: 23.038 TOP OF PVC CASING: 23.050

Rig:	A-200 Ingersol Ram							
	Macro Core	Casing	Augers	Acetate sleave	Date	Progress (Ft.)	Comment	Depth to Water (Ft.)
Size (ID)	2"		3.25	2"	3/25/02	20	estimated	12.9
Length	4		5'	4'				
Type	SS		S	Acetate				
Hammer Wt.	NA		NA	NA				
Fall	NA		NA	NA				

Remarks:

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

WELL INFORMATION

Type	Diam.	Top Depth (Ft.)	Bottom Depth (Ft.)
PVC Riser (Schedule 40)	1"	23.050	13.050
PVC screen (Schedule 40) 0.010"	1"	13.050	3.050

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	Lab ID	LEL %	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
1			SWMU269-TW02-00			Gravel and Fine sand, moist	cuttings	23.1
						0.8		22.3
2	M-1	3.9 98%		0.0%	0.0 / 0.0	Fine sand, trace silt, moist, brown	riser	
3							cuttings	
4							riser	
						4.0		19.1
5						Fine sand, trace silt, moist, light brownish gray	cuttings	
6	M-2	2.9 73%		0.0%	0.0 / 0.0		riser	
						6.4	bentonite	16.7
7						Fine sand, little silt, moist, dark gray	riser	
8						8.0		15.1
9						Fine sand, trace silt, moist, brownish gray	sand	
10	M-3	2.8 70%		0.0%	0.0 / 0.0		riser	
							sand	

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: David D. Schilling
DRILLER: Mark Eaves / Jim Robertson BORING NO.: SWMU269-TW02 SHEET 1 OF 2

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation
CTO NO.: CTO-0143 BORING NO.: SWMU269-TW02

SAMPLE TYPE
M = Macro Core 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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
ps/bg = point source/background

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	Lab ID	LEL %	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL) 12.6
11						continued from sheet 1	sand	
12						Fine sand, trace silt, moist, brownish gray	screen	
13	▼		SWMU269-TW02-06			12.9	sand	10.2
14	M-4	2.7 68%		0.0%	0.0 / 0.0	Fine sand, trace silt, wet, brownish gray	screen	
15							sand	
16						16.0	screen	7.1
17						Fine sand, little clay, wet, gray semi-plastic 16.9	sand	6.2
18	M-5	2.7 68%		0.0%	0.0 / 0.0	Clay, trace sand, firm, plastic, wet, gray 18.4	screen	4.7
19						Fine sand, trace silt, wet, gray	sand	
20						20.0	screen	3.1
21						End of Boring = 20.0'		
22								
23								
24								
25								
26								
27								
28								
29								
30								

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: David D. Schilling
DRILLER: Mark Eaves / Jim Robertson BORING NO.: SWMU269-TW02 SHEET 2 OF 2

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT:	SWMU Investigation			
PROJ. NO.:	CTO-0143		BORING NO.:	SWMU269-TW03
COORDINATES:	EAST:	2502223.553	NORTH:	332194.1739
ELEVATION:	SURFACE:	22.617	TOP OF PVC CASING:	22.451

Rig:	A-200 Ingersol Ram				Date	Progress (Ft.)	Comment	Depth to Water (Ft.)
	Macro Core	Casing	Augers	Acetate sleave				
Size (ID)	2"		3.25	2"	3/25/02	19	estimated	12.7
Length	4		5'	4'				
Type	SS		S	Acetate				
Hammer Wt.	NA		NA	NA				
Fall	NA		NA	NA				

Remarks:

SAMPLE TYPE

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

WELL INFORMATION

Type	Diam.	Top Depth (Ft.)	Bottom Depth (Ft.)
PVC Riser (Schedule 40)	1"	22.451	13.451
PVC screen (Schedule 40) 0.010"	1"	13.451	3.451

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	Lab ID	LEL %	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL) 22.5
1			SWMU269-TW03-00			Gravel and fine sand, moist brown (0.6)	cuttings	21.9
2	M-1	3.8 95%		0.0%	0.0 / 0.0	Fine sand, trace silt, moist, brown	riser	
3							cuttings	
4						(4.0)	riser	18.5
5							cuttings	
6	A-N						riser	
7							bentonite	
8	A-N						riser	
9							sand	
10							screen	
	A-N						sand	

DRILLING CO.:	Parratt Wolff Inc.	BAKER REP.:	David D. Schilling
DRILLER:	Mark Eaves / Jim Robertson	BORING NO.:	SWMU269-TW03 SHEET 1 OF 2

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation
CTO NO.: CTO-0143 BORING NO.: SWMU269-TW03

SAMPLE TYPE
M = Macro Core 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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
ps/bg = point source/background

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	Lab ID	LEL %	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL) 12.0
11								
	A-N					continued from sheet 1	sand	
12						12.0	screen	10.5
			SWMU269-TW03-06			Fine sand, trace silt, moist,greenish brown, trace petro odor 12.7	sand	9.8
13	▼							
14	M-2	1.5 38%		0.0%	4.1 / 0.0	Fine sand, trace silt, wet, greenish brown, trace petro odor	screen	
15							sand	
16						16.0	screen	6.5
17	A-N						sand	
18							screen	
19	A-N					19.0	sand	3.5
20						End of Boring = 19.0'		
21								
22								
23								
24								
25								
26								
27								
28								
29								
30								

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: David D. Schilling
DRILLER: Mark Eaves / Jim Robertson BORING NO.: SWMU269-TW03 SHEET 2 OF 2

Baker Environmental

TEST BORING RECORD

PROJECT: SWMU Investigation
PROJ. NO.: CTO-0143 BORING NO.: SWMU272-SB01
COORDINATES: EAST: 2465007.998 NORTH: 356283.094
ELEVATION: SURFACE:

Rig: A-200 Ingersol Ram	Macro Core	Casing	Augers	Acetate Sleave	Date	Progress (Ft.)	Comments	Depth to Water (Ft.)
Size (ID)	2"		3.25	2"	3/20/02	8	estimated	6.4
Length	4'		5'	4'				
Type	SS		S	Acetate				
Hammer Wt.	NA		NA	NA				
Fall	NA		NA	NA				

Remarks:

SAMPLE TYPE
M = Macro Core 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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
BG/PS = Background/Point Source
ppm = parts per million

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	Lab ID	LEL %	PID (ppm) ps/bg	Visual Description	Elevation (Ft. MSL)
1			SWMU272 SB01-00			Clay and fine sand, damp, hard, non-plastic, dark brown, roots	
						1.6	
2	M-1	3.0 75%		0.0%	0.0 / 0.0	Clay and fine sand, damp, firm, semi-plastic dark brown, orange staining	
3							
4						4.0	
5						5.9	
6	M-2	4.0 100%	SWMU272 SB01-03	0.0%	0.0 / 0.0	Clay, firm, plastic, moist, greenish gray	
						6.4	
7						Fine sand and clay, wet, semi-plastic, greenish gray	
8							
9						End of Boring = 8.0'	
10							

DRILLING COMPANY: Parratt Wolff Inc. BAKER REP.: David D. Schilling
DRILLER: Mark Eaves/Jim Robertson BORING NO.: SWMU272-SB01 SHEET 1 OF 1

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation
CTO NO.: CTO-0143 BORING NO.: SWMU272-TW01

SAMPLE TYPE
M = Macro Core 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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
ps/bg = point source/background

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	Lab ID	LEL %	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL) 6.5
11						Continued from Sheet 1		
12	A-N						sand	
13							screen	
14								
15	A-N						sand	2.0
16						End of Boring = 15.0		
17								
18								
19								
20								
21								
22								
23								
24								
25								
26								
27								
28								
29								
30								

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: David D. Schilling
DRILLER: Mark Eaves / Jim Robertson BORING NO.: SWMU272-TW01 SHEET 2 OF 2

Baker Environmental

TEST BORING RECORD

PROJECT: SWMU Investigation
PROJ. NO.: CTO-0143 BORING NO.: SWMU272-SB02
COORDINATES: EAST: 2465051.391 NORTH: 356302.703
ELEVATION: SURFACE:

Rig: A-200 Ingersol Ram	Macro Core	Casing	Augers	Acetate Sleave	Date	Progress (Ft.)	Comments	Depth to Water (Ft.)
Size (ID)	2"		3.25	2"	3/20/02	8	estimated	6
Length	4'		5'	4'				
Type	SS		S	Acetate				
Hammer Wt.	NA		NA	NA				
Fall	NA		NA	NA				

Remarks:

SAMPLE TYPE
M = Macro Core 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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
BG/PS = Background/Point Source
ppm = parts per million

Depth (Ft.)		Sample Type & No.	Sample Rec. (Ft.,%)	Lab ID	LEL %	PID (ppm) ps/bg	Visual Description	Elevation (Ft. MSL)
1				SWMU272 SB02-00			Fine sand, some clay, non-plastic, damp, hard root systems, dark brown	
2		M-1	3.1 78%		0.0%	9.0 / 0.0	1.7 Clay, moist, firm, plastic, gray, orange motteling	
3								
4								
5								
6	▼	M-2	4.0 100%	SWMU272 SB02-03	0.0%	0.0 / 0.0	6.0 Clay and sand, firm, plastic, wet, light gray	
7								
8								
9							End of Boring = 8.0'	
10								

DRILLING COMPANY: Parratt Wolff Inc. BAKER REP.: David D. Schilling
DRILLER: Mark Eaves/Jim Robertson BORING NO.: SWMU272-SB02 SHEET 1 OF 1

Baker Environmental

TEST BORING RECORD

PROJECT: SWMU Investigation
PROJ. NO.: CTO-0143 BORING NO.: SWMU272-SB03
COORDINATES: EAST: NORTH:
ELEVATION: SURFACE:

Rig: A-200 Ingersol Ram	Macro Core	Casing	Augers	Acetate Sleave	Date	Progress (Ft.)	Comments	Depth to Water (Ft.)
Size (ID)	2"		3.25	2"	3/20/02	8	estimated	3.6
Length	4'		5'	4'				
Type	SS		S	Acetate				
Hammer Wt.	NA		NA	NA				
Fall	NA		NA	NA				

Remarks:

SAMPLE TYPE
M = Macro Core 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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
BG/PS = Background/Point Source
ppm = parts per million

Depth (Ft.)		Sample Type & No.	Sample Rec. (Ft.,%)	Lab ID	LEL %	PID (ppm) ps/bg	Visual Description	Elevation (Ft. MSL)
1				SWMU272 SB03-00			Fine sand, some clay, non-plastic, moist, gray, orange motteling	
2		M-1	4.0 100%		0.0%	263 0.0		
3							Clay, moist, firm, plastic, gray, orange motteling 3.6	
4	▼			SWMU272 SB03-02			Small gravel, wet, petroleum odor	
5								
6		M-2	0.5 13%		0.0%	305 0.0		
7								
8							8.0	
9							End of Boring = 8.0'	
10								

DRILLING COMPANY: Parratt Wolff Inc. BAKER REP.: David D. Schilling
DRILLER: Mark Eaves/Jim Robertson BORING NO.: SWMU272-SB03 SHEET 1 OF 1

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation
PROJ. NO.: CTO-0143 BORING NO.: SWMU272-TW01
COORDINATES: EAST: 2465028.057 NORTH: 356332.9197
ELEVATION: SURFACE: 17.264 TOP OF PVC CASING: 17.025

Rig:	A-200 Ingersol Ram							
	Macro Core	Casing	Augers	Acetate sleave	Date	Progress (Ft.)	Comment	Depth to Water (Ft.)
Size (ID)	2"		3.25	2"	3/21/02	15	estimated	6.8
Length	4		5'	4'				
Type	SS		S	Acetate				
Hammer Wt.	NA		NA	NA				
Fall	NA		NA	NA				

Remarks:

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

WELL INFORMATION

Type	Diam.	Top Depth (Ft.)	Bottom Depth (Ft.)
PVC Riser (Schedule 40)	1"	17.025	12.025
PVC screen (Schedule 40) 0.010"	1"	12.025	2.025

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	Lab ID	LEL %	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL) 17.0
1			SWMU272-TW01-00			Fine sand, some silt, moist, dark brown	cuttings	
2	M-1	4.1 103%		0.0%	0.0 / 0.0	2.1	riser	14.9
3						Clay, trace sand, firm, plastic, moist, dark gray	bentonite	
4						4.0	riser	13.0
5	A-N					Clay, trace sand, firm, plastic moist, light gray 4.1	sand	12.9
6							screen	
7 ▼			SWMU272-TW01-03			Fine sand, some silt, moist, dark brown 6.8		10.2
8	M-2	4.0 100%		0.0%	0.0 / 0.0	Clay, some silt, firm, plastic, wet, light gray	sand	
9							screen	
10						10.0		7.0
	A-N						sand	

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: David D. Schilling
DRILLER: Mark Eaves / Jim Robertson BORING NO.: SWMU272-TW01 SHEET 1 OF 2

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation
PROJ. NO.: CTO-0143 BORING NO.: SWMU272-TW01
COORDINATES: EAST: 2465028.057 NORTH: 356332.9197
ELEVATION: SURFACE: 17.264 TOP OF PVC CASING: 17.025

Rig:	A-200 Ingersol Ram							
	Macro Core	Casing	Augers	Acetate sleave	Date	Progress (Ft.)	Comment	Depth to Water (Ft.)
Size (ID)	2"		3.25	2"	3/21/02	15	estimated	6.8
Length	4		5'	4'				
Type	SS		S	Acetate				
Hammer Wt.	NA		NA	NA				
Fall	NA		NA	NA				

Remarks:

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

WELL INFORMATION

Type	Diam.	Top Depth (Ft.)	Bottom Depth (Ft.)
PVC Riser (Schedule 40)	1"	17.025	12.025
PVC screen (Schedule 40) 0.010"	1"	12.025	2.025

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	Lab ID	LEL %	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL) 17.0
1			SWMU272-TW01-00			Fine sand, some silt, moist, dark brown	cuttings	
2	M-1	4.1 103%		0.0%	0.0 / 0.0		riser	14.9
3						Clay, trace sand, firm, plastic, moist, dark gray	bentonite	
4						4.0	riser	13.0
5	A-N					Clay, trace sand, firm, plastic moist, light gray 4.1	sand	12.9
6							screen	
7	▼		SWMU272-TW01-03			Fine sand, some silt, moist, dark brown 6.8		10.2
8	M-2	4.0 100%		0.0%	0.0 / 0.0	Clay, some silt, firm, plastic, wet, light gray	sand	
9							screen	
10						10.0		7.0
	A-N						sand	

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: David D. Schilling
DRILLER: Mark Eaves / Jim Robertson BORING NO.: SWMU272-TW01 SHEET 1 OF 2

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation
CTO NO.: CTO-0143 BORING NO.: SWMU272-TW01

SAMPLE TYPE
M = Macro Core 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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
ps/bg = point source/background

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	Lab ID	LEL %	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL) 6.5
11						Continued from Sheet 1		
12	A-N						sand	
13							screen	
14								
15	A-N						sand	2.0
16						End of Boring = 15.0		
17								
18								
19								
20								
21								
22								
23								
24								
25								
26								
27								
28								
29								
30								

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: David D. Schilling
DRILLER: Mark Eaves / Jim Robertson BORING NO.: SWMU272-TW01 SHEET 2 OF 2

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT:	SWMU Investigation				
PROJ. NO.:	CTO-0143		BORING NO.:	SWMU272-TW03	
COORDINATES:	EAST:	2465030.180	NORTH:	356279.9897	
ELEVATION:	SURFACE:	17.052	TOP OF PVC CASING:	16.856	

Rig: A-200 Ingersol Ram	Macro Core	Casing	Augers	Acetate sleave	Date	Progress (Ft.)	Comment	Depth to Water (Ft.)
Size (ID)	2"		3.25	2"	3/21/02	16	estimated	6.1
Length	4		5'	4'				
Type	SS		S	Acetate				
Hammer Wt.	NA		NA	NA				
Fall	NA		NA	NA				

Remarks:

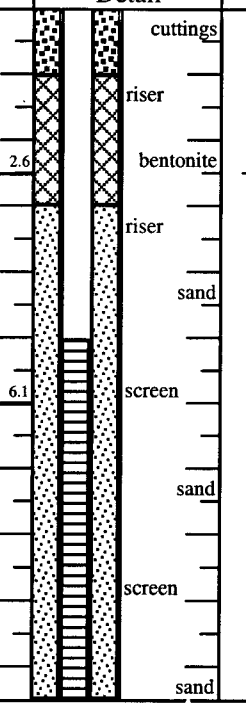
SAMPLE TYPE

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

WELL INFORMATION

Type	Diam.	Top Depth (Ft.)	Bottom Depth (Ft.)
PVC Riser (Schedule 40)	1"	16.856	11.856
PVC screen (Schedule 40) 0.010"	1"	11.856	1.856

Depth (Ft.)		Sample Type & No.	Sample Rec. (Ft.,%)	Lab ID	LEL %	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL) 16.9
1				SWMU272-TW03-00			Fine sand, some silt, moist, dark brown	cuttings	
2		M-1	2.8 70%		0.0%	0.0 / 0.0		riser	
3								2.6 bentonite	14.3
4							Clay, trace sand, firm, plastic, dark gray, moist	riser	
5								sand	
6	▼	M-2	3.1 78%	SWMU272-TW03-03	0.0%	0.0 / 0.0		6.1 screen	10.8
7							Clay, trace sand, firm, plastic, gray, wet, silt lenses		
8								sand	
9								screen	
10		M-3	3.4 100%		0.0%	0.0 / 0.0		sand	



DRILLING CO.:	Parratt Wolff Inc.	BAKER REP.:	David D. Schilling
DRILLER:	Mark Eaves / Jim Robertson	BORING NO.:	SWMU272-TW03 SHEET 1 OF 2

Baker
Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation
CTO NO.: CTO-0143 BORING NO.: SWMU272-TW03

SAMPLE TYPE
M = Macro Core 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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
ps/bg = point source/background

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	Lab ID	LEL %	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL) 6.4
11						Continued from Sheet 1		
12						Clay, trace sand, firm, plastic, gray, wet, silt lenses	sand	
13							screen	
14	M-4	2.9 100%		0.0%	0.0 / 0.0	14.2		2.7
15						Fine grained sand, same silt, wet light and dark brown motteling 15.0	sand	1.9
16						16.0		0.9
17						End of Boring = 16.0		
18								
19								
20								
21								
22								
23								
24								
25								
26								
27								
28								
29								
30								

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: David D. Schilling
DRILLER: Mark Eaves / Jim Robertson BORING NO.: SWMU272-TW03 SHEET 2 OF 2

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation
PROJ. NO.: CTO-0143 BORING NO.: SWMU279-TW01
COORDINATES: EAST: 2504173.747 NORTH: 333379.705
ELEVATION: SURFACE: 20.06 TOP OF PVC CASING: 19.94

Rig:	Macro Core	Casing	Augers	Acetate Sleeve	Date	Progress (Ft.)	Comments	Depth to Water (Ft.)
Size (ID)	2"		3.25	2"	3/25/02	15	estimated	9
Length	4'		5'	4'				
Type	SS		S	Acetate				
Hammer Wt.	NA		NA	NA				
Fall	NA		NA	NA				

Remarks:

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

WELL INFORMATION

Type	Diam.	Top Depth (Ft.)	Bottom Depth (Ft.)
PVC Riser (Schedule 40)	1"	19.94	14.94
PVC Screen (Schedule 40)	1"	14.94	4.94

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	Lab ID	LEL %	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
1	M-1	3.5 88%		0.0%	0.0 / 0.0	gravel fill	cuttings	19.4
2						grey fine sand w/silt	riser	
3							bentonite	
4							riser	
5	M-2	3.7 93%		0.0%	0.0 / 0.0		sand	
6							screen	
7								
8							sand	
9	M-3	3.5 88%	SWMU279 TW01-04	0.0%	0.0 / 0.0	grey fine sand w/silt	screen	
10						Match to Sheet 2		

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: R. Marks
DRILLER: Louis LaFever BORING NO.: SWMU279-TW01 SHEET 1 OF 2

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation
CTO NO.: CTO-0143 BORING NO.: SWMU279-TW01

SAMPLE TYPE
M = Macro Core 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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
ps/bg = point source/background

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	Lab ID	LEL %	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
11						Continued from Sheet 1	sand	
12						12.0	screen	
13	A-N							
14							sand	
15						15.0	screen	4.9
16						End of Boring = 15.0		
17								
18								
19								
20								
21								
22								
23								
24								
25								
26								
27								
28								
29								
30						Match to Sheet 3		

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: R. Marks
DRILLER: Louis LaFever BORING NO.: SWMU279-TW01 SHEET 2 OF 2

Baker

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation

CTO NO.: CTO-0143 BORING NO.: SWMU279-TW01

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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
BG/PS = Background/Point Source

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	SPT	Lab ID	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
31						Continued from Sheet 2		
32								
33								
34								
35								
36								
37								
38								
39								
40								
41								
42								
43								
44								
45								
46								
47								
48								
49								
50						Match to Sheet 4		

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: R. Marks

DRILLER: Louis LaFever BORING NO.: SWMU279-TV SHEET 3 OF 2

Baker

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation

CTO NO.: CTO-0143 BORING NO.: SWMU279-TW01

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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
BG/PS = Background/Point Source

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	SPT	Lab ID	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
51						Continued from Sheet 3		
52								
53								
54								
55								
56								
57								
58								
59								
60								
61								
62								
63								
64								
65								
66								
67								
68								
69								
70						Match to Sheet 5		

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: R. Marks

DRILLER: Louis LaFever BORING NO.: SWMU279-TV SHEET 4 OF 2

Baker

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation

CTO NO.: CTO-0143 BORING NO.: SWMU279-TW01

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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
BG/PS = Background/Point Source

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	SPT	Lab ID	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
71						Continued from Sheet 5		
72								
73								
74								
75								
76								
77								
78								
79								
80								
81								
82								
83								
84								
85								
86								
87								
88								
89								
90						Match to Sheet 6		

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: R. Marks

DRILLER: Louis LaFever BORING NO.: SWMU279-TV SHEET 5 OF 2

Baker

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation

CTO NO.: CTO-0143 BORING NO.: SWMU279-TW01

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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
ps/bg = point source/background

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	SPT	Lab ID	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
91						Continued from Sheet 1		
92								
93								
94								
95								
96								
97								
98								
99								
100								
101								
102								
103								
104								
105								
106								
107								
108								
109								
110								

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: R. Marks

DRILLER: Louis LaFever BORING NO.: SWMU279-TV SHEET 6 OF 2

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT:	SWMU Investigation		
PROJ. NO.:	CTO-0143	BORING NO.:	SWMU279-TW02
COORDINATES:	EAST: 2504155.352	NORTH:	333404.743
ELEVATION:	SURFACE: 20.21	TOP OF PVC CASING:	20.05

Rig:	Macro Core	Casing	Augers	Acetate Sleeve	Date	Progress (Ft.)	Comments	Depth to Water (Ft.)
Size (ID)	2"		3.25	2"	3/25/02	15	estimated	9
Length	4'		5'	4'				
Type	SS		S	Acetate				
Hammer Wt.	NA		NA	NA				
Fall	NA		NA	NA				

Remarks:

SAMPLE TYPE

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

WELL INFORMATION

Type		Diam.	Top Depth (Ft.)	Bottom Depth (Ft.)
PVC	Riser (Schedule 40)	1"	20.05	15.05
PVC	Screen (Schedule 40)	1"	15.05	5.05

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	Lab ID	LEL %	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
1	A-N						cuttings, riser	
2							bentonite	
3							riser	
4							sand	
5	A-N							
6							screen	
7								
8							sand (8.0)	12.1
9 ▼	M-1		SWMU279 TW02-04	0.0%	0.0 / 0.0	grey fine sand w/silt	screen	
10						Match to Sheet 2		

DRILLING CO.:	Parratt Wolff Inc.	BAKER REP.:	R. Marks
DRILLER:	Louis LaFever	BORING NO.:	SWMU279-TW02 SHEET 1 OF 2

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation
CTO NO.: CTO-0143 BORING NO.: SWMU279-TW02

SAMPLE TYPE
M = Macro Core 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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
ps/bg = point source/background

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	Lab ID	LEL %	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
11						Continued from Sheet 1	sand	
12							screen	
13	A-N					See boring log SWMU279-TW01 for complete geology		
14							sand	
15							15.0 screen	5.1
16						End of Boring = 15.0		
17								
18								
19								
20								
21								
22								
23								
24								
25								
26								
27								
28								
29								
30						Match to Sheet 3		

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: R. Marks
DRILLER: Louis LaFever BORING NO.: SWMU279-TW02 SHEET 2 OF 2

Baker

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation

CTO NO.: CTO-0143 BORING NO.: SWMU279-TW02

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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
BG/PS = Background/Point Source

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	SPT	Lab ID	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
31						Continued from Sheet 2		
32								
33								
34								
35								
36								
37								
38								
39								
40								
41								
42								
43								
44								
45								
46								
47								
48								
49								
50						Match to Sheet 4		

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: R. Marks

DRILLER: Louis LaFever BORING NO.: SWMU279-TV SHEET 3 OF 2

Baker

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation

CTO NO.: CTO-0143 BORING NO.: SWMU279-TW02

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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
BG/PS = Background/Point Source

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	SPT	Lab ID	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
51						Continued from Sheet 3		
52								
53								
54								
55								
56								
57								
58								
59								
60								
61								
62								
63								
64								
65								
66								
67								
68								
69								
70						Match to Sheet 5		

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: R. Marks

DRILLER: Louis LaFever BORING NO.: SWMU279-TV SHEET 4 OF 2

Baker

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation

CTO NO.: CTO-0143 BORING NO.: SWMU279-TW02

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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
BG/PS = Background/Point Source

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	SPT	Lab ID	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
71						Continued from Sheet 5		
72								
73								
74								
75								
76								
77								
78								
79								
80								
81								
82								
83								
84								
85								
86								
87								
88								
89								
90						Match to Sheet 6		

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: R. Marks

DRILLER: Louis LaFever BORING NO.: SWMU279-TV SHEET 5 OF 2

Baker

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation

CTO NO.: CTO-0143 BORING NO.: SWMU279-TW02

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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
ps/bg = point source/background

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	SPT	Lab ID	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
91						Continued from Sheet 1		
92								
93								
94								
95								
96								
97								
98								
99								
100								
101								
102								
103								
104								
105								
106								
107								
108								
109								
110								

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: R. Marks

DRILLER: Louis LaFever BORING NO.: SWMU279-TV SHEET 6 OF 2

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT:	SWMU Investigation				
PROJ. NO.:	CTO-0143		BORING NO.:	SWMU279-TW03	
COORDINATES:	EAST:	2504133.283	NORTH:	333389.737	
ELEVATION:	SURFACE:	20.32	TOP OF PVC CASING:	20.11	

Rig:	Macro Core	Casing	Augers	Acetate Sleeve	Date	Progress (Ft.)	Comments	Depth to Water (Ft.)
Size (ID)	2"		3.25	2"	3/25/02	15	estimated	9
Length	4'		5'	4'				
Type	SS		S	Acetate				
Hammer Wt.	NA		NA	NA				
Fall	NA		NA	NA				

Remarks:

SAMPLE TYPE

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

WELL INFORMATION

Type		Diam.	Top Depth (Ft.)	Bottom Depth (Ft.)
PVC	Riser (Schedule 40)	1"	20.11	15.11
PVC	Screen (Schedule 40)	1"	15.11	5.11

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	Lab ID	LEL %	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
1	A-N						cuttings, riser	
2							bentonite	
3							riser	
4							sand	
5	A-N							
6							screen	
7								
8							sand	12.1
8.0								
9 ▼	M-3		SWMU279 TW03-04	0.0%	0.0 / 0.0	grey fine sand w/silt	screen	
10						Match to Sheet 2		

DRILLING CO.:	Parratt Wolff Inc.	BAKER REP.:	R. Marks
DRILLER:	Louis LaFever	BORING NO.:	SWMU279-TW03 SHEET 1 OF 2

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation
CTO NO.: CTO-0143 BORING NO.: SWMU279-TW03

SAMPLE TYPE
M = Macro Core 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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
ps/bg = point source/background

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	Lab ID	LEL %	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
11						Continued from Sheet 1	sand	
12						12.0	screen	8.1
13	A-N					See boring log SWMU279-TW01 for complete geology		
14							sand	
15						15.0	screen	5.1
16						End of Boring = 15.0		
17								
18								
19								
20								
21								
22								
23								
24								
25								
26								
27								
28								
29								
30						Match to Sheet 3		

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: R. Marks
DRILLER: Louis LaFever BORING NO.: SWMU279-TW03 SHEET 2 OF 2

Baker

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation

CTO NO.: CTO-0143 BORING NO.: SWMU279-TW03

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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
BG/PS = Background/Point Source

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	SPT	Lab ID	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
31						Continued from Sheet 2		
32								
33								
34								
35								
36								
37								
38								
39								
40								
41								
42								
43								
44								
45								
46								
47								
48								
49								
50						Match to Sheet 4		

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: R. Marks

DRILLER: Louis LaFever BORING NO.: SWMU279-TV SHEET 3 OF 2

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation
CTO NO.: CTO-0143 BORING NO.: SWMU279-TW03

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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
BG/PS = Background/Point Source

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	SPT	Lab ID	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
51						Continued from Sheet 3		
52								
53								
54								
55								
56								
57								
58								
59								
60								
61								
62								
63								
64								
65								
66								
67								
68								
69								
70						Match to Sheet 5		

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: R. Marks
DRILLER: Louis LaFever BORING NO.: SWMU279-TV SHEET 4 OF 2

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation
CTO NO.: CTO-0143 BORING NO.: SWMU279-TW03

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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
BG/PS = Background/Point Source

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	SPT	Lab ID	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
71						Continued from Sheet 5		
72								
73								
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79								
80								
81								
82								
83								
84								
85								
86								
87								
88								
89								
90						Match to Sheet 6		

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: R. Marks
DRILLER: Louis LaFever BORING NO.: SWMU279-TW SHEET 5 OF 2

Baker

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation

CTO NO.: CTO-0143 BORING NO.: SWMU279-TW03

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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
ps/bg = point source/background

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	SPT	Lab ID	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
91						Continued from Sheet 1		
92								
93								
94								
95								
96								
97								
98								
99								
100								
101								
102								
103								
104								
105								
106								
107								
108								
109								
110								

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: R. Marks

DRILLER: Louis LaFever BORING NO.: SWMU279-TV SHEET 6 OF 2

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation
PROJ. NO.: CTO-0143 BORING NO.: SWMU285-TW01
COORDINATES: EAST: 2502796.077 NORTH: 340358.1137
ELEVATION: SURFACE: 29.955 TOP OF PVC CASING: 29.871

Rig:	A-200 Ingersol Ram				Date	Progress (Ft.)	Comment	Depth to Water (Ft.)
	Macro Core	Casing	Augers	Acetate sleave				
Size (ID)	2"		3.25	2"	3/26/02	12	estimated	4.5
Length	4		5'	4'				
Type	SS		S	Acetate				
Hammer Wt.	NA		NA	NA				
Fall	NA		NA	NA				

Remarks:

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

WELL INFORMATION

Type	Diam.	Top Depth (Ft.)	Bottom Depth (Ft.)
PVC Riser (Schedule 40)	1"	29.871	27.871
PVC screen (Schedule 40) 0.010"	1"	27.871	17.871

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	Lab ID	LEL %	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL) 29.9
1–2	M-1	3.1 78%	SWMU285-TW01-00, & 00D	0.0%	0.0 / 0.0	Fine sand, trace silt, trace gravel, moist, dark brown	bentonite; riser; sand	27.6
2.3–4.5						Fine sand, little clay, moist, semi-plastic, dark brown	screen; sand	25.4
5–8	M-2	3.9 98%	SWMU285-TW01-02	0.0%	0.0 / 0.0	Fine sand and little clay, wet, grayish brown	screen; sand; screen	21.9
8.0–10	A-N \ A-N						sand; screen; sand	

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: David D. Schilling
DRILLER: Mark Eaves / Jim Robertson BORING NO.: SWMU285-TW01 SHEET 1 OF 2

Baker
Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation
CTO NO.: CTO-0143 BORING NO.: SWMU285-TW01

SAMPLE TYPE
M = Macro Core 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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
ps/bg = point source/background

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	Lab ID	LEL %	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL) 19.4
11	A-N					Continued from sheet 1	sand	
12							12.0 screen	17.9
13						End of Boring = 12.0'		
14								
15								
16								
17								
18								
19								
20								
21								
22								
23								
24								
25								
26								
27								
28								
29								
30								

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: David D. Schilling
DRILLER: Mark Eaves / Jim Robertson BORING NO.: SWMU285-TW01 SHEET 2 OF 2

Baker

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation

PROJ. NO.: CTO-0143 BORING NO.: SWMU285-TW02

COORDINATES: EAST: 2502846.326 NORTH: 340357.2851

ELEVATION: SURFACE: 30.852 TOP OF PVC CASING: 30.640

Rig:	A-200 Ingersol Ram				Date	Progress (Ft.)	Comment	Depth to Water (Ft.)
	Macro Core	Casing	Augers	Acetate sleave				
Size (ID)	2"		2.75"	2"	4/3/02	12	estimated	5
Length	4		5'	4'				
Type	SS		S	Acetate				
Hammer Wt.	NA		NA	NA				
Fall	NA		NA	NA				

Remarks:

SAMPLE TYPE

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

WELL INFORMATION

Type	Diam.	Top Depth (Ft.)	Bottom Depth (Ft.)
PVC Riser (Schedule 40)	1"	30.640	28.640
PVC screen (Schedule 40) 0.010"	1"	28.640	18.640

Depth (Ft.)		Sample Type & No.	Sample Rec. (Ft.,%)	Lab ID	LEL %	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL) 30.6
1				SWMU285-TW02-00			Fine sand, some rock fragments, trace silt, gray 1.3	bentonite	29.3
2		M-1	4.0 100%				Cinders 1.5	riser	29.1
3							Silt, trace clay, black 1.9		28.7
4							Fine sand, little silt, damp, dark brown 4.0	sand screen	26.6
5	▼			SWMU285-TW02-02, 02MS, & 02MSD			Silt and Fine sand, trace clay, gray moist 5.0	sand	25.6
6		M-2	3.7 93%				Silt and Fine sand, trace clay, gray wet 6.2	screen	24.4
7							Silt and Fine sand, trace clay, gray wet, orangish brown stainin 6.9	sand	23.7
8							Fine sand, trace silt, gray, wet orangish brown staining 8.0	screen	22.6
9		A-N						sand	
10		A-N						screen	
								sand	

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: David D. Schilling

DRILLER: Mark Eaves / Jim Robertson BORING NO.: SWMU285-TW02 SHEET 1 OF 2

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation
CTO NO.: CTO-0143 BORING NO.: SWMU285-TW02

SAMPLE TYPE
M = Macro Core 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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
ps/bg = point source/background

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	Lab ID	LEL %	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL) 20.1
11	A-N					Continued from sheet 1	sand	
12						12.0	screen	18.6
13						End of Boring = 12.0'		
14								
15								
16								
17								
18								
19								
20								
21								
22								
23								
24								
25								
26								
27								
28								
29								
30								

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: David D. Schilling
DRILLER: Mark Eaves / Jim Robertson BORING NO.: SWMU285-TW02 SHEET 2 OF 2

Baker
Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation
PROJ. NO.: CTO-0143 BORING NO.: SWMU285-TW03
COORDINATES: EAST: 2502814.112 NORTH: 340338.8377
ELEVATION: SURFACE: 30.932 TOP OF PVC CASING: 31.021

Rig:	A-200 Ingersol Ram				Date	Progress (Ft.)	Comment	Depth to Water (Ft.)
	Macro Core	Casing	Augers	Acetate sleave				
Size (ID)	2"		3.25	2"	3/26/02	14	estimated	5.4
Length	4		5'	4'				
Type	SS		S	Acetate				
Hammer Wt.	NA		NA	NA				
Fall	NA		NA	NA				

Remarks:

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

WELL INFORMATION

Type	Diam.	Top Depth (Ft.)	Bottom Depth (Ft.)
PVC Riser (Schedule 40)	1"	31.021	27.021
PVC screen (Schedule 40) 0.010"	1"	27.021	17.021

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	Lab ID	LEL %	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL) 31.0
1			SWMU285-TW03-00			Fine sand and gravel, damp, brown (1.2)	bentonite	29.8
2	M-1	3.6 90%		0.0%	0.0 / 0.0	Fine sand, trace silt, moist, dark, brown, orange staining	riser / sand	
3						(2.8)		28.2
4						Fine sand and clay, moist, semi-plastic, light grayish brown	riser / sand	
5	▼		SWMU285-TW03-03			(5.4)	screen	25.6
6	M-2	2.7 68%		0.0%	0.0 / 0.0	Fine sand, trace silt, wet, light gray	sand / screen	
7								
8						(8.0)		23.0
9						Fine sand, little clay, wet, semi-plastic, light gray	sand / screen	
10	M-3	3.3 83%		0.0%	0.0 / 0.0		sand	

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: David D. Schilling
DRILLER: Mark Eaves / Jim Robertson BORING NO.: SWMU285-TW03 SHEET 1 OF 2

Baker Environmental

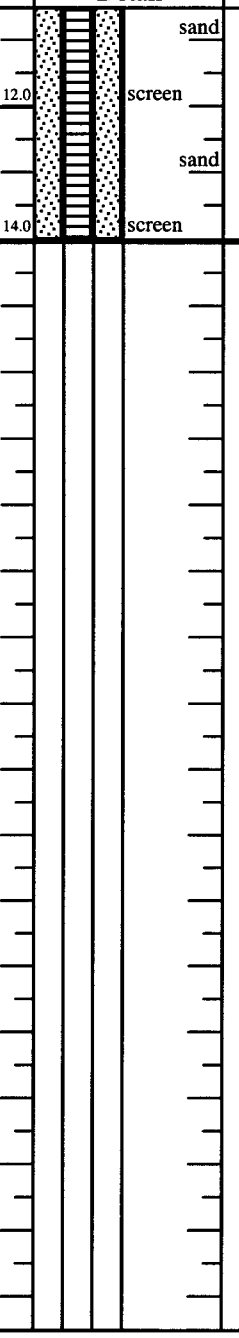
TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation
CTO NO.: CTO-0143 BORING NO.: SWMU285-TW03

SAMPLE TYPE
M = Macro Core 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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
ps/bg = point source/background

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	Lab ID	LEL %	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL) 20.5
11						Continued from sheet 1	sand	
12						12.0	screen	19.0
13	A-N						sand	
14						14.0	screen	17.0
15						End of Boring = 14.0'		
16								
17								
18								
19								
20								
21								
22								
23								
24								
25								
26								
27								
28								
29								
30								



DRILLING CO.: Parratt Wolff Inc. BAKER REP.: David D. Schilling
DRILLER: Mark Eaves / Jim Robertson BORING NO.: SWMU285-TW03 SHEET 2 OF 2

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation
PROJ. NO.: CTO-0143 BORING NO.: SWMU291-TW01
COORDINATES: EAST: 2501501.414 NORTH: 336608.066
ELEVATION: SURFACE: 25.43 TOP OF PVC 25.40

Rig:	Macro Core	Casing	Augers	Acetate Sleeve	Date	Progress (Ft.)	Comments	Depth to Water (Ft.)
Size (ID)	2"		3.25	2"	3/24/02	15	estimated	8
Length	4'		5'	4'				
Type	SS		S	Acetate				
Hammer Wt.	NA		NA	NA				
Fall	NA		NA	NA				

Remarks:

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

WELL INFORMATION

Type	Diam.	Top Depth (Ft.)	Bottom Depth (Ft.)
PVC Riser (Schedule 40)	1"	25.4	20.4
PVC Screen (Schedule 40)	1"	20.4	10.4

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	Lab ID	LEL %	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
1–4	M-1		SWMU291-TW01-00	0.0%	0.0 / 0.0	Lt. Brown fine sand w/silt; Dk. Grey fine sand w/silt	cuttings; bentonite; riser	22.5; 21.9
5–8	M-2		SWMU291-TW01-04	0.0%	0.0 / 0.0	med. Grey fine sand w/silt	sand; screen; sand	17.4
9–10	A-N					For complete geology see log SWMU291-TW02	screen; sand	

Match to Sheet 2

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: R. Marks
DRILLER: Louis LaFever BORING NO.: SWMU291-TW01 SHEET 1 OF 2

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation
CTO NO.: CTO-0143 BORING NO.: SWMU291-TW01

SAMPLE TYPE
M = Macro Core 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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
ps/bg = point source/background

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	Lab ID	LEL %	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
11						Continued from Sheet 1	sand	
12							screen	
13	A-N						sand	
14							screen	
15						15.0	sand	10.4
16						End of Boring = 15.0		
17								
18								
19								
20								
21								
22								
23								
24								
25								
26								
27								
28								
29								
30						Match to Sheet 3		

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: R. Marks
DRILLER: Louis LaFever BORING NO.: SWMU291-TW01 SHEET 2 OF 2

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation
CTO NO.: CTO-0143 BORING NO.: SWMU291-TW01

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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
BG/PS = Background/Point Source

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	SPT	Lab ID	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
31						Continued from Sheet 2		
32								
33								
34								
35								
36								
37								
38								
39								
40								
41								
42								
43								
44								
45								
46								
47								
48								
49								
50						Match to Sheet 4		

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: R. Marks
DRILLER: Louis LaFever BORING NO.: SWMU291-TV SHEET 3 OF 2

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation
CTO NO.: CTO-0143 BORING NO.: SWMU291-TW01

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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
BG/PS = Background/Point Source

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	SPT	Lab ID	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
51						Continued from Sheet 3		
52								
53								
54								
55								
56								
57								
58								
59								
60								
61								
62								
63								
64								
65								
66								
67								
68								
69								
70						Match to Sheet 5		

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: R. Marks
DRILLER: Louis LaFever BORING NO.: SWMU291-TV SHEET 4 OF 2

Baker

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation

CTO NO.: CTO-0143 BORING NO.: SWMU291-TW01

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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
BG/PS = Background/Point Source

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	SPT	Lab ID	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
71						Continued from Sheet 5		
72								
73								
74								
75								
76								
77								
78								
79								
80								
81								
82								
83								
84								
85								
86								
87								
88								
89								
90						Match to Sheet 6		

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: R. Marks

DRILLER: Louis LaFever BORING NO.: SWMU291-TV SHEET 5 OF 2

Baker
Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation
CTO NO.: CTO-0143 BORING NO.: SWMU291-TW01

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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
ps/bg = point source/background

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	SPT	Lab ID	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
91						Continued from Sheet 1		
92								
93								
94								
95								
96								
97								
98								
99								
100								
101								
102								
103								
104								
105								
106								
107								
108								
109								
110								

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: R. Marks
DRILLER: Louis LaFever BORING NO.: SWMU291-TV SHEET 6 OF 2

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT:	SWMU Investigation			
PROJ. NO.:	CTO-0143		BORING NO.:	SWMU291-TW02
COORDINATES:	EAST:	251460.189	NORTH:	336575.743
ELEVATION:	SURFACE:	23.69	TOP OF PVC	23.39

Rig:	Macro Core	Casing	Augers	Acetate Sleeve	Date	Progress (Ft.)	Comments	Depth to Water (Ft.)
Size (ID)	2"		3.25	2"	3/24/02	15	estimated	8
Length	4'		5'	4'				
Type	SS		S	Acetate				
Hammer Wt.	NA		NA	NA				
Fall	NA		NA	NA				

Remarks:

SAMPLE TYPE

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

WELL INFORMATION

Type		Diam.	Top Depth (Ft.)	Bottom Depth (Ft.)
PVC	Riser (Schedule 40)	1"	23.39	18.39
PVC	Screen (Schedule 40)	1"	18.39	8.39

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	Lab ID	LEL %	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
1–4	M-1	3.6 90%	SWMU291-TW02-00	0.0%	0.0 / 0.0	Lt. Brown fine sand w/silt; Dk. Grey fine sand w/silt	cuttings; bentonite; riser (2.9–3.5)	20.5; 19.9
5–8	M-2	3.1 78%	SWMU291-TW02-04	0.0%	0.0 / 0.0	med. Grey fine sand w/silt	sand; screen; sand	
9–10	M-3	1.0 25%		0.0%	0.0 / 0.0	Match to Sheet 2	screen; sand	

DRILLING CO.:	Parratt Wolff Inc.	BAKER REP.:	R. Marks
DRILLER:	Louis LaFever	BORING NO.:	SWMU291-TW02 SHEET 1 OF 2

Baker
Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation
CTO NO.: CTO-0143 BORING NO.: SWMU291-TW02

SAMPLE TYPE
M = Macro Core 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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
ps/bg = point source/background

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	Lab ID	LEL %	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
11						Continued from Sheet 1	sand	
12						12.0	screen	11.4
13	A-N						sand	
14							screen	
15							sand	8.4
16						End of Boring = 15.0		
17								
18								
19								
20								
21								
22								
23								
24								
25								
26								
27								
28								
29								
30						Match to Sheet 3		

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: R. Marks
DRILLER: Louis LaFever BORING NO.: SWMU291-TW02 SHEET 2 OF 2

Baker

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation

CTO NO.: CTO-0143 BORING NO.: SWMU291-TW02

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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
BG/PS = Background/Point Source

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	SPT	Lab ID	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
31						Continued from Sheet 2		
32								
33								
34								
35								
36								
37								
38								
39								
40								
41								
42								
43								
44								
45								
46								
47								
48								
49								
50						Match to Sheet 4		

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: R. Marks

DRILLER: Louis LaFever BORING NO.: SWMU291-TW SHEET 3 OF 2

Baker

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation

CTO NO.: CTO-0143 BORING NO.: SWMU291-TW02

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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
BG/PS = Background/Point Source

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	SPT	Lab ID	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
51						Continued from Sheet 3		
52								
53								
54								
55								
56								
57								
58								
59								
60								
61								
62								
63								
64								
65								
66								
67								
68								
69								
70						Match to Sheet 5		

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: R. Marks

DRILLER: Louis LaFever BORING NO.: SWMU291-TV SHEET 4 OF 2

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation
CTO NO.: CTO-0143 BORING NO.: SWMU291-TW02

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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
BG/PS = Background/Point Source

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	SPT	Lab ID	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
71						Continued from Sheet 5		
72								
73								
74								
75								
76								
77								
78								
79								
80								
81								
82								
83								
84								
85								
86								
87								
88								
89								
90						Match to Sheet 6		

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: R. Marks
DRILLER: Louis LaFever BORING NO.: SWMU291-TV SHEET 5 OF 2

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation
CTO NO.: CTO-0143 BORING NO.: SWMU291-TW02

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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
ps/bg = point source/background

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	SPT	Lab ID	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
91						Continued from Sheet 1		
92								
93								
94								
95								
96								
97								
98								
99								
100								
101								
102								
103								
104								
105								
106								
107								
108								
109								
110								

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: R. Marks
DRILLER: Louis LaFever BORING NO.: SWMU291-TV SHEET 6 OF 2

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation
PROJ. NO.: CTO-0143 BORING NO.: SWMU291-TW03
COORDINATES: EAST: 2501491.990 NORTH: 336567.98
ELEVATION: SURFACE: 20.59 TOP OF PVC 20.58

Rig:	Macro Core	Casing	Augers	Acetate Sleeve	Date	Progress (Ft.)	Comments	Depth to Water (Ft.)
Size (ID)	2"		3.25	2"	3/24/02	12	estimated	5
Length	4'		5'	4'				
Type	SS		S	Acetate				
Hammer Wt.	NA		NA	NA				
Fall	NA		NA	NA				

Remarks:

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

WELL INFORMATION

Type		Diam.	Top Depth (Ft.)	Bottom Depth (Ft.)
PVC	Riser (Schedule 40)	1"	20.58	18.58
PVC	Screen (Schedule 40)	1"	18.58	8.58

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	Lab ID	LEL %	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
1–4	M-1		SWMU291-TW03-00	0.0%	0.0 / 0.0	Lt. Brown fine sand w/silt	bentonite, riser, sand	
						Dk. Grey fine sand w/silt (3.5)	screen	17.7 / 17.1
5–8	M-2		SWMU291-TW03-04	0.0%	0.0 / 0.0	med. Grey fine sand w/silt (8.0)	sand, screen, sand	12.6
9–10	A-N					For complete geology see log SWMU291-TW02 Match to Sheet 2	screen, sand	

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: R. Marks
DRILLER: Louis LaFever BORING NO.: SWMU291-TW03 SHEET 1 OF 2

Baker
Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation
CTO NO.: CTO-0143 BORING NO.: SWMU291-TW03

SAMPLE TYPE
M = Macro Core 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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
ps/bg = point source/background

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	Lab ID	LEL %	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
11	A-N					Continued from Sheet 1	sand	
12						12.0	screen	8.6
13						End of Boring = 12.0		
14								
15								
16								
17								
18								
19								
20								
21								
22								
23								
24								
25								
26								
27								
28								
29								
30						Match to Sheet 3		

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: R. Marks
DRILLER: Louis LaFever BORING NO.: SWMU291-TW03 SHEET 2 OF 2

Baker

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation

CTO NO.: CTO-0143 BORING NO.: SWMU291-TW03

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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
BG/PS = Background/Point Source

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	SPT	Lab ID	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
31						Continued from Sheet 2		
32								
33								
34								
35								
36								
37								
38								
39								
40								
41								
42								
43								
44								
45								
46								
47								
48								
49								
50						Match to Sheet 4		

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: R. Marks

DRILLER: Louis LaFever BORING NO.: SWMU291-TV SHEET 3 OF 2

Baker

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation

CTO NO.: CTO-0143 BORING NO.: SWMU291-TW03

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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
BG/PS = Background/Point Source

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	SPT	Lab ID	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
51						Continued from Sheet 3		
52								
53								
54								
55								
56								
57								
58								
59								
60								
61								
62								
63								
64								
65								
66								
67								
68								
69								
70						Match to Sheet 5		

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: R. Marks

DRILLER: Louis LaFever BORING NO.: SWMU291-TV SHEET 4 OF 2

Baker
Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation
CTO NO.: CTO-0143 BORING NO.: SWMU291-TW03

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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
BG/PS = Background/Point Source

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	SPT	Lab ID	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
71						Continued from Sheet 5		
72								
73								
74								
75								
76								
77								
78								
79								
80								
81								
82								
83								
84								
85								
86								
87								
88								
89								
90						Match to Sheet 6		

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: R. Marks
DRILLER: Louis LaFever BORING NO.: SWMU291-TV SHEET 5 OF 2

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation
CTO NO.: CTO-0143 BORING NO.: SWMU291-TW03

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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
ps/bg = point source/background

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	SPT	Lab ID	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
91						Continued from Sheet 1		
92								
93								
94								
95								
96								
97								
98								
99								
100								
101								
102								
103								
104								
105								
106								
107								
108								
109								
110								

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: R. Marks
DRILLER: Louis LaFever BORING NO.: SWMU291-TV SHEET 6 OF 2

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT:	SWMU Investigation				
PROJ. NO.:	CTO-0143		BORING NO.:	SWMU293-TW01	
COORDINATES:	EAST:	2501708.642	NORTH:	338948.7483	
ELEVATION:	SURFACE:	29.450	TOP OF PVC CASING:	29.706	

Rig: A-200 Ingersol Ram	Macro Core	Casing	Augers	Acetate sleave	Date	Progress (Ft.)	Comment	Depth to Water (Ft.)
Size (ID)	2"		3.25	2"	3/22/02	16	estimated	8.0
Length	4		5'	4'				
Type	SS		S	Acetate				
Hammer Wt.	NA		NA	NA				
Fall	NA		NA	NA				

Remarks:

SAMPLE TYPE

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

WELL INFORMATION

Type	Diam.	Top Depth (Ft.)	Bottom Depth (Ft.)
PVC Riser (Schedule 40)	1"	29.706	23.706
PVC screen (Schedule 40) 0.010"	1"	23.706	13.706

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	Lab ID	LEL %	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL) 29.7
1			SWMU293-TW01-00			Fine sand, trace silt, moist, dark brown	cuttings	
2	M-1	3.4 85%		0.0%	0.0 / 0.0		riser	
3						2.8	bentonite	26.9
4						Fine sand, trace silt, moist, grayish brown 4.0	riser	25.7
5						Fine sand, trace silt, moist, orange and light gray motteling	sand	
6	M-2	2.7 68%		0.0%	0.0 / 0.0	5.9	riser	23.8
7						Fine sand, trace silt, moist, light gray and light brown motteling	sand	
8	▼					8.0	screen	21.7
9			SWMU293-TW01-04, 04MS, & 04MSD			Fine sand, trace silt, wet, gray, orange staining	screen	
10	M-3	3.5 88%		0.0%	0.0 / 0.0	10.0 Clay, trace sand, moist, firm,	sand	19.7

DRILLING CO.:	Parratt Wolff Inc.	BAKER REP.:	David D. Schilling
DRILLER:	Mark Eaves / Jim Robertson	BORING NO.:	SWMU293-TW01 SHEET 1 OF 2

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation
CTO NO.: CTO-0143 BORING NO.: SWMU293-TW01

SAMPLE TYPE
M = Macro Core 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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
ps/bg = point source/background

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	Lab ID	LEL %	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL) 19.2
11						Continued from Sheet 1		
12						plastic, gray 11.3 Fine sand, trace silt, wet, gray 12.0	sand	18.4 17.7
13							screen	
14	M-4	3.2 80%		0.0%	0.0 0.0			
15							sand	
16						16.0		13.7
17						End of Boring = 16.0		
18								
19								
20								
21								
22								
23								
24								
25								
26								
27								
28								
29								
30								

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: David D. Schilling
DRILLER: Mark Eaves / Jim Robertson BORING NO.: SWMU293-TW01 SHEET 2 OF 2

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT:	SWMU Investigation			
PROJ. NO.:	CTO-0143		BORING NO.:	SWMU293-TW02
COORDINATES:	EAST:	2501695.178	NORTH:	338935.5482
ELEVATION:	SURFACE:	29.379	TOP OF PVC CASING:	29.647

Rig: A-200 Ingersol Ram	Macro Core	Casing	Augers	Acetate sleave	Date	Progress (Ft.)	Comment	Depth to Water (Ft.)
Size (ID)	2"		3.25	2"	3/22/02	16	estimated	8.1
Length	4		5'	4'				
Type	SS		S	Acetate				
Hammer Wt.	NA		NA	NA				
Fall	NA		NA	NA				

Remarks:

SAMPLE TYPE

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

WELL INFORMATION

Type	Diam.	Top Depth (Ft.)	Bottom Depth (Ft.)
PVC Riser (Schedule 40)	1"	29.647	23.647
PVC screen (Schedule 40) 0.010"	1"	23.647	13.647

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	Lab ID	LEL %	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL) 29.6
1			SWMU293-TW02-00			Fine sand, trace silt, loam, moist roots (0.3)	cuttings	29.3
2	M-1	3.1 78%		0.0%	0.0 / 0.0	Fine sand, trace silt, moist, brown	riser	
3							bentonite	
4						(4.0)	riser	25.6
5	A-N						sand	
6						(6.0)	riser	23.6
7						Fine sand, trace silt, moist, gray, orange staining	sand	
8	M-2	3.4 85%	SWMU293-TW02-04	0.0%	0.0 / 0.0	(8.1) Fine sand, trace silt, wet, gray	screen	21.5
9								
10							screen	19.6
	A-N					(10.0)	sand	

DRILLING CO.:	Parratt Wolff Inc.	BAKER REP.:	David D. Schilling
DRILLER:	Mark Eaves / Jim Robertson	BORING NO.:	SWMU293-TW02 SHEET 1 OF 2

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation
CTO NO.: CTO-0143 BORING NO.: SWMU293-TW02

SAMPLE TYPE
M = Macro Core 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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
ps/bg = point source/background

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	Lab ID	LEL %	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL) 19.1
11						Continued from Sheet 1		
12	A-N						sand	
13							screen	
14	A-N							
15							sand	
16	A-N					16.0		13.6
17						End of Boring = 16.0		
18								
19								
20								
21								
22								
23								
24								
25								
26								
27								
28								
29								
30								

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: David D. Schilling
DRILLER: Mark Eaves / Jim Robertson BORING NO.: SWMU293-TW02 SHEET 2 OF 2

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation
CTO NO.: CTO-0143 BORING NO.: SWMU293-TW02

SAMPLE TYPE
M = Macro Core 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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
ps/bg = point source/background

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	Lab ID	LEL %	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL) 19.1
11						Continued from Sheet 1		
12	A-N						sand	
13							screen	
14	A-N							
15							sand	
16	A-N					16.0		13.6
17						End of Boring = 16.0		
18								
19								
20								
21								
22								
23								
24								
25								
26								
27								
28								
29								
30								

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: David D. Schilling
DRILLER: Mark Eaves / Jim Robertson BORING NO.: SWMU293-TW02 SHEET 2 OF 2

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT:	SWMU Investigation				
PROJ. NO.:	CTO-0143		BORING NO.:	SWMU293-TW03	
COORDINATES:	EAST:	2501715.791	NORTH:	338934.9374	
ELEVATION:	SURFACE:	28.662	TOP OF PVC CASING:	28.209	

Rig: A-200 Ingersol Ram	Macro Core	Casing	Augers	Acetate sleave	Date	Progress (Ft.)	Comment	Depth to Water (Ft.)
Size (ID)	2"		3.25	2"	3/22/02	15	estimated	5.8
Length	4		5'	4'				
Type	SS		S	Acetate				
Hammer Wt.	NA		NA	NA				
Fall	NA		NA	NA				

Remarks:

SAMPLE TYPE

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

WELL INFORMATION

Type	Diam.	Top Depth (Ft.)	Bottom Depth (Ft.)
PVC Riser (Schedule 40)	1"	28.209	23.209
PVC screen (Schedule 40) 0.010"	1"	23.209	13.209

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	Lab ID	LEL %	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL) 28.2
1			SWMU293-TW03-00			Fine sand, trace silt, loam, roots, dark brown, moist (0.3)	cuttings	27.9
2	M-1	3.0 75%		0.0%	0.0 / 0.0	Fine sand, trace silt, moist, dark brown	riser	
3						(2.6) Fine sand, trace silt, moist, gray	bentonite	25.6
4							riser	
5							sand	
6	▼ M-2	3.4 85%	SWMU293-TW03-03	0.0%	0.0 / 0.0	(5.8) Fine sand, trace silt, wet, gray	screen	22.4
7							sand	
8						(8.0)	screen	20.2
9	A-N						screen	
10	A-N						sand	

DRILLING CO.:	Parratt Wolff Inc.	BAKER REP.:	David D. Schilling
DRILLER:	Mark Eaves / Jim Robertson	BORING NO.:	SWMU293-TW03 SHEET 1 OF 2

Baker
Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation
CTO NO.: CTO-0143 BORING NO.: SWMU293-TW03

SAMPLE TYPE
M = Macro Core 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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
ps/bg = point source/background

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	Lab ID	LEL %	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL) 17.7
11						Continued from Sheet 1		
12	A-N						sand	
13							screen	
14	A-N							
15						15.0	sand	13.2
16						End of Boring = 15.0		
17								
18								
19								
20								
21								
22								
23								
24								
25								
26								
27								
28								
29								
30								

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: David D. Schilling
DRILLER: Mark Eaves / Jim Robertson BORING NO.: SWMU293-TW03 SHEET 2 OF 2

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation
PROJ. NO.: CTO-0143 BORING NO.: SWMU294-TW01
COORDINATES: EAST: 2501207.156 NORTH: 338895.291
ELEVATION: SURFACE: 29.1 TOP OF PVC 28.90

Rig:	Macro Core	Casing	Augers	Acetate Sleeve	Date	Progress (Ft.)	Comments	Depth to Water (Ft.)
Size (ID)	2"		3.25	2"	3/22/02	18	estimated	9
Length	4'		5'	4'				
Type	SS		S	Acetate				
Hammer Wt.	NA		NA	NA				
Fall	NA		NA	NA				

Remarks:

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

WELL INFORMATION

Type		Diam.	Top Depth (Ft.)	Bottom Depth (Ft.)
PVC	Riser (Schedule 40)	1"	28.9	20.9
PVC	Screen (Schedule 40)	1"	20.9	10.9

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	Lab ID	LEL %	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
1–4	M-1	3.2 80%	SWMU294-TW01-00	0.0%	0.0 / 0.0	Grey v.f. silty sand	back fill; riser	
5–8	M-2	4 100%	SWMU294-TW01-04	0.0%	0.0 / 0.0	very light grey, v.f. silty sand	bentonite; riser; sand; screen; sand	24.1
9–10	M-3	3.0 75%		0.0%	0.0 / 0.0	Match to Sheet 2		

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: R. Marks
DRILLER: Louis LaFever BORING NO.: SWMU294-TW01 SHEET 1 OF 2

Baker
Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation
CTO NO.: CTO-0143 BORING NO.: SWMU294-TW01

SAMPLE TYPE
M = Macro Core 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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
ps/bg = point source/background

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	Lab ID	LEL %	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
11						Continued from Sheet 1	sand	
12							screen	
13		3.5					sand	
14	M-4	88%				very light grey, v.f. silty sand		
15							screen	
16						16.0	sand	12.9
17	N-A							
18						18.0	screen	10.9
19						End of Boring = 18.0		
20								
21								
22								
23								
24								
25								
26								
27								
28								
29								
30						Match to Sheet 3		

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: R. Marks
DRILLER: Louis LaFever BORING NO.: SWMU294-TW01 SHEET 2 OF 2

Baker

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation

CTO NO.: CTO-0143 BORING NO.: SWMU294-TW01

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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
BG/PS = Background/Point Source

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	SPT	Lab ID	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
31						Continued from Sheet 2		
32								
33								
34								
35								
36								
37								
38								
39								
40								
41								
42								
43								
44								
45								
46								
47								
48								
49								
50						Match to Sheet 4		

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: R. Marks

DRILLER: Louis LaFever BORING NO.: SWMU294-TV SHEET 3 OF 2

Baker

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation

CTO NO.: CTO-0143 BORING NO.: SWMU294-TW01

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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
BG/PS = Background/Point Source

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	SPT	Lab ID	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
51						Continued from Sheet 3		
52								
53								
54								
55								
56								
57								
58								
59								
60								
61								
62								
63								
64								
65								
66								
67								
68								
69								
70						Match to Sheet 5		

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: R. Marks

DRILLER: Louis LaFever BORING NO.: SWMU294-TV SHEET 4 OF 2

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation
CTO NO.: CTO-0143 BORING NO.: SWMU294-TW01

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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
BG/PS = Background/Point Source

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	SPT	Lab ID	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
71						Continued from Sheet 5		
72								
73								
74								
75								
76								
77								
78								
79								
80								
81								
82								
83								
84								
85								
86								
87								
88								
89								
90						Match to Sheet 6		

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: R. Marks
DRILLER: Louis LaFever BORING NO.: SWMU294-TV SHEET 5 OF 2

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation
CTO NO.: CTO-0143 BORING NO.: SWMU294-TW01

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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
ps/bg = point source/background

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	SPT	Lab ID	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
91						Continued from Sheet 1		
92								
93								
94								
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109								
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DRILLING CO.: Parratt Wolff Inc. BAKER REP.: R. Marks
DRILLER: Louis LaFever BORING NO.: SWMU294-TV SHEET 6 OF 2

Baker
Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation
PROJ. NO.: CTO-0143 BORING NO.: SWMU294-TW02
COORDINATES: EAST: 2501184.241 NORTH: 338907.237
ELEVATION: SURFACE: 30.06 TOP OF PVC 29.86

Rig:	Macro Core	Casing	Augers	Acetate Sleeve	Date	Progress (Ft.)	Comments	Depth to Water (Ft.)
Size (ID)	2"		3.25	2"	3/24/02	18	estimated	9
Length	4'		5'	4'				
Type	SS		S	Acetate				
Hammer Wt.	NA		NA	NA				
Fall	NA		NA	NA				

Remarks:

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

WELL INFORMATION

Type	Diam.	Top Depth (Ft.)	Bottom Depth (Ft.)
PVC Riser (Schedule 40)	1"	29.86	21.86
PVC Screen (Schedule 40)	1"	21.86	11.86

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	Lab ID	LEL %	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
1–4	M-1		SWMU294-TW02-00	0.0%	0.0 / 0.0	Grey v.f. silty sand	back fill; riser; 4.0	25.9
5–8	A-N						bentonite; riser; sand	
9–10	M-3		SWMU294-TW02-04	0.0%	0.0 / 0.0	very light grey, v.f. silty sand	screen; sand	

Match to Sheet 2

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: R. Marks
DRILLER: Louis LaFever BORING NO.: SWMU294-TW02 SHEET 1 OF 2

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation
CTO NO.: CTO-0143 BORING NO.: SWMU294-TW02

SAMPLE TYPE
M = Macro Core 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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
ps/bg = point source/background

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	Lab ID	LEL %	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
11						Continued from Sheet 1	sand	
12						12.0	screen	17.9
13	A-N					For full geology see log SWMU294 TW01	sand	
14								
15							screen	
16							sand	
17								
18						18.0	screen	11.9
19						End of Boring = 18.0		
20								
21								
22								
23								
24								
25								
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27								
28								
29								
30								

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: R. Marks
DRILLER: Louis LaFever BORING NO.: SWMU294-TW02 SHEET 2 OF 2

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation
CTO NO.: CTO-0143 BORING NO.: SWMU294-TW02

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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
BG/PS = Background/Point Source

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	SPT	Lab ID	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
31						Continued from Sheet 2		
32								
33								
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35								
36								
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50						Match to Sheet 4		

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: R. Marks
DRILLER: Louis LaFever BORING NO.: SWMU294-TV SHEET 3 OF 2

Baker

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation

CTO NO.: CTO-0143 BORING NO.: SWMU294-TW02

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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
BG/PS = Background/Point Source

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	SPT	Lab ID	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
51						Continued from Sheet 3		
52								
53								
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55								
56								
57								
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59								
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69								
70						Match to Sheet 5		

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: R. Marks

DRILLER: Louis LaFever BORING NO.: SWMU294-TV SHEET 4 OF 2

Baker
Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation
CTO NO.: CTO-0143 BORING NO.: SWMU294-TW02

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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
BG/PS = Background/Point Source

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	SPT	Lab ID	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
71						Continued from Sheet 5		
72								
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90						Match to Sheet 6		

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: R. Marks
DRILLER: Louis LaFever BORING NO.: SWMU294-TV SHEET 5 OF 2

Baker
Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation
CTO NO.: CTO-0143 BORING NO.: SWMU294-TW02

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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
ps/bg = point source/background

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	SPT	Lab ID	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
91						Continued from Sheet 1		
92								
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DRILLING CO.: Parratt Wolff Inc. BAKER REP.: R. Marks
DRILLER: Louis LaFever BORING NO.: SWMU294-TV SHEET 6 OF 2

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation
PROJ. NO.: CTO-0143 BORING NO.: SWMU294-TW03
COORDINATES: EAST: 2501181.887 NORTH: 338895.8246
ELEVATION: SURFACE: 30.21 TOP OF PVC 30.04

Rig:	Macro Core	Casing	Augers	Acetate Sleeve	Date	Progress (Ft.)	Comments	Depth to Water (Ft.)
Size (ID)	2"		3.25	2"	3/24/02	18	estimated	9
Length	4'		5'	4'				
Type	SS		S	Acetate				
Hammer Wt.	NA		NA	NA				
Fall	NA		NA	NA				

Remarks:

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

WELL INFORMATION

Type	Diam.	Top Depth (Ft.)	Bottom Depth (Ft.)
PVC Riser (Schedule 40)	1"	30.04	22.04
PVC Screen (Schedule 40)	1"	22.04	12.04

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	Lab ID	LEL %	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
1–4	M-1		SWMU294-TW03-00	0.0%	0.0 / 0.0	Grey v.f. silty sand	back fill; riser; 4.0	26.0
5–8	A-N						bentonite; riser; sand; 8.0	
9–10	M-2		SWMU294-TW03-04	0.0%	0.0 / 0.0	very light grey, v.f. silty sand Match to Sheet 2	screen; sand	

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: R. Marks
DRILLER: Louis LaFever BORING NO.: SWMU294-TW03 SHEET 1 OF 2

Baker
Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation
CTO NO.: CTO-0143 BORING NO.: SWMU294-TW03

SAMPLE TYPE
M = Macro Core 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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
ps/bg = point source/background

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	Lab ID	LEL %	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
11						Continued from Sheet 1	sand	
12						12.0	screen	18.0
13	A-N					For full geology see log SWMU294 TW01	sand	
14								
15							screen	
16							sand	
17								
18						18.0	screen	12.0
19						End of Boring = 18.0		
20								
21								
22								
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24								
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26								
27								
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29								
30						Match to Sheet 3		

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: R. Marks
DRILLER: Louis LaFever BORING NO.: SWMU294-TW03 SHEET 2 OF 2

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation
CTO NO.: CTO-0143 BORING NO.: SWMU294-TW03

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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
BG/PS = Background/Point Source

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	SPT	Lab ID	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
31						Continued from Sheet 2		
32								
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50						Match to Sheet 4		

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: R. Marks
DRILLER: Louis LaFever BORING NO.: SWMU294-TV SHEET 3 OF 2

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation
CTO NO.: CTO-0143 BORING NO.: SWMU294-TW03

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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
BG/PS = Background/Point Source

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	SPT	Lab ID	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
51						Continued from Sheet 3		
52								
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70						Match to Sheet 5		

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: R. Marks
DRILLER: Louis LaFever BORING NO.: SWMU294-TV SHEET 4 OF 2

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation
CTO NO.: CTO-0143 BORING NO.: SWMU294-TW03

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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
BG/PS = Background/Point Source

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	SPT	Lab ID	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
71						Continued from Sheet 5		
72								
73								
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90						Match to Sheet 6		

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: R. Marks
DRILLER: Louis LaFever BORING NO.: SWMU294-TV SHEET 5 OF 2

Baker

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation

CTO NO.: CTO-0143 BORING NO.: SWMU294-TW03

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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
ps/bg = point source/background

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	SPT	Lab ID	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
91						Continued from Sheet 1		
92								
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DRILLING CO.: Parratt Wolff Inc. BAKER REP.: R. Marks

DRILLER: Louis LaFever BORING NO.: SWMU294-TV SHEET 6 OF 2

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation
PROJ. NO.: CTO-0143 BORING NO.: SWMU294-TW04
COORDINATES: EAST: 2501191.231 NORTH: 338852.405
ELEVATION: SURFACE: 29.67 TOP OF PVC 29.56

Rig:	Macro Core	Casing	Augers	Acetate Sleeve	Date	Progress (Ft.)	Comments	Depth to Water (Ft.)
Size (ID)	2"		3.25	2"	3/22/02	18	estimated	9
Length	4'		5'	4'				
Type	SS		S	Acetate				
Hammer Wt.	NA		NA	NA				
Fall	NA		NA	NA				

Remarks:

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

WELL INFORMATION

Type	Diam.	Top Depth (Ft.)	Bottom Depth (Ft.)
PVC Riser (Schedule 40)	1"	29.56	21.56
PVC Screen (Schedule 40)	1"	21.56	11.56

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	Lab ID	LEL %	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
1–4	M-1		SWMU294-TW04-00	0.0%	0.0 / 0.0	Grey v.f. silty sand	cuttings; riser; 4.0	25.6
5–8	A-N			0.0%	0.0 / 0.0		bentonite; riser; sand; 8.0	21.6
9–10	M-2		SWMU294-TW04-04	0.0%	0.0 / 0.0	very light grey, v.f. silty sand Match to Sheet 2	screen; sand	

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: R. Marks
DRILLER: Louis LaFever BORING NO.: SWMU294-TW04 SHEET 1 OF 2

Baker
Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation
CTO NO.: CTO-0143 BORING NO.: SWMU294-TW04

SAMPLE TYPE
M = Macro Core 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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
ps/bg = point source/background

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	Lab ID	LEL %	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
11						Continued from Sheet 1	sand	
12						12.0	screen	
13	A-N						sand	
14							screen	
15								
16							sand	
17	A-N						screen	
18						18.0		11.6
19						End of Boring = 18.0		
20								
21								
22								
23								
24								
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26								
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28								
29								
30						Match to Sheet 3		

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: R. Marks
DRILLER: Louis LaFever BORING NO.: SWMU294-TW04 SHEET 2 OF 2

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation
CTO NO.: CTO-0143 BORING NO.: SWMU294-TW04

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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
BG/PS = Background/Point Source

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	SPT	Lab ID	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
31						Continued from Sheet 2		
32								
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50						Match to Sheet 4		

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: R. Marks
DRILLER: Louis LaFever BORING NO.: SWMU294-TV SHEET 3 OF 2

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation
CTO NO.: CTO-0143 BORING NO.: SWMU294-TW04

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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
BG/PS = Background/Point Source

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	SPT	Lab ID	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
51						Continued from Sheet 3		
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70						Match to Sheet 5		

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: R. Marks
DRILLER: Louis LaFever BORING NO.: SWMU294-TV SHEET 4 OF 2

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation
CTO NO.: CTO-0143 BORING NO.: SWMU294-TW04

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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
BG/PS = Background/Point Source

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	SPT	Lab ID	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
71						Continued from Sheet 5		
72								
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90						Match to Sheet 6		

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: R. Marks
DRILLER: Louis LaFever BORING NO.: SWMU294-TV SHEET 5 OF 2

Baker
Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation
CTO NO.: CTO-0143 BORING NO.: SWMU294-TW04

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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
ps/bg = point source/background

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	SPT	Lab ID	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
91						Continued from Sheet 1		
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DRILLING CO.: Parratt Wolff Inc. BAKER REP.: R. Marks
DRILLER: Louis LaFever BORING NO.: SWMU294-TV SHEET 6 OF 2

Baker
Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation
PROJ. NO.: CTO-0143 BORING NO.: SWMU294-TW05
COORDINATES: EAST: 2501194.453 NORTH: 338866.708
ELEVATION: SURFACE: 29.2 TOP OF PVC 28.77

Rig:	Macro Core	Casing	Augers	Acetate Sleeve	Date	Progress (Ft.)	Comments	Depth to Water (Ft.)
Size (ID)	2"		3.25	2"	3/22/02	18	estimated	9
Length	4'		5'	4'				
Type	SS		S	Acetate				
Hammer Wt.	NA		NA	NA				
Fall	NA		NA	NA				

Remarks:

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

WELL INFORMATION

Type	Diam.	Top Depth (Ft.)	Bottom Depth (Ft.)
PVC Riser (Schedule 40)	1"	28.77	20.77
PVC Screen (Schedule 40)	1"	20.77	10.77

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	Lab ID	LEL %	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
1–4	M-1		SWMU294-TW05-00	0.0%	0.0 / 0.0	Grey v.f. silty sand	cuttings; riser; 4.0	24.8
5–8	A-N						bentonite; riser; sand; 8.0	20.8
9–10	M-2		SWMU294-TW05-04	0.0%	0.0 / 0.0	very light grey, v.f. silty sand	screen; sand	

Match to Sheet 2

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: R. Marks
DRILLER: Louis LaFever BORING NO.: SWMU294-TW05 SHEET 1 OF 2

Baker
Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation
CTO NO.: CTO-0143 BORING NO.: SWMU294-TW05

SAMPLE TYPE
M = Macro Core 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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
ps/bg = point source/background

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	Lab ID	LEL %	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
11						Continued from Sheet 1	sand	
12						12.0	screen	
13							sand	
14	A-N							
15							screen	
16							sand	
17	A-N							
18						18.0	screen	10.8
19						End of Boring = 18.0		
20								
21								
22								
23								
24								
25								
26								
27								
28								
29								
30						Match to Sheet 3		

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: R. Marks
DRILLER: Louis LaFever BORING NO.: SWMU294-TW05 SHEET 2 OF 2

Baker
Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation
CTO NO.: CTO-0143 BORING NO.: SWMU294-TW05

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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
BG/PS = Background/Point Source

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	SPT	Lab ID	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
31						Continued from Sheet 2		
32								
33								
34								
35								
36								
37								
38								
39								
40								
41								
42								
43								
44								
45								
46								
47								
48								
49								
50						Match to Sheet 4		

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: R. Marks
DRILLER: Louis LaFever BORING NO.: SWMU294-TV SHEET 3 OF 2

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation
CTO NO.: CTO-0143 BORING NO.: SWMU294-TW05

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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
BG/PS = Background/Point Source

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	SPT	Lab ID	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
51						Continued from Sheet 3		
52								
53								
54								
55								
56								
57								
58								
59								
60								
61								
62								
63								
64								
65								
66								
67								
68								
69								
70						Match to Sheet 5		

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: R. Marks
DRILLER: Louis LaFever BORING NO.: SWMU294-TV SHEET 4 OF 2

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation
CTO NO.: CTO-0143 BORING NO.: SWMU294-TW05

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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
BG/PS = Background/Point Source

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	SPT	Lab ID	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
71						Continued from Sheet 5		
72								
73								
74								
75								
76								
77								
78								
79								
80								
81								
82								
83								
84								
85								
86								
87								
88								
89								
90						Match to Sheet 6		

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: R. Marks
DRILLER: Louis LaFever BORING NO.: SWMU294-TV SHEET 5 OF 2

Baker
Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation
CTO NO.: CTO-0143 BORING NO.: SWMU294-TW05

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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
ps/bg = point source/background

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	SPT	Lab ID	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
91						Continued from Sheet 1		
92								
93								
94								
95								
96								
97								
98								
99								
100								
101								
102								
103								
104								
105								
106								
107								
108								
109								
110								

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: R. Marks
DRILLER: Louis LaFever BORING NO.: SWMU294-TV SHEET 6 OF 2

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT:	SWMU Investigation			
PROJ. NO.:	CTO-0143		BORING NO.:	SWMU294-TW06
COORDINATES:	EAST:	2501176.082	NORTH:	338850.74
ELEVATION:	SURFACE:	28.84	TOP OF PVC	28.62

Rig:	Macro Core	Casing	Augers	Acetate Sleeve	Date	Progress (Ft.)	Comments	Depth to Water (Ft.)
Size (ID)	2"		3.25	2"	3/22/02	18	estimated	9
Length	4'		5'	4'				
Type	SS		S	Acetate				
Hammer Wt.	NA		NA	NA				
Fall	NA		NA	NA				

Remarks:

SAMPLE TYPE

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

WELL INFORMATION

Type		Diam.	Top Depth (Ft.)	Bottom Depth (Ft.)
PVC	Riser (Schedule 40)	1"	28.62	20.62
PVC	Screen (Schedule 40)	1"	20.62	10.62

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	Lab ID	LEL %	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
1–4	M-1	3.2 80%	SWMU294-TW01-00	0.0%	0.0 / 0.0	Grey v.f. silty sand	back fill; riser	
5–8	M-2	4 100%	SWMU294-TW01-04	0.0%	0.0 / 0.0	very light grey, v.f. silty sand	4.8 bentonite; riser; sand; screen; sand	23.8
9–10	M-3	3.0 75%		0.0%	0.0 / 0.0	Match to Sheet 2		

DRILLING CO.:	Parratt Wolff Inc.	BAKER REP.:	R. Marks
DRILLER:	Louis LaFever	BORING NO.:	SWMU294-TW06 SHEET 1 OF 2

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation
CTO NO.: CTO-0143 BORING NO.: SWMU294-TW06

SAMPLE TYPE
M = Macro Core 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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
ps/bg = point source/background

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	Lab ID	LEL %	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
11						Continued from Sheet 1	sand	
12							screen	
13		3.5					sand	
14	M-4	88%				very light grey, v.f. silty sand		
15							screen	
16						16.0	sand	16.6
17	N-A							
18						18.0	screen	10.6
19						End of Boring = 18.0		
20								
21								
22								
23								
24								
25								
26								
27								
28								
29								
30						Match to Sheet 3		

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: R. Marks
DRILLER: Louis LaFever BORING NO.: SWMU294-TW06 SHEET 2 OF 2

Baker Environmental

TEST BORING RECORD

PROJECT: SWMU Investigation
PROJ. NO.: CTO-0143 BORING NO.: SWMU295-SB01
COORDINATES: EAST: 2499651.454 NORTH: 338067.228
ELEVATION: SURFACE:

Rig: A-200 Ingersol Ram	Macro Core	Casing	Augers	Acetate Sleave	Date	Progress (Ft.)	Comments	Depth to Water (Ft.)
Size (ID)	2"		3.25	2"	3/22/02	12'	estimated	9.0
Length	4'		5'	4'				
Type	SS		S	Acetate				
Hammer Wt.	NA		NA	NA				
Fall	NA		NA	NA				

Remarks:

SAMPLE TYPE
M = Macro Core 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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
BG/PS = Background/Point Source
ppm = parts per million

Depth (Ft.)		Sample Type & No.	Sample Rec. (Ft.,%)	Lab ID	LEL %	PID (ppm) ps/bg	Visual Description	Elevation (Ft. MSL)
1				SWMU295-SB01-00			Fine sand, trace silt, moist, brown	
2		M-1	3.4 85%		0.0%	0.0 / 0.0		
3								
4								
5								
6		M-2	3.0 75%		0.0%	0.0 / 0.0		
7								
8							8.0	
9	▼			SWMU295-SB01-04			Fine sand, trace silt, moist, orangish brown 9.0	
10		M-3	4.0 100%		0.0%	0.0 / 0.0	Fine sand, trace silt, wet, orange and light gray mottled	

DRILLING COMPANY: Parratt Wolff Inc. BAKER REP.: David D. Schilling
DRILLER: Mark Eaves / Jim Robertson BORING NO.: SWMU295-SB01 SHEET 1 OF 2

Baker Environmental

TEST BORING RECORD

PROJECT: SWMU Investigation
CTO NO.: CTO-0143 BORING NO.: SWMU295-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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
ps/bg = point source/background

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	SPT	Lab ID	PID (ppm) ps/bg	Visual Description	Elevation (Ft. MSL)
11						Continued from Sheet 1 11.1	
12						Fine sand, trace silt, wet, gray 12.0	
13						End of Boring = 12.0	
14							
15							
16							
17							
18							
19							
20							
21							
22							
23							
24							
25							
26							
27							
28							
29							
30						Match to Sheet 3	

DRILLING COMPANY: Parratt Wolff Inc. BAKER REP.: David D. Schilling
DRILLER: Mark Eaves / Jim Robertson BORING NO.: SWMU295-SB01 SHEET 2 OF 2

Baker Environmental

TEST BORING RECORD

PROJECT: SWMU Investigation
PROJ. NO.: CTO-0143 BORING NO.: SWMU295-SB02
COORDINATES: EAST: 2499664.683 NORTH: 338068.441
ELEVATION: SURFACE:

Rig: A-200 Ingersol Ram	Macro Core	Casing	Augers	Acetate Sleave	Date	Progress (Ft.)	Comments	Depth to Water (Ft.)
Size (ID)	2"		3.25	2"	3/22/02	12'	estimated	9.2
Length	4'		5'	4'				
Type	SS		S	Acetate				
Hammer Wt.	NA		NA	NA				
Fall	NA		NA	NA				

Remarks:

SAMPLE TYPE
M = Macro Core 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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
BG/PS = Background/Point Source
ppm = parts per million

Depth (Ft.)		Sample Type & No.	Sample Rec. (Ft.,%)	Lab ID	LEL %	PID (ppm) ps/bg	Visual Description	Elevation (Ft. MSL)
1				SWMU295-SB02-00			Gravel, little fine sand, damp, dark gray	
							0.8	
2		M-1	4.0 100%		0.0%	0.0 / 0.0	Fine sand, trace silt, moist, dark brown	
							2.6	
3							Fine sand, trace silt, moist, light brown	
4								
5								
6		M-2	3.7 93%		0.0%	0.0 / 0.0		
7								
8								
							8.4	
9	▼			SWMU295-SB02-04			Fine sand, trace silt, moist, orange 9.2	
10		M-3	4.0 100%		0.0%	0.0 / 0.0	Fine sand, trace clay, wet, orange and light gray mottled	

DRILLING COMPANY: Parratt Wolff Inc. BAKER REP.: David D. Schilling
DRILLER: Mark Eaves / Jim Robertson BORING NO.: SWMU295-SB02 SHEET 1 OF 2

Baker Environmental

TEST BORING RECORD

PROJECT: SWMU Investigation
CTO NO.: CTO-0143 BORING NO.: SWMU295-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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
ps/bg = point source/background

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	SPT	Lab ID	PID (ppm) ps/bg	Visual Description	Elevation (Ft. MSL)
11						Continued from Sheet 1	
						11.7	
12						Fine sand, trace silt, wet, gray 12.0	
13						End of Boring = 12.0	
14							
15							
16							
17							
18							
19							
20							
21							
22							
23							
24							
25							
26							
27							
28							
29							
30						Match to Sheet 3	

DRILLING COMPANY: Parratt Wolff Inc. BAKER REP.: David D. Schilling
DRILLER: Mark Eaves / Jim Robertson BORING NO.: SWMU295-SB02 SHEET 2 OF 2

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT:	SWMU Investigation			
PROJ. NO.:	CTO-0143		BORING NO.:	SWMU295-TW01
COORDINATES:	EAST:	2499668.244	NORTH:	338029.744
ELEVATION:	SURFACE:	26.750	TOP OF PVC CASING:	26.680

Rig: A-200 Ingersol Ram	Macro Core	Casing	Augers	Acetate sleave	Date	Progress (Ft.)	Comment	Depth to Water (Ft.)
Size (ID)	2"		3.25	2"	3/22/02	16	estimated	9.0
Length	4		5'	4'				
Type	SS		S	Acetate				
Hammer Wt.	NA		NA	NA				
Fall	NA		NA	NA				

Remarks:

SAMPLE TYPE

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

WELL INFORMATION

Type	Diam.	Top Depth (Ft.)	Bottom Depth (Ft.)
PVC Riser (Schedule 40)	1"	26.68	20.68
PVC screen (Schedule 40) 0.010"	1"	20.68	10.68

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	Lab ID	LEL %	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL) 26.7
1			SWMU295-TW01-00			Treated lumber 0.9	cuttings	25.8
2	M-1	2.8 70%		0.0%	0.0 / 0.0	Fine sand, trace silt, moist, brown 1.6	riser	25.1
3						Fine sand, some clay, moist, semi-plastic, orangish brown	bentonite	
4						4.0	riser	22.7
5						Fine sand, trace silt, moist, light brown and brown mottled	sand	
6	M-2	2.7 68%		0.0%	0.0 / 0.0	5.9	riser	20.8
7						Fine sand, trace silt, moist, light gray and orange mottled	sand	
8						8.0	screen	18.7
9	▼		SWMU295-TW01-04			Fine sand, trace silt, moist, orange 9.0		17.7
10	M-3	3.7 93%		0.0%	0.0 / 0.0	Fine sand, trace silt, wet, orange	screen / sand	

DRILLING CO.:	Parratt Wolff Inc.	BAKER REP.:	David D. Schilling
DRILLER:	Mark Eaves / Jim Robertson	BORING NO.:	SWMU295-TW01 SHEET 1 OF 2

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation
CTO NO.: CTO-0143 BORING NO.: SWMU295-TW01

SAMPLE TYPE
M = Macro Core 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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
ps/bg = point source/background

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	Lab ID	LEL %	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL) 16.2
11						Continued from Sheet 1 (10.7)		16.0
12						Fine sand, trace silt, wet, light gray	sand	
13							screen	
14	M-4	3.4 85%		0.0%	0.0 / 0.0			
15							sand	
16						(16.0)		10.7
17						End of Boring = 16.0		
18								
19								
20								
21								
22								
23								
24								
25								
26								
27								
28								
29								
30								

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: David D. Schilling
DRILLER: Mark Eaves / Jim Robertson BORING NO.: SWMU295-TW01 SHEET 2 OF 2

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT:	SWMU Investigation			
PROJ. NO.:	CTO-0143		BORING NO.:	SWMU295-TW02
COORDINATES:	EAST:	2499673.585	NORTH:	338065.1913
ELEVATION:	SURFACE:	25.460	TOP OF PVC CASING:	25.352

Rig:	A-200 Ingersol Ram				Date	Progress (Ft.)	Comment	Depth to Water (Ft.)
	Macro Core	Casing	Augers	Acetate sleave				
Size (ID)	2"		3.25	2"	3/24/02	17	estimated	8.1
Length	4		5'	4'				
Type	SS		S	Acetate				
Hammer Wt.	NA		NA	NA				
Fall	NA		NA	NA				

Remarks:

SAMPLE TYPE

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

WELL INFORMATION

Type	Diam.	Top Depth (Ft.)	Bottom Depth (Ft.)
PVC Riser (Schedule 40)	1"	25.352	18.352
PVC screen (Schedule 40) 0.010"	1"	18.352	8.352

Depth (Ft.)		Sample Type & No.	Sample Rec. (Ft.,%)	Lab ID	LEL %	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL) 25.4
1				SWMU295-TW02-00			Fine sand, trace silt, moist, brown coal fragments 1.1	cuttings	24.3
2		M-1	3.7 93%		0.0%	0.0 / 0.0	Fine sand, trace clay, moist, brown 2.3	riser	
3							Fine sand, trace silt, moist, brown	cuttings	23.1
4							4.0	riser	21.4
5		A-N						bentonite	
6							6.0	sand riser	19.4
7							Fine sand, trace silt, moist, brown	sand	
8	▼	M-2	3.1 78%		0.0%	0.0 / 0.0	8.1	screen	17.3
9				SWMU295-TW02-05			Fine sand, little silt, wet, orange and light gray mottled		
10								screen	15.4
		A-N					10.0	sand	

DRILLING CO.:	Parratt Wolff Inc.	BAKER REP.:	David D. Schilling
DRILLER:	Mark Eaves / Jim Robertson	BORING NO.:	SWMU295-TW02 SHEET 1 OF 2

Baker
Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation
CTO NO.: CTO-0143 BORING NO.: SWMU295-TW02

SAMPLE TYPE
M = Macro Core 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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
ps/bg = point source/background

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	Lab ID	LEL %	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL) 14.9
11						Continued from Sheet 1		
12	A-N						sand	
13							screen	
14	A-N							
15							sand	
16	A-N							
17						17.0	screen	8.4
18						End of Boring = 17.0		
19								
20								
21								
22								
23								
24								
25								
26								
27								
28								
29								
30								

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: David D. Schilling
DRILLER: Mark Eaves / Jim Robertson BORING NO.: SWMU295-TW02 SHEET 2 OF 2

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation
PROJ. NO.: CTO-0143 BORING NO.: SWMU295-TW03
COORDINATES: EAST: 2499675.559 NORTH: 338040.8032
ELEVATION: SURFACE: 25.995 TOP OF PVC CASING: 25.906

Rig: A-200 Ingersol Ram	Macro Core	Casing	Augers	Acetate sleave	Date	Progress (Ft.)	Comment	Depth to Water (Ft.)
Size (ID)	2"		3.25	2"	3/22/02	16	estimated	7.6
Length	4		5'	4'				
Type	SS		S	Acetate				
Hammer Wt.	NA		NA	NA				
Fall	NA		NA	NA				

Remarks:

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

WELL INFORMATION

Type	Diam.	Top Depth (Ft.)	Bottom Depth (Ft.)
PVC Riser (Schedule 40)	1"	25.906	19.906
PVC screen (Schedule 40) 0.010"	1"	19.906	9.906

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	Lab ID	LEL %	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL) 25.9
1			SWMU295-TW03-00			Fine sand and gravel, moist, brown, fill material 0.6	cuttings	25.3
2	M-1	3.1 78%		0.0%	0.0 / 0.0	Fine sand, trace silt, moist, orangish brown	riser	
3							bentonite	
4						4.0	riser	21.9
5	A-N						sand	
6						6.0	riser	19.9
7						Fine sand, trace silt, moist, brown, orange staining	sand	
8	M-2	3.8 95%	SWMU295-TW03-04	0.0%	0.0 / 0.0	7.6 Fine sand, little clay, wet, orange and light gray mottled	screen	18.3
9						9.5	screen	16.4
10						Fine sand, trace clay, wet, gray 10.0		15.9
	A-N						sand	

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: David D. Schilling
DRILLER: Mark Eaves / Jim Robertson BORING NO.: SWMU295-TW03 SHEET 1 OF 2

Baker
Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation
CTO NO.: CTO-0143 BORING NO.: SWMU295-TW03

SAMPLE TYPE
M = Macro Core 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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
ps/bg = point source/background

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	Lab ID	LEL %	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL) 15.4
11						Continued from Sheet 1		
12	A-N						sand	
13							screen	
14	A-N							
15							sand	
16	A-N					16.0		9.9
17						End of Boring = 16.0		
18								
19								
20								
21								
22								
23								
24								
25								
26								
27								
28								
29								
30								

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: David D. Schilling
DRILLER: Mark Eaves / Jim Robertson BORING NO.: SWMU295-TW03 SHEET 2 OF 2

Baker
Baker Environmental

TEST BORING RECORD

PROJECT: SWMU Investigation
PROJ. NO.: CTO-0143 BORING NO.: SWMU299-SB01
COORDINATES: EAST: 2465890.540 NORTH: 357841.804
ELEVATION: SURFACE:

Rig:	Macro Core	Casing	Augers	Acetate Sleeve	Date	Progress (Ft.)	Comments	Depth to Water (Ft.)
Size (ID)	2"		3.25	2"	3/19/02	4'		
Length	4'		5'	4'				
Type	SS		S	Acetate				
Hammer Wt.	NA		NA	NA				
Fall	NA		NA	NA				

Remarks:

SAMPLE TYPE
M = Macro Core 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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
BG/PS = Background/Point Source
ppm = parts per million

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	Lab ID	LEL %	PID (ppm) ps/bg	Visual Description	Elevation (Ft. MSL)
1	M-1	2.67 67%	SWMU299-SB01-00	0.0%	0.0 / 0.0	Dk. Grey fill w/gravel 0.7	-0.70
						Dk. Grey organic silt w/clay 0.9	-0.90
2			SWMU299-SB01-01			Black sandy silt	
3							
4						4.0	-4.00
5						End of Boring = 4.0	
6							
7							
8							
9							
10							

DRILLING COMPANY: Parratt Wolff Inc. BAKER REP.: R. Marks
DRILLER: Louis LaFever BORING NO.: SWMU299-SB01 SHEET 1 OF 6

Baker
Baker Environmental

TEST BORING RECORD

PROJECT: SWMU Investigation
CTO NO.: CTO-0143 BORING NO.: SWMU299-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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
ps/bg = point source/background

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	SPT	Lab ID	PID (ppm) ps/bg	Visual Description	Elevation (Ft. MSL)
11						Continued from Sheet 1	
12							
13							
14							
15							
16							
17							
18							
19							
20							
21							
22							
23							
24							
25							
26							
27							
28							
29							
30						Match to Sheet 3	

DRILLING COMPANY: Parratt Wolff Inc. BAKER REP.: R. Marks
DRILLER: Louis LaFever BORING NO.: SWMU299-SB SHEET 2 OF 6

Baker
Baker Environmental

TEST BORING RECORD

PROJECT: SWMU Investigation
CTO NO.: CTO-0143 BORING NO.: SWMU299-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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
ps/bg = point source/background

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	SPT	Lab ID	PID (ppm) ps/bg	Visual Description	Elevation (Ft. MSL)
31						Continued from Sheet 2	
32							
33							
34							
35							
36							
37							
38							
39							
40							
41							
42							
43							
44							
45							
46							
47							
48							
49							
50						Match to Sheet 4	

DRILLING COMPANY: Parratt Wolff Inc. BAKER REP.: R. Marks
DRILLER: Louis LaFever BORING NO.: SWMU299-SB SHEET 3 OF 6

Baker
Baker Environmental

TEST BORING RECORD

PROJECT: SWMU Investigation
CTO NO.: CTO-0143 BORING NO.: SWMU299-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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
ps/bg = point source/background

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	SPT	Lab ID	PID (ppm) ps/bg	Visual Description	Elevation (Ft. MSL)
51						Continued from Sheet 3	
52							
53							
54							
55							
56							
57							
58							
59							
60							
61							
62							
63							
64							
65							
66							
67							
68							
69							
70						Match to Sheet 5	

DRILLING COMPANY: Parratt Wolff Inc. BAKER REP.: R. Marks
DRILLER: Louis LaFever BORING NO.: SWMU299-SB SHEET 4 OF 6

Baker
Baker Environmental

TEST BORING RECORD

PROJECT: SWMU Investigation
CTO NO.: CTO-0143 BORING NO.: SWMU299-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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
ps/bg = point source/background

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	SPT	Lab ID	PID (ppm) ps/bg	Visual Description	Elevation (Ft. MSL)
71						Continued from Sheet 4	
72							
73							
74							
75							
76							
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78							
79							
80							
81							
82							
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84							
85							
86							
87							
88							
89							
90						Match to Sheet 6	

DRILLING COMPANY: Parratt Wolff Inc. BAKER REP.: R. Marks
DRILLER: Louis LaFever BORING NO.: SWMU299-SB SHEET 5 OF 6

Baker

Baker Environmental

TEST BORING RECORD

PROJECT: SWMU Investigation

CTO NO.: CTO-0143 BORING NO.: SWMU299-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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
ps/bg = point source/background

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	SPT	Lab ID	PID (ppm) ps/bg	Visual Description	Elevation (Ft. MSL)
91						Continued from Sheet 5	
92							
93							
94							
95							
96							
97							
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107							
108							
109							
110							

DRILLING COMPANY: Parratt Wolff Inc. BAKER REP.: R. Marks

DRILLER: Louis LaFever BORING NO.: /MU299-SE SHEET 6 OF 6

Baker
Baker Environmental

TEST BORING RECORD

PROJECT: SWMU Investigation
PROJ. NO.: CTO-0143 BORING NO.: SWMU299-SB02
COORDINATES: EAST: 2465888.287 NORTH: 357874.063
ELEVATION: SURFACE:

Rig:	Macro Core	Casing	Augers	Acetate Sleeve	Date	Progress (Ft.)	Comments	Depth to Water (Ft.)
Size (ID)	2"		3.25	2"	3/19/02	8'	estimated	5.5'
Length	4'		5'	4'				
Type	SS		S	Acetate				
Hammer Wt.	NA		NA	NA				
Fall	NA		NA	NA				

Remarks:

SAMPLE TYPE
M = Macro Core 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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
BG/PS = Background/Point Source
ppm = parts per million

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	Lab ID	LEL %	PID (ppm) ps/bg	Visual Description	Elevation (Ft. MSL)
1	M-1		SWMU299-SB02-00	0.0%	0.0 / 0.0	black, v.f. sandy silt w/ very small gravel layers	-1.30
2						black, v.f. sandy silt	
3							
4							
5	M-2		SWMU299-SB02-02	0.0%	0.0 / 0.0		
6							-5.90
7						Grey, fine sand w/some silt	
8							
9						End of Boring = 8.0	
10							

DRILLING COMPANY: Parratt Wolff Inc. BAKER REP.: R. Marks
DRILLER: Louis LaFever BORING NO.: SWMU299-SB02 SHEET 1 OF 1

Baker
Baker Environmental

TEST BORING RECORD

PROJECT: SWMU Investigation
CTO NO.: CTO-0143 BORING NO.: SWMU299-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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
ps/bg = point source/background

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	SPT	Lab ID	PID (ppm) ps/bg	Visual Description	Elevation (Ft. MSL)
11						Continued from Sheet 1	
12							
13							
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16							
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28							
29							
30						Match to Sheet 3	

DRILLING COMPANY: Parratt Wolff Inc. BAKER REP.: R. Marks
DRILLER: Louis LaFever BORING NO.: SWMU299-SB SHEET 2 OF 1

Baker
Baker Environmental

TEST BORING RECORD

PROJECT: SWMU Investigation
CTO NO.: CTO-0143 BORING NO.: SWMU299-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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
ps/bg = point source/background

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	SPT	Lab ID	PID (ppm) ps/bg	Visual Description	Elevation (Ft. MSL)
31						Continued from Sheet 2	
32							
33							
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36							
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49							
50						Match to Sheet 4	

DRILLING COMPANY: Parratt Wolff Inc. BAKER REP.: R. Marks
DRILLER: Louis LaFever BORING NO.: SWMU299-SB SHEET 3 OF 1

Baker Environmental

TEST BORING RECORD

PROJECT: SWMU Investigation
CTO NO.: CTO-0143 BORING NO.: SWMU299-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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
ps/bg = point source/background

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	SPT	Lab ID	PID (ppm) ps/bg	Visual Description	Elevation (Ft. MSL)
51						Continued from Sheet 3	
52							
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56							
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65							
66							
67							
68							
69							
70						Match to Sheet 5	

DRILLING COMPANY: Parratt Wolff Inc. BAKER REP.: R. Marks
DRILLER: Louis LaFever BORING NO.: SWMU299-SB SHEET 4 OF 1

Baker Environmental

TEST BORING RECORD

PROJECT: SWMU Investigation
CTO NO.: CTO-0143 BORING NO.: SWMU299-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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
ps/bg = point source/background

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	SPT	Lab ID	PID (ppm) ps/bg	Visual Description	Elevation (Ft. MSL)
71						Continued from Sheet 4	
72							
73							
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75							
76							
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78							
79							
80							
81							
82							
83							
84							
85							
86							
87							
88							
89							
90						Match to Sheet 6	

DRILLING COMPANY: Parratt Wolff Inc. BAKER REP.: R. Marks
DRILLER: Louis LaFever BORING NO.: SWMU299-SB SHEET 5 OF 1

Baker Environmental

TEST BORING RECORD

PROJECT: SWMU Investigation
CTO NO.: CTO-0143 BORING NO.: SWMU299-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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
ps/bg = point source/background

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	SPT	Lab ID	PID (ppm) ps/bg	Visual Description	Elevation (Ft. MSL)
91						Continued from Sheet 5	
92							
93							
94							
95							
96							
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109							
110							

DRILLING COMPANY: Parratt Wolff Inc. BAKER REP.: R. Marks
DRILLER: Louis LaFever BORING NO.: /MU299-SE SHEET 6 OF 1

Baker Environmental

TEST BORING RECORD

PROJECT: SWMU Investigation
PROJ. NO.: CTO-0143 BORING NO.: SWMU299-SB03
COORDINATES: EAST: 2465928.919 NORTH: 357841.205
ELEVATION: SURFACE:

Rig:	Macro Core	Casing	Augers	Acetate Sleeve	Date	Progress (Ft.)	Comments	Depth to Water (Ft.)
Size (ID)	2"		3.25	2"	3/19/02	8'	estimated	5.5'
Length	4'		5'	4'				
Type	SS		S	Acetate				
Hammer Wt.	NA		NA	NA				
Fall	NA		NA	NA				

Remarks:

SAMPLE TYPE
M = Macro Core 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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
BG/PS = Background/Point Source
ppm = parts per million

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	Lab ID	LEL %	PID (ppm) ps/bg	Visual Description	Elevation (Ft. MSL)
1	M-1	2.4 60%	SWMU299-SB03-00	0.0%	0.0 / 0.0	Gravel, fill (1.0)	-1.00
2							
3						Dk. Grey fine silty sand	
4							
5	M-2	4 100%	SWMU299-SB03-02	0.0%	0.0 / 0.0		
6						(6.4)	-6.40
7						Lt. Grey fine silty sand	
8						(8.0)	-8.00
9						End of Boring = 8.0	
10							

DRILLING COMPANY: Parratt Wolff Inc. BAKER REP.: R. Marks
DRILLER: Louis LaFever BORING NO.: SWMU299-SB03 SHEET 1 OF 1

Baker
Baker Environmental

TEST BORING RECORD

PROJECT: SWMU Investigation
CTO NO.: CTO-0143 BORING NO.: SWMU299-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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
ps/bg = point source/background

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	SPT	Lab ID	PID (ppm) ps/bg	Visual Description	Elevation (Ft. MSL)
11						Continued from Sheet 1	
12							
13							
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24							
25							
26							
27							
28							
29							
30						Match to Sheet 3	

DRILLING COMPANY: Parratt Wolff Inc. BAKER REP.: R. Marks
DRILLER: Louis LaFever BORING NO.: SWMU299-SB SHEET 2 OF 1

Baker Environmental

TEST BORING RECORD

PROJECT: SWMU Investigation
CTO NO.: CTO-0143 BORING NO.: SWMU299-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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
ps/bg = point source/background

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	SPT	Lab ID	PID (ppm) ps/bg	Visual Description	Elevation (Ft. MSL)
31						Continued from Sheet 2	
32							
33							
34							
35							
36							
37							
38							
39							
40							
41							
42							
43							
44							
45							
46							
47							
48							
49							
50						Match to Sheet 4	

DRILLING COMPANY: Parratt Wolff Inc. BAKER REP.: R. Marks
DRILLER: Louis LaFever BORING NO.: SWMU299-SB SHEET 3 OF 1

Baker Environmental

TEST BORING RECORD

PROJECT: SWMU Investigation
CTO NO.: CTO-0143 BORING NO.: SWMU299-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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
ps/bg = point source/background

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	SPT	Lab ID	PID (ppm) ps/bg	Visual Description	Elevation (Ft. MSL)
31						Continued from Sheet 2	
32							
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36							
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42							
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46							
47							
48							
49							
50						Match to Sheet 4	

DRILLING COMPANY: Parratt Wolff Inc. BAKER REP.: R. Marks
DRILLER: Louis LaFever BORING NO.: SWMU299-SB SHEET 3 OF 1

Baker
Baker Environmental

TEST BORING RECORD

PROJECT: SWMU Investigation
CTO NO.: CTO-0143 BORING NO.: SWMU299-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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
ps/bg = point source/background

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	SPT	Lab ID	PID (ppm) ps/bg	Visual Description	Elevation (Ft. MSL)
51						Continued from Sheet 3	
52							
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67							
68							
69							
70						Match to Sheet 5	

DRILLING COMPANY: Parratt Wolff Inc. BAKER REP.: R. Marks
DRILLER: Louis LaFever BORING NO.: SWMU299-SB SHEET 4 OF 1

Baker Environmental

TEST BORING RECORD

PROJECT: SWMU Investigation
CTO NO.: CTO-0143 BORING NO.: SWMU299-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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
ps/bg = point source/background

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	SPT	Lab ID	PID (ppm) ps/bg	Visual Description	Elevation (Ft. MSL)
71						Continued from Sheet 4	
72							
73							
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75							
76							
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87							
88							
89							
90						Match to Sheet 6	

DRILLING COMPANY: Parratt Wolff Inc. BAKER REP.: R. Marks
DRILLER: Louis LaFever BORING NO.: SWMU299-SB SHEET 5 OF 1

Baker

Baker Environmental

TEST BORING RECORD

PROJECT: SWMU Investigation

CTO NO.: CTO-0143 BORING NO.: SWMU299-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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
ps/bg = point source/background

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	SPT	Lab ID	PID (ppm) ps/bg	Visual Description	Elevation (Ft. MSL)
91						Continued from Sheet 5	
92							
93							
94							
95							
96							
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110							

DRILLING COMPANY: Parratt Wolff Inc. BAKER REP.: R. Marks

DRILLER: Louis LaFever BORING NO.: /MU299-SE SHEET 6 OF 1

Baker Environmental

TEST BORING RECORD

PROJECT: SWMU Investigation
PROJ. NO.: CTO-0143 BORING NO.: SWMU299-SB04
COORDINATES: EAST: 2465926.366 NORTH: 357877.618
ELEVATION: SURFACE:

Rig:	Macro Core	Casing	Augers	Acetate Sleeve	Date	Progress (Ft.)	Comments	Depth to Water (Ft.)
Size (ID)	2"		3.25	2"	3/19/02	8'	estimated water	5'
Length	4'		5'	4'			level	
Type	SS		S	Acetate				
Hammer Wt.	NA		NA	NA				
Fall	NA		NA	NA				

Remarks:

SAMPLE TYPE
M = Macro Core 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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
BG/PS = Background/Point Source
ppm = parts per million

Depth (Ft.)		Sample Type & No.	Sample Rec. (Ft.,%)	Lab ID	LEL %	PID (ppm) ps/bg	Visual Description	Elevation (Ft. MSL)
1		M-1		SWMU299-SB04-00	0.0%	0.0 / 0.0	grey, gravel fill 0.6	-0.60
2								
3							Dk. Grey silty sand	
4								
5	▼	M-2		SWMU299-SB04-02	0.0%	0.0 / 0.0		
6								
7							7.0	-7.00
8							grey fine sand 8.0	-8.00
9							End of Boring = 8.0	
10								

DRILLING COMPANY: Parratt Wolff Inc. BAKER REP.: R. Marks
DRILLER: Louis LaFever BORING NO.: SWMU299-SB04 SHEET 1 OF 1

Baker Environmental

TEST BORING RECORD

PROJECT: SWMU Investigation
CTO NO.: CTO-0143 BORING NO.: SWMU299-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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
ps/bg = point source/background

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	SPT	Lab ID	PID (ppm) ps/bg	Visual Description	Elevation (Ft. MSL)
11						Continued from Sheet 1	
12							
13							
14							
15							
16							
17							
18							
19							
20							
21							
22							
23							
24							
25							
26							
27							
28							
29							
30						Match to Sheet 3	

DRILLING COMPANY: Parratt Wolff Inc. BAKER REP.: R. Marks
DRILLER: Louis LaFever BORING NO.: SWMU299-SB SHEET 2 OF 1

Baker Environmental

TEST BORING RECORD

PROJECT: SWMU Investigation
CTO NO.: CTO-0143 BORING NO.: SWMU299-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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
ps/bg = point source/background

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	SPT	Lab ID	PID (ppm) ps/bg	Visual Description	Elevation (Ft. MSL)
31						Continued from Sheet 2	
32							
33							
34							
35							
36							
37							
38							
39							
40							
41							
42							
43							
44							
45							
46							
47							
48							
49							
50						Match to Sheet 4	

DRILLING COMPANY: Parratt Wolff Inc. BAKER REP.: R. Marks
DRILLER: Louis LaFever BORING NO.: SWMU299-SB SHEET 3 OF 1

Baker
Baker Environmental

TEST BORING RECORD

PROJECT: SWMU Investigation
CTO NO.: CTO-0143 BORING NO.: SWMU299-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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
ps/bg = point source/background

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	SPT	Lab ID	PID (ppm) ps/bg	Visual Description	Elevation (Ft. MSL)
51						Continued from Sheet 3	
52							
53							
54							
55							
56							
57							
58							
59							
60							
61							
62							
63							
64							
65							
66							
67							
68							
69							
70						Match to Sheet 5	

DRILLING COMPANY: Parratt Wolff Inc. BAKER REP.: R. Marks
DRILLER: Louis LaFever BORING NO.: SWMU299-SB SHEET 4 OF 1

Baker Environmental

TEST BORING RECORD

PROJECT: SWMU Investigation
CTO NO.: CTO-0143 BORING NO.: SWMU299-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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
ps/bg = point source/background

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	SPT	Lab ID	PID (ppm) ps/bg	Visual Description	Elevation (Ft. MSL)
71						Continued from Sheet 4	
72							
73							
74							
75							
76							
77							
78							
79							
80							
81							
82							
83							
84							
85							
86							
87							
88							
89							
90						Match to Sheet 6	

DRILLING COMPANY: Parratt Wolff Inc. BAKER REP.: R. Marks
DRILLER: Louis LaFever BORING NO.: SWMU299-SB SHEET 5 OF 1

Baker

Baker Environmental

TEST BORING RECORD

PROJECT: SWMU Investigation

CTO NO.: CTO-0143 BORING NO.: SWMU299-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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
ps/bg = point source/background

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	SPT	Lab ID	PID (ppm) ps/bg	Visual Description	Elevation (Ft. MSL)
91						Continued from Sheet 5	
92							
93							
94							
95							
96							
97							
98							
99							
100							
101							
102							
103							
104							
105							
106							
107							
108							
109							
110							

DRILLING COMPANY: Parratt Wolff Inc. BAKER REP.: R. Marks

DRILLER: Louis LaFever BORING NO.: /MU299-SE SHEET 6 OF 1

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT:	SWMU Investigation				
PROJ. NO.:	CTO-0143		BORING NO.:	SWMU299-TW01	
COORDINATES:	EAST:	2465866.164	NORTH:	357867.765	
ELEVATION:	SURFACE:	17.92	TOP OF PVC CASING:	17.54	

Rig:	Macro Core	Casing	Augers	Acetate Sleeve	Date	Progress (Ft.)	Comments	Depth to Water (Ft.)
Size (ID)	2"		3.25	2"	3/19/02	13	estimated	5.0
Length	4'		5'	4'				
Type	SS		S	Acetate				
Hammer Wt.	NA		NA	NA				
Fall	NA		NA	NA				

Remarks:

SAMPLE TYPE

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

WELL INFORMATION

Type		Diam.	Top Depth (Ft.)	Bottom Depth (Ft.)
PVC	Riser (Schedule 40)	1"	17.54	14.54
PVC	Screen (Schedule 40)	1"	14.54	4.54

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	Lab ID	LEL %	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
1–4	M-1	2.6 65%	SWMU299-TW01-00 / SWMU299-TW01-02	0.0%	0.0 / 0.0	Black, v.f. sandy silt w/ very small gravel layers; Black v.f. sandy silt	bentonite; riser; sand	16.2
5–8	M-2	4 100%		0.0%	0.0 / 0.0	grey fine sand w/ some silt	screen; sand	11.6; 9.54
9–10	A-N					Match to Sheet 2	screen	

DRILLING CO.:	Parratt Wolff Inc.	BAKER REP.:	R. Marks
DRILLER:	Louis LaFever	BORING NO.:	SWMU299-TW01 SHEET 1 OF 2

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation
CTO NO.: CTO-0143 BORING NO.: SWMU299-TW01

SAMPLE TYPE
M = Macro Core 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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
ps/bg = point source/background

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	Lab ID	LEL %	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
11						Continued from Sheet 1	sand	
12						For complete geology refer to SWMU299-TW04		
13	A-N					13.0	screen	4.5
14						End of Boring = 13.0		
15								
16								
17								
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27								
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29								
30						Match to Sheet 3		

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: R. Marks
DRILLER: Louis LaFever BORING NO.: SWMU299-TW01 SHEET 2 OF 2

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation
CTO NO.: CTO-0143 BORING NO.: SWMU299-TW01

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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
BG/PS = Background/Point Source

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	SPT	Lab ID	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
31						Continued from Sheet 2		
32								
33								
34								
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46								
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49								
50						Match to Sheet 4		

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: R. Marks
DRILLER: Louis LaFever BORING NO.: SWMU299-TV SHEET 3 OF 2

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation
CTO NO.: CTO-0143 BORING NO.: SWMU299-TW01

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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
BG/PS = Background/Point Source

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	SPT	Lab ID	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
51						Continued from Sheet 3		
52								
53								
54								
55								
56								
57								
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59								
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62								
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64								
65								
66								
67								
68								
69								
70						Match to Sheet 5		

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: R. Marks
DRILLER: Louis LaFever BORING NO.: SWMU299-TV SHEET 4 OF 2

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation
CTO NO.: CTO-0143 BORING NO.: SWMU299-TW01

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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
BG/PS = Background/Point Source

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	SPT	Lab ID	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
71						Continued from Sheet 5		
72								
73								
74								
75								
76								
77								
78								
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80								
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82								
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85								
86								
87								
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89								
90						Match to Sheet 6		

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: R. Marks
DRILLER: Louis LaFever BORING NO.: SWMU299-TW SHEET 5 OF 2

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation
CTO NO.: CTO-0143 BORING NO.: SWMU299-TW01

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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
ps/bg = point source/background

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	SPT	Lab ID	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
91						Continued from Sheet 1		
92								
93								
94								
95								
96								
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106								
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108								
109								
110								

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: R. Marks
DRILLER: Louis LaFever BORING NO.: SWMU299-TV SHEET 6 OF 2

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT:	SWMU Investigation		
PROJ. NO.:	CTO-0143	BORING NO.:	SWMU299-TW02
COORDINATES:	EAST: 2465920.410	NORTH:	357853.1836
ELEVATION:	SURFACE: 18.72	TOP OF PVC CASING:	18.44

Rig:	Macro Core	Casing	Augers	Acetate Sleeve	Date	Progress (Ft.)	Comments	Depth to Water (Ft.)
Size (ID)	2"		3.25	2"	3/19/02	13	estimated	5.0
Length	4'		5'	4'				
Type	SS		S	Acetate				
Hammer Wt.	NA		NA	NA				
Fall	NA		NA	NA				

Remarks:

SAMPLE TYPE

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

WELL INFORMATION

Type		Diam.	Top Depth (Ft.)	Bottom Depth (Ft.)
PVC	Riser (Schedule 40)	1"	18.44	15.44
PVC	Screen (Schedule 40)	1"	15.44	5.44

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	Lab ID	LEL %	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
1	M-1	2.25 56%	SWMU299-TW02-00	0.0%	0.0 / 0.0	Brown gravel w/silt	bentonite	17.2
2								
3							riser	
4			SWMU299-TW02-02				sand	
5	M-2	3.6 90%		0.0%	0.0 / 0.0	Dk. Grey v.f. silty sand (5.0)	screen	13.4
6						Brown v.f. sandy silt w/clay		
7								
8						(8.0)	sand	10.4
9	A-N						screen	
10						Match to Sheet 2		

DRILLING CO.:	Parratt Wolff Inc.	BAKER REP.:	R. Marks
DRILLER:	Louis LaFever	BORING NO.:	SWMU299-TW02 SHEET 1 OF 2

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation
CTO NO.: CTO-0143 BORING NO.: SWMU299-TW02

SAMPLE TYPE
M = Macro Core 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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
ps/bg = point source/background

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	Lab ID	LEL %	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
11						Continued from Sheet 1	sand	
12	A-N						screen	
13						13.0		5.4
14						End of Boring = 13.0		
15								
16								
17								
18								
19								
20								
21								
22								
23								
24								
25								
26								
27								
28								
29								
30						Match to Sheet 3		

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: R. Marks
DRILLER: Louis LaFever BORING NO.: SWMU299-TW02 SHEET 2 OF 2

Baker

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation

CTO NO.: CTO-0143 BORING NO.: SWMU299-TW02

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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
BG/PS = Background/Point Source

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	SPT	Lab ID	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
31						Continued from Sheet 2		
32								
33								
34								
35								
36								
37								
38								
39								
40								
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42								
43								
44								
45								
46								
47								
48								
49								
50						Match to Sheet 4		

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: R. Marks

DRILLER: Louis LaFever BORING NO.: SWMU299-TV SHEET 3 OF 2

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation
CTO NO.: CTO-0143 BORING NO.: SWMU299-TW02

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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
BG/PS = Background/Point Source

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	SPT	Lab ID	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
51						Continued from Sheet 3		
52								
53								
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62								
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64								
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67								
68								
69								
70						Match to Sheet 5		

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: R. Marks
DRILLER: Louis LaFever BORING NO.: SWMU299-TV SHEET 4 OF 2

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation
CTO NO.: CTO-0143 BORING NO.: SWMU299-TW02

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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
BG/PS = Background/Point Source

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	SPT	Lab ID	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
71						Continued from Sheet 5		
72								
73								
74								
75								
76								
77								
78								
79								
80								
81								
82								
83								
84								
85								
86								
87								
88								
89								
90						Match to Sheet 6		

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: R. Marks
DRILLER: Louis LaFever BORING NO.: SWMU299-TV SHEET 5 OF 2

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation
CTO NO.: CTO-0143 BORING NO.: SWMU299-TW02

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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
ps/bg = point source/background

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	SPT	Lab ID	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
91						Continued from Sheet 1		
92								
93								
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95								
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101								
102								
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104								
105								
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109								
110								

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: R. Marks
DRILLER: Louis LaFever BORING NO.: SWMU299-TV SHEET 6 OF 2

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation
PROJ. NO.: CTO-0143 BORING NO.: SWMU299-TW03
COORDINATES: EAST: 2465906.116 NORTH: 357879.7794
ELEVATION: SURFACE: 18.41 TOP OF PVC CASING: 18.12

Rig:	Macro Core	Casing	Augers	Acetate Sleeve	Date	Progress (Ft.)	Comments	Depth to Water (Ft.)
Size (ID)	2"		3.25	2"	3/19/02	13	estimated	5.0
Length	4'		5'	4'				
Type	SS		S	Acetate				
Hammer Wt.	NA		NA	NA				
Fall	NA		NA	NA				

Remarks:

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

WELL INFORMATION

Type	Diam.	Top Depth (Ft.)	Bottom Depth (Ft.)
PVC Riser (Schedule 40)	1"	18.12	15.12
PVC Screen (Schedule 40)	1"	15.12	5.12

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	Lab ID	LEL %	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
1	M-1		SWMU299-TW03-00	0.0%	0.0 / 0.0	grey, gravel fill (0.6)	bentonite	18.1
2								
3						Dk. Grey silty sand	riser	
4			SWMU299-				sand	
5	M-2		TW03-02	0.0%	0.0 / 0.0		screen	
6								
7						(7.0)		11.1
8						grey, fine sand	sand	
9	A-N					For complete geology see log for SWMU299-TW04	screen	
10						Match to Sheet 2		

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: R. Marks
DRILLER: Louis LaFever BORING NO.: SWMU299-TW03 SHEET 1 OF 2

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation
CTO NO.: CTO-0143 BORING NO.: SWMU299-TW03

SAMPLE TYPE
M = Macro Core 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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
ps/bg = point source/background

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	Lab ID	LEL %	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
11						Continued from Sheet 1	sand	
12	A-N						screen	
13						13.0		5.1
14						End of Boring = 13.0		
15								
16								
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27								
28								
29								
30						Match to Sheet 3		

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: R. Marks
DRILLER: Louis LaFever BORING NO.: SWMU299-TW03 SHEET 2 OF 2

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation
CTO NO.: CTO-0143 BORING NO.: SWMU299-TW03

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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
BG/PS = Background/Point Source

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	SPT	Lab ID	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
31						Continued from Sheet 2		
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50						Match to Sheet 4		

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: R. Marks
DRILLER: Louis LaFever BORING NO.: SWMU299-TV SHEET 3 OF 2

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation
CTO NO.: CTO-0143 BORING NO.: SWMU299-TW03

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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
BG/PS = Background/Point Source

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	SPT	Lab ID	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
51						Continued from Sheet 3		
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70						Match to Sheet 5		

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: R. Marks
DRILLER: Louis LaFever BORING NO.: SWMU299-TV SHEET 4 OF 2

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation
CTO NO.: CTO-0143 BORING NO.: SWMU299-TW03

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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
BG/PS = Background/Point Source

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	SPT	Lab ID	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
71						Continued from Sheet 5		
72								
73								
74								
75								
76								
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80								
81								
82								
83								
84								
85								
86								
87								
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89								
90						Match to Sheet 6		

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: R. Marks
DRILLER: Louis LaFever BORING NO.: SWMU299-TV SHEET 5 OF 2

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation
CTO NO.: CTO-0143 BORING NO.: SWMU299-TW03

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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
ps/bg = point source/background

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	SPT	Lab ID	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
91						Continued from Sheet 1		
92								
93								
94								
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DRILLING CO.: Parratt Wolff Inc. BAKER REP.: R. Marks
DRILLER: Louis LaFever BORING NO.: SWMU299-TV SHEET 6 OF 2

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation
PROJ. NO.: CTO-0143 BORING NO.: SWMU299-TW04
COORDINATES: EAST: 2465943.866 NORTH: 357858.4526
ELEVATION: SURFACE: 18.52 TOP OF PVC CASING: 18.21

Rig:	Macro Core	Casing	Augers	Acetate Sleeve	Date	Progress (Ft.)	Comments	Depth to Water (Ft.)
Size (ID)	2"		3.25	2"	3/19/02	13	estimated	5.0
Length	4'		5'	4'				
Type	SS		S	Acetate				
Hammer Wt.	NA		NA	NA				
Fall	NA		NA	NA				

Remarks:

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

WELL INFORMATION

Type	Diam.	Top Depth (Ft.)	Bottom Depth (Ft.)
PVC Riser (Schedule 40)	1"	18.21	15.21
PVC Screen (Schedule 40)	1"	15.21	5.21

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	Lab ID	LEL %	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
1	M-1	1.8 56%	SWMU299-TW04-00	0.0%	0.0 / 0.0	grey gravel, fill	0.6	17.6
2						Dk. Grey v.f silty sand	bentonite	
3							riser	
4			SWMU299-TW04-02				4.0 sand	
5	M-2	4 100%		0.0%	0.0 / 0.0	(saturated)	screen	
6								
7							7.0	11.2
8						grey fine sand (wet)	sand	
9	M-3	2.5 63%		0.0%	0.0 / 0.0		screen	
10						Match to Sheet 2		

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: R. Marks
DRILLER: Louis LaFever BORING NO.: SWMU299-TW04 SHEET 1 OF 2

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation
CTO NO.: CTO-0143 BORING NO.: SWMU299-TW04

SAMPLE TYPE
M = Macro Core 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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
ps/bg = point source/background

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	Lab ID	LEL %	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
11						Continued from Sheet 1	sand	
12						grey fine sand (wet)		6.2
	A-N					12.0	screen	
13								5.2
14						End of Boring = 13.0		
15								
16								
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18								
19								
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21								
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24								
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29								
30						Match to Sheet 3		

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: R. Marks
DRILLER: Louis LaFever BORING NO.: SWMU299-TW04 SHEET 2 OF 2

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation
CTO NO.: CTO-0143 BORING NO.: SWMU299-TW04

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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
BG/PS = Background/Point Source

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	SPT	Lab ID	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
31						Continued from Sheet 2		
32								
33								
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49								
50						Match to Sheet 4		

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: R. Marks
DRILLER: Louis LaFever BORING NO.: SWMU299-TV SHEET 3 OF 2

Baker

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation

CTO NO.: CTO-0143 BORING NO.: SWMU299-TW04

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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
BG/PS = Background/Point Source

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	SPT	Lab ID	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
51						Continued from Sheet 3		
52								
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69								
70						Match to Sheet 5		

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: R. Marks

DRILLER: Louis LaFever BORING NO.: SWMU299-TV SHEET 4 OF 2

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation
CTO NO.: CTO-0143 BORING NO.: SWMU299-TW04

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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
BG/PS = Background/Point Source

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	SPT	Lab ID	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
71						Continued from Sheet 5		
72								
73								
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90						Match to Sheet 6		

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: R. Marks
DRILLER: Louis LaFever BORING NO.: SWMU299-TW SHEET 5 OF 2

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation
CTO NO.: CTO-0143 BORING NO.: SWMU299-TW04

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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
ps/bg = point source/background

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	SPT	Lab ID	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
91						Continued from Sheet 1		
92								
93								
94								
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DRILLING CO.: Parratt Wolff Inc. BAKER REP.: R. Marks
DRILLER: Louis LaFever BORING NO.: SWMU299-TW SHEET 6 OF 2

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation
PROJ. NO.: CTO-0143 BORING NO.: SWMU300-TW01
COORDINATES: EAST: 2466040.836 NORTH: 357542.123
ELEVATION: SURFACE: 17.85 TOP OF PVC CASING: 17.56

Rig:	Macro Core	Casing	Augers	Acetate Sleeve	Date	Progress (Ft.)	Comments	Depth to Water (Ft.)
Size (ID)	2"		3.25	2"	3/19/02	12	estimated	4.0
Length	4'		5'	4'				
Type	SS		S	Acetate				
Hammer Wt.	NA		NA	NA				
Fall	NA		NA	NA				

Remarks:

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

WELL INFORMATION

Type	Diam.	Top Depth (Ft.)	Bottom Depth (Ft.)
PVC Riser (Schedule 40)	1"	17.56	15.56
PVC Screen (Schedule 40)	1"	15.56	5.56

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	Lab ID	LEL %	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
1	M-1	2.6 65%	SWMU300-TW01-00	0.0%	0.0 / 0.0	Fill 0.6 / fine sand 1.2	bentonite / riser	20.0 / 16.4
2							screen	
3						brown, v.f. sand and silt w/some clay		
4	▼		SWMU300-TW01-02				sand	
5	M-2	4 100%		0.0%	0.0 / 0.0		screen	
6								
7							sand	
8						8.0		9.6
9	A-N					For complete geology see log SWMU300-TW02	screen	
10						Match to Sheet 2		

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: R. Marks
DRILLER: Louis LaFever BORING NO.: SWMU300-TW01 SHEET 1 OF 2

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation
CTO NO.: CTO-0143 BORING NO.: SWMU300-TW01

SAMPLE TYPE
M = Macro Core 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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
ps/bg = point source/background

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	Lab ID	LEL %	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
11						Continued from Sheet 1	sand	
12							5.6	
13						End of Boring = 12.0		
14								
15								
16								
17								
18								
19								
20								
21								
22								
23								
24								
25								
26								
27								
28								
29								
30						Match to Sheet 3		

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: R. Marks
DRILLER: Louis LaFever BORING NO.: SWMU300-TW01 SHEET 2 OF 2

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation
CTO NO.: CTO-0143 BORING NO.: SWMU300-TW01

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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
BG/PS = Background/Point Source

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	SPT	Lab ID	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
31						Continued from Sheet 2		
32								
33								
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50						Match to Sheet 4		

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: R. Marks
DRILLER: Louis LaFever BORING NO.: SWMU300-TW SHEET 3 OF 2

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation
CTO NO.: CTO-0143 BORING NO.: SWMU300-TW01

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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
BG/PS = Background/Point Source

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	SPT	Lab ID	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
51						Continued from Sheet 3		
52								
53								
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56								
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62								
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65								
66								
67								
68								
69								
70						Match to Sheet 5		

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: R. Marks
DRILLER: Louis LaFever BORING NO.: SWMU300-TW SHEET 4 OF 2

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation
CTO NO.: CTO-0143 BORING NO.: SWMU300-TW01

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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
BG/PS = Background/Point Source

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	SPT	Lab ID	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
71						Continued from Sheet 5		
72								
73								
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87								
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89								
90						Match to Sheet 6		

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: R. Marks
DRILLER: Louis LaFever BORING NO.: SWMU300-TV SHEET 5 OF 2

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation
CTO NO.: CTO-0143 BORING NO.: SWMU300-TW01

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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
ps/bg = point source/background

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	SPT	Lab ID	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
91						Continued from Sheet 1		
92								
93								
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DRILLING CO.: Parratt Wolff Inc. BAKER REP.: R. Marks
DRILLER: Louis LaFever BORING NO.: SWMU300-TV SHEET 6 OF 2

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT:	SWMU Investigation		
PROJ. NO.:	CTO-0143	BORING NO.:	SWMU300-TW02
COORDINATES:	EAST: 2466022.047	NORTH:	357542.122
ELEVATION:	SURFACE: 18.89	TOP OF PVC CASING:	18.22

Rig:	Macro Core	Casing	Augers	Acetate Sleeve	Date	Progress (Ft.)	Comments	Depth to Water (Ft.)
Size (ID)	2"		3.25	2"	3/20/02	12	estimated	4
Length	4'		5'	4'				
Type	SS		S	Acetate				
Hammer Wt.	NA		NA	NA				
Fall	NA		NA	NA				

Remarks:

SAMPLE TYPE

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

WELL INFORMATION

Type		Diam.	Top Depth (Ft.)	Bottom Depth (Ft.)
PVC	Riser (Schedule 40)	1"	18.22	16.22
PVC	Screen (Schedule 40)	1"	16.22	6.22

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	Lab ID	LEL %	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
1	M-1	4 100%	SWMU300-TW02-00	0.0%	0.0 / 0.0		bentonite, riser	
2			SWMU300-TW02-01				screen	
3						Dk. Grey sandy silt (2.7)		15.52
4	▼						sand	
5	M-2	3.6 90%		0.0%	0.0 / 0.0	grey sandy silt w/some clay (4.8)		13.42
6							screen	
7						light grey fine sand w/some silt		
8							sand	
9	M-3	2.1 53%		0.0%	0.0 / 0.0			
10							screen	

Match to Sheet 2

DRILLING CO.:	Parratt Wolff Inc.	BAKER REP.:	R. Marks
DRILLER:	Louis LaFever	BORING NO.:	SWMU300-TW02

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation
CTO NO.: CTO-0143 BORING NO.: SWMU300-TW02

SAMPLE TYPE
M = Macro Core 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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
ps/bg = point source/background

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	Lab ID	LEL %	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
11						Continued from Sheet 1	sand	
12						light grey fine sand w/some silt		6.20
						12.0		
13						End of Boring = 12.0		
14								
15								
16								
17								
18								
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20								
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22								
23								
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25								
26								
27								
28								
29								
30						Match to Sheet 3		

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: R. Marks
DRILLER: Louis LaFever BORING NO.: SWMU300-TW02 SHEET 2 OF 2

Baker

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation

CTO NO.: CTO-0143 BORING NO.: SWMU300-TW02

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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
BG/PS = Background/Point Source

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	SPT	Lab ID	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
31						Continued from Sheet 2		
32								
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50						Match to Sheet 4		

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: R. Marks

DRILLER: Louis LaFever BORING NO.: SWMU300-TV SHEET 3 OF 2

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation
CTO NO.: CTO-0143 BORING NO.: SWMU300-TW02

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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
BG/PS = Background/Point Source

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	SPT	Lab ID	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
51						Continued from Sheet 3		
52								
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70						Match to Sheet 5		

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: R. Marks
DRILLER: Louis LaFever BORING NO.: SWMU300-TV SHEET 4 OF 2

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation
CTO NO.: CTO-0143 BORING NO.: SWMU300-TW02

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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
BG/PS = Background/Point Source

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	SPT	Lab ID	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
71						Continued from Sheet 5		
72								
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89								
90						Match to Sheet 6		

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: R. Marks
DRILLER: Louis LaFever BORING NO.: SWMU300-TV SHEET 5 OF 2

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation
CTO NO.: CTO-0143 BORING NO.: SWMU300-TW02

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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
ps/bg = point source/background

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	SPT	Lab ID	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
91						Continued from Sheet 1		
92								
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DRILLING CO.: Parratt Wolff Inc. BAKER REP.: R. Marks
DRILLER: Louis LaFever BORING NO.: SWMU300-TV SHEET 6 OF 2

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation
PROJ. NO.: CTO-0143 BORING NO.: SWMU300-TW03
COORDINATES: EAST: 2466021.603 NORTH: 357534.127
ELEVATION: SURFACE: 17.91 TOP OF PVC CASING: 17.72

Rig:	Macro Core	Casing	Augers	Acetate Sleeve	Date	Progress (Ft.)	Comments	Depth to Water (Ft.)
Size (ID)	2"		3.25	2"	3/19/02	11	estimated	1.5
Length	4'		5'	4'			when hole filled	
Type	SS		S	Acetate			w/water	
Hammer Wt.	NA		NA	NA				
Fall	NA		NA	NA				

Remarks:

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

WELL INFORMATION

Type	Diam.	Top Depth (Ft.)	Bottom Depth (Ft.)
PVC Riser (Schedule 40)	1"	17.52	17.02
PVC Screen (Schedule 40)	1"	17.02	6.52

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	Lab ID	LEL %	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
1–4	M-1	2.6 / 65%	SWMU300-TW03-00	0.0%	0.0 / 0.0	fill material : gravel, silt, sand	bentonite, riser, screen, sand	16.0
5–8	M-2	4 / 100%	SWMU300-TW03-02	0.0%	0.0 / 0.0	Grey, fine sand (note:sample taken before the hole started filling w/ water)	screen, sand	9.5
9–10	A-N					Match to Sheet 2	screen	

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: R. Marks
DRILLER: Louis LaFever BORING NO.: SWMU300-TW03 SHEET 1 OF 2

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation
CTO NO.: CTO-0143 BORING NO.: SWMU300-TW03

SAMPLE TYPE
M = Macro Core 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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
ps/bg = point source/background

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	Lab ID	LEL %	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
11						Continued from Sheet 1	sand	6.5
12								
13								
14								
15								
16								
17								
18								
19								
20								
21								
22								
23								
24								
25								
26								
27								
28								
29								
30						Match to Sheet 3		

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: R. Marks
DRILLER: Louis LaFever BORING NO.: SWMU300-TW03 SHEET 2 OF 2

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation
CTO NO.: CTO-0143 BORING NO.: SWMU300-TW03

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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
BG/PS = Background/Point Source

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	SPT	Lab ID	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
31						Continued from Sheet 2		
32								
33								
34								
35								
36								
37								
38								
39								
40								
41								
42								
43								
44								
45								
46								
47								
48								
49								
50						Match to Sheet 4		

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: R. Marks
DRILLER: Louis LaFever BORING NO.: SWMU300-TV SHEET 3 OF 2

Baker
Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation
CTO NO.: CTO-0143 BORING NO.: SWMU300-TW03

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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
BG/PS = Background/Point Source

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	SPT	Lab ID	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
51						Continued from Sheet 3		
52								
53								
54								
55								
56								
57								
58								
59								
60								
61								
62								
63								
64								
65								
66								
67								
68								
69								
70						Match to Sheet 5		

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: R. Marks
DRILLER: Louis LaFever BORING NO.: SWMU300-TW SHEET 4 OF 2

Baker
Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation
CTO NO.: CTO-0143 BORING NO.: SWMU300-TW03

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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
BG/PS = Background/Point Source

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	SPT	Lab ID	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
71						Continued from Sheet 5		
72								
73								
74								
75								
76								
77								
78								
79								
80								
81								
82								
83								
84								
85								
86								
87								
88								
89								
90						Match to Sheet 6		

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: R. Marks
DRILLER: Louis LaFever BORING NO.: SWMU300-TV SHEET 5 OF 2

Baker
Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation
CTO NO.: CTO-0143 BORING NO.: SWMU300-TW03

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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
ps/bg = point source/background

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	SPT	Lab ID	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
91						Continued from Sheet 1		
92								
93								
94								
95								
96								
97								
98								
99								
100								
101								
102								
103								
104								
105								
106								
107								
108								
109								
110								

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: R. Marks
DRILLER: Louis LaFever BORING NO.: SWMU300-TV SHEET 6 OF 2

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT:	SWMU Investigation			
PROJ. NO.:	CTO-0143		BORING NO.:	SWMU302- TW01
COORDINATES:	EAST:	2467521.140	NORTH:	355826.5808
ELEVATION:	SURFACE:	19.159	TOP OF PVC CASING:	19.039

Rig:	A-200 Ingersol Ram							
	Macro Core	Casing	Augers	Acetate sleave	Date	Progress (Ft.)	Weather	Depth to Water (Ft.)
Size (ID)	2"		3.25	2"	3/19/02	18'		10.1
Length	4		5'	4'				
Type	SS		S	Acetate				
Hammer Wt.	NA		NA	NA				
Fall	NA		NA	NA				

Remarks:

SAMPLE TYPE

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

WELL INFORMATION

Type	Diam.	Top Depth (Ft.)	Bottom Depth (Ft.)
PVC Riser (Schedule 40)	1"	19.039	11.039
PVC screen (Schedule 40) 0.010"	1"	11.039	1.039

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	Lab ID	LEL %	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL) 19.0
1			SWMU302-TW01-00			Fine sand, trace silt, gravel damp, light gray		
1.6								17.4
2	M-1	3.3 83%		0.0%	0.0 / 0.0	Fine sand, trace silt, damp brown	cuttings	
2.8							riser	16.2
3						Fine sand, trace silt, wet, grayish brown		
4								15.0
5							bentonite	
6	A-N						riser	
7							sand	
8								11.0
9			SWMU302-TW01-05			Clay, trace fine sand, firm, plastic, gray, moist	screen	
10 ▼	M-2	3.0 75%		0.0%	0.0 / 0.0			8.9
10.1						Fine to medium grained sand	sand	

DRILLING CO.:	Parratt Wolff Inc.	BAKER REP.:	David D. Schilling
DRILLER:	Mark Eaves / Jim Robertson	BORING NO.:	SWMU302- TW01 SHEET 1 OF 2

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation
CTO NO.: CTO-0143 BORING NO.: SWMU302- TW01

SAMPLE TYPE
M = Macro Core 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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
ps/bg = point source/background

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	Lab ID	LEL %	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL) 8.5
11						Continued from Sheet 1		
12						trace silt, wet, gray	sand	7.0
13	A-N						screen	
14								
15								
16	A-N						sand	
17								
18								1.0
19						End of Boring = 18.0		
20								
21								
22								
23								
24								
25								
26								
27								
28								
29								
30								

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: David D. Schilling
DRILLER: Mark Eaves / Jim Robertson BORING NO.: SWMU302- TW01 SHEET 2 OF 2

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation
PROJ. NO.: CTO-0143 BORING NO.: SWMU302- TW02
COORDINATES: EAST: 2467492.290 NORTH: 355826.7682
ELEVATION: SURFACE: 18.724 TOP OF PVC CASING: 18.572

Rig: A-200 Ingersol Ram	Macro Core	Casing	Augers	Acetate sleave	Date	Progress (Ft.)	Weather	Depth to Water (Ft.)
Size (ID)	2"		3.25	2"	3/19/02	18'		9.5'
Length	4		5'	4'				
Type	SS		S	Acetate				
Hammer Wt.	NA		NA	NA				
Fall	NA		NA	NA				

Remarks:

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

WELL INFORMATION

Type	Diam.	Top Depth (Ft.)	Bottom Depth (Ft.)
PVC Riser (Schedule 40)	1"	18.72	10.72
PVC screen (Schedule 40) 0.010"	1"	10.72	0.72

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	Lab ID	LEL %	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL) 18.7
1			SWMU302-TW02-00 MS/MSD			Fine sand, trace silt, brown 0.6 damp, petro odor , clay lenses		18.1
2	M-1	3.2 80%		0.0%	66 / 0	Fine sand, trace silt, moist, orangish brown, petro odor 2.1	cuttings	16.6
3						Fine sand, trace silt, wet, grayish brown, slight petro odor 3.2	riser	15.5
4								
5						Clay, trace fine sand, firm, moist, plastic, grayish brown 5.3	bentonite	13.4
6	M-2	4.0 100%		0.0%	0.5 / 0	Clay, trace fine sand, firm, moist, plastic, dark gray (near black) 6.7	riser	12.0
7						Fine sand, trace clay, very moist, plastic, grayish brown	sand	
8						8.0		10.7
9			SWMU302-TW02-04			Clay, little to trace fine sand, firm moist, plastic, grayish brown 9.5	screen	9.2
10	M-3	4.0 100%		0.0%	0.0 / 0.0	Fine sand trace silt, wet, gray	sand	

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: David D. Schilling
DRILLER: Mark Eaves / Jim Robertson BORING NO.: SWMU302- TW02 SHEET 1 OF 2

Baker

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation

CTO NO.: CTO-0143 BORING NO.: SWMU302- TW02

SAMPLE TYPE

M = Macro Core 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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
ps/bg = point source/background

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	Lab ID	LEL %	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL) 8.2
11						Continued from Sheet 1		
12						Fine sand, trace silt, wet, gray	sand	
13								
14	M-4	4.0 100%		0.0%	0.0 / 0.0		screen	
15								
16								
17	M-5	2.0 100%		0.0%	0.0 / 0.0		sand	
18								0.7
19						End of Boring = 18.0		
20								
21								
22								
23								
24								
25								
26								
27								
28								
29								
30								

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: David D. Schilling

DRILLER: Mark Eaves / Jim Robertson BORING NO.: SWMU302- TW02 SHEET 2 OF 2

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT:	SWMU Investigation		
PROJ. NO.:	CTO-0143	BORING NO.:	SWMU302- TW03
COORDINATES:	EAST: 2467501.5005	NORTH:	355856.7547
ELEVATION:	SURFACE: 18.50	TOP OF PVC CASING:	18.318

Rig: A-200 Ingersol Ram	Macro Core	Casing	Augers	Acetate sleave	Date	Progress (Ft.)	Weather	Depth to Water (Ft.)
Size (ID)	2"		3.25	2"	3/19/02	18'		9.4
Length	4		5'	4'				
Type	SS		S	Acetate				
Hammer Wt.	NA		NA	NA				
Fall	NA		NA	NA				

Remarks:

SAMPLE TYPE

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

WELL INFORMATION

Type	Diam.	Top Depth (Ft.)	Bottom Depth (Ft.)
PVC Riser (Schedule 40)	1"	18.318	10.318
PVC screen (Schedule 40) 0.010"	1"	10.318	0.318

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	Lab ID	LEL %	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL) 18.3
1			SWMU302-TW03-00			Fine sand, trace silt, loam, sod 0.4		17.9
2	M-1	3 75%		0.0%	0 / 0	Fine sand, trace silt, moist, orangish brown	cuttings	
3						2.4 Fine sand and clay, moist, grayish brown	riser	15.9
4								14.3
5							bentonite	
6	A-N						riser	
7								
8							sand	10.3
9	▼		SWMU302-TW03-05			Clay, trace fine sand, moist, soft, gray, wood fragments, sand lenses 9.4	screen	8.9
10	M-2	2.8 70%		0.0%	0.0 / 0.0	Fine to medium grained sand, wet greenish gray	sand	

DRILLING CO.:	Parratt Wolff Inc.	BAKER REP.:	David D. Schilling
DRILLER:	Mark Eaves / Jim Robertson	BORING NO.:	SWMU302- TW03 SHEET 1 OF 2

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation
CTO NO.: CTO-0143 BORING NO.: SWMU302- TW03

SAMPLE TYPE
M = Macro Core 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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
ps/bg = point source/background

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	Lab ID	LEL %	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL) 7.8
11						Continued from Sheet 1		
12							sand	6.3
13	A-N						screen	
14								
15								
16	A-N						sand	
17								
18								0.3
19						End of Boring = 18.0		
20								
21								
22								
23								
24								
25								
26								
27								
28								
29								
30								

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: David D. Schilling
DRILLER: Mark Eaves / Jim Robertson BORING NO.: SWMU302- TW03 SHEET 2 OF 2

Baker Environmental

TEST BORING RECORD

PROJECT: SWMU Investigation
PROJ. NO.: CTO-0143 BORING NO.: SWMU303-IS04
COORDINATES: EAST: NORTH:
ELEVATION: SURFACE:

Rig: A-200 Ingersol Ram	Macro Core	Casing	Augers	Acetate Sleave	Date	Progress (Ft.)	Comments	Depth to Water (Ft.)
Size (ID)	2"		3.25	2"	3/19/02	2		NA
Length	4'		5'	4'				
Type	SS		S	Acetate				
Hammer Wt.	NA		NA	NA				
Fall	NA		NA	NA				

Remarks:

SAMPLE TYPE
M = Macro Core 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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
BG/PS = Background/Point Source
ppm = parts per million

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	Lab ID	LEL %	PID (ppm) ps/bg	Visual Description	Elevation (Ft. MSL)
1	M-1	2 100%	SWMU303 IS04-00	0.0%	3.9 0.0	Fine sand, trace silt , damp, dark brown	
2						Fine sand, trace silt, moist greenish gray, slight petroleum odor 1.7 2.0	
3						End of Boring = 2.0'	
4							
5							
6							
7							
8							
9							
10							

DRILLING COMPANY: Parratt Wolff Inc. BAKER REP.: David D. Schilling
DRILLER: Mark Eaves/Jim Robertson BORING NO.: SWMU303-IS04 SHEET 1 OF 1

Baker Environmental

TEST BORING RECORD

PROJECT: SWMU Investigation
PROJ. NO.: CTO-0143 BORING NO.: SWMU303-SB01
COORDINATES: EAST: NORTH:
ELEVATION: SURFACE:

Rig: A-200 Ingersol Ram	Macro Core	Casing	Augers	Acetate Sleave	Date	Progress (Ft.)	Comments	Depth to Water (Ft.)
Size (ID)	2"		3.25	2"	3/19/02	8	estimated	7.3'
Length	4'		5'	4'				
Type	SS		S	Acetate				
Hammer Wt.	NA		NA	NA				
Fall	NA		NA	NA				

Remarks:

SAMPLE TYPE
M = Macro Core 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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
BG/PS = Background/Point Source
ppm = parts per million

Depth (Ft.)		Sample Type & No.	Sample Rec. (Ft.,%)	Lab ID	LEL %	PID (ppm) ps/bg	Visual Description	Elevation (Ft. MSL)
1				SWMU303 SB01-00			Fine sand, trace silt, damp, dark brown 1.2	
2		M-1	3.6 90%		0.0%	0.0 / 0.0	Clay, trace sand, hard, damp, non-plastic	
3								
4							4.3	
5							Fine sand, trace silt, moist, grayish brown 4.9	
6		M-2	4.0 100%		0.0%	0.0 / 0.0	Clay, trace sand, plastic, mottled orange and light gray, moist	
7	▼						7.3	
8				SWMU303 SB01-03			Fine sand, trace silt, wet, light gray 8.0	
9							End of Boring = 8.0'	
10								

DRILLING COMPANY: Parratt Wolff Inc. BAKER REP.: David D. Schilling
DRILLER: Mark Eaves/Jim Robertson BORING NO.: SWMU303-SB01 SHEET 1 OF 1

Baker Environmental

TEST BORING RECORD

PROJECT: SWMU Investigation
PROJ. NO.: CTO-0143 BORING NO.: SWMU303-SB02
COORDINATES: EAST: NORTH:
ELEVATION: SURFACE:

Rig: A-200 Ingersol Ram	Macro Core	Casing	Augers	Acetate Sleave	Date	Progress (Ft.)	Comments	Depth to Water (Ft.)
Size (ID)	2"		3.25	2"	3/19/02	12'	estimated	8'
Length	4'		5'	4'				
Type	SS		S	Acetate				
Hammer Wt.	NA		NA	NA				
Fall	NA		NA	NA				

Remarks:

SAMPLE TYPE
M = Macro Core 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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
BG/PS = Background/Point Source
ppm = parts per million

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	Lab ID	LEL %	PID (ppm) ps/bg	Visual Description	Elevation (Ft. MSL)
1			SWMU303 SB02-00			Fine sand, trace silt, damp, brown	
2	M-1	2.6 65%		0.0%	0.0 / 0.0		
3						2.4	
4						Fine sand, some clay, moist, semi-plastic, brown	
5							
6	M-2	2.3 58%		0.0%	0.0 / 0.0	5.2 Fine sand, trace silt, moist, brown	
7						6.3	
8 ▼			SWMU303 SB02-04			8.0	
9						Fine sand, trace silt, wet, brown	
10	M-3	3.2 80%		0.0%	0.0 / 0.0	Match to Sheet 2	

DRILLING COMPANY: Parratt Wolff Inc. BAKER REP.: David D. Schilling
DRILLER: Mark Eaves/Jim Robertson BORING NO.: SWMU303-SB02 SHEET 1 OF 2

Baker Environmental

TEST BORING RECORD

PROJECT: SWMU Investigation
CTO NO.: CTO-0143 BORING NO.: SWMU303-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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
ps/bg = point source/background

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	SPT	Lab ID	PID (ppm) ps/bg	Visual Description	Elevation (Ft. MSL)
11						Continued from Sheet 1	
12						Fine sand, trace silt, wet, brown 12.0	
13						End of Boring = 12.0	
14							
15							
16							
17							
18							
19							
20							
21							
22							
23							
24							
25							
26							
27							
28							
29							
30							

DRILLING COMPANY: Parratt Wolff Inc. BAKER REP.: David D. Schilling
DRILLER: Mark Eaves/Jim Robertson BORING NO.: SWMU303-SB02 SHEET 2 OF 2

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT:	SWMU Investigation			
PROJ. NO.:	CTO-0143		BORING NO.:	SWMU303- TW01
COORDINATES:	EAST:	2467075.846	NORTH:	355778.3105
ELEVATION:	SURFACE:	18.730	TOP OF PVC CASING:	18.679

Rig:	A-200 Ingersol Ram							
	Macro Core	Casing	Augers	Acetate sleave	Date	Progress (Ft.)	Comment	Depth to Water (Ft.)
Size (ID)	2"		3.25	2"	3/20/02	16	estimated	6.4
Length	4		5'	4'				
Type	SS		S	Acetate				
Hammer Wt.	NA		NA	NA				
Fall	NA		NA	NA				

Remarks:

SAMPLE TYPE

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

WELL INFORMATION

Type	Diam.	Top Depth (Ft.)	Bottom Depth (Ft.)
PVC Riser (Schedule 40)	1"	18.679	12.679
PVC screen (Schedule 40) 0.010"	1"	12.679	2.679

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	Lab ID	LEL %	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL) 18.7
1–4	M-1	3.2 80%	SWMU303-TW01-00	0.0%	0.0 / 0.0	Fine sand, trace silt, damp, brown clay lenses	cuttings; riser; bentonite	14.7
4.0								
5–8	M-2	2.6 65%	SWMU303 TW01-04	0.0%	0.0 / 0.0	Fine sand, trace silt, damp, grayish brown, clay lenses	sand; riser	12.3
6.4						Fine sand, trace silt, wet, gray	sand	10.7
8.0								
9–10	A-N						screen; sand	

DRILLING CO.:	Parratt Wolff Inc.	BAKER REP.:	David D. Schilling
DRILLER:	Mark Eaves / Jim Robertson	BORING NO.:	SWMU303- TW01 SHEET 1 OF 2

Baker

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation

CTO NO.: CTO-0143 BORING NO.: SWMU303- TW01

SAMPLE TYPE

M = Macro Core 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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
ps/bg = point source/background

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	Lab ID	LEL %	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL) 8.2
11	A-N					Continued from Sheet 1	sand	
12							12	6.7
13	M-3	4.0 100%		0.0%	0.4 / 0.0	Fine sand, trace silt, wet, gray, strong cresode odor	screen	
14								
15							sand	
16							16	2.7
17						End of Boring = 16.0		
18								
19								
20								
21								
22								
23								
24								
25								
26								
27								
28								
29								
30								

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: David D. Schilling

DRILLER: Mark Eaves / Jim Robertson BORING NO.: SWMU303- TW01 SHEET 2 OF 2

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation
PROJ. NO.: CTO-0143 BORING NO.: SWMU303- TW02
COORDINATES: EAST: 2467096.018 NORTH: 355769.5479
ELEVATION: SURFACE: 18.769 TOP OF PVC CASING: 18.679

Rig:	A-200 Ingersol Ram				Date	Progress (Ft.)	Comment	Depth to Water (Ft.)
	Macro Core	Casing	Augers	Acetate sleave				
Size (ID)	2"		3.25	2"	3/20/02	15	estimated	7.6
Length	4		5'	4'				
Type	SS		S	Acetate				
Hammer Wt.	NA		NA	NA				
Fall	NA		NA	NA				

Remarks:

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

WELL INFORMATION

Type	Diam.	Top Depth (Ft.)	Bottom Depth (Ft.)
PVC Riser (Schedule 40)	1"	18.679	13.679
PVC screen (Schedule 40) 0.010"	1"	13.679	3.679

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	Lab ID	LEL %	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL) 18.7
1–4	M-1	4.0 100%	SWMU303-TW02-00	0.0%	0.0 / 0.0	Fine sand, trace clay, loam, sod 0.5 Clay, trace fine sand, hard, non-plastic, damp, dark gray 2.9 Fine sand, trace clay, brownish gray, wet 3.1 4.0 Clay, orangish brown, plastic, moist, firm	cuttings; riser; bentonite	18.2 15.8 15.6 14.7
5–7	A-N					7.0	screen	11.7
8–10	M-2	4.0 100%	SWMU303 TW02-04	0.0%	0.0 / 0.0	Clay and fine sand, moist, plastic, gray 7.6 Fine sand, trace silt, wet, gray	sand; screen; sand	11.1

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: David D. Schilling
DRILLER: Mark Eaves / Jim Robertson BORING NO.: SWMU303- TW02 SHEET 1 OF 2

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation
CTO NO.: CTO-0143 BORING NO.: SWMU303- TW02

SAMPLE TYPE
M = Macro Core 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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
ps/bg = point source/background

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	Lab ID	LEL %	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL) 8.2
11						Continued from Sheet 1		7.7
11.0							sand	
12								
13	A-N						screen	
14								
15							sand	3.7
15.0						End of Boring = 15.0		
16								
17								
18								
19								
20								
21								
22								
23								
24								
25								
26								
27								
28								
29								
30								

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: David D. Schilling
DRILLER: Mark Eaves / Jim Robertson BORING NO.: SWMU303- TW02 SHEET 2 OF 2

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT:	SWMU Investigation		
PROJ. NO.:	CTO-0143	BORING NO.:	SWMU303- TW03
COORDINATES:	EAST: 2467096.029	NORTH:	355786.9302
ELEVATION:	SURFACE: 19.205	TOP OF PVC CASING:	18.887

Rig: A-200 Ingersol Ram	Macro Core	Casing	Augers	Acetate sleave	Date	Progress (Ft.)	Comment	Depth to Water (Ft.)
Size (ID)	2"		3.25	2"	3/20/02	15	estimated	6
Length	4		5'	4'				
Type	SS		S	Acetate				
Hammer Wt.	NA		NA	NA				
Fall	NA		NA	NA				

Remarks:

SAMPLE TYPE

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

WELL INFORMATION

Type	Diam.	Top Depth (Ft.)	Bottom Depth (Ft.)
PVC Riser (Schedule 40)	1"	18.887	13.887
PVC screen (Schedule 40) 0.010"	1"	13.887	3.887

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	Lab ID	LEL %	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL) 18.9
1			SWMU303-TW03-00			Fine sand, trace silt, moist, loam 0.8	cuttings	18.1
2	M-1	3.2 80%		0.0%	4.1 / 0.0	Clay and fine sand, moist, semi-plastic, gray, petroleum odor	riser	
3						2.8	bentonite	16.1
4						Clay, trace fine sand, moist, plastic, orangish brown 4.0	riser	14.9
5	A-N						sand	
6 ▼						6.0	screen	12.9
7			SWMU303-TW03-03			Fine sand, trace silt, wet, light gray clay lenses	sand	
8	M-2	3.1 78%		0.0%	0.2 / 0.0	7.8		11.1
9						Fine sand, trace silt, wet, greenish gray	screen	
10						10.0		8.9
	A-N						sand	

DRILLING CO.:	Parratt Wolff Inc.	BAKER REP.:	David D. Schilling
DRILLER:	Mark Eaves / Jim Robertson	BORING NO.:	SWMU303- TW03 SHEET 1 OF 2

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation
CTO NO.: CTO-0143 BORING NO.: SWMU303- TW03

SAMPLE TYPE
M = Macro Core 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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
ps/bg = point source/background

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	Lab ID	LEL %	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL) 8.4
11						Continued from Sheet 1		
12							sand	
13	A-N						screen	
14								
15						15.0	sand	3.9
16						End of Boring = 15.0		
17								
18								
19								
20								
21								
22								
23								
24								
25								
26								
27								
28								
29								
30								

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: David D. Schilling
DRILLER: Mark Eaves / Jim Robertson BORING NO.: SWMU303- TW03 SHEET 2 OF 2

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT:	SWMU Investigation			
PROJ. NO.:	CTO-0143		BORING NO.:	SWMU305-TW01
COORDINATES:	EAST:	2492388.369	NORTH:	308695.73
ELEVATION:	SURFACE:	16.93	TOP OF PVC	16.75

Rig:	Macro Core	Casing	Augers	Acetate Sleeve	Date	Progress (Ft.)	Comments	Depth to Water (Ft.)
Size (ID)	2"		3.25	2"	3/24/02	13	estimated	5.0
Length	4'		5'	4'				
Type	SS		S	Acetate				
Hammer Wt.	NA		NA	NA				
Fall	NA		NA	NA				

Remarks:

SAMPLE TYPE

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

WELL INFORMATION

Type		Diam.	Top Depth (Ft.)	Bottom Depth (Ft.)
PVC	Riser (Schedule 40)	1"	16.75	13.75
PVC	Screen (Schedule 40)	1"	13.75	3.75

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	Lab ID	LEL %	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
1	M-1		SWMU305-TW01-00	0.0%	0.0 / 0.0	fill, silt, sand gravel	0.6 bentonite, riser	16.1
2								
3						fine sand w/silt	sand	
4			SWMU305-TW01-02				screen 4.0	12.7
5	A-N					For geology see log SWMU305-TW02	sand	
6							screen	
7							sand	
8								
9							screen	
10	A-N					Match to Sheet 2	sand	

DRILLING CO.:	Parratt Wolff Inc.	BAKER REP.:	R. Marks
DRILLER:	Louis LaFever	BORING NO.:	SWMU305-TW01 SHEET 1 OF 2

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation
CTO NO.: CTO-0143 BORING NO.: SWMU305-TW01

SAMPLE TYPE
M = Macro Core 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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
ps/bg = point source/background

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	Lab ID	LEL %	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
11						Continued from Sheet 1	sand	
12							screen	
13	A-N						sand	3.7
14						End of Boring = 13.0		
15								
16								
17								
18								
19								
20								
21								
22								
23								
24								
25								
26								
27								
28								
29								
30						Match to Sheet 3		

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: R. Marks
DRILLER: Louis LaFever BORING NO.: SWMU305-TW01 SHEET 2 OF 2

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation
CTO NO.: CTO-0143 BORING NO.: SWMU305-TW01

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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
BG/PS = Background/Point Source

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	SPT	Lab ID	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
31						Continued from Sheet 2		
32								
33								
34								
35								
36								
37								
38								
39								
40								
41								
42								
43								
44								
45								
46								
47								
48								
49								
50						Match to Sheet 4		

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: R. Marks
DRILLER: Louis LaFever BORING NO.: SWMU305-TW SHEET 3 OF 2

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation
CTO NO.: CTO-0143 BORING NO.: SWMU305-TW01

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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
BG/PS = Background/Point Source

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	SPT	Lab ID	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
51						Continued from Sheet 3		
52								
53								
54								
55								
56								
57								
58								
59								
60								
61								
62								
63								
64								
65								
66								
67								
68								
69								
70						Match to Sheet 5		

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: R. Marks
DRILLER: Louis LaFever BORING NO.: SWMU305-TV SHEET 4 OF 2

Baker

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation

CTO NO.: CTO-0143 BORING NO.: SWMU305-TW01

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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
BG/PS = Background/Point Source

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	SPT	Lab ID	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
71						Continued from Sheet 5		
72								
73								
74								
75								
76								
77								
78								
79								
80								
81								
82								
83								
84								
85								
86								
87								
88								
89								
90						Match to Sheet 6		

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: R. Marks

DRILLER: Louis LaFever BORING NO.: SWMU305-TW SHEET 5 OF 2

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation
CTO NO.: CTO-0143 BORING NO.: SWMU305-TW01

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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
ps/bg = point source/background

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	SPT	Lab ID	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
91						Continued from Sheet 1		
92								
93								
94								
95								
96								
97								
98								
99								
100								
101								
102								
103								
104								
105								
106								
107								
108								
109								
110								

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: R. Marks
DRILLER: Louis LaFever BORING NO.: SWMU305-TV SHEET 6 OF 2

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation
PROJ. NO.: CTO-0143 BORING NO.: SWMU305-TW02
COORDINATES: EAST: 2492372.250 NORTH: 308676.172
ELEVATION: SURFACE: 17.2 TOP OF PVC 17.13

Rig:	Macro Core	Casing	Augers	Acetate Sleeve	Date	Progress (Ft.)	Comments	Depth to Water (Ft.)
Size (ID)	2"		3.25	2"	3/24/02	13	estimated	5
Length	4'		5'	4'				
Type	SS		S	Acetate				
Hammer Wt.	NA		NA	NA				
Fall	NA		NA	NA				

Remarks:

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

WELL INFORMATION

Type	Diam.	Top Depth (Ft.)	Bottom Depth (Ft.)
PVC Riser (Schedule 40)	1"	17.13	14.13
PVC Screen (Schedule 40)	1"	14.13	4.13

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	Lab ID	LEL %	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
1	M-1	2.5 63%	SWMU305-TW02-00	0.0%	0.0 / 0.0	fill, silt, sand gravel	0.6	16.5
2								
3						fine sand w/silt	back fill	
4			SWMU305-TW02-02				riser	
5 ▼	M-2	4.0 100%		0.0%	0.0 / 0.0		bentonite	
6							riser	
7							sand	
8							screen	
9	M-3	4.0 100%		0.0%	0.0 / 0.0	fine sand w/silt		
10						Match to Sheet 2	sand	

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: R. Marks
DRILLER: Louis LaFever BORING NO.: SWMU305-TW02 SHEET 1 OF 2

Baker
Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation
CTO NO.: CTO-0143 BORING NO.: SWMU305-TW02

SAMPLE TYPE
M = Macro Core 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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
ps/bg = point source/background

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	Lab ID	LEL %	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
11						Continued from Sheet 1	sand	
12						fine sand w/silt	12.0 screen	5.1
13	A-N						13.0 sand	4.1
14						End of Boring = 13.0		
15								
16								
17								
18								
19								
20								
21								
22								
23								
24								
25								
26								
27								
28								
29								
30						Match to Sheet 3		

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: R. Marks
DRILLER: Louis LaFever BORING NO.: SWMU305-TW02 SHEET 2 OF 2

Baker

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation

CTO NO.: CTO-0143 BORING NO.: SWMU305-TW02

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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
BG/PS = Background/Point Source

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	SPT	Lab ID	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
31						Continued from Sheet 2		
32								
33								
34								
35								
36								
37								
38								
39								
40								
41								
42								
43								
44								
45								
46								
47								
48								
49								
50						Match to Sheet 4		

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: R. Marks

DRILLER: Louis LaFever BORING NO.: SWMU305-TV SHEET 3 OF 2

Baker

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation

CTO NO.: CTO-0143 BORING NO.: SWMU305-TW02

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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
BG/PS = Background/Point Source

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	SPT	Lab ID	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
51						Continued from Sheet 3		
52								
53								
54								
55								
56								
57								
58								
59								
60								
61								
62								
63								
64								
65								
66								
67								
68								
69								
70						Match to Sheet 5		

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: R. Marks

DRILLER: Louis LaFever BORING NO.: SWMU305-TW SHEET 4 OF 2

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation
CTO NO.: CTO-0143 BORING NO.: SWMU305-TW02

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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
BG/PS = Background/Point Source

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	SPT	Lab ID	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
71						Continued from Sheet 5		
72								
73								
74								
75								
76								
77								
78								
79								
80								
81								
82								
83								
84								
85								
86								
87								
88								
89								
90						Match to Sheet 6		

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: R. Marks
DRILLER: Louis LaFever BORING NO.: SWMU305-TW SHEET 5 OF 2

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation
CTO NO.: CTO-0143 BORING NO.: SWMU305-TW02

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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
ps/bg = point source/background

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	SPT	Lab ID	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
91						Continued from Sheet 1		
92								
93								
94								
95								
96								
97								
98								
99								
100								
101								
102								
103								
104								
105								
106								
107								
108								
109								
110								

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: R. Marks
DRILLER: Louis LaFever BORING NO.: SWMU305-TV SHEET 6 OF 2

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT:	SWMU Investigation		
PROJ. NO.:	CTO-0143	BORING NO.:	SWMU305-TW03
COORDINATES:	EAST: 2492394.377	NORTH:	308667.139
ELEVATION:	SURFACE: 17.07	TOP OF PVC	17.22

Rig:	Macro Core	Casing	Augers	Acetate Sleeve	Date	Progress (Ft.)	Comments	Depth to Water (Ft.)
Size (ID)	2"		3.25	2"	3/24/02	13	estimated	5
Length	4'		5'	4'				
Type	SS		S	Acetate				
Hammer Wt.	NA		NA	NA				
Fall	NA		NA	NA				

Remarks:

SAMPLE TYPE

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

WELL INFORMATION

Type	Diam.	Top Depth (Ft.)	Bottom Depth (Ft.)
PVC Riser (Schedule 40)	1"	17.22	14.22
PVC Screen (Schedule 40)	1"	14.22	4.22

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	Lab ID	LEL %	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
1	M-1		SWMU305-TW03-00	0.0%	0.0 / 0.0	fill, silt, sand gravel	0.6 bentonite	16.6
2							riser	
3						fine sand w/silt	sand	
4			SWMU305-TW03-02				screen 4.0	13.22
5 ▼						For geology see log SWMU305-TW02	sand	
6	A-N						screen	
7							sand	
8								
9							screen	
10	A-N					Match to Sheet 2	sand	

DRILLING CO.:	Parratt Wolff Inc.	BAKER REP.:	R. Marks
DRILLER:	Louis LaFever	BORING NO.:	SWMU305-TW03 SHEET 1 OF 2

Baker
Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation
CTO NO.: CTO-0143 BORING NO.: SWMU305-TW03

SAMPLE TYPE
M = Macro Core 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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
ps/bg = point source/background

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	Lab ID	LEL %	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
11						Continued from Sheet 1	sand	
12							screen	
13	A-N						sand	4.2
14						End of Boring = 13.0		
15								
16								
17								
18								
19								
20								
21								
22								
23								
24								
25								
26								
27								
28								
29								
30						Match to Sheet 3		

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: R. Marks
DRILLER: Louis LaFever BORING NO.: SWMU305-TW03 SHEET 2 OF 2

Baker

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation

CTO NO.: CTO-0143 BORING NO.: SWMU305-TW03

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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
BG/PS = Background/Point Source

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	SPT	Lab ID	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
31						Continued from Sheet 2		
32								
33								
34								
35								
36								
37								
38								
39								
40								
41								
42								
43								
44								
45								
46								
47								
48								
49								
50						Match to Sheet 4		

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: R. Marks

DRILLER: Louis LaFever BORING NO.: SWMU305-TV SHEET 3 OF 2

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation
CTO NO.: CTO-0143 BORING NO.: SWMU305-TW03

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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
BG/PS = Background/Point Source

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	SPT	Lab ID	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
51						Continued from Sheet 3		
52								
53								
54								
55								
56								
57								
58								
59								
60								
61								
62								
63								
64								
65								
66								
67								
68								
69								
70						Match to Sheet 5		

DRILLING CO.: Parratt Wolff Inc. BAKER REP,: R. Marks
DRILLER: Louis LaFever BORING NO.: SWMU305-TV SHEET 4 OF 2

Baker
Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation
CTO NO.: CTO-0143 BORING NO.: SWMU305-TW03

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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
BG/PS = Background/Point Source

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	SPT	Lab ID	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
71						Continued from Sheet 5		
72								
73								
74								
75								
76								
77								
78								
79								
80								
81								
82								
83								
84								
85								
86								
87								
88								
89								
90						Match to Sheet 6		

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: R. Marks
DRILLER: Louis LaFever BORING NO.: SWMU305-TV SHEET 5 OF 2

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation
CTO NO.: CTO-0143 BORING NO.: SWMU305-TW03

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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
ps/bg = point source/background

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	SPT	Lab ID	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
91						Continued from Sheet 1		
92								
93								
94								
95								
96								
97								
98								
99								
100								
101								
102								
103								
104								
105								
106								
107								
108								
109								
110								

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: R. Marks
DRILLER: Louis LaFever BORING NO.: SWMU305-TW SHEET 6 OF 2

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation
PROJ. NO.: CTO-0143 BORING NO.: SWMU306-TW01
COORDINATES: EAST: 2503247.369 NORTH: 332709.6967
ELEVATION: SURFACE: 25.551 TOP OF PVC CASING: 25.656

Rig: A-200 Ingersol Ram	Macro Core	Casing	Augers	Acetate sleave	Date	Progress (Ft.)	Comment	Depth to Water (Ft.)
Size (ID)	2"		3.25	2"	3/25/02	19	estimated	13.4
Length	4		5'	4'				
Type	SS		S	Acetate				
Hammer Wt.	NA		NA	NA				
Fall	NA		NA	NA				

Remarks:

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

WELL INFORMATION

Type	Diam.	Top Depth (Ft.)	Bottom Depth (Ft.)
PVC Riser (Schedule 40)	1"	25.656	16.656
PVC screen (Schedule 40) 0.010"	1"	16.656	6.656

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	Lab ID	LEL %	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL) 25.7
1			SWMU306-TW01-00			Fine sand, trace silt, moist, loam, roots, dark brown (0.2)	cuttings	25.5
2	M-1	3.1 78%		0.0%	0.0 / 0.0	Fine sand, trace silt, moist, brown	riser	
3						(2.7) Fine sand, trace silt, moist, gray	cuttings	23.0
4						(4.0)	riser	21.7
5	A-N						cuttings	
6							riser	
7							bentonite	
8	A-N						riser	
9							sand	
10	A-N						screen	
							sand	

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: David D. Schilling
DRILLER: Mark Eaves / Jim Robertson BORING NO.: SWMU306-TW01 SHEET 1 OF 2

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation
CTO NO.: CTO-0143 BORING NO.: SWMU306-TW01

SAMPLE TYPE
M = Macro Core 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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
ps/bg = point source/background

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	Lab ID	LEL %	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL) 15.2
11							sand	
12	A-N					12.0	screen	13.7
13			SWMU306-TW01-06			Fine sand, trace silt, moist, light gray	sand	
14	M-4	3.3 83%		0.0%	0.0 / 0.0	13.4 Fine sand, trace silt, wet, gray, orange staining	screen	12.3
15							sand	
16						16.0	screen	9.7
17	A-N						sand	
18	A-N						screen	
19						19.0	sand	6.7
20						End of Boring = 19.0'		
21								
22								
23								
24								
25								
26								
27								
28								
29								
30								

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: David D. Schilling
DRILLER: Mark Eaves / Jim Robertson BORING NO.: SWMU306-TW01 SHEET 2 OF 2

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT:	SWMU Investigation		
PROJ. NO.:	CTO-0143	BORING NO.:	SWMU306-TW02
COORDINATES:	EAST: 2503277.762	NORTH:	332695.8178
ELEVATION:	SURFACE: 25.845	TOP OF PVC CASING:	25.800

Rig: A-200 Ingersol Ram	Macro Core	Casing	Augers	Acetate sleave	Date	Progress (Ft.)	Comment	Depth to Water (Ft.)
Size (ID)	2"		3.25	2"	3/25/02	20	estimated	15
Length	4		5'	4'				
Type	SS		S	Acetate				
Hammer Wt.	NA		NA	NA				
Fall	NA		NA	NA				

Remarks:

SAMPLE TYPE

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

WELL INFORMATION

Type	Diam.	Top Depth (Ft.)	Bottom Depth (Ft.)
PVC Riser (Schedule 40)	1"	25.800	15.800
PVC screen (Schedule 40) 0.010"	1"	15.800	5.800

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	Lab ID	LEL %	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL) 25.8
1			SWMU306-TW02-00			Fine sand, trace silt, moist 0.3	cuttings	25.5
						loam, dark brown, roots		
2	M-1	3.6 90%		0.0%	0.0 / 0.0	Fine sand, trace silt, moist, brown	riser	
3							cuttings	
4							riser	
5						5.2	cuttings	20.6
6	M-2	4.0 100%		0.0%	0.0 / 0.0	Fine sand, trace silt, wet, brown 5.9	riser	19.9
7						Fine sand, little silt, wet, brown	bentonite	
8						8.0	riser	17.8
9						Fine sand, little clay, wet, brownish gray	sand	
10	M-3	3.0 75%		0.0%	0.0 / 0.0	10.2 Fine sand, trace silt, very light gray	riser sand	15.6

DRILLING CO.:	Parratt Wolff Inc.	BAKER REP.:	David D. Schilling
DRILLER:	Mark Eaves / Jim Robertson	BORING NO.:	SWMU306-TW02 SHEET 1 OF 2

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation
CTO NO.: CTO-0143 BORING NO.: SWMU306-TW02

SAMPLE TYPE
M = Macro Core 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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
ps/bg = point source/background

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	Lab ID	LEL %	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL) 15.3
11						Continued from Sheet 1	sand	
12						orange staining, wet 12.0	screen	13.8
13	A-N						sand	
14						14.0	screen	11.8
15 ▼			SWMU306 TW02A-07			Fine sand, some silt, trace clay, orangish brown, damp 15.0	sand	10.8
16	M-4	2.0 50%				Fine sand, some silt, trace clay, orangish brown, wet	screen	
17							sand	
18						18.0	screen	7.8
19	A-N						sand	
20						20.0		5.8
21						End of Boring = 20.0'		
22								
23								
24								
25								
26								
27								
28								
29								
30								

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: David D. Schilling
DRILLER: Mark Eaves / Jim Robertson BORING NO.: SWMU306-TW02 SHEET 2 OF 2

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT:	SWMU Investigation		
PROJ. NO.:	CTO-0143	BORING NO.:	SWMU306-TW03
COORDINATES:	EAST: 2503240.896	NORTH:	332671.2478
ELEVATION:	SURFACE: 23.914	TOP OF PVC CASING:	23.933

Rig: A-200 Ingersol Ram	Macro Core	Casing	Augers	Acetate sleave	Date	Progress (Ft.)	Comment	Depth to Water (Ft.)
Size (ID)	2"		3.25	2"	3/25/02	20	estimated	12.9
Length	4		5'	4'				
Type	SS		S	Acetate				
Hammer Wt.	NA		NA	NA				
Fall	NA		NA	NA				

Remarks:

SAMPLE TYPE

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

WELL INFORMATION

Type	Diam.	Top Depth (Ft.)	Bottom Depth (Ft.)
PVC Riser (Schedule 40)	1"	23.933	14.933
PVC screen (Schedule 40) 0.010"	1"	14.933	4.933

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	Lab ID	LEL %	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL) 23.9
1			SWMU306-TW03-00			Fine sand, trace silt, moist, loam, roots, dark brown (0.4)	cuttings	23.5
2	M-1	3.5 88%		0.0%	0.0 / 0.0	Fine sand, trace silt, moist, brown (1.6)	riser	22.3
3						Fine sand, trace silt, wet, brown (2.0)	cuttings	21.9
4						Fine sand and clay, moist, brown (4.0)	riser	19.9
5						Clay, trace sand, moist, orangish brown	cuttings	
6	M-2	4.0 100%		0.0%	0.0 / 0.0		riser	
7						(6.4)	bentonite	17.5
8						Fine sand, trace silt, moist, orangish brown	riser	
9							sand	
10	M-3	3.0 75%		0.0%	0.0 / 0.0		screen	
							sand	

DRILLING CO.:	Parratt Wolff Inc.	BAKER REP.:	David D. Schilling
DRILLER:	Mark Eaves / Jim Robertson	BORING NO.:	SWMU306-TW03 SHEET 1 OF 2

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation
CTO NO.: CTO-0143 BORING NO.: SWMU306-TW03

SAMPLE TYPE
M = Macro Core 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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
ps/bg = point source/background

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	Lab ID	LEL %	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL) 13.4
11						10.8	sand	13.1
12						Fine sand, trace silt, moist, light gray & redish brown mottle 12.0	screen	11.9
13	▼		SWMU306-TW03-06			Fine sand, trace silt, moist, orangish brown 12.9	sand	11.0
14	M-4	3.6 90%		0.0%	0.0 / 0.0	Fine sand, trace silt, wet, orangish brown	screen	
15						14.6 Clay, trace sand, moist, gray, plastic 15.4	sand	9.3 8.5
16						Fine sand, trace silt, wet, 16.0 orange and gray mottled	screen	7.9
17						Fine sand, trace silt, wet, gray, orange staining	sand	
18	M-5	2.1 53%		0.0%	0.0 / 0.0		screen	
19						19.0	sand	4.9
20						20.0		3.9
21						End of Boring = 20.0'		
22								
23								
24								
25								
26								
27								
28								
29								
30								

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: David D. Schilling
DRILLER: Mark Eaves / Jim Robertson BORING NO.: SWMU306-TW03 SHEET 2 OF 2

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation
PROJ. NO.: CTO-0143 BORING NO.: SWMU307-TW01
COORDINATES: EAST: 2465317.719 NORTH: 362049.969
ELEVATION: SURFACE: 15.67 TOP OF PVC CASING: 15.45

Rig:	Macro Core	Casing	Augers	Acetate Sleeve	Date	Progress (Ft.)	Comments	Depth Wate (Ft.)
Size (ID)	2"		3.25	2"	3/21/02	12	estimated	4
Length	4'		5'	4'				
Type	SS		S	Acetate				
Hammer Wt.	NA		NA	NA				
Fall	NA		NA	NA				

Remarks:

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

WELL INFORMATION

Type		Diam.	Top Depth (Ft.)	Bottor Depth (Ft.)
PVC	Riser (Schedule 40)	1"	15.44	13.44
PVC	Screen (Schedule 40)	1"	13.44	3.44

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	Lab ID	LEL %	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevati (Ft. MS
1	M-1	3.4 85%	SWMU307-TW01-00	0.0%	0.0 / 0.0		bentonite, riser	
2							sand	
3			SWMU307-TW01-02				screen	
4 ▼							sand	
5	M-2	3.6 90%		0.0%	0.0 / 0.0	Dk grey/black v.f. sandy silt w/very little gravel	screen	
6								8.7
7						6.7		
8						fine sand w/silt	sand	
9	M-3	3.3 83%		0.0%	0.0 / 0.0		screen	
10						10.3 Match to Sheet 2		

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: R. Marks
DRILLER: Louis LaFever BORING NO.: SWMU307-TW01 SHEET 1 OF

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation
CTO NO.: CTO-0143 BORING NO.: SWMU307-TW01

SAMPLE TYPE
M = Macro Core 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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
ps/bg = point source/background

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	Lab ID	LEL %	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
11						Continued from Sheet 1	sand	
12						fine sand w/silt	12.0 screen	3.4
13						End of boring = 12.0		
14								
15								
16								
17								
18								
19								
20								
21								
22								
23								
24								
25								
26								
27								
28								
29								
30						Match to Sheet 3		

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: R. Marks
DRILLER: Louis LaFever BORING NO.: SWMU307-TW01 SHEET 2 OF 2

Baker

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation

CTO NO.: CTO-0143 BORING NO.: SWMU307-TW01

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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
BG/PS = Background/Point Source

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	SPT	Lab ID	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
31						Continued from Sheet 2		
32								
33								
34								
35								
36								
37								
38								
39								
40								
41								
42								
43								
44								
45								
46								
47								
48								
49								
50						Match to Sheet 4		

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: R. Marks

DRILLER: Louis LaFever BORING NO.: SWMU307-TV SHEET 3 OF 2

Baker

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation

CTO NO.: CTO-0143 BORING NO.: SWMU307-TW01

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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
BG/PS = Background/Point Source

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	SPT	Lab ID	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
51						Continued from Sheet 3		
52								
53								
54								
55								
56								
57								
58								
59								
60								
61								
62								
63								
64								
65								
66								
67								
68								
69								
70						Match to Sheet 5		

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: R. Marks

DRILLER: Louis LaFever BORING NO.: SWMU307-TW SHEET 4 OF 2

Baker

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation

CTO NO.: CTO-0143 BORING NO.: SWMU307-TW01

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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
BG/PS = Background/Point Source

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	SPT	Lab ID	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
71						Continued from Sheet 5		
72								
73								
74								
75								
76								
77								
78								
79								
80								
81								
82								
83								
84								
85								
86								
87								
88								
89								
90						Match to Sheet 6		

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: R. Marks

DRILLER: Louis LaFever BORING NO.: SWMU307-TW SHEET 5 OF 2

Baker
Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation
CTO NO.: CTO-0143 BORING NO.: SWMU307-TW01

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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
ps/bg = point source/background

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	SPT	Lab ID	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
91						Continued from Sheet 1		
92								
93								
94								
95								
96								
97								
98								
99								
100								
101								
102								
103								
104								
105								
106								
107								
108								
109								
110								

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: R. Marks
DRILLER: Louis LaFever BORING NO.: SWMU307-TV SHEET 6 OF 2

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation
PROJ. NO.: CTO-0143 BORING NO.: SWMU307-TW02
COORDINATES: EAST: 2465326.558 NORTH: 361994.179
ELEVATION: SURFACE: 15.67 TOP OF PVC CASING: 15.54

Rig:	Macro Core	Casing	Augers	Acetate Sleeve	Date	Progress (Ft.)	Comments	Depth to Water (Ft.)
Size (ID)	2"		3.25	2"	3/21/02	15	estimated	7
Length	4'		5'	4'				
Type	SS		S	Acetate				
Hammer Wt.	NA		NA	NA				
Fall	NA		NA	NA				

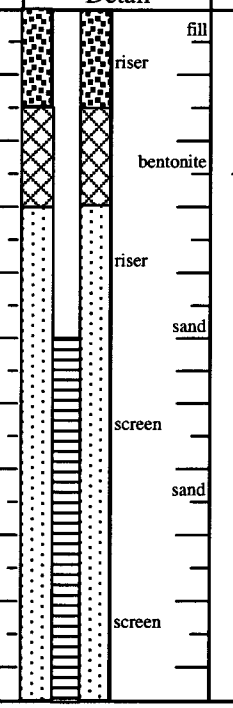
Remarks:

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

WELL INFORMATION

Type	Diam.	Top Depth (Ft.)	Bottom Depth (Ft.)
PVC Riser (Schedule 40)	1"	15.54	9.54
PVC Screen (Schedule 40)	1"	9.54	-0.46

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	Lab ID	LEL %	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
1–4	M-1		SWMU307-TW02-00	0.0%	0.0 / 0.0			
5–8	M-2		SWMU307-TW02-02	0.0%	0.0 / 0.0	Dk grey/black, v.f sandy silt w/v. little gravel	
9–10	M-3					Match to Sheet 2	



DRILLING CO.: Parratt Wolff Inc. BAKER REP.: R. Marks
DRILLER: Louis LaFever BORING NO.: SWMU307-TW02 SHEET 1 OF 2

Baker
Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation
CTO NO.: CTO-0143 BORING NO.: SWMU307-TW02

SAMPLE TYPE
M = Macro Core 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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
ps/bg = point source/background

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	Lab ID	LEL %	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
11						Continued from Sheet 1	11.0 sand	4.54
12						fine sand w/ silt	12.0 screen	3.54
13	A-N						sand	
14								
15							15.0 screen	0.54
16						End of boring = 15.0		
17								
18								
19								
20								
21								
22								
23								
24								
25								
26								
27								
28								
29								
30						Match to Sheet 3		

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: R. Marks
DRILLER: Louis LaFever BORING NO.: SWMU307-TW02 SHEET 2 OF 2

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation
CTO NO.: CTO-0143 BORING NO.: SWMU307-TW02

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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
BG/PS = Background/Point Source

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	SPT	Lab ID	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
31						Continued from Sheet 2		
32								
33								
34								
35								
36								
37								
38								
39								
40								
41								
42								
43								
44								
45								
46								
47								
48								
49								
50						Match to Sheet 4		

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: R. Marks
DRILLER: Louis LaFever BORING NO.: SWMU307-TV SHEET 3 OF 2

Baker

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation

CTO NO.: CTO-0143 BORING NO.: SWMU307-TW02

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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
BG/PS = Background/Point Source

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	SPT	Lab ID	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
51						Continued from Sheet 3		
52								
53								
54								
55								
56								
57								
58								
59								
60								
61								
62								
63								
64								
65								
66								
67								
68								
69								
70						Match to Sheet 5		

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: R. Marks

DRILLER: Louis LaFever BORING NO.: SWMU307-TV SHEET 4 OF 2

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation
CTO NO.: CTO-0143 BORING NO.: SWMU307-TW02

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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
BG/PS = Background/Point Source

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	SPT	Lab ID	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
71						Continued from Sheet 5		
72								
73								
74								
75								
76								
77								
78								
79								
80								
81								
82								
83								
84								
85								
86								
87								
88								
89								
90						Match to Sheet 6		

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: R. Marks
DRILLER: Louis LaFever BORING NO.: SWMU307-TV SHEET 5 OF 2

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation
CTO NO.: CTO-0143 BORING NO.: SWMU307-TW02

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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
ps/bg = point source/background

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	SPT	Lab ID	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
91						Continued from Sheet 1		
92								
93								
94								
95								
96								
97								
98								
99								
100								
101								
102								
103								
104								
105								
106								
107								
108								
109								
110								

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: R. Marks
DRILLER: Louis LaFever BORING NO.: SWMU307-TV SHEET 6 OF 2

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT:	SWMU Investigation				
PROJ. NO.:	CTO-0143		BORING NO.:	SWMU307-TW03	
COORDINATES:	EAST:	2465359.980	NORTH:	362004.751	
ELEVATION:	SURFACE:	15.54	TOP OF PVC CASING:	15.27	

Rig:	Macro Core	Casing	Augers	Acetate Sleeve	Date	Progress (Ft.)	Comments	Depth to Water (Ft.)
Size (ID)	2"		3.25	2"	3/21/02	16	estimated	7
Length	4'		5'	4'				
Type	SS		S	Acetate				
Hammer Wt.	NA		NA	NA				
Fall	NA		NA	NA				

Remarks:

SAMPLE TYPE

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

WELL INFORMATION

Type		Diam.	Top Depth (Ft.)	Bottom Depth (Ft.)
PVC	Riser (Schedule 40)	1"	15.54	9.54
PVC	Screen (Schedule 40)	1"	9.54	-0.46

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	Lab ID	LEL %	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
1–4	M-1	3.2 80%	SWMU307-TW03-00	0.0%	0.0 / 0.0	brown sandy silt	cuttings; riser; bentonite; riser	
5–8	M-2	4 100%	SWMU307-TW03-03	0.0%	0.0 / 0.0		sand; riser; screen; 7.0; sand	8.5
9–10	M-3	4 100%		0.0%	0.0 / 0.0	brown silty sand	screen	

Match to Sheet 2

DRILLING CO.:	Parratt Wolff Inc.	BAKER REP.:	R. Marks
DRILLER:	Louis LaFever	BORING NO.:	SWMU307-TW03 SHEET 1 OF 2

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation
PROJ. NO.: CTO-0143 BORING NO.: SWMU307-TW03
COORDINATES: EAST: 2465359.980 NORTH: 362004.751
ELEVATION: SURFACE: 15.54 TOP OF PVC CASING: 15.27

Rig:	Macro Core	Casing	Augers	Acetate Sleeve	Date	Progress (Ft.)	Comments	Depth to Water (Ft.)
Size (ID)	2"		3.25	2"	3/21/02	16	estimated	7
Length	4'		5'	4'				
Type	SS		S	Acetate				
Hammer Wt.	NA		NA	NA				
Fall	NA		NA	NA				

Remarks:

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

WELL INFORMATION

Type		Diam.	Top Depth (Ft.)	Bottom Depth (Ft.)
PVC	Riser (Schedule 40)	1"	15.54	9.54
PVC	Screen (Schedule 40)	1"	9.54	-0.46

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	Lab ID	LEL %	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
1–4	M-1	3.2 80%	SWMU307-TW03-00	0.0%	0.0 / 0.0	brown sandy silt	cuttings; riser; bentonite; riser	-
5–8	M-2	4 100%	SWMU307-TW03-03	0.0%	0.0 / 0.0		sand; riser; screen; 7.0; sand	8.5
9–10	M-3	4 100%		0.0%	0.0 / 0.0	brown silty sand	screen	

Match to Sheet 2

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: R. Marks
DRILLER: Louis LaFever BORING NO.: SWMU307-TW03 SHEET 1 OF 2

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation
CTO NO.: CTO-0143 BORING NO.: SWMU307-TW03

SAMPLE TYPE
M = Macro Core 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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
ps/bg = point source/background

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	Lab ID	LEL %	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
11						Continued from Sheet 1	sand	
12							screen	
13		4					sand	
14	M-4	100%		0.0%	0.0 / 0.0	brown silty sand	screen	
15								
16						16.0		-0.46
17						End of boring = 16.0		
18								
19								
20								
21								
22								
23								
24								
25								
26								
27								
28								
29								
30						Match to Sheet 3		

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: R. Marks
DRILLER: Louis LaFever BORING NO.: SWMU307-TW03 SHEET 2 OF 2

Baker

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation

CTO NO.: CTO-0143 BORING NO.: SWMU307-TW03

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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
BG/PS = Background/Point Source

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	SPT	Lab ID	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
31						Continued from Sheet 2		
32								
33								
34								
35								
36								
37								
38								
39								
40								
41								
42								
43								
44								
45								
46								
47								
48								
49								
50						Match to Sheet 4		

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: R. Marks

DRILLER: Louis LaFever BORING NO.: SWMU307-TV SHEET 3 OF 2

Baker

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation

CTO NO.: CTO-0143 BORING NO.: SWMU307-TW03

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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
BG/PS = Background/Point Source

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	SPT	Lab ID	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
51						Continued from Sheet 3		
52								
53								
54								
55								
56								
57								
58								
59								
60								
61								
62								
63								
64								
65								
66								
67								
68								
69								
70						Match to Sheet 5		

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: R. Marks

DRILLER: Louis LaFever BORING NO.: SWMU307-TW SHEET 4 OF 2

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation
CTO NO.: CTO-0143 BORING NO.: SWMU307-TW03

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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
BG/PS = Background/Point Source

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	SPT	Lab ID	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
71						Continued from Sheet 5		
72								
73								
74								
75								
76								
77								
78								
79								
80								
81								
82								
83								
84								
85								
86								
87								
88								
89								
90						Match to Sheet 6		

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: R. Marks
DRILLER: Louis LaFever BORING NO.: SWMU307-TW SHEET 5 OF 2

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation
CTO NO.: CTO-0143 BORING NO.: SWMU307-TW03

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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
ps/bg = point source/background

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	SPT	Lab ID	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
91						Continued from Sheet 1		
92								
93								
94								
95								
96								
97								
98								
99								
100								
101								
102								
103								
104								
105								
106								
107								
108								
109								
110								

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: R. Marks
DRILLER: Louis LaFever BORING NO.: SWMU307-TV SHEET 6 OF 2

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT:	SWMU Investigation		
PROJ. NO.:	CTO-0143	BORING NO.:	SWMU308-TW01
COORDINATES:	EAST: 2502759.782	NORTH:	332607.937
ELEVATION:	SURFACE: 23.620	TOP OF PVC CASING:	23.810

Rig: A-200 Ingersol Ram	Macro Core	Casing	Augers	Acetate sleave	Date	Progress (Ft.)	Comment	Depth to Water (Ft.)
Size (ID)	2"		3.25	2"	3/25/02	22	estimated	14
Length	4		5'	4'				
Type	SS		S	Acetate				
Hammer Wt.	NA		NA	NA				
Fall	NA		NA	NA				

Remarks:

SAMPLE TYPE

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

WELL INFORMATION

Type	Diam.	Top Depth (Ft.)	Bottom Depth (Ft.)
PVC Riser (Schedule 40)	1"	23.810	11.810
PVC screen (Schedule 40) 0.010"	1"	11.810	1.810

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	Lab ID	LEL %	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL) 23.8
1			SWMU308-TW01-00			Fine sand, trace silt, moist, 0.3 loam, roots, brown	cuttings	23.5
2	M-1	3.3 83%		0.0%	0.0 / 0.0	Fine sand, trace silt, moist, brown	riser	
3							cuttings	
4						4.0	riser	19.8
5	A-N						cuttings	
6							riser	
7	A-N						cuttings	
8							riser	
9	A-N						bentonite	
10							sand	

DRILLING CO.:	Parratt Wolff Inc.	BAKER REP.:	David D. Schilling
DRILLER:	Mark Eaves / Jim Robertson	BORING NO.:	SWMU308-TW01 SHEET 1 OF 2

Baker
Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation
CTO NO.: CTO-0143 BORING NO.: SWMU308-TW01

SAMPLE TYPE
M = Macro Core 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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
ps/bg = point source/background

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	Lab ID	LEL %	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL) 13.3
11								
	A-N					continued from sheet 1	sand	
12						12.0		11.8
13						Fine sand, trace silt, moist brownish gray	screen	
			SWMU308-				sand	
14	▼ M-2	3.0	TW01-07	0.0%	0.0	14.0		9.8
		75%			0.0	Fine sand, trace silt, wet, gray	screen	
15								
							sand	
16						16.0		7.8
17	A-N						screen	
							sand	
18								
19	A-N						screen	
							sand	
20								
21	A-N						screen	
							sand	
22						22.0		1.8
23						End of Boring = 22.0'		
24								
25								
26								
27								
28								
29								
30								

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: David D. Schilling
DRILLER: Mark Eaves / Jim Robertson BORING NO.: SWMU308-TW01 SHEET 2 OF 2

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT:	SWMU Investigation				
PROJ. NO.:	CTO-0143		BORING NO.:	SWMU308-TW02	
COORDINATES:	EAST:	2502700.379	NORTH:	332630.1911	
ELEVATION:	SURFACE:	24.906	TOP OF PVC CASING:	25.039	

Rig:	A-200 Ingersol Ram				Date	Progress (Ft.)	Comment	Depth to Water (Ft.)
	Macro Core	Casing	Augers	Acetate sleave				
Size (ID)	2"		3.25	2"	3/25/02	21	estimated	14.5
Length	4		5'	4'				
Type	SS		S	Acetate				
Hammer Wt.	NA		NA	NA				
Fall	NA		NA	NA				
Remarks:								

SAMPLE TYPE

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

WELL INFORMATION

Type	Diam.	Top Depth (Ft.)	Bottom Depth (Ft.)
PVC Riser (Schedule 40)	1"	25.039	14.039
PVC screen (Schedule 40) 0.010"	1"	14.039	4.039

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	Lab ID	LEL %	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL) 25.0
1			SWMU308-TW02-00			Fine sand, trace silt, loam, roots, moist dark brown (0.3)	cuttings	24.7
2	M-1	3.7 93%		0.0%	0.0 / 0.0	Fine sand, trace silt, moist, brown	riser	
3							cuttings	
4							riser	
5							cuttings	
6	M-2	1.4 35%		0.0%	0.0 / 0.0	(5.3) Wood	riser	19.7
7							cuttings	
8						(8.0)	riser	17.0
9						Fine sand, trace silt, moist, orangish brown	bentonite	
10	M-3	2.6 65%		0.0%	0.0 / 0.0	(9.9) Fine sand, trace silt, moist,	riser / sand	15.1

DRILLING CO.:	Parratt Wolff Inc.	BAKER REP.:	David D. Schilling
DRILLER:	Mark Eaves / Jim Robertson	BORING NO.:	SWMU308-TW02 SHEET 1 OF 2

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation
CTO NO.: CTO-0143 BORING NO.: SWMU308-TW02

SAMPLE TYPE
M = Macro Core 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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
ps/bg = point source/background

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	Lab ID	LEL %	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL) 14.5
11						continued from sheet 1	sand	
12						dark brown	screen	
						12.6		12.4
13			SWMU308-			Fine sand, trace silt, moist,	sand	
14	M-4	3.5	TW02-07	0.0%	0.0	reddish brown and gray mottled	screen	
	▼	88%			0.0	14.5		10.5
15						Fine sand, trace silt, wet, light gray	sand	
16							screen	
17							sand	
18	M-5	2.8		0.0%	0.0		screen	
		70%			0.0			
19							sand	
20						20.0	screen	5.0
21	A-N					21.0	sand	4.0
22						End of Boring = 21.0'		
23								
24								
25								
26								
27								
28								
29								
30								

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: David D. Schilling
DRILLER: Mark Eaves / Jim Robertson BORING NO.: SWMU308-TW02 SHEET 2 OF 2

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation
PROJ. NO.: CTO-0143 BORING NO.: SWMU308-TW03
COORDINATES: EAST: 2502721.753 NORTH: 332581.7797
ELEVATION: SURFACE: 24.396 TOP OF PVC CASING: 24.605

Rig: A-200 Ingersol Ram	Macro Core	Casing	Augers	Acetate sleave	Date	Progress (Ft.)	Comment	Depth to Water (Ft.)
Size (ID)	2"		3.25	2"	3/25/02	20	estimated	13.7
Length	4		5'	4'				
Type	SS		S	Acetate				
Hammer Wt.	NA		NA	NA				
Fall	NA		NA	NA				

Remarks:

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

WELL INFORMATION

Type	Diam.	Top Depth (Ft.)	Bottom Depth (Ft.)
PVC Riser (Schedule 40)	1"	24.605	14.605
PVC screen (Schedule 40) 0.010"	1"	14.605	4.605

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	Lab ID	LEL %	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL) 24.6
1			SWMU308-TW03-00			Fine sand, trace silt, moist, loam, roots (0.3)	cuttings	24.3
2	M-1	3.8 95%		0.0%	0.0 / 0.0	Fine sand, trace silt, moist, brown	riser	
3						(3.0)	cuttings	21.6
4						Fine sand, trace silt, moist, orangish brown (4.0)	riser	20.6
5	A-N						cuttings	
6							riser	
7	A-N						bentonite	
8							riser	
9	A-N						sand	
10							screen	

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: David D. Schilling
DRILLER: Mark Eaves / Jim Robertson BORING NO.: SWMU308-TW03 SHEET 1 OF 2

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation
CTO NO.: CTO-0143 BORING NO.: SWMU308-TW03

SAMPLE TYPE
M = Macro Core 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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
ps/bg = point source/background

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	Lab ID	LEL %	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL) 14.1
11							sand	
12	A-N					continued from sheet 1 12.0	screen	12.6
13						Fine sand, trace silt, moist, brownish gray	sand	
14 ▼	M-2	3.2 80%	SWMU308-TW03-07	0.0%	0.0 / 0.0	13.7	screen	10.9
15						Fine sand, trace silt, wet, light gray	sand	
16						16.0	screen	8.6
17	A-N						sand	
18	A-N						screen	
19	A-N						sand	
20						20.0	screen	4.6
21						End of Boring = 20.0'		
22								
23								
24								
25								
26								
27								
28								
29								
30								

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: David D. Schilling
DRILLER: Mark Eaves / Jim Robertson BORING NO.: SWMU308-TW03 SHEET 2 OF 2

Baker Environmental

TEST BORING RECORD

PROJECT: SWMU Investigation
PROJ. NO.: CTO-0143 BORING NO.: SWMU311-SB01
COORDINATES: EAST: 2499950.764 NORTH: 337360.283
ELEVATION: SURFACE:

Rig: A-200 Ingersol Ram								
	Macro Core	Casing	Augers	Acetate Sleave	Date	Progress (Ft.)	Comments	Depth to Water (Ft.)
Size (ID)	2"		3.25	2"	3/24/02	8	estimated	4.8
Length	4'		5'	4'				
Type	SS		S	Acetate				
Hammer Wt.	NA		NA	NA				
Fall	NA		NA	NA				

Remarks:

SAMPLE TYPE
M = Macro Core 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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
BG/PS = Background/Point Source
ppm = parts per million

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	Lab ID	LEL %	PID (ppm) ps/bg	Visual Description	Elevation (Ft. MSL)
1–4	M-1	3.2 80%	SWMU311-SB01-00	0.0%	0.0 / 0.0	Fine sand, trace silt, brown, gravel fragments moist (2.4) Fine sand, trace silt, moist, orangish brown	
5–8	M-2	3.4 85%	SWMU311-SB01-03	0.0%	0.0 / 0.0	(4.8) Fine sand, some silt, wet, gray and orange mottled (8.0)	
9–10						End of Boring = 8.0'	

DRILLING COMPANY: Parratt Wolff Inc. BAKER REP.: David D. Schilling
DRILLER: Mark Eaves / Jim Robertson BORING NO.: SWMU311-SB01 SHEET 1 OF 1

Baker
Baker Environmental

TEST BORING RECORD

PROJECT: SWMU Investigation
PROJ. NO.: CTO-0143 BORING NO.: SWMU311-SB02
COORDINATES: EAST: 2499936.624 NORTH: 337386.823
ELEVATION: SURFACE:

Rig: A-200 Ingersol Ram	Macro Core	Casing	Augers	Acetate Sleave	Date	Progress (Ft.)	Comments	Depth to Water (Ft.)
Size (ID)	2"		3.25	2"	3/25/02	8	estimated	6.1
Length	4'		5'	4'				
Type	SS		S	Acetate				
Hammer Wt.	NA		NA	NA				
Fall	NA		NA	NA				

Remarks:

SAMPLE TYPE
M = Macro Core 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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
BG/PS = Background/Point Source
ppm = parts per million

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	Lab ID	LEL %	PID (ppm) ps/bg	Visual Description	Elevation (Ft. MSL)
1			SWMU311-SB02-00			Fine sand, trace silt, moist, loam, roots 0.4	
2	M-1	3.8 95%		0.0%	0.0 / 0.0	dark brown Fine sand, trace silt, moist, brown	
3							
4							
5							
6	▼ M-2	3.6 90%	SWMU311-SB02-03	0.0%	0.0 / 0.0	6.1 Fine sand, trace silt, wet, brownish gray	
7							
8						8.0	
9						End of Boring = 8.0'	
10							

DRILLING COMPANY: Parratt Wolff Inc. BAKER REP.: David D. Schilling
DRILLER: Mark Eaves / Jim Robertson BORING NO.: SWMU311-SB02 SHEET 1 OF 1

Baker Environmental

TEST BORING RECORD

PROJECT: SWMU Investigation
PROJ. NO.: CTO-0143 BORING NO.: SWMU311-SB03
COORDINATES: EAST: 2500007.281 NORTH: 337450.585
ELEVATION: SURFACE:

Rig: A-200 Ingersol Ram	Macro Core	Casing	Augers	Acetate Sleave	Date	Progress (Ft.)	Comments	Depth to Water (Ft.)
Size (ID)	2"		3.25	2"	3/25/02	12'	estimated	5.5
Length	4'		5'	4'				
Type	SS		S	Acetate				
Hammer Wt.	NA		NA	NA				
Fall	NA		NA	NA				

Remarks:

SAMPLE TYPE
M = Macro Core 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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
BG/PS = Background/Point Source
ppm = parts per million

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	Lab ID	LEL %	PID (ppm) ps/bg	Visual Description	Elevation (Ft. MSL)
1			SWMU311-SB03-00			Fine sand, trace silt, loam, moist, roots, dark brown (0.5)	
2	M-1	3.7 93%		0.0%	0.0 / 0.0	Fine sand, trace silt, moist, dark brown	
3						(3.0)	
4						Fine sand, trace silt, black, moist (3.6) Fine sand, trace silt, moist, brown	
5							
6	M-2	1.8 45%	SWMU311-SB03-03	0.0%	0.0 / 0.0	(5.5) Fine sand, trace silt, wet, brown	
7							
8						(8.6)	
9						Fine sand, trace clay, wet, orange and gray mottled	
10	M-3	2.9 73%		0.0%	0.0 / 0.0		

DRILLING COMPANY: Parratt Wolff Inc. BAKER REP.: David D. Schilling
DRILLER: Mark Eaves / Jim Robertson BORING NO.: SWMU311-SB03 SHEET 1 OF 2

Baker

Baker Environmental

TEST BORING RECORD

PROJECT: SWMU Investigation

CTO NO.: CTO-0143 BORING NO.: SWMU311-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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
ps/bg = point source/background

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	Lab ID	LEL %	PID (ppm) ps/bg	Visual Description	Elevation (Ft. MSL)
11						Continued from Sheet 1	
12						12.0	
13						End of Boring = 12.0	
14							
15							
16							
17							
18							
19							
20							
21							
22							
23							
24							
25							
26							
27							
28							
29							
30						Match to Sheet 3	

DRILLING COMPANY: Parratt Wolff Inc. BAKER REP.: David D. Schilling

DRILLER: Mark Eaves / Jim Robertson BORING NO.: SWMU311-SB03 SHEET 2 OF 2

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT:	SWMU Investigation		
PROJ. NO.:	CTO-0143	BORING NO.:	SWMU311-TW01
COORDINATES:	EAST: 2499969.801	NORTH:	337375.7439
ELEVATION:	SURFACE: 26.821	TOP OF PVC CASING:	26.992

Rig: A-200 Ingersol Ram	Macro Core	Casing	Augers	Acetate sleave	Date	Progress (Ft.)	Comment	Depth to Water (Ft.)
Size (ID)	2"		3.25	2"	3/24/02	12	estimated	4.8
Length	4		5'	4'				
Type	SS		S	Acetate				
Hammer Wt.	NA		NA	NA				
Fall	NA		NA	NA				

Remarks:

SAMPLE TYPE

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

WELL INFORMATION

Type	Diam.	Top Depth (Ft.)	Bottom Depth (Ft.)
PVC Riser (Schedule 40)	1"	26.992	24.992
PVC screen (Schedule 40) 0.010"	1"	24.992	14.992

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	Lab ID	LEL %	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL) 27.0
1			SWMU311-TW01-00			Gravel and fine sand (0.9)	bentonite	26.1
2	M-1	3.6 90%		0.0%	0.0 / 0.0	Fine sand, trace silt, moist, dark brown	riser	
3							sand	
4							screen	
5	▼					(4.8)	sand	22.2
6	M-2	3.8 95%	SWMU311-TW01-03	0.0%	0.0 / 0.0	Fine sand, trace silt, wet, orangish brown	screen	
7						(7.6)	sand	19.4
8						Clay, trace sand, wet, plastic, gray (8.0)		19.0
9	A-N						screen	
10	A-N						sand	

DRILLING CO.:	Parratt Wolff Inc.	BAKER REP.:	David D. Schilling
DRILLER:	Mark Eaves / Jim Robertson	BORING NO.:	SWMU311-TW01 SHEET 1 OF 2

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation
CTO NO.: CTO-0143 BORING NO.: SWMU311-TW01

SAMPLE TYPE
M = Macro Core 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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
ps/bg = point source/background

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	Lab ID	LEL %	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL) 16.5
11	A-N					Continued from Sheet 1	sand	
12						12.0	screen	15.0
13						End of Boring = 12.0'		
14								
15								
16								
17								
18								
19								
20								
21								
22								
23								
24								
25								
26								
27								
28								
29								
30								

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: David D. Schilling
DRILLER: Mark Eaves / Jim Robertson BORING NO.: SWMU311-TW01 SHEET 2 OF 2

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation
PROJ. NO.: CTO-0143 BORING NO.: SWMU311-TW02
COORDINATES: EAST: 2500015.037 NORTH: 337417.3388
ELEVATION: SURFACE: 26.538 TOP OF PVC CASING: 26.614

Rig: A-200 Ingersol Ram								
	Macro Core	Casing	Augers	Acetate sleave	Date	Progress (Ft.)	Comment	Depth to Water (Ft.)
Size (ID)	2"		3.25	2"	3/24/02	13	estimated	5.5
Length	4		5'	4'				
Type	SS		S	Acetate				
Hammer Wt.	NA		NA	NA				
Fall	NA		NA	NA				

Remarks:

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

WELL INFORMATION

Type	Diam.	Top Depth (Ft.)	Bottom Depth (Ft.)
PVC Riser (Schedule 40)	1"	26.614	23.614
PVC screen (Schedule 40) 0.010"	1"	23.614	13.614

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	Lab ID	LEL %	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL) 26.6
1			SWMU311-TW02-00			Fine sand, and gravel 0.6	bentonite	26.0
2	M-1	3.4 85%		0.0%	0.0 / 0.0	Fine sand, trace silt, moist, dark brown	riser	
3						3.2	sand	23.4
4						Fine sand, trace silt, moist, orangish brown	screen	
5	▼						sand	
6	M-2	3.7 93%	SWMU311-TW02-03	0.0%	0.0 / 0.0	5.5 Fine sand, trace silt, wet, orangish brown	screen	21.1
7						7.0		19.6
8						Fine sand, some silt, wet, gray and orange mottled 8.0	sand	18.6
9	A-N						screen	
10	A-N						sand	

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: David D. Schilling
DRILLER: Mark Eaves / Jim Robertson BORING NO.: SWMU311-TW02 SHEET 1 OF 2

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation
CTO NO.: CTO-0143 BORING NO.: SWMU311-TW02

SAMPLE TYPE
M = Macro Core 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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
ps/bg = point source/background

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	Lab ID	LEL %	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL) 16.1
11	A-N					Continued from Sheet 1	sand	
12							screen	
13						13.0	sand	13.6
14						End of Boring = 13.0'		
15								
16								
17								
18								
19								
20								
21								
22								
23								
24								
25								
26								
27								
28								
29								
30								

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: David D. Schilling
DRILLER: Mark Eaves / Jim Robertson BORING NO.: SWMU311-TW02 SHEET 2 OF 2

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation
PROJ. NO.: CTO-0143 BORING NO.: SWMU311-TW03
COORDINATES: EAST: 2499980.935 NORTH: 337437.348
ELEVATION: SURFACE: 28.070 TOP OF PVC CASING: 28.120

Rig: A-200 Ingersol Ram	Macro Core	Casing	Augers	Acetate sleave	Date	Progress (Ft.)	Comment	Depth to Water (Ft.)
Size (ID)	2"		3.25	2"	3/25/02	13	estimated	6
Length	4		5'	4'				
Type	SS		S	Acetate				
Hammer Wt.	NA		NA	NA				
Fall	NA		NA	NA				

Remarks:

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

WELL INFORMATION

Type	Diam.	Top Depth (Ft.)	Bottom Depth (Ft.)
PVC Riser (Schedule 40)	1"	28.120	25.120
PVC screen (Schedule 40) 0.010"	1"	25.120	15.120

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	Lab ID	LEL %	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL) 28.1
1			SWMU311-TW03-00			Fine sand, trace silt, loam, roots, dark brown (0.6)	bentonite	27.5
2	M-1	3.2 80%		0.0%	0.0 / 0.0	Fine sand, trace silt, moist, brown	riser	
3							sand	
4							screen	
5							sand	
6	▼ M-2	3.7 93%	SWMU311-TW03-03	0.0%	0.0 / 0.0	(6.0) Fine sand, trace silt, wet, brown	screen	22.1
7							sand	
8						(8.0)		20.1
9	A-N						screen	
10	A-N						sand	

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: David D. Schilling
DRILLER: Mark Eaves / Jim Robertson BORING NO.: SWMU311-TW03 SHEET 1 OF 2

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation
CTO NO.: CTO-0143 BORING NO.: SWMU311-TW03

SAMPLE TYPE
M = Macro Core 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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
ps/bg = point source/background

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	Lab ID	LEL %	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL) 17.6
11	A-N					Continued from Sheet 1	sand	
12							screen	
13						13.0	sand	15.1
14						End of Boring = 13.0'		
15								
16								
17								
18								
19								
20								
21								
22								
23								
24								
25								
26								
27								
28								
29								
30								

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: David D. Schilling
DRILLER: Mark Eaves / Jim Robertson BORING NO.: SWMU311-TW03 SHEET 2 OF 2

Baker Environmental

TEST BORING RECORD

PROJECT: SWMU Investigation
PROJ. NO.: CTO-0143 BORING NO.: SWMU312-SB01
COORDINATES: EAST: 2498650.317 NORTH: 337992.017
ELEVATION: SURFACE:

Rig:	Macro Core	Casing	Augers	Acetate Sleeve	Date	Progress (Ft.)	Comments	Depth to Water (Ft.)
Size (ID)	2"		3.25	2"	3/21/02	8	estimated	5.2
Length	4'		5'	4'				
Type	SS		S	Acetate				
Hammer Wt.	NA		NA	NA				
Fall	NA		NA	NA				

Remarks:

SAMPLE TYPE
M = Macro Core 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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
BG/PS = Background/Point Source
ppm = parts per million

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	Lab ID	LEL %	PID (ppm) ps/bg	Visual Description	Elevation (Ft. MSL)
1	M-1	2.6 65%	SWMU312-SB01-00	0.0%	0.0 0.0	asphalt sub-base	
						1.0	-1.00
2						brown, fine silty sand	
3							
4			SWMU312-SB01-02				
						4.4	-4.40
5	M-2	3.4 85%		0.0%		grey, sandy silt	
6						5.8	-5.80
7						fine sand w/some silt	
8						8.0	-8.00
9						End of Boring = 8.0	
10							

DRILLING COMPANY: Parratt Wolff Inc. BAKER REP.: R. Marks
DRILLER: Louis LaFever BORING NO.: SWMU312-SB01 SHEET 1 OF 6

Baker Environmental

TEST BORING RECORD

PROJECT: SWMU Investigation
CTO NO.: CTO-0143 BORING NO.: SWMU312-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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
ps/bg = point source/background

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	SPT	Lab ID	PID (ppm) ps/bg	Visual Description	Elevation (Ft. MSL)
11						Continued from Sheet 1	
12							
13							
14							
15							
16							
17							
18							
19							
20							
21							
22							
23							
24							
25							
26							
27							
28							
29							
30						Match to Sheet 3	

DRILLING COMPANY: Parratt Wolff Inc. BAKER REP.: R. Marks
DRILLER: Louis LaFever BORING NO.: SWMU312-SB SHEET 2 OF 6

Baker Environmental

TEST BORING RECORD

PROJECT: SWMU Investigation
CTO NO.: CTO-0143 BORING NO.: SWMU312-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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
ps/bg = point source/background

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	SPT	Lab ID	PID (ppm) ps/bg	Visual Description	Elevation (Ft. MSL)
31						Continued from Sheet 2	
32							
33							
34							
35							
36							
37							
38							
39							
40							
41							
42							
43							
44							
45							
46							
47							
48							
49							
50						Match to Sheet 4	

DRILLING COMPANY: Parratt Wolff Inc. BAKER REP.: R. Marks
DRILLER: Louis LaFever BORING NO.: SWMU312-SB SHEET 3 OF 6

Baker
Baker Environmental

TEST BORING RECORD

PROJECT: SWMU Investigation
CTO NO.: CTO-0143 BORING NO.: SWMU312-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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
ps/bg = point source/background

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	SPT	Lab ID	PID (ppm) ps/bg	Visual Description	Elevation (Ft. MSL)
51						Continued from Sheet 3	
52							
53							
54							
55							
56							
57							
58							
59							
60							
61							
62							
63							
64							
65							
66							
67							
68							
69							
70						Match to Sheet 5	

DRILLING COMPANY: Parratt Wolff Inc. BAKER REP.: R. Marks
DRILLER: Louis LaFever BORING NO.: SWMU312-SB SHEET 4 OF 6

Baker Environmental

TEST BORING RECORD

PROJECT: SWMU Investigation
CTO NO.: CTO-0143 BORING NO.: SWMU312-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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
ps/bg = point source/background

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	SPT	Lab ID	PID (ppm) ps/bg	Visual Description	Elevation (Ft. MSL)
71						Continued from Sheet 4	
72							
73							
74							
75							
76							
77							
78							
79							
80							
81							
82							
83							
84							
85							
86							
87							
88							
89							
90						Match to Sheet 6	

DRILLING COMPANY: Parratt Wolff Inc. BAKER REP.: R. Marks
DRILLER: Louis LaFever BORING NO.: SWMU312-SB SHEET 5 OF 6

Baker

Baker Environmental

TEST BORING RECORD

PROJECT: SWMU Investigation

CTO NO.: CTO-0143 BORING NO.: SWMU312-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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
ps/bg = point source/background

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	SPT	Lab ID	PID (ppm) ps/bg	Visual Description	Elevation (Ft. MSL)
91						Continued from Sheet 5	
92							
93							
94							
95							
96							
97							
98							
99							
100							
101							
102							
103							
104							
105							
106							
107							
108							
109							
110							

DRILLING COMPANY: Parratt Wolff Inc. BAKER REP.: R. Marks

DRILLER: Louis LaFever BORING NO.: /MU312-SE SHEET 6 OF 6

Baker Environmental

TEST BORING RECORD

PROJECT: SWMU Investigation
PROJ. NO.: CTO-0143 BORING NO.: SWMU312-SB02
COORDINATES: EAST: 2498616.754 NORTH: 337956.096
ELEVATION: SURFACE:

Rig:	Macro Core	Casing	Augers	Acetate Sleeve	Date	Progress (Ft.)	Comments	Depth to Water (Ft.)
Size (ID)	2"		3.25	2"	3/21/02	8	estimated	5.2
Length	4'		5'	4'				
Type	SS		S	Acetate				
Hammer Wt.	NA		NA	NA				
Fall	NA		NA	NA				

Remarks:

SAMPLE TYPE
M = Macro Core 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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
BG/PS = Background/Point Source
ppm = parts per million

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	Lab ID	LEL %	PID (ppm) ps/bg	Visual Description	Elevation (Ft. MSL)
1	M-1		SWMU312-SB02-00	0.0%	0.0 / 0.0	fill, gravel	
0.8							-0.80
2						brown/grey, sandy silt	
3							
3.2							-3.20
4			SWMU312-SB02-02				
5	M-2			0.0%	0.0 / 0.0	fine sand	
5.0							-5.00
6						fine sand w/some silt	
7							
8							
8.0							-8.00
9							
10							

DRILLING COMPANY: Parratt Wolff Inc. BAKER REP.: R. Marks
DRILLER: Louis LaFever BORING NO.: SWMU312-SB02 SHEET 1 OF 6

Baker Environmental

TEST BORING RECORD

PROJECT: SWMU Investigation
CTO NO.: CTO-0143 BORING NO.: SWMU312-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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
ps/bg = point source/background

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	SPT	Lab ID	PID (ppm) ps/bg	Visual Description	Elevation (Ft. MSL)
11						Continued from Sheet 1	
12							
13							
14							
15							
16							
17							
18							
19							
20							
21							
22							
23							
24							
25							
26							
27							
28							
29							
30						Match to Sheet 3	

DRILLING COMPANY: Parratt Wolff Inc. BAKER REP.: R. Marks
DRILLER: Louis LaFever BORING NO.: SWMU312-SB SHEET 2 OF 6

Baker Environmental

TEST BORING RECORD

PROJECT: SWMU Investigation
CTO NO.: CTO-0143 BORING NO.: SWMU312-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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
ps/bg = point source/background

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	SPT	Lab ID	PID (ppm) ps/bg	Visual Description	Elevation (Ft. MSL)
31						Continued from Sheet 2	
32							
33							
34							
35							
36							
37							
38							
39							
40							
41							
42							
43							
44							
45							
46							
47							
48							
49							
50						Match to Sheet 4	

DRILLING COMPANY: Parratt Wolff Inc. BAKER REP.: R. Marks
DRILLER: Louis LaFever BORING NO.: SWMU312-SB SHEET 3 OF 6

Baker Environmental

TEST BORING RECORD

PROJECT: SWMU Investigation
CTO NO.: CTO-0143 BORING NO.: SWMU312-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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
ps/bg = point source/background

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	SPT	Lab ID	PID (ppm) ps/bg	Visual Description	Elevation (Ft. MSL)
51						Continued from Sheet 3	
52							
53							
54							
55							
56							
57							
58							
59							
60							
61							
62							
63							
64							
65							
66							
67							
68							
69							
70						Match to Sheet 5	

DRILLING COMPANY: Parratt Wolff Inc. BAKER REP.: R. Marks
DRILLER: Louis LaFever BORING NO.: SWMU312-SB SHEET 4 OF 6

Baker Environmental

TEST BORING RECORD

PROJECT: SWMU Investigation
CTO NO.: CTO-0143 BORING NO.: SWMU312-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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
ps/bg = point source/background

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	SPT	Lab ID	PID (ppm) ps/bg	Visual Description	Elevation (Ft. MSL)
71						Continued from Sheet 4	
72							
73							
74							
75							
76							
77							
78							
79							
80							
81							
82							
83							
84							
85							
86							
87							
88							
89							
90						Match to Sheet 6	

DRILLING COMPANY: Parratt Wolff Inc. BAKER REP.: R. Marks
DRILLER: Louis LaFever BORING NO.: SWMU312-SB SHEET 5 OF 6

Baker Environmental

TEST BORING RECORD

PROJECT: SWMU Investigation
CTO NO.: CTO-0143 BORING NO.: SWMU312-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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
ps/bg = point source/background

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	SPT	Lab ID	PID (ppm) ps/bg	Visual Description	Elevation (Ft. MSL)
91						Continued from Sheet 5	
92							
93							
94							
95							
96							
97							
98							
99							
100							
101							
102							
103							
104							
105							
106							
107							
108							
109							
110							

DRILLING COMPANY: Parratt Wolff Inc. BAKER REP.: R. Marks
DRILLER: Louis LaFever BORING NO.: /MU312-SE SHEET 6 OF 6

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation
PROJ. NO.: CTO-0143 BORING NO.: SWMU312-TW01
COORDINATES: EAST: 2498678.682 NORTH: 337981.991
ELEVATION: SURFACE: 27.62 TOP OF PVC CASING: 27.23

Rig:	Macro Core	Casing	Augers	Acetate Sleeve	Date	Progress (Ft.)	Comments	Depth to Water (Ft.)
Size (ID)	2"		3.25	2"	3/21/02	12	estimated	4
Length	4'		5'	4'				
Type	SS		S	Acetate				
Hammer Wt.	NA		NA	NA				
Fall	NA		NA	NA				

Remarks:

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

WELL INFORMATION

Type	Diam.	Top Depth (Ft.)	Bottom Depth (Ft.)
PVC Riser (Schedule 40)	1"	27.23	22.23
PVC Screen (Schedule 40)	1"	22.23	12.23

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	Lab ID	LEL %	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
1	M-1	3.5 88%	SWMU312-TW01-00	0.0%	0.0 / 0.0	fill, sand, gravel	cuttings; 0.8 riser	26.4
2							bentonite	
3			SWMU312-TW01-02			brown/grey sandy silt	3.2 riser	24.0
4 ▼							sand	
5	M-2	2.5 63%		0.0%	0.0 / 0.0	fine sand	5 screen	22.2
6								
7						grey, fine sand w/some silt		
8							sand	
9	M-3	3.4 85%		0.0%	0.0 / 0.0		8.9 screen	18.3
10						grey v.f. sandy silt w/ clay sand laminations @ 10' Match to Sheet 2		

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: R. Marks
DRILLER: Louis LaFever BORING NO.: SWMU312-TW01 SHEET 1 OF 2

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation
CTO NO.: CTO-0143 BORING NO.: SWMU312-TW01

SAMPLE TYPE
M = Macro Core 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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
ps/bg = point source/background

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	Lab ID	LEL %	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
11						Continued from Sheet 1	sand	
12							screen	
13		3.6				grey v.f. sandy silt w/clay		
14	M-4	90%		0.0%	0.0 / 0.0			
15								
16							cuttings (16.0)	11.2
17						End of boring = 16.0		
18								
19								
20								
21								
22								
23								
24								
25								
26								
27								
28								
29								
30						Match to Sheet 3		

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: R. Marks
DRILLER: Louis LaFever BORING NO.: SWMU312-TW01 SHEET 2 OF 2

Baker

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation

CTO NO.: CTO-0143 BORING NO.: SWMU312-TW01

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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
BG/PS = Background/Point Source

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	SPT	Lab ID	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
31						Continued from Sheet 2		
32								
33								
34								
35								
36								
37								
38								
39								
40								
41								
42								
43								
44								
45								
46								
47								
48								
49								
50						Match to Sheet 4		

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: R. Marks

DRILLER: Louis LaFever BORING NO.: SWMU312-TV SHEET 3 OF 2

Baker
Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation
CTO NO.: CTO-0143 BORING NO.: SWMU312-TW01

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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
BG/PS = Background/Point Source

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	SPT	Lab ID	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
51						Continued from Sheet 3		
52								
53								
54								
55								
56								
57								
58								
59								
60								
61								
62								
63								
64								
65								
66								
67								
68								
69								
70						Match to Sheet 5		

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: R. Marks
DRILLER: Louis LaFever BORING NO.: SWMU312-TW SHEET 4 OF 2

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation
CTO NO.: CTO-0143 BORING NO.: SWMU312-TW01

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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
BG/PS = Background/Point Source

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	SPT	Lab ID	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
71						Continued from Sheet 5		
72								
73								
74								
75								
76								
77								
78								
79								
80								
81								
82								
83								
84								
85								
86								
87								
88								
89								
90						Match to Sheet 6		

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: R. Marks
DRILLER: Louis LaFever BORING NO.: SWMU312-TV SHEET 5 OF 2

Baker
Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation
CTO NO.: CTO-0143 BORING NO.: SWMU312-TW01

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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
ps/bg = point source/background

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	SPT	Lab ID	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
91						Continued from Sheet 1		
92								
93								
94								
95								
96								
97								
98								
99								
100								
101								
102								
103								
104								
105								
106								
107								
108								
109								
110								

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: R. Marks
DRILLER: Louis LaFever BORING NO.: SWMU312-TV SHEET 6 OF 2

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT:	SWMU Investigation				
PROJ. NO.:	CTO-0143		BORING NO.:	SWMU312-TW02	
COORDINATES:	EAST:	2498617.484	NORTH:	337983.536	
ELEVATION:	SURFACE:	28.78	TOP OF PVC CASING:	28.52	

Rig:	Macro Core	Casing	Augers	Acetate Sleeve	Date	Progress (Ft.)	Comments	Depth to Water (Ft.)
Size (ID)	2"		3.25	2"	3/21/02	16	estimated	8
Length	4'		5'	4'				
Type	SS		S	Acetate				
Hammer Wt.	NA		NA	NA				
Fall	NA		NA	NA				

Remarks:

SAMPLE TYPE

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

WELL INFORMATION

Type	Diam.	Top Depth (Ft.)	Bottom Depth (Ft.)
PVC Riser (Schedule 40)	1"	28.54	23.54
PVC Screen (Schedule 40)	1"	23.54	13.54

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	Lab ID	LEL %	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
1–4	M-1	2.9 73%	SWMU312-TW02-00	0.0%	0.0 / 0.0	dk. Brown v.f. sand w/silt; white/lt brown sand w/little silt	cuttings; riser; bentonite; screen; sand	27.6
5–8	M-2	2.4 60%	SWMU312-TW02-04	0.0%	0.0 / 0.0		screen; sand	21.0
9–10	M-3	3.2 80%		0.0%	0.0 / 0.0	brown/grey sand	screen	18.3

0.9 — 7.5 — 10.2

Match to Sheet 2

DRILLING CO.:	Parratt Wolff Inc.	BAKER REP.:	R. Marks
DRILLER:	Louis LaFever	BORING NO.:	SWMU312-TW02 SHEET 1 OF 2

Baker
Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation
CTO NO.: CTO-0143 BORING NO.: SWMU312-TW02

SAMPLE TYPE
M = Macro Core 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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
ps/bg = point source/background

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	Lab ID	LEL %	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
11						Continued from Sheet 1	sand	
12						v.f. sandy silt	12 screen	16.5
13	A-N							
14								
15								
16							cuttings 16	13.5 12.5
17						End of boring = 16.0		
18								
19								
20								
21								
22								
23								
24								
25								
26								
27								
28								
29								
30						Match to Sheet 3		

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: R. Marks
DRILLER: Louis LaFever BORING NO.: SWMU312-TW02 SHEET 2 OF 2

Baker

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation

CTO NO.: CTO-0143 BORING NO.: SWMU312-TW02

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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
BG/PS = Background/Point Source

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	SPT	Lab ID	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
31						Continued from Sheet 2		
32								
33								
34								
35								
36								
37								
38								
39								
40								
41								
42								
43								
44								
45								
46								
47								
48								
49								
50						Match to Sheet 4		

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: R. Marks

DRILLER: Louis LaFever BORING NO.: SWMU312-TW SHEET 3 OF 2

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation
CTO NO.: CTO-0143 BORING NO.: SWMU312-TW02

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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
BG/PS = Background/Point Source

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	SPT	Lab ID	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
51						Continued from Sheet 3		
52								
53								
54								
55								
56								
57								
58								
59								
60								
61								
62								
63								
64								
65								
66								
67								
68								
69								
70						Match to Sheet 5		

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: R. Marks
DRILLER: Louis LaFever BORING NO.: SWMU312-TV SHEET 4 OF 2

Baker

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation

CTO NO.: CTO-0143 BORING NO.: SWMU312-TW02

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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
BG/PS = Background/Point Source

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	SPT	Lab ID	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
71						Continued from Sheet 5		
72								
73								
74								
75								
76								
77								
78								
79								
80								
81								
82								
83								
84								
85								
86								
87								
88								
89								
90						Match to Sheet 6		

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: R. Marks

DRILLER: Louis LaFever BORING NO.: SWMU312-TV SHEET 5 OF 2

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation
CTO NO.: CTO-0143 BORING NO.: SWMU312-TW02

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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
ps/bg = point source/background

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	SPT	Lab ID	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
91						Continued from Sheet 1		
92								
93								
94								
95								
96								
97								
98								
99								
100								
101								
102								
103								
104								
105								
106								
107								
108								
109								
110								

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: R. Marks
DRILLER: Louis LaFever BORING NO.: SWMU312-TV SHEET 6 OF 2

Baker
Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORI

PROJECT: SWMU Investigation
PROJ. NO.: CTO-0143 BORING NO.: SWMU312-TW03
COORDINATES: EAST: 2498654.760 NORTH: 337926.31
ELEVATION: SURFACE: 29.35 TOP OF PVC CASING: 29.38

Rig:	Macro Core	Casing	Augers	Acetate Sleeve	Date	Progress (Ft.)	Comments	Depth Wate (Ft.)
Size (ID)	2"		3.25	2"	3/21/02	15	estimated	8
Length	4'		5'	4'				
Type	SS		S	Acetate				
Hammer Wt.	NA		NA	NA				
Fall	NA		NA	NA				

Remarks:

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

WELL INFORMATION

Type	Diam.	Top Depth (Ft.)	Bottor Depth (Ft.)
PVC Riser (Schedule 40)	1"	29.38	23.38
PVC Screen (Schedule 40)	1"	23.38	13.38

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	Lab ID	LEL %	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevati (Ft. MS
1	M-1		SWMU312-TW03-00	0.0%	0.0 / 0.0	dk. Brown v.f. sand w/silt	cuttings	22.5
0.9							riser	
2						white/lt brown sand w/little silt	cuttings	
3							riser	
4							bentonite	
5	M-2			0.0%	0.0 / 0.0		sand	
6							riser	
7			SWMU312-TW03-04				screen	
7.5							sand	21.9
8 ▼						brown/grey sand	8.0	21.4
9	A-N						screen	
10						Match to Sheet 2		

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: R. Marks
DRILLER: Louis LaFever BORING NO.: SWMU312-TW03 SHEET 1 OF

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation
CTO NO.: CTO-0143 BORING NO.: SWMU312-TW03

SAMPLE TYPE
M = Macro Core 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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
ps/bg = point source/background

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	Lab ID	LEL %	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
11						Continued from Sheet 1	sand	
12							screen	
13	A-N							
14								
15								
16								13.4
17						End of boring = 16.0		
18								
19								
20								
21								
22								
23								
24								
25								
26								
27								
28								
29								
30						Match to Sheet 3		

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: R. Marks
DRILLER: Louis LaFever BORING NO.: SWMU312-TW03 SHEET 2 OF 2

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation
CTO NO.: CTO-0143 BORING NO.: SWMU312-TW03

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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
BG/PS = Background/Point Source

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	SPT	Lab ID	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
31						Continued from Sheet 2		
32								
33								
34								
35								
36								
37								
38								
39								
40								
41								
42								
43								
44								
45								
46								
47								
48								
49								
50						Match to Sheet 4		

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: R. Marks
DRILLER: Louis LaFever BORING NO.: SWMU312-TV SHEET 3 OF 2

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation
CTO NO.: CTO-0143 BORING NO.: SWMU312-TW03

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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
BG/PS = Background/Point Source

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	SPT	Lab ID	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
51						Continued from Sheet 3		
52								
53								
54								
55								
56								
57								
58								
59								
60								
61								
62								
63								
64								
65								
66								
67								
68								
69								
70						Match to Sheet 5		

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: R. Marks
DRILLER: Louis LaFever BORING NO.: SWMU312-TV SHEET 4 OF 2

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation
CTO NO.: CTO-0143 BORING NO.: SWMU312-TW03

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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
BG/PS = Background/Point Source

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	SPT	Lab ID	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
71						Continued from Sheet 5		
72								
73								
74								
75								
76								
77								
78								
79								
80								
81								
82								
83								
84								
85								
86								
87								
88								
89								
90						Match to Sheet 6		

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: R. Marks
DRILLER: Louis LaFever BORING NO.: SWMU312-TW SHEET 5 OF 2

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation
CTO NO.: CTO-0143 BORING NO.: SWMU312-TW03

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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
ps/bg = point source/background

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	SPT	Lab ID	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
91						Continued from Sheet 1		
92								
93								
94								
95								
96								
97								
98								
99								
100								
101								
102								
103								
104								
105								
106								
107								
108								
109								
110								

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: R. Marks
DRILLER: Louis LaFever BORING NO.: SWMU312-TV SHEET 6 OF 2

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation
CTO NO.: CTO-0143 BORING NO.: SWMU312-TW02

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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
ps/bg = point source/background

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	SPT	Lab ID	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
91						Continued from Sheet 1		
92								
93								
94								
95								
96								
97								
98								
99								
100								
101								
102								
103								
104								
105								
106								
107								
108								
109								
110								

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: R. Marks
DRILLER: Louis LaFever BORING NO.: SWMU312-TV SHEET 6 OF 2

Baker Environmental

TEST BORING RECORD

PROJECT: SWMU Investigation
PROJ. NO.: CTO-0143 BORING NO.: SWMU313-SB01
COORDINATES: EAST: 2499546.321 NORTH: 3370405.845
ELEVATION: SURFACE:

Rig:	Macro Core	Casing	Augers	Acetate Sleeve	Date	Progress (Ft.)	Comments	Depth to Water (Ft.)
Size (ID)	2"		3.25	2"	3/22/02	4	estimated	3
Length	4'		5'	4'				
Type	SS		S	Acetate				
Hammer Wt.	NA		NA	NA				
Fall	NA		NA	NA				

Remarks:

SAMPLE TYPE
M = Macro Core 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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
BG/PS = Background/Point Source
ppm = parts per million

Depth (Ft.)		Sample Type & No.	Sample Rec. (Ft.,%)	Lab ID	LEL %	PID (ppm) ps/bg	Visual Description	Elevation (Ft. MSL)
1		M-1		SWMU313-SB01-00	0.0%	0.0 / 0.0	Dk grey v.f. sand w/silt (0.7)	-0.70
2							brown, v.f. sand w/silt	
3	▼			SWMU313-SB01-01			(2.7)	-2.70
4							lt grey fine sand (4.0)	-4.00
5							End of boring = 4.0	
6								
7								
8								
9								
10								

DRILLING COMPANY: Parratt Wolff Inc. BAKER REP.: R. Marks
DRILLER: Louis LaFever BORING NO.: SWMU313-SB01 SHEET 1 OF 6

Baker Environmental

TEST BORING RECORD

PROJECT: SWMU Investigation
CTO NO.: CTO-0143 BORING NO.: SWMU313-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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
ps/bg = point source/background

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	SPT	Lab ID	PID (ppm) ps/bg	Visual Description	Elevation (Ft. MSL)
11						Continued from Sheet 1	
12							
13							
14							
15							
16							
17							
18							
19							
20							
21							
22							
23							
24							
25							
26							
27							
28							
29							
30						Match to Sheet 3	

DRILLING COMPANY: Parratt Wolff Inc. BAKER REP.: R. Marks
DRILLER: Louis LaFever BORING NO.: SWMU313-SB SHEET 2 OF 6

Baker Environmental

TEST BORING RECORD

PROJECT: SWMU Investigation
CTO NO.: CTO-0143 BORING NO.: SWMU313-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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
ps/bg = point source/background

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	SPT	Lab ID	PID (ppm) ps/bg	Visual Description	Elevation (Ft. MSL)
31						Continued from Sheet 2	
32							
33							
34							
35							
36							
37							
38							
39							
40							
41							
42							
43							
44							
45							
46							
47							
48							
49							
50						Match to Sheet 4	

DRILLING COMPANY: Parratt Wolff Inc. BAKER REP.: R. Marks
DRILLER: Louis LaFever BORING NO.: SWMU313-SB SHEET 3 OF 6

Baker Environmental

TEST BORING RECORD

PROJECT: SWMU Investigation
CTO NO.: CTO-0143 BORING NO.: SWMU313-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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
ps/bg = point source/background

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	SPT	Lab ID	PID (ppm) ps/bg	Visual Description	Elevation (Ft. MSL)
51						Continued from Sheet 3	
52							
53							
54							
55							
56							
57							
58							
59							
60							
61							
62							
63							
64							
65							
66							
67							
68							
69							
70						Match to Sheet 5	

DRILLING COMPANY: Parratt Wolff Inc. BAKER REP.: R. Marks
DRILLER: Louis LaFever BORING NO.: SWMU313-SB SHEET 4 OF 6

Baker Environmental

TEST BORING RECORD

PROJECT: SWMU Investigation
CTO NO.: CTO-0143 BORING NO.: SWMU313-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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
ps/bg = point source/background

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	SPT	Lab ID	PID (ppm) ps/bg	Visual Description	Elevation (Ft. MSL)
71						Continued from Sheet 4	
72							
73							
74							
75							
76							
77							
78							
79							
80							
81							
82							
83							
84							
85							
86							
87							
88							
89							
90						Match to Sheet 6	

DRILLING COMPANY: Parratt Wolff Inc. BAKER REP.: R. Marks
DRILLER: Louis LaFever BORING NO.: SWMU313-SB SHEET 5 OF 6

Baker

Baker Environmental

TEST BORING RECORD

PROJECT: SWMU Investigation

CTO NO.: CTO-0143 BORING NO.: SWMU313-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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
ps/bg = point source/background

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	SPT	Lab ID	PID (ppm) ps/bg	Visual Description	Elevation (Ft. MSL)
91						Continued from Sheet 5	
92							
93							
94							
95							
96							
97							
98							
99							
100							
101							
102							
103							
104							
105							
106							
107							
108							
109							
110							

DRILLING COMPANY: Parratt Wolff Inc. BAKER REP.: R. Marks

DRILLER: Louis LaFever BORING NO.: /MU313-SE SHEET 6 OF 6

Baker Environmental

TEST BORING RECORD

PROJECT: SWMU Investigation
PROJ. NO.: CTO-0143 BORING NO.: SWMU313-SB02
COORDINATES: EAST: 2499594.585 NORTH: 337414.669
ELEVATION: SURFACE:

Rig:	Macro Core	Casing	Augers	Acetate Sleeve	Date	Progress (Ft.)	Comments	Depth to Water (Ft.)
Size (ID)	2"		3.25	2"	3/21/02	4	estimated	3
Length	4'		5'	4'				
Type	SS		S	Acetate				
Hammer Wt.	NA		NA	NA				
Fall	NA		NA	NA				

Remarks:

SAMPLE TYPE
M = Macro Core 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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
BG/PS = Background/Point Source
ppm = parts per million

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	Lab ID	LEL %	PID (ppm) ps/bg	Visual Description	Elevation (Ft. MSL)
1	M-1		SWMU313-SB02-00		0.0	Dk grey v.f. sand w/silt 0.7	-0.70
2			SWMU313-SB02-01	0.0%	0.0	brown, v.f. sand w/silt 2.7	-2.70
3	▼					lt grey fine sand 4.0	-4.00
4							
5						End of boring = 4.0	
6							
7							
8							
9							
10							

DRILLING COMPANY Parratt Wolff Inc. BAKER REP.: R. Marks
DRILLER: Louis LaFever BORING NO.: SWMU313-SB02 SHEET 1 OF 6

Baker Environmental

TEST BORING RECORD

PROJECT: SWMU Investigation
CTO NO.: CTO-0143 BORING NO.: SWMU313-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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
ps/bg = point source/background

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	SPT	Lab ID	PID (ppm) ps/bg	Visual Description	Elevation (Ft. MSL)
11						Continued from Sheet 1	
12							
13							
14							
15							
16							
17							
18							
19							
20							
21							
22							
23							
24							
25							
26							
27							
28							
29							
30						Match to Sheet 3	

DRILLING COMPANY: Parratt Wolff Inc. BAKER REP.: R. Marks
DRILLER: Louis LaFever BORING NO.: SWMU313-SB SHEET 2 OF 6

Baker Environmental

TEST BORING RECORD

PROJECT: SWMU Investigation
CTO NO.: CTO-0143 BORING NO.: SWMU313-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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
ps/bg = point source/background

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	SPT	Lab ID	PID (ppm) ps/bg	Visual Description	Elevation (Ft. MSL)
31						Continued from Sheet 2	
32							
33							
34							
35							
36							
37							
38							
39							
40							
41							
42							
43							
44							
45							
46							
47							
48							
49							
50						Match to Sheet 4	

DRILLING COMPANY: Parratt Wolff Inc. BAKER REP.: R. Marks
DRILLER: Louis LaFever BORING NO.: SWMU313-SB SHEET 3 OF 6

Baker Environmental

TEST BORING RECORD

PROJECT: SWMU Investigation
CTO NO.: CTO-0143 BORING NO.: SWMU313-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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
ps/bg = point source/background

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	SPT	Lab ID	PID (ppm) ps/bg	Visual Description	Elevation (Ft. MSL)
51						Continued from Sheet 3	
52							
53							
54							
55							
56							
57							
58							
59							
60							
61							
62							
63							
64							
65							
66							
67							
68							
69							
70						Match to Sheet 5	

DRILLING COMPANY: Parratt Wolff Inc. BAKER REP.: R. Marks
DRILLER: Louis LaFever BORING NO.: SWMU313-SB SHEET 4 OF 6

Baker Environmental

TEST BORING RECORD

PROJECT: SWMU Investigation
CTO NO.: CTO-0143 BORING NO.: SWMU313-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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
ps/bg = point source/background

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	SPT	Lab ID	PID (ppm) ps/bg	Visual Description	Elevation (Ft. MSL)
71						Continued from Sheet 4	
72							
73							
74							
75							
76							
77							
78							
79							
80							
81							
82							
83							
84							
85							
86							
87							
88							
89							
90						Match to Sheet 6	

DRILLING COMPANY: Parratt Wolff Inc. BAKER REP.: R. Marks
DRILLER: Louis LaFever BORING NO.: SWMU313-SB SHEET 5 OF 6

Baker Environmental

TEST BORING RECORD

PROJECT: SWMU Investigation
CTO NO.: CTO-0143 BORING NO.: SWMU313-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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
ps/bg = point source/background

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	SPT	Lab ID	PID (ppm) ps/bg	Visual Description	Elevation (Ft. MSL)
91						Continued from Sheet 5	
92							
93							
94							
95							
96							
97							
98							
99							
100							
101							
102							
103							
104							
105							
106							
107							
108							
109							
110							

DRILLING COMPANY: Parratt Wolff Inc. BAKER REP.: R. Marks
DRILLER: Louis LaFever BORING NO.: /MU313-SE SHEET 6 OF 6

Baker
Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation
CTO NO.: CTO-0143 BORING NO.: SWMU313-TW01

SAMPLE TYPE
M = Macro Core 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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
ps/bg = point source/background

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	Lab ID	LEL %	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
11	A-N					Continued from Sheet 1	sand	
12							screen	17.9
13						End of Boring = 12.0		
14								
15								
16								
17								
18								
19								
20								
21								
22								
23								
24								
25								
26								
27								
28								
29								
30						Match to Sheet 3		

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: R. Marks
DRILLER: Louis LaFever BORING NO.: SWMU313-TW01 SHEET 2 OF 2

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation
CTO NO.: CTO-0143 BORING NO.: SWMU313-TW01

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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
BG/PS = Background/Point Source

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	SPT	Lab ID	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
31						Continued from Sheet 2		
32								
33								
34								
35								
36								
37								
38								
39								
40								
41								
42								
43								
44								
45								
46								
47								
48								
49								
50						Match to Sheet 4		

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: R. Marks
DRILLER: Louis LaFever BORING NO.: SWMU313-TV SHEET 3 OF 2

Baker
Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation
CTO NO.: CTO-0143 BORING NO.: SWMU313-TW01

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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
BG/PS = Background/Point Source

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	SPT	Lab ID	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
51						Continued from Sheet 3		
52								
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70						Match to Sheet 5		

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: R. Marks
DRILLER: Louis LaFever BORING NO.: SWMU313-TV SHEET 4 OF 2

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation
CTO NO.: CTO-0143 BORING NO.: SWMU313-TW01

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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
BG/PS = Background/Point Source

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	SPT	Lab ID	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
71						Continued from Sheet 5		
72								
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90						Match to Sheet 6		

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: R. Marks
DRILLER: Louis LaFever BORING NO.: SWMU313-TV SHEET 5 OF 2

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation
CTO NO.: CTO-0143 BORING NO.: SWMU313-TW01

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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
ps/bg = point source/background

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	SPT	Lab ID	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
91						Continued from Sheet 1		
92								
93								
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DRILLING CO.: Parratt Wolff Inc. BAKER REP.: R. Marks
DRILLER: Louis LaFever BORING NO.: SWMU313-TW SHEET 6 OF 2

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT:	SWMU Investigation		
PROJ. NO.:	CTO-0143	BORING NO.:	SWMU313-TW02
COORDINATES:	EAST: 2499601.805	NORTH:	337395.773
ELEVATION:	SURFACE: 28.92	TOP OF PVC	28.70

Rig:	Macro Core	Casing	Augers	Acetate Sleeve	Date	Progress (Ft.)	Comments	Depth to Water (Ft.)
Size (ID)	2"		3.25	2"	3/22/02	12	estimated	3
Length	4'		5'	4'				
Type	SS		S	Acetate				
Hammer Wt.	NA		NA	NA				
Fall	NA		NA	NA				

Remarks:

SAMPLE TYPE

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

WELL INFORMATION

Type		Diam.	Top Depth (Ft.)	Bottom Depth (Ft.)
PVC	Riser (Schedule 40)	1"	28.7	26.7
PVC	Screen (Schedule 40)	1"	26.7	16.7

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	Lab ID	LEL %	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
1	M-1		SWMU313-TW02-00	0.0%	0.0 / 0.0	dk. grey v.f. sand w/silt	bentonite; riser	28.0
2			SWM313-TW02-01			brown, v.f. sand w/silt	0.7; sand	
3	▼						2.7; screen	26.0
4						light grey fine sand	4.0; sand	24.7
5							screen	
6	A-N						sand	
7								
8								
9							screen	
10	A-N					Match to Sheet 2		

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: R. Marks
DRILLER: Louis LaFever BORING NO.: SWMU313-TW02 SHEET 1 OF 2

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation
CTO NO.: CTO-0143 BORING NO.: SWMU313-TW02

SAMPLE TYPE
M = Macro Core 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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
ps/bg = point source/background

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	Lab ID	LEL %	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
11	A-N					Continued from Sheet 1	sand	
12							screen	16.70
13						End of Boring = 12.0		
14								
15								
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30						Match to Sheet 3		

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: R. Marks
DRILLER: Louis LaFever BORING NO.: SWMU313-TW02 SHEET 2 OF 2

Baker
Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation
CTO NO.: CTO-0143 BORING NO.: SWMU313-TW02

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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
BG/PS = Background/Point Source

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	SPT	Lab ID	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
31						Continued from Sheet 2		
32								
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49								
50						Match to Sheet 4		

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: R. Marks
DRILLER: Louis LaFever BORING NO.: SWMU313-TV SHEET 3 OF 2

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation
CTO NO.: CTO-0143 BORING NO.: SWMU313-TW02

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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
BG/PS = Background/Point Source

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	SPT	Lab ID	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
51						Continued from Sheet 3		
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70						Match to Sheet 5		

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: R. Marks
DRILLER: Louis LaFever BORING NO.: SWMU313-TV SHEET 4 OF 2

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation
CTO NO.: CTO-0143 BORING NO.: SWMU313-TW02

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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
BG/PS = Background/Point Source

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	SPT	Lab ID	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
71						Continued from Sheet 5		
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90						Match to Sheet 6		

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: R. Marks
DRILLER: Louis LaFever BORING NO.: SWMU313-TW SHEET 5 OF 2

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation
CTO NO.: CTO-0143 BORING NO.: SWMU313-TW02

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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
ps/bg = point source/background

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	SPT	Lab ID	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
91						Continued from Sheet 1		
92								
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DRILLING CO.: Parratt Wolff Inc. BAKER REP.: R. Marks
DRILLER: Louis LaFever BORING NO.: SWMU313-TV SHEET 6 OF 2

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT:	SWMU Investigation				
PROJ. NO.:	CTO-0143		BORING NO.:	SWMU313-TW03	
COORDINATES:	EAST:	2499560.886	NORTH:	337421.919	
ELEVATION:	SURFACE:	28.89	TOP OF PVC	28.71	

Rig:	Macro Core	Casing	Augers	Acetate Sleeve	Date	Progress (Ft.)	Comments	Depth to Water (Ft.)
Size (ID)	2"		3.25	2"	3/22/02	12	estimated	3
Length	4'		5'	4'				
Type	SS		S	Acetate				
Hammer Wt.	NA		NA	NA				
Fall	NA		NA	NA				

Remarks:

SAMPLE TYPE

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

WELL INFORMATION

Type		Diam.	Top Depth (Ft.)	Bottom Depth (Ft.)
PVC	Riser (Schedule 40)	1"	28.71	26.71
PVC	Screen (Schedule 40)	1"	26.71	16.71

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	Lab ID	LEL %	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
1–4	M-1	3.1 78%	SWMU313-TW03-00 SWM313-TW03-01	0.0%	0.0 / 0.0	dk. grey v.f. sand w/silt brown, v.f. sand w/silt	bentonite; riser; 0.7; sand; 2.7; screen; sand	28.01 26.01
5–8	M-2	2.6 65%		0.0%	0.0 / 0.0	light grey fine sand	screen; sand	
9–10	M-3	4.0 100%		0.0%	0.0 / 0.0		screen	

Match to Sheet 2

DRILLING CO.:	Parratt Wolff Inc.	BAKER REP.:	R. Marks
DRILLER:	Louis LaFever	BORING NO.:	SWMU313-TW03

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation
CTO NO.: CTO-0143 BORING NO.: SWMU313-TW03

SAMPLE TYPE
M = Macro Core 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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
ps/bg = point source/background

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	Lab ID	LEL %	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
11						Continued from Sheet 1	sand	
12							screen	16.71
13						End of Boring = 12.0		
14								
15								
16								
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30						Match to Sheet 3		

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: R. Marks
DRILLER: Louis LaFever BORING NO.: SWMU313-TW03 SHEET 2 OF 2

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation
CTO NO.: CTO-0143 BORING NO.: SWMU313-TW03

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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
BG/PS = Background/Point Source

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	SPT	Lab ID	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
31						Continued from Sheet 2		
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50						Match to Sheet 4		

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: R. Marks
DRILLER: Louis LaFever BORING NO.: SWMU313-TW SHEET 3 OF 2

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation
CTO NO.: CTO-0143 BORING NO.: SWMU313-TW03

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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
BG/PS = Background/Point Source

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	SPT	Lab ID	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
51						Continued from Sheet 3		
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70						Match to Sheet 5		

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: R. Marks
DRILLER: Louis LaFever BORING NO.: SWMU313-TV SHEET 4 OF 2

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation
CTO NO.: CTO-0143 BORING NO.: SWMU313-TW03

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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
BG/PS = Background/Point Source

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	SPT	Lab ID	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
71						Continued from Sheet 5		
72								
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90						Match to Sheet 6		

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: R. Marks
DRILLER: Louis LaFever BORING NO.: SWMU313-TV SHEET 5 OF 2

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation
CTO NO.: CTO-0143 BORING NO.: SWMU313-TW03

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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
ps/bg = point source/background

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	SPT	Lab ID	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
91						Continued from Sheet 1		
92								
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DRILLING CO.: Parratt Wolff Inc. BAKER REP.: R. Marks
DRILLER: Louis LaFever BORING NO.: SWMU313-TV SHEET 6 OF 2

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation
PROJ. NO.: CTO-0143 BORING NO.: SWMU314-TW01
COORDINATES: EAST: 2478797.212 NORTH: 359340.771
ELEVATION: SURFACE: 6.56 TOP OF PVC 6.24

Rig:	Macro Core	Casing	Augers	Acetate Sleeve	Date	Progress (Ft.)	Comments	Depth to Water (Ft.)
Size (ID)	2"		3.25	2"	3/23/02	12	estimated	4
Length	4'		5'	4'				
Type	SS		S	Acetate				
Hammer Wt.	NA		NA	NA				
Fall	NA		NA	NA				

Remarks:

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

WELL INFORMATION

Type		Diam.	Top Depth (Ft.)	Bottom Depth (Ft.)
PVC	Riser (Schedule 40)	1"	6.24	4.24
PVC	Screen (Schedule 40)	1"	4.24	-5.76

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	Lab ID	LEL %	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
1	M-1		SWMU314-TW01-00	0.0%	0.0 / 0.0	dk. Grey v.f. silty sand	bentonite (1.3)	4.9
2							riser, sand	
3			SWMU314-TW01-02			grey/brown fine sand w/silt	screen	
4 ▼							(4.0)	2.2
5	A-N					For complete geology see log SWMU314-TW02	sand	
6							screen	
7							sand	
8							screen	
9	A-N							
10						Match to Sheet 2	sand	

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: R. Marks
DRILLER: Louis LaFever BORING NO.: SWMU314-TW01 SHEET 1 OF 2

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation
CTO NO.: CTO-0143 BORING NO.: SWMU314-TW01

SAMPLE TYPE
M = Macro Core 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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
ps/bg = point source/background

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	Lab ID	LEL %	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
11						Continued from Sheet 1	sand	
12							12.0 screen	-5.8
13						End of Boring = 12.0		
14								
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29								
30						Match to Sheet 3		

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: R. Marks
DRILLER: Louis LaFever BORING NO.: SWMU314-TW01 SHEET 2 OF 2

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation
CTO NO.: CTO-0143 BORING NO.: SWMU314-TW01

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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
BG/PS = Background/Point Source

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	SPT	Lab ID	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
31						Continued from Sheet 2		
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50						Match to Sheet 4		

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: R. Marks
DRILLER: Louis LaFever BORING NO.: SWMU314-TV SHEET 3 OF 2

Baker
Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation
CTO NO.: CTO-0143 BORING NO.: SWMU314-TW01

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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
BG/PS = Background/Point Source

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	SPT	Lab ID	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
51						Continued from Sheet 3		
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70						Match to Sheet 5		

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: R. Marks
DRILLER: Louis LaFever BORING NO.: SWMU314-TV SHEET 4 OF 2

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation
CTO NO.: CTO-0143 BORING NO.: SWMU314-TW01

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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
BG/PS = Background/Point Source

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	SPT	Lab ID	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
71						Continued from Sheet 5		
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90						Match to Sheet 6		

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: R. Marks
DRILLER: Louis LaFever BORING NO.: SWMU314-TV SHEET 5 OF 2

Baker

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation

CTO NO.: CTO-0143 BORING NO.: SWMU314-TW01

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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
ps/bg = point source/background

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	SPT	Lab ID	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
91						Continued from Sheet 1		
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DRILLING CO.: Parratt Wolff Inc. BAKER REP.: R. Marks

DRILLER: Louis LaFever BORING NO.: SWMU314-TV SHEET 6 OF 2

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation
PROJ. NO.: CTO-0143 BORING NO.: SWMU314-TW02
COORDINATES: EAST: 2478825.325 NORTH: 359334.166
ELEVATION: SURFACE: 6.65 TOP OF PVC 6.39

Rig:	Macro Core	Casing	Augers	Acetate Sleeve	Date	Progress (Ft.)	Comments	Depth to Water (Ft.)
Size (ID)	2"		3.25	2"	3/23/02	12	estimated	4
Length	4'		5'	4'				
Type	SS		S	Acetate				
Hammer Wt.	NA		NA	NA				
Fall	NA		NA	NA				

Remarks:

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

WELL INFORMATION

Type		Diam.	Top Depth (Ft.)	Bottom Depth (Ft.)
PVC	Riser (Schedule 40)	1"	6.39	4.36
PVC	Screen (Schedule 40)	1"	4.39	-5.61

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	Lab ID	LEL %	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
1–4	M-1	2.5 63%	SWMU314-TW02-00; SWMU314-TW02-02	0.0%	0.0 / 0.0	dk. Grey v.f. silty sand; grey/brown fine sand w/silt	bentonite; 1.3; riser; sand; screen; sand	5.1
5–8	M-2	4.0 100%		0.0%	0.0 / 0.0	black, organic v.f. sandy silt; lt. Grey fine sand w/silt	4.9; 5.8; screen; sand	2.3; 0.6
9–10	M-3	2.4 60%		0.0%	0.0 / 0.0	Match to Sheet 2	screen; sand	

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: R. Marks
DRILLER: Louis LaFever BORING NO.: SWMU314-TW02 SHEET 1 OF 2

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation
CTO NO.: CTO-0143 BORING NO.: SWMU314-TW02

SAMPLE TYPE
M = Macro Core 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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
ps/bg = point source/background

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	Lab ID	LEL %	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
11						Continued from Sheet 1	sand	
12							12 screen	-5.6
						End of Boring = 12.0		
13								
14								
15								
16								
17								
18								
19								
20								
21								
22								
23								
24								
25								
26								
27								
28								
29								
30						Match to Sheet 3		

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: R. Marks
DRILLER: Louis LaFever BORING NO.: SWMU314-TW02 SHEET 2 OF 2

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation
CTO NO.: CTO-0143 BORING NO.: SWMU314-TW02

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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
BG/PS = Background/Point Source

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	SPT	Lab ID	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
31						Continued from Sheet 2		
32								
33								
34								
35								
36								
37								
38								
39								
40								
41								
42								
43								
44								
45								
46								
47								
48								
49								
50						Match to Sheet 4		

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: R. Marks
DRILLER: Louis LaFever BORING NO.: SWMU314-TV SHEET 3 OF 2

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation
CTO NO.: CTO-0143 BORING NO.: SWMU314-TW02

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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
BG/PS = Background/Point Source

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	SPT	Lab ID	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
51						Continued from Sheet 3		
52								
53								
54								
55								
56								
57								
58								
59								
60								
61								
62								
63								
64								
65								
66								
67								
68								
69								
70						Match to Sheet 5		

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: R. Marks
DRILLER: Louis LaFever BORING NO.: SWMU314-TV SHEET 4 OF 2

Baker

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation

CTO NO.: CTO-0143 BORING NO.: SWMU314-TW02

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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
BG/PS = Background/Point Source

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	SPT	Lab ID	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
71						Continued from Sheet 5		
72								
73								
74								
75								
76								
77								
78								
79								
80								
81								
82								
83								
84								
85								
86								
87								
88								
89								
90						Match to Sheet 6		

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: R. Marks

DRILLER: Louis LaFever BORING NO.: SWMU314-TV SHEET 5 OF 2

Baker
Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation
CTO NO.: CTO-0143 BORING NO.: SWMU314-TW02

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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
ps/bg = point source/background

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	SPT	Lab ID	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
91						Continued from Sheet 1		
92								
93								
94								
95								
96								
97								
98								
99								
100								
101								
102								
103								
104								
105								
106								
107								
108								
109								
110								

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: R. Marks
DRILLER: Louis LaFever BORING NO.: SWMU314-TV SHEET 6 OF 2

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT:	SWMU Investigation		
PROJ. NO.:	CTO-0143	BORING NO.:	SWMU314-TW03
COORDINATES:	EAST: 2478797.212	NORTH:	359340.771
ELEVATION:	SURFACE: 6.56	TOP OF] PVC	6.24

Rig:	Macro Core	Casing	Augers	Acetate Sleeve	Date	Progress (Ft.)	Comments	Depth to Water (Ft.)
Size (ID)	2"		3.25	2"	3/23/02	12	estimated	4
Length	4'		5'	4'				
Type	SS		S	Acetate				
Hammer Wt.	NA		NA	NA				
Fall	NA		NA	NA				

Remarks:

SAMPLE TYPE

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

WELL INFORMATION

Type		Diam.	Top Depth (Ft.)	Bottom Depth (Ft.)
PVC	Riser (Schedule 40)	1"	6.24	4.24
PVC	Screen (Schedule 40)	1"	4.24	-5.76

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	Lab ID	LEL %	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
1	M-1		SWMU314-TW03-00	0.0%	0.0 / 0.0	dk. Grey v.f. silty sand	bentonite (1.3)	4.9
2							riser	
3			SWMU314-TW03-02			grey/brown fine sand w/silt	sand; screen	
4							(4.0)	2.2
5	A-N					For complete geology see log SWMU-TW02	sand	
6							screen	
7							sand	
8							screen	
9	A-N							
10						Match to Sheet 2	sand	

DRILLING CO.:	Parratt Wolff Inc.	BAKER REP.:	R. Marks
DRILLER:	Louis LaFever	BORING NO.:	SWMU314-TW03 SHEET 1 OF 2

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation
CTO NO.: CTO-0143 BORING NO.: SWMU314-TW03

SAMPLE TYPE
M = Macro Core 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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
ps/bg = point source/background

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	Lab ID	LEL %	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
11						Continued from Sheet 1	sand	
12							12 screen	-5.8
						End of Boring = 12.0		
13								
14								
15								
16								
17								
18								
19								
20								
21								
22								
23								
24								
25								
26								
27								
28								
29								
30						Match to Sheet 3		

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: R. Marks
DRILLER: Louis LaFever BORING NO.: SWMU314-TW03 SHEET 2 OF 2

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation
CTO NO.: CTO-0143 BORING NO.: SWMU314-TW03

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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
BG/PS = Background/Point Source

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	SPT	Lab ID	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
31						Continued from Sheet 2		
32								
33								
34								
35								
36								
37								
38								
39								
40								
41								
42								
43								
44								
45								
46								
47								
48								
49								
50						Match to Sheet 4		

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: R. Marks
DRILLER: Louis LaFever BORING NO.: SWMU314-TV SHEET 3 OF 2

Baker

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation

CTO NO.: CTO-0143 BORING NO.: SWMU314-TW03

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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
BG/PS = Background/Point Source

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	SPT	Lab ID	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
51						Continued from Sheet 3		
52								
53								
54								
55								
56								
57								
58								
59								
60								
61								
62								
63								
64								
65								
66								
67								
68								
69								
70						Match to Sheet 5		

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: R. Marks

DRILLER: Louis LaFever BORING NO.: SWMU314-TV SHEET 4 OF 2

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation
CTO NO.: CTO-0143 BORING NO.: SWMU314-TW03

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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
BG/PS = Background/Point Source

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	SPT	Lab ID	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
71						Continued from Sheet 5		
72								
73								
74								
75								
76								
77								
78								
79								
80								
81								
82								
83								
84								
85								
86								
87								
88								
89								
90						Match to Sheet 6		

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: R. Marks
DRILLER: Louis LaFever BORING NO.: SWMU314-TV SHEET 5 OF 2

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation
CTO NO.: CTO-0143 BORING NO.: SWMU314-TW03

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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
ps/bg = point source/background

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	SPT	Lab ID	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
91						Continued from Sheet 1		
92								
93								
94								
95								
96								
97								
98								
99								
100								
101								
102								
103								
104								
105								
106								
107								
108								
109								
110								

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: R. Marks
DRILLER: Louis LaFever BORING NO.: SWMU314-TV SHEET 6 OF 2

Baker Environmental

TEST BORING RECORD

PROJECT: SWMU Investigation
PROJ. NO.: CTO-0143 BORING NO.: SWMU315-SB01
COORDINATES: EAST: 2476963.403 NORTH: 358451.586
ELEVATION: SURFACE:

Rig:	Macro Core	Casing	Augers	Acetate Sleeve	Date	Progress (Ft.)	Comments	Depth to Water (Ft.)
Size (ID)	2"		3.25	2"	3/19/02	4'		
Length	4'		5'	4'				
Type	SS		S	Acetate				
Hammer Wt.	NA		NA	NA				
Fall	NA		NA	NA				

Remarks:

SAMPLE TYPE
M = Macro Core 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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
BG/PS = Background/Point Source
ppm = parts per million

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	Lab ID	LEL %	PID (ppm) ps/bg	Visual Description	Elevation (Ft. MSL)
1	M-1		SWMU315-SB01-00	0.0%	0.0 / 0.0	grey/brown fine sand w/silt	
2							
3							
4						4.0	-4.00
5						For complete geology see log SWMU315-TW03	
6	N						
7							
8							
9							
10	N						

DRILLING COMPANY: Parratt Wolff Inc. BAKER REP.: R. Marks
DRILLER: Louis LaFever BORING NO.: SWMU315-SB01 SHEET 1 OF 2

Baker Environmental

TEST BORING RECORD

PROJECT: SWMU Investigation
CTO NO.: CTO-0143 BORING NO.: SWMU315-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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
ps/bg = point source/background

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	Lab ID	LEL %	PID (ppm) ps/bg	Visual Description	Elevation (Ft. MSL)
11–20	N, N					Continued from Sheet 1	
20						20.0	-20.00
21–24	M-2		SWMU315-SB01-11	0.0%	0.0 / 0.0	orange/ lt. Grey fine sand	
24						24.0	-24.00
25–30						End of Boring = 24.0 Match to Sheet 3	

DRILLING COMPANY: Parratt Wolff Inc. BAKER REP.: R. Marks
DRILLER: Louis LaFever BORING NO.: SWMU315-SB01 SHEET 2 OF 2

Baker Environmental

TEST BORING RECORD

PROJECT: SWMU Investigation
CTO NO.: CTO-0143 BORING NO.: SWMU315-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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
ps/bg = point source/background

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	SPT	Lab ID	PID (ppm) ps/bg	Visual Description	Elevation (Ft. MSL)
31						Continued from Sheet 2	
32							
33							
34							
35							
36							
37							
38							
39							
40							
41							
42							
43							
44							
45							
46							
47							
48							
49							
50						Match to Sheet 4	

DRILLING COMPANY: Parratt Wolff Inc. BAKER REP.: R. Marks
DRILLER: Louis LaFever BORING NO.: SWMU315-SB SHEET 3 OF 2

Baker Environmental

TEST BORING RECORD

PROJECT: SWMU Investigation
CTO NO.: CTO-0143 BORING NO.: SWMU315-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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
ps/bg = point source/background

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	SPT	Lab ID	PID (ppm) ps/bg	Visual Description	Elevation (Ft. MSL)
51						Continued from Sheet 3	
52							
53							
54							
55							
56							
57							
58							
59							
60							
61							
62							
63							
64							
65							
66							
67							
68							
69							
70						Match to Sheet 5	

DRILLING COMPANY: Parratt Wolff Inc. BAKER REP.: R. Marks
DRILLER: Louis LaFever BORING NO.: SWMU315-SB SHEET 4 OF 2

Baker Environmental

TEST BORING RECORD

PROJECT: SWMU Investigation
CTO NO.: CTO-0143 BORING NO.: SWMU315-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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
ps/bg = point source/background

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	SPT	Lab ID	PID (ppm) ps/bg	Visual Description	Elevation (Ft. MSL)
71						Continued from Sheet 4	
72							
73							
74							
75							
76							
77							
78							
79							
80							
81							
82							
83							
84							
85							
86							
87							
88							
89							
90						Match to Sheet 6	

DRILLING COMPANY: Parratt Wolff Inc. BAKER REP.: R. Marks
DRILLER: Louis LaFever BORING NO.: SWMU315-SB SHEET 5 OF 2

Baker Environmental

TEST BORING RECORD

PROJECT: SWMU Investigation
CTO NO.: CTO-0143 BORING NO.: SWMU315-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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
ps/bg = point source/background

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	SPT	Lab ID	PID (ppm) ps/bg	Visual Description	Elevation (Ft. MSL)
91						Continued from Sheet 5	
92							
93							
94							
95							
96							
97							
98							
99							
100							
101							
102							
103							
104							
105							
106							
107							
108							
109							
110							

DRILLING COMPANY: Parratt Wolff Inc. BAKER REP.: R. Marks
DRILLER: Louis LaFever BORING NO.: /MU315-SE SHEET 6 OF 2

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT:	SWMU Investigation		
PROJ. NO.:	CTO-0143	BORING NO.:	SWMU315-TW01
COORDINATES:	EAST: 2476915.433	NORTH:	358460.043
ELEVATION:	SURFACE: 19.79	TOP OF PVC	19.77

Rig:	Macro Core	Casing	Augers	Acetate Sleeve	Date	Progress (Ft.)	Comments	Depth to Water (Ft.)
Size (ID)	2"		3.25	2"	3/23/02	30	estimated	22
Length	4'		5'	4'				
Type	SS		S	Acetate				
Hammer Wt.	NA		NA	NA				
Fall	NA		NA	NA				

Remarks:

SAMPLE TYPE

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

WELL INFORMATION

Type		Diam.	Top Depth (Ft.)	Bottom Depth (Ft.)
PVC	Riser (Schedule 40)	1"	19.77	-0.23
PVC	Screen (Schedule 40)	1"	-0.23	-10.23

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	Lab ID	LEL %	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
1–4	M-1		SWMU315-TW01-00	0.0%	0.0 / 0.0	grey/brown fine sand w/silt	riser; cuttings; 4.0	15.77
5–10	A-N / N-A					Match to Sheet 2	riser; cuttings; riser; cuttings; riser	

DRILLING CO.:	Parratt Wolff Inc.	BAKER REP.:	R. Marks
DRILLER:	Louis LaFever	BORING NO.:	SWMU315-TW01 SHEET 1 OF 2

Baker
Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation
CTO NO.: CTO-0143 BORING NO.: SWMU315-TW01

SAMPLE TYPE
M = Macro Core 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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
ps/bg = point source/background

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	Lab ID	LEL %	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
11						Continued from Sheet 1		
12							cuttings	
13	A-N						riser	
14								
15								
16							cuttings	
17	A-N						riser	
18							bentonite	
19							screen	
20							20	-0.23
21	M-2		SWMU315-TW01-11	0.0%	0.0/0.0		sand	
22	▼					orange/lt.grey fine sand		
23							screen	
24							24	-4.23
25							sand	
26	A-N							
27								
28							screen	
29							sand	
30							30 screen	-10.23
						End of Boring = 30		

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: R. Marks
DRILLER: Louis LaFever BORING NO.: SWMU315-TW01 SHEET 2 OF 2

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation
CTO NO.: CTO-0143 BORING NO.: SWMU315-TW01

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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
BG/PS = Background/Point Source

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	SPT	Lab ID	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
31						Continued from Sheet 2		
32								
33								
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49								
50						Match to Sheet 4		

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: R. Marks
DRILLER: Louis LaFever BORING NO.: SWMU315-TV SHEET 3 OF 2

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation
CTO NO.: CTO-0143 BORING NO.: SWMU315-TW01

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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
BG/PS = Background/Point Source

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	SPT	Lab ID	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
51						Continued from Sheet 3		
52								
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69								
70						Match to Sheet 5		

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: R. Marks
DRILLER: Louis LaFever BORING NO.: SWMU315-TV SHEET 4 OF 2

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation
CTO NO.: CTO-0143 BORING NO.: SWMU315-TW01

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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
BG/PS = Background/Point Source

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	SPT	Lab ID	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
71						Continued from Sheet 5		
72								
73								
74								
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89								
90						Match to Sheet 6		

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: R. Marks
DRILLER: Louis LaFever BORING NO.: SWMU315-TV SHEET 5 OF 2

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation
CTO NO.: CTO-0143 BORING NO.: SWMU315-TW01

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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
ps/bg = point source/background

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	SPT	Lab ID	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
91						Continued from Sheet 1		
92								
93								
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110								

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: R. Marks
DRILLER: Louis LaFever BORING NO.: SWMU315-TW SHEET 6 OF 2

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT:	SWMU Investigation			
PROJ. NO.:	CTO-0143		BORING NO.:	SWMU315-TW02
COORDINATES:	EAST:	2476976.372	NORTH:	358513.246
ELEVATION:	SURFACE:	20.42	TOP OF PVC	20.41

Rig:	Macro Core	Casing	Augers	Acetate Sleeve	Date	Progress (Ft.)	Comments	Depth to Water (Ft.)
Size (ID)	2"		3.25	2"	3/23/02	30	estimated	22
Length	4'		5'	4'				
Type	SS		S	Acetate				
Hammer Wt.	NA		NA	NA				
Fall	NA		NA	NA				

Remarks:

SAMPLE TYPE

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

WELL INFORMATION

Type		Diam.	Top Depth (Ft.)	Bottom Depth (Ft.)
PVC	Riser (Schedule 40)	1"	20.41	10.41
PVC	Screen (Schedule 40)	1"	10.41	-9.59

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	Lab ID	LEL %	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
1–4	M-1		SWMU315-TW02-00	0.0%	0.0 / 0.0	grey/brown fine sand w/silt	riser; cuttings	16.41
4.0								
5–10	A-N					For complete geology see log SWMU315-TW03	riser; cuttings	
9–10	A-N						riser; cuttings	

Match to Sheet 2

DRILLING CO.:	Parratt Wolff Inc.	BAKER REP.:	R. Marks
DRILLER:	Louis LaFever	BORING NO.:	SWMU315-TW02 SHEET 1 OF 2

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation
CTO NO.: CTO-0143 BORING NO.: SWMU315-TW02

SAMPLE TYPE
M = Macro Core 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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
ps/bg = point source/background

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	Lab ID	LEL %	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
11						Continued from Sheet 1		
12							cuttings	
13	A-N						riser	
14								
15								
16							cuttings	
17	A-N						riser	
18							bentonite	
19							screen	
20							20	0.4
21	M-2		SWMU315-TW02-11	0.0%	0.0 / 0.0		sand	
22	▼					orange/lt.grey fine sand		
23							screen	
24							24.0	-3.6
25							sand	
26	A-N							
27								
28							screen	
29							sand	
30							30.0 screen	-9.6
						End of Boring = 30		

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: R. Marks
DRILLER: Louis LaFever BORING NO.: SWMU315-TW02 SHEET 2 OF 2

Baker

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation

CTO NO.: CTO-0143 BORING NO.: SWMU315-TW02

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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
BG/PS = Background/Point Source

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	SPT	Lab ID	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
31						Continued from Sheet 2		
32								
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49								
50						Match to Sheet 4		

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: R. Marks

DRILLER: Louis LaFever BORING NO.: SWMU315-TW SHEET 3 OF 2

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation
CTO NO.: CTO-0143 BORING NO.: SWMU315-TW02

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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
BG/PS = Background/Point Source

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	SPT	Lab ID	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
51						Continued from Sheet 3		
52								
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70						Match to Sheet 5		

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: R. Marks
DRILLER: Louis LaFever BORING NO.: SWMU315-TV SHEET 4 OF 2

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation
CTO NO.: CTO-0143 BORING NO.: SWMU315-TW02

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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
BG/PS = Background/Point Source

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	SPT	Lab ID	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
71						Continued from Sheet 5		
72								
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90						Match to Sheet 6		

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: R. Marks
DRILLER: Louis LaFever BORING NO.: SWMU315-TV SHEET 5 OF 2

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation
CTO NO.: CTO-0143 BORING NO.: SWMU315-TW02

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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
ps/bg = point source/background

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	SPT	Lab ID	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
91						Continued from Sheet 1		
92								
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DRILLING CO.: Parratt Wolff Inc. BAKER REP.: R. Marks
DRILLER: Louis LaFever BORING NO.: SWMU315-TV SHEET 6 OF 2

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT:	SWMU Investigation			
PROJ. NO.:	CTO-0143		BORING NO.:	SWMU315-TW03
COORDINATES:	EAST:	2476909.756	NORTH:	358539.017
ELEVATION:	SURFACE:	19.49	TOP OF PVC	19.64

Rig:	Macro Core	Casing	Augers	Acetate Sleeve	Date	Progress (Ft.)	Comments	Depth to Water (Ft.)
Size (ID)	2"		3.25	2"	3/23/02	28	estimated	20
Length	4'		5'	4'				
Type	SS		S	Acetate				
Hammer Wt.	NA		NA	NA				
Fall	NA		NA	NA				

Remarks:

SAMPLE TYPE

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

WELL INFORMATION

Type		Diam.	Top Depth (Ft.)	Bottom Depth (Ft.)
PVC	Riser (Schedule 40)	1"	19.64	1.64
PVC	Screen (Schedule 40)	1"	1.64	-8.36

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	Lab ID	LEL %	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
1–4	M-1	2.8 70%	SWMU315-TW03-00	0.0%	0.0 / 0.0	grey/brown fine sand w/silt	riser; cuttings	
5–8	M-2	4.0 100%		0.0%	0.0 / 0.0	grey/brown fine sand w/silt; 5.5 silt w/clay little sand; 6.4 clay, grey and orange mottled	riser; cuttings; riser	14.1; 13.2
9–10	M-3	4.0 100%		0.0%	0.0 / 0.0	clay, grey and orange mottled; 9.2 lt. Grey/white fine grained sand	cuttings; riser	10.4

Match to Sheet 2

DRILLING CO.:	Parratt Wolff Inc.	BAKER REP.:	R. Marks
DRILLER:	Louis LaFever	BORING NO.:	SWMU315-TW03 SHEET 1 OF 2

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation
CTO NO.: CTO-0143 BORING NO.: SWMU315-TW03

SAMPLE TYPE
M = Macro Core 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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
ps/bg = point source/background

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	Lab ID	LEL %	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
11						Continued from Sheet 1		
12						little silt 11.5	cuttings	8.1
13	M-4	3.2 80%		0.0%	0.0 / 0.0	grey/orange clay	riser	
14						14.5		5.1
15						orange/lt.grey fine sand	bentonite	
16								
17	M-5	2.3 58%		0.0%	0.0 / 0.0		riser	
18								
19							screen	
20			SWMU315-TW03-10					
21	M-6	4 100%		0.0%	0.0 / 0.0		sand	
22								
23							screen	
24						24.0		-4.4
25	N-A						sand	
26								
27							screen	
28						28.0		-8.4
29						End of Boring = 28.0		
30						Match to Sheet 3		

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: R. Marks
DRILLER: Louis LaFever BORING NO.: SWMU315-TW03 SHEET 2 OF 2

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation
CTO NO.: CTO-0143 BORING NO.: SWMU315-TW03

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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
BG/PS = Background/Point Source

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	SPT	Lab ID	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
31						Continued from Sheet 2		
32								
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50						Match to Sheet 4		

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: R. Marks
DRILLER: Louis LaFever BORING NO.: SWMU315-TV SHEET 3 OF 2

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation
CTO NO.: CTO-0143 BORING NO.: SWMU315-TW03

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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
BG/PS = Background/Point Source

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	SPT	Lab ID	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
51						Continued from Sheet 3		
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69								
70						Match to Sheet 5		

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: R. Marks
DRILLER: Louis LaFever BORING NO.: SWMU315-TV SHEET 4 OF 2

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation
CTO NO.: CTO-0143 BORING NO.: SWMU315-TW03

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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
BG/PS = Background/Point Source

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	SPT	Lab ID	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
71						Continued from Sheet 5		
72								
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90						Match to Sheet 6		

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: R. Marks
DRILLER: Louis LaFever BORING NO.: SWMU315-TV SHEET 5 OF 2

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation
CTO NO.: CTO-0143 BORING NO.: SWMU315-TW03

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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
ps/bg = point source/background

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	SPT	Lab ID	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
91						Continued from Sheet 1		
92								
93								
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110								

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: R. Marks
DRILLER: Louis LaFever BORING NO.: SWMU315-TW SHEET 6 OF 2

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation
PROJ. NO.: CTO-0143 BORING NO.: SWMU316-TW01
COORDINATES: EAST: 2465839.530 NORTH: 361441.134
ELEVATION: SURFACE: 17.4 TOP OF PVC CASING: 17.04

Rig:	Macro Core	Casing	Augers	Acetate Sleeve	Date	Progress (Ft.)	Comments	Depth to Water (Ft.)
Size (ID)	2"		3.25	2"	3/21/02	16	estimated	8
Length	4'		5'	4'				
Type	SS		S	Acetate				
Hammer Wt.	NA		NA	NA				
Fall	NA		NA	NA				

Remarks:

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

WELL INFORMATION

Type		Diam.	Top Depth (Ft.)	Bottom Depth (Ft.)
PVC	Riser (Schedule 40)	1"	17.04	11.04
PVC	Screen (Schedule 40)	1"	11.04	1.04

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	Lab ID	LEL %	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
1–4	M-1		SWMU316-TW01-00	0.0%	0.0 / 0.0	light brown, fine silty sand	cuttings; riser; bentonite; riser; sand	
5–8	A-N						riser; screen; sand	
9–10	M-2		SWMU316-TW01-04	0.0%	0.0 / 0.0		screen (10.3)	6.7

Match to Sheet 2

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: R. Marks
DRILLER: Louis LaFever BORING NO.: SWMU316-TW01 SHEET 1 OF 2

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation
CTO NO.: CTO-0143 BORING NO.: SWMU316-TW01

SAMPLE TYPE
M = Macro Core 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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
ps/bg = point source/background

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	Lab ID	LEL %	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
11						Continued from Sheet 1	sand	
12						dk grey stain, fine silty san 11.5		5.5
						12.0	screen	5.0
13	A-N					Red, fine silty sand		
14							sand	
15								
16						16.0		1.0
17						End of boring = 16.0		
18								
19								
20								
21								
22								
23								
24								
25								
26								
27								
28								
29								
30						Match to Sheet 3		

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: R. Marks
DRILLER: Louis LaFever BORING NO.: SWMU316-TW01 SHEET 2 OF 2

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation
CTO NO.: CTO-0143 BORING NO.: SWMU316-TW01

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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
BG/PS = Background/Point Source

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	SPT	Lab ID	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
31						Continued from Sheet 2		
32								
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50						Match to Sheet 4		

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: R. Marks
DRILLER: Louis LaFever BORING NO.: SWMU316-TV SHEET 3 OF 2

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation
CTO NO.: CTO-0143 BORING NO.: SWMU316-TW01

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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
BG/PS = Background/Point Source

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	SPT	Lab ID	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
51						Continued from Sheet 3		
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70						Match to Sheet 5		

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: R. Marks
DRILLER: Louis LaFever BORING NO.: SWMU316-TV SHEET 4 OF 2

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation
CTO NO.: CTO-0143 BORING NO.: SWMU316-TW01

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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
BG/PS = Background/Point Source

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	SPT	Lab ID	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
71						Continued from Sheet 5		
72								
73								
74								
75								
76								
77								
78								
79								
80								
81								
82								
83								
84								
85								
86								
87								
88								
89								
90						Match to Sheet 6		

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: R. Marks
DRILLER: Louis LaFever BORING NO.: SWMU316-TV SHEET 5 OF 2

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation
CTO NO.: CTO-0143 BORING NO.: SWMU316-TW01

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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
ps/bg = point source/background

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	SPT	Lab ID	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
91						Continued from Sheet 1		
92								
93								
94								
95								
96								
97								
98								
99								
100								
101								
102								
103								
104								
105								
106								
107								
108								
109								
110								

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: R. Marks
DRILLER: Louis LaFever BORING NO.: SWMU316-TV SHEET 6 OF 2

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation
PROJ. NO.: CTO-0143 BORING NO.: SWMU316-TW02
COORDINATES: EAST: 2465865.180 NORTH: 361472.248
ELEVATION: SURFACE: 17.4 TOP OF PVC CASING: 16.90

Rig:	Macro Core	Casing	Augers	Acetate Sleeve	Date	Progress (Ft.)	Comments	Depth to Water (Ft.)
Size (ID)	2"		3.25	2"	3/21/02	16	estimated	8
Length	4'		5'	4'				
Type	SS		S	Acetate				
Hammer Wt.	NA		NA	NA				
Fall	NA		NA	NA				

Remarks:

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

WELL INFORMATION

Type	Diam.	Top Depth (Ft.)	Bottom Depth (Ft.)
PVC Riser (Schedule 40)	1"	16.9	15.5
PVC Screen (Schedule 40)	1"	15.5	5.5

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	Lab ID	LEL %	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
1–4	M-1		SWMU316-TW02-00	0.0%	0.0 / 0.0	light brown, fine silty sand	cuttings; riser; bentonite; riser; sand (4.0)	
5–8	A-N						riser; screen; sand (8.0)	
9–10	M-2		SWMU316-TW02-04	0.0%	0.0 / 0.0	light brown, fine silty sand	screen (10.3)	

Match to Sheet 2

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: R. Marks
DRILLER: Louis LaFever BORING NO.: SWMU316-TW02 SHEET 1 OF 2

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation
CTO NO.: CTO-0143 BORING NO.: SWMU316-TW02

SAMPLE TYPE
M = Macro Core 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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
ps/bg = point source/background

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	Lab ID	LEL %	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
11						Continued from Sheet 1	sand	
12						dk grey stain, fine silty sar 11.5	screen	
13	A-N					12.0 Red, fine silty sand	sand	
14								
15								
16						16.0		
17						End of boring = 16.0		
18								
19								
20								
21								
22								
23								
24								
25								
26								
27								
28								
29								
30						Match to Sheet 3		

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: R. Marks
DRILLER: Louis LaFever BORING NO.: SWMU316-TW02 SHEET 2 OF 2

Baker

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation

CTO NO.: CTO-0143 BORING NO.: SWMU316-TW02

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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
BG/PS = Background/Point Source

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	SPT	Lab ID	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
31						Continued from Sheet 2		
32								
33								
34								
35								
36								
37								
38								
39								
40								
41								
42								
43								
44								
45								
46								
47								
48								
49								
50						Match to Sheet 4		

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: R. Marks

DRILLER: Louis LaFever BORING NO.: SWMU316-TV SHEET 3 OF 2

Baker

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation

CTO NO.: CTO-0143 BORING NO.: SWMU316-TW02

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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
BG/PS = Background/Point Source

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	SPT	Lab ID	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
51						Continued from Sheet 3		
52								
53								
54								
55								
56								
57								
58								
59								
60								
61								
62								
63								
64								
65								
66								
67								
68								
69								
70						Match to Sheet 5		

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: R. Marks

DRILLER: Louis LaFever BORING NO.: SWMU316-TV SHEET 4 OF 2

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation
CTO NO.: CTO-0143 BORING NO.: SWMU316-TW02

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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
BG/PS = Background/Point Source

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	SPT	Lab ID	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
71						Continued from Sheet 5		
72								
73								
74								
75								
76								
77								
78								
79								
80								
81								
82								
83								
84								
85								
86								
87								
88								
89								
90						Match to Sheet 6		

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: R. Marks
DRILLER: Louis LaFever BORING NO.: SWMU316-TV SHEET 5 OF 2

Baker

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation

CTO NO.: CTO-0143 BORING NO.: SWMU316-TW02

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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
ps/bg = point source/background

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	SPT	Lab ID	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
91						Continued from Sheet 1		
92								
93								
94								
95								
96								
97								
98								
99								
100								
101								
102								
103								
104								
105								
106								
107								
108								
109								
110								

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: R. Marks

DRILLER: Louis LaFever BORING NO.: SWMU316-TV SHEET 6 OF 2

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation
PROJ. NO.: CTO-0143 BORING NO.: SWMU316-TW03
COORDINATES: EAST: 2465897.880 NORTH: 361438.17
ELEVATION: SURFACE: 17.1 TOP OF PVC CASING: 16.99

Rig:	Macro Core	Casing	Augers	Acetate Sleeve	Date	Progress (Ft.)	Comments	Depth to Water (Ft.)
Size (ID)	2"		3.25	2"	3/21/02	16	estimated	8
Length	4'		5'	4'				
Type	SS		S	Acetate				
Hammer Wt.	NA		NA	NA				
Fall	NA		NA	NA				

Remarks:

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

WELL INFORMATION

Type		Diam.	Top Depth (Ft.)	Bottom Depth (Ft.)
PVC	Riser (Schedule 40)	1"	16.99	10.99
PVC	Screen (Schedule 40)	1"	10.99	0.99

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	Lab ID	LEL %	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
1–4	M-1	3.5 88%	SWMU316-TW03-00	0.0%	0.0 / 0.0	light brown, fine silty sand	fill; riser; bentonite; riser; sand	
5–8	M-2	2.6 65%	SWMU316-TW03-04	0.0%	0.0 / 0.0		riser; screen; sand	
9–10	M-3	3.5 88%		0.0%	0.0 / 0.0	10.3 Match to Sheet 2	screen	6.69

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: R. Marks
DRILLER: Louis LaFever BORING NO.: SWMU316-TW03 SHEET 1 OF 2

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation
CTO NO.: CTO-0143 BORING NO.: SWMU316-TW03

SAMPLE TYPE
M = Macro Core 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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
ps/bg = point source/background

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	Lab ID	LEL %	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
11						Continued from Sheet 1	sand	
						dk grey stain, fine silty sand 11.5		5.49
12							screen	
13	M-4							
		4.0		0.0%	0.0		sand	
14		100%			0.0	Red, fine silty sand		
15								
16						16.0		0.99
17						End of boring = 16.0		
18								
19								
20								
21								
22								
23								
24								
25								
26								
27								
28								
29								
30						Match to Sheet 3		

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: R. Marks
DRILLER: Louis LaFever BORING NO.: SWMU316-TW03 SHEET 2 OF 2

Baker

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation

CTO NO.: CTO-0143 BORING NO.: SWMU316-TW03

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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
BG/PS = Background/Point Source

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	SPT	Lab ID	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
31						Continued from Sheet 2		
32								
33								
34								
35								
36								
37								
38								
39								
40								
41								
42								
43								
44								
45								
46								
47								
48								
49								
50						Match to Sheet 4		

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: R. Marks

DRILLER: Louis LaFever BORING NO.: SWMU316-TV SHEET 3 OF 2

Baker
Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation
CTO NO.: CTO-0143 BORING NO.: SWMU316-TW03

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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
BG/PS = Background/Point Source

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	SPT	Lab ID	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
51						Continued from Sheet 3		
52								
53								
54								
55								
56								
57								
58								
59								
60								
61								
62								
63								
64								
65								
66								
67								
68								
69								
70						Match to Sheet 5		

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: R. Marks
DRILLER: Louis LaFever BORING NO.: SWMU316-TV SHEET 4 OF 2

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation
CTO NO.: CTO-0143 BORING NO.: SWMU316-TW03

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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
BG/PS = Background/Point Source

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	SPT	Lab ID	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
71						Continued from Sheet 5		
72								
73								
74								
75								
76								
77								
78								
79								
80								
81								
82								
83								
84								
85								
86								
87								
88								
89								
90						Match to Sheet 6		

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: R. Marks
DRILLER: Louis LaFever BORING NO.: SWMU316-TV SHEET 5 OF 2

Baker
Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation
CTO NO.: CTO-0143 BORING NO.: SWMU316-TW03

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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
ps/bg = point source/background

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	SPT	Lab ID	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
91						Continued from Sheet 1		
92								
93								
94								
95								
96								
97								
98								
99								
100								
101								
102								
103								
104								
105								
106								
107								
108								
109								
110								

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: R. Marks
DRILLER: Louis LaFever BORING NO.: SWMU316-TV SHEET 6 OF 2

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT:	SWMU Investigation		
PROJ. NO.:	CTO-0143	BORING NO.:	SWMU317-TW01
COORDINATES:	EAST: 2488806.068	NORTH:	361190.128
ELEVATION:	SURFACE: 27.72	TOP OF PVC	27.88

Rig:	Macro Core	Casing	Augers	Acetate Sleeve	Date	Progress (Ft.)	Comments	Depth to Water (Ft.)
Size (ID)	2"		3.25	2"	3/24/02	12	estimated	4
Length	4'		5'	4'				
Type	SS		S	Acetate				
Hammer Wt.	NA		NA	NA				
Fall	NA		NA	NA				

Remarks:

SAMPLE TYPE

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

WELL INFORMATION

Type	Diam.	Top Depth (Ft.)	Bottom Depth (Ft.)
PVC Riser (Schedule 40)	1"	27.88	25.88
PVC Screen (Schedule 40)	1"	25.88	15.88

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	Lab ID	LEL %	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
1	M-1	2.8 70%	SWMU317-TW01-00	0.0%	0.0 / 0.0	brown clay w/sand and silt	bentonite, riser	
2								
3							screen, sand	
4			SWMU317-TW01-02					23.9
						4.0 lt.grey fine sand w/silt 4.7	screen	23.2
5	M-2	4.0 100%		0.0%	0.0 / 0.0			
6						brown/grey mottled clay	sand	
7								
8						note: sleeve stuck in macrocore 8.0	screen	19.9
9	M-3	0.0 0%		0.0%	0.0 / 0.0	could determine transition. sand and gravel	sand	
10						Match to Sheet 2	screen	

DRILLING CO.:	Parratt Wolff Inc.	BAKER REP.:	R. Marks
DRILLER:	Louis LaFever	BORING NO.:	SWMU317-TW01 SHEET 1 OF 2

Baker

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation

CTO NO.: CTO-0143 BORING NO.: SWMU317-TW01

SAMPLE TYPE

M = Macro Core 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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
ps/bg = point source/background

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	Lab ID	LEL %	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
11						Continued from Sheet 1		
12						12.0		15.9
13						End of Boring = 12.0		
14								
15								
16								
17								
18								
19								
20								
21								
22								
23								
24								
25								
26								
27								
28								
29								
30								

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: R. Marks

DRILLER: Louis LaFever BORING NO.: SWMU317-TW01 SHEET 2 OF 2

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT:	SWMU Investigation			
PROJ. NO.:	CTO-0143		BORING NO.:	SWMU317-TW03
COORDINATES:	EAST:	2488807.231	NORTH:	361194.919
ELEVATION:	SURFACE:	27.62	TOP OF PVC	27.30

Rig:	Macro Core	Casing	Augers	Acetate Sleeve	Date	Progress (Ft.)	Comments	Depth to Water (Ft.)
Size (ID)	2"		3.25	2"	3/24/02	12	estimated	4
Length	4'		5'	4'				
Type	SS		S	Acetate				
Hammer Wt.	NA		NA	NA				
Fall	NA		NA	NA				

Remarks:

SAMPLE TYPE

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

WELL INFORMATION

Type		Diam.	Top Depth (Ft.)	Bottom Depth (Ft.)
PVC	Riser (Schedule 40)	1"	27.30	26.30
PVC	Screen (Schedule 40)	1"	26.30	12.30

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	Lab ID	LEL %	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
1–4	M-1		SWMU317-TW02-00 SWMU317-TW02-02	0.0%	0.0 / 0.0	brown clay w/sand and silt	bentonite, riser, screen, sand	
4						4.0		
5–8	A-N					For complete geology refer to log SWMU317-TW01	screen, sand, screen	23.30
9–10	A-N					Match to Sheet 2	sand, screen	

DRILLING CO.:	Parratt Wolff Inc.	BAKER REP.:	R. Marks
DRILLER:	Louis LaFever	BORING NO.:	SWMU317-TW03 SHEET 1 OF 2

Baker Environmental

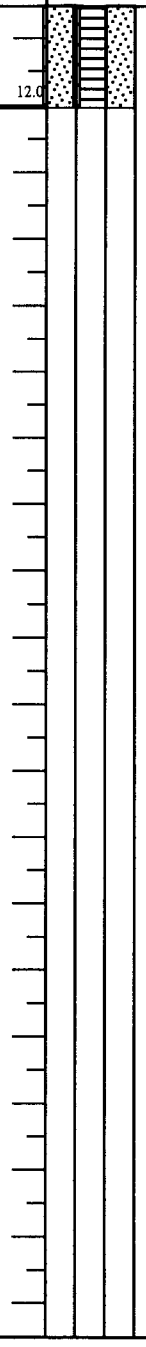
TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation
CTO NO.: CTO-0143 BORING NO.: SWMU317-TW03

SAMPLE TYPE
M = Macro Core 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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
ps/bg = point source/background

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	Lab ID	LEL %	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
11						Continued from Sheet 1		
12						12.0		12.30
13						End of Boring = 12.0		
14								
15								
16								
17								
18								
19								
20								
21								
22								
23								
24								
25								
26								
27								
28								
29								
30								



DRILLING CO.: Parratt Wolff Inc. BAKER REP.: R. Marks
DRILLER: Louis LaFever BORING NO.: SWMU317-TW03 SHEET 2 OF 2

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation
PROJ. NO.: CTO-0143 BORING NO.: SWMU318- TW01
COORDINATES: EAST: 2467264.438 NORTH: 355864.5369
ELEVATION: SURFACE: 16.953 TOP OF PVC CASING: 16.930

Rig: A-200 Ingersol Ram	Macro Core	Casing	Augers	Acetate sleave	Date	Progress (Ft.)	Comments	Depth to Water (Ft.)
Size (ID)	2"		3.25	2"	3/20/02	16	estimated	8.8
Length	4		5'	4'				
Type	SS		S	Acetate				
Hammer Wt.	NA		NA	NA				
Fall	NA		NA	NA				

Remarks:

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

WELL INFORMATION

Type	Diam.	Top Depth (Ft.)	Bottom Depth (Ft.)
PVC Riser (Schedule 40)	1"	16.930	10.930
PVC screen (Schedule 40) 0.010"	1"	10.930	0.930

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	Lab ID	LEL %	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL) 16.9
1			SWMU318-TW01-00			Fine sand, trace silt, damp, dark brown (0.9)	cuttings	16.0
2	M-1	3.3 83%		0.0%	0.0 / 0.0	Fine sand, little clay, damp, hard, non-plastic, dark brown (2.6)	riser	14.3
3						Fine sand, trace silt, moist, orangish brown (4.0)	bentonite	12.9
4								
5	A-N						sand	
6						(6.0)	riser	10.9
7						Fine sand, trace silt, moist orangish brown (6.5)		10.4
8	M-2	3.0 75%	SWMU318-TW01-04	0.0%	0.0 / 0.0	Clay, firm, moist, plastic, gray, orange motteling (8.8)	sand	
9	▼						screen	8.1
10						Fine sand, little clay, wet, gray (10)		6.9
	A-N						sand	

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: David D. Schilling
DRILLER: Mark Eaves / Jim Robertson BORING NO.: SWMU318- TW01 SHEET 1 OF 2

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation
CTO NO.: CTO-0143 BORING NO.: SWMU318- TW01

SAMPLE TYPE
M = Macro Core 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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
ps/bg = point source/background

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	Lab ID	LEL %	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL) 6.4
11						Continued from Sheet 1		
12	A-N						sand	
13								
14							screen	
15	A-N						sand	
16								0.9
17						End of Boring = 16.0		
18								
19								
20								
21								
22								
23								
24								
25								
26								
27								
28								
29								
30								

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: David D. Schilling
DRILLER: Mark Eaves / Jim Robertson BORING NO.: SWMU318- TW01 SHEET 2 OF 2

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT:	SWMU Investigation		
PROJ. NO.:	CTO-0143	BORING NO.:	SWMU318- TW02
COORDINATES:	EAST: 2467260.048	NORTH:	355837.8883
ELEVATION:	SURFACE: 18.041	TOP OF PVC CASING:	18.169

Rig: A-200 Ingersol Ram	Macro Core	Casing	Augers	Acetate sleave	Date	Progress (Ft.)	Comments	Depth to Water (Ft.)
Size (ID)	2"		3.25	2"	3/20/02	16	estimated	6
Length	4		5'	4'				
Type	SS		S	Acetate				
Hammer Wt.	NA		NA	NA				
Fall	NA		NA	NA				

Remarks:

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

WELL INFORMATION

Type	Diam.	Top Depth (Ft.)	Bottom Depth (Ft.)
PVC Riser (Schedule 40)	1"	18.169	12.169
PVC screen (Schedule 40) 0.010"	1"	12.169	2.169

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	Lab ID	LEL %	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL) 18.2
1			SWMU318-TW02-00			Fine sand, trace silt, damp, loam, grass roots dark brown (0.3)	cuttings	17.9
2	M-1	3.6 90%		0.0%	0.0 / 0.0	fine sand, some silt, moist, grayish brown, clay lenses	riser	
3								
4						(4.0)	bentonite	14.2
5							sand	
6	A-N					(6.0)	riser	12.2
7						Fine sand, trace silt, wet, light brown (6.4)		11.8
8	M-2	4.0 100%	SWMU318-TW02-04	0.0%	0.0 / 0.0	Clay, moist, plastic, gray, orange motteling	sand	
9							screen	
10						Sand, some clay, wet, semi-plastic, light gray (9.8 / 10)		8.4 8.2
	A-N						sand	

DRILLING CO.:	Parratt Wolff Inc.	BAKER REP.:	David D. Schilling
DRILLER:	Mark Eaves / Jim Robertson	BORING NO.:	SWMU318- TW02 SHEET 1 OF 2

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation
CTO NO.: CTO-0143 BORING NO.: SWMU318- TW02

SAMPLE TYPE
M = Macro Core 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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
ps/bg = point source/background

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	Lab ID	LEL %	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL) 7.7
11						Continued from Sheet 1		
12	A-N						sand	
13								
14							screen	
15	A-N						sand	
16								2.2
17						End of Boring = 16.0		
18								
19								
20								
21								
22								
23								
24								
25								
26								
27								
28								
29								
30								

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: David D. Schilling
DRILLER: Mark Eaves / Jim Robertson BORING NO.: SWMU318- TW02 SHEET 2 OF 2

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT:	SWMU Investigation			
PROJ. NO.:	CTO-0143		BORING NO.:	SWMU318- TW03
COORDINATES:	EAST:	2467269.820	NORTH:	355800.943
ELEVATION:	SURFACE:	17.791	TOP OF PVC CASING:	17.798

Rig:	A-200 Ingersol Ram				Date	Progress (Ft.)	Comments	Depth to Water (Ft.)
	Macro Core	Casing	Augers	Acetate sleave				
Size (ID)	2"		3.25	2"	3/19/02	17	estimated	8.7
Length	4		5'	4'				
Type	SS		S	Acetate				
Hammer Wt.	NA		NA	NA				
Fall	NA		NA	NA				

Remarks:

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

WELL INFORMATION

Type	Diam.	Top Depth (Ft.)	Bottom Depth (Ft.)
PVC Riser (Schedule 40)	1"	17.798	10.798
PVC screen (Schedule 40) 0.010"	1"	10.798	0.798

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	Lab ID	LEL %	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL) 17.8
1			SWMU318-TW03-00			Fine sand, trace silt, damp, dark brown		
1.3								16.5
2	M-1	4 100%		0.0%	0.0 / 0.0	Fine sand, some clay, damp, semi-plastic, brown	cuttings	
3							riser	14.8
4							bentonite	13.8
4.0								
4.9								12.9
5						Clay, trace fine sand, moist, plastic grayish brown		
6	M-2	4.0 100%		0.0%	0.0 / 0.0		riser	
7							sand	
8								9.8
8.0								
8.7								9.1
9			SWMU318-TW03-04			Fine sand, trace silt, wet, gray	screen	
10	M-3	3.4 85%		0.0%	0.0 / 0.0		sand	

DRILLING CO.:	Parratt Wolff Inc.	BAKER REP.:	David D. Schilling
DRILLER:	Mark Eaves / Jim Robertson	BORING NO.:	SWMU318- TW03 SHEET 1 OF 2

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation
CTO NO.: CTO-0143 BORING NO.: SWMU318- TW03

SAMPLE TYPE
M = Macro Core 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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
ps/bg = point source/background

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	Lab ID	LEL %	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL) 7.3
11						Continued from Sheet 1		
12						Fine sand, trace silt, wet, gray	sand	5.8
13								
14	M-4	4.0 100%		0.0%	0.0 / 0.0		screen	
15								
16								
17	A-N						sand	0.8
18						End of Boring = 17.0		
19								
20								
21								
22								
23								
24								
25								
26								
27								
28								
29								
30								

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: David D. Schilling
DRILLER: Mark Eaves / Jim Robertson BORING NO.: SWMU318- TW03 SHEET 2 OF 2

Baker Environmental

TEST BORING RECORD

PROJECT: SWMU Investigation
PROJ. NO.: CTO-0143 BORING NO.: SWMU319-SB01
COORDINATES: EAST: NORTH:
ELEVATION: SURFACE:

Rig:	Macro Core	Casing	Augers	Acetate Sleeve	Date	Progress (Ft.)	Comments	Depth to Water (Ft.)
Size (ID)	2"		3.25	2"	3/20/01	4'	approximate	4
Length	4'		5'	4'				
Type	SS		S	Acetate				
Hammer Wt.	NA		NA	NA				
Fall	NA		NA	NA				

Remarks:

SAMPLE TYPE
M = Macro Core 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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
BG/PS = Background/Point Source
ppm = parts per million

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	Lab ID	LEL %	PID (ppm) ps/bg	Visual Description	Elevation (Ft. MSL)
1–4	M-1	3.5 88%	SWMU319-SB01-00 / SWMU319-SB01-01	0.0%	0.0 / 0.0	brown fine silty sand	4.0 -4.00
5–10						End of Boring = 4.0	

DRILLING COMPANY: Parratt Wolff Inc. BAKER REP.: R. Marks
DRILLER: Louis LaFever BORING NO.: SWMU319-SB01 SHEET 1 OF 6

Baker Environmental

TEST BORING RECORD

PROJECT: SWMU Investigation
CTO NO.: CTO-0143 BORING NO.: SWMU319-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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
ps/bg = point source/background

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	SPT	Lab ID	PID (ppm) ps/bg	Visual Description	Elevation (Ft. MSL)
11						Continued from Sheet 1	
12							
13							
14							
15							
16							
17							
18							
19							
20							
21							
22							
23							
24							
25							
26							
27							
28							
29							
30						Match to Sheet 3	

DRILLING COMPANY: Parratt Wolff Inc. BAKER REP.: R. Marks
DRILLER: Louis LaFever BORING NO.: SWMU319-SB SHEET 2 OF 6

Baker Environmental

TEST BORING RECORD

PROJECT: SWMU Investigation
CTO NO.: CTO-0143 BORING NO.: SWMU319-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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
ps/bg = point source/background

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	SPT	Lab ID	PID (ppm) ps/bg	Visual Description	Elevation (Ft. MSL)
31						Continued from Sheet 2	
32							
33							
34							
35							
36							
37							
38							
39							
40							
41							
42							
43							
44							
45							
46							
47							
48							
49							
50						Match to Sheet 4	

DRILLING COMPANY: Parratt Wolff Inc. BAKER REP.: R. Marks
DRILLER: Louis LaFever BORING NO.: SWMU319-SB SHEET 3 OF 6

Baker Environmental

TEST BORING RECORD

PROJECT: SWMU Investigation
CTO NO.: CTO-0143 BORING NO.: SWMU319-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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
ps/bg = point source/background

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	SPT	Lab ID	PID (ppm) ps/bg	Visual Description	Elevation (Ft. MSL)
51						Continued from Sheet 3	
52							
53							
54							
55							
56							
57							
58							
59							
60							
61							
62							
63							
64							
65							
66							
67							
68							
69							
70						Match to Sheet 5	

DRILLING COMPANY: Parratt Wolff Inc. BAKER REP.: R. Marks
DRILLER: Louis LaFever BORING NO.: SWMU319-SB SHEET 4 OF 6

Baker Environmental

TEST BORING RECORD

PROJECT: SWMU Investigation
CTO NO.: CTO-0143 BORING NO.: SWMU319-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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
ps/bg = point source/background

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	SPT	Lab ID	PID (ppm) ps/bg	Visual Description	Elevation (Ft. MSL)
71						Continued from Sheet 4	
72							
73							
74							
75							
76							
77							
78							
79							
80							
81							
82							
83							
84							
85							
86							
87							
88							
89							
90						Match to Sheet 6	

DRILLING COMPANY: Parratt Wolff Inc. BAKER REP.: R. Marks
DRILLER: Louis LaFever BORING NO.: SWMU319-SB SHEET 5 OF 6

Baker Environmental

TEST BORING RECORD

PROJECT: SWMU Investigation
CTO NO.: CTO-0143 BORING NO.: SWMU319-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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
ps/bg = point source/background

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	SPT	Lab ID	PID (ppm) ps/bg	Visual Description	Elevation (Ft. MSL)
91						Continued from Sheet 5	
92							
93							
94							
95							
96							
97							
98							
99							
100							
101							
102							
103							
104							
105							
106							
107							
108							
109							
110							

DRILLING COMPANY: Parratt Wolff Inc. BAKER REP.: R. Marks
DRILLER: Louis LaFever BORING NO.: /MU319-SE SHEET 6 OF 6

Baker
Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation
PROJ. NO.: CTO-0143 BORING NO.: SWMU336- TW01
COORDINATES: EAST: NORTH:
ELEVATION: SURFACE: TOP OF PVC CASING:

Rig:	A-200 Ingersol Ram				Date	Progress (Ft.)	Comment	Depth to Water (Ft.)
	Macro Core	Casing	Augers	Acetate sleave				
Size (ID)	2"		3.25	2"	3/20/02	16	estimated	8
Length	4		5'	4'				
Type	SS		S	Acetate				
Hammer Wt.	NA		NA	NA				
Fall	NA		NA	NA				

Remarks:

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

WELL INFORMATION

Type	Diam.	Top Depth (Ft.)	Bottom Depth (Ft.)
PVC Riser (Schedule 40)	1"		
PVC screen (Schedule 40) 0.010"	1"		

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	Lab ID	LEL %	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
1			SWMU336-TW01-00			Fine sand, trace silt, loam, moist, brown (0.3)	cuttings	
2	M-1	3.4 85%		0.0%	0.0 / 0.0	Fine sand, trace silt, moist, brown (1.9)	riser	
3						Fine sand, and clay, moist, brown	bentonite	
4						(4.0)	riser	
5						Fine sand, trace silt, wet, gray (4.4)	sand	
6	M-2	2.7 68%		0.0%	0.0 / 0.0	Clay, moist, plastic, brownish gray (4.6) Clay, little sand, moist, plastic, brownish gray	screen	
7								
8 ▼						(8.0)	sand	
9			SWMU336-TW01-04			Fine sand, little clay, wet, light gray, trace orange motteling	screen	
10	M-3	4.0 100%		0.0%	0.0 / 0.0		sand	

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: David D. Schilling
DRILLER: Mark Eaves / Jim Robertson BORING NO.: SWMU336- TW01 SHEET 1 OF 2

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation
CTO NO.: CTO-0143 BORING NO.: SWMU336- TW01

SAMPLE TYPE
M = Macro Core 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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
ps/bg = point source/background

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	Lab ID	LEL %	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
11						Continued from Sheet 1		
12							sand	
13						Fine sand, little clay, wet, light gray, trace orange motteling	screen	
14	M-4	4.0 100%		0.0%	0.0 / 0.0			
15							15.0 sand	
16							16.0	
17						End of Boring = 16.0		
18								
19								
20								
21								
22								
23								
24								
25								
26								
27								
28								
29								
30								

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: David D. Schilling
DRILLER: Mark Eaves / Jim Robertson BORING NO.: SWMU336- TW01 SHEET 2 OF 2

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation
PROJ. NO.: CTO-0143 BORING NO.: SWMU336- TW02
COORDINATES: EAST: NORTH:
ELEVATION: SURFACE: TOP OF PVC CASING:

Rig: A-200 Ingersol Ram	Macro Core	Casing	Augers	Acetate sleave	Date	Progress (Ft.)	Comment	Depth to Water (Ft.)
Size (ID)	2"		3.25	2"	3/20/02	15	estimated	7.7
Length	4		5'	4'				
Type	SS		S	Acetate				
Hammer Wt.	NA		NA	NA				
Fall	NA		NA	NA				

Remarks:

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

WELL INFORMATION

Type	Diam.	Top Depth (Ft.)	Bottom Depth (Ft.)
PVC Riser (Schedule 40)	1"		
PVC screen (Schedule 40) 0.010"	1"		

Depth (Ft.)		Sample Type & No.	Sample Rec. (Ft.,%)	Lab ID	LEL %	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
1		M-1	4.0 100%	SWMU336-TW02-00	0.0%	0.0 / 0.0	Fine sand, some clay, moist, semi-plastic, dark brown	cuttings; riser; bentonite	
2									
3							3.0		
4							Clay, trace fine sand, moist, plastic, orange motteling 4.0	riser; sand	
5		A-N							
6								screen	
7		M-2	3.7 93%	SWMU336-TW02-04	0.0%	0.0 / 0.0	Clay and fine sand, moist, plastic, light gray	sand	
8	▼						7.7		
9							Clay and fine sand, wet, plastic, light gray, orange motteling	screen	
10							10.0		
		A-N						sand	

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: David D. Schilling
DRILLER: Mark Eaves / Jim Robertson BORING NO.: SWMU336- TW02 SHEET 1 OF 2

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation
CTO NO.: CTO-0143 BORING NO.: SWMU336- TW02

SAMPLE TYPE
M = Macro Core 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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
ps/bg = point source/background

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	Lab ID	LEL %	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
11						Continued from Sheet 1		
12							sand	
13							screen	
14								
15							15.0 sand	
16						End of Boring = 15.0		
17								
18								
19								
20								
21								
22								
23								
24								
25								
26								
27								
28								
29								
30								

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: David D. Schilling
DRILLER: Mark Eaves / Jim Robertson BORING NO.: SWMU336- TW02 SHEET 2 OF 2

Baker Environmental

TEST BORING RECORD

PROJECT: SWMU Investigation
PROJ. NO.: CTO-0143 BORING NO.: SWMU339-IS01-01
COORDINATES: EAST: NORTH:
ELEVATION: SURFACE:

Rig:	Macro Core	Casing	Augers	Acetate Sleeve	Date	Progress (Ft.)	Comments	Depth to Water (Ft.)
Size (ID)	2"		3.25	2"	3/20/01	4'		
Length	4'		5'	4'				
Type	SS		S	Acetate				
Hammer Wt.	NA		NA	NA				
Fall	NA		NA	NA				

Remarks:

SAMPLE TYPE
M = Macro Core 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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
BG/PS = Background/Point Source
ppm = parts per million

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	Lab ID	LEL %	PID (ppm) ps/bg	Visual Description	Elevation (Ft. MSL)
1	M-1			0.0%	0.0 / 0.0	vf. sandy silt, dk grey	
2							
3			SWMU339-IS01-01				
4						4.0	-4.00
5						End of Boring = 4.0	
6							
7							
8							
9							
10							

DRILLING COMPANY: Parratt Wolff Inc. BAKER REP.: R. Marks
DRILLER: Louis LaFever BORING NO.: SWMU339-IS01-0 SHEET 1 OF 6

Baker Environmental

TEST BORING RECORD

PROJECT: SWMU Investigation
CTO NO.: CTO-0143 BORING NO.: SWMU339-IS01-01

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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
ps/bg = point source/background

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	SPT	Lab ID	PID (ppm) ps/bg	Visual Description	Elevation (Ft. MSL)
11						Continued from Sheet 1	
12							
13							
14							
15							
16							
17							
18							
19							
20							
21							
22							
23							
24							
25							
26							
27							
28							
29							
30						Match to Sheet 3	

DRILLING COMPANY: Parratt Wolff Inc. BAKER REP.: R. Marks
DRILLER: Louis LaFever BORING NO.: SWMU339-IS(SHEET 2 OF 6

Baker Environmental

TEST BORING RECORD

PROJECT: SWMU Investigation
CTO NO.: CTO-0143 BORING NO.: SWMU339-IS01-01

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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
ps/bg = point source/background

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	SPT	Lab ID	PID (ppm) ps/bg	Visual Description	Elevation (Ft. MSL)
31						Continued from Sheet 2	
32							
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50						Match to Sheet 4	

DRILLING COMPANY: Parratt Wolff Inc. BAKER REP.: R. Marks
DRILLER: Louis LaFever BORING NO.: SWMU339-IS(SHEET 3 OF 6

Baker Environmental

TEST BORING RECORD

PROJECT: SWMU Investigation
CTO NO.: CTO-0143 BORING NO.: SWMU339-IS01-01

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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
ps/bg = point source/background

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	SPT	Lab ID	PID (ppm) ps/bg	Visual Description	Elevation (Ft. MSL)
51						Continued from Sheet 3	
52							
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67							
68							
69							
70						Match to Sheet 5	

DRILLING COMPANY: Parratt Wolff Inc. BAKER REP.: R. Marks
DRILLER: Louis LaFever BORING NO.: SWMU339-IS(SHEET 4 OF 6

Baker Environmental

TEST BORING RECORD

PROJECT: SWMU Investigation
CTO NO.: CTO-0143 BORING NO.: SWMU339-IS01-01

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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
ps/bg = point source/background

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	SPT	Lab ID	PID (ppm) ps/bg	Visual Description	Elevation (Ft. MSL)
71						Continued from Sheet 4	
72							
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89							
90						Match to Sheet 6	

DRILLING COMPANY: Parratt Wolff Inc. BAKER REP.: R. Marks
DRILLER: Louis LaFever BORING NO.: SWMU339-IS(SHEET 5 OF 6

Baker Environmental

TEST BORING RECORD

PROJECT: SWMU Investigation
CTO NO.: CTO-0143 BORING NO.: SWMU339-IS01-01

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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
ps/bg = point source/background

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	SPT	Lab ID	PID (ppm) ps/bg	Visual Description	Elevation (Ft. MSL)
91						Continued from Sheet 5	
92							
93							
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DRILLING COMPANY: Parratt Wolff Inc. BAKER REP.: R. Marks
DRILLER: Louis LaFever BORING NO.: MU339-IS0 SHEET 6 OF 6

Baker
Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation
PROJ. NO.: CTO-0143 BORING NO.: SWMU339-TW01
COORDINATES: EAST: 2465139.710 NORTH: 355481.037
ELEVATION: SURFACE: 20.312 TOP OF PVC CASING: 20.14

Rig:	Macro Core	Casing	Augers	Acetate Sleeve	Date	Progress (Ft.)	Comments	Depth to Water (Ft.)
Size (ID)	2"		3.25	2"	3/20/02	16	estimated	6
Length	4'		5'	4'				
Type	SS		S	Acetate				
Hammer Wt.	NA		NA	NA				
Fall	NA		NA	NA				

Remarks:

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

WELL INFORMATION

Type		Diam.	Top Depth (Ft.)	Bottom Depth (Ft.)
PVC	Riser (Schedule 40)	1"	20.14	15.14
PVC	Screen (Schedule 40)	1"	15.14	5.14

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	Lab ID	LEL %	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
1–4	M-1	0.9 23%	SWMU339-TW01-00	0.0%	0.0 / 0.0	Dk grey v.f. sandy silt	cuttings; riser; bentonite; riser; sand	
5–8	M-2	3.3 83%	SWMU339-TW01-03	0.0%	0.0 / 0.0	mottled brown and grey clay (5.4)	screen; sand (8.0)	14.7; 12.1
9–10	M-3	2.2 55%		0.0%	0.0 / 0.0	grey silty clay wood in tip of core Match to Sheet 2	screen	

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: R. Marks
DRILLER: Louis LaFever BORING NO.: SWMU339-TW01 SHEET 1 OF 2

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation
CTO NO.: CTO-0143 BORING NO.: SWMU339-TW01

SAMPLE TYPE
M = Macro Core 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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
ps/bg = point source/background

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	Lab ID	LEL %	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
11						Continued from Sheet 1	sand	
12							screen	
13	M-4	3.5 88%		0.0%	0.0 / 0.0	grey silty clay wood in tip of core	sand	
14								
15								
16							16.0 cuttings	4.1
17						End of Boring = 16.0		
18								
19								
20								
21								
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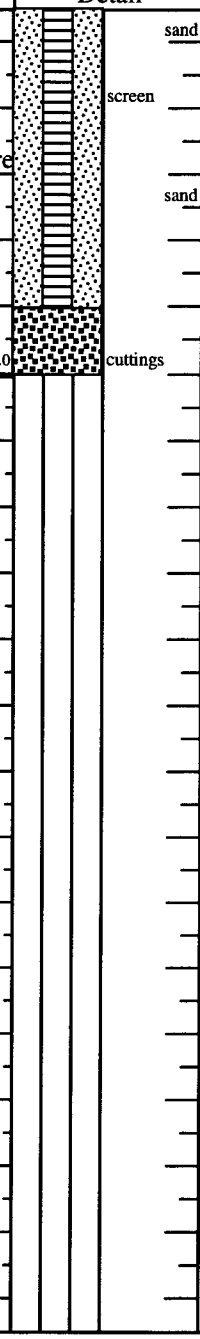
24								
25								
26								
27								
28								
29								
30						Match to Sheet 3		



DRILLING CO.: Parratt Wolff Inc. BAKER REP.: R. Marks
DRILLER: Louis LaFever BORING NO.: SWMU339-TW01 SHEET 2 OF 2

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation
CTO NO.: CTO-0143 BORING NO.: SWMU339-TW01

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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
BG/PS = Background/Point Source

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	SPT	Lab ID	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
31						Continued from Sheet 2		
32								
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50						Match to Sheet 4		

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: R. Marks
DRILLER: Louis LaFever BORING NO.: SWMU339-TV SHEET 3 OF 2

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation
CTO NO.: CTO-0143 BORING NO.: SWMU339-TW01

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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
BG/PS = Background/Point Source

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	SPT	Lab ID	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
51						Continued from Sheet 3		
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69								
70						Match to Sheet 5		

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: R. Marks
DRILLER: Louis LaFever BORING NO.: SWMU339-TV SHEET 4 OF 2

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation
CTO NO.: CTO-0143 BORING NO.: SWMU339-TW01

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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
BG/PS = Background/Point Source

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	SPT	Lab ID	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
71						Continued from Sheet 5		
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90						Match to Sheet 6		

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: R. Marks
DRILLER: Louis LaFever BORING NO.: SWMU339-TV SHEET 5 OF 2

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation
CTO NO.: CTO-0143 BORING NO.: SWMU339-TW01

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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
ps/bg = point source/background

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	SPT	Lab ID	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
91						Continued from Sheet 1		
92								
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DRILLING CO.: Parratt Wolff Inc. BAKER REP.: R. Marks
DRILLER: Louis LaFever BORING NO.: SWMU339-TW SHEET 6 OF 2

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation
PROJ. NO.: CTO-0143 BORING NO.: SWMU339-TW02
COORDINATES: EAST: 2465149.640 NORTH: 355507.12
ELEVATION: SURFACE: 20.41 TOP OF PVC CASING: 20.09

Rig:	Macro Core	Casing	Augers	Acetate Sleeve	Date	Progress (Ft.)	Comments	Depth to Water (Ft.)
Size (ID)	2"		3.25	2"	3/20/02	15	estimated	6
Length	4'		5'	4'				
Type	SS		S	Acetate				
Hammer Wt.	NA		NA	NA				
Fall	NA		NA	NA				

Remarks:

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

WELL INFORMATION

Type		Diam.	Top Depth (Ft.)	Bottom Depth (Ft.)
PVC	Riser (Schedule 40)	1"	20.09	15.09
PVC	Screen (Schedule 40)	1"	15.09	5.09

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	Lab ID	LEL %	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
1–4	M-1		SWMU339-TW02-00	0.0%	0.0 / 0.0	Dk grey v.f. sandy silt	cuttings; riser; bentonite; riser; sand	
5–8	M-2		SWMU339-TW02-03	0.0%	0.0 / 0.0	mottled brown and grey clay	5.4 screen; sand; 8.0	14.7; 12.1
9–10	A-N					For complete geology see log SWMU339-TW01	screen	

Match to Sheet 2

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: R. Marks
DRILLER: Louis LaFever BORING NO.: SWMU339-TW02 SHEET 1 OF 2

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation
CTO NO.: CTO-0143 BORING NO.: SWMU339-TW02

SAMPLE TYPE
M = Macro Core 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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
ps/bg = point source/background

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	Lab ID	LEL %	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
11						Continued from Sheet 1	sand	
12							screen	
13	A-N						sand	
14								
15						15.0		5.1
16						End of boring = 15.0		
17								
18								
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29								
30						Match to Sheet 3		

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: R. Marks
DRILLER: Louis LaFever BORING NO.: SWMU339-TW02 SHEET 2 OF 2

Baker

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation

CTO NO.: CTO-0143 BORING NO.: SWMU339-TW02

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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
BG/PS = Background/Point Source

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	SPT	Lab ID	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
31						Continued from Sheet 2		
32								
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50						Match to Sheet 4		

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: R. Marks

DRILLER: Louis LaFever BORING NO.: SWMU339-TV SHEET 3 OF 2

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation
CTO NO.: CTO-0143 BORING NO.: SWMU339-TW02

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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
BG/PS = Background/Point Source

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	SPT	Lab ID	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
51						Continued from Sheet 3		
52								
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70						Match to Sheet 5		

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: R. Marks
DRILLER: Louis LaFever BORING NO.: SWMU339-TV SHEET 4 OF 2

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation
CTO NO.: CTO-0143 BORING NO.: SWMU339-TW02

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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
BG/PS = Background/Point Source

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	SPT	Lab ID	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
71						Continued from Sheet 5		
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90						Match to Sheet 6		

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: R. Marks
DRILLER: Louis LaFever BORING NO.: SWMU339-TV SHEET 5 OF 2

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation
CTO NO.: CTO-0143 BORING NO.: SWMU339-TW02

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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
ps/bg = point source/background

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	SPT	Lab ID	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
91						Continued from Sheet 1		
92								
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DRILLING CO.: Parratt Wolff Inc. BAKER REP.: R. Marks
DRILLER: Louis LaFever BORING NO.: SWMU339-TV SHEET 6 OF 2

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation
PROJ. NO.: CTO-0143 BORING NO.: SWMU339-TW03
COORDINATES: EAST: 2465167.161 NORTH: 355475.363
ELEVATION: SURFACE: 20.82 TOP OF PVC CASING: 20.51

Rig:	Macro Core	Casing	Augers	Acetate Sleeve	Date	Progress (Ft.)	Comments	Depth to Water (Ft.)
Size (ID)	2"		3.25	2"	3/20/02	15	estimated	6
Length	4'		5'	4'				
Type	SS		S	Acetate				
Hammer Wt.	NA		NA	NA				
Fall	NA		NA	NA				

Remarks:

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

WELL INFORMATION

Type		Diam.	Top Depth (Ft.)	Bottom Depth (Ft.)
PVC	Riser (Schedule 40)	1"	20.51	15.51
PVC	Screen (Schedule 40)	1"	15.51	5.51

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	Lab ID	LEL %	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
1–4	M-1		SWMU339-TW03-00	0.0%	0.0 / 0.0	Dk grey v.f. sandy silt	cuttings; riser; bentonite; riser; sand	
5–8	M-2		SWMU339-TW03-02	0.0%	0.0 / 0.0	Mottled brown and grey clay (5.4)	screen; sand (8.0)	15.11
9–10	A-N					For complete geology see log SWMU339-TW01 Match to Sheet 2	screen	12.51

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: R. Marks
DRILLER: Louis LaFever BORING NO.: SWMU339-TW03 SHEET 1 OF 2

Baker
Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation
CTO NO.: CTO-0143 BORING NO.: SWMU339-TW03

SAMPLE TYPE
M = Macro Core 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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
ps/bg = point source/background

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	Lab ID	LEL %	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
11						Continued from Sheet 1	sand	
12							screen	
13	A-N							
14							sand	
15						15.0	screen	5.51
16						End of boring = 15.0		
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23								
24								
25								
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27								
28								
29								
30						Match to Sheet 3		

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: R. Marks
DRILLER: Louis LaFever BORING NO.: SWMU339-TW03 SHEET 2 OF 2

Baker
Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation
CTO NO.: CTO-0143 BORING NO.: SWMU339-TW03

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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
BG/PS = Background/Point Source

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	SPT	Lab ID	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
31						Continued from Sheet 2		
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50						Match to Sheet 4		

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: R. Marks
DRILLER: Louis LaFever BORING NO.: SWMU339-TV SHEET 3 OF 2

Baker
Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation
CTO NO.: CTO-0143 BORING NO.: SWMU339-TW03

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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
BG/PS = Background/Point Source

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	SPT	Lab ID	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
51						Continued from Sheet 3		
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70						Match to Sheet 5		

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: R. Marks
DRILLER: Louis LaFever BORING NO.: SWMU339-TV SHEET 4 OF 2

Baker

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation

CTO NO.: CTO-0143 BORING NO.: SWMU339-TW03

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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
BG/PS = Background/Point Source

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	SPT	Lab ID	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
71						Continued from Sheet 5		
72								
73								
74								
75								
76								
77								
78								
79								
80								
81								
82								
83								
84								
85								
86								
87								
88								
89								
90						Match to Sheet 6		

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: R. Marks

DRILLER: Louis LaFever BORING NO.: SWMU339-TW SHEET 5 OF 2

Baker
Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation
CTO NO.: CTO-0143 BORING NO.: SWMU339-TW03

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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
ps/bg = point source/background

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	SPT	Lab ID	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
91						Continued from Sheet 1		
92								
93								
94								
95								
96								
97								
98								
99								
100								
101								
102								
103								
104								
105								
106								
107								
108								
109								
110								

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: R. Marks
DRILLER: Louis LaFever BORING NO.: SWMU339-TW SHEET 6 OF 2

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation
PROJ. NO.: CTO-0143 BORING NO.: SWMU359-TW01
COORDINATES: EAST: NORTH:
ELEVATION: SURFACE: TOP OF PVC CASING:

Rig: A-200 Ingersol Ram								
	Macro Core	Casing	Augers	Acetate sleave	Date	Progress (Ft.)	Comment	Depth to Water (Ft.)
Size (ID)	2"		3.25	2"	3/26/02	13	estimated	6.6
Length	4		5'	4'				
Type	SS		S	Acetate				
Hammer Wt.	NA		NA	NA				
Fall	NA		NA	NA				

Remarks:

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

WELL INFORMATION

Type	Diam.	Top Depth (Ft.)	Bottom Depth (Ft.)
PVC Riser (Schedule 40)	1"		
PVC screen (Schedule 40) 0.010"	1"		

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	Lab ID	LEL %	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
1–4	M-1	1.6 40%		0.0%	0.0 / 0.0	Fine sand, trace silt, moist, brown (1.4); Fine sand, trace silt, moist, wood fragments, brown (4.0)	bentonite; riser; sand; screen	
5–8	M-2	3.4 85%	SWMU359-TW01-03	0.0%	0.0 / 0.0	Fine sand, trace silt, moist, brown (5.2); Fine sand, trace silt, moist, brown, orange staining (6.6); Fine sand, trace silt, wet, light gray, orange staining (8.0)	sand; screen; sand; screen	
9–10	M-3	3.2 80%		0.0%	0.0 / 0.0	Fine sand, trace silt, wet, orangish brown	sand; screen; sand	

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: David D. Schilling
DRILLER: Mark Eaves / Jim Robertson BORING NO.: SWMU359-TW01 SHEET 1 OF 2

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation
CTO NO.: CTO-0143 BORING NO.: SWMU359-TW01

SAMPLE TYPE
M = Macro Core 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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
ps/bg = point source/background

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	Lab ID	LEL %	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
11						Continued from sheet 1	sand	
12						Fine sand, trace silt, wet, orangish brown 12.0	screen	
13	A-N					13.0	sand	
14						End of Boring = 13.0'		
15								
16								
17								
18								
19								
20								
21								
22								
23								
24								
25								
26								
27								
28								
29								
30								

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: David D. Schilling
DRILLER: Mark Eaves / Jim Robertson BORING NO.: SWMU359-TW01 SHEET 2 OF 2

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation
PROJ. NO.: CTO-0143 BORING NO.: SWMU359-TW02
COORDINATES: EAST: NORTH:
ELEVATION: SURFACE: TOP OF PVC CASING:

Rig:	A-200 Ingersol Ram				Date	Progress (Ft.)	Comment	Depth to Water (Ft.)
	Macro Core	Casing	Augers	Acetate sleave				
Size (ID)	2"		3.25	2"	3/26/02	13	estimated	5
Length	4		5'	4'				
Type	SS		S	Acetate				
Hammer Wt.	NA		NA	NA				
Fall	NA		NA	NA				

Remarks:

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

WELL INFORMATION

Type	Diam.	Top Depth (Ft.)	Bottom Depth (Ft.)
PVC Riser (Schedule 40)	1"		
PVC screen (Schedule 40) 0.010"	1"		

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	Lab ID	LEL %	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
1						Fine sand, trace silt, moist, brown orange staining	bentonite	
1.4								
2	M-1	3.3 83%		0.0%	0.0 / 0.0	Fine sand, trace silt, moist, brownish gray	riser	
3							sand	
4							screen	
5	▼		SWMU359-TW02-02				sand	
5.0								
6	M-2	3.5 88%		0.0%	0.0 / 0.0	fine sand, trace silt, wet, light gray	screen	
7							sand	
8							screen	
8.0								
9	A-N						sand	
10	A-N						screen	
							sand	

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: David D. Schilling
DRILLER: Mark Eaves / Jim Robertson BORING NO.: SWMU359-TW02 SHEET 1 OF 2

Baker
Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation
CTO NO.: CTO-0143 BORING NO.: SWMU359-TW02

SAMPLE TYPE
M = Macro Core 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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
ps/bg = point source/background

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	Lab ID	LEL %	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
11						Continued from sheet 1	sand	
12	A-N						screen	
13	A-N					13.0	sand	
14						End of Boring = 13.0'		
15								
16								
17								
18								
19								
20								
21								
22								
23								
24								
25								
26								
27								
28								
29								
30								

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: David D. Schilling
DRILLER: Mark Eaves / Jim Robertson BORING NO.: SWMU359-TW02 SHEET 2 OF 2

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation
PROJ. NO.: CTO-0143 BORING NO.: SWMU360-TW01
COORDINATES: EAST: 2499978.531 NORTH: 334962.331
ELEVATION: SURFACE: 26.23 TOP OF PVC CASING: 28.24

Rig:	Macro Core	Casing	Augers	Acetate Sleeve	Date	Progress (Ft.)	Comments	Depth to Water (Ft.)
Size (ID)	2"		3.25	2"	3/25/02	28	estimated	23
Length	4'		5'	4'				
Type	SS		S	Acetate				
Hammer Wt.	NA		NA	NA				
Fall	NA		NA	NA				

Remarks:

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

WELL INFORMATION

Type	Diam.	Top Depth (Ft.)	Bottom Depth (Ft.)
PVC Riser (Schedule 40)	1"	28.24	
PVC Screen (Schedule 40)	1"		

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	Lab ID	LEL %	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
1	M-1		SWMU360 TW01-00	0.0%	0.0 / 0.0	gravel fill (0.5)	riser	27.7
2						brown/grey sand and silt	cuttings	
3			SWMU360 TW01-02				riser	
4						(4.0)	cuttings	24.2
5	A-N					For complete geology see log SWMU360-TW04	riser	
6								
7							cuttings	
8								
9	A-N						riser	
10						Match to Sheet 2		

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: R. Marks
DRILLER: Louis LaFever BORING NO.: SWMU360-TW01 SHEET 1 OF 2

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation
CTO NO.: CTO-0143 BORING NO.: SWMU360-TW01

SAMPLE TYPE
M = Macro Core 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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
ps/bg = point source/background

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	Lab ID	LEL %	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
11						Continued from Sheet 1	cuttings	
12						12.0	riser	16.2
13	M-2		SWMU360 TW01-07	0.0%		fine sand w/silt	cuttings	
14								
15							bentonite	
16						16.0		12.2
17						fine sand trace clay, little silt	riser	
18						little clay zones, grey at the bottom	sand	
19						brn and grey at the top	screen	
20						damp 20.0	sand	8.2
21								
22	A-N						screen	
23	▼						sand	
24							screen	
25								
26								
27							sand	
28						28.0	screen	0.2
29						End of Boring = 28.0		
30						Match to Sheet 3		

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: R. Marks
DRILLER: Louis LaFever BORING NO.: SWMU360-TW01 SHEET 2 OF 2

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation
CTO NO.: CTO-0143 BORING NO.: SWMU360-TW01

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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
BG/PS = Background/Point Source

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	SPT	Lab ID	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
31						Continued from Sheet 2		
32								
33								
34								
35								
36								
37								
38								
39								
40								
41								
42								
43								
44								
45								
46								
47								
48								
49								
50						Match to Sheet 4		

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: R. Marks
DRILLER: Louis LaFever BORING NO.: SWMU360-TV SHEET 3 OF 2

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation
CTO NO.: CTO-0143 BORING NO.: SWMU360-TW01

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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
BG/PS = Background/Point Source

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	SPT	Lab ID	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
51						Continued from Sheet 3		
52								
53								
54								
55								
56								
57								
58								
59								
60								
61								
62								
63								
64								
65								
66								
67								
68								
69								
70						Match to Sheet 5		

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: R. Marks
DRILLER: Louis LaFever BORING NO.: SWMU360-TV SHEET 4 OF 2

Baker
Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation
CTO NO.: CTO-0143 BORING NO.: SWMU360-TW01

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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
BG/PS = Background/Point Source

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	SPT	Lab ID	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
71						Continued from Sheet 5		
72								
73								
74								
75								
76								
77								
78								
79								
80								
81								
82								
83								
84								
85								
86								
87								
88								
89								
90						Match to Sheet 6		

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: R. Marks
DRILLER: Louis LaFever BORING NO.: SWMU360-TW SHEET 5 OF 2

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation
CTO NO.: CTO-0143 BORING NO.: SWMU360-TW01

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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
ps/bg = point source/background

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	SPT	Lab ID	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
91						Continued from Sheet 1		
92								
93								
94								
95								
96								
97								
98								
99								
100								
101								
102								
103								
104								
105								
106								
107								
108								
109								
110								

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: R. Marks
DRILLER: Louis LaFever BORING NO.: SWMU360-TV SHEET 6 OF 2

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation
PROJ. NO.: CTO-0143 BORING NO.: SWMU360-TW02
COORDINATES: EAST: 2499942.149 NORTH: 334906.876
ELEVATION: SURFACE: 26.07 TOP OF PVC CASING: 27.71

Rig:	Macro Core	Casing	Augers	Acetate Sleeve	Date	Progress (Ft.)	Comments	Depth to Water (Ft.)
Size (ID)	2"		3.25	2"	3/25/02	28	estimated	21.5
Length	4'		5'	4'				
Type	SS		S	Acetate				
Hammer Wt.	NA		NA	NA				
Fall	NA		NA	NA				

Remarks:

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

WELL INFORMATION

Type	Diam.	Top Depth (Ft.)	Bottom Depth (Ft.)
PVC Riser (Schedule 40)	1"	27.71	9.71
PVC Screen (Schedule 40)	1"	9.71	-0.29

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	Lab ID	LEL %	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
1	M-1		SWMU360 TW02-00	0.0%	0.0 / 0.0	gravel fill (0.5)	riser	27.2
2						brown/grey sand and silt	cuttings	
3			SWMU360 TW02-02				riser	
4						(4.0)	cuttings	23.7
5	A-N					For complete geology see log SWMU360-TW04	riser	
6								
7								
8							cuttings	
9	A-N						riser	
10						Match to Sheet 2		

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: R. Marks
DRILLER: Louis LaFever BORING NO.: SWMU360-TW02 SHEET 1 OF 2

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation
CTO NO.: CTO-0143 BORING NO.: SWMU360-TW02

SAMPLE TYPE
M = Macro Core 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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
ps/bg = point source/background

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	Lab ID	LEL %	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
11						Continued from Sheet 1	cuttings	
12	A-N						riser	
13								
14							cuttings	
15								
16							bentonite	
17	A-N						riser	
18							sand	
19							screen	
20						20.0	sand	7.7
21			SWMU360 TW02-11			fine sand little silt, trace clay grey w/brown staining, moist		
22	M-2						screen	
23							sand	
24						24.0	screen	3.70
25								
26								
27							sand	
28						28.0	screen	-0.3
29						End of Boring = 28.0		
30						Match to Sheet 3		

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: R. Marks
DRILLER: Louis LaFever BORING NO.: SWMU360-TW02 SHEET 2 OF 2

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation
CTO NO.: CTO-0143 BORING NO.: SWMU360-TW02

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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
BG/PS = Background/Point Source

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	SPT	Lab ID	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
31						Continued from Sheet 2		
32								
33								
34								
35								
36								
37								
38								
39								
40								
41								
42								
43								
44								
45								
46								
47								
48								
49								
50						Match to Sheet 4		

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: R. Marks
DRILLER: Louis LaFever BORING NO.: SWMU360-TV SHEET 3 OF 2

Baker

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation

CTO NO.: CTO-0143 BORING NO.: SWMU360-TW02

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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
BG/PS = Background/Point Source

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	SPT	Lab ID	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
51						Continued from Sheet 3		
52								
53								
54								
55								
56								
57								
58								
59								
60								
61								
62								
63								
64								
65								
66								
67								
68								
69								
70						Match to Sheet 5		

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: R. Marks

DRILLER: Louis LaFever BORING NO.: SWMU360-TV SHEET 4 OF 2

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation
CTO NO.: CTO-0143 BORING NO.: SWMU360-TW02

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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
BG/PS = Background/Point Source

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	SPT	Lab ID	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
71						Continued from Sheet 5		
72								
73								
74								
75								
76								
77								
78								
79								
80								
81								
82								
83								
84								
85								
86								
87								
88								
89								
90						Match to Sheet 6		

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: R. Marks
DRILLER: Louis LaFever BORING NO.: SWMU360-TV SHEET 5 OF 2

Baker

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation

CTO NO.: CTO-0143 BORING NO.: SWMU360-TW02

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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
ps/bg = point source/background

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	SPT	Lab ID	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
91						Continued from Sheet 1		
92								
93								
94								
95								
96								
97								
98								
99								
100								
101								
102								
103								
104								
105								
106								
107								
108								
109								
110								

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: R. Marks

DRILLER: Louis LaFever BORING NO.: SWMU360-TV SHEET 6 OF 2

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT:	SWMU Investigation		
PROJ. NO.:	CTO-0143	BORING NO.:	SWMU360-TW03
COORDINATES:	EAST: 2499982.935	NORTH:	334899.674
ELEVATION:	SURFACE: 26.53	TOP OF PVC CASING:	29.06

Rig:	Macro Core	Casing	Augers	Acetate Sleeve	Date	Progress (Ft.)	Comments	Depth to Water (Ft.)
Size (ID)	2"		3.25	2"	3/25/02	28	estimated	21.5
Length	4'		5'	4'				
Type	SS		S	Acetate				
Hammer Wt.	NA		NA	NA				
Fall	NA		NA	NA				

Remarks:

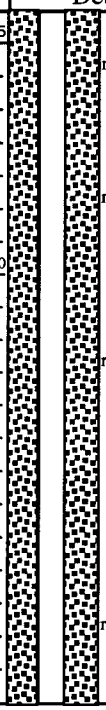
SAMPLE TYPE

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

WELL INFORMATION

Type		Diam.	Top Depth (Ft.)	Bottom Depth (Ft.)
PVC	Riser (Schedule 40)	1"	29.06	11.06
PVC	Screen (Schedule 40)	1"	11.06	1.06

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	Lab ID	LEL %	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
1	M-1		SWMU360 TW03-00	0.0%	0.0 / 0.0	gravel fill (0.5)	riser	28.5
2						brown/grey sand and silt	cuttings	
3			SWMU360 TW03-02				riser	
4						(4.0)	cuttings	25.0
5	A-N					For complete geology see log SWMU360-TW04	riser	
6								
7							cuttings	
8								
9	A-N						riser	
10						Match to Sheet 2		



DRILLING CO.:	Parratt Wolff Inc.	BAKER REP.:	R. Marks
DRILLER:	Louis LaFever	BORING NO.:	SWMU360-TW03 SHEET 1 OF 2

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation
CTO NO.: CTO-0143 BORING NO.: SWMU360-TW03

SAMPLE TYPE
M = Macro Core 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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
ps/bg = point source/background

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	Lab ID	LEL %	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
11						Continued from Sheet 1	cuttings	
12	A-N						riser	
13								
14							cuttings	
15								
16							bentonite	
17	A-N						riser	
18							sand	
19							screen	
20							20.0 sand	9.0
21			SWMU360 TW03-11			fine sand little silt, trace clay grey w/brown staining, moist		
22	M-2						screen	
23							sand	
24							24.0 screen	5.0
25								
26								
27							sand	
28							28.0 screen	1.0
29						End of Boring = 28.0		
30						Match to Sheet 3		

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: R. Marks
DRILLER: Louis LaFever BORING NO.: SWMU360-TW03 SHEET 2 OF 2

Baker
Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation
CTO NO.: CTO-0143 BORING NO.: SWMU360-TW03

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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
BG/PS = Background/Point Source

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	SPT	Lab ID	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
31						Continued from Sheet 2		
32								
33								
34								
35								
36								
37								
38								
39								
40								
41								
42								
43								
44								
45								
46								
47								
48								
49								
50						Match to Sheet 4		

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: R. Marks
DRILLER: Louis LaFever BORING NO.: SWMU360-TW SHEET 3 OF 2

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation
CTO NO.: CTO-0143 BORING NO.: SWMU360-TW03

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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
BG/PS = Background/Point Source

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	SPT	Lab ID	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
51						Continued from Sheet 3		
52								
53								
54								
55								
56								
57								
58								
59								
60								
61								
62								
63								
64								
65								
66								
67								
68								
69								
70						Match to Sheet 5		

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: R. Marks
DRILLER: Louis LaFever BORING NO.: SWMU360-TV SHEET 4 OF 2

Baker

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation

CTO NO.: CTO-0143 BORING NO.: SWMU360-TW03

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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
BG/PS = Background/Point Source

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	SPT	Lab ID	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
71						Continued from Sheet 5		
72								
73								
74								
75								
76								
77								
78								
79								
80								
81								
82								
83								
84								
85								
86								
87								
88								
89								
90						Match to Sheet 6		

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: R. Marks

DRILLER: Louis LaFever BORING NO.: SWMU360-TV SHEET 5 OF 2

Baker
Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation
CTO NO.: CTO-0143 BORING NO.: SWMU360-TW03

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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
ps/bg = point source/background

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	SPT	Lab ID	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
91						Continued from Sheet 1		
92								
93								
94								
95								
96								
97								
98								
99								
100								
101								
102								
103								
104								
105								
106								
107								
108								
109								
110								

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: R. Marks
DRILLER: Louis LaFever BORING NO.: SWMU360-TV SHEET 6 OF 2

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation
PROJ. NO.: CTO-0143 BORING NO.: SWMU360-TW04
COORDINATES: EAST: 2500038.689 NORTH: 334931.452
ELEVATION: SURFACE: 27.52 TOP OF PVC CASING: 29.72

Rig:	Macro Core	Casing	Augers	Acetate Sleeve	Date	Progress (Ft.)	Comments	Depth to Water (Ft.)
Size (ID)	2"		3.25	2"	3/25/02	28	estimated	23
Length	4'		5'	4'				
Type	SS		S	Acetate				
Hammer Wt.	NA		NA	NA				
Fall	NA		NA	NA				

Remarks:

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

WELL INFORMATION

Type		Diam.	Top Depth (Ft.)	Bottom Depth (Ft.)
PVC	Riser (Schedule 40)	1"	29.72	11.72
PVC	Screen (Schedule 40)	1"	11.72	1.72

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	Lab ID	LEL %	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
1–4	M-1	2.9 73%	SWMU360 TW04-00 / SWMU360 TW04-02	0.0%	0.0 / 0.0	gravel fill (0.5); brown/grey sand and silt	riser; cuttings	29.2
5–6	M-2	2.9 73%		0.0%	0.0 / 0.0	brown/grey sand and silt (6.7)	riser	23.0
7						sand and gravel (7.0)	cuttings	22.7
8						grey fine sand w/silt (7.6)		22.1
9	M-3	4 100%		0.0%	0.0 / 0.0	brown silt w/clay some f.sand (9.1)	riser	20.6
10						fine sand w/silt Match to Sheet 2	cuttings	

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: R. Marks
DRILLER: Louis LaFever BORING NO.: SWMU360-TW04 SHEET 1 OF 2

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation
CTO NO.: CTO-0143 BORING NO.: SWMU360-TW04

SAMPLE TYPE
M = Macro Core 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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
ps/bg = point source/background

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	Lab ID	LEL %	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
11						Continued from Sheet 1		
12							cuttings	
13	M-4	4.0 100%		0.0%	0.0 / 0.0	fine sand w/silt	riser	
14								
15							bentonite	
16								
17	M-5	2.1 53%		0.0%	0.0 / 0.0	fine sand little silt, grey, damp	riser	
18						18.0		11.7
19						Clay, trace silt w/sand stringers grey, rust staining grading to sand base, moist	screen	
20								
21	M-6	2.6 65%		0.0%	0.0 / 0.0		sand	
22								
23	▼							
24						23.4 rust and grey f/c sand with some f/c gravel and shell fragments, little clay wet	screen	6.3
25	A-N							
26								
27							sand	
28						28.0	screen	1.7
29						End of Boring = 28.0		
30								

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: R. Marks
DRILLER: Louis LaFever BORING NO.: SWMU360-TW04 SHEET 2 OF 2

Baker

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation

CTO NO.: CTO-0143 BORING NO.: SWMU360-TW04

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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
BG/PS = Background/Point Source

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	SPT	Lab ID	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
31						Continued from Sheet 2		
32								
33								
34								
35								
36								
37								
38								
39								
40								
41								
42								
43								
44								
45								
46								
47								
48								
49								
50						Match to Sheet 4		

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: R. Marks

DRILLER: Louis LaFever BORING NO.: SWMU360-TV SHEET 3 OF 2

Baker
Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation
CTO NO.: CTO-0143 BORING NO.: SWMU360-TW04

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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
BG/PS = Background/Point Source

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	SPT	Lab ID	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
51						Continued from Sheet 3		
52								
53								
54								
55								
56								
57								
58								
59								
60								
61								
62								
63								
64								
65								
66								
67								
68								
69								
70						Match to Sheet 5		

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: R. Marks
DRILLER: Louis LaFever BORING NO.: SWMU360-TV SHEET 4 OF 2

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation
CTO NO.: CTO-0143 BORING NO.: SWMU360-TW04

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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
BG/PS = Background/Point Source

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	SPT	Lab ID	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
71						Continued from Sheet 5		
72								
73								
74								
75								
76								
77								
78								
79								
80								
81								
82								
83								
84								
85								
86								
87								
88								
89								
90						Match to Sheet 6		

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: R. Marks
DRILLER: Louis LaFever BORING NO.: SWMU360-TV SHEET 5 OF 2

Baker
Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation
CTO NO.: CTO-0143 BORING NO.: SWMU360-TW04

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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
ps/bg = point source/background

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	SPT	Lab ID	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
91						Continued from Sheet 1		
92								
93								
94								
95								
96								
97								
98								
99								
100								
101								
102								
103								
104								
105								
106								
107								
108								
109								
110								

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: R. Marks
DRILLER: Louis LaFever BORING NO.: SWMU360-TV SHEET 6 OF 2

Baker Environmental

TEST BORING RECORD

PROJECT: SWMU Investigation
PROJ. NO.: CTO-0143 BORING NO.: SWMU361-SB02
COORDINATES: EAST: 2496388.215 NORTH: 336069.912
ELEVATION: SURFACE:

Rig: A-200 Ingersol Ram					Date	Progress (Ft.)	Comments	Depth to Water (Ft.)
	Macro Core	Casing	Augers	Acetate Sleave				
Size (ID)	2"		3.25	2"	3/24/02	12'	estimated	11.8
Length	4'		5'	4'				
Type	SS		S	Acetate				
Hammer Wt.	NA		NA	NA				
Fall	NA		NA	NA				

Remarks:

SAMPLE TYPE
M = Macro Core 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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
BG/PS = Background/Point Source
ppm = parts per million

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	Lab ID	LEL %	PID (ppm) ps/bg	Visual Description	Elevation (Ft. MSL)
1–4	M-1	3.8 95%	SWMU361-SB02-00	0.0%	0.0 / 0.0	Fine sand, trace silt, moist, orangish brown	
4.7							
5–8	M-2	3.1 78%		0.0%	0.0 / 0.0	Fine sand, trace silt, moist, light gray	
8.6							
9–10	M-3	4.0 100%		0.0%	0.0 / 0.0	Clay, trace sand, moist, plastic gray, orange staining	

DRILLING COMPANY: Parratt Wolff Inc. BAKER REP.: David D. Schilling
DRILLER: Mark Eaves / Jim Robertson BORING NO.: SWMU361-SB02 SHEET 1 OF 2

Baker
Baker Environmental

TEST BORING RECORD

PROJECT: SWMU Investigation
CTO NO.: CTO-0143 BORING NO.: SWMU361-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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
ps/bg = point source/background

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	Lab ID	LEL %	PID (ppm) ps/bg	Visual Description	Elevation (Ft. MSL)
11			SWMU361-SB02-06			Continued from Sheet 1	
						11.8	
12	▼					Fine sand, little clay, wet, gray, orange staining 12.0	
						End of Boring = 12.0	
13							
14							
15							
16							
17							
18							
19							
20							
21							
22							
23							
24							
25							
26							
27							
28							
29							
30						Match to Sheet 3	

DRILLING COMPANY: Parratt Wolff Inc. BAKER REP.: David D. Schilling
DRILLER: Mark Eaves / Jim Robertson BORING NO.: SWMU361-SB02 SHEET 2 OF 2

Baker Environmental

TEST BORING RECORD

PROJECT: SWMU Investigation
PROJ. NO.: CTO-0143 BORING NO.: SWMU361-SB03
COORDINATES: EAST: 2496385.418 NORTH: 336096.168
ELEVATION: SURFACE:

Rig: A-200 Ingersol Ram	Macro Core	Casing	Augers	Acetate Sleave	Date	Progress (Ft.)	Comments	Depth to Water (Ft.)
Size (ID)	2"		3.25	2"	3/24/02	16	estimated	10.2
Length	4'		5'	4'				
Type	SS		S	Acetate				
Hammer Wt.	NA		NA	NA				
Fall	NA		NA	NA				

Remarks:

SAMPLE TYPE
M = Macro Core 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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
BG/PS = Background/Point Source
ppm = parts per million

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	Lab ID	LEL %	PID (ppm) ps/bg	Visual Description	Elevation (Ft. MSL)
1			SWMU361-SB03-00			Fine sand, trace silt, moist, loam, dark brown, root, red brick fragments 0.6	
2	M-1	3.3 83%		0.0%	0.0 / 0.0	Fine sand, some clay, moist, orangish brown	
3						2.9	
4						Fine sand, trace silt, moist, brown	
5							
6	M-2	3.7 93%		0.0%	0.0 / 0.0		
7							
8						7.5 Fine sand, trace silt, moist, reddish brown 8.0	
9			SWMU361-SB03-05			Fine sand, trace silt, moist, light gray, orange staining	
10	M-3	3.0 100%		0.0%	0.0 / 0.0	10.2 Fine sand, trace silt, wet, gray, orange staining	

DRILLING COMPANY: Parratt Wolff Inc. BAKER REP.: David D. Schilling
DRILLER: Mark Eaves / Jim Robertson BORING NO.: SWMU361-SB03 SHEET 1 OF 2

Baker Environmental

TEST BORING RECORD

PROJECT: SWMU Investigation
CTO NO.: CTO-0143 BORING NO.: SWMU361-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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
ps/bg = point source/background

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	Lab ID	LEL %	PID (ppm) ps/bg	Visual Description	Elevation (Ft. MSL)
11						Continued from Sheet 1	
12							
						12.7	
13						Clay, trace sand, wet, gray	
14	M-4	4.0 100%		0.0%	0.0 / 0.0		
15							
16						16.0	
17						End of Boring = 16.0'	
18							
19							
20							
21							
22							
23							
24							
25							
26							
27							
28							
29							
30						Match to Sheet 3	

DRILLING COMPANY: Parratt Wolff Inc. BAKER REP.: David D. Schilling
DRILLER: Mark Eaves / Jim Robertson BORING NO.: SWMU361-SB03 SHEET 2 OF 2

Baker Environmental

TEST BORING RECORD

PROJECT: SWMU Investigation
PROJ. NO.: CTO-0143 BORING NO.: SWMU361-SB04
COORDINATES: EAST: 2496406.709 NORTH: 336149.871
ELEVATION: SURFACE:

Rig: A-200 Ingersol Ram	Macro Core	Casing	Augers	Acetate Sleave	Date	Progress (Ft.)	Comments	Depth to Water (Ft.)
Size (ID)	2"		3.25	2"	3/24/02	16	estimated	11.4
Length	4'		5'	4'				
Type	SS		S	Acetate				
Hammer Wt.	NA		NA	NA				
Fall	NA		NA	NA				

Remarks:

SAMPLE TYPE
M = Macro Core 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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
BG/PS = Background/Point Source
ppm = parts per million

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	Lab ID	LEL %	PID (ppm) ps/bg	Visual Description	Elevation (Ft. MSL)
1–4	M-1	2.6 65%	SWMU361-SB04-00	0.0%	0.0 / 0.0	Fine sand and clay, plastic, moist, firm, orangish brown	
5–6	M-2	3.1 78%		0.0%	0.0 / 0.0	5.4 Fine sand, trace silt, moist, orangish brown	
7–8						6.8 Fine sand, trace silt, moist, light brown 8.0	
9–10	M-3	4.0 100%		0.0%	0.0 / 0.0	Clay, trace sand, moist, firm, plastic, gray	

DRILLING COMPANY: Parratt Wolff Inc. BAKER REP.: David D. Schilling
DRILLER: Mark Eaves / Jim Robertson BORING NO.: SWMU361-SB04 SHEET 1 OF 2

Baker Environmental

TEST BORING RECORD

PROJECT: SWMU Investigation
CTO NO.: CTO-0143 BORING NO.: SWMU361-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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
ps/bg = point source/background

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	Lab ID	LEL %	PID (ppm) ps/bg	Visual Description	Elevation (Ft. MSL)
11			SWMU361-SB04-06			Continued from Sheet 1	
11.4							
12						Clay and sand, wet, gray	
13							
14	M-4	3.7 93%		0.0%	0.0 / 0.0		
15							
16							
16.0							
17						End of Boring = 16.0'	
18							
19							
20							
21							
22							
23							
24							
25							
26							
27							
28							
29							
30						Match to Sheet 3	

DRILLING COMPANY: Parratt Wolff Inc. BAKER REP.: David D. Schilling
DRILLER: Mark Eaves / Jim Robertson BORING NO.: SWMU361-SB04 SHEET 2 OF 2

Baker
Baker Environmental

TEST BORING RECORD

PROJECT: SWMU Investigation
PROJ. NO.: CTO-0143 BORING NO.: SWMU361-SB05
COORDINATES: EAST: 2496336.707 NORTH: 336108.034
ELEVATION: SURFACE:

Rig: A-200 Ingersol Ram	Macro Core	Casing	Augers	Acetate Sleave	Date	Progress (Ft.)	Comments	Depth to Water (Ft.)
Size (ID)	2"		3.25	2"	3/24/02	16	estimated	9.6
Length	4'		5'	4'				
Type	SS		S	Acetate				
Hammer Wt.	NA		NA	NA				
Fall	NA		NA	NA				

Remarks:

SAMPLE TYPE
M = Macro Core 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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
BG/PS = Background/Point Source
ppm = parts per million

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	Lab ID	LEL %	PID (ppm) ps/bg	Visual Description	Elevation (Ft. MSL)
1			SWMU361-SB05-00			Fine sand, trace silt, moist, roots, loam, dark brown 0.9	
2	M-1	3.2 80%		0.0%	0.0 / 0.0	Fine sand, trace silt, moist, brown	
3							
4							
5						5.6	
6	M-2	2.8 70%		0.0%	0.0 / 0.0	Clay, trace fine sand, moist, firm, plastic, orangish brown	
7							
8							
9						9.6	
10 ▼	M-3	1.9 48%		0.0%	0.0 / 0.0	Sand, trace silt, wet, orangish brown	

DRILLING COMPANY: Parratt Wolff Inc. BAKER REP.: David D. Schilling
DRILLER: Mark Eaves / Jim Robertson BORING NO.: SWMU361-SB05 SHEET 1 OF 2

Baker Environmental

TEST BORING RECORD

PROJECT: SWMU Investigation
CTO NO.: CTO-0143 BORING NO.: SWMU361-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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
ps/bg = point source/background

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	Lab ID	LEL %	PID (ppm) ps/bg	Visual Description	Elevation (Ft. MSL)
11						Continued from Sheet 1	
12						Sand, trace silt, wet, orangish brown	
13			SWMU361-SB05-06			13.1	
14	M-4	3.4 85%		0.0%	0.0 / 0.0	Clay, trace sand, wet, gray, orange staining	
15							
16						16.0	
17						End of Boring = 16.0'	
18							
19							
20							
21							
22							
23							
24							
25							
26							
27							
28							
29							
30						Match to Sheet 3	

DRILLING COMPANY: Parratt Wolff Inc. BAKER REP.: David D. Schilling
DRILLER: Mark Eaves / Jim Robertson BORING NO.: SWMU361-SB05 SHEET 2 OF 2

Baker Environmental

TEST BORING RECORD

PROJECT: SWMU Investigation
PROJ. NO.: CTO-0143 BORING NO.: SWMU361-SB06
COORDINATES: EAST: 2496424.408 NORTH: 336099.965
ELEVATION: SURFACE:

Rig: A-200 Ingersol Ram	Macro Core	Casing	Augers	Acetate Sleave	Date	Progress (Ft.)	Comments	Depth to Water (Ft.)
Size (ID)	2"		3.25	2"	3/24/02	16	estimated	9.4
Length	4'		5'	4'				
Type	SS		S	Acetate				
Hammer Wt.	NA		NA	NA				
Fall	NA		NA	NA				

Remarks:

SAMPLE TYPE
M = Macro Core 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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
BG/PS = Background/Point Source
ppm = parts per million

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	Lab ID	LEL %	PID (ppm) ps/bg	Visual Description	Elevation (Ft. MSL)
1			SWMU361-SB06-00			Fine sand, trace silt, loam, roots, moist, dark brown (0.4)	
2	M-1	3.8 95%		0.0%	0.0 / 0.0	Fine sand, trace silt, loam, roots, moist, orangish brown	
3							
4						(4.0)	
5						Clay, some fine sand, moist, plastic, orangish brown (4.9)	
6	M-2	4.0 100%		0.0%	0.0 / 0.0	Fine sand, trace silt, moist, light gray and orange mottled	
7							
8						(8.0)	
9	▼		SWMU361-SB06-05			Fine sand, trace silt, moist, light gray, orange staining (9.4)	
10	M-3	4.0 100%		0.0%	0.0 / 0.0	Clay, trace sand, wet, firm, plastic, gray, orange staining	

DRILLING COMPANY: Parratt Wolff Inc. BAKER REP.: David D. Schilling
DRILLER: Mark Eaves / Jim Robertson BORING NO.: SWMU361-SB06 SHEET 1 OF 2

Baker
Baker Environmental

TEST BORING RECORD

PROJECT: SWMU Investigation
CTO NO.: CTO-0143 BORING NO.: SWMU361-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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
ps/bg = point source/background

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	Lab ID	LEL %	PID (ppm) ps/bg	Visual Description	Elevation (Ft. MSL)
11						Continued from Sheet 1	
12						12.0	
13						Clay and sand, wet, firm, plastic, gray	
14	M-4	4.0 100%		0.0%	0.0 0.0		
15							
16						16.0	
17						End of Boring = 16.0'	
18							
19							
20							
21							
22							
23							
24							
25							
26							
27							
28							
29							
30						Match to Sheet 3	

DRILLING COMPANY: Parratt Wolff Inc. BAKER REP.: David D. Schilling
DRILLER: Mark Eaves / Jim Robertson BORING NO.: SWMU361-SB06 SHEET 2 OF 2

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation
PROJ. NO.: CTO-0143 BORING NO.: SWMU361-TW01
COORDINATES: EAST: 2496363.718 NORTH: 336024.5787
ELEVATION: SURFACE: 16.235 TOP OF PVC CASING: 16.364

Rig:	A-200 Ingersol Ram				Date	Progress (Ft.)	Comment	Depth to Water (Ft.)
	Macro Core	Casing	Augers	Acetate sleave				
Size (ID)	2"		3.25	2"	3/24/02	13	estimated	4.9
Length	4		5'	4'				
Type	SS		S	Acetate				
Hammer Wt.	NA		NA	NA				
Fall	NA		NA	NA				

Remarks:

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

WELL INFORMATION

Type	Diam.	Top Depth (Ft.)	Bottom Depth (Ft.)
PVC Riser (Schedule 40)	1"	16.364	13.364
PVC screen (Schedule 40) 0.010"	1"	13.364	3.364

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	Lab ID	LEL %	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL) 16.4
1–4	M-1	3.2 80%	SWMU361-TW01-00	0.0%	0.0 / 0.0	Fine sand, trace silt, moist, orangish brown	bentonite; riser; sand	12.4
5–8	M-2	2.7 68%	SWMU361-TW01-02	0.0%	0.0 / 0.0	Fine sand, trace silt, wet, light brown (4.6–4.9); Clay, trace sand, moist, plastic, orangish brown; Fine sand, trace silt, wet, brown	screen; sand; screen; sand; screen	11.8; 11.5
9–10	M-3	3.6 90%		0.0%	0.0 / 0.0	Clay, trace sand, firm, plastic, moist, gray, trace orange staining (8.8)	screen; sand	7.6

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: David D. Schilling
DRILLER: Mark Eaves / Jim Robertson BORING NO.: SWMU361-TW01 SHEET 1 OF 2

Baker
Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation
CTO NO.: CTO-0143 BORING NO.: SWMU361-TW01

SAMPLE TYPE
M = Macro Core 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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
ps/bg = point source/background

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	Lab ID	LEL %	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL) 5.9
11						Continued from Sheet 1		
12						12.0	sand	4.4
13	A-N					13.0	screen	3.4
14						End of Boring = 13.0		
15								
16								
17								
18								
19								
20								
21								
22								
23								
24								
25								
26								
27								
28								
29								
30								

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: David D. Schilling
DRILLER: Mark Eaves / Jim Robertson BORING NO.: SWMU361-TW01 SHEET 2 OF 2

Baker Environmental

TEST BORING RECORD

PROJECT: SWMU Investigation
PROJ. NO.: CTO-0143 BORING NO.: SWMU362-SB01
COORDINATES: EAST: 2501172.099 NORTH: 334709.057
ELEVATION: SURFACE:

Rig:	Macro Core	Casing	Augers	Acetate Sleeve	Date	Progress (Ft.)	Comments	Depth to Water (Ft.)
Size (ID)	2"		3.25	2"	3/25/02	4'		
Length	4'		5'	4'				
Type	SS		S	Acetate				
Hammer Wt.	NA		NA	NA				
Fall	NA		NA	NA				

Remarks:

SAMPLE TYPE
M = Macro Core 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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
BG/PS = Background/Point Source
ppm = parts per million

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	Lab ID	LEL %	PID (ppm) ps/bg	Visual Description	Elevation (Ft. MSL)
1	M-1	2.0 50%	SWMU362-SB01-00		0.0 / 0.0	fine sand w/silt	
2			SWMU362-SB01-01			1.7' slight gasoline odor, and staining	
3							-
4						4.0	-4.00
5						End of Boring = 4.0	
6							
7							
8							
9							
10							

DRILLING COMPANY: Parratt Wolff Inc. BAKER REP.: R. Marks
DRILLER: Louis LaFever BORING NO.: SWMU362-SB01 SHEET 1 OF 6

Baker Environmental

TEST BORING RECORD

PROJECT: SWMU Investigation
CTO NO.: CTO-0143 BORING NO.: SWMU362-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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
ps/bg = point source/background

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	SPT	Lab ID	PID (ppm) ps/bg	Visual Description	Elevation (Ft. MSL)
11						Continued from Sheet 1	
12							
13							
14							
15							
16							
17							
18							
19							
20							
21							
22							
23							
24							
25							
26							
27							
28							
29							
30						Match to Sheet 3	

DRILLING COMPANY: Parratt Wolff Inc. BAKER REP.: R. Marks
DRILLER: Louis LaFever BORING NO.: SWMU362-SB SHEET 2 OF 6

Baker Environmental

TEST BORING RECORD

PROJECT: SWMU Investigation
CTO NO.: CTO-0143 BORING NO.: SWMU362-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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
ps/bg = point source/background

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	SPT	Lab ID	PID (ppm) ps/bg	Visual Description	Elevation (Ft. MSL)
31						Continued from Sheet 2	
32							
33							
34							
35							
36							
37							
38							
39							
40							
41							
42							
43							
44							
45							
46							
47							
48							
49							
50						Match to Sheet 4	

DRILLING COMPANY: Parratt Wolff Inc. BAKER REP.: R. Marks
DRILLER: Louis LaFever BORING NO.: SWMU362-SB SHEET 3 OF 6

Baker
Baker Environmental

TEST BORING RECORD

PROJECT: SWMU Investigation
CTO NO.: CTO-0143 BORING NO.: SWMU362-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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
ps/bg = point source/background

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	SPT	Lab ID	PID (ppm) ps/bg	Visual Description	Elevation (Ft. MSL)
51						Continued from Sheet 3	
52							
53							
54							
55							
56							
57							
58							
59							
60							
61							
62							
63							
64							
65							
66							
67							
68							
69							
70						Match to Sheet 5	

DRILLING COMPANY: Parratt Wolff Inc. BAKER REP.: R. Marks
DRILLER: Louis LaFever BORING NO.: SWMU362-SB SHEET 4 OF 6

Baker
Baker Environmental

TEST BORING RECORD

PROJECT: SWMU Investigation
CTO NO.: CTO-0143 BORING NO.: SWMU362-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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
ps/bg = point source/background

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	SPT	Lab ID	PID (ppm) ps/bg	Visual Description	Elevation (Ft. MSL)
71						Continued from Sheet 4	
72							
73							
74							
75							
76							
77							
78							
79							
80							
81							
82							
83							
84							
85							
86							
87							
88							
89							
90						Match to Sheet 6	

DRILLING COMPANY: Parratt Wolff Inc. BAKER REP.: R. Marks
DRILLER: Louis LaFever BORING NO.: SWMU362-SB SHEET 5 OF 6

Baker Environmental

TEST BORING RECORD

PROJECT: SWMU Investigation

CTO NO.: CTO-0143 BORING NO.: SWMU362-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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
ps/bg = point source/background

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	SPT	Lab ID	PID (ppm) ps/bg	Visual Description	Elevation (Ft. MSL)
91						Continued from Sheet 5	
92							
93							
94							
95							
96							
97							
98							
99							
100							
101							
102							
103							
104							
105							
106							
107							
108							
109							
110							

DRILLING COMPANY: Parratt Wolff Inc. BAKER REP.: R. Marks

DRILLER: Louis LaFever BORING NO.: /MU362-SE SHEET 6 OF 6

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT:	SWMU Investigation		
PROJ. NO.:	CTO-0143	BORING NO.:	SWMU363-TW01
COORDINATES:	EAST: 2466903.811	NORTH:	351865.5898
ELEVATION:	SURFACE: 21.484	TOP OF PVC CASING:	21.401

Rig:	A-200 Ingersol Ram				Date	Progress (Ft.)	Comment	Depth to Water (Ft.)
	Macro Core	Casing	Augers	Acetate sleave				
Size (ID)	2"		3.25	2"	3/23/02	17	estimated	10.9
Length	4		5'	4'				
Type	SS		S	Acetate				
Hammer Wt.	NA		NA	NA				
Fall	NA		NA	NA				

Remarks: While performing intrusive activities the officer in charge made mention that during arresting gear assembly and practice, it was not uncommon to spill several gallons of glycols and heavy oils on the ground surface.

SAMPLE TYPE

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

WELL INFORMATION

Type	Diam.	Top Depth (Ft.)	Bottom Depth (Ft.)
PVC Riser (Schedule 40)	1"	21.401	14.401
PVC screen (Schedule 40) 0.010"	1"	14.401	4.401

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	Lab ID	LEL %	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL) 21.4
1			SWMU363-TW01-00			Fine sand, trace silt, moist, brown	cuttings	
2	M-1	3.4 85%		0.0%	2.9 / 0.0	2.0 Fine sand, trace clay, moist, dark gray, slight petroleum/glycol odor	riser	19.4
3							cuttings	
4						4.0	riser	17.4
5							bentonite	
6	A-N						sand / riser	
7	A-N						sand	
8						8.0	screen	13.4
9						Fine sand, some clay, moist, semi-plastic, gray, strong petroleum / glycol odor		
10	M-2	3.6 90%	SWMU363-TW01-05	0.0%	63.4 / 0.0		screen / sand	

DRILLING CO.:	Parratt Wolff Inc.	BAKER REP.:	David D. Schilling
DRILLER:	Mark Eaves / Jim Robertson	BORING NO.:	SWMU363-TW01 SHEET 1 OF 2

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation
CTO NO.: CTO-0143 BORING NO.: SWMU363-TW01

SAMPLE TYPE
M = Macro Core 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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
ps/bg = point source/background

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	Lab ID	LEL %	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL) 10.9
11						Continued from Sheet 1		
12						Fine sand, trace clay, wet, gray strong petro/glycol odor 12.0	sand	9.4
13	A-N						screen	
14								
15	A-N						sand	
16								
17	A-N					17.0	screen	4.4
18						End of Boring = 17.0		
19								
20								
21								
22								
23								
24								
25								
26								
27								
28								
29								
30								

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: David D. Schilling
DRILLER: Mark Eaves / Jim Robertson BORING NO.: SWMU363-TW01 SHEET 2 OF 2

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT:	SWMU Investigation		
PROJ. NO.:	CTO-0143	BORING NO.:	SWMU363-TW02
COORDINATES:	EAST: 2467068.678	NORTH:	351706.1301
ELEVATION:	SURFACE: 21.514	TOP OF PVC CASING:	21.435

Rig:	A-200 Ingersol Ram				Date	Progress (Ft.)	Comment	Depth to Water (Ft.)
	Macro Core	Casing	Augers	Acetate sleave				
Size (ID)	2"		3.25	2"	3/23/02	17	estimated	10.3
Length	4		5'	4'				
Type	SS		S	Acetate				
Hammer Wt.	NA		NA	NA				
Fall	NA		NA	NA				

Remarks:

SAMPLE TYPE

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

WELL INFORMATION

Type	Diam.	Top Depth (Ft.)	Bottom Depth (Ft.)
PVC Riser (Schedule 40)	1"	21.435	14.435
PVC screen (Schedule 40) 0.010"	1"	14.435	4.435

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	Lab ID	LEL %	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL) 21.4
1			SWMU363-TW02-00			Fine sand, trace silt, small gravel, wet, brown 0.9	cuttings	20.5
2	M-1	3.5 88%		0.0%	0.0 / 0.0	Clay, some fine sand, moist, grayish brown	riser	
3						3.0	cuttings	18.4
4						Fine sand, trace clay, moist, gray, orange staining 4.4	riser	
5						Clay, firm, plastic, moist, gray and orange mottled	bentonite	17.0
6	M-2	2.9 73%		0.0%	0.0 / 0.0		sand / riser	
7							sand	
8							screen	
9								
10	M-3	3.7 93%	SWMU363-TW02-05	0.0%	0.0 / 0.0	10.3 Fine sand, trace clay, wet,	screen / sand	11.1

DRILLING CO.:	Parratt Wolff Inc.	BAKER REP.:	David D. Schilling
DRILLER:	Mark Eaves / Jim Robertson	BORING NO.:	SWMU363-TW02 SHEET 1 OF 2

Baker
Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: SWMU Investigation
CTO NO.: CTO-0143 BORING NO.: SWMU363-TW02

SAMPLE TYPE
M = Macro Core 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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
ps/bg = point source/background

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	Lab ID	LEL %	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL) 10.9
11						Continued from Sheet 1		
12						orangish brown	sand	
						12.0		9.4
13						Fine sand, trace clay, wet, orange	screen	
14	M-4	3.5 88%		0.0%	0.0 / 0.0			
15							sand	
16						16.0		5.4
17	A-N					17.0	screen	4.4
18						End of Boring = 17.0		
19								
20								
21								
22								
23								
24								
25								
26								
27								
28								
29								
30								

DRILLING CO.: Parratt Wolff Inc. BAKER REP.: David D. Schilling
DRILLER: Mark Eaves / Jim Robertson BORING NO.: SWMU363-TW02 SHEET 2 OF 2

Additional Phase II Sampling Boring Logs

Baker

Baker Environmental

TEST BORING RECORD

PROJECT: Camp Lejeune RCRA Program - SWMU 269
PROJ. NO.: CTO-0143 BORING NO.: SB09
COORDINATES: EAST: 64789456.123 NORTH: 123456.789
ELEVATION: SURFACE: 100.00

Rig: Ingersoll Rand A300	Macro Core	Casing	Augers	Core Barrel	Date	Progress (Ft.)	Weather	Depth to Water (Ft.)
Size (ID)	2-in	--	--	--	6/23/03	0.0 - 16.0	M sunny, sl brzy, 80s	15.0
Length	4-ft	--	--	--				
Type	Acetate	--	--	--				
Hammer Wt.	--	--	--	--				
Fall	--	--	--	--				

Remarks: Sample ID is as follows: "SWMU269-SB09-__", with the suffix shown below.

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

DEFINITIONS
SPT = Standard Penetration Test (ASTM D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
BG/PS = Background/Point Source
ppm = parts per million

Depth (Ft.)		Sample Type & No.	Sample Rec. (Ft.,%)	SPT	Lab ID	PID (ppm) ps/bg	Visual Description	Elevation (Ft. MSL)
1						0.0		
						0.0		
2		S-1	3.3	--		0.0	F SAND, some silt, trace clay; brown; damp	
			83%			0.0		
3						0.0		
					02			
4	4.0							
5						0.0		
						0.0		
6		S-2	3.0	--		0.0	trace silt & clay; gray; damp w zones of	
			75%			0.0	some brown silt	
7						0.0		
8	8.0				04			
9						0.0		
						0.0		
		S-3	2.9	--		0.0	some silt, trace clay layered w trace silt;	
10			73%			0.0	brown & gray layering; moist	
						0.0		

Match to Sheet 2

DRILLING COMPANY Parratt-Wolff BAKER REP.: Mark DeJohn
DRILLER: Arnold Chapel BORING NO.: SB09 SHEET 1 OF 2

Baker

Baker Environmental

TEST BORING RECORD

PROJECT: Camp Lejeune RCRA Program - SWMU 269

CTO NO.: CTO-0143 BORING NO.: SB09

SAMPLE TYPE

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

DEFINITIONS

SPT = Standard Penetration Test (ASTM D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
ps/bg = point source/background

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	SPT	Lab ID	PID (ppm) ps/bg	Visual Description	Elevation (Ft. MSL)
11					12	Continued from Sheet 1	
				06	49		
12 12.0					14		
					0		
13					0		
					0		
14	S-4	2.9	--	07	0	F SAND, trace silt & clay; tan w/ llittle brown	
		73%			0	laminae; moist	
15					0		
					0	wet at 15.0-ft	
16 16.0					0	16.0	84.00
						Termination Depth at 16.0-ft	
17							
18							
19							
20							
21							
22							
23							
24							
25							
26							
27							
28							
29							
30							

DRILLING COMPANY: Parratt-Wolff BAKER REP.: Mark DeJohn

DRILLER: Arnold Chapel BORING NO.: SB09 SHEET 2 OF 2

Baker

Baker Environmental

TEST BORING RECORD

PROJECT: Camp Lejeune RCRA Program - SWMU 269
PROJ. NO.: CTO-0143 BORING NO.: SB10
COORDINATES: EAST: 2502226.564 NORTH: 332295.815
ELEVATION: SURFACE: 100.00

Rig: Ingersoll Rand A200	Macro Core	Casing	Augers	Core Barrel	Date	Progress (Ft.)	Weather	Depth to Water (Ft.)
Size (ID)	2-in	--	--	--	6/23/03	0.0 - 16.0	M sunny, sl brzy, 80s	16.4
Length	4-ft	--	--	--				
Type	Acetate	--	--	--				
Hammer Wt.	--	--	--	--				
Fall	--	--	--	--				

Remarks: Sample ID is as follows: "SWMU269-SB10-__", with the suffix shown below.

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

DEFINITIONS
SPT = Standard Penetration Test (ASTM D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
BG/PS = Background/Point Source
ppm = parts per million

Depth (Ft.)		Sample Type & No.	Sample Rec. (Ft.,%)	SPT	Lab ID	PID (ppm) ps/bg	Visual Description		Elevation (Ft. MSL)
1						0.1 / 0	SAND & GRAVEL	0.4	99.60
2		S-1	1.8 45%	--	01	0.1 / 0	SAND, trace silt, brown, loose, damp	1.8	98.20
3									
4	4.0							4.0	96.00
5					02	0.3 / 0	F.SAND, trace silt, orangish brown, loose, damp		
6		S-2	4.0 100%	--		0 / 0			
7						0 / 0			
8	8.0					0 / 0			
9						0.3 / 0			
10		S-3	4.0 100%	--		0 / 0	Match to Sheet 2		

DRILLING COMPANY Parratt-Wolff BAKER REP.: David D. Schilling
DRILLER: Lewis LeFever BORING NO.: SB10 SHEET 1 OF 2

Baker

Baker Environmental

TEST BORING RECORD

PROJECT: Camp Lejeune RCRA Program - SWMU 269

CTO NO.: CTO-0143 BORING NO.: SB10

SAMPLE TYPE

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

DEFINITIONS

SPT = Standard Penetration Test (ASTM D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
ps/bg = point source/background

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	SPT	Lab ID	PID (ppm) ps/bg	Visual Description	Elevation (Ft. MSL)
11					0	Continued from Sheet 1	
				06	0	11.6	88.40
12	12.0				0	F.SAND, trace silt, brown, dark gray staining, loose	
				06	3.5	damp 12.5	87.50
13				06B	0	F.SAND, trace silt, orangish brown, loose,	
					0	damp, solvent odor	
14		S-4	--		0	F.SAND, trace silt, brownish gray, loose, damp	
		3.7			0		
15		93%			0		
					0		
16	16.0				0	16.0	84.00
				08	0.8	F.SAND, trace silt, olive drab, loose, moist 16.4	83.60
17					0	F.SAND, trace silt, orangish brown, loose, wet	
					0		
18		S-5	--		0		
		3.9			0		
19		98%			0		
					0		
20	20.0				0	20.0	80.00
						Termination Depth at 20.0-ft	
21							
22							
23							
24							
25							
26							
27							
28							
29							
30							

DRILLING COMPANY: Parratt-Wolff BAKER REP.: David D. Schilling

DRILLER: Lewis LeFever BORING NO.: SB10 SHEET 2 OF 2

Baker

Baker Environmental

TEST BORING RECORD

PROJECT: Camp Lejeune RCRA Program - SWMU 269
PROJ. NO.: CTO-0143 BORING NO.: SB11
COORDINATES: EAST: 2502175.467 NORTH: 332293.036
ELEVATION: SURFACE: 100.00

Rig: Ingersoll Rand A200								
	Macro Core	**Casing**	**Augers**	**Core Barrel**	**Date**	**Progress (Ft.)**	**Weather**	**Depth to Water (Ft.)**
Size (ID)	2-in	--	--	--	6/23/03	0.0 - 20.0	M sunny, sl brzy, 80s	16.8
Length	4-ft	--	--	--				
Type	Acetate	--	--	--				
Hammer Wt.	--	--	--	--				
Fall	--	--	--	--				

Remarks: Sample ID is as follows: "SWMU269-SB11-__", with the suffix shown below.

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

DEFINITIONS
SPT = Standard Penetration Test (ASTM D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
BG/PS = Background/Point Source
ppm = parts per million

Depth (Ft.)		Sample Type & No.	Sample Rec. (Ft.,%)	SPT	Lab ID	PID (ppm) ps/bg	Visual Description		Elevation (Ft. MSL)
1						0.8	SAND & GRAVEL	0.3	99.70
						0	F.SAND, trace silt, brown, loose, damp		
2						1.5			
		S-1	3.5	--	01	0			
3			88%			0.5			
						0			
								3.5	96.50
4	4.0							4.0	96.00
					02	12.4	F.SAND, trace silt, light brown, v.loose	4.6	95.40
5						0	damp, phenol or creasode odor		
						2.3	F.SAND, trace silt, orangish brown, loose,		
6		S-2	4.0	--		0	damp		
			100%			1.8			
7						0			
						1.4			
8	8.0					0			
						4.8			
9						0			
		S-3	3.7	--		1.6			
10			93%			0			
					05	5.5	Match to Sheet 2		

DRILLING COMPANY Parratt-Wolff BAKER REP.: David D. Schilling
DRILLER: Lewis LeFever BORING NO.: SB11 SHEET 1 OF 2

Baker

Baker Environmental

TEST BORING RECORD

PROJECT: Camp Lejeune RCRA Program - SWMU 269
CTO NO.: CTO-0143 BORING NO.: SB11

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

DEFINITIONS
SPT = Standard Penetration Test (ASTM D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
ps/bg = point source/background

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	SPT	Lab ID	PID (ppm) ps/bg	Visual Description	Elevation (Ft. MSL)
11					0	Continued from Sheet 1	
					0.4		
12	12.0				0		
				06	1.3		
13					0		
					0.2		
14	S-4	3.3	--		0		
		83%			0	14.6	85.40
15					0	F.SAND, trace silt, gray, dark brown staining,	
						loose, damp 15.3	84.70
16	16.0					16.0	84.00
				08	0.1	F.SAND, trace silt, reddish brown, loose, moist	
17					0	16.8	83.20
					0	F.SAND, trace silt, light brownish gray, orange	
18	S-5	3.9	--		0	staining, very loose, wet	
		98%			0		
19					0		
					0		
20	20.0				0	20.0	80.00
21						Termination Depth at 20.0-ft	
22							
23							
24							
25							
26							
27							
28							
29							
30							

DRILLING COMPANY: Parratt-Wolff BAKER REP.: David D. Schilling
DRILLER: Lewis LeFever BORING NO.: SB11 SHEET 2 OF 2

Baker

Baker Environmental

TEST BORING RECORD

PROJECT: Camp Lejeune RCRA Program - SWMU 269
PROJ. NO.: CTO-0143 BORING NO.: SB12
COORDINATES: EAST: 64789456.123 NORTH: 123456.789
ELEVATION: SURFACE: 100.00

Rig: Ingersoll Rand A300	Macro Core	Casing	Augers	Core Barrel	Date	Progress (Ft.)	Weather	Depth to Water (Ft.)
Size (ID)	2-in	--	--	--	6/23/03	0.0 - 16.0	M sunny, sl brzy, 80s	15.0
Length	4-ft	--	--	--				
Type	Acetate	--	--	--				
Hammer Wt.	--	--	--	--				
Fall	--	--	--	--				

Remarks: Sample ID is as follows: "SWMU269-SB12-__", with the suffix shown below.

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

DEFINITIONS
SPT = Standard Penetration Test (ASTM D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
BG/PS = Background/Point Source
ppm = parts per million

Depth (Ft.)		Sample Type & No.	Sample Rec. (Ft.,%)	SPT	Lab ID	PID (ppm) ps/bg	Visual Description	Elevation (Ft. MSL)
1						0.0		
						0.0		
2		S-1	4.0	--		0.0	F SAND, some silt, trace clay; brown on	
			100%			5.6	top, then gray; damp; strong phenol odor	
3						0.0		
						27.0		
4	4.0				02	0.0		
5						15.6		
						0.0		
6		S-2	3.8	--		3.9		
			95%			0.0	little silt, trace clay; light gray & dark gray	
7						4.4	layering; damp	
						0.0		
8	8.0				04	1.9	some silt, little clay; brown	
						0.0		
9						7.1		
						0.0		
10		S-3	3.8	--		1.8	some silt,little clay; brown	
			95%			0.0		
						1.6	trace gray silt zone Match to Sheet 2	

DRILLING COMPANY Parratt-Wolff BAKER REP.: Mark DeJohn
DRILLER: Arnold Chapel BORING NO.: SB12 SHEET 1 OF 2

Baker

Baker Environmental

TEST BORING RECORD

PROJECT: Camp Lejeune RCRA Program - SWMU 269

CTO NO.: CTO-0143 BORING NO.: SB12

SAMPLE TYPE

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

DEFINITIONS

SPT = Standard Penetration Test (ASTM D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
ps/bg = point source/background

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	SPT	Lab ID	PID (ppm) ps/bg	Visual Description	Elevation (Ft. MSL)
11					0.0	Continued from Sheet 1	
					1.0		
12 12.0				06	0.0		
					8.9		
13					0.0		
					2.7		
14	S-4	3.1	--		0.0	F SAND, some silt, trace clay; brown w/ gray	
		78%		07	0.8	laminae; moist	
15					0.0		
					0.0	some silt & clay; brown; wet at 15.0-ft	
16 16.0					0.0	16.0	84.00
						Termination Depth at 16.0-ft	
17							
18							
19							
20							
21							
22							
23							
24							
25							
26							
27							
28							
29							
30							

DRILLING COMPANY: Parratt-Wolff BAKER REP.: Mark DeJohn

DRILLER: Arnold Chapel BORING NO.: SB12 SHEET 2 OF 2

Baker

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: Camp Lejeune RCRA Program - SWMU 269
PROJ. NO.: CTO-0143 BORING NO.: TW04
COORDINATES: EAST: 64123456.123 NORTH: 123456.789
ELEVATION: SURFACE: TOP OF PVC CASING: 25.74

Rig: Ingersol-Rand	**Macro Spoon**	**Casing**	**Augers**	**Core Barrel**	**Date**	**Progress (Ft.)**	**Weather**	**Depth to Water (Ft.)**
Size (ID)	2-in	--	3-3/4-in	--	6/17/2003	0.0 - 22.0	M cloudy, sl brzy, 80s	14.0
Length	4-ft	--	5-ft	--				
Type	Acetate	--	HSA	--				
Hammer Wt.	--	--	--	--				
Fall	--	--	--	--				

Remarks: Sample ID is as follows: "SWMU269-TW04-__", with the suffix shown below.

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

WELL INFORMATION

Type	Diam.	Top Depth (Ft.)	Bottom Depth (Ft.)
Sch 40 PVC Casing	1-in	0.0	12.0
Sch 40 10-Slot PVC Screen	1-in	12.0	22.0

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	SPT	Lab ID	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
1	S-1	2.9 73%	--	00	--	SILT, little fine sand, trace to little clay; brown to 1-ft, gray to 4-ft w/ greenish-gray staining at bottom; damp; petro odor		
4.0								
5						5.0		
6	S-2	3.0 75%	--	--	--	F SAND, some silt; dark gray; damp; petro odor		
8.0								
9	S-3	3.6 90%	--	--	--	little silt (10 to 11.5-ft); damp	9.0	
10							10.0	

Match to Sheet 2

DRILLING CO.: Parratt-Wolff BAKER REP.: Mark DeJohn
DRILLER: Lewis Lafever BORING NO.: TW04 SHEET 1 OF 2

Baker

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: Camp Lejeune RCRA Program - SWMU 269

CTO NO.: CTO-0143 BORING NO.: TW04

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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
ps/bg = point source/background

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	SPT	Lab ID	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
11						Continued from Sheet 1		
12 12.0							12.0	
13								
14	S-4	3.5 88%	--	07	--	F SAND, some silt; dark gray; wet at 14.0-ft		
15								
16 16.0								
17								
18								
19	A-N	--	--	--	--			
20								
21								
22 22.0						22.0	22.0	
23						Termination Depth at 22.0-ft		
24								
25								
26								
27								
28								
29								
30								

DRILLING CO.: Parratt-Wolff BAKER REP.: Mark DeJohn

DRILLER: Lewis Lafever BORING NO.: TW04 SHEET 2 OF 2

Baker

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: Camp Lejeune RCRA Program - SWMU 269
PROJ. NO.: CTO-0143 BORING NO.: TW05
COORDINATES: EAST: 25022456.226 NORTH: 332271.699
ELEVATION: SURFACE: TOP OF PVC CASING: 24.12

Rig:	Ingersoll Rand A-300				Date	Progress (Ft.)	Weather	Depth to Water (Ft.)
	Macro Core	Casing	Augers	Core Barrel				
Size (ID)	2 in	--	6-1/4 in	--	6/17/2003	0.0 - 24.0		16.5
Length	4 ft	--	5 ft	--				
Type	Acetate	--	HAS	--				
Hammer Wt.	--	--	--	--				
Fall	--	--	--	--				

Remarks: Sample ID is as follows: "SWMU269-TW05-__, with suffix shown below

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

WELL INFORMATION

Type	Diam.	Top Depth (Ft.)	Bottom Depth (Ft.)
Sch 40 PVC Casing	1-in	0.0	14.0
Sch 40 10-Slot PVC Screen	1-in	14.0	24.0

Depth (Ft.)		Sample Type & No.	Sample Rec. (Ft.,%)	SPT	Lab ID	PID (ppm) ps/bg	Visual Description		Well Installation Detail	Elevation (Ft. MSL)
1					00		SAND & GRAVEL	0.2		
							F.SAND, trace silt, orangish brown, damp	0.8		
2		S-1	3.8 95%	--		--	F. SAND, trace silt, gray, damp, petroleum odor			
3										
4	4.0							4.0		
5										
								5.2		
6		S-2	3.8 95%	--	--	--	F. SAND, little clay, orangish brown, damp			
7										
8	8.0							8.0		
9							F. SAND, trace silt, orangish brown, damp			
10		S-3	4.0 100%	--	--	--				

DRILLING CO.: Parratt - Wolff BAKER REP.: David Schilling
DRILLER: Arnold Chapel BORING NO.: TW05 SHEET 1 OF 2

Baker

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: Camp Lejeune RCRA Program - SWMU 269

CTO NO.: CTO-0143 BORING NO.: TW05

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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
ps/bg = point source/background

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	SPT	Lab ID	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
11								
12 12.0						12.0		
						12.6		
13						F. SAND, trace silt, light gray, damp		
						13.2		
14	S-4	3.6 90%	--	--	--	F. SAND, trace silt, brownish gray, moist		
15						15.1		
16 16.0						F. SAND, trace silt, light brownish gray, moist 16.0		
				08		16.5		
17						F. SAND, trace silt, light gray, orange staining, wet		
18	S-5	4.0 100%	--		--	18.0		
19						F. SAND, trace silt, light gray & orange mottled, wet		
20 20.0								
21								
22	A-N							
23								
24 24.0								
						Termination Depth = 24.0		
25								
26								
27								
28								
29								
30								

DRILLING CO.: Parratt - Wolff BAKER REP.: David Schilling

DRILLER: Arnold Chapel BORING NO.: TW05 SHEET 2 OF 2

Baker

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: Camp Lejeune RCRA Program - SWMU 269
PROJ. NO.: CTO-0143 BORING NO.: TW06
COORDINATES: EAST: 2502203.859 NORTH: 332267.823
ELEVATION: SURFACE: TOP OF PVC CASING: 24.80

Rig:	Ingersoll Rand A-300				Date	Progress (Ft.)	Weather	Depth to Water (Ft.)
	Macro Core	Casing	Augers	Core Barrel				
Size (ID)	2 in	--	6-1/4 in	--	6/18/2003	0.0 - 20.0		16.7
Length	4 ft	--	5 ft	--				
Type	Acetate	--	HAS	--				
Hammer Wt.	--	--	--	--				
Fall	--	--	--	--				

Remarks: Sample ID is as follows: "SWMU269-TW06-__, with suffix shown below

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

WELL INFORMATION

Type	Diam.	Top Depth (Ft.)	Bottom Depth (Ft.)
Sch 40 PVC Casing	1-in	0.0	14.0
Sch 40 10-Slot PVC Screen	1-in	14.0	24.0

Depth (Ft.)		Sample Type & No.	Sample Rec. (Ft.,%)	SPT	Lab ID	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
1					00		SAND & GRAVEL, gray, very hard, damp 0.3		
2		S-1	3.8 95%	--		--	F. SAND, trace silt, grayish brown m. dense, damp,petroleum odor		
3							2.4 WOOD, black, moist, petroleum odor 2.6		
4	4.0						F. SAND, trace silt, grayish brown m. dense, damp,petroleum odor		
5							F. SAND, trace silt, greenish brown, loose, damp, petro. Odor		
6		S-2	3.8 95%	--	--	--	F. SAND, trace silt, orangish brown, loose, damp		
7									
8	8.0								
9									
10		S-3	3.8 95%	--	--	--			

DRILLING CO.: Parratt - Wolff BAKER REP.: David Schilling
DRILLER: Phillip Nichols BORING NO.: TW06 SHEET 1 OF 2

Baker

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: Camp Lejeune RCRA Program - SWMU 269

CTO NO.: CTO-0143 BORING NO.: TW06

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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
ps/bg = point source/background

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	SPT	Lab ID	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
12.0						F. SAND, trace silt, light tan, loose,, damp 12.0		
16.0	S-4	3.8 95%	--	--	--	14.8 F. SAND, trace silt, brownish gray orange staining, loose, mois 16.0		
20.0	S-5	4 100%	--	08	--	16.7 F. SAND, little silt, brownish gray, orange staining, loose, wet, petroleum odor 18.4 CLAY, some fine sand, gray and orange mottled, firm, wet, strong petroleum odor 20.0		
24.0	A-N							
						Termination Depth = 24.0		

DRILLING CO.: Parratt - Wolff BAKER REP.: David Schilling

DRILLER: Phillip Nichols BORING NO.: TW06 SHEET 2 OF 2

Baker

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: Camp Lejeune RCRA Program - SWMU 269
PROJ. NO.: CTO-0143 BORING NO.: TW07
COORDINATES: EAST: 64123456.123 NORTH: 123456.789
ELEVATION: SURFACE: TOP OF PVC CASING: 27.64

Rig: Ingersol-Rand	**Macro Spoon**	**Casing**	**Augers**	**Core Barrel**	**Date**	**Progress (Ft.)**	**Weather**	**Depth to Water (Ft.)**
Size (ID)	2-in	--	3-3/4-in	--	6/18/2003	0.0 - 22.0	P sunny, sl brzy, 70s	15.5
Length	4-ft	--	5-ft	--				
Type	Acetate	--	HSA	--				
Hammer Wt.	--	--	--	--				
Fall	--	--	--	--				

Remarks: Sample ID is as follows: "SWMU269-TW07-__", with the suffix shown below.

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

WELL INFORMATION

Type	Diam.	Top Depth (Ft.)	Bottom Depth (Ft.)
Sch 40 PVC Casing	1-in	0.0	12.0
Sch 40 10-Slot PVC Screen	1-in	12.0	22.0

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	SPT	Lab ID	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
1								
2	S-1	3.7 93%	--	00	--	F SAND, some silt, trace clay w/ zones of little clay, 2-in cinder layer at 2-ft; grayish-brown; damp		
3								
4 4.0								
5								
6	S-2	3.0 75%	--	--	--	VF SAND, trace to little silt; dark gray; damp; sl petro odor		
7						some silt		
8 8.0								
9	S-3	0.0 0%	--	--	--		9.0	
10						Match to Sheet 2	10.0	

DRILLING CO.: Parratt-Wolff BAKER REP.: Mark DeJohn
DRILLER: Lewis Lafever BORING NO.: TW07 SHEET 1 OF 2

Baker

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: Camp Lejeune RCRA Program - SWMU 269

CTO NO.: CTO-0143 BORING NO.: TW07

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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
ps/bg = point source/background

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	SPT	Lab ID	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
11						Continued from Sheet 1		
12 12.0							12.0	
13								
14	S-4	2.9 73%	--	08	--	F SAND, some silt, little clay; gray w/ yellowish-brown thin layering; moist		
15								
16 16.0						wet at 15.5-ft		
17								
18								
19	A-N	--	--	--	--			
20								
21								
22 22.0						22.0	22.0	
23						Termination Depth at 22.0-ft		
24								
25								
26								
27								
28								
29								
30								

DRILLING CO.: Parratt-Wolff BAKER REP.: Mark DeJohn

DRILLER: Lewis Lafever BORING NO.: TW07 SHEET 2 OF 2

Baker

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: Camp Lejeune RCRA Program - SWMU 269
PROJ. NO.: CTO-0143 BORING NO.: TW08
COORDINATES: EAST: 2502214.553 NORTH: 332171.156
ELEVATION: SURFACE: TOP OF PVC CASING: 24.12

Rig:	Ingersoll Rand A-300				Date	Progress (Ft.)	Weather	Depth to Water (Ft.)
	Macro Core	Casing	Augers	Core Barrel				
Size (ID)	2 in	--	6-1/4 in	--	6/18/2003	0.0 - 16.0		15
Length	4 ft	--	5 ft	--				
Type	Acetate	--	HAS	--				
Hammer Wt.	--	--	--	--				
Fall	--	--	--	--				

Remarks: Sample ID is as follows: "SWMU269-TW08-__, with suffix shown below

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

WELL INFORMATION

Type	Diam.	Top Depth (Ft.)	Bottom Depth (Ft.)
Sch 40 PVC Casing	1-in	0.0	12.0
Sch 40 10-Slot PVC Screen	1-in	12.0	22.0

Depth (Ft.)		Sample Type & No.	Sample Rec. (Ft.,%)	SPT	Lab ID	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
1					00		F. SAND, trace silt, brown, loose, damp 1.2		
2		S-1	3.1 78%	--		--	F. SAND, little silt, grayish brown, loose, moist		
3							3.1		
4	4.0						4.0		
5							F. SAND, little silt, dark grayish brown, loose, moist		
6		S-2	2.6 65%	--	--	--			
7							6.3 WOOD, black, moist 6.6		
8	8.0						8.0		
9							F. SAND, little silt, light tan and light gray mottled, orange staining loose, moist 9.4		
10		S-3	1.4 35%	--	--	--			

DRILLING CO.: Parratt - Wolff BAKER REP.: David Schilling
DRILLER: Phillip Nichols BORING NO.: TW08 SHEET 1 OF 2

Baker

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: Camp Lejeune RCRA Program - SWMU 269

CTO NO.: CTO-0143 BORING NO.: TW08

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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
ps/bg = point source/background

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	SPT	Lab ID	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
12.0						12.0		
	S-4	2.1 53%	--	--	--	F. SAND, trace silt, light gray, loose, very moist		
						14.1		
16.0						16.0		
	A_N							
						22.0		
						Termination Depth = 22.0		

DRILLING CO.: Parratt - Wolff BAKER REP.: David Schilling

DRILLER: Phillip Nichols BORING NO.: TW08 SHEET 2 OF 2

Baker

Baker Environmental

TEST BORING RECORD

PROJECT: Camp Lejeune RCRA Program - SWMU 299
PROJ. NO.: CTO-0143 BORING NO.: SB05
COORDINATES: EAST: 2465934.513 NORTH: 357814.265
ELEVATION: SURFACE: 100.00

Rig: Ingersoll Rand A200								
	Macro Core	**Casing**	**Augers**	**Core Barrel**	**Date**	**Progress (Ft.)**	**Weather**	**Depth to Water (Ft.)**
Size (ID)	2-in	--	--	--	6/21/03	0.0 - 8.0	M clouds, brzy, 80s	7.0
Length	4-ft	--	--	--				
Type	Acetate	--	--	--				
Hammer Wt.	--	--	--	--				
Fall	--	--	--	--				

Remarks: Sample ID is as follows: "SWMU299-SB05-__", with the suffix shown below.

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

DEFINITIONS
SPT = Standard Penetration Test (ASTM D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
BG/PS = Background/Point Source
ppm = parts per million

Depth (Ft.)		Sample Type & No.	Sample Rec. (Ft.,%)	SPT	Lab ID	PID (ppm) ps/bg	Visual Description		Elevation (Ft. MSL)
					00		ASPHALT	0.4	99.60
1					00D		SAND & GRAVEL as sub-base		
								1.6	98.40
2		S-1	3.5	--		--	F.SAND, trace silt, dark brown, loose,		
			88%				moist		
3								2.9	97.10
							F.SAND, trace silt, dark gray, loose,	3.5	96.50
4	4.0				02		moist, petroleum odor		
							F. SAND, trace silt, dark brown, loose, moist		
5									
								5.4	94.60
6		S-2	4.0	--	--	--	SILT, trace sand, dark brown, moist		
			100%						
7								7.0	93.00
							F.SAND, trace silt, grayish brown, very loose		
8	8.0						wet	8.0	92.00
							Termination Depth = 8.0		
9									
10									

DRILLING COMPANY Parratt-Wolff BAKER REP.: David D. Schilling
DRILLER: Lewis LeFever BORING NO.: SB05 SHEET 1 OF 1

Baker

Baker Environmental

TEST BORING RECORD

PROJECT: Camp Lejeune RCRA Program - SWMU 299
PROJ. NO.: CTO-0143 BORING NO.: SB06
COORDINATES: EAST: 2465953.865 NORTH: 357847.327
ELEVATION: SURFACE: 100.00

Rig: Ingersoll Rand A200								
	Macro Core	**Casing**	**Augers**	**Core Barrel**	**Date**	**Progress (Ft.)**	**Weather**	**Depth to Water (Ft.)**
Size (ID)	2-in	--	--	--	6/21/03	0.0 - 8.0	M clouds, brzy, 80s	7.4
Length	4-ft	--	--	--				
Type	Acetate	--	--	--				
Hammer Wt.	--	--	--	--				
Fall	--	--	--	--				

Remarks: Sample ID is as follows: "SWMU299-SB06-__", with the suffix shown below.

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

DEFINITIONS
SPT = Standard Penetration Test (ASTM D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
BG/PS = Background/Point Source
ppm = parts per million

Depth (Ft.)		Sample Type & No.	Sample Rec. (Ft.,%)	SPT	Lab ID	PID (ppm) ps/bg	Visual Description		Elevation (Ft. MSL)
					00		ASPHALT	0.3	99.70
1							SAND & GRAVEL as sub-base	0.9	99.10
							F.SAND, trace silt, brown, loose, very moist		
2		S-1	3.5	--	01	--			
			88%						
3								3.0	97.00
							F.SAND, trace silt, dark gray, loose,	3.5	96.50
4	4.0						moist, petroleum odor	4.0	96.00
							F.SAND, trace silt, dark brown, loose,		
5							moist		
								5.3	94.70
6		S-2	4.0	--	--	--	SILT, trace sand, dark brown, moist		
			100%					6.7	93.30
7							F.SAND, trace silt, grayish brown,		
							loose, moist	7.4	92.60
8	8.0						F.SAND, trace silt, grayish brown,	8.0	92.00
							very loose, wet		
9							Termination Depth = 8.0		
10									

DRILLING COMPANY Parratt-Wolff BAKER REP.: David D. Schilling
DRILLER: Lewis LeFever BORING NO.: SB06 SHEET 1 OF 1

Baker

Baker Environmental

TEST BORING RECORD

PROJECT: Camp Lejeune RCRA Program - SWMU 299
PROJ. NO.: CTO-0143 BORING NO.: SB07
COORDINATES: EAST: 64789456.123 NORTH: 123456.789
ELEVATION: SURFACE: 100.00

Rig: Ingersoll Rand A300								
	Macro Core	**Casing**	**Augers**	**Core Barrel**	**Date**	**Progress (Ft.)**	**Weather**	**Depth to Water (Ft.)**
Size (ID)	2-in	--	--	--	6/21/03	0.0 - 12.0	M clouds, brzy, 80s	8.0
Length	4-ft	--	--	--				
Type	Acetate	--	--	--				
Hammer Wt.	--	--	--	--				
Fall	--	--	--	--				

Remarks: Sample ID is as follows: "SWMU299-SB07-__", with the suffix shown below.

SAMPLE TYPE

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

DEFINITIONS

SPT = Standard Penetration Test (ASTM D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
BG/PS = Background/Point Source
ppm = parts per million

Depth (Ft.)		Sample Type & No.	Sample Rec. (Ft.,%)	SPT	Lab ID	PID (ppm) ps/bg	Visual Description		Elevation (Ft. MSL)
1							ASPHALT and gravel subbase; gray; damp; odor	1.0	99.00
2		S-1	2.6 65%	--	00	--	F SAND, sone silt; gray, layered w/ SILT, little clay; black; moist; kerosene odor		
3								3.0	97.00
4	4.0				02		SILT, some clay; black; soupy wet; sl odor		
5									
6		S-2	4.0 100%	--		--			
7								6.3	93.70
8	8.0						F SAND, little silt & clay; gray; moist; sl sewer odor		
9									
10		S-3	4.0 100%	--	--	--			

Match to Sheet 2

DRILLING COMPANY Parratt-Wolff BAKER REP.: Mark DeJohn
DRILLER: Arnold Chapel BORING NO.: SB07 SHEET 1 OF 2

Baker

Baker Environmental

TEST BORING RECORD

PROJECT: Camp Lejeune RCRA Program - SWMU 299

CTO NO.: CTO-0143 BORING NO.: SB07

SAMPLE TYPE

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

DEFINITIONS

SPT = Standard Penetration Test (ASTM D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
ps/bg = point source/background

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	SPT	Lab ID	PID (ppm) ps/bg	Visual Description	Elevation (Ft. MSL)
11						Continued from Sheet 1	
12	12.0					F SAND, little silt & clay; gray; soupy wet	
						12.0	88.00
						Termination Depth at 12.0-ft.	
13							
14							
15							
16							
17							
18							
19							
20							
21							
22							
23							
24							
25							
26							
27							
28							
29							
30							

DRILLING COMPANY: Parratt-Wolff BAKER REP.: Mark DeJohn

DRILLER: Arnold Chapel BORING NO.: SB07 SHEET 2 OF 2

Baker

Baker Environmental

TEST BORING RECORD

PROJECT: Camp Lejeune RCRA Program - SWMU 299
PROJ. NO.: CTO-0143 BORING NO.: SB08
COORDINATES: EAST: 64789456.123 NORTH: 123456.789
ELEVATION: SURFACE: 100.00

Rig: Ingersoll Rand A300	Macro Core	Casing	Augers	Core Barrel	Date	Progress (Ft.)	Weather	Depth to Water (Ft.)
Size (ID)	2-in	--	--	--	6/21/03	0.0 - 12.0	M clouds, brzy, 80s	4.0
Length	4-ft	--	--	--				
Type	Acetate	--	--	--				
Hammer Wt.	--	--	--	--				
Fall	--	--	--	--				

Remarks: Sample ID is as follows: "SWMU299-SB08-__", with the suffix shown below.

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

DEFINITIONS
SPT = Standard Penetration Test (ASTM D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
BG/PS = Background/Point Source
ppm = parts per million

Depth (Ft.)		Sample Type & No.	Sample Rec. (Ft.,%)	SPT	Lab ID	PID (ppm) ps/bg	Visual Description		Elevation (Ft. MSL)
1							ASPHALT and gravel subbase; gray; damp	0.9	99.10
2		S-1	2.6 65%	--	00	--	F SAND, some silt; gray; damp; kerosene odor	1.4	98.60
3							SILT, little clay; black; damp to moist; kerosene/sewer odor	3.0	97.00
4	4.0				02				
5							dark gray; wet at 4.0-ft		
6		S-2	4.0 100%	--	--	--		6.0	94.00
7							F SAND, little silt & clay; gray; moist; sl sewer odor		
8	8.0							8.0	92.00
9							Termination Depth at 8.0-ft		
10									

DRILLING COMPANY Parratt-Wolff BAKER REP.: Mark DeJohn
DRILLER: Arnold Chapel BORING NO.: SB08 SHEET 1 OF 1

Baker

Baker Environmental

TEST BORING RECORD

PROJECT: Camp Lejeune RCRA Program - SWMU 299
PROJ. NO.: CTO-0143 BORING NO.: SB09
COORDINATES: EAST: 64789456.123 NORTH: 123456.789
ELEVATION: SURFACE: 100.00

Rig: Ingersoll Rand A300								
	Macro Core	**Casing**	**Augers**	**Core Barrel**	**Date**	**Progress (Ft.)**	**Weather**	**Depth to Water (Ft.)**
Size (ID)	2-in	--	--	--	6/21/03	0.0 - 12.0	M clouds, brzy, 80s	4.0
Length	4-ft	--	--	--				
Type	Acetate	--	--	--				
Hammer Wt.	--	--	--	--				
Fall	--	--	--	--				

Remarks: Sample ID is as follows: "SWMU299-SB09-__", with the suffix shown below.

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

DEFINITIONS
SPT = Standard Penetration Test (ASTM D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
BG/PS = Background/Point Source
ppm = parts per million

Depth (Ft.)		Sample Type & No.	Sample Rec. (Ft.,%)	SPT	Lab ID	PID (ppm) ps/bg	Visual Description		Elevation (Ft. MSL)
1					00		SILT, little f gravel & clay; dark brown; moist		
2		S-1	3.5 88%	--	01	--	little f sand & clay; kerosene odor	1.7	98.30
3							F SAND & SILT, trace clay; black; moist		
4	4.0						wet at 3.0-ft; sl kerosene odor		
5									
6		S-2	4.0 100%	--	--	--		6.0	94.00
7							F SAND, little silt, trace clay; gray; soupy wet		
8	8.0							8.0	92.00
9							Termination Depth at 8.0-ft		
10									

DRILLING COMPANY Parratt-Wolff BAKER REP.: Mark DeJohn
DRILLER: Arnold Chapel BORING NO.: SB09 SHEET 1 OF 1

Baker

Baker Environmental

TEST BORING RECORD

PROJECT: Camp Lejeune RCRA Program - SWMU 299
PROJ. NO.: CTO-0143 BORING NO.: SB10
COORDINATES: EAST: 2465851.616 NORTH: 357892.254
ELEVATION: SURFACE: 100.00

Rig: Ingersoll Rand A200								
	Macro Core	**Casing**	**Augers**	**Core Barrel**	**Date**	**Progress (Ft.)**	**Weather**	**Depth to Water (Ft.)**
Size (ID)	2-in	--	--	--	6/21/03	0.0 - 8.0	M clouds, brzy, 80s	5.9
Length	4-ft	--	--	--				
Type	Acetate	--	--	--				
Hammer Wt.	--	--	--	--				
Fall	--	--	--	--				

Remarks: Sample ID is as follows: "SWMU299-SB10-__", with the suffix shown below.

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

DEFINITIONS
SPT = Standard Penetration Test (ASTM D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
BG/PS = Background/Point Source
ppm = parts per million

Depth (Ft.)		Sample Type & No.	Sample Rec. (Ft.,%)	SPT	Lab ID	PID (ppm) ps/bg	Visual Description		Elevation (Ft. MSL)
1					00		F.SAND, trace silt, dark gray, loose, damp	1.0	99.00
2		S-1	3.5	--		--	F.SAND, trace silt, brown, loose, moist	1.7	98.30
3			88%		01		SILT & F.SAND, dark gray, wet	3.5	96.50
4	4.0							4.0	96.00
5		S-2	4.0	--	--	--	SILT & F.SAND, dark gray, wet, petroleum odor		
6			100%					5.9	94.10
7							F.SAND, trace silt, grayish brown, very loose, wet		
8	8.0							8.0	92.00
9							Termination Depth = 8.0		
10									

DRILLING COMPANY Parratt-Wolff BAKER REP.: David D. Schilling
DRILLER: Lewis LeFever BORING NO.: SB10 SHEET 1 OF 1

Baker

Baker Environmental

TEST BORING RECORD

PROJECT: Camp Lejeune RCRA Program - SWMU 299
PROJ. NO.: CTO-0143 BORING NO.: SB11
COORDINATES: EAST: 2465833.777 NORTH: 357869.392
ELEVATION: SURFACE: 100.00

Rig: Ingersoll Rand A200								
	Macro Core	**Casing**	**Augers**	**Core Barrel**	**Date**	**Progress (Ft.)**	**Weather**	**Depth to Water (Ft.)**
Size (ID)	2-in	--	--	--	6/21/03	0.0 - 1.3	M clouds, brzy, 80s	NA
Length	4-ft	--	--	--				
Type	Acetate	--	--	--				
Hammer Wt.	--	--	--	--				
Fall	--	--	--	--				

Remarks: Sample ID is as follows: "SWMU299-SB11-__", with the suffix shown below.

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

DEFINITIONS
SPT = Standard Penetration Test (ASTM D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
BG/PS = Background/Point Source
ppm = parts per million

Depth (Ft.)		Sample Type & No.	Sample Rec. (Ft.,%)	SPT	Lab ID	PID (ppm) ps/bg	Visual Description	Elevation (Ft. MSL)
1					00		F.SAND, trace silt, dark brown, loose, damp, roots	
2		S-1	1.3 33%	--		--	REFUSAL 1.3	98.70
3							Termination Depth = 1.3	
4	4.0							
5								
6								
7								
8								
9								
10								

DRILLING COMPANY Parratt-Wolff BAKER REP.: David D. Schilling
DRILLER: Lewis LeFever BORING NO.: SB11 SHEET 1 OF 1

Baker

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: Camp Lejeune RCRA Program - SWMU 307
PROJ. NO.: CTO-0143 BORING NO.: TW04
COORDINATES: EAST: 64123456.123 NORTH: 123456.789
ELEVATION: SURFACE: TOP OF PVC CASING:

Rig: Ingersol-Rand	**Macro Spoon**	**Casing**	**Augers**	**Core Barrel**	**Date**	**Progress (Ft.)**	**Weather**	**Depth to Water (Ft.)**
Size (ID)	2-in	--	3-3/4-in	--	6/21/2003	0.0 - 13.0	P sunny, brzy, 80s	--
Length	4-ft	--	5-ft	--				
Type	Acetate	--	HSA	--				
Hammer Wt.	--	--	--	--				
Fall	--	--	--	--				

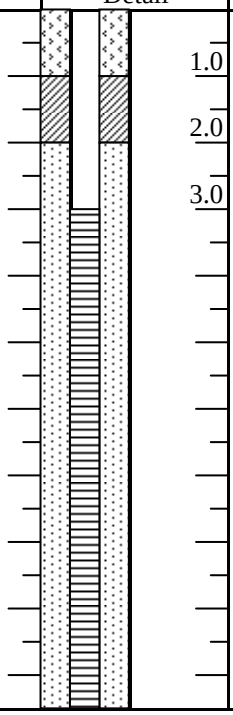
Remarks:

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

WELL INFORMATION

Type	Diam.	Top Depth (Ft.)	Bottom Depth (Ft.)
Sch 40 PVC Casing	1-in	0.0	3.0
Sch 40 10-Slot PVC Screen	1-in	3.0	13.0

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	SPT	Lab ID	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
1							1.0	
2							2.0	
3							3.0	
4								
5	A-N	--	--	--	--			
6								
7								
8								
9								
10						Match to Sheet 2		



DRILLING CO.: Parratt-Wolff BAKER REP.: Mark DeJohn
DRILLER: Arnold Chapel BORING NO.: TW04 SHEET 1 OF 2

Baker

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: Camp Lejeune RCRA Program - SWMU 307

CTO NO.: CTO-0143 BORING NO.: TW04

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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
ps/bg = point source/background

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	SPT	Lab ID	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
11						Continued from Sheet 1		
12	A-N	--	--	--	--			
13 13.0						13.0	13.0	
14						Termination Depth at 13.0-ft		
15								
16								
17								
18								
19								
20								
21								
22								
23								
24								
25								
26								
27								
28								
29								
30								

DRILLING CO.: Parratt-Wolff BAKER REP.: Mark DeJohn

DRILLER: Arnold Chapel BORING NO.: TW04 SHEET 2 OF 2

Baker

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: Camp Lejeune RCRA Program - SWMU 307
PROJ. NO.: CTO-0143 BORING NO.: TW05
COORDINATES: EAST: 64123456.123 NORTH: 123456.789
ELEVATION: SURFACE: TOP OF PVC CASING:

Rig: Ingersol-Rand	**Macro Spoon**	**Casing**	**Augers**	**Core Barrel**	**Date**	**Progress (Ft.)**	**Weather**	**Depth to Water (Ft.)**
Size (ID)	2-in	--	3-3/4-in	--	6/21/2003	0.0 - 13.0	P sunny, brzy, 80s	4.0
Length	4-ft	--	5-ft	--				
Type	Acetate	--	HSA	--				
Hammer Wt.	--	--	--	--				
Fall	--	--	--	--				

Remarks:

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

WELL INFORMATION

Type	Diam.	Top Depth (Ft.)	Bottom Depth (Ft.)
Sch 40 PVC Casing	1-in	0.0	3.0
Sch 40 10-Slot PVC Screen	1-in	3.0	13.0

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	SPT	Lab ID	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
1	S-1	3.5 88%	--	--	--	F SAND, some silt, trace c sand & clay; dk brn; damp		
2						F/M SAND, little silt; brown; damp	1.3	2.0
3						SILT, trace clay; black; damp	2.8	3.0
4 4.0						F SAND, some silt, trace clay; gray; soupy wet at 4.0-ft		
5	S-2	4.0 100%	--	--	--			
6							6.0	
7						CLAY, some silt; dk gray; wet; plastic	6.9	
8 8.0						F SAND, some silt, trace clay; dark gray; wet		
9	A-N	--	--	--	--			
10						Match to Sheet 2		

DRILLING CO.: Parratt-Wolff BAKER REP.: Mark DeJohn
DRILLER: Arnold Chapel BORING NO.: TW05 SHEET 1 OF 2

Baker

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: Camp Lejeune RCRA Program - SWMU 307

CTO NO.: CTO-0143 BORING NO.: TW05

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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
ps/bg = point source/background

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	SPT	Lab ID	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
11						Continued from Sheet 1		
12	A-N	--	--	--	--			
13 13.0						13.0	13.0	
14						Termination Depth at 13.0-ft		
15								
16								
17								
18								
19								
20								
21								
22								
23								
24								
25								
26								
27								
28								
29								
30								

DRILLING CO.: Parratt-Wolff BAKER REP.: Mark DeJohn

DRILLER: Arnold Chapel BORING NO.: TW05 SHEET 2 OF 2

Baker

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: Camp Lejeune RCRA Program - SWMU 307

PROJ. NO.: CTO-0143 BORING NO.: TW06

COORDINATES: EAST: 2465289.177 NORTH: 362033.75

ELEVATION: SURFACE: TOP OF PVC CASING: 20.24

Rig: Ingersol-Rand								
	Macro Spoon	**Casing**	**Augers**	**Core Barrel**	**Date**	**Progress (Ft.)**	**Weather**	**Depth to Water (Ft.)**
Size (ID)	--	--	3-3/4-in	--	6/21/2003	0.0 - 14.0	P sunny, brzy, 80s	NA
Length	--	--	5-ft	--				
Type	--	--	HSA	--				
Hammer Wt.	--	--	--	--				
Fall	--	--	--	--				

Remarks:

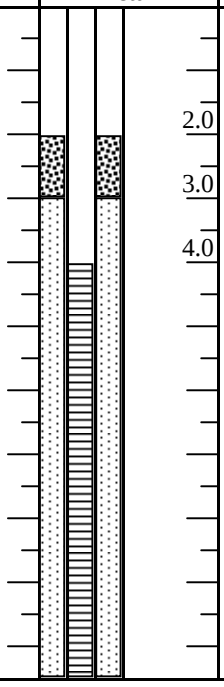
SAMPLE TYPE

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

WELL INFORMATION

Type	Diam.	Top Depth (Ft.)	Bottom Depth (Ft.)
Sch 40 PVC Casing	1-in	0.0	4.0
Sch 40 10-Slot PVC Screen	1-in	4.0	14.0

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	SPT	Lab ID	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
1								
2							2.0	
3							3.0	
4							4.0	
5	A-N							
6								
7								
8								
9								
10						Match to Sheet 2		



DRILLING CO.: Parratt-Wolff BAKER REP.: David D. Schilling

DRILLER: Lewis LeFever BORING NO.: TW06 SHEET 1 OF 2

Baker

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: Camp Lejeune RCRA Program - SWMU 307

CTO NO.: CTO-0143 BORING NO.: TW06

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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
ps/bg = point source/background

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	SPT	Lab ID	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
11						Continued from Sheet 1		
12	A-N							
13								
14							14.0	
15						Termination Depth at 14.0-ft		
16								
17								
18								
19								
20								
21								
22								
23								
24								
25								
26								
27								
28								
29								
30								

DRILLING CO.: Parratt-Wolff BAKER REP.: David D. Schilling

DRILLER: Lewis LeFever BORING NO.: TW06 SHEET 2 OF 2

Baker

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: Camp Lejeune RCRA Program - SWMU 307
PROJ. NO.: CTO-0143 BORING NO.: TW07
COORDINATES: EAST: 2465329.896 NORTH: 361952.953
ELEVATION: SURFACE: TOP OF PVC CASING: 17.19

Rig: Ingersol-Rand	Macro Spoon	Casing	Augers	Core Barrel	Date	Progress (Ft.)	Weather	Depth to Water (Ft.)
Size (ID)	2-in	--	3-3/4-in	--	6/21/2003	0.0 - 13.0	P sunny, brzy, 80s	8.0
Length	4-ft	--	5-ft	--				
Type	Acetate	--	HSA	--				
Hammer Wt.	--	--	--	--				
Fall	--	--	--	--				

Remarks:

SAMPLE TYPE

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

WELL INFORMATION

Type	Diam.	Top Depth (Ft.)	Bottom Depth (Ft.)
Sch 40 PVC Casing	1-in	0.0	3.0
Sch 40 10-Slot PVC Screen	1-in	3.0	13.0

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	SPT	Lab ID	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
1						SAND & GRAVEL 0.6 WOOD 0.8		
2		S-1	3.1 78%	--	--	--	F.SAND, trace silt, dark gray loose, damp 2.0 F.SAND, trace silt, brownish gray, loose, moist 3.0	2.0 3.0	
3								
4	4.0					F.SAND, some silt, dark gray very loose, wet		
5						5.1		
6		S-2	4.0 100%	--	--	--	CLAY, trace sand, mottled gray and orangish brown, firm, plastic, moist	
7								
8	8.0					8.0		
9						9.3		
10		S-3	2.8 70%	--	--	--	F.SAND, trace silt, gray, loose, Match to Sheet 2	

DRILLING CO.: Parratt-Wolff BAKER REP.: David D. Schilling
DRILLER: Lewis LeFever BORING NO.: TW07 SHEET 1 OF 2

Baker

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: Camp Lejeune RCRA Program - SWMU 307

CTO NO.: CTO-0143 BORING NO.: TW07

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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
ps/bg = point source/background

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	SPT	Lab ID	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
11						Continued from Sheet 1		
12			--	--	--	wet 12.0		
13	13.0	A-N	--	--	--	13.0	13.0	
14						Termination Depth at 13.0-ft		
15								
16								
17								
18								
19								
20								
21								
22								
23								
24								
25								
26								
27								
28								
29								
30								

DRILLING CO.: Parratt-Wolff BAKER REP.: David D. Schilling

DRILLER: Lewis LeFever BORING NO.: TW07 SHEET 2 OF 2

Baker

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: Camp Lejeune RCRA Program - SWMU 314
PROJ. NO.: CTO-0143 BORING NO.: 314-MW04
COORDINATES: EAST: 64123456.123 NORTH: 123456.789
ELEVATION: SURFACE: TOP OF PVC CASING:

Rig: Ingersol-Rand	**Macro Spoon**	**Casing**	**Augers**	**Core Barrel**	**Date**	**Progress (Ft.)**	**Weather**	**Depth to Water (Ft.)**
Size (ID)	2-in	--	6-1/4-in	--	6/23/2003	0.0 - 15.0	Sunny, sl brzy, 70s	4.0
Length	4-ft	--	5-ft	--				
Type	Acetate	--	HSA	--				
Hammer Wt.	--	--	--	--				
Fall	--	--	--	--				

Remarks:

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

WELL INFORMATION

Type	Diam.	Top Depth (Ft.)	Bottom Depth (Ft.)
Sch 40 PVC Casing	1-in	0.0	5.0
Sch 40 10-Slot PVC Screen	1-in	5.0	15.0

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	SPT	Lab ID	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
1	S-1	3.0 75%	--	--	--	SILT,little clay; dark brown; moist	1.0	
2						zone of fine sand, some silt		
3							2.9	
4 4.0						zone of fine gravel	4.0	
5	S-2	3.0 75%	--	--	--		5.0	
6						F SAND, little silt, trace clay; gray; wet at 4.0-ft		
7								
8 8.0								
9	A-N	--	--	--	--			
10						Match to Sheet 2		

DRILLING CO.: Parratt-Wolff BAKER REP.: Mark DeJohn
DRILLER: Lewis Lafever BORING NO.: 314-MW04 SHEET 1 OF 2

Baker

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: Camp Lejeune RCRA Program - SWMU 314

CTO NO.: CTO-0143 BORING NO.: 314-MW04

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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
ps/bg = point source/background

Depth (Ft.)		Sample Type & No.	Sample Rec. (Ft.,%)	SPT	Lab ID	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
11							Continued from Sheet 1		
12									
13		A-N	--	--	--	--			
14									
15	15.0						15.0	15.0	
							Termination Depth at 15.0-ft		
16									
17									
18									
19									
20									
21									
22									
23									
24									
25									
26									
27									
28									
29									
30									

DRILLING CO.: Parratt-Wolff BAKER REP.: Mark DeJohn

DRILLER: Lewis Lafever BORING NO.: 314-MW04 SHEET 2 OF 2

Baker

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: Camp Lejeune RCRA Program - SWMU 336
PROJ. NO.: CTO-0143 BORING NO.: TW03
COORDINATES: EAST: 2465244.01 NORTH: 353706.790
ELEVATION: SURFACE: TOP OF PVC CASING: 26.59

Rig: Ingersol-Rand	Macro Spoon	Casing	Augers	Core Barrel	Date	Progress (Ft.)	Weather	Depth to Water (Ft.)
Size (ID)	2-in	--	3-3/4-in	--	6/23/2003	0.0 - 18.0	NA	10.0
Length	4-ft	--	5-ft	--				
Type	Acetate	--	HSA	--				
Hammer Wt.	--	--	--	--				
Fall	--	--	--	--				

Remarks: Sample ID is as follows: "SWMU336-TW03-__", with the suffix shown below.

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

WELL INFORMATION

Type	Diam.	Top Depth (Ft.)	Bottom Depth (Ft.)
Sch 40 PVC Casing	1-in	0.0	8.0
Sch 40 10-Slot PVC Screen	1-in	8.0	18.0

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	SPT	Lab ID	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
1				00	0	F.SAND, little silt, dark gray,		
					0	loose damp 0.8		
2		S-1	--		0	F.SAND, trace silt, brown, loose,		
		3.3			0	damp		
3		83%			0	2.6		
					0	CLAY, trace sand, orange & gray		
4	4.0					mottled, firm, semi-plastic, damp		
						4.0		
5					0.1	M.SAND, trace silt, orangish 4.6		
					0	brown, loose, moist	5.0	
6		S-2	--	--	0	CLAY, little sand, orange and		
		3.9			0	gray mottled, firm, semi-plastic,	6.0	
7		98%			0	damp		
					0			
8	8.0				0	8.0	8.0	
9				04	0.6			
				04D	0			
10		S-3	--		0.1			
		3.7			0	10.0		
		93%			0	CLAY, little sand, orange and		

DRILLING CO.: Parratt-Wolff BAKER REP.: David D. Schilling
DRILLER: Lewis LeFever BORING NO.: TW03 SHEET 1 OF 2

Baker

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: Camp Lejeune RCRA Program - SWMU 336

CTO NO.: CTO-0143 BORING NO.: TW03

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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
ps/bg = point source/background

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	SPT	Lab ID	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
11					0	gray mottled, firm, semi-plastic,		
					0.1	wet 11.5		
12					0	F.SAND & CLAY, gray, plastic,		
						loose, wet		
13								
14								
15		A-N	--	--	--	--		
16								
17								
18	18.0					18.0	18.0	
						Termination Depth at 18.0-ft		
19								
20								
21								
22								
23								
24								
25								
26								
27								
28								
29								
30								

DRILLING CO.: Parratt-Wolff BAKER REP.: David D. Schilling

DRILLER: Lewis LeFever BORING NO.: TW03 SHEET 2 OF 2

Baker

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: Camp Lejeune RCRA Program - SWMU 336
PROJ. NO.: CTO-0143 BORING NO.: TW04
COORDINATES: EAST: 2465218.470 NORTH: 353707.33
ELEVATION: SURFACE: TOP OF PVC CASING: 23.42

Rig: Ingersol-Rand	Macro Spoon	Casing	Augers	Core Barrel	Date	Progress (Ft.)	Weather	Depth to Water (Ft.)
Size (ID)	2-in	--	3-3/4-in	--	6/23/2003	0.0 - 16.0	NA	11.6
Length	4-ft	--	5-ft	--				
Type	Acetate	--	HSA	--				
Hammer Wt.	--	--	--	--				
Fall	--	--	--	--				

Remarks: Sample ID is as follows: "SWMU336-TW04-__", with the suffix shown below.

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

WELL INFORMATION

Type	Diam.	Top Depth (Ft.)	Bottom Depth (Ft.)
Sch 40 PVC Casing	1-in	0.0	6.0
Sch 40 10-Slot PVC Screen	1-in	6.0	16.0

Depth (Ft.)		Sample Type & No.	Sample Rec. (Ft.,%)	SPT	Lab ID	PID (ppm) ps/bg	Visual Description		Well Installation Detail	Elevation (Ft. MSL)
					00	0	ASPHALT	0.2		
1						0	SAND & GRAVEL	0.8		
						2.3	CLAY, trace sand, orange and			
2		S-1	4.0	--		0	gray mottled, firm, semi-plastic,			
			100%			0.1	damp			
3						0			3.0	
						0				
4	4.0					0		4.0	4.0	
						0				
5						0				
						0				
6		S-2	3.8	--	--	0			6.0	
			95%			0				
7						0	CLAY, little sand, olive drab,			
						0	orange staining, firm, plastic,			
8	8.0					0	moist	8.0		
						0				
9						0				
						0				
10		S-3	3.8	--		0				
			95%			0	CLAY, trace sand, olive drab,			

DRILLING CO.: Parratt-Wolff BAKER REP.: David D. Schilling
DRILLER: Lewis LeFever BORING NO.: TW04 SHEET 1 OF 2

Baker

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: Camp Lejeune RCRA Program - SWMU 336

CTO NO.: CTO-0143 BORING NO.: TW04

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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
ps/bg = point source/background

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	SPT	Lab ID	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
11					0	soft, plastic, moist		
					0	11.6		
12				06	0	M.SAND, trace silt, brownish gray		
						loose, wet		
13								
14	A-N	--	--	--	--			
15								
16						16.0		
						Termination Depth at 16.0-ft		
17								
18								
19								
20								
21								
22								
23								
24								
25								
26								
27								
28								
29								
30								

DRILLING CO.: Parratt-Wolff BAKER REP.: David D. Schilling

DRILLER: Lewis LeFever BORING NO.: TW04 SHEET 2 OF 2

Baker

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: Camp Lejeune RCRA Program - SWMU 336
PROJ. NO.: CTO-0143 BORING NO.: TW05
COORDINATES: EAST: 2465218.160 NORTH: 353682.95
ELEVATION: SURFACE: TOP OF PVC CASING: 26.42

Rig: Ingersol-Rand	Macro Spoon	Casing	Augers	Core Barrel	Date	Progress (Ft.)	Weather	Depth to Water (Ft.)
Size (ID)	2-in	--	3-3/4-in	--	6/23/2003	0.0 - 17.0	NA	8.0
Length	4-ft	--	5-ft	--				
Type	Acetate	--	HSA	--				
Hammer Wt.	--	--	--	--				
Fall	--	--	--	--				

Remarks: Sample ID is as follows: "SWMU336-TW05-__", with the suffix shown below.

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

WELL INFORMATION

Type	Diam.	Top Depth (Ft.)	Bottom Depth (Ft.)
Sch 40 PVC Casing	1-in	0.0	7.0
Sch 40 10-Slot PVC Screen	1-in	7.0	17.0

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	SPT	Lab ID	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
1				00	0.2	SAND & GRAVEL, sub-base		
					0	CLAY, trace sand, gray, firm,		
					0.1	non-plastic, damp		
2		S-1	--		0	2.1		
		2.6			0	SAND & GRAVEL 2.4		
3		65%			0	CLAY, trace sand, orangish br.,		
						firm, semi-plastic, damp		
4	4.0					4.0	4.0	
					0.4	4.4		
5					0	SAND & GRAVEL 4.6	5.0	
					0.2	CLAY, tr. sand, orangish br., 5.3		
6		S-2	--		0	firm, semi-plastic, dam 5.7		
		2.3				CLAY & GRAVEL, black, soft,		
7		58%				semi-plastic, moist	7.0	
						CLAY, little f.sand, gray, soft,		
8	8.0			04		plastic, moist 8.0		
						CLAY, trace sand, trace gravel		
9						brownish gray, soft, plastic, wet		
10		S-3	--	--	--			
		0.4						
		10%						

DRILLING CO.: Parratt-Wolff BAKER REP.: David D. Schilling
DRILLER: Lewis LeFever BORING NO.: TW05 SHEET 1 OF 2

Baker

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: Camp Lejeune RCRA Program - SWMU 336

CTO NO.: CTO-0143 BORING NO.: TW05

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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
ps/bg = point source/background

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	SPT	Lab ID	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
11								
12								
13	A-N	--	--	--	--			
14								
15								
16								
17						17.0	17.0	
18						Termination Depth at 17.0-ft		
19								
20								
21								
22								
23								
24								
25								
26								
27								
28								
29								
30								

DRILLING CO.: Parratt-Wolff BAKER REP.: David D. Schilling

DRILLER: Lewis LeFever BORING NO.: TW05 SHEET 2 OF 2

Baker

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: Camp Lejeune RCRA Program - SWMU 336
PROJ. NO.: CTO-0143 BORING NO.: TW06
COORDINATES: EAST: 2465233.190 NORTH: 353693.58
ELEVATION: SURFACE: TOP OF PVC CASING: 27.09

Rig: Ingersol-Rand	Macro Spoon	Casing	Augers	Core Barrel	Date	Progress (Ft.)	Weather	Depth to Water (Ft.)
Size (ID)	2-in	--	3-3/4-in	--	6/23/2003	0.0 - 17.0	NA	14.2
Length	4-ft	--	5-ft	--				
Type	Acetate	--	HSA	--				
Hammer Wt.	--	--	--	--				
Fall	--	--	--	--				

Remarks: Sample ID is as follows: "SWMU336-TW06-__", with the suffix shown below.

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

WELL INFORMATION

Type	Diam.	Top Depth (Ft.)	Bottom Depth (Ft.)
Sch 40 PVC Casing	1-in	0.0	7.0
Sch 40 10-Slot PVC Screen	1-in	7.0	17.0

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	SPT	Lab ID	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
1				00	0.1	CLAY, trace sand, grayish brown,		
					0	firm, non-plastic, damp 0.9		
2	S-1	1.8	--		0	CLAY, trace sand, orangish brown, firm, plastic, moist 1.8		
		45%						
3								
4	4.0					4.0	4.0	
					0	CLAY & SAND, orangish brown,		
5					0	firm, plastic, moist, terracotta pipe		
					0	fragments 5.6	5.5	
6	S-2	1.6	--	--	0			
		40%						
7							7.0	
8	8.0					8.0		
					0	CLAY & SAND, brown, plastic,		
9					0	saturated		
					0	9.6		
10	S-3	3.8	--	--	0	CLAY, little sand, orange and gray		
		95%			0	mottled, firm, plastic, moist		

DRILLING CO.: Parratt-Wolff BAKER REP.: David D. Schilling
DRILLER: Lewis LeFever BORING NO.: TW06 SHEET 1 OF 2

Baker

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: Camp Lejeune RCRA Program - SWMU 336

CTO NO.: CTO-0143 BORING NO.: TW06

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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
ps/bg = point source/background

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	SPT	Lab ID	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
11					0			
					0			
12					0	12.0		
					0	CLAY & SAND, orangish brown,		
13					0	firm, plastic, moist		
					0			
14	S-4	3.7	--	07	0	14.2		
		93%			0	F.SAND, little clay, gray, very		
15					0	loose, wet		
					0	15.7		
16					0	16.0		
17	A-N	--	--	--	--	17.0	17.0	
18						Termination Depth at 17.0-ft		
19								
20								
21								
22								
23								
24								
25								
26								
27								
28								
29								
30								

DRILLING CO.: Parratt-Wolff BAKER REP.: David D. Schilling

DRILLER: Lewis LeFever BORING NO.: TW06 SHEET 2 OF 2

Baker

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: Camp Lejeune RCRA Program - SWMU 361
PROJ. NO.: CTO-0143 BORING NO.: TW02
COORDINATES: EAST: 64123456.123 NORTH: 123456.789
ELEVATION: SURFACE: TOP OF PVC CASING:

Rig: Ingersol-Rand	**Macro Spoon**	**Casing**	**Augers**	**Core Barrel**	**Date**	**Progress (Ft.)**	**Weather**	**Depth to Water (Ft.)**
Size (ID)	2-in	--	3-3/4-in	--	6/22/2003	0.0 - 18.0	M sunny, brzy, 70s	16.0
Length	4-ft	--	5-ft	--				
Type	Acetate	--	HSA	--				
Hammer Wt.	--	--	--	--				
Fall	--	--	--	--				

Remarks:

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

WELL INFORMATION

Type	Diam.	Top Depth (Ft.)	Bottom Depth (Ft.)
Sch 40 PVC Casing	1-in	0.0	3.0
Sch 40 10-Slot PVC Screen	1-in	3.0	13.0

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	SPT	Lab ID	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
1				00		ASPHALT and gravel subbase 1.0		
2	S-1	2.4 60%	--		--	F SAND, some silt, trace clay; brown; damp		
3								
4 4.0								
5							5.0	
6	S-2	3.0 75%	--	--	--		6.0	
7								
8 8.0						some silt, little clay; rusty-brown; moist	8.0	
9	S-3	3.5 88%	--	--		some silt & clay; brown & gray laminae; moist		
10					05	Match to Sheet 2		

DRILLING CO.: Parratt-Wolff BAKER REP.: Mark DeJohn
DRILLER: Arnold Chapel BORING NO.: TW02 SHEET 1 OF 2

Baker

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: Camp Lejeune RCRA Program - SWMU 361

CTO NO.: CTO-0143 BORING NO.: TW02

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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
ps/bg = point source/background

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	SPT	Lab ID	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
11						Continued from Sheet 1 — 10.8		
12 — 12.0						CLAY, little silt, trace f sand; gray w/ brown; moist		
13								
14	S-4	3.0 75%	--	--	--			
15						gray w/ brown staining		
16 — 16.0						15.8		
17	A-N	--	--	--	--	F/M SAND, some silt, little clay; gray; wet at 16.0-ft		
18 — 18.0						18.0	18.0	
19						Termination Depth at 18.0-ft		
20								
21								
22								
23								
24								
25								
26								
27								
28								
29								
30								

DRILLING CO.: Parratt-Wolff BAKER REP.: Mark DeJohn

DRILLER: Arnold Chapel BORING NO.: TW02 SHEET 2 OF 2

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT:	Camp Lejeune RCRA Program - SWMU 361		
PROJ. NO.:	CTO-0143	BORING NO.:	TW03
COORDINATES:	EAST: 2496433.386	NORTH:	336071.555
ELEVATION:	SURFACE:	TOP OF PVC CASING:	

Rig: Ingersoll Rand	**Macro Core**	**Casing**	**Augers**	**Core Barrel**	**Date**	**Progress (Ft.)**	**Weather**	**Depth to Water (Ft.)**
Size (ID)	2 in	--	6-1/4 in	--	6/22/2003	0.0 - 17.0		9
Length	4 ft	--	5 ft	--				
Type	Acetate	--	HAS	--				
Hammer Wt.	--	--	--	--				
Fall	--	--	--	--				

Remarks: Sample ID is as follows: "SWMU361-TW03-__, with suffix shown below

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

WELL INFORMATION

Type	Diam.	Top Depth (Ft.)	Bottom Depth (Ft.)
Sch 40 PVC Casing	1-in	0.0	7.0
Sch 40 10-Slot PVC Screen	1-in	7.0	17.0

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	SPT	Lab ID	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
1				00		F.SAND, some silt, loam, dark brown, grass roots, damp 0.2		
2	S-1	3.3 83%	--		--	F.SAND, trace silt, brown, loose, damp		
3								
4	4.0					3.3 / 4.0		
5						F.SAND, trace silt, orangish brown, loose, damp 5.0		
6	S-2	3.0 75%	--	--	--	F.SAND, trace silt, light tan, loose, damp 6.1		
7						F.SAND, trace silt, grayish brown, dk. brown lenses, loose, moist 7.0		
8	8.0					8.0		
9						F.SAND, trace silt, brown, loose, moist 8.6 / 9.0		
10	S-3	3.6 90%	--		--	F.SAND, trace silt, brownish gray, loose, moist / F.SAND, trace silt, brownish gray		

DRILLING CO.:	Parratt - Wolff	BAKER REP.:	David Schilling
DRILLER:	Lewis LeFever	BORING NO.:	TW03 SHEET 1 OF 2

Baker

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: Camp Lejeune RCRA Program - SWMU 361

CTO NO.: CTO-0143 BORING NO.: TW03

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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
ps/bg = point source/background

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	SPT	Lab ID	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
11						orange staining, loose, wet 11.0		
12	12.0			06 06D		CLAY, trace sand, orange & gray mottled, firm, semi-plastic, damp		
13						F.SAND, trace silt, brownish gray, loose, wet 13.6		
14		S-4	4 100%	--	--	CLAY, some sand, brownish gray, firm, plastic, wet		
15								
16	16.0					16.0		
17	17.0	A-N	--	--	--	-- 17		
18						Termination Depth = 17.0		
19								
20								
21								
22								
23								
24								
25								
26								
27								
28								
29								
30								

DRILLING CO.: Parratt - Wolff BAKER REP.: David Schilling

DRILLER: Lewis LeFever BORING NO.: TW03 SHEET 2 OF 2

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: Camp Lejeune RCRA Program - SWMU 361
PROJ. NO.: CTO-0143 BORING NO.: TW04
COORDINATES: EAST: 2496469.027 NORTH: 336095.776
ELEVATION: SURFACE: TOP OF PVC CASING:

Rig:	Ingersoll Rand A-300				Date	Progress (Ft.)	Weather	Depth to Water (Ft.)
	Macro Core	Casing	Augers	Core Barrel				
Size (ID)	2 in	--	6-1/4 in	--	6/18/2003	0.0 - 16.0		12.7
Length	4 ft	--	5 ft	--				
Type	Acetate	--	HAS	--				
Hammer Wt.	--	--	--	--				
Fall	--	--	--	--				

Remarks: Sample ID is as follows: "SWMU361-TW04-__, with suffix shown below

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

WELL INFORMATION

Type	Diam.	Top Depth (Ft.)	Bottom Depth (Ft.)
Sch 40 PVC Casing	1-in	0.0	7.0
Sch 40 10-Slot PVC Screen	1-in	7.0	17.0

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	SPT	Lab ID	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
1				00		F. SAND, some silt, dark gray, loose, damp 1.1		
2	S-1	2.7 68%	--		--	F. SAND, trace silt, brown, loose damp 2.1		
3						RED BRICK 2.4		
4	4.0					F. SAND, trace silt, light orangish brown, loose, damp		
5						4.6 F. SAND, trace silt, light gray, 4.8 loose, moist 5.6		
6	S-2	2.6 65%	--	--	--	F. SAND, trace silt, orangish brown, loose, wet		
7						F. SAND, trace silt, brownish gray loose, wet		
8	8.0							
9						F. SAND, some silt, brownish gray, loose, moist 8.9		
10	S-3	4.0 100%	--	--	--	CLAY, little sand, orange and gray mottled, firm, plastic, moist		

DRILLING CO.: Parratt - Wolff BAKER REP.: David Schilling
DRILLER: Phillip Nichols BORING NO.: TW04 SHEET 1 OF 2

Baker

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: Camp Lejeune RCRA Program - SWMU 361

CTO NO.: CTO-0143 BORING NO.: TW04

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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
ps/bg = point source/background

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	SPT	Lab ID	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
11								
12 12.0								
13				06		12.7 SILT, trace sand, light gray, orange staining, wet		
14	S-4	4 100%	--		--			
15						14.3 F. SAND, little silt, light gray, orange staining, wet		
16 16.0						16.0		
17 17.0						17.0 Termination Depth = 17.0		
18								
19								
20								
21								
22								
23								
24								
25								
26								
27								
28								
29								
30								

DRILLING CO.: Parratt - Wolff BAKER REP.: David Schilling

DRILLER: Phillip Nichols BORING NO.: TW04 SHEET 2 OF 2

Baker

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: Camp Lejeune RCRA Program - SWMU 361
PROJ. NO.: CTO-0143 BORING NO.: TW05
COORDINATES: EAST: 2496465.821 NORTH: 336134.142
ELEVATION: SURFACE: TOP OF PVC CASING:

Rig:	Ingersoll Rand A-300				Date	Progress (Ft.)	Weather	Depth to Water (Ft.)
	Macro Core	Casing	Augers	Core Barrel				
Size (ID)	2 in	--	6-1/4 in	--	6/18/2003	0.0 - 20.0		16.8
Length	4 ft	--	5 ft	--				
Type	Acetate	--	HAS	--				
Hammer Wt.	--	--	--	--				
Fall	--	--	--	--				

Remarks: Sample ID is as follows: "SWMU361-TW05-__, with suffix shown below

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

WELL INFORMATION

Type	Diam.	Top Depth (Ft.)	Bottom Depth (Ft.)
Sch 40 PVC Casing	1-in	0.0	14.0
Sch 40 10-Slot PVC Screen	1-in	14.0	24.0

Depth (Ft.)		Sample Type & No.	Sample Rec. (Ft.,%)	SPT	Lab ID	PID (ppm) ps/bg	Visual Description		Well Installation Detail	Elevation (Ft. MSL)
1					00		ASPHALT	0.3		
							SAND & GRAVEL	0.8		
2		S-1	3.2 80%	--		--	CLAY, some sand, orangish brown, firm, semi-plastic, damp	2.2		
3							CLAY, trace sand, orangish brown, firm, plastic, moist			
4	4.0							4.0		
5							F. SAND, trace clay, orangish brown, loose, moist			
6		S-2	3.6 90%	--	--	--	F. SAND, trace silt, orangish brown, loose, wet	5.6 6.2		
7							F. SAND, trace silt, light brown, orange staining, loose, moist			
8	8.0									
9								9.1		
10		S-3	3.2 80%	--	--	--	CLAY, trace sand, gray and orange mottled, firm, plastic, moist			

DRILLING CO.: Parratt - Wolff BAKER REP.: David Schilling
DRILLER: Phillip Nichols BORING NO.: TW05 SHEET 1 OF 2

Baker

Baker Environmental

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: Camp Lejeune RCRA Program - SWMU 361

CTO NO.: CTO-0143 BORING NO.: TW05

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 D1586)
PID = Photo Ionization Detector Measurement
MSL = Mean Sea Level
ps/bg = point source/background

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	SPT	Lab ID	PID (ppm) ps/bg	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
11						CLAY, trace sand, gray and orange mottled, firm, plastic, moist		
12 12.0								
13								
14	S-4	3.8 95%	--	--	--			
15								
16 16.0								
17				08		16.8		
18	S-5	4 100%	--		--	F. SAND, trace silt, grayish brown very loose, saturated		
19						19.1		
20 20.0						M. SAND, trace silt, grayish brown, orange staining, loose, wet		
21								
22								
23								
24						Termination Depth = 24.0		
25								
26								
27								
28								
29								
30								

DRILLING CO.: Parratt - Wolff BAKER REP.: David Schilling

DRILLER: Phillip Nichols BORING NO.: TW05 SHEET 2 OF 2

APPENDIX B
GROUNDWATER TECHNICAL MEMO

SUMMARY OF GROUNDWATER DATA AND AQUIFER CHARACTERISTICS MARINE CORPS BASE, CAMP LEJEUNE JACKSONVILLE, NORTH CAROLINA

SUMMARY

This study examines the utility of exploratory aquifer tests (pump tests) at investigation sites across Marine Corps Base, Camp Lejeune (MCB-CL). The study reviews the available information on the relevant water-bearing layers, considers the general characteristics and applicability of aquifer tests, and concludes:

- That available information is satisfactorily complete to allow appropriate designs of groundwater systems in the main operating areas of MCB-CL;
- That quantified characterization of the water-bearing layers in explored areas of MCB-CL can be extended to other areas having similar geologic terrane;
- That exploratory tests are no longer routinely required or advisable;
- That reconnaissance testing (well-head tests or slug tests) of each newly installed or otherwise uncharacterized data station is highly advisable; and,
- That performance testing of groundwater extraction systems should be the recommended form of evaluating and adjusting withdrawal systems.

BACKGROUND

This study considers the aquifer characteristics (especially, the Coefficient of Transmissivity) and the production capacities (available discharge rates) of the two water-bearing layers relevant to the studies at MCB-CL. These water-bearing layers are the (shallow or surficial) water table and the Upper Castle Hayne Aquifer.

The water table at MCB-CL occupies the water-bearing zone within 25 to 35 feet of the surface; the Castle Hayne, immediately below this. However, the separation of the water table and the Castle Hayne is not always obvious. Usually, this separation is effected only by the low permeability material of the water table transiting to the significantly more permeable material of the Upper Castle Hayne; there is rarely an aquiclude or aquitard of vertically extensive clay separating the water table from the Castle Hayne.

The data available for this summary derive from three main sources:

- Assessment of Hydrologic and Hydrogeologic Data at Camp Lejeune Marine Corps Base, North Carolina; U.S. Geological Survey, Water-Resources Investigation Report 89-4096; 1989
- Wellhead Management Program Engineering Study 91-36; Geophex, Ltd.; 22Jan91
- Various site investigations by Baker Environmental, Inc., and reported to LANTDIV and MCB-CL

COMPARABILITY OF DATA ACROSS MCB-CL

The stratigraphic sequences of MCB-CL containing the water table and the Upper Castle Hayne have been well characterized. The available information indicates that the lithology and the hydrologic conditions can be correlated stratigraphically across the base (Tables 1 and 2). From these correlations, aquifer performance can be predicted sufficiently for an engineering design whose final criteria for suitability are performance-based.

The upper water-bearing zone is a highly variable layering and intercalation of clay, silt and sand. This variability, however, is found within recognizable limits. These limits correspond to the range of hydrologic characteristics described previously. Similar correlation is available for the lithology and hydrology of the Upper Castle Hayne.

In areas not near stations catalogued in Tables 1, 2 and 3, a reconnaissance comparison of well-head tests (slug tests) and an examination of lithologic descriptions will likely be sufficient to support the engineering evaluation of the site. There is ample demonstration that lithology has a significant influence on the hydrology of a site, and that, for a given geologic terrane, the influence is fairly consistent. The geologic terrane of MCB-CL has been broadly characterized and correlated between lithologic (stratigraphic descriptions) and hydrologic (aquifer tests and well-head tests) sequences. Lithologic descriptions can now provide a good indication of hydrologic conditions at MCB-CL in areas of similar terrane.

GENERAL APPLICABILITY OF AQUIFER TESTS

Aquifer (pump) tests are an extremely dangerous activity at contamination sites. While the information available from aquifer tests is required for engineering design of withdrawal systems, aquifer tests should not be a reconnaissance or an initial step in the investigation. Full consideration must be made of the redistribution of contaminants expectable from the test, of the change in structural support of disposal features by relaxation or increase of hydrostatic loading, and so forth.

Consideration must also be made of alternative sources of acceptable data on the aquifer. In the case of MCB-CL, alternatives to exploratory aquifer tests are available from the tabulation and correlation of aquifer characteristics, production performance and geologic terrane presently available.

From the available information and in light of the relative consistency of the geologic terrane of MCB-CL, exploratory tests at MCB-CL are not generally required. Therefore, exploratory tests are not advisable and should not form part of the initial investigation of a site. While they may be useful in certain circumstances after the initial investigation of a site, they should not, in the general case, be part of the investigation. Sufficiently satisfactory information is presently available to allow the initial engineering design of a groundwater response.

While exploratory aquifer tests are not advisable, performance tests of a newly installed system are highly recommended. These tests, to some extent, are a normal part of the initial operation of a system. Only minor additional monitoring and modification of the system during operation would provide data directly relevant to the long-term operation of that system.

In the Coastal Plain of MCB-CL, the information from an exploratory data station not coincident with the long-term extraction system is not fully transferable. That is, if the test station and the

TABLE 1
CAMP LEJEUNE PUMP TEST DATA

Well Number	Well Depth (ft,BGS)	Well Diameter (in)	Total Aquifer Thickness (ft)	Screened Length (ft)	Screened Interval (ft,BGS)	Water-level Drawdown During Pumping (ft,BGS)	Pumping Rate (Recovery wells) GPM	Duration of Pumping (min)	Specific Capacity (pumping rate/ drawdown)	T (square ft/ day)	K (ft/day)	S	Soils (ft,BGS)
013RW-01*	23	2	15	20	3-23	8.773	1	480	0.11	7.17	0.48	NA	0-10 silt/clay, 10-23 sand.
013MW-18	13	2	15	10	3-13	0.297	NA	480	NA	105.98	7.06	1.40E-02	0-7 silt/clay, 7-13 sand.
013MW-21	14	2	15	10	4-14	0.31	NA	480	NA	82.27	5.48	2.77E-02	0-4 silt/sand, 0-14 clay/silt
108RW-01*	15	2	9	9.1	2.45-11.55	6.38	0.5	485	0.08	5.30	0.59	NA	very fine sand
108MW-04		2	9				NA	485	NA	118.63	13.18	1.33E-02	
108MW-15	12.5	2	9	9.03	2.79-11.82		NA	485	NA	56.78	6.31	7.33E-03	0-8 sand/silt, 8-10 silt/clay
109MW-15		2	15			0.939	NA	460	NA	76.26	5.08	1.11E-02	
109MW-17	14.5	2	15	10	4.5-14.5	0.545	NA	460	NA	163.10	10.87	7.30E-03	0-15 fine sand
109RW-01*	15	2	15	9.5	2-11.5	6.265	3	460	0.48	7.80	0.52	NA	0-4 sand, 4-8 silt, 8-15 sand
0RW-01* (Drawdown,Theis)	21.8	2	50	19.2	2-21.2	9.53	3	475	0.31	200.02	4.00	NA	0-10.5 sand/silt, 10.5-15 sand/clay, 15-21.5 sand/clay, 21.5- sand
0RW-01* (Drawdown,Cooper)										161.86	3.24	NA	
0RW-01* Recovery(Theis)										106.06	2.12	NA	
10DW-01 (Drawdown,Theis)	30.3	2	50	4.8	24.9-29.7	0.02	3	475	NA	7080.48	142.00	4.52E-03	0-4 sand/silt, 4-10.5 clay, 10.5-15.5 sand/silt,15.5-20.5 clay, 20.5-on sand
10DW-01 (Drawdown,Cooper)									NA	7099.20	142	4.51E-03	
10DW-02 (Drawdown,Theis)	30	2	50	4.7	24.7-29.4	0.52	NA	475	NA	5398.56	108.00	1.51E-03	0-3 sand and silt with clay layers, 3-11 sand and silt, 11-30 sand with some limited clay layers
10DW-02 (Drawdown,Cooper)									NA	5400.00	108	1.51E-03	
10DW-03 (Drawdown,Theis)	30	2	50	4.9	24.5-29.4	0.47	NA	475	NA	2952.00	59.00	7.48E-02	0-6 sand and silt , 6-12 sand, 12-23 sand/clay, 23-30 sand
10DW-03 (Drawdown,Cooper)									NA	3225.60	64	5.85E-02	

= Transmissivity
= Hydraulic Conductivity
= Storativity
= Pumping well
- Not applicable

TABLE 3

BARONE:8SEP94:CL5-1A1:1/5

MCB-CL5 CTO-232 CL5-1B1.wks 8SEP94 MCB-CAMP LEJEUNE

STATION	b ft	Q gpm	Sc gpm/ft	T ft-sq/d	T gpd/ft	K ft/d
013RW-01	15	1.0	0.11	7.2	54	0.5
013MW-1	15			106.0	793	7.1
013MW-2	15			82.3	615	5.5
013MW-03	1					0.8
013MW-04	8					0.3
013MW-11	9					0.4
013MW-21	8					0.5
41GW-07						1.2
41GW-08						0.1
41GW-09						3.7
41GW-10						0.9
41GW-12						4.6
69GW-09						1.7
69GW-10						0.2
69GW-12						0.1
69GW-02DW						0.3
69GW-12DW						6.7
74GW-03A						0.6
74GW-06						6.3
74GW-08						3.6
108RW-01	9	0.5	0.08	5.3	40	0.6
108MW-0	9			118.6	887	13.2
108MW-1	9			56.8	425	6.3
108MW-08	9					0.6
108MW-09	8					0.5
108MW-13	8					0.1
108MW-17	8					0.6
109MW-1	15			76.3	570	5.1
109MW-1	15			163.1	1220	10.9
109RW-01	15	3.0	0.48	7.8	58	0.5
109MW-17	15					9.0
109MW-18	15					5.7
110RW-01	50	3.0	0.31	200.0	1496	4.0
110RW-01	50	3.0	0.31	161.9	1211	3.2
110RW-01	50	3.0		106.1	793	2.1
110DW-01	50			7080	52962	142.0
110DW-01	50			7099	53102	142.0
110DW-02	50			5399	40381	108.0
110DW-02	50			5400	40392	108.0
110DW-03	50			2952	22081	59.0
110DW-03	50			3226	24127	64.0
110MW-07	9					0.1
110MW-09	9					0.2
110DW-03	22					5.8

STATION	PUMPING LEVEL	Q gpm	Sc gpm/ft
HP-602	44	154	3.5
HP-603	30	129	4.3
HP-606	38	267	7.0
HP-607	46	246	5.3
HP-608	21	208	9.9
HP-609	45	199	4.4
HP-610	14	214	15.3
HP-613	17	157	9.2
HP-616	15	178	11.9
HP-620	9	224	24.9
HP-622	55	330	6.0
HP-623	30	210	7.0
HP-628	45	172	3.8
HP-629	45	216	4.8
HP-632	21	224	10.7
HP-633	18	205	11.4
HP-634	36	219	6.1
HP-635	33	151	4.6
HP-636	35	149	4.3
HP-637	40	130	3.3
HP-638	84	201	2.4
HP-639	52	[--]	0.0
HP-640	28	210	7.5
HP-641	44	351	8.0
HP-642	32	[--]	0.0
HP-643	35	269	7.7
HP-644	52	230	4.4
HP-645	40	192	4.8
HP-646	11	154	14.0
HP-647	26	302	11.6
HP-648	84	263	3.1
HP-649	80	100	1.3
HP-650	75	480	6.4
HP-651	69	242	3.5
HP-652	82	216	2.6
HP-653	29	197	6.8
HP-654	30	175	5.8
HP-655		[--]	ERR
HP-660		150	ERR
HP-661	37	275	7.4
HP-662	53	148	2.8
HP-663	23	100	4.3
HP-698	33	216	6.5
HP-699	21	140	6.7

STATION	PUMPING LEVEL	Q gpm	Sc gpm/ft
AS-108	8	226	28.3
AS-131	11	310	28.2
AS-190	60	220	3.7
AS-191	16	220	13.8
AS-203	19	220	11.6
AS-4140	6	110	18.3
AS-4150	10	128	12.8
AS-5001	27	185	6.9
AS-5009	53	111	2.1
BA-164	21	214	10.2
BA-190	17	303	17.8

APPENDIX C
CHAIN-OF-CUSTODY AND SAMPLE TRACKING FORMS

Baker Environmental Inc. Chain of Custody

NUMBER OF COOLERS: 1

CHAIN OF CUSTODY NUMBER: 0001

PAGE NUMBER: 1 OF 2

CUSTOMER INFORMATION

Company: Baker Environmental
Project Name: RCRA Phase II SWMU Investigation
Project Number: 26007-143-0000-05201
Address: Lot 203, Piney Green Rd, Camp Lejeune, NC 28542
Address: 420 Rouser Road, Bldg #3, Coraopolis, PA 15108
Field Contact: Robert Sok
Contact: Michelle Russo
Phone: 412-269-6079
Fax: 412-269-6057
Fed Ex #:
Lab Contact: Kathy Dover
Phone: 919-379-4089
Address: 501 Madison Avenue, Cary, NC 27513

Sample Identification	Matrix	Sample Date	Sample Time	Number of Containers	TCL VOCs (SW846 8260B)	TCL SVOCs (SW846 8270C)	TCL Pesticides (SW846 8081A)	RCRA Metals (6000/7000 Series)	Ignitability (SW846 1010)	Corrosivity (SW846 1110)	Reactive Cyanide (7.3.3.2/9010)	Reactive Sulfide (7.3.4.2/9030)	TCLP VOCs	TCLP SVOCs	TCLP Pesticides	TCLP Metals	Total Suspended Solids (EPA 160.2)	Total Dissolved Solids (EPA 160.1)	TAL Metals		COMMENTS/ PRECAUTIONS
SWMU299-SB01-00	S	04/19/02	0900	2		X		X													
SWMU299-SB01-01	S	04/19/02	0905	2		X		X													
SWMU299-SB03-00	S	04/19/02	1057	2		X		X													
SWMU299-SB03-02	S	04/19/02	1104	2		X		X													
SWMU299-TW02-00	S	04/19/02	0930	2		X		X													
SWMU299-TW02-02	S	04/19/02	0940	2		X		X													
SWMU299-TW04-00	S	04/19/02	1115	2		X		X													
SWMU299-TW04-02	S	04/19/02	1120	2		X		X													
SWMU299-TW04-02MS/MSD	S	04/19/02	1120	4		X		X													
SWMU302-TW02-00	S	04/19/02	1139	2		X		X													
SWMU302-TW02-00MS/MSD	S	04/19/02	1139	4		X		X													
SWMU302-TW02-04	S	04/19/02	1205	2		X		X													
SWMU318-SS02	S	04/19/02	1234	5	X	X		X													
SWMU318-SS03	S	04/19/02	1245	5	X	X		X													
SWMU318-SS03D	S	04/19/02	1245	5	X	X		X													

Matrix: A - Air; S - Soil; W - Water; SD - Sediment; O - Other; W - Waste; LB - Lab Supplied Water (Trip or Field Blank)

MS/MSD for 318

NOTES:

Rec'd @ 6°C

NS/MSD's encore

1.) Relinquished By:		2.) Relinquished By:		SPECIAL INSTRUCTIONS
Signature: [signature]	Date: 3/19/02	Signature: [signature]	Date: 3/19/02	
Company: Baker Environmental Inc.	Time: 1445	Company: North Carolina Couriers	Time: 1725	
1.) Received By:		**2.) Received By:**		
Signature: [signature]	Date: 3-19-02	Signature: [signature]	Date: 3/19/02	
Company: North Carolina Couriers	Time: 14:45	Company: CompuChem	Time: 1725	

003/003
COMPUCHEM
03/20/02 10:45 FAX 919 379 4070

Baker Environmental Inc. Chain of Custody

NUMBER OF COOLERS: 1

CHAIN OF CUSTODY NUMBER: 0002

PAGE NUMBER: 2 OF 2

CUSTOMER INFORMATION

Company: Baker Environmental
Project Number: 26007-143-0000-05201
Address: 420 Rouser Road, Bldg #3
Coraopolis, PA 15108
Contact: Michelle Russo
Phone: 412-269-6079
Fax: 412-269-6057
Fed Ex #:

Project Name: RCRA Phase II SWMU Investigation
Address: Lot 203, Piney Green Rd
Camp Lejeune, NC 28542
Field Contact: Robert Sok

Lab Contact: Kathy Dover
Phone: 919-379-4089
Address: 501 Madison Avenue
Cary, NC 27513

Sample Identification	Matrix	Sample Date	Sample Time	Number of Containers	TCL VOCs (SW846 8260B)	TCL SVOCs (SW846 8270C)	TCL Pesticides (SW846 8081A)	RCRA Metals (6000/7000 Series)	Ignitability (SW846 1010)	Corrosivity (SW846 1110)	Reactive Cyanide (7.3.3.2/9010)	Reactive Sulfide (7.3.4.2/9030)	TCLP VOCs	TCLP SVOCs	TCLP Pesticides	TCLP Metals	Total Suspended Solids (EPA 160.2)	Total Dissolved Solids (EPA 160.1)	TAL Metals		COMMENTS/ PRECAUTIONS
TB01	W	04/19/02	1400	3	X																

Matrix: A - Air; S - Soil; W - Water; SD - Sediment; O - Other; W - Waste; LB - Lab Supplied Water (Trip or Field Blank)

NOTES:

1.) Relinquished By:		2.) Relinquished By:		SPECIAL INSTRUCTIONS
Signature:	Date:	Signature:	Date:	
Company: Baker Environmental Inc.	Time:	Company: North Carolina Couriers	Time:	
1.) Received By:		2.) Received By:		
Signature:	Date:	Signature:	Date:	
Company: North Carolina Couriers	Time:	Company: CompuChem	Time:	

Baker Environmental Inc. Chain of Custody

NUMBER OF COOLERS: 2

CHAIN OF CUSTODY NUMBER: 0003

CUSTOMER INFORMATION

Company: Baker Environmental
Project Name: RCRA Phase II SWMU Investigation
Project Number: 26007-143-0000-05201
Address: Lot 203, Piney Green Rd
Address: 420 Rouser Road, Bldg #3
Camp Lejeune, NC 28542
Coraopolis, PA 15108
Field Contact: Robert Sok
Contact: Michelle Russo
Phone: 412-269-6079
Fax: 412-269-6057
Fed Ex #:

Lab Contact: Kathy Dover
Phone: 919-379-4089
Address: 501 Madison Avenue
Cary, NC 27513

Sample Identification	Matrix	Sample Date	Sample Time	Number of Containers	TCL VOCs (SW846 8260B)	TCL SVOCs (SW846 8270C)	TCL Pesticides (SW846 8081A)	RCRA Metals (6000/7000 Series)	Ignitability (SW846 1010)	Corrosivity (SW846 1110)	Reactive Cyanide (7.3.3.2/9010)	Reactive Sulfide (7.3.4.2/9030)	TCLP VOCs	TCLP SVOCs	TCLP Pesticides	TCLP Metals	Total Suspended Solids (EPA 160.2)	Total Dissolved Solids (EPA 160.1)	TAL Metals		COMMENTS/ PRECAUTIONS
SWMU299-TW01-00	S	03/19/02	1332	2		X		X													
SWMU299-TW01-02	S	03/19/02	1337	2		X		X													
SWMU299-TW03-00	S	03/19/02	1425	2		X		X													
SWMU299-TW03-02	S	03/19/02	1428	2		X		X													
SWMU299-TW03-02D	S	03/19/02	1428	2		X		X													
SWMU299-SB04-00	S	03/19/02	1510	2		X		X													
SWMU299-SB04-00MS/MSD	S	03/19/02	1510	4		X		X													
SWMU299-SB04-02	S	03/19/02	1515	2		X		X													
SWMU300-TW01-00	S	03/19/02	1710	1		X															
SWMU300-TW01-00D	S	03/19/02	1710	1		X															
SWMU300-TW01-02	S	03/19/02	1717	1		X															
SWMU300-TW02-00	S	03/20/02	0915	1		X															
SWMU300-TW02-02	S	03/20/02	0917	1		X															
SWMU300-TW02-02MS/MSD	S	03/20/02	0917	2		X															
SWMU300-TW03-00	S	03/19/02	1605	1		X															

Matrix: A - Air; S - Soil; W - Water; SD - Sediment; O - Other; W - Waste; LB - Lab Supplied Water (Trip or Field Blank)

NOTES:

1.) Relinquished By:		2.) Relinquished By:		SPECIAL INSTRUCTIONS
Signature:	Date:	Signature:	Date:	
Company: Baker Environmental Inc.	Time:	Company: North Carolina Couriers	Time:	
1.) Received By:		**2.) Received By:**		
Signature:	Date:	Signature:	Date:	
Company: North Carolina Couriers	Time:	Company: CompuChem	Time:	

Baker Environmental Inc. Chain of Custody

NUMBER OF COOLERS: 2

CHAIN OF CUSTODY NUMBER: 0004

CUSTOMER INFORMATION

Company: Baker Environmental
Project Number: 26007-143-0000-05201
Address: 420 Rouser Road, Bldg #3
Coraopolis, PA 15108
Contact: Michelle Russo
Phone: 412-269-6079
Fax: 412-269-6057
Fed Ex #:

Project Name: RCRA Phase II SWMU Investigation
Address: Lot 203, Piney Green Rd
Camp Lejeune, NC 28542
Field Contact: Robert Sok
Lab Contact: Kathy Dover
Phone: 919-379-4089
Address: 501 Madison Avenue
Cary, NC 27513

Sample Identification	Matrix	Sample Date	Sample Time	Number of Containers	TCL VOCs (SW846 8260B)	TCL SVOCs (SW846 8270C)	TCL Pesticides (SW846 8081A)	RCRA Metals (6000/7000 Series)	Ignitability (SW846 1010)	Corrosivity (SW846 1110)	Reactive Cyanide (7.3.3.2/9010)	Reactive Sulfide (7.3.4.2/9030)	TCLP VOCs	TCLP SVOCs	TCLP Pesticides	TCLP Metals	Total Suspended Solids (EPA 160.2)	Total Dissolved Solids (EPA 160.1)	TAL Metals		COMMENTS/ PRECAUTIONS
SWMU300-TW03-02	S	03/19/02	1610	1		X															
SWMU302-TW01-00	S	03/19/02	1322	2		X		X													
SWMU302-TW01-05	S	03/19/02	1339	2		X		X													
SWMU302-TW03-00	S	03/19/02	1424	2		X		X													
SWMU302-TW03-05	S	03/19/02	1445	2		X		X													
SWMU303-SB01-00	S	03/19/02	1730	2		X		X													
SWMU303-SB01-04	S	03/19/02	1733	2		X		X													
SWMU303-SB01-04D	S	03/19/02	1733	2		X		X													
SWMU303-SB02-00	S	03/19/02	1710	2		X		X													
SWMU303-SB02-04	S	03/19/02	1720	2		X		X													
SWMU303-IS04-00	S	03/19/02	1700	3	X																
SWMU303-IS04-00D	S	03/19/02	1700	3	X																
SWMU318-TW03-00	S	03/19/02	1600	5	X	X		X													
SWMU318-TW03-04	S	03/19/02	1616	5	X	X		X													
SWMU318-TW03-04D	S	03/19/02	1616	5	X	X		X													

Matrix: A - Air; S - Soil; W - Water; SD - Sediment; O - Other; W - Waste; LB - Lab Supplied Water (Trip or Field Blank)

NOTES:

1.) Relinquished By:		2.) Relinquished By:		SPECIAL INSTRUCTIONS
Signature:	Date:	Signature:	Date:	
Company: Baker Environmental Inc.	Time:	Company: North Carolina Couriers	Time:	
1.) Received By:		2.) Received By:		
Signature:	Date:	Signature:	Date:	
Company: North Carolina Couriers	Time:	Company: CompuChem	Time:	

Baker Environmental Inc. Chain of Custody

NUMBER OF COOLERS: 2

CHAIN OF CUSTODY NUMBER: 0005

PAGE NUMBER: 3 OF 3

CUSTOMER INFORMATION

Company: Baker Environmental

Project Number: 26007-143-0000-05201

Address: 420 Rouser Road, Bldg #3
Coraopolis, PA 15108

Contact: Michelle Russo
Phone: 412-269-6079
Fax: 412-269-6057
Fed Ex #:

Project Name: RCRA Phase II SWMU Investigation

Address: Lot 203, Piney Green Rd
Camp Lejeune, NC 28542

Field Contact: Robert Sok

Lab Contact: Kathy Dover
Phone: 919-379-4089
Address: 501 Madison Avenue
Cary, NC 27513

Sample Identification	Matrix	Sample Date	Sample Time	Number of Containers	TCL VOCs (SW846 8260B)	TCL SVOCs (SW846 8270C)	TCL Pesticides (SW846 8081A)	RCRA Metals (6000/7000 Series)	Ignitability (SW846 1010)	Corrosivity (SW846 1110)	Reactive Cyanide (7.3.3.2/9010)	Reactive Sulfide (7.3.4.2/9030)	TCLP VOCs	TCLP SVOCs	TCLP Pesticides	TCLP Metals	Total Suspended Solids (EPA 160.2)	Total Dissolved Solids (EPA 160.1)	TAL Metals		COMMENTS/ PRECAUTIONS
SWMU299-SB02-00	S	03/19/02	1410	2		X		X													
SWMU299-SB02-02	S	03/19/02	1415	2		X		X													
SWMU303-TW01-00	S	03/20/02	0835	2		X		X													
SWMU303-TW01-04	S	03/20/02	0848	2		X		X													
SWMU303-TW02-00	S	03/20/02	0930	2		X		X													
SWMU303-TW02-04	S	03/20/02	0940	2		X		X													
SWMU303-TW03-00	S	03/20/02	1000	2		X		X													
SWMU303-TW03-03	S	03/20/02	1015	2		X		X													
SWMU339-TW01-00	S	03/20/02	1021	4	X	X															
SWMU339-TW01-03	S	03/20/02	1055	4	X	X															
TB02	W	03/20/02	1330	3	X																

Matrix: A - Air; S - Soil; W - Water; SD - Sediment; O - Other; W - Waste; LB - Lab Supplied Water (Trip or Field Blank)

NOTES:

1.) Relinquished By:		2.) Relinquished By:		SPECIAL INSTRUCTIONS
Signature:	Date:	Signature:	Date:	
Company: Baker Environmental Inc.	Time:	Company: North Carolina Couriers	Time:	
1.) Received By:		**2.) Received By:**		
Signature:	Date:	Signature:	Date:	
Company: North Carolina Couriers	Time:	Company: CompuChem	Time:	

Baker Environmental Inc. Chain of Custody

NUMBER OF COOLERS: 3

CHAIN OF CUSTODY NUMBER: 0006 PAGE NUMBER: 1 OF 3

CUSTOMER INFORMATION

Company: Baker Environmental
Project Number: 26007-143-0000-05201
Address: 420 Rouser Road, Bldg #3
Coraopolis, PA 15108
Contact: Michelle Russo
Phone: 412-269-6079
Fax: 412-269-6057
Fed Ex #:

Project Name: RCRA Phase II SWMU Investigation
Address: Lot 203, Piney Green Rd
Camp Lejeune, NC 28542
Field Contact: Robert Sok
Lab Contact: Kathy Dover
Phone: 919-379-4089
Address: 501 Madison Avenue
Cary, NC 27513

Sample Identification	Matrix	Sample Date	Sample Time	Number of Containers	TCL VOCs (SW846 8260B)	TCL SVOCs (SW846 8270C)	TCL Pesticides (SW846 8081A)	RCRA Metals (6000/7000 Series)	Ignitability (SW846 1010)	Corrosivity (SW846 1110)	Reactive Cyanide (7.3.3.2/9010)	Reactive Sulfide (7.3.4.2/9030)	TCLP VOCs	TCLP SVOCs	TCLP Pesticides	TCLP Metals	Total Suspended Solids (EPA 160.2)	Total Dissolved Solids (EPA 160.1)	TAL Metals		COMMENTS/ PRECAUTIONS
SWMU336-TW01-04	S	03/20/02	1300	5	X	X		X													
SWMU336-TW01-04D	S	03/20/02	1300	5	X	X		X													
SWMU336-TW01-00	S	03/20/02	1244	5	X	X		X													
SWMU336-TW02-04	S	03/20/02	1345	5	X	X		X													
SWMU336-TW02-00	S	03/20/02	1337	5	X	X		X													
SWMU318-TW01-04	S	03/20/02	1530	5	X	X		X													
SWMU318-TW01-00	S	03/20/02	1515	5	X	X		X													
SWMU318-TW02-04	S	03/20/02	1440	5	X	X		X													
SWMU318-TW02-00	S	03/20/02	1430	5	X	X		X													
SWMU339-IS01-01	S	03/20/02	1730	4	X	X															
SWMU339-TW02-06	S	03/20/02	1237	4	X	X															
SWMU339-TW02-00	S	03/20/02	1225	4	X	X															
SWMU339-TW03-02	S	03/20/02	1627	4	X	X															
SWMU339-TW03-00	S	03/20/02	1624	4	X	X															
SWMU339-TW03-00D	S	03/20/02	1624	4	X	X															

Matrix: A - Air; S - Soil; W - Water; SD - Sediment; O - Other; W - Waste; LB - Lab Supplied Water (Trip or Field Blank)

NOTES:

1.) Relinquished By:		2.) Relinquished By:		SPECIAL INSTRUCTIONS
Signature:	Date:	Signature:	Date:	
Company: Baker Environmental Inc.	Time:	Company: North Carolina Couriers	Time:	
1.) Received By:		**2.) Received By:**		
Signature:	Date:	Signature:	Date:	
Company: North Carolina Couriers	Time:	Company: CompuChem	Time:	

Baker Environmental Inc. Chain of Custody

NUMBER OF COOLERS: 3

CHAIN OF CUSTODY NUMBER: 0007

CUSTOMER INFORMATION

Company: Baker Environmental
Project Number: 26007-143-0000-05201
Address: 420 Rouser Road, Bldg #3
Coraopolis, PA 15108
Contact: Michelle Russo
Phone: 412-269-6079
Fax: 412-269-6057
Fed Ex #:

Project Name: RCRA Phase II SWMU Investigation
Address: Lot 203, Piney Green Rd
Camp Lejeune, NC 28542
Field Contact: Robert Sok
Lab Contact: Kathy Dover
Phone: 919-379-4089
Address: 501 Madison Avenue
Cary, NC 27513

Sample Identification	Matrix	Sample Date	Sample Time	Number of Containers	TCL VOCs (SW846 8260B)	TCL SVOCs (SW846 8270C)	TCL Pesticides (SW846 8081A)	RCRA Metals (6000/7000 Series)	Ignitability (SW846 1010)	Corrosivity (SW846 1110)	Reactive Cyanide (7.3.3.2/9010)	Reactive Sulfide (7.3.4.2/9030)	TCLP VOCs	TCLP SVOCs	TCLP Pesticides	TCLP Metals	Total Suspended Solids (EPA 160.2)	Total Dissolved Solids (EPA 160.1)	TAL Metals		COMMENTS/ PRECAUTIONS
SWMU272-SB01-03	S	03/20/02	1615	2		X		X													
SWMU272-SB01-00	S	03/20/02	1610	2		X		X													
SWMU272-SB02-03	S	03/20/02	1715	2		X		X													
SWMU272-SB02-00	S	03/20/02	1700	2		X		X													
SWMU272-SB02-00D	S	03/20/02	1700	2		X		X													
SWMU272-SB03-02	S	03/20/02	1640	2		X		X													
SWMU272-SB03-00	S	03/20/02	1630	2		X		X													
SWMU272-SB03-00MS/MSD	S	03/20/02	1630	4		X		X													
SWMU272-TW01-03	S	03/21/02	0844	2		X		X													
SWMU272-TW01-00	S	03/21/02	0832	2		X		X													
SWMU272-TW03-03	S	03/21/02	0755	2		X		X													
SWMU272-TW03-00	S	03/21/02	0725	2		X		X													
SWMU316-TW03-04	S	03/21/02	0831	2		X		X													
SWMU316-TW03-00	S	03/21/02	0822	2		X		X													
SWMU316-TW03-00D	S	03/21/02	0822	2		X		X													

Matrix: A - Air; S - Soil; W - Water; SD - Sediment; O - Other; W - Waste; LB - Lab Supplied Water (Trip or Field Blank)

NOTES:

1.) Relinquished By:		2.) Relinquished By:		SPECIAL INSTRUCTIONS
Signature:	Date:	Signature:	Date:	
Company: Baker Environmental Inc.	Time:	Company: North Carolina Couriers	Time:	
1.) Received By:		2.) Received By:		
Signature:	Date:	Signature:	Date:	
Company: North Carolina Couriers	Time:	Company: CompuChem	Time:	

Baker Environmental Inc. Chain of Custody

NUMBER OF COOLERS: 3

CHAIN OF CUSTODY NUMBER: 0008

CUSTOMER INFORMATION

Company: Baker Environmental
Project Number: 26007-143-0000-05201
Address: 420 Rouser Road, Bldg #3
Coraopolis, PA 15108
Contact: Michelle Russo
Phone: 412-269-6079
Fax: 412-269-6057
Fed Ex #:

Project Name: RCRA Phase II SWMU Investigation
Address: Lot 203, Piney Green Rd
Camp Lejeune, NC 28542
Field Contact: Robert Sok
Lab Contact: Kathy Dover
Phone: 919-379-4089
Address: 501 Madison Avenue
Cary, NC 27513

Sample Identification	Matrix	Sample Date	Sample Time	Number of Containers	TCL VOCs (SW846 8260B)	TCL SVOCs (SW846 8270C)	TCL Pesticides (SW846 8081A)	RCRA Metals (6000/7000 Series)	Ignitability (SW846 1010)	Corrosivity (SW846 1110)	Reactive Cyanide (7.3.3.2/9010)	Reactive Sulfide (7.3.4.2/9030)	TCLP VOCs	TCLP SVOCs	TCLP Pesticides	TCLP Metals	Total Suspended Solids (EPA 160.2)	Total Dissolved Solids (EPA 160.1)	TAL Metals		COMMENTS/ PRECAUTIONS
SWMU316-TW01-04	S	03/21/02	1006	2		X		X													
SWMU316-TW01-00	S	03/21/02	1000	2		X		X													
SWMU316-TW02-04	S	03/21/02	0935	2		X		X													
SWMU316-TW02-00	S	03/21/02	0925	2		X		X													
SWMU319-SB01-01	S	03/21/02	0754	2		X		X													
SWMU319-SB01-00	S	03/21/02	0750	2		X		X													
SWMU307-TW01-02	S	03/21/02	1058	1				X													
SWMU307-TW01-00	S	03/21/02	1056	1				X													
SWMU307-TW03-03	S	03/21/02	1140	1				X													
SWMU307-TW03-00	S	03/21/02	1134	1				X													
TB03	W	03/21/02	1230	3	X																
ER01	W	03/19/02	1330	5	X	X		X													
ER02	W	03/20/02	1300	5	X	X		X													*HOLD FOR RESULTS FROM ER01 AND ER03

Matrix: A - Air; S - Soil; W - Water; SD - Sediment; O - Other; W - Waste; LB - Lab Supplied Water (Trip or Field Blank)

NOTES:

1.) Relinquished By:		2.) Relinquished By:		SPECIAL INSTRUCTIONS
Signature:	Date:	Signature:	Date:	
Company: Baker Environmental Inc.	Time:	Company: North Carolina Couriers	Time:	
1.) Received By:		**2.) Received By:**		
Signature:	Date:	Signature:	Date:	
Company: North Carolina Couriers	Time:	Company: CompuChem	Time:	

Baker Environmental Inc. Chain of Custody

NUMBER OF COOLERS: _____

CHAIN OF CUSTODY NUMBER: 0009 PAGE NUMBER: 1 OF 4

CUSTOMER INFORMATION

Company: Baker Environmental
Project Number: 26007-143-0000-05201
Address: 420 Rouser Road, Bldg #3
Coraopolis, PA 15108
Contact: Michelle Russo
Phone: 412-269-6079
Fax: 412-269-6057
Fed Ex #:

Project Name: RCRA Phase II SWMU Investigation
Address: Lot 203, Piney Green Rd
Camp Lejeune, NC 28542
Field Contact: Robert Sok

Lab Contact: Kathy Dover
Phone: 919-379-4089
Address: 501 Madison Avenue
Cary, NC 27513

Sample Identification	Matrix	Sample Date	Sample Time	Number of Containers	TCL VOCs (SW846 8260B)	TCL SVOCs (SW846 8270C)	TCL Pesticides (SW846 8081A)	RCRA Metals (6000/7000 Series)	Ignitability (SW846 1010)	Corrosivity (SW846 1110)	Reactive Cyanide (7.3.3.2/9010)	Reactive Sulfide (7.3.4.2/9030)	TCLP VOCs	TCLP SVOCs	TCLP Pesticides	TCLP Metals	Total Suspended Solids (EPA 160.2)	Total Dissolved Solids (EPA 160.1)	TAL Metals		COMMENTS/ PRECAUTIONS
SWMU307-TW02-03	S	03/21/02	1236	1				X													
SWMU307-TW02-00	S	03/21/02	1231	1				X													
SWMU312-SB01-02	S	03/21/02	1518	2		X		X													
SWMU312-SB01-00	S	03/21/02	1516	2		X		X													
SWMU312-SB02-04	S	03/21/02	1802	2		X		X													
SWMU312-SB02-00	S	03/21/02	1800	2		X		X													
SWMU312-TW01-02	S	03/21/02	1538	2		X		X													
SWMU312-TW01-00	S	03/21/02	1535	2		X		X													
SWMU312-TW02-04	S	03/21/02	1634	2		X		X													
SWMU312-TW02-00	S	03/21/02	1629	2		X		X													
SWMU312-TW03-03	S	03/21/02	1720	2		X		X													
SWMU312-TW03-03MS/MSD	S	03/21/02	1720	4		X		X													
SWMU312-TW03-00	S	03/21/02	1715	2		X		X													
SWMU53-SB02-04	S	03/21/02	1640	2		X		X													
SWMU53-SB02-00	S	03/21/02	1633	2		X		X													

Matrix: A - Air; S - Soil; W - Water; SD - Sediment; O - Other; W - Waste; LB - Lab Supplied Water (Trip or Field Blank)

NOTES:

1.) Relinquished By:		2.) Relinquished By:		SPECIAL INSTRUCTIONS
Signature:	Date:	Signature:	Date:	
Company: Baker Environmental Inc.	Time:	Company: North Carolina Couriers	Time:	
1.) Received By:		**2.) Received By:**		
Signature:	Date:	Signature:	Date:	
Company: North Carolina Couriers	Time:	Company: CompuChem	Time:	

Baker Environmental Inc. Chain of Custody

NUMBER OF COOLERS: 3

CHAIN OF CUSTODY NUMBER: 0010

PAGE NUMBER: 2 OF 4

CUSTOMER INFORMATION

Company: Baker Environmental
Project Number: 26007-143-0000-05201
Address: 420 Rouser Road, Bldg #3
Coraopolis, PA 15108
Contact: Michelle Russo
Phone: 412-269-6079
Fax: 412-269-6057
Fed Ex #:

Project Name: RCRA Phase II SWMU Investigation
Address: Lot 203, Piney Green Rd
Camp Lejeune, NC 28542
Field Contact: Robert Sok
Lab Contact: Kathy Dover
Phone: 919-379-4089
Address: 501 Madison Avenue
Cary, NC 27513

Sample Identification	Matrix	Sample Date	Sample Time	Number of Containers	TCL VOCs (SW846 8260B)	TCL SVOCs (SW846 8270C)	TCL Pesticides (SW846 8081A)	RCRA Metals (6000/7000 Series)	Ignitability (SW846 1010)	Corrosivity (SW846 1110)	Reactive Cyanide (7.3.3.2/9010)	Reactive Sulfide (7.3.4.2/9030)	TCLP VOCs	TCLP SVOCs	TCLP Pesticides	TCLP Metals	Total Suspended Solids (EPA 160.2)	Total Dissolved Solids (EPA 160.1)	TAL Metals		COMMENTS/ PRECAUTIONS
SWMU53-SB01-03	S	03/21/02	1350	2		X		X													
SWMU53-SB01-03MS/MSD	S	03/21/02	1350	4		X		X													
SWMU53-SB01-00	S	03/21/02	1340	2		X		X													
SWMU53-TW01-03	S	03/21/02	1133	2		X		X													
SWMU53-TW01-00	S	03/21/02	1124	2		X		X													
SWMU53-TW02-03	S	03/21/02	1220	2		X		X													
SWMU53-TW02-00	S	03/21/02	1214	2		X		X													
SWMU256-TW01-03	S	03/21/02	1505	1				X													
SWMU256-TW01-00	S	03/21/02	1455	1				X													
SWMU256-TW02-03	S	03/21/02	1417	1				X													
SWMU256-TW02-00	S	03/21/02	1410	1				X													
SWMU256-TW03-03	S	03/21/02	1602	2		X		X													
SWMU256-TW03-00	S	03/21/02	1555	2		X		X													
SWMU256-TW04-03	S	03/21/02	1700	1				X													
SWMU256-TW04-00	S	03/21/02	1656	1				X													

Matrix: A - Air; S - Soil; W - Water; SD - Sediment; O - Other; W - Waste; LB - Lab Supplied Water (Trip or Field Blank)

NOTES:

1.) Relinquished By:		2.) Relinquished By:		SPECIAL INSTRUCTIONS
Signature:	Date:	Signature:	Date:	
Company: Baker Environmental Inc.	Time:	Company: North Carolina Couriers	Time:	
1.) Received By:		2.) Received By:		
Signature:	Date:	Signature:	Date:	
Company: North Carolina Couriers	Time:	Company: CompuChem	Time:	

Baker Environmental Inc. Chain of Custody

NUMBER OF COOLERS: 3

CHAIN OF CUSTODY NUMBER: 0011

PAGE NUMBER: 3 OF 4

CUSTOMER INFORMATION

Company: Baker Environmental
Project Number: 26007-143-0000-05201
Address: 420 Rouser Road, Bldg #3
Coraopolis, PA 15108
Contact: Michelle Russo
Phone: 412-269-6079
Fax: 412-269-6057
Fed Ex #:

Project Name: RCRA Phase II SWMU Investigation
Address: Lot 203, Piney Green Rd
Camp Lejeune, NC 28542
Field Contact: Robert Sok

Lab Contact: Kathy Dover
Phone: 919-379-4089
Address: 501 Madison Avenue
Cary, NC 27513

Sample Identification	Matrix	Sample Date	Sample Time	Number of Containers	TCL VOCs (SW846 8260B)	TCL SVOCs (SW846 8270C)	TCL Pesticides (SW846 8081A)	RCRA Metals (6000/7000 Series)	Ignitability (SW846 1010)	Corrosivity (SW846 1110)	Reactive Cyanide (7.3.3.2/9010)	Reactive Sulfide (7.3.4.2/9030)	TCLP VOCs	TCLP SVOCs	TCLP Pesticides	TCLP Metals	Total Suspended Solids (EPA 160.2)	Total Dissolved Solids (EPA 160.1)	TAL Metals		COMMENTS/ PRECAUTIONS
SWMU256-SB01-03	S	03/21/02	1733	1				X													
SWMU256-SB01-00	S	03/21/02	1729	1				X													
SWMU258-IS05-00	S	03/22/02	0930	3	X																
SWMU258-IS05-00MS/MSD	S	03/22/02	0930	6	X																
SWMU258-TW01-02	S	03/22/02	0854	1				X													
SWMU258-TW01-00	S	03/22/02	0850	1				X													
SWMU258-TW02-02	S	03/22/02	0816	1				X													
SWMU258-TW02-00	S	03/22/02	0805	1				X													
SWMU258-TW03-02	S	03/22/02	0735	1				X													
SWMU258-TW03-00	S	03/22/02	0727	1				X													
SWMU258-TW03-00D	S	03/22/02	0727	1				X													
SWMU255-TW01-00	S	03/22/02	1032	1		X															
SWMU255-TW01-04	S	03/22/02	1050	1		X															*HOLD FOR RESULTS FROM
SWMU313-SB02-01	S	03/22/02	0828	1				X													ER01 AND ER03
SWMU313-SB02-00	S	03/22/02	0827	1				X													

Matrix: A - Air; S - Soil; W - Water; SD - Sediment; O - Other; W - Waste; LB - Lab Supplied Water (Trip or Field Blank)

NOTES:

1.) Relinquished By:		2.) Relinquished By:		SPECIAL INSTRUCTIONS
Signature:	Date:	Signature:	Date:	
Company: Baker Environmental Inc.	Time:	Company: North Carolina Couriers	Time:	
1.) Received By:		**2.) Received By:**		
Signature:	Date:	Signature:	Date:	
Company: North Carolina Couriers	Time:	Company: CompuChem	Time:	

Received 012402

Baker Environmental Inc. Chain of Custody

NUMBER OF COOLERS: 3

CHAIN OF CUSTODY NUMBER: 0012 PAGE NUMBER: 3 OF 4

CUSTOMER INFORMATION

Company: Baker Environmental
Project Number: 26007-143-0000-05201
Address: 420 Rouser Road, Bldg #3
Coraopolis, PA 15108
Contact: Michelle Russo
Phone: 412-269-6079
Fax: 412-269-6057
Fed Ex #:

Project Name: RCRA Phase II SWMU Investigation
Address: Lot 203, Piney Green Rd
Camp Lejeune, NC 28542
Field Contact: Robert Sok
Lab Contact: Kathy Dover
Phone: 919-379-4089
Address: 501 Madison Avenue
Cary, NC 27513

Sample Identification	Matrix	Sample Date	Sample Time	Number of Containers	TCL VOCs (SW846 8260B)	TCL SVOCs (SW846 8270C)	TCL Pesticides (SW846 8081A)	RCRA Metals (6000/7000 Series)	Ignitability (SW846 1010)	Corrosivity (SW846 1110)	Reactive Cyanide (7.3.3.2/9010)	Reactive Sulfide (7.3.4.2/9030)	TCLP VOCs	TCLP SVOCs	TCLP Pesticides	TCLP Metals	Total Suspended Solids (EPA 160.2)	Total Dissolved Solids (EPA 160.1)	TAL Metals		COMMENTS/ PRECAUTIONS
SWMU313-SB01-01	S	03/22/02	0907	1				X													
SWMU313-SB01-01D	S	03/22/02	0907	1				X													
SWMU313-SB01-00	S	03/22/02	0905	1				X													
SWMU313-TW01-01	S	03/22/02	0921	1				X													
SWMU313-TW01-00	S	03/22/02	0920	1				X													
SWMU313-TW02-01	S	03/22/02	0836	1				X													
SWMU313-TW02-00	S	03/22/02	0835	1				X													
SWMU313-TW03-01	S	03/22/02	0751	1				X													
SWMU313-TW03-00	S	03/22/02	0747	1				X													
TB04	W	03/22/02	1345	3																	
ER03	W	03/21/02	1700	6																	
	S	03/22/02																			
	S	03/22/02																			
	S	03/22/02																			
	S	03/22/02																			

Matrix: A - Air; S - Soil; W - Water; SD - Sediment; O - Other; W - Waste; LB - Lab Supplied Water (Trip or Field Blank)

NOTES:

1.) Relinquished By:		2.) Relinquished By:		SPECIAL INSTRUCTIONS
Signature:	Date:	Signature:	Date:	
Company: Baker Environmental Inc.	Time:	Company: North Carolina Couriers	Time:	
1.) Received By:		**2.) Received By:**		
Signature:	Date:	Signature:	Date:	
Company: North Carolina Couriers	Time:	Company: CompuChem	Time:	

Baker Environmental Inc. Chain of Custody

NUMBER OF COOLERS: 3

CHAIN OF CUSTODY NUMBER: 0013

CUSTOMER INFORMATION

Company: Baker Environmental
Project Number: 26007-143-0000-05201
Address: 420 Rouser Road, Bldg #3
Coraopolis, PA 15108
Contact: Michelle Russo
Phone: 412-269-6079
Fax: 412-269-6057
Fed Ex #:

Project Name: RCRA Phase II SWMU Investigation
Address: Lot 203, Piney Green Rd
Camp Lejeune, NC 28542
Field Contact: Robert Sok
Lab Contact: Kathy Dover
Phone: 919-379-4089
Address: 501 Madison Avenue
Cary, NC 27513

Sample Identification	Matrix	Sample Date	Sample Time	Number of Containers	TCL VOCs (SW846 8260B)	TCL SVOCs (SW846 8270C)	TCL Pesticides (SW846 8081A)	RCRA Metals (6000/7000 Series)	Ignitability (SW846 1010)	Corrosivity (SW846 1110)	Reactive Cyanide (7.3.3.2/9010)	Reactive Sulfide (7.3.4.2/9030)	TCLP VOCs	TCLP SVOCs	TCLP Pesticides	TCLP Metals	Total Suspended Solids (EPA 160.2)	Total Dissolved Solids (EPA 160.1)	TAL Metals		COMMENTS/ PRECAUTIONS
SWMU254-SS02	S	03/22/02	1115	1		X															
SWMU254-TW01-04	S	03/22/02	1226	1		X															
SWMU254-TW01-00	S	03/22/02	1225	1		X															
SWMU254-TW02-04	S	03/22/02	1154	1		X															
SWMU254-TW02-00	S	03/22/02	1152	1		X															
SWMU254-TW02-00D	S	03/22/02	1152	1		X															
SWMU254-TW03-04	S	03/22/02	1330	1		X															
SWMU254-TW03-00	S	03/22/02	1325	1		X															
SWMU294-SS01	S	03/22/02	1510	2		X		X													
SWMU294-SS02	S	03/22/02	1505	2		X		X													
SWMU294-SS03	S	03/22/02	1425	2		X		X													
SWMU294-TW01-04	S	03/22/02	1445	2		X		X													
SWMU294-TW01-00	S	03/22/02	1436	2		X		X													
SWMU294-TW05-04	S	03/22/02	1536	2		X		X													
SWMU294-TW05-00	S	03/22/02	1532	2		X		X													

Matrix: A - Air; S - Soil; W - Water; SD - Sediment; O - Other; W - Waste; LB - Lab Supplied Water (Trip or Field Blank)

NOTES:

1.) Relinquished By:		2.) Relinquished By:		SPECIAL INSTRUCTIONS
Signature:	Date:	Signature:	Date:	
Company: Baker Environmental Inc.	Time:	Company: North Carolina Couriers	Time:	
1.) Received By:		2.) Received By:		
Signature:	Date:	Signature:	Date:	
Company: North Carolina Couriers	Time:	Company: CompuChem	Time:	

Baker Environmental Inc. Chain of Custody

NUMBER OF COOLERS: 3

CHAIN OF CUSTODY NUMBER: 0014 PAGE NUMBER: 2 OF 4

CUSTOMER INFORMATION

Company: Baker Environmental
Project Number: 26007-143-0000-05201
Address: 420 Rouser Road, Bldg #3
Coraopolis, PA 15108
Contact: Michelle Russo
Phone: 412-269-6079
Fax: 412-269-6057
Fed Ex #:

Project Name: RCRA Phase II SWMU Investigation
Address: Lot 203, Piney Green Rd
Camp Lejeune, NC 28542
Field Contact: Robert Sok
Lab Contact: Kathy Dover
Phone: 919-379-4089
Address: 501 Madison Avenue
Cary, NC 27513

Sample Identification	Matrix	Sample Date	Sample Time	Number of Containers	TCL VOCs (SW846 8260B)	TCL SVOCs (SW846 8270C)	TCL Pesticides (SW846 8081A)	RCRA Metals (6000/7000 Series)	Ignitability (SW846 1010)	Corrosivity (SW846 1110)	Reactive Cyanide (7.3.3.2/9010)	Reactive Sulfide (7.3.4.2/9030)	TCLP VOCs	TCLP SVOCs	TCLP Pesticides	TCLP Metals	Total Suspended Solids (EPA 160.2)	Total Dissolved Solids (EPA 160.1)	TAL Metals		COMMENTS/ PRECAUTIONS
SWMU294-TW04-04	S	03/22/02	1606	2		X		X													
SWMU294-TW04-04MS/MSD	S	03/22/02	1606	4		X		X													
SWMU294-TW04-00	S	03/22/02	1605	2		X		X													
SWMU294-TW06-04	S	03/22/02	1701	2		X		X													
SWMU294-TW06-00	S	03/22/02	1658	2		X		X													
SWMU294-TW06-00D	S	03/22/02	1658	2		X		X													
SWMU253-TW01-06	S	03/22/02	1155	2		X		X													
SWMU253-TW01-00	S	03/22/02	1147	2		X		X													
SWMU253-TW02-05	S	03/22/02	1330	2		X		X													
SWMU253-TW02-00	S	03/22/02	1315	2		X		X													
SWMU253-TW03-06	S	03/22/02	1109	2		X		X													
SWMU253-TW03-06D	S	03/22/02	1109	2		X		X													
SWMU253-TW03-00	S	03/22/02	1050	2		X		X													
SWMU293-TW02-04	S	03/22/02	1513	1				X													
SWMU293-TW02-00	S	03/22/02	1504	1				X													

Matrix: A - Air; S - Soil; W - Water; SD - Sediment; O - Other; W - Waste; LB - Lab Supplied Water (Trip or Field Blank)

NOTES:

1.) Relinquished By:		2.) Relinquished By:		SPECIAL INSTRUCTIONS
Signature:	Date:	Signature:	Date:	
Company: Baker Environmental Inc.	Time:	Company: North Carolina Couriers	Time:	
1.) Received By:		2.) Received By:		
Signature:	Date:	Signature:	Date:	
Company: North Carolina Couriers	Time:	Company: CompuChem	Time:	

Baker Environmental Inc. Chain of Custody

NUMBER OF COOLERS: 3

CHAIN OF CUSTODY NUMBER: 0015

CUSTOMER INFORMATION

Company: Baker Environmental
Project Name: RCRA Phase II SWMU Investigation
Project Number: 26007-143-0000-05201
Address: Lot 203, Piney Green Rd
Address: 420 Rouser Road, Bldg #3
Camp Lejeune, NC 28542
Coraopolis, PA 15108
Field Contact: Robert Sok
Contact: Michelle Russo
Phone: 412-269-6079
Fax: 412-269-6057
Fed Ex #:

Lab Contact: Kathy Dover
Phone: 919-379-4089
Address: 501 Madison Avenue
Cary, NC 27513

Sample Identification	Matrix	Sample Date	Sample Time	Number of Containers	TCL VOCs (SW846 8260B)	TCL SVOCs (SW846 8270C)	TCL Pesticides (SW846 8081A)	RCRA Metals (6000/7000 Series)	Ignitability (SW846 1010)	Corrosivity (SW846 1110)	Reactive Cyanide (7.3.3.2/9010)	Reactive Sulfide (7.3.4.2/9030)	TCLP VOCs	TCLP SVOCs	TCLP Pesticides	TCLP Metals	Total Suspended Solids (EPA 160.2)	Total Dissolved Solids (EPA 160.1)	TAL Metals		COMMENTS/ PRECAUTIONS
SWMU293-TW01-04	S	03/22/02	1429	1				X													
SWMU293-TW01-04MS/MSD	S	03/22/02	1429	2				X													
SWMU293-TW01-00	S	03/22/02	1413	1				X													
SWMU293-TW03-03	S	03/22/02	1554	1				X													
SWMU293-TW03-00	S	03/22/02	1544	1				X													
SWMU295-SB01-04	S	03/22/02	1756	2		X		X													
SWMU295-SB01-00	S	03/22/02	1750	2		X		X													
SWMU295-SB02-04	S	03/22/02	1805	2		X		X													
SWMU295-SB02-00	S	03/22/02	1800	2		X		X													
SWMU295-SB02-00MS/MSD	S	03/22/02	1800	4		X		X													
SWMU295-TW01-04	S	03/22/02	1700	2		X		X													
SWMU295-TW01-00	S	03/22/02	1645	2		X		X													
SWMU295-TW03-04	S	03/22/02	1729	2		X		X													
SWMU295-TW03-00	S	03/22/02	1720	2		X		X													
SWMU363-TW01-05	S	03/23/02	1150	6	X	X	X	X													

Matrix: A - Air; S - Soil; W - Water; SD - Sediment; O - Other; W - Waste; LB - Lab Supplied Water (Trip or Field Blank)

NOTES:

1.) Relinquished By:		2.) Relinquished By:		SPECIAL INSTRUCTIONS
Signature:	Date:	Signature:	Date:	
Company: Baker Environmental Inc.	Time:	Company: North Carolina Couriers	Time:	
1.) Received By:		2.) Received By:		
Signature:	Date:	Signature:	Date:	
Company: North Carolina Couriers	Time:	Company: CompuChem	Time:	

Baker Environmental Inc. Chain of Custody

NUMBER OF COOLERS: 3

CHAIN OF CUSTODY NUMBER: 0016

CUSTOMER INFORMATION

Company: Baker Environmental
Project Number: 26007-143-0000-05201
Address: 420 Rouser Road, Bldg #3
Coraopolis, PA 15108
Contact: Michelle Russo
Phone: 412-269-6079
Fax: 412-269-6057
Fed Ex #:

Project Name: RCRA Phase II SWMU Investigation
Address: Lot 203, Piney Green Rd
Camp Lejeune, NC 28542
Field Contact: Robert Sok

Lab Contact: Kathy Dover
Phone: 919-379-4089
Address: 501 Madison Avenue
Cary, NC 27513

Sample Identification	Matrix	Sample Date	Sample Time	Number of Containers	TCL VOCs (SW846 8260B)	TCL SVOCs (SW846 8270C)	TCL Pesticides (SW846 8081A)	RCRA Metals (6000/7000 Series)	Ignitability (SW846 1010)	Corrosivity (SW846 1110)	Reactive Cyanide (7.3.3.2/9010)	Reactive Sulfide (7.3.4.2/9030)	TCLP VOCs	TCLP SVOCs	TCLP Pesticides	TCLP Metals	Total Suspended Solids (EPA 160.2)	Total Dissolved Solids (EPA 160.1)	TAL Metals		COMMENTS/ PRECAUTIONS
SWMU363-TW01-00	S	03/23/02	1140	6	X	X	X	X													
SWMU363-TW02-05	S	03/23/02	1054	6	X	X	X	X													
SWMU363-TW02-00	S	03/23/02	1028	6	X	X	X	X													
TB05	W	03/23/02	1045	3	X																
ER04	W	03/22/02	1700	6	X	X		X													

Matrix: A - Air; S - Soil; W - Water; SD - Sediment; O - Other; W - Waste; LB - Lab Supplied Water (Trip or Field Blank)

NOTES:

1.) Relinquished By:		2.) Relinquished By:		SPECIAL INSTRUCTIONS
Signature:	Date:	Signature:	Date:	
Company: Baker Environmental Inc.	Time:	Company: North Carolina Couriers	Time:	
1.) Received By:		**2.) Received By:**		
Signature:	Date:	Signature:	Date:	
Company: North Carolina Couriers	Time:	Company: CompuChem	Time:	

Baker Environmental Inc. Chain of Custody

NUMBER OF COOLERS: 4

CHAIN OF CUSTODY NUMBER: 0017

CUSTOMER INFORMATION

Company: Baker Environmental
Project Number: 26007-143-0000-05201
Address: 420 Rouser Road, Bldg #3
Coraopolis, PA 15108
Contact: Michelle Russo
Phone: 412-269-6079
Fax: 412-269-6057
Fed Ex #:

Project Name: RCRA Phase II SWMU Investigation
Address: Lot 203, Piney Green Rd
Camp Lejeune, NC 28542
Field Contact: Robert Sok
Lab Contact: Kathy Dover
Phone: 919-379-4089
Address: 501 Madison Avenue
Cary, NC 27513

Sample Identification	Matrix	Sample Date	Sample Time	Number of Containers	TCL VOCs (SW846 8260B)	TCL SVOCs (SW846 8270C)	TCL Pesticides (SW846 8081A)	RCRA Metals (6000/7000 Series)	Ignitability (SW846 1010)	Corrosivity (SW846 1110)	Reactive Cyanide (7.3.3.2/9010)	Reactive Sulfide (7.3.4.2/9030)	TCLP VOCs	TCLP SVOCs	TCLP Pesticides	TCLP Metals	Total Suspended Solids (EPA 160.2)	Total Dissolved Solids (EPA 160.1)	TAL Metals		COMMENTS/ PRECAUTIONS
SWMU361-SB02-06	S	03/24/02	0940	5	X	X	X	X													
SWMU361-SB02-00	S	03/24/02	0925	5	X	X	X	X													
SWMU361-SB02-00D	S	03/24/02	0925	5	X	X	X	X													
SWMU361-SB03-05	S	03/24/02	1120	5	X	X	X	X													
SWMU361-SB03-00	S	03/24/02	1100	5	X	X	X	X													
SWMU361-SB04-06	S	03/24/02	1318	5	X	X	X	X													
SWMU361-SB04-00	S	03/24/02	1303	5	X	X	X	X													
SWMU361-SB05-06D	S	03/24/02	1245	5	X	X	X	X													
SWMU361-SB05-06	S	03/24/02	1245	5	X	X	X	X													
SWMU361-SB05-00	S	03/24/02	1230	5	X	X	X	X													
SWMU361-SB06-05	S	03/24/02	1048	5	X	X	X	X													
SWMU361-SB06-00	S	03/24/02	1020	5	X	X	X	X													
SWMU361-TW01-02	S	03/24/02	0850	5	X	X	X	X													
SWMU361-TW01-00	S	03/24/02	0840	5	X	X	X	X													
SWMU295-TW02-05	S	03/24/02	0750	2		X		X													

Matrix: A - Air; S - Soil; W - Water; SD - Sediment; O - Other; W - Waste; LB - Lab Supplied Water (Trip or Field Blank)

NOTES:

1.) Relinquished By:		2.) Relinquished By:		SPECIAL INSTRUCTIONS
Signature:	Date:	Signature:	Date:	
Company: Baker Environmental Inc.	Time:	Company: North Carolina Couriers	Time:	
1.) Received By:		2.) Received By:		
Signature:	Date:	Signature:	Date:	
Company: North Carolina Couriers	Time:	Company: CompuChem	Time:	

Baker Environmental Inc. Chain of Custody

NUMBER OF COOLERS: 4

CHAIN OF CUSTODY NUMBER: 0018

CUSTOMER INFORMATION

Company: Baker Environmental
Project Number: 26007-143-0000-05201
Address: 420 Rouser Road, Bldg #3
Coraopolis, PA 15108
Contact: Michelle Russo
Phone: 412-269-6079
Fax: 412-269-6057
Fed Ex #:

Project Name: RCRA Phase II SWMU Investigation
Address: Lot 203, Piney Green Rd
Camp Lejeune, NC 28542
Field Contact: Robert Sok
Lab Contact: Kathy Dover
Phone: 919-379-4089
Address: 501 Madison Avenue
Cary, NC 27513

Sample Identification	Matrix	Sample Date	Sample Time	Number of Containers	TCL VOCs (SW846 8260B)	TCL SVOCs (SW846 8270C)	TCL Pesticides (SW846 8081A)	RCRA Metals (6000/7000 Series)	Ignitability (SW846 1010)	Corrosivity (SW846 1110)	Reactive Cyanide (7.3.3.2/9010)	Reactive Sulfide (7.3.4.2/9030)	TCLP VOCs	TCLP SVOCs	TCLP Pesticides	TCLP Metals	Total Suspended Solids (EPA 160.2)	Total Dissolved Solids (EPA 160.1)	TAL Metals		COMMENTS/ PRECAUTIONS
SWMU295-TW02-00	S	03/24/02	0740	2		X		X													
SWMU265-TW01-05	S	03/24/02	1644	1		X															
SWMU265-TW01-00	S	03/24/02	1635	1		X															
SWMU265-TW02-05	S	03/24/02	1615	1		X															
SWMU265-TW02-00	S	03/24/02	1606	1		X															
SWMU265-TW03-05	S	03/24/02	1540	1		X															
SWMU265-TW03-00	S	03/24/02	1526	1		X															
SWMU264-TW01-04	S	03/24/02	1741	2		X		X													
SWMU264-TW01-00	S	03/24/02	1725	2		X		X													
SWMU46-TW01-05	S	03/23/02	1620	1				X													
SWMU46-TW01-00	S	03/23/02	1614	1				X													
SWMU46-TW02-04	S	03/23/02	1523	1				X													
SWMU46-TW02-04D	S	03/23/02	1523	1				X													
SWMU46-TW02-00	S	03/23/02	1511	1				X													

Matrix: A - Air; S - Soil; W - Water; SD - Sediment; O - Other; W - Waste; LB - Lab Supplied Water (Trip or Field Blank)

NOTES:

1.) Relinquished By:		2.) Relinquished By:		SPECIAL INSTRUCTIONS
Signature:	Date:	Signature:	Date:	
Company: Baker Environmental Inc.	Time:	Company: North Carolina Couriers	Time:	
1.) Received By:		2.) Received By:		
Signature:	Date:	Signature:	Date:	
Company: North Carolina Couriers	Time:	Company: CompuChem	Time:	

Baker Environmental Inc. Chain of Custody

NUMBER OF COOLERS: 4

CHAIN OF CUSTODY NUMBER: 0019

PAGE NUMBER: 3 OF 7

CUSTOMER INFORMATION

Company: Baker Environmental
Project Number: 26007-143-0000-05201
Address: 420 Rouser Road, Bldg #3
Coraopolis, PA 15108
Contact: Michelle Russo
Phone: 412-269-6079
Fax: 412-269-6057
Fed Ex #:

Project Name: RCRA Phase II SWMU Investigation
Address: Lot 203, Piney Green Rd
Camp Lejeune, NC 28542
Field Contact: Robert Sok
Lab Contact: Kathy Dover
Phone: 919-379-4089
Address: 501 Madison Avenue
Cary, NC 27513

Sample Identification	Matrix	Sample Date	Sample Time	Number of Containers	TCL VOCs (SW846 8260B)	TCL SVOCs (SW846 8270C)	TCL Pesticides (SW846 8081A)	RCRA Metals (6000/7000 Series)	Ignitability (SW846 1010)	Corrosivity (SW846 1110)	Reactive Cyanide (7.3.3.2/9010)	Reactive Sulfide (7.3.4.2/9030)	TCLP VOCs	TCLP SVOCs	TCLP Pesticides	TCLP Metals	Total Suspended Solids (EPA 160.2)	Total Dissolved Solids (EPA 160.1)	TAL Metals		COMMENTS/ PRECAUTIONS
SWMU46-TW03-04	S	03/23/02	1433	1				X													
SWMU46-TW03-00	S	03/23/02	1417	1				X													
SWMU46-TW04-04	S	03/23/02	1558	1				X													
SWMU46-TW04-00	S	03/23/02	1549	1				X													
SWMU46-TW05-05	S	03/23/02	1720	1				X													
SWMU46-TW05-00	S	03/23/02	1710	1				X													
SWMU46-TW06-04	S	03/23/02	1650	1				X													
SWMU46-TW06-00	S	03/23/02	1636	1				X													
SWMU314-TW01-02	S	03/23/02	0937	2		X		X													
SWMU314-TW01-00	S	03/23/02	0935	2		X		X													
SWMU314-TW02-02	S	03/23/02	0839	2		X		X													
SWMU314-TW02-00	S	03/23/02	0836	2		X		X													
SWMU314-TW03-02	S	03/23/02	0906	2		X		X													
SWMU314-TW03-00	S	03/23/02	0905	2		X		X													
SWMU315-SB01-11	S	03/23/02	1525	2		X		X													

Matrix: A - Air; S - Soil; W - Water; SD - Sediment; O - Other; W - Waste; LB - Lab Supplied Water (Trip or Field Blank)

NOTES:

1.) Relinquished By:		2.) Relinquished By:		SPECIAL INSTRUCTIONS
Signature:	Date:	Signature:	Date:	
Company: Baker Environmental Inc.	Time:	Company: North Carolina Couriers	Time:	
1.) Received By:		**2.) Received By:**		
Signature:	Date:	Signature:	Date:	
Company: North Carolina Couriers	Time:	Company: CompuChem	Time:	

Baker Environmental Inc. Chain of Custody

NUMBER OF COOLERS: 4

CHAIN OF CUSTODY NUMBER: 0020

PAGE NUMBER: 4 OF 7

CUSTOMER INFORMATION

Company: Baker Environmental
Project Number: 26007-143-0000-05201
Address: 420 Rouser Road, Bldg #3
Coraopolis, PA 15108
Contact: Michelle Russo
Phone: 412-269-6079
Fax: 412-269-6057
Fed Ex #:

Project Name: RCRA Phase II SWMU Investigation
Address: Lot 203, Piney Green Rd
Camp Lejeune, NC 28542
Field Contact: Robert Sok

Lab Contact: Kathy Dover
Phone: 919-379-4089
Address: 501 Madison Avenue
Cary, NC 27513

Sample Identification	Matrix	Sample Date	Sample Time	Number of Containers	TCL VOCs (SW846 8260B)	TCL SVOCs (SW846 8270C)	TCL Pesticides (SW846 8081A)	RCRA Metals (6000/7000 Series)	Ignitability (SW846 1010)	Corrosivity (SW846 1110)	Reactive Cyanide (7.3.3.2/9010)	Reactive Sulfide (7.3.4.2/9030)	TCLP VOCs	TCLP SVOCs	TCLP Pesticides	TCLP Metals	Total Suspended Solids (EPA 160.2)	Total Dissolved Solids (EPA 160.1)	TAL Metals		COMMENTS/ PRECAUTIONS
SWMU315-SB01-00	S	03/23/02	1455	2		X		X													
SWMU315-TW01-11	S	03/23/02	1557	2		X		X													
SWMU315-TW01-11D	S	03/23/02	1557	2		X		X													
SWMU315-TW01-00	S	03/23/02	1537	2		X		X													
SWMU315-TW02-11	S	03/23/02	1405	2		X		X													
SWMU315-TW02-00	S	03/23/02	1340	2		X		X													
SWMU315-TW03-11	S	03/23/02	1256	2		X		X													
SWMU315-TW03-00	S	03/23/02	1226	2		X		X													
SWMU311-SB01-03	S	03/24/02	1353	4	X			X													
SWMU311-SB01-00	S	03/24/02	1348	4	X			X													
SWMU311-SB01-00MS/MSD	S	03/24/02	1348	8	X			X													
SWMU311-TW01-03	S	03/24/02	1430	4	X			X													
SWMU311-TW01-00	S	03/24/02	1420	4	X			X													
SWMU311-TW02-03	S	03/24/02	1453	4	X			X													
SWMU311-TW02-00	S	03/24/02	1445	4	X			X													

Matrix: A - Air; S - Soil; W - Water; SD - Sediment; O - Other; W - Waste; LB - Lab Supplied Water (Trip or Field Blank)

NOTES:

1.) Relinquished By:		2.) Relinquished By:		SPECIAL INSTRUCTIONS
Signature:	Date:	Signature:	Date:	
Company: Baker Environmental Inc.	Time:	Company: North Carolina Couriers	Time:	
1.) Received By:		**2.) Received By:**		
Signature:	Date:	Signature:	Date:	
Company: North Carolina Couriers	Time:	Company: CompuChem	Time:	

Baker Environmental Inc. Chain of Custody

NUMBER OF COOLERS: 4

CHAIN OF CUSTODY NUMBER: 0021

CUSTOMER INFORMATION

Company: Baker Environmental
Project Number: 26007-143-0000-05201
Address: 420 Rouser Road, Bldg #3
Coraopolis, PA 15108
Contact: Michelle Russo
Phone: 412-269-6079
Fax: 412-269-6057
Fed Ex #:

Project Name: RCRA Phase II SWMU Investigation
Address: Lot 203, Piney Green Rd
Camp Lejeune, NC 28542
Field Contact: Robert Sok
Lab Contact: Kathy Dover
Phone: 919-379-4089
Address: 501 Madison Avenue
Cary, NC 27513

Sample Identification	Matrix	Sample Date	Sample Time	Number of Containers	TCL VOCs (SW846 8260B)	TCL SVOCs (SW846 8270C)	TCL Pesticides (SW846 8081A)	RCRA Metals (6000/7000 Series)	Ignitability (SW846 1010)	Corrosivity (SW846 1110)	Reactive Cyanide (7.3.3.2/9010)	Reactive Sulfide (7.3.4.2/9030)	TCLP VOCs	TCLP SVOCs	TCLP Pesticides	TCLP Metals	Total Suspended Solids (EPA 160.2)	Total Dissolved Solids (EPA 160.1)	TAL Metals		COMMENTS/ PRECAUTIONS
SWMU294-TW02-04	S	03/24/02	1215	2		X		X													
SWMU294-TW02-00	S	03/24/02	1210	2		X		X													
SWMU294-TW03-04	S	03/24/02	1247	2		X		X													
SWMU294-TW03-04D	S	03/24/02	1247	2		X		X													
SWMU294-TW03-00	S	03/24/02	1245	2		X		X													
SWMU291-TW01-01	S	03/24/02	1742	1				X													
SWMU291-TW01-00	S	03/24/02	1740	1				X													
SWMU291-TW02-04	S	03/24/02	1557	1				X													
SWMU291-TW02-00	S	03/24/02	1646	1				X													
SWMU291-TW02-00MS/MSD	S	03/24/02	1646	2				X													
SWMU291-TW03-04	S	03/24/02	1811	1				X													
SWMU291-TW03-04D	S	03/24/02	1811	1				X													
SWMU291-TW03-00	S	03/24/02	1810	1				X													
SWMU305-TW01-02	S	03/24/02	1407	1				X													
SWMU305-TW01-00	S	03/24/02	1405	1				X													

Matrix: A - Air; S - Soil; W - Water; SD - Sediment; O - Other; W - Waste; LB - Lab Supplied Water (Trip or Field Blank)

NOTES:

1.) Relinquished By:		2.) Relinquished By:		SPECIAL INSTRUCTIONS
Signature:	Date:	Signature:	Date:	
Company: Baker Environmental Inc.	Time:	Company: North Carolina Couriers	Time:	
1.) Received By:		**2.) Received By:**		
Signature:	Date:	Signature:	Date:	
Company: North Carolina Couriers	Time:	Company: CompuChem	Time:	

Baker Environmental Inc. Chain of Custody

NUMBER OF COOLERS: 4

CHAIN OF CUSTODY NUMBER: 0022

CUSTOMER INFORMATION

Company: Baker Environmental
Project Number: 26007-143-0000-05201
Address: 420 Rouser Road, Bldg #3
Coraopolis, PA 15108
Contact: Michelle Russo
Phone: 412-269-6079
Fax: 412-269-6057
Fed Ex #:

Project Name: RCRA Phase II SWMU Investigation
Address: Lot 203, Piney Green Rd
Camp Lejeune, NC 28542
Field Contact: Robert Sok

Lab Contact: Kathy Dover
Phone: 919-379-4089
Address: 501 Madison Avenue
Cary, NC 27513

Sample Identification	Matrix	Sample Date	Sample Time	Number of Containers	TCL VOCs (SW846 8260B)	TCL SVOCs (SW846 8270C)	TCL Pesticides (SW846 8081A)	RCRA Metals (6000/7000 Series)	Ignitability (SW846 1010)	Corrosivity (SW846 1110)	Reactive Cyanide (7.3.3.2/9010)	Reactive Sulfide (7.3.4.2/9030)	TCLP VOCs	TCLP SVOCs	TCLP Pesticides	TCLP Metals	Total Suspended Solids (EPA 160.2)	Total Dissolved Solids (EPA 160.1)	TAL Metals		COMMENTS/ PRECAUTIONS
SWMU305-TW02-02	S	03/24/02	1407	1				X													
SWMU305-TW02-00	S	03/24/02	1405	1				X													
SWMU305-TW03-02	S	03/24/02	1456	1				X													
SWMU305-TW03-00	S	03/24/02	1455	1				X													
SWMU317-TW01-02	S	03/24/02	0749	1				X													
SWMU317-TW01-00	S	03/24/02	0745	1				X													
SWMU317-TW02-02	S	03/24/02	1000	1				X													
SWMU317-TW02-00	S	03/24/02	0959	1				X													
SWMU317-TW02-00D	S	03/24/02	0959	1				X													
SWMU317-SB01-00	S	03/24/02	0954	1				X													
SWMU317-SB01-02	S	03/24/02	0955	1				X													
SWMU311-TW03-03	S	03/25/02	0830	4	X			X													
SWMU311-TW03-00	S	03/25/02	0815	4	X			X													
SWMU311-TW03-00D	S	03/25/02	0815	4	X			X													
SWMU311-SB02-00	S	03/25/02	0840	4	X			X													

Matrix: A - Air; S - Soil; W - Water; SD - Sediment; O - Other; W - Waste; LB - Lab Supplied Water (Trip or Field Blank)

NOTES:

1.) Relinquished By:		2.) Relinquished By:		SPECIAL INSTRUCTIONS
Signature:	Date:	Signature:	Date:	
Company: Baker Environmental Inc.	Time:	Company: North Carolina Couriers	Time:	
1.) Received By:		**2.) Received By:**		
Signature:	Date:	Signature:	Date:	
Company: North Carolina Couriers	Time:	Company: CompuChem	Time:	

Baker Environmental Inc. Chain of Custody

NUMBER OF COOLERS: 4

CHAIN OF CUSTODY NUMBER: 0023

CUSTOMER INFORMATION

Company: Baker Environmental
Project Number: 26007-143-0000-05201
Address: 420 Rouser Road, Bldg #3
Coraopolis, PA 15108
Contact: Michelle Russo
Phone: 412-269-6079
Fax: 412-269-6057
Fed Ex #:

Project Name: RCRA Phase II SWMU Investigation
Address: Lot 203, Piney Green Rd
Camp Lejeune, NC 28542
Field Contact: Robert Sok
Lab Contact: Kathy Dover
Phone: 919-379-4089
Address: 501 Madison Avenue
Cary, NC 27513

Sample Identification	Matrix	Sample Date	Sample Time	Number of Containers	TCL VOCs (SW846 8260B)	TCL SVOCs (SW846 8270C)	TCL Pesticides (SW846 8081A)	RCRA Metals (6000/7000 Series)	Ignitability (SW846 1010)	Corrosivity (SW846 1110)	Reactive Cyanide (7.3.3.2/9010)	Reactive Sulfide (7.3.4.2/9030)	TCLP VOCs	TCLP SVOCs	TCLP Pesticides	TCLP Metals	Total Suspended Solids (EPA 160.2)	Total Dissolved Solids (EPA 160.1)	TAL Metals		COMMENTS/ PRECAUTIONS
SWMU311-SB02-03	S	03/25/02	0850	4	X			X													
SWMU311-SB02-03D	S	03/25/02	0850	4	X			X													
SWMU311-SB03-03	S	03/25/02	0800	4	X			X													
SWMU311-SB03-00	S	03/25/02	0750	4	X			X													

Matrix: A - Air; S - Soil; W - Water; SD - Sediment; O - Other; W - Waste; LB - Lab Supplied Water (Trip or Field Blank)

NOTES:

1.) Relinquished By:		2.) Relinquished By:		SPECIAL INSTRUCTIONS
Signature:	Date:	Signature:	Date:	
Company: Baker Environmental Inc.	Time:	Company: North Carolina Couriers	Time:	
1.) Received By:		2.) Received By:		
Signature:	Date:	Signature:	Date:	
Company: North Carolina Couriers	Time:	Company: CompuChem	Time:	

Baker Environmental Inc. Chain of Custody

NUMBER OF COOLERS: 2

CHAIN OF CUSTODY NUMBER: 0024

CUSTOMER INFORMATION

Company: Baker Environmental
Project Number: 26007-143-0000-05201
Address: 420 Rouser Road, Bldg #3
Coraopolis, PA 15108
Contact: Michelle Russo
Phone: 412-269-6079
Fax: 412-269-6057
Fed Ex #:

Project Name: RCRA Phase II SWMU Investigation
Address: Lot 203, Piney Green Rd
Camp Lejeune, NC 28542
Field Contact: Robert Sok
Lab Contact: Kathy Dover
Phone: 919-379-4089
Address: 501 Madison Avenue
Cary, NC 27513

Sample Identification	Matrix	Sample Date	Sample Time	Number of Containers	TCL VOCs (SW846 8260B)	TCL SVOCs (SW846 8270C)	TCL Pesticides (SW846 8081A)	RCRA Metals (6000/7000 Series)	Ignitability (SW846 1010)	Corrosivity (SW846 1110)	Reactive Cyanide (7.3.3.2/9010)	Reactive Sulfide (7.3.4.2/9030)	TCLP VOCs	TCLP SVOCs	TCLP Pesticides	TCLP Metals	Total Suspended Solids (EPA 160.2)	Total Dissolved Solids (EPA 160.1)	TAL Metals		COMMENTS/ PRECAUTIONS
SWMU360-TW01-01	S	03/25/02	1601	5	X	X	X	X													
SWMU360-TW01-00	S	03/25/02	1600	5	X	X	X	X													
SWMU360-TW02-02	S	03/25/02	1652	5	X	X	X	X													
SWMU360-TW02-00	S	03/25/02	1650	5	X	X	X	X													
SWMU360-TW03-02	S	03/25/02	1725	5	X	X	X	X													
SWMU360-TW03-00	S	03/25/02	1720	5	X	X	X	X													
SWMU360-TW04-06	S	03/25/02	1526	5	X	X	X	X													
SWMU360-TW04-00	S	03/25/02	1505	5	X	X	X	X													
SWMU308-TW01-07	S	03/25/02	1122	1		X															
SWMU308-TW01-00	S	03/25/02	1109	1		X															
SWMU308-TW02-07	S	03/25/02	1009	1		X															
SWMU308-TW02-00	S	03/25/02	0945	1		X															
SWMU308-TW03-07	S	03/25/02	1049	1		X															
SWMU308-TW03-00	S	03/25/02	1035	1		X															
SWMU306-TW01-06	S	03/25/02	1653	1				X													

Matrix: A - Air; S - Soil; W - Water; SD - Sediment; O - Other; W - Waste; LB - Lab Supplied Water (Trip or Field Blank)

NOTES:

* received March 26. NC'd @ 4-5°C

1.) Relinquished By:		2.) Relinquished By:		SPECIAL INSTRUCTIONS
Signature:	Date: 3/26/02	Signature:	Date: 3-26-02	
Company: Baker Environmental Inc.	Time: 1445	Company: North Carolina Couriers	Time: 1730	
1.) Received By:		2.) Received By:		
Signature:	Date: 3-26-02	Signature:	Date: 3/26/02	
Company: North Carolina Couriers	Time:	Company: CompuChem	Time: 1730	

Baker Environmental Inc. Chain of Custody

NUMBER OF COOLERS: 2

CHAIN OF CUSTODY NUMBER: 0025

PAGE NUMBER: 2 OF 4

CUSTOMER INFORMATION

Company: Baker Environmental
Project Number: 26007-143-0000-05201
Address: 420 Rouser Road, Bldg #3
Coraopolis, PA 15108
Contact: Michelle Russo
Phone: 412-269-6079
Fax: 412-269-6057
Fed Ex #:

Project Name: RCRA Phase II SWMU Investigation
Address: Lot 203, Piney Green Rd
Camp Lejeune, NC 28542
Field Contact: Robert Sok
Lab Contact: Kathy Dover
Phone: 919-379-4089
Address: 501 Madison Avenue
Cary, NC 27513

Sample Identification	Matrix	Sample Date	Sample Time	Number of Containers	TCL VOCs (SW846 8260B)	TCL SVOCs (SW846 8270C)	TCL Pesticides (SW846 8081A)	RCRA Metals (6000/7000 Series)	Ignitability (SW846 1010)	Corrosivity (SW846 1110)	Reactive Cyanide (7.3.3.2/9010)	Reactive Sulfide (7.3.4.2/9030)	TCLP VOCs	TCLP SVOCs	TCLP Pesticides	TCLP Metals	Total Suspended Solids (EPA 160.2)	Total Dissolved Solids (EPA 160.1)	TAL Metals		COMMENTS/ PRECAUTIONS
SWMU306-TW01-00	S	03/25/02	1637	1				X													
SWMU306-TW01-00D	S	03/25/02	1637	1				X													
SWMU306-TW02-03	S	03/25/02	1527	1				X													
SWMU306-TW02-00	S	03/25/02	1515	1				X													
SWMU306-TW03-06	S	03/25/02	1613	1				X													
SWMU306-TW03-00	S	03/25/02	1554	1				X													
SWMU269-TW01-06	S	03/25/02	1350	5				X													EXTRA ANALYSIS ADDED
SWMU269-TW01-00	S	03/25/02	1325	1				X													
SWMU269-TW02-06	S	03/25/02	1306	1				X													
SWMU269-TW02-00	S	03/25/02	1245	1				X													
SWMU269-TW03-06	S	03/25/02	1419	5				X													EXTRA ANALYSIS ADDED
SWMU269-TW03-00	S	03/25/02	1407	1				X													
SWMU264-TW02-04	S	03/25/02	1742	2		X		X													
SWMU264-TW02-04D	S	03/25/02	1742	2		X		X													
SWMU264-TW02-00	S	03/25/02	1731	2		X		X													

Matrix: A - Air; S - Soil; W - Water; SD - Sediment; O - Other; W - Waste; LB - Lab Supplied Water (Trip or Field Blank)

NOTES:

iced @ 4-5°C

1.) Relinquished By:		2.) Relinquished By:		SPECIAL INSTRUCTIONS
Signature:	Date: 3/26/02	Signature:	Date: 3-26-02	
Company: Baker Environmental Inc.	Time: 1445	Company: North Carolina Couriers	Time: 1730	
1.) Received By:		2.) Received By:		
Signature:	Date: 3-26-02	Signature:	Date: 3/26/02	
Company: North Carolina Couriers	Time:	Company: CampChem	Time: 1730	

Baker Environmental Inc. Chain of Custody

NUMBER OF COOLERS: 2

CHAIN OF CUSTODY NUMBER: 0026

CUSTOMER INFORMATION

Company: Baker Environmental
Project Number: 26007-143-0000-05201
Address: 420 Rouser Road, Bldg #3
Coraopolis, PA 15108
Contact: Michelle Russo
Phone: 412-269-6079
Fax: 412-269-6057
Fed Ex #:

Project Name: RCRA Phase II SWMU Investigation
Address: Lot 203, Piney Green Rd
Camp Lejeune, NC 28542
Field Contact: Robert Sok

Lab Contact: Kathy Dover
Phone: 919-379-4089
Address: 501 Madison Avenue
Cary, NC 27513

Sample Identification	Matrix	Sample Date	Sample Time	Number of Containers	TCL VOCs (SW846 8260B)	TCL SVOCs (SW846 8270C)	TCL Pesticides (SW846 8081A)	RCRA Metals (6000/7000 Series)	Ignitability (SW846 1010)	Corrosivity (SW846 1110)	Reactive Cyanide (7.3.3.2/9010)	Reactive Sulfide (7.3.4.2/9030)	TCLP VOCs	TCLP SVOCs	TCLP Pesticides	TCLP Metals	Total Suspended Solids (EPA 160.2)	Total Dissolved Solids (EPA 160.1)	TAL Metals		COMMENTS/ PRECAUTIONS
SWMU43-SB01-06	S	03/25/02	1245	2		X	X	X													
SWMU43-SB01-00	S	03/25/02	1235	2		X	X	X													
SWMU43-SB01-00D	S	03/25/02	1235	2		X	X	X													
SWMU43-SB02-06	S	03/25/02	1210	2		X	X	X													
SWMU43-SB02-06MS/MSD	S	03/25/02	1210	4		X	X	X													
SWMU43-SB02-00	S	03/25/02	1150	2		X	X	X													
SWMU43-SB03-06	S	03/25/02	1216	2		X	X	X													
SWMU43-SB03-00	S	03/25/02	1212	2		X	X	X													
SWMU43-SS04	S	03/25/02	0905	2		X	X	X													
SWMU43-SS04D	S	03/25/02	0905	2		X	X	X													
SWMU43-TW01-06	S	03/25/02	1057	2		X	X	X													
SWMU43-TW01-00	S	03/25/02	1035	2		X	X	X													
SWMU43-TW02-06	S	03/25/02	1315	2		X	X	X													
SWMU43-TW02-06D	S	03/25/02	1315	2		X	X	X													
SWMU43-TW02-00	S	03/25/02	1310	2		X	X	X													

Matrix: A - Air; S - Soil; W - Water; SD - Sediment; O - Other; W - Waste; LB - Lab Supplied Water (Trip or Field Blank)

NOTES:

recd @ 4-5°C

1.) Relinquished By:		2.) Relinquished By:		SPECIAL INSTRUCTIONS
Signature:	Date: 3/26/02	Signature:	Date: 3-26-02	
Company: Baker Environmental Inc.	Time: 1445	Company: North Carolina Couriers	Time: 1730	
1.) Received By:		2.) Received By:		
Signature:	Date: 3-26-02	Signature:	Date: 3/26/02	
Company: North Carolina Couriers	Time:	Company: CompuChem	Time: 1730	

Baker Environmental Inc. Chain of Custody

NUMBER OF COOLERS: 2

CHAIN OF CUSTODY NUMBER: 0027

CUSTOMER INFORMATION

Company: Baker Environmental

Project Number: 26007-143-0000-05201

Address: 420 Rouser Road, Bldg #3
Coraopolis, PA 15108

Contact: Michelle Russo
Phone: 412-269-6079
Fax: 412-269-6057
Fed Ex #:

Project Name: RCRA Phase II SWMU Investigation

Address: Lot 203, Piney Green Rd
Camp Lejeune, NC 28542

Field Contact: Robert Sok

Lab Contact: Kathy Dover
Phone: 919-379-4089
Address: 501 Madison Avenue
Cary, NC 27513

Sample Identification	Matrix	Sample Date	Sample Time	Number of Containers	TCL VOCs (SW846 8260B)	TCL SVOCs (SW846 8270C)	TCL Pesticides (SW846 8081A)	RCRA Metals (6000/7000 Series)	Ignitability (SW846 1010)	Corrosivity (SW846 1110)	Reactive Cyanide (7.3.3.2/9010)	Reactive Sulfide (7.3.4.2/9030)	TCLP VOCs	TCLP SVOCs	TCLP Pesticides	TCLP Metals	Total Suspended Solids (EPA 160.2)	Total Dissolved Solids (EPA 160.1)	TAL Metals		COMMENTS/ PRECAUTIONS
SWMU43-TW03-06	S	03/25/02	0955	2		X	X	X													
SWMU43-TW03-00	S	03/25/02	0826	2		X	X	X													
TB07	W	03/25/02	1400	3	X																

Matrix: A - Air; S - Soil; W - Water; SD - Sediment; O - Other; W - Waste; LB - Lab Supplied Water (Trip or Field Blank)

NOTES:

ice @ 4-5°C

1.) Relinquished By:		2.) Relinquished By:		SPECIAL INSTRUCTIONS
Signature:	Date: 3/26/02	Signature:	Date: 3-26-02	
Company: Baker Environmental Inc.	Time: 1445	Company: North Carolina Couriers	Time: 1730	
1.) Received By:		2.) Received By:		
Signature:	Date: 3-26-02	Signature:	Date: 3/26/02	
Company: North Carolina Couriers	Time:	Company: CompuChem	Time: 1730	

07/02/02 14:54 FAX 919 379 4070 COMPUCHEM 002

Baker Environmental Inc. Chain of Custody

NUMBER OF COOLERS: 2

CHAIN OF CUSTODY NUMBER: 0028

PAGE NUMBER: 1 OF 3

CUSTOMER INFORMATION

Company: Baker Environmental
Project Name: RCRA Phase II SWMU Investigation
Project Number: 26007-143-0000-05201
Address: Lot 203, Piney Green Rd, Camp Lejeune, NC 28542
Address: 420 Rouser Road, Bldg #3, Coraopolis, PA 15108
Field Contact: Robert Sok
Contact: Michelle Rosso
Phone: 412-269-6079
Fax: 412-269-6057
Tel Ex #:
Lab Contact: Kathy Dover
Phone: 919-379-4089
Address: 501 Madison Avenue, Cary, NC 27513

Sample Identification	Matrix	Sample Date	Sample Time	Number of Containers	TCL VOCs (SW846 8260B)	TCL SVOCs (SW846 8270C)	TCL Pesticides (SW846 8081A)	RCRA Metals (6000/7000 Series)	Ignitability (SW846 1010)	Corrosivity (SW846 1110)	Reactive Cyanide (7.3.3.2/9010)	Reactive Sulfide (7.3.4.2/9030)	TCLP VOCs	TCLP SVOCs	TCLP Pesticides	TCLP Metals	Total Suspended Solids (EPA 160.2)	Total Dissolved Solids (EPA 160.1)	TAL Metals		COMMENTS/ PRECAUTIONS
SWMU264-TW03-03	S	03/26/02	1806	2		X		X													
SWMU264-TW03-00	S	03/26/02	0750	2		X		X													
SWMU285-TW01-02	S	03/26/02	1422	1		X															
SWMU285-TW01-00	S	03/26/02	1416	1		X															
SWMU285-TW01-00D	S	03/26/02	1416	1		X															
SWMU285-TW03-03	S	03/26/02	1353	1		X															
SWMU285-TW03-00	S	03/26/02	1342	1		X															
SWMU279-TW01-04	S	03/26/02	0952	1		X															
SWMU279-TW02-04	S	03/26/02	.0921	1		X															
SWMU279-TW03-04	S	03/26/02	1056	1		X															
SWMU359-TW01-02	S	03/26/02	1520	5	X	X	X	X													
SWMU359-TW01-02D	S	03/26/02	1520	5	X	X	X	X													
TB08	W	03/27/02	0915	3	X																
SWMU359-TW02-02MS/MSD	S	03/26/02	1546	2			X														
SWMU261-SS03	S	03/26/02	1130	1				X													

← ADD TOC per Rob SOK C.D. 3/28/02

← metals only per Rob SOK C.D. 3/28/02

← did not receive any encores for this ID (needs metals only per Rob) C.D. 3/28/02

← (rec'd 1-4oz jar for metals) not marked on COC

← SWMU359-TW02-02 not listed on COC (w/ 1-8oz for SVOC/PEST only) C.D. 3/27/02

Matrix A - Air, S - Soil; W - Water; SD - Sediment; O - Other, W - Waste, LB - Lab Supplied Water (Trip or Field Blank)

NOTES: for SWMU359-TW02-02: rec'd 3-5g Encores (VOC), 1-4oz. jar metal & 3-8oz. jar (2-PEST; 1-SVOC/PEST)

← only needs metals per Rob SOK. C.D. 3/28/02

if PEST count < 20 cancel PEST

if PEST count > 20 keep PEST (PEST count 30+) C.D. 3/27/02

recd @ 5/6°C

1.) Relinquished By:		2.) Relinquished By: Recd for (by lab) 3/27/02		SPECIAL INSTRUCTIONS
Signature: [signature]	Date: 3/27/02	Signature: [signature]	Date: 3/27/02	
Company: Baker Environmental Inc.	Time: 1030	Company: North Carolina Courier Compuchem	Time: 1315	
1.) Received By:		2.) Received By: Relinq. by		
Signature: [signature]	Date: 3-27-02	Signature: [signature]	Date: 3-27-02	
Company: North Carolina Couriers	Time:	Company: CompuChem	Time: 1315	

Baker Environmental Inc. Chain of Custody

NUMBER OF COOLERS: 2

CHAIN OF CUSTODY NUMBER: 0028 PAGE NUMBER: 1 OF 3

CUSTOMER INFORMATION

Company: Baker Environmental
Project Number: 26007-143-0000-05201
Address: 420 Rouser Road, Bldg #3
Coraopolis, PA 15108
Contact: Michelle Russo
Phone: 412-269-6079
Fax: 412-269-6057
Fed Ex #:

Project Name: RCRA Phase II SWMU Investigation
Address: Lot 203, Piney Green Rd
Camp Lejeune, NC 28542
Field Contact: Robert Sok

Lab Contact: Kathy Dover
Phone: 919-379-4089
Address: 501 Madison Avenue
Cary, NC 27513

Sample Identification	Matrix	Sample Date	Sample Time	Number of Containers	TCL VOCs (SW846 8260B)	TCL SVOCs (SW846 8270C)	TCL Pesticides (SW846 8081A)	RCRA Metals (6000/7000 Series)	Ignitability (SW846 1010)	Corrosivity (SW846 1110)	Reactive Cyanide (7.3.3.2/9010)	Reactive Sulfide (7.3.4.2/9030)	TCLP VOCs	TCLP SVOCs	TCLP Pesticides	TCLP Metals	Total Suspended Solids (EPA 160.2)	Total Dissolved Solids (EPA 160.1)	TAL Metals		COMMENTS/ PRECAUTIONS
SWMU264-TW03-03	S	03/26/02	1806	2		X		X													
SWMU264-TW03-00	S	03/26/02	0750	2		X		X													
SWMU285-TW01-02	S	03/26/02	1422	1		X															
SWMU285-TW01-00	S	03/26/02	1416	1		X															
SWMU285-TW01-00D	S	03/26/02	1416	1		X															
SWMU285-TW03-03	S	03/26/02	1353	1		X															
SWMU285-TW03-00	S	03/26/02	1342	1		X															
SWMU279-TW01-04	S	03/26/02	0952	1		X															
SWMU279-TW02-04	S	03/26/02	0921	1		X															
SWMU279-TW03-04	S	03/26/02	1056	1		X															
SWMU359-TW01-02	S	03/26/02	1520	5	X	X	X	X													
SWMU359-TW01-02D	S	03/26/02	1520	5	(X)	X	X	X													← did not receive any encores for this ID
TB08	W	03/27/02	0915	3	X																
SWMU359-TW02-02MS/MSD	S	03/26/02	1546	2			X														← (rec'd 1-4oz jar for metals not marked on COC) ← SWMU359-TW02-02 not listed on COC (w/ 1-8oz for SVOC/PEST only)
SWMU261-SS03	S	03/26/02	1130	1				X													

Matrix: A - Air; S - Soil; W - Water; SD - Sediment; O - Other; W. - Waste; LB - Lab Supplied Water (Trip or Field Blank)

NOTES: for SWMU359-TW02-02: rec'd 3-5g Encores (VOC), 1-4oz. jar metal & 3-8oz. jar (2-PEST; 1-SVOC/PEST) (GS) 3/27/02

* SWMU359-TW02-02. (Pest) 3/27/02 rec'd @ 5/6 °C SWMU359-TW02-02 VOCs & SVOCs 1 pst Metals

1.) Relinquished By:		2.) Relinquished By: Read for (by lab)		SPECIAL INSTRUCTIONS
Signature:	Date: 3/27/02	Signature:	Date: 3/27/02	
Company: Baker Environmental Inc.	Time: 1030	Company: North Carolina Couriers / CompuChem	Time: 1315	
1.) Received By:		2.) Received By: Relinq. by		
Signature:	Date: 3-27-02	Signature:	Date: 3-27-02	
Company: North Carolina Couriers	Time:	Company: CompuChem	Time: 1315	

Note: treat left SDG open - may not receive data Tuesday

Arranging groundwater samples

Rob & Tim.

Received Wed March 27.

Baker Environmental Inc. Chain of Custody

NUMBER OF COOLERS: 2

CHAIN OF CUSTODY NUMBER: 0029

CUSTOMER INFORMATION

Company: Baker Environmental
Project Number: 26007-143-0000-05201
Address: 420 Rouser Road, Bldg #3
Coraopolis, PA 15108
Contact: Michelle Russo
Phone: 412-269-6079
Fax: 412-269-6057
Fed Ex #:

Project Name: RCRA Phase II SWMU Investigation
Address: Lot 203, Piney Green Rd
Camp Lejeune, NC 28542
Field Contact: Robert Sok

Lab Contact: Kathy Dover
Phone: 919-379-4089
Address: 501 Madison Avenue
Cary, NC 27513

Sample Identification	Matrix	Sample Date	Sample Time	Number of Containers	TCL VOCs (SW846 8260B)	TCL SVOCs (SW846 8270C)	TCL Pesticides (SW846 8081A)	RCRA Metals (6000/7000 Series)	Ignitability (SW846 1010)	Corrosivity (SW846 1110)	Reactive Cyanide (7.3.3.2/9010)	Reactive Sulfide (7.3.4.2/9030)	TCLP VOCs	TCLP SVOCs	TCLP Pesticides	TCLP Metals	Total Suspended Solids (EPA 160.2)	Total Dissolved Solids (EPA 160.1)	TAL Metals		COMMENTS/ PRECAUTIONS
SWMU261-SS02	S	03/26/02	1120	1				X													
SWMU261-SS02D	S	03/26/02	1120	1				X													
SWMU261-TW01-00	S	03/26/02	1436	1				X													
SWMU261-TW02-00	S	03/26/02	1215	1				X													
SWMU261-TW03-00	S	03/26/02	1320	1				X													
SWMU261-TW04-00	S	03/26/02	1057	1				X													
SWMU362-SB01-01	S	03/26/02	1537	5	X	X	X	X													[redacted]
SWMU362-SB01-00	S	03/26/02	1535	5	X	X	X	X													
SWMU362-SS01	S	03/26/02	1402	5	X	X	X	X													
SWMU362-SS02	S	03/26/02	1730	5	X	X	X	X													
SWMU362-SS01MS/MSD	S	03/26/02	1402	4			X	X													[redacted]
SWMU362-SS03	S	03/26/02	1750	5	X	X	X	X													
[redacted]	S																				WILL COLLECT NEXT WEEK
[redacted]	S																				
SWMU285-TW02-00	S	03/27/02	0930	1		X															

Matrix: A - Air; S - Soil; W - Water; SD - Sediment; O - Other; W - Waste; LB - Lab Supplied Water (Trip or Field Blank)

NOTES:

3/27/02 rec'd @ 5/6 °C

1.) Relinquished By:		2.) Relinquished By: Received by (Lab)		SPECIAL INSTRUCTIONS
Signature:	Date: 3/27/02	Signature:	Date: 3/27/02	
Company: Baker Environmental Inc.	Time: 1030	Company: North Carolina Couriers	Time: 1315	
1.) Received By:		**2.) Received By:** Relinquished by		
Signature:	Date: 3-27-02	Signature:	Date: 3-27-02	
Company: North Carolina Couriers	Time:	Company: NC Couriers	Time: 1315	

Baker Environmental Inc. Chain of Custody

NUMBER OF COOLERS: 2

CHAIN OF CUSTODY NUMBER: 0030

CUSTOMER INFORMATION

Company: Baker Environmental

Project Number: 26007-143-0000-05201

Address: 420 Rouser Road, Bldg #3
Coraopolis, PA 15108

Contact: Michelle Russo
Phone: 412-269-6079
Fax: 412-269-6057
Fed Ex #:

Project Name: RCRA Phase II SWMU Investigation

Address: Lot 203, Piney Green Rd
Camp Lejeune, NC 28542

Field Contact: Robert Sok

Lab Contact: Kathy Dover
Phone: 919-379-4089
Address: 501 Madison Avenue
Cary, NC 27513

Sample Identification	Matrix	Sample Date	Sample Time	Number of Containers	TCL VOCs (SW846 8260B)	TCL SVOCs (SW846 8270C)	TCL Pesticides (SW846 8081A)	RCRA Metals (6000/7000 Series)	Ignitability (SW846 1010)	Corrosivity (SW846 1110)	Reactive Cyanide (7.3.3.2/9010)	Reactive Sulfide (7.3.4.2/9030)	TCLP VOCs	TCLP SVOCs	TCLP Pesticides	TCLP Metals	Total Suspended Solids (EPA 160.2)	Total Dissolved Solids (EPA 160.1)	TAL Metals		COMMENTS/ PRECAUTIONS
ER05	W	03/23/02	0845	7	X	X	X	X													
ER06	W	03/24/02	0900	7	X	X	X	X													
ER07	W	03/25/02	0935	7	X	X	X	X													
ER08	W	03/26/02	1000	7	X	X	X	X													

Matrix: A - Air; S - Soil; W - Water; SD - Sediment; O - Other; W - Waste; LB - Lab Supplied Water (Trip or Field Blank)

NOTES:

rec'd @ 5/6°C

1.) Relinquished By:		2.) Relinquished By:		SPECIAL INSTRUCTIONS
Signature:	Date: 5/27/02	Signature:	Date: 3-27-02	
Company: Baker Environmental Inc.	Time: 1030	Company: North Carolina Couriers	Time: 1315	
1.) Received By:		**2.) Received By:**		
Signature:	Date: 3-27-02	Signature:	Date: 3/27/02	
Company: North Carolina Couriers	Time:	Company: CompuChem	Time: 1315	

002/003

Baker Environmental Inc. Chain of Custody

NUMBER OF COOLERS: 2

CHAIN OF CUSTODY NUMBER: 0031

PAGE NUMBER: 1 OF 1

CUSTOMER INFORMATION

Company: Baker Environmental

Project Number: 26007-143-0000-0520J

Address: 420 Rouser Road, Bldg #3
Coraopolis, PA 15108

Contact: Michelle Russo

Phone: 412-269-6079

Fax: 412-269-6057

Fed Ex #:

Project Name: RCRA Phase II SWMU Investigation

Address: Lot 203, Piney Green Rd
Camp Lejeune, NC 28542

Field Contact: Robert Sok

Lab Contact: Kathy Dover

Phone: 919-379-4089

Address: 501 Madison Avenue
Cary, NC 27513

Sample Identification	Matrix	Sample Date	Sample Time	Number of Containers	TCL VOCs (SW846 8260B)	TCL SVOCs (SW846 8270C)	TCL Pesticides (SW846 8081A)	RCRA Metals (6000/7000 Series)	Ignitability (SW846 1010)	Corrosivity (SW846 1110)	Reactive Cyanide (7.3.3.2/9010)	Reactive Sulfide (7.3.4.2/9030)	TCLP VOCs	TCLP SVOCs	TCLP Pesticides	TCLP Metals	Total Suspended Solids (EPA 160.2)	Total Dissolved Solids (EPA 160.1)	TAL Metals		COMMENTS/ PRECAUTIONS
SWMU300-GW01TW-02B	W	04/02/02	0937	3		X		X													
SWMU300-GW02TW-02B	W	04/02/02	1050	3		X		X													
SWMU300-GW03TW-02B	W	04/02/02	0843	3		X		X													
SWMU302-GW03TW-02B	W	04/02/02	1120	3		X		X													
SWMU299-GW02TW-02B	W	04/02/02	1201	3		X		X													

Matrix: A - Air; S - Soil; W - Water; SD - Sediment; O - Other; W - Waste, LB - Lab Supplied Water (Trip or Field Blank)

NOTES:

Attn: Marlene Swift, slow start to sampling, there will be much more tomorrow

4 oc

1.) Relinquished By:		2.) Relinquished By:		SPECIAL INSTRUCTIONS
Signature:	Date: 4/2/02	Signature:	Date: 4-2-02	
Company: Baker Environmental Inc.	Time: 1420	Company: North Carolina Couriers	Time: 5:05	
1.) Received By:		2.) Received By:		
Signature:	Date: 4-2-02	Signature:	Date: 4.2.02	
Company: North Carolina Couriers	Time: 1420	Company: CompuChem	Time: 5:05	

04/03/02 18:18 FAX 919 379 4070 COMPUCHEM

Baker Environmental Inc. Chain of Custody

NUMBER OF COOLERS: 4

CHAIN OF CUSTODY NUMBER: 0032

CUSTOMER INFORMATION

Company: Baker Environmental
Project Name: RCRA Phase II SWMU Investigation
Project Number: 26007-143-0000-05201
Address: Lot 203, Piney Green Rd
Address: 420 Rouser Road, Bldg #3
Camp Lejeune, NC 28542
Coraopolis, PA 15108
Field Contact: Robert Sok
Contact: Michelle Russo
Phone: 412-269-6079
Fax: 412-269-6057
Fed Ex #:

Lab Contact: Kathy Dover
Phone: 919-379-4089
Address: 501 Madison Avenue
Cary, NC 27513

Sample Identification	Matrix	Sample Date	Sample Time	Number of Containers	TCL VOCs (SW846 8260B)	TCL SVOCs (SW846 8270C)	TCL Pesticides (SW846 8081A)	RCRA Metals (6000/7000 Series)	Ignitability (SW846 1010)	Corrosivity (SW846 1110)	Reactive Cyanide (7.3.3.2/9010)	Reactive Sulfide (7.3.4.2/9030)	TCLP VOCs	TCLP SVOCs	TCLP Pesticides	TCLP Metals	Total Suspended Solids (EPA 160.2)	Total Dissolved Solids (EPA 160.1)	TAL Metals		COMMENTS/ PRECAUTIONS
SWMU302-GW01TW-02B	W	04/02/02	1240	3		X		X													
SWMU302-GW02TW-02B	W	04/02/02	1205	3		X		X													
SWMU299-GW01TW-02B	W	04/02/02	1500	3		X		X													
SWMU299-GW03TW-02B	W	04/02/02	1557	3		X		X													
SWMU299-GW04TW-02B	W	04/02/02	1329	3		X		X													
SWMU303-GW01TW-02B	W	04/02/02	1435	3		X		X													
SWMU303-GW02TW-02B	W	04/02/02	1325	3		X		X													
SWMU303-GW03TW-02B	W	04/02/02	1355	3		X		X													
SWMU318-GW01TW-02B	W	04/02/02	1525	6	X	X		X													
SWMU318-GW02TW-02B	W	04/02/02	1555	6	X	X		X													
SWMU318-GW02TW-02BD	W	04/02/02	1555	6	X	X		X													
SWMU318-GW03TW-02B	W	04/02/02	1755	6	X	X		X													
SWMU272-GW03TW-02B	W	04/02/02	1755	3		X		X													*HIGH CONTAMINATION POSSIBLE
TB09	W	04/03/02	1145	3	X																FREE PRODUCT IN NEARBY WELL
SWMU285-TW02-02	S	04/03/02	1150	4	X	X															

Matrix: A - Air; S - Soil; W - Water; SD - Sediment; O - Other; W - Waste; LB - Lab Supplied Water (Trip or Field Blank)

NOTES:

shipped & received 4/3/02

1.) Relinquished By:		2.) Relinquished By:		SPECIAL INSTRUCTIONS
Signature:	Date:	Signature:	Date:	
Company: Baker Environmental Inc.	Time:	Company: North Carolina Couriers	Time:	
1.) Received By:		2.) Received By:		
Signature:	Date:	Signature:	Date:	
Company: North Carolina Couriers	Time:	Company: CompuChem	Time:	

Baker Environmental Inc. Chain of Custody

NUMBER OF COOLERS: 4

CHAIN OF CUSTODY NUMBER: 0033

PAGE NUMBER: 1 OF 2

CUSTOMER INFORMATION

Company: Baker Environmental

Project Number: 26007-143-0000-05201

Address: 420 Rouser Road, Bldg #3
Coraopolis, PA 15108

Contact: Michelle Russo
Phone: 412-269-6079
Fax: 412-269-6057
Fed Ex #:

Project Name: RCRA Phase II SWMU Investigation

Address: Lot 203, Piney Green Rd
Camp Lejeune, NC 28542

Field Contact: Robert Sok

Lab Contact: Kathy Dover
Phone: 919-379-4089
Address: 501 Madison Avenue
Cary, NC 27513

Sample Identification	Matrix	Sample Date	Sample Time	Number of Containers	TCL VOCs (SW846 8260B)	TCL SVOCs (SW846 8270C)	TCL Pesticides (SW846 8081A)	RCRA Metals (6000/7000 Series)	Ignitability (SW846 1010)	Corrosivity (SW846 1110)	Reactive Cyanide (7.3.3.2/9010)	Reactive Sulfide (7.3.4.2/9030)	TCLP VOCs	TCLP SVOCs	TCLP Pesticides	TCLP Metals	Total Suspended Solids (EPA 160.2)	Total Dissolved Solids (EPA 160.1)	TAL Metals		COMMENTS/ PRECAUTIONS
SWMU285-TW02-02MS/MSD	S	04/03/02	1150	8	X	X															

Matrix: A - Air; S - Soil; W - Water; SD - Sediment; O - Other; W - Waste; LB - Lab Supplied Water (Trip or Field Blank)

NOTES:

4/3/02

1.) Relinquished By:			2.) Relinquished By:			SPECIAL INSTRUCTIONS
Signature:		Date:	Signature:		Date:	
Company	Baker Environmental Inc.	Time:	Company	North Carolina Couriers	Time:	
1.) Received By:			2.) Received By:			
Signature:		Date:	Signature:		Date:	
Company	North Carolina Couriers	Time:	Company	CompuChem	Time:	

Baker Environmental Inc. Chain of Custody

NUMBER OF COOLERS: 5

CHAIN OF CUSTODY NUMBER: 0034

PAGE NUMBER: 1 OF 2

CUSTOMER INFORMATION

Company: Baker Environmental
Project Number: 26007-143-0000-05201
Address: 420 Rouser Road, Bldg #3
Coraopolis, PA 15108
Contact: Michelle Russo
Phone: 412-269-6079
Fax: 412-269-6057
Fed Ex #:

Project Name: RCRA Phase II SWMU Investigation
Address: Lot 203, Piney Green Rd
Camp Lejeune, NC 28542
Field Contact: Robert Sok
Lab Contact: Kathy Dover
Phone: 919-379-4089
Address: 501 Madison Avenue
Cary, NC 27513

Sample Identification	Matrix	Sample Date	Sample Time	Number of Containers	TCL VOCs (SW846 8260B)	TCL SVOCs (SW846 8270C)	TCL Pesticides (SW846 8081A)	RCRA Metals (6000/7000 Series)	Ignitability (SW846 1010)	Corrosivity (SW846 1110)	Reactive Cyanide (7.3.3.2/9010)	Reactive Sulfide (7.3.4.2/9030)	TCLP VOCs	TCLP SVOCs	TCLP Pesticides	TCLP Metals	Total Suspended Solids (EPA 160.2)	Total Dissolved Solids (EPA 160.1)	TAL Metals		COMMENTS/ PRECAUTIONS
SWMU307-GW01TW-02B	W	04/03/02	1710	1				X													
SWMU307-GW02TW-02B	W	04/03/02	100	1				X													
SWMU307-GW03TW-02B	W	04/03/02	1820	1				X													
SWMU272-GW01TW-02B	W	04/03/02	0905	3		X		X													
SWMU272-MW09-02B	W	04/03/02	1007	3		X		X													
SWMU339-GW01TW-02B	W	04/03/02	1202	5	X	X															
SWMU339-GW02TW-02B	W	04/03/02	1307	5	X	X															
SWMU339-GW03TW-02B	W	04/03/02	1107	5	X	X															
SWMU336-GW01TW-02B	W	04/03/02	1210	6	X	X	X	X													
SWMU336-GW02TW-02B	W	04/03/02	1135	6	X	X	X	X													
SWMU363-GW01TW-02B	W	04/03/02	1540	6	X	X	X	X													
SWMU363-GW02TW-02B	W	04/03/02	1710	6	X	X	X	X													
IR86-TW01-02B	W	04/03/02	1010	3	X																
SWMU316-GW01TW-02B	W	04/04/02	1045	3		X		X													
SWMU316-GW01TW-02BD	W	04/04/02	1045	3		X		X													

Matrix: A - Air; S - Soil; W - Water; SD - Sediment; O - Other; W - Waste; LB - Lab Supplied Water (Trip or Field Blank)

NOTES:

shipped 4/1/02
received 4/1/02

1.) Relinquished By:		2.) Relinquished By:		SPECIAL INSTRUCTIONS
Signature:	Date:	Signature:	Date:	
Company: Baker Environmental Inc.	Time:	Company: North Carolina Couriers	Time:	
1.) Received By:		2.) Received By:		
Signature:	Date:	Signature:	Date:	
Company: North Carolina Couriers	Time:	Company: CompuChem	Time:	

Baker Environmental Inc. Chain of Custody

NUMBER OF COOLERS: 5

CHAIN OF CUSTODY NUMBER: 0035

CUSTOMER INFORMATION

Company: Baker Environmental
Project Number: 26007-143-0000-05201
Address: 420 Rouser Road, Bldg #3
Coraopolis, PA 15108
Contact: Michelle Russo
Phone: 412-269-6079
Fax: 412-269-6057
Fed Ex #:

Project Name: RCRA Phase II SWMU Investigation
Address: Lot 203, Piney Green Rd
Camp Lejeune, NC 28542
Field Contact: Robert Sok
Lab Contact: Kathy Dover
Phone: 919-379-4089
Address: 501 Madison Avenue
Cary, NC 27513

Sample Identification	Matrix	Sample Date	Sample Time	Number of Containers	TCL VOCs (SW846 8260B)	TCL SVOCs (SW846 8270C)	TCL Pesticides (SW846 8081A)	RCRA Metals (6000/7000 Series)	Ignitability (SW846 1010)	Corrosivity (SW846 1110)	Reactive Cyanide (7.3.3.2/9010)	Reactive Sulfide (7.3.4.2/9030)	TCLP VOCs	TCLP SVOCs	TCLP Pesticides	TCLP Metals	Total Suspended Solids (EPA 160.2)	Total Dissolved Solids (EPA 160.1)	TAL Metals		COMMENTS/ PRECAUTIONS
SWMU316-GW02TW-02B	W	04/04/02	0940	3		X		X													
SWMU316-GW03TW-02B	W	04/04/02	1200	3		X		X													
SWMU53-GW01TW-02B	W	04/04/02	0930	3		X		X													
SWMU53-GW02TW-02B	W	04/04/02	1022	3		X		X													
SWMU256-GW01TW-02B	W	04/04/02	1134	2		X															
SWMU256-GW02TW-02B	W	04/04/02	1218	2		X															
SWMU256-GW03TW-02B	W	04/04/02	1130	3		X		X													
SWMU256-GW04TW-02B	W	04/04/02	1215	2		X															
SWMU312-GW01TW-02B	W	04/04/02	0955	3		X		X													
SWMU312-GW02TW-02B	W	04/04/02	0915	3		X		X													
SWMU312-GW03TW-02B	W	04/04/02	1035	3		X		X													
TB10	W	04/04/02	1230	3	X																

Matrix: A - Air; S - Soil; W - Water; SD - Sediment; O - Other; W - Waste; LB - Lab Supplied Water (Trip or Field Blank)

NOTES:

Shipped & received 4/4/02

1.) Relinquished By:		2.) Relinquished By:		SPECIAL INSTRUCTIONS
Signature:	Date:	Signature:	Date:	
Company: Baker Environmental Inc.	Time:	Company: North Carolina Couriers	Time:	
1.) Received By:		**2.) Received By:**		
Signature:	Date:	Signature:	Date:	
Company: North Carolina Couriers	Time:	Company: CompuChem	Time:	

Baker Environmental Inc. Chain of Custody

NUMBER OF COOLERS: 7

CHAIN OF CUSTODY NUMBER: 0036

PAGE NUMBER: 1 OF 4

CUSTOMER INFORMATION

Company: Baker Environmental
Project Number: 26007-143-0000-05201
Address: 420 Rouser Road, Bldg #3
Coraopolis, PA 15108
Contact: Michelle Russo
Phone: 412-269-6079
Fax: 412-269-6057
Fed Ex #:

Project Name: RCRA Phase II SWMU Investigation
Address: Lot 203, Piney Green Rd
Camp Lejeune, NC 28542
Field Contact: Robert Sok

Lab Contact: Kathy Dover
Phone: 919-379-4089
Address: 501 Madison Avenue
Cary, NC 27513

Sample Identification	Matrix	Sample Date	Sample Time	Number of Containers	TCL VOCs (SW846 8260B)	TCL SVOCs (SW846 8270C)	TCL Pesticides (SW846 8081A)	RCRA Metals (6000/7000 Series)	Ignitability (SW846 1010)	Corrosivity (SW846 1110)	Reactive Cyanide (7.3.3.2/9010)	Reactive Sulfide (7.3.4.2/9030)	TCLP VOCs	TCLP SVOCs	TCLP Pesticides	TCLP Metals	Total Suspended Solids (EPA 160.2)	Total Dissolved Solids (EPA 160.1)	TAL Metals		COMMENTS/ PRECAUTIONS
SWMU254-GW01TW-02B	W	04/04/02	1750	2		X															
SWMU254-GW02TW-02B	W	04/04/02	1630	2		X															
SWMU254-GW03TW-02B	W	04/04/02	1705	2		X															
SWMU255-GW01TW-02B	W	04/05/02	1648	2		X															
SWMU255-GW01TW-02BD	W	04/05/02	1648	2		X															
SWMU305-GW01TW-02B	W	04/04/02	1645	1				X													
SWMU305-GW02TW-02B	W	04/04/02	1612	1				X													
SWMU305-GW03TW-02B	W	04/04/02	1535	1				X													
SWMU311-GW01TW-02B	W	04/04/02	1520	4	X			X													
SWMU311-GW01TW-02BD	W	04/04/02	1520	4	X			X													
SWMU311-GW02TW-02B	W	04/04/02	1610	3	X			X													1X40ml BROKE DURING PACKING
SWMU313-GW01TW-02B	W	04/04/02	1410	1				X													
SWMU313-GW01TW-02BD	W	04/04/02	1410	1				X													
SWMU313-GW02TW-02B	W	04/04/02	1455	1				X													
SWMU313-GW02TW-02BMS/MSD	W	04/04/02	1455	1				X													

Matrix: A - Air; S - Soil; W - Water; SD - Sediment; O - Other; W - Waste; LB - Lab Supplied Water (Trip or Field Blank)

NOTES:

rec'd @ 2°C

1.) Relinquished By:		2.) Relinquished By:		SPECIAL INSTRUCTIONS
Signature:	Date: 4/6/02	Signature: Lisa Dillon	Date: 4-6-02	
Company: Baker Environmental Inc.	Time: 1218	Company: North Carolina Couriers	Time: 3:10	
1.) Received By:		2.) Received By:		
Signature: Lisa Dillon	Date: 4-6-2	Signature: C. Shiller	Date: 4-6-02	
Company: North Carolina Couriers	Time: 12:18	Company: CompuChem	Time: 1510	

Baker Environmental Inc. Chain of Custody

NUMBER OF COOLERS: 7

CHAIN OF CUSTODY NUMBER: 0037

CUSTOMER INFORMATION

Company: Baker Environmental
Project Number: 26007-143-0000-05201
Address: 420 Rouser Road, Bldg #3
Coraopolis, PA 15108
Contact: Michelle Russo
Phone: 412-269-6079
Fax: 412-269-6057
Fed Ex #:

Project Name: RCRA Phase II SWMU Investigation
Address: Lot 203, Piney Green Rd
Camp Lejeune, NC 28542
Field Contact: Robert Sok

Lab Contact: Kathy Dover
Phone: 919-379-4089
Address: 501 Madison Avenue
Cary, NC 27513

Sample Identification	Matrix	Sample Date	Sample Time	Number of Containers	TCL VOCs (SW846 8260B)	TCL SVOCs (SW846 8270C)	TCL Pesticides (SW846 8081A)	RCRA Metals (6000/7000 Series)	Ignitability (SW846 1010)	Corrosivity (SW846 1110)	Reactive Cyanide (7.3.3.2/9010)	Reactive Sulfide (7.3.4.2/9030)	TCLP VOCs	TCLP SVOCs	TCLP Pesticides	TCLP Metals	Total Suspended Solids (EPA 160.2)	Total Dissolved Solids (EPA 160.1)	TAL Metals		COMMENTS/ PRECAUTIONS
SWMU313-GW03TW-02B	W	04/04/02	1530	1				X													
SWMU279-GW01TW-02B	W	04/04/02	1400	2		X															
SWMU279-GW01TW-02BD	W	04/05/02	1400	2		X															
SWMU279-GW02TW-02B	W	04/05/02	1454	2		X															
SWMU279-GW03TW-02B	W	04/05/02	1533	2		X															
SWMU285-GW01TW-02B	W	04/05/02	1155	5	X	X															
SWMU285-GW02TW-02B	W	04/05/02	1230	5	X	X															
SWMU285-GW03TW-02B	W	04/05/02	1145	5	X	X															
SWMU293-GW01TW-02B	W	04/05/02		1				X													
SWMU293-GW02TW-02B	W	04/05/02		1				X													
SWMU293-GW03TW-02B	W	04/05/02		1				X													
SWMU294-GW01TW-02B	W	04/05/02		3		X		X													
SWMU294-GW02TW-02B	W	04/05/02		3		X		X													
SWMU294-GW03TW-02B	W	04/05/02		3		X		X													
SWMU294-GW04TW-02B	W	04/05/02		3		X		X													

Matrix: A - Air; S - Soil; W - Water; SD - Sediment; O - Other; W - Waste; LB - Lab Supplied Water (Trip or Field Blank)

NOTES:

rec'd @ 2°C

1.) Relinquished By:
Signature:
Company: Baker Environmental Inc.
Date: 4/6/02
Time: 1218

2.) Relinquished By:
Signature:
Company: North Carolina Couriers
Date: 4-6-02
Time: 3:10

1.) Received By:
Signature:
Company: North Carolina Couriers
Date: 4-6-2
Time: 12:18

2.) Received By:
Signature:
Company: CompuChem
Date: 4/6/02
Time: 1610

SPECIAL INSTRUCTIONS

Baker Environmental Inc. Chain of Custody

NUMBER OF COOLERS: 7

CHAIN OF CUSTODY NUMBER: 0038

CUSTOMER INFORMATION

Company: Baker Environmental
Project Number: 26007-143-0000-05201
Address: 420 Rouser Road, Bldg #3
Coraopolis, PA 15108
Contact: Michelle Russo
Phone: 412-269-6079
Fax: 412-269-6057
Fed Ex #:

Project Name: RCRA Phase II SWMU Investigation
Address: Lot 203, Piney Green Rd
Camp Lejeune, NC 28542
Field Contact: Robert Sok

Lab Contact: Kathy Dover
Phone: 919-379-4089
Address: 501 Madison Avenue
Cary, NC 27513

Sample Identification	Matrix	Sample Date	Sample Time	Number of Containers	TCL VOCs (SW846 8260B)	TCL SVOCs (SW846 8270C)	TCL Pesticides (SW846 8081A)	RCRA Metals (6000/7000 Series)	Ignitability (SW846 1010)	Corrosivity (SW846 1110)	Reactive Cyanide (7.3.3.2/9010)	Reactive Sulfide (7.3.4.2/9030)	TCLP VOCs	TCLP SVOCs	TCLP Pesticides	TCLP Metals	Total Suspended Solids (EPA 160.2)	Total Dissolved Solids (EPA 160.1)	TAL Metals		COMMENTS/ PRECAUTIONS
SWMU294-GW05TW-02B	W	04/05/02	1450	3		X		X													
SWMU294-GW06TW-02B	W	04/05/02	1340	3		X		X													
SWMU295-GW01TW-02B	W	04/05/02	1830	3		X		X													
SWMU295-GW02TW-02B	W	04/05/02	1813	3		X		X													
SWMU295-GW03TW-02B	W	04/05/02	1805	3		X		X													
SWMU253-GW01TW-02B	W	04/05/02	1025	3		X		X													
SWMU253-GW02TW-02B	W	04/05/02	0850	3		X		X													
SWMU253-GW03TW-02B	W	04/05/02	0950	3		X		X													
BASE-GW05STW-02B	W	04/05/02	1940	1															X		*TAL Metals
BASE-GW05ITW-02B	W	04/05/02	0950	1															X		*TAL Metals
BASE-GW06STW-02B	W	04/05/02	1238	1															X		*TAL Metals
BASE-GW06ITW-02B	W	04/05/02	1252	1															X		*TAL Metals
BASE-GW07STW-02B	W	04/05/02	1450	1															X		*TAL Metals
BASE-GW07ITW-02B	W	04/05/02	1455	1															X		*TAL Metals
BASE-GW09STW-02B	W	04/05/02	1705	2															X		*TAL Metals

Matrix: A - Air; S - Soil; W - Water; SD - Sediment; O - Other; W - Waste; LB - Lab Supplied Water (Trip or Field Blank)

NOTES:

Rec'd @ 2°C

1.) Relinquished By:		2.) Relinquished By:		SPECIAL INSTRUCTIONS
Signature:	Date: 4/6/02	Signature:	Date: 4-6-02	
Company: Baker Environmental Inc.	Time: 1218	Company: North Carolina Couriers	Time: 3110	
1.) Received By:		2.) Received By:		
Signature:	Date: 4-6-02	Signature:	Date: 4-6-02	
Company: North Carolina Couriers	Time: 2118	Company: CompuChem	Time: 1510	

Baker Environmental Inc. Chain of Custody

NUMBER OF COOLERS: 7

CHAIN OF CUSTODY NUMBER: 0039

CUSTOMER INFORMATION

Company: Baker Environmental
Project Number: 26007-143-0000-05201
Address: 420 Rouser Road, Bldg #3
Coraopolis, PA 15108
Contact: Michelle Russo
Phone: 412-269-6079
Fax: 412-269-6057
Fed Ex #:

Project Name: RCRA Phase II SWMU Investigation
Address: Lot 203, Piney Green Rd
Camp Lejeune, NC 28542
Field Contact: Robert Sok

Lab Contact: Kathy Dover
Phone: 919-379-4089
Address: 501 Madison Avenue
Cary, NC 27513

Sample Identification	Matrix	Sample Date	Sample Time	Number of Containers	TCL VOCs (SW846 8260B)	TCL SVOCs (SW846 8270C)	TCL Pesticides (SW846 8081A)	RCRA Metals (6000/7000 Series)	Ignitability (SW846 1010)	Corrosivity (SW846 1110)	Reactive Cyanide (7.3.3.2/9010)	Reactive Sulfide (7.3.4.2/9030)	TCLP VOCs	TCLP SVOCs	TCLP Pesticides	TCLP Metals	Total Suspended Solids (EPA 160.2)	Total Dissolved Solids (EPA 160.1)	TAL Metals		COMMENTS/ PRECAUTIONS
BASE-GW09ITW-02B	W	04/05/02	1835	2															X		LABELED AS 0635 (wrong)
TB11	W	04/05/02	1100	3	X																
	W	04/05/02																			
	W	04/05/02																			
	W	04/05/02																			
	W	04/05/02																			
	W	04/05/02																			
	W	04/05/02																			
	W	04/05/02																			
	W	04/05/02																			
	W	04/05/02																			
	W	04/05/02																			
	W	04/05/02																			
	W	04/05/02																			
	W	04/05/02																			

Matrix: A - Air; S - Soil; W - Water; SD - Sediment; O - Other; W - Waste; LB - Lab Supplied Water (Trip or Field Blank)

NOTES:

rec'd @ 2°C

1.) Relinquished By:		2.) Relinquished By:		SPECIAL INSTRUCTIONS
Signature:	Date: 4/6/02	Signature:	Date: 4-6-02	
Company: Baker Environmental Inc.	Time: 1218	Company: North Carolina Couriers	Time: 3:10	
1.) Received By:		**2.) Received By:**		
Signature:	Date: 4-6-2	Signature:	Date: 4-6-02	
Company: North Carolina Couriers	Time: 12:18	Company: CompuChem	Time: 1570	

Baker Environmental Inc. Chain of Custody

NUMBER OF COOLERS: 9

CHAIN OF CUSTODY NUMBER: 0040

CUSTOMER INFORMATION

Company: Baker Environmental
Project Number: 26007-143-0000-05201
Address: 420 Rouser Road, Bldg #3
Coraopolis, PA 15108

Contact: Michelle Russo
Phone: 412-269-6079
Fax: 412-269-6057
Fed Ex #:

Project Name: RCRA Phase II SWMU Investigation
Address: Lot 203, Piney Green Rd
Camp Lejeune, NC 28542
Field Contact: Robert Sok

Lab Contact: Kathy Dover
Phone: 919-379-4089
Address: 501 Madison Avenue
Cary, NC 27513

Sample Identification	Matrix	Sample Date	Sample Time	Number of Containers	TCL VOCs (SW846 8260B)	TCL SVOCs (SW846 8270C)	TCL Pesticides (SW846 8081A)	RCRA Metals (6000/7000 Series)	Ignitability (SW846 1010)	Corrosivity (SW846 1110)	Reactive Cyanide (7.3.3.2/9010)	Reactive Sulfide (7.3.4.2/9030)	TCLP VOCs	TCLP SVOCs	TCLP Pesticides	TCLP Metals	Total Suspended Solids (EPA 160.2)	Total Dissolved Solids (EPA 160.1)	TAL Metals		COMMENTS/ PRECAUTIONS
SWMU46-GW01TW-02B	W	04/06/02	1010	1				X													
SWMU46-GW02TW-02B	W	04/06/02	0850	1				X													
SWMU46-GW03TW-02B	W	04/06/02	0911	1				X													
SWMU46-GW04TW-02B	W	04/06/02	1000	1				X													
SWMU46-GW05TW-02B	W	04/06/02	1058	1				X													
SWMU46-GW05TW-02BD	W	04/06/02	1058	1				X													
SWMU46-GW06TW-02B	W	04/06/02	1055	1				X													
SWMU258-GW01TW-02B	W	04/06/02	1712	1				X													
SWMU258-GW02TW-02B	W	04/06/02	1705	1				X													
SWMU258-GW03TW-02B	W	04/06/02	1740	1				X													
SWMU314-GW01TW-02B	W	04/06/02	1415	3		X		X													
SWMU314-GW02TW-02BMS/MSD	W	04/06/02	1445	3		X		X													
SWMU314-GW02TW-02B	W	04/06/02	1445	3		X		X													
SWMU314-GW03TW-02B	W	04/06/02	1505	3		X		X													
SWMU315-GW01TW-02B	W	04/06/02	1220	3		X		X													

Matrix: A - Air; S - Soil; W - Water; SD - Sediment; O - Other; W - Waste; LB - Lab Supplied Water (Trip or Field Blank)

NOTES:

5°c

1.) Relinquished By:		2.) Relinquished By:		SPECIAL INSTRUCTIONS
Signature:	Date: 4/8/02	Signature:	Date: 4-8-02	
Company: Baker Environmental Inc.	Time: 1445	Company: North Carolina Couriers	Time: 1730	
1.) Received By:		2.) Received By:		
Signature:	Date: 4-8-02	Signature:	Date: 4/8/02	
Company: North Carolina Couriers	Time:	Company: CompuChem	Time: 1730	

Baker Environmental Inc. Chain of Custody

NUMBER OF COOLERS: 9

CHAIN OF CUSTODY NUMBER: 0041

PAGE NUMBER: 2 OF 5

CUSTOMER INFORMATION

Company: Baker Environmental
Project Name: RCRA Phase II SWMU Investigation
Project Number: 26007-143-0000-05201
Address: Lot 203, Piney Green Rd, Camp Lejeune, NC 28542
Address: 420 Rouser Road, Bldg #3, Coraopolis, PA 15108
Field Contact: Robert Sok
Contact: Michelle Russo
Phone: 412-269-6079
Fax: 412-269-6057
Fed Ex #:
Lab Contact: Kathy Dover
Phone: 919-379-4089
Address: 501 Madison Avenue, Cary, NC 27513

Sample Identification	Matrix	Sample Date	Sample Time	Number of Containers	TCL VOCs (SW846 8260B)	TCL SVOCs (SW846 8270C)	TCL Pesticides (SW846 8081A)	RCRA Metals (6000/7000 Series)	Ignitability (SW846 1010)	Corrosivity (SW846 1110)	Reactive Cyanide (7.3.3.2/9010)	Reactive Sulfide (7.3.4.2/9030)	TCLP VOCs	TCLP SVOCs	TCLP Pesticides	TCLP Metals	Total Suspended Solids (EPA 160.2)	Total Dissolved Solids (EPA 160.1)	TAL Metals		COMMENTS/ PRECAUTIONS
SWMU315-GW02TW-02B	W	04/06/02	1305	3		X		X													
SWMU315-GW02TW-02BMS/MSD	W	04/06/02	1305	3		X		X													
SWMU315-GW03TW-02B	W	04/06/02	1330	3		X		X													
SWMU315-GW03TW-02BD	W	04/06/02	1330	3		X		X													
SWMU264-GW01TW-02B	W	04/07/02	0922	3		X		X													
SWMU264-GW01TW-02BD	W	04/07/02	0922	3		X		X													
SWMU264-GW02TW-02B	W	04/07/02	1010	3		X		X													
SWMU264-GW03TW-02B	W	04/07/02	1100	3		X		X													
SWMU265-GW01TW-02B	W	04/07/02	0930	2		X															
SWMU265-GW02TW-02B	W	04/07/02	0935	2		X															
SWMU265-GW03TW-02B	W	04/07/02	1020	2		X															
SWMU265-GW03TW-02BD	W	04/07/02	1020	2		X															
SWMU269-GW01TW-02B ?	W	04/07/02	1601	3		X		X													did not receive any SVOC containers for these ID's
SWMU269-GW02TW-02B ?	W	04/07/02	1640	3		X		X													
SWMU269-GW03TW-02B ?	W	04/07/02	1714	3		X		X													

Matrix: A - Air; S - Soil; W - Water; SD - Sediment; O - Other; W - Waste; LB - Lab Supplied Water (Trip or Field Blank)

no SVOC req'd for these ID's per Rob Sok
50e
4/9/02

NOTES:

1.) Relinquished By:		2.) Relinquished By:		SPECIAL INSTRUCTIONS
Signature: [signature]	Date: 4/8/02	Signature: [signature]	Date: 4-8-02	
Company: Baker Environmental Inc.	Time: 1445	Company: North Carolina Couriers	Time: 1730	
1.) Received By:		**2.) Received By:**		
Signature: [signature]	Date: 4-8-02	Signature: [signature]	Date: 4/8/02	
Company: North Carolina Couriers	Time:	Company: CompuChem	Time: 1730	

Baker Environmental Inc. Chain of Custody

NUMBER OF COOLERS: 9

CHAIN OF CUSTODY NUMBER: 0042

CUSTOMER INFORMATION

Company: Baker Environmental
Project Number: 26007-143-0000-05201
Address: 420 Rouser Road, Bldg #3
Coraopolis, PA 15108
Contact: Michelle Russo
Phone: 412-269-6079
Fax: 412-269-6057
Fed Ex #:

Project Name: RCRA Phase II SWMU Investigation
Address: Lot 203, Piney Green Rd
Camp Lejeune, NC 28542
Field Contact: Robert Sok

Lab Contact: Kathy Dover
Phone: 919-379-4089
Address: 501 Madison Avenue
Cary, NC 27513

Sample Identification	Matrix	Sample Date	Sample Time	Number of Containers	TCL VOCs (SW846 8260B)	TCL SVOCs (SW846 8270C)	TCL Pesticides (SW846 8081A)	RCRA Metals (6000/7000 Series)	Ignitability (SW846 1010)	Corrosivity (SW846 1110)	Reactive Cyanide (7.3.3.2/9010)	Reactive Sulfide (7.3.4.2/9030)	TCLP VOCs	TCLP SVOCs	TCLP Pesticides	TCLP Metals	Total Suspended Solids (EPA 160.2)	Total Dissolved Solids (EPA 160.1)	TAL Metals		COMMENTS/ PRECAUTIONS
SWMU295-78GW09-1-02B	W	04/07/02	1150	3		X		X													
SWMU308-GW01TW-02B	W	04/07/02	1618	2		X															
SWMU308-GW02TW-02B	W	04/07/02	1548	2		X															
SWMU308-GW03TW-02B	W	04/07/02	1645	2		X															
SWMU361-GW01TW-02B	W	04/07/02	1435	7	X	X	X	X													
SWMU361-MW02-02B	W	04/07/02	1410	7	X	X	X	X													
SWMU361-MW03-02B	W	04/07/02	1410	7	X	X	X	X													
SWMU361-MW04-02B	W	04/07/02	1250	8	X	X	X	X													
SWMU361-MW04-02BMS/MSD	W	04/07/02	1250	8	X	X	X	X													
SWMU361-MW05-02B	W	04/07/02	1300	7	X	X	X	X													
SWMU361-MW06-02B	W	04/07/02	1355	8	X	X	X	X													
TB12	W	04/07/02	1230	3	X																
BASE-GW03ITW-02B	W	04/06/02	1007	1															X		*TAL Metals
BASE-GW03ITW-02BD	W	04/06/02	1007	1															X		*TAL Metals
BASE-GW03ITW-02BMS/MSD	W	04/06/02	1007	1															X		*TAL Metals

Matrix: A - Air; S - Soil; W - Water; SD - Sediment; O - Other; W - Waste; LB - Lab Supplied Water (Trip or Field Blank)

NOTES:

5oc

1.) Relinquished By:		2.) Relinquished By:		SPECIAL INSTRUCTIONS
Signature:	Date: 4/8/02	Signature:	Date: 4-8-02	
Company: Baker Environmental Inc.	Time: 1445	Company: North Carolina Couriers	Time: 1730	
1.) Received By:		2.) Received By:		
Signature:	Date: 4-8-02	Signature:	Date: 4/8/02	
Company: North Carolina Couriers	Time:	Company: CompuChem	Time: 1730	

Baker Environmental Inc. Chain of Custody

NUMBER OF COOLERS: 9

CHAIN OF CUSTODY NUMBER: 0043

CUSTOMER INFORMATION

Company: Baker Environmental
Project Number: 26007-143-0000-05201
Address: 420 Rouser Road, Bldg #3
Coraopolis, PA 15108
Contact: Michelle Russo
Phone: 412-269-6079
Fax: 412-269-6057
Fed Ex #:

Project Name: RCRA Phase II SWMU Investigation
Address: Lot 203, Piney Green Rd
Camp Lejeune, NC 28542
Field Contact: Robert Sok
Lab Contact: Kathy Dover
Phone: 919-379-4089
Address: 501 Madison Avenue
Cary, NC 27513

Sample Identification	Matrix	Sample Date	Sample Time	Number of Containers	TCL VOCs (SW846 8260B)	TCL SVOCs (SW846 8270C)	TCL Pesticides (SW846 8081A)	RCRA Metals (6000/7000 Series)	Ignitability (SW846 1010)	Corrosivity (SW846 1110)	Reactive Cyanide (7.3.3.2/9010)	Reactive Sulfide (7.3.4.2/9030)	TCLP VOCs	TCLP SVOCs	TCLP Pesticides	TCLP Metals	Total Suspended Solids (EPA 160.2)	Total Dissolved Solids (EPA 160.1)	TAL Metals		COMMENTS/ PRECAUTIONS
BASE-GW03STW-02B	W	04/06/02	1047	1															X		*TAL Metals
BASE-GW01STW-02B	W	04/06/02	1507	1															X		*TAL Metals
BASE-GW01ITW-02B	W	04/06/02	1437	1															X		*TAL Metals
BASE-GW02STW-02B	W	04/06/02	1305	1															X		*TAL Metals
BASE-GW02ITW-02B	W	04/06/02	1302	1															X		*TAL Metals
BASE-GW11STW-02B	W	04/06/02	1747	1															X		*TAL Metals
BASE-GW11ITW-02B	W	04/06/02	1737	1															X		*TAL Metals
BASE-GW16STW-02B	W	04/06/02	1716	1															X		*TAL Metals
BASE-GW16ITW-02B	W	04/06/02	1537	1															X		*TAL Metals
BASE-GW08STW-02B	W	04/07/02	1027	1															X		*TAL Metals
BASE-GW08ITW-02B	W	04/07/02	1010	1															X		*TAL Metals
BASE-GW08ITW-02BD	W	04/07/02	1010	1															X		*TAL Metals
BASE-GW10STW-02B	W	04/07/02	1232	1															X		*TAL Metals
BASE-GW10ITW-02B	W	04/07/02	1210	1															X		*TAL Metals
BASE-GW04STW-02B	W	04/07/02	1725	1															X		*TAL Metals

Matrix: A - Air; S - Soil; W - Water; SD - Sediment; O - Other; W - Waste; LB - Lab Supplied Water (Trip or Field Blank)

NOTES:

5°C.

1.) Relinquished By:		2.) Relinquished By:		SPECIAL INSTRUCTIONS
Signature:	Date: 4/8/02	Signature:	Date: 4-8-02	
Company: Baker Environmental Inc.	Time: 1445	Company: North Carolina Couriers	Time: 1730	
1.) Received By:		2.) Received By:		
Signature:	Date: 4-8-02	Signature:	Date: 4/8/02	
Company: North Carolina Couriers	Time:	Company: CompuChem	Time: 1730	

Baker Environmental Inc. Chain of Custody

NUMBER OF COOLERS: 9

CHAIN OF CUSTODY NUMBER: 0044

CUSTOMER INFORMATION

Company: Baker Environmental
Project Number: 26007-143-0000-05201
Address: 420 Rouser Road, Bldg #3
Coraopolis, PA 15108
Contact: Michelle Russo
Phone: 412-269-6079
Fax: 412-269-6057
Fed Ex #:

Project Name: RCRA Phase II SWMU Investigation
Address: Lot 203, Piney Green Rd
Camp Lejeune, NC 28542
Field Contact: Robert Sok
Lab Contact: Kathy Dover
Phone: 919-379-4089
Address: 501 Madison Avenue
Cary, NC 27513

Sample Identification	Matrix	Sample Date	Sample Time	Number of Containers	TCL VOCs (SW846 8260B)	TCL SVOCs (SW846 8270C)	TCL Pesticides (SW846 8081A)	RCRA Metals (6000/7000 Series)	Ignitability (SW846 1010)	Corrosivity (SW846 1110)	Reactive Cyanide (7.3.3.2/9010)	Reactive Sulfide (7.3.4.2/9030)	TCLP VOCs	TCLP SVOCs	TCLP Pesticides	TCLP Metals	Total Suspended Solids (EPA 160.2)	Total Dissolved Solids (EPA 160.1)	TAL Metals		COMMENTS/ PRECAUTIONS
BASE-GW04ITW-02B	W	04/07/02	1700	1															X		*TAL Metals
BASE-GW12STW-02B	W	04/07/02	1340	1															X		*TAL Metals
BASE-GW12STW-02BD	W	04/07/02	1340	1															X		*TAL Metals
BASE-GW12ITW-02B	W	04/07/02	1435	1															X		*TAL Metals
BASE-GW13STW-02B	W	04/07/02	1442	1															X		*TAL Metals
BASE-GW13ITW-02B	W	04/07/02	1428	1															X		"
BASE-GW14STW-02B	W	04/07/02	1810	1															X		"
BASE-GW14ITW-02B	W	04/07/02	1808	1															X		"
BASE-GW15STW-02B	W	04/07/02	1623	1															X		"
BASE-GW15ITW-02B	W	04/07/02	1657	1															X		"

Matrix: A - Air; S - Soil; W - Water; SD - Sediment; O - Other; W - Waste; LB - Lab Supplied Water (Trip or Field Blank)

NOTES:

* One of the BASE samples has 2 500ml bottles (HNO_3), at that time we were not sure whether you or more needed the full 1L for TAL metals

50C

1.) Relinquished By:		2.) Relinquished By:		SPECIAL INSTRUCTIONS
Signature:	Date: 4/5/02	Signature:	Date: 4-8-02	
Company: Baker Environmental Inc.	Time: 1445	Company: North Carolina Couriers	Time: 1730	
1.) Received By:		2.) Received By:		
Signature:	Date: 4-8-02	Signature:	Date: 4/8/02	
Company: North Carolina Couriers	Time:	Company: CompuChem	Time: 1730	

Baker Environmental Inc. Chain of Custody

NUMBER OF COOLERS: 3

CHAIN OF CUSTODY NUMBER: 0045

PAGE NUMBER: 1 OF 2

CUSTOMER INFORMATION

Company: Baker Environmental
Project Number: 26007-143-0000-05201
Address: 420 Rouser Road, Bldg #3
Coraopolis, PA 15108
Contact: Michelle Russo
Phone: 412-269-6079
Fax: 412-269-6057
Fed Ex #:

Project Name: RCRA Phase II SWMU Investigation
Address: Lot 203, Piney Green Rd
Camp Lejeune, NC 28542
Field Contact: Robert Sok

Lab Contact: Kathy Dover
Phone: 919-379-4089
Address: 501 Madison Avenue
Cary, NC 27513

Sample Identification	Matrix	Sample Date	Sample Time	Number of Containers	TCL VOCs (SW846 8260B)	TCL SVOCs (SW846 8270C)	TCL Pesticides (SW846 8081A)	RCRA Metals (6000/7000 Series)	Ignitability (SW846 1010)	Corrosivity (SW846 1110)	Reactive Cyanide (7.3.3.2/9010)	Reactive Sulfide (7.3.4.2/9030)	TCLP VOCs	TCLP SVOCs	TCLP Pesticides	TCLP Metals	Total Suspended Solids (EPA 160.2)	Total Dissolved Solids (EPA 160.1)	TAL Metals		COMMENTS/ PRECAUTIONS
SWMU43-GW01TW-02B	W	04/08/02	1640	4		X	X	X													
SWMU43-GW03TW-02BD	W	04/08/02	1640	4		X	X	X													
SWMU43-GW03TW-02B	W	04/08/02	1640	4		X	X	X													
SWMU43-GW03TW-02BMS/MSD	W	04/08/02	1640	4		X	X	X													
SWMU306-GW01TW-02B	W	04/08/02	1420	1				X													
SWMU306-GW03TW-02B	W	04/08/02	1405	1				X													
SWMU306-GW03TW-02BD	W	04/08/02	1405	1				X													
SWMU261-GW02TW-02B	W	04/08/02	1115	1				X													
SWMU261-GW03TW-02B	W	04/08/02	1030	1				X													
SWMU261-GW04TW-02B	W	04/08/02	1145	1				X													
SWMU261-GW04TW-02BD	W	04/08/02	1145	1				X													
BASE-GW21STW-02B	W	04/08/02	1856	1															X		
BASE-GW21ITW-02B	W	04/08/02	1851	1															X		
BASE-GW22STW-02B	W	04/08/02	1510	1															X		
BASE-GW22ITW-02B	W	04/08/02	1500	1															X		

Matrix: A - Air; S - Soil; W - Water; SD - Sediment; O - Other; W - Waste; LB - Lab Supplied Water (Trip or Field Blank)

NOTES:

6°C

1.) Relinquished By:		2.) Relinquished By:		SPECIAL INSTRUCTIONS
Signature:	Date: 4/9/02	Signature:	Date: 4/9/02	
Company: Baker Environmental Inc.	Time: 1430	Company: North Carolina Couriers	Time: 17	
1.) Received By:		2.) Received By:		
Signature:	Date: 4/9/02	Signature:	Date: 4.9.02	
Company: North Carolina Couriers	Time: 1430	Company: CompuChem	Time: 1705	

Baker Environmental Inc. Chain of Custody

NUMBER OF COOLERS: 3

CHAIN OF CUSTODY NUMBER: 0046

CUSTOMER INFORMATION

Company: Baker Environmental
Project Number: 26007-143-0000-05201
Address: 420 Rouser Road, Bldg #3
Coraopolis, PA 15108
Contact: Michelle Russo
Phone: 412-269-6079
Fax: 412-269-6057
Fed Ex #:

Project Name: RCRA Phase II SWMU Investigation
Address: Lot 203, Piney Green Rd
Camp Lejeune, NC 28542
Field Contact: Robert Sok
Lab Contact: Kathy Dover
Phone: 919-379-4089
Address: 501 Madison Avenue
Cary, NC 27513

Sample Identification	Matrix	Sample Date	Sample Time	Number of Containers	TCL VOCs (SW846 8260B)	TCL SVOCs (SW846 8270C)	TCL Pesticides (SW846 8081A)	RCRA Metals (6000/7000 Series)	Ignitability (SW846 1010)	Corrosivity (SW846 1110)	Reactive Cyanide (7.3.3.2/9010)	Reactive Sulfide (7.3.4.2/9030)	TCLP VOCs	TCLP SVOCs	TCLP Pesticides	TCLP Metals	Total Suspended Solids (EPA 160.2)	Total Dissolved Solids (EPA 160.1)	TAL Metals		COMMENTS/ PRECAUTIONS
BASE-GW23STW-02B MS/MSD	W	04/08/02	1515	2															X		
BASE-GW23ITW-02B	W	04/08/02	1545	1															X		
BASE-GW25STW-02B	W	04/08/02	1320	1															X		
BASE-GW25ITW-02B	W	04/08/02	1242	1															X		
BASE-GW24STW-02B	W	04/08/02	1152	1															X		
BASE-GW24ITW-02B	W	04/08/02	1200	1															X		
SWMU360-TW01A-10	S	04/08/02	1615	6	X	X	X	X													THESE WERE RESAMPLED, PLEASE
SWMU360-TW02A-10	S	04/08/02	1251	6	X	X	X	X													CALL ME IF YOU HAVE NOT RUN
SWMU360-TW03A-10	S	04/08/02	1101	6	X	X	X	X													THE FIRST SET OF SAMPLES
SWMU360-TW04A-11	S	04/08/02	0911	6	X	X	X	X													WE MAY NOT NEED THEM
SWMU311-TW03A-08	S	04/08/02	1802	4	X			X													
SWMU317-GW02TW-02B	W	04/08/02	0800	1				X													
TB-13	W	04/08/02	0700	3	X																
SWMU317-TW01A-10	S	04/09/02	0752	1				X													THIS WAS RESAMPLED ALSO
SWMU317-TW03A-10	S	04/09/02	0917	1				X													THIS WAS RESAMPLED ALSO

Matrix: A - Air; S - Soil; W - Water; SD - Sediment; O - Other; W - Waste; LB - Lab Supplied Water (Trip or Field Blank)

NOTES:

1.) Relinquished By:		2.) Relinquished By:		SPECIAL INSTRUCTIONS
Signature:	Date:	Signature:	Date:	
Company: Baker Environmental Inc.	Time:	Company: North Carolina Couriers	Time:	
1.) Received By:		**2.) Received By:**		
Signature:	Date:	Signature:	Date:	
Company: North Carolina Couriers	Time:	Company: CompuChem	Time:	

Baker Environmental Inc. Chain of Custody

NUMBER OF COOLERS: 8

CHAIN OF CUSTODY NUMBER: 0047

PAGE NUMBER: 1 OF 2 (pg. 1 of 3)

CUSTOMER INFORMATION

Company: Baker Environmental
Project Number: 26007-143-0000-05201
Address: 420 Rouser Road, Bldg #3
Coraopolis, PA 15108
Contact: Michelle Russo
Phone: 412-269-6079
Fax: 412-269-6057
Fed Ex #:

Project Name: RCRA Phase II SWMU Investigation
Address: Lot 203, Piney Green Rd
Camp Lejeune, NC 28542
Field Contact: Robert Sok

Lab Contact: Kathy Dover
Phone: 919-379-4089
Address: 501 Madison Avenue
Cary, NC 27513

Sample Identification	Matrix	Sample Date	Sample Time	Number of Containers	TCL VOCs (SW846 8260B)	TCL SVOCs (SW846 8270C)	TCL Pesticides (SW846 8081A)	RCRA Metals (6000/7000 Series)	Ignitability (SW846 1010)	Corrosivity (SW846 1110)	Reactive Cyanide (7.3.3.2/9010)	Reactive Sulfide (7.3.4.2/9030)	TCLP VOCs	TCLP SVOCs	TCLP Pesticides	TCLP Metals	Total Suspended Solids (EPA 160.2)	Total Dissolved Solids (EPA 160.1)	TAL Metals		COMMENTS/ PRECAUTIONS
BASE-GW17STW-02B	W	04/09/02	1217	1															X		
BASE-GW17ITW-02B	W	04/09/02	1226	1															X		
BASE-GW18STW-02B	W	04/09/02	1050	1															X		
BASE-GW18ITW-02B	W	04/09/02	1040	1															X		
BASE-GW19STW-02B	W	04/09/02	1359	1															X		
BASE-GW19ITW-02B	W	04/09/02	1350	1															X		
BASE-GW20STW-02B	W	04/09/02	1542	1															X		
BASE-GW20ITW-02B	W	04/09/02	1526	1															X		
SWMU317-GW01TW-02B	W	04/09/02	1814	1				X													
SWMU317-GW03TW-02B	W	04/09/02	1841	1				X													
SWMU360-GW01TW-02B	W	04/09/02	1605	7	X	X	X	X													
SWMU360-GW02TW-02B	W	04/09/02	1230	7	X	X	X	X													
SWMU360-GW02TW-02BD	W	04/09/02	1230	7	X	X	X	X													
SWMU360-GW03TW-02B	W	04/09/02	1230	7	X	X	X	X													
SWMU360-GW04TW-02B	W	04/09/02	1510	7	X	X	X	X													

Matrix: A - Air; S - Soil; W - Water; SD - Sediment; O - Other; W - Waste; LB - Lab Supplied Water (Trip or Field Blank)

NOTES:

5°C

1.) Relinquished By:		2.) Relinquished By:		SPECIAL INSTRUCTIONS
Signature:	Date: 4/10/02	Signature:	Date: 4-10-02	
Company: Baker Environmental Inc.	Time:	Company: North Carolina Couriers	Time:	
1.) Received By:		2.) Received By:		
Signature:	Date: 4-10-02	Signature:	Date: 4/10/02	
Company: North Carolina Couriers	Time:	Company: CompuChem	Time: 1730	

Baker Environmental Inc. Chain of Custody

NUMBER OF COOLERS: 8

CHAIN OF CUSTODY NUMBER: 0048

PAGE NUMBER: 2 OF 3

CUSTOMER INFORMATION

Company: Baker Environmental
Project Number: 26007-143-0000-05201
Address: 420 Rouser Road, Bldg #3
Coraopolis, PA 15108
Contact: Michelle Russo
Phone: 412-269-6079
Fax: 412-269-6057
Fed Ex #:

Project Name: RCRA Phase II SWMU Investigation
Address: Lot 203, Piney Green Rd
Camp Lejeune, NC 28542
Field Contact: Robert Sok

Lab Contact: Kathy Dover
Phone: 919-379-4089
Address: 501 Madison Avenue
Cary, NC 27513

Sample Identification	Matrix	Sample Date	Sample Time	Number of Containers	TCL VOCs (SW846 8260B)	TCL SVOCs (SW846 8270C)	TCL Pesticides (SW846 8081A)	RCRA Metals (6000/7000 Series)	Ignitability (SW846 1010)	Corrosivity (SW846 1110)	Reactive Cyanide (7.3.3.2/9010)	Reactive Sulfide (7.3.4.2/9030)	TCLP VOCs	TCLP SVOCs	TCLP Pesticides	TCLP Metals	Total Suspended Solids (EPA 160.2)	Total Dissolved Solids (EPA 160.1)	TAL Metals		COMMENTS/ PRECAUTIONS
SWMU359-GW01TW-02B	W	04/09/02	1740	7	X	X	X	X													Small containers, labeled 0395 instead of 4394
SWMU359-GW02TW-02B	W	04/09/02	1845	7	X	X	X	X													
SWMU311-GW03TW-02B	W	04/09/02	1050	4	X			X													
SWMU306-GW02TW-02B	W	04/10/02	0846	1				X													container ID: SWMU306-GW03 TW02B
SWMU291-GW01TW-02B	W	04/09/02	1745	1				X													
SWMU291-GW02TW-02B	W	04/09/02	0935	1				X													
SWMU291-GW03TW-02B	W	04/09/02	0935	1				X													however 306-GW03 is already sampled 4/8/02 @ 1405
SWMU261-GW01TW-02B	W	04/09/02	1735	1				X													
SWMU43-GW02TW-02B	W	04/09/02	1405	4		X	X	X													
TB14	W	04/10/02	0900	3	X																
SWMU306-TW02A-07	S	04/09/02	1224	1				X													
SWMU261-TW01A-07	S	04/09/02	1328	1				X													
SWMU362-SD01	SD	04/09/02	1730	5	X	X	X	X													
SWMU362-SD02	SD	04/09/02	1745	5	X	X	X	X													
SWMU362-SD03	SD	04/09/02	1800	5	X	X	X	X													

Matrix: A - Air; S - Soil; W - Water; SD - Sediment; O - Other; W - Waste; LB - Lab Supplied Water (Trip or Field Blank)

NOTES:

5°C

1.) Relinquished By:		2.) Relinquished By:		SPECIAL INSTRUCTIONS
Signature:	Date: 4/10/02	Signature:	Date: 4-10-02	
Company: Baker Environmental Inc.	Time:	Company: North Carolina Couriers	Time: 1730 (3) 4/10/02	
1.) Received By:		2.) Received By:		
Signature:	Date: 4.10.02	Signature:	Date: 4/10/02	
Company: North Carolina Couriers	Time:	Company: CompuChem	Time: 1730	

Baker Environmental Inc. Chain of Custody

NUMBER OF COOLERS: 8

CHAIN OF CUSTODY NUMBER: 0049

PAGE NUMBER: 3 OF 3

CUSTOMER INFORMATION

Company: Baker Environmental

Project Number: 26007-143-0000-05201

Address: 420 Rouser Road, Bldg #3
Coraopolis, PA 15108

Contact: Michelle Russo
Phone: 412-269-6079
Fax: 412-269-6057
Fed Ex #:

Project Name: RCRA Phase II SWMU Investigation

Address: Lot 203, Piney Green Rd
Camp Lejeune, NC 28542

Field Contact: Robert Sok

Lab Contact: Kathy Dover
Phone: 919-379-4089
Address: 501 Madison Avenue
Cary, NC 27513

Sample Identification	Matrix	Sample Date	Sample Time	Number of Containers	TCL VOCs (SW846 8260B)	TCL SVOCs (SW846 8270C)	TCL Pesticides (SW846 8081A)	RCRA Metals (6000/7000 Series)	Ignitability (SW846 1010)	Corrosivity (SW846 1110)	Reactive Cyanide (7.3.3.2/9010)	Reactive Sulfide (7.3.4.2/9030)	TCLP VOCs	TCLP SVOCs	TCLP Pesticides	TCLP Metals	Total Suspended Solids (EPA 160.2)	Total Dissolved Solids (EPA 160.1)	TAL Metals		COMMENTS/ PRECAUTIONS
SWMU362-SW01-02B	W	04/10/02	1725	7	X	X	X	X													
SWMU362-SW01-02BD	W	04/10/02	1725	7	X	X	X	X													
SWMU362-SW02-02B	W	04/10/02	1740	7	X	X	X	X													
SWMU362-SW03-02B	W	04/10/02	1755	7	X	X	X	X													
ER09-02B	W	04/10/02	0940	7	X	X	X	X													
FB01	W	04/10/02	0930	7	X	X	X	X													
FB02	W	04/10/02	0900	7	X	X	X	X													
FB03	W	04/10/02	1220	7	X	X	X	X													
FB04	W	04/10/02	1305	7	X	X	X	X													
IDW-01	W	04/10/02	0930	11	X	X	X		X	X	X	X					X	X	X		
IDW-02	W	04/10/02	1200	11	X	X	X		X	X	X	X					X	X	X		
IDW-03	S	04/10/02	1210	3					X	X	X	X	X	X	X	X					

Matrix: A - Air; S - Soil; W - Water; SD - Sediment; O - Other; W - Waste; LB - Lab Supplied Water (Trip or Field Blank)

NOTES:

5°C

1.) Relinquished By:		2.) Relinquished By:		SPECIAL INSTRUCTIONS
Signature:	Date: 4/10/02	Signature:	Date: 4-10-02	
Company: Baker Environmental Inc.	Time:	Company: North Carolina Couriers	Time:	
1.) Received By:		2.) Received By:		
Signature:	Date: 4.10.02	Signature:	Date: 4/10/02	
Company: North Carolina Couriers	Time:	Company: CompuChem	Time: 1730	

APPENDIX C

SAMPLE TRACKING AND CHAIN-OF-CUSTODY DOCUMENTATION
SWMU COMFIRMATORY SAMPLING (CTO-143)
MCB, CAMP LEJEUNE, NORTH CAROLINA

				Analysis Requested					Analysis Received							
SWMU	Sample ID	COC Number	Date Shipped	TCL VOC (SW846 8260B)	TCL SVOCs (SW846 8270C)	TCL Pesticides (SW846 8081A)	RCRA Metals (6000/7000 Series)	TOC	TCL VOC (SW846 8260B)	TCL SVOCs (SW846 8270C)	TCL Pesticides (SW846 8081A)	RCRA Metals (6000/7000 Series)	TOC	Date Received	Turnaround Time	SDG #
SWMUs	SWMU256-SB01-00	0011	3/22/02		X					X				4/1/02	10	T2488
256/257	SWMU256-SB01-03	0011	3/22/02		X					X				4/1/02	10	T2488
	SWMU256-GW01TW-02B	0035	4/4/02		X					X				4/16/02	12	P2488
	SWMU256-TW01-00	0010	3/22/02		X					X				4/1/02	10	T2488
	SWMU256-TW01-03	0010	3/22/02		X					X				4/1/02	10	T2488
	SWMU256-GW02TW-02B	0035	4/4/02		X					X				4/16/02	12	P2488
	SWMU256-TW02-00	0010	3/22/02		X					X				4/1/02	10	T2488
	SWMU256-TW02-03	0010	3/22/02		X					X				4/1/02	10	T2488
	SWMU256-GW03TW-02B	0035	4/4/02		X		X			X		X		4/19/02	15	QQ2488
	SWMU256-TW03-00	0010	3/22/02		X		X			X		X		4/4/02	13	W2488
	SWMU256-TW03-03	0010	3/22/02		X		X			X		X		4/4/02	13	W2488
	SWMU256-GW04TW-02B	0035	4/4/02		X					X				4/19/02	15	QQ2488
	SWMU256-TW04-00	0010	3/22/02		X					X				4/1/02	10	T2488
	SWMU256-TW04-03	0010	3/22/02		X					X				4/1/02	10	T2488
SWMU 53	SWMU53-SB01-00	0010	3/22/02		X		X			X		X		4/4/02	13	W2488
	SWMU53-SB01-03	0010	3/22/02		X		X			X		X		4/4/02	13	W2488
	SWMU53-SB01-03MS/MSD	0010	3/22/02		X		X			X		X		4/17/02	26	P2488
	SWMU53-SB02-00	0009	3/22/02		X		X			X		X		4/4/02	13	W2488
	SWMU53-SB02-04	0009	3/22/02		X		X			X		X		4/4/02	13	W2488
	SWMU53-GW01TW-02B	0035	4/4/02		X		X			X		X		4/16/02	11	P2488
	SWMU53-TW01-00	0010	3/22/02		X		X			X		X		4/4/02	13	W2488
	SWMU53-TW01-03	0010	3/22/02		X		X	X		X		X	X	4/4/02	13	W2488

APPENDIX C

SAMPLE TRACKING AND CHAIN-OF-CUSTODY DOCUMENTATION
SWMU COMFIRMATORY SAMPLING (CTO-143)
MCB, CAMP LEJEUNE, NORTH CAROLINA

				Analysis Requested					Analysis Received							
SWMU	Sample ID	COC Number	Date Shipped	TCL VOC (SW846 8260B)	TCL SVOCs (SW846 8270C)	TCL Pesticides (SW846 8081A)	RCRA Metals (6000/7000 Series	TOC	TCL VOC (SW846 8260B)	TCL SVOCs (SW846 8270C)	TCL Pesticides (SW846 8081A)	RCRA Metals (6000/7000 Series	TOC	Date Received	Turnaround Time	SDG #
SWMU 53	SWMU53-GW02TW-02B	0035	4/4/02		X		X			X		X		4/16/02	11	P2488
(cont)	SWMU53-TW02-00	0010	3/22/02		X		X			X		X		4/4/02	13	W2488
	SWMU53-TW02-03	0010	3/22/02		X		X			X		X		4/4/02	13	W2488
SWMU 43	SWMU43-SB01-00	0026	3/26/02		X	X	X			X	X	X		4/11/02	16	K2488
	SWMU43-SB01-00D	0026	3/26/02		X	X	X			X	X	X		4/11/02	16	K2488
	SWMU43-SB01-06	0026	3/26/02		X	X	X			X	X	X		4/11/02	16	K2488
	SWMU43-SB02-00	0026	3/26/02		X	X	X			X	X	X		4/11/02	16	K2488
	SWMU43-SB02-06	0026	3/26/02		X	X	X			X	X	X		4/9/02	14	D2488
	SWMU43-SB02-06MS/MSD	0026	3/26/02		X	X	X			X	X	X		4/11/02	16	K2488
	SWMU43-SB03-00	0026	3/26/02		X	X	X			X	X	X		4/11/02	16	K2488
	SWMU43-SB03-06	0026	3/26/02		X	X	X			X	X	X		4/11/02	16	K2488
	SWMU43-GW01TW-02B	0045	4/9/02		X	X	X			X	X	X		4/24/02	15	QX2488
	SWMU43-TW01-00	0026	3/26/02		X	X	X			X	X	X		4/11/02	16	K2488
	SWMU43-TW01-06	0026	3/26/02		X	X	X			X	X	X		4/11/02	16	K2488
	SWMU43-GW02TW-02B	0048	4/10/02		X	X	X			X	X	X		4/24/02	14	QX2488
	SWMU43-TW02-00	0026	3/26/02		X	X	X			X	X	X		4/17/02	22	L2488
	SWMU43-TW02-06	0026	3/26/02		X	X	X	X		X	X	X	X	4/11/02	16	K2488
	SWMU43-TW02-06D	0026	3/26/02		X	X	X			X	X	X		4/11/02	16	K2488
	SWMU43-GW03TW-02B	0045	4/9/02		X	X	X			X	X	X		4/24/02	15	QX2488
	SWMU43-GW03TW-02BD	0045	4/9/02		X	X	X			X	X	X		4/24/02	15	QX2488
	SWMU43-GW03TW-02BMS/MSD	0045	4/9/02		X	X	X			X	X	X		4/24/02	15	QX2488
	SWMU43-TW03-00	0027	3/26/02		X	X	X			X	X	X		4/17/02	22	L2488
	SWMU43-TW03-06	0027	3/26/02		X	X	X			X	X	X		4/17/02	22	L2488

APPENDIX C

SAMPLE TRACKING AND CHAIN-OF-CUSTODY DOCUMENTATION
SWMU COMFIRMATORY SAMPLING (CTO-143)
MCB, CAMP LEJEUNE, NORTH CAROLINA

				Analysis Requested					Analysis Received							
SWMU	Sample ID	COC Number	Date Shipped	TCL VOC (SW846 8260B)	TCL SVOCs (SW846 8270C)	TCL Pesticides (SW846 8081A)	RCRA Metals (6000/7000 Series)	TOC	TCL VOC (SW846 8260B)	TCL SVOCs (SW846 8270C)	TCL Pesticides (SW846 8081A)	RCRA Metals (6000/7000 Series)	TOC	Date Received	Turnaround Time	SDG #
SWMU 43	SWMU43-SS04	0026	3/26/02		X	X	X			X	X	X		4/11/02	16	K2488
(cont)	SWMU43-SS04D	0026	3/26/02		X	X	X			X	X	X		4/11/02	16	K2488
SWMU 46	SWMU46-GW01TW-02B	0040	4/8/02				X					X		4/19/02	11	QS2488
	SWMU46-TW01-00	0018	3/25/02				X					X		4/1/02	7	F2488
	SWMU46-TW01-05	0018	3/25/02				X					X		4/1/02	7	F2488
	SWMU46-GW02TW-02B	0040	4/8/02				X					X		4/19/02	11	QS2488
	SWMU46-TW02-00	0018	3/25/02				X					X		4/1/02	7	F2488
	SWMU46-TW02-04	0018	3/25/02				X					X		4/1/02	7	F2488
	SWMU46-TW02-04D	0018	3/25/02				X					X		4/1/02	7	F2488
	SWMU46-GW03TW-02B	0040	4/8/02				X					X		4/19/02	11	QS2488
	SWMU46-TW03-00	0019	3/25/02				X					X		4/1/02	7	F2488
	SWMU46-TW03-04	0019	3/25/02				X					X		4/1/02	7	F2488
	SWMU46-GW04TW-02B	0040	4/8/02				X					X		4/19/02	11	QS2488
	SWMU46-TW04-00	0019	3/25/02				X					X		4/1/02	7	F2488
	SWMU46-TW04-04	0019	3/25/02				X					X		4/1/02	7	F2488
	SWMU46-GW05TW-02B	0040	4/8/02				X					X		4/19/02	11	QS2488
	SWMU46-TW05-00	0019	3/25/02				X					X		4/1/02	7	F2488
	SWMU46-TW05-05	0019	3/25/02				X					X		4/1/02	7	F2488
	SWMU46-GW06TW-02B	0040	4/8/02				X					X		4/19/02	11	QS2488
	SWMU46-GW06TW-02BD	0040	4/8/02				X					X		4/19/02	11	QS2488
	SWMU46-TW06-00	0019	3/25/02				X					X		4/1/02	7	F2488
	SWMU46-TW06-04	0019	3/25/02				X					X		4/1/02	7	F2488

APPENDIX C

SAMPLE TRACKING AND CHAIN-OF-CUSTODY DOCUMENTATION
SWMU COMFIRMATORY SAMPLING (CTO-143)
MCB, CAMP LEJEUNE, NORTH CAROLINA

				Analysis Requested					Analysis Received							
SWMU	Sample ID	COC Number	Date Shipped	TCL VOC (SW846 8260B)	TCL SVOCs (SW846 8270C)	TCL Pesticides (SW846 8081A)	RCRA Metals (6000/7000 Series)	TOC	TCL VOC (SW846 8260B)	TCL SVOCs (SW846 8270C)	TCL Pesticides (SW846 8081A)	RCRA Metals (6000/7000 Series)	TOC	Date Received	Turnaround Time	SDG #
SWMU 253	SWMU253-GW01TW-02B	0038	4/6/02		X		X			X		X		4/17/02	11	QR2488
	SWMU253-TW01-00	0014	3/25/02		X		X			X		X		4/9/02	15	Y2488
	SWMU253-TW01-06	0014	3/25/02		X		X			X		X		4/9/02	15	Y2488
	SWMU253-GW02TW-02B	0038	4/6/02		X		X			X		X		4/17/02	11	QR2488
	SWMU253-TW02-00	0014	3/25/02		X		X			X		X		4/9/02	15	Y2488
	SWMU253-TW02-05	0014	3/25/02		X		X	X		X		X	X	4/9/02	15	Y2488
	SWMU253-GW03TW-02B	0038	4/6/02		X		X			X		X		4/19/02	13	QQ2488
	SWMU253-TW03-00	0014	3/25/02		X		X			X		X		4/9/02	15	Y2488
	SWMU253-TW03-06	0014	3/25/02		X		X			X		X		4/9/02	15	Y2488
	SWMU253-TW03-06D	0014	3/25/02		X		X			X		X		4/9/02	15	Y2488
SWMU 254	SWMU254-SS02	0013	3/25/02		X					X				4/1/02	7	T2488
	SWMU254-GW01TW-02B	0036	4/6/02		X					X				4/17/02	11	QR2488
	SWMU254-TW01-00	0013	3/25/02		X					X				4/9/02	15	Y2488
	SWMU254-TW01-04	0013	3/25/02		X					X				4/9/02	15	Y2488
	SWMU254-GW02TW-02B	0036	4/6/02		X					X				4/17/02	11	QR2488
	SWMU254-TW02-00	0013	3/25/02		X					X				4/9/02	15	Y2488
	SWMU254-TW02-00D	0013	3/25/02		X					X				4/9/02	15	Y2488
	SWMU254-TW02-04	0013	3/25/02		X			X		X			X	4/4/02	10	Q2488
	SWMU254-GW03TW-02B	0036	4/6/02		X					X				4/17/02	11	QR2488
	SWMU254-TW03-00	0013	3/25/02		X					X				4/9/02	15	Y2488
	SWMU254-TW03-04	0013	3/25/02		X					X				4/9/02	15	Y2488

APPENDIX C

SAMPLE TRACKING AND CHAIN-OF-CUSTODY DOCUMENTATION
SWMU COMFIRMATORY SAMPLING (CTO-143)
MCB, CAMP LEJEUNE, NORTH CAROLINA

				Analysis Requested					Analysis Received							
SWMU	Sample ID	COC Number	Date Shipped	TCL VOC (SW846 8260B)	TCL SVOCs (SW846 8270C)	TCL Pesticides (SW846 8081A)	RCRA Metals (6000/7000 Series	TOC	TCL VOC (SW846 8260B)	TCL SVOCs (SW846 8270C)	TCL Pesticides (SW846 8081A)	RCRA Metals (6000/7000 Series	TOC	Date Received	Turnaround Time	SDG #
SWMU 255	SWMU255-GW01TW-02B	0036	4/5/02		X					X				4/17/02	11	QR2488
	SWMU255-GW01TW-02BD	0036	4/5/02		X					X				4/17/02	11	QR2488
	SWMU255-TW01-04	0011	3/22/02		X			X		X			X	4/1/02	10	T2488
	SWMU255-TW01-00	0011	3/22/02		X					X				4/1/02	10	T2488
SWMU 258	SWMU258-GW01TW-02B	0040	4/8/02				X					X		4/19/02	11	QS2488
	SWMU258-TW01-00	0011	3/22/02				X					X		4/4/02	13	Z2488
	SWMU258-TW01-02	0011	3/22/02				X	X				X	X	4/4/02	13	Z2488
	SWMU258-GW02TW-02B	0040	4/8/02				X					X		4/19/02	11	QS2488
	SWMU258-TW02-00	0011	3/22/02				X					X		4/4/02	13	Z2488
	SWMU258-TW02-02	0011	3/22/02				X					X		4/4/02	13	Z2488
	SWMU258-GW03TW-02B	0040	4/8/02				X					X		4/19/02	11	QS2488
	SWMU258-TW03-00	0011	3/22/02				X					X		4/4/02	13	Z2488
	SWMU258-TW03-00D	0011	3/22/02				X					X		4/4/02	13	Z2488
	SWMU258-TW03-02	0011	3/22/02				X					X		4/4/02	13	Z2488
	SWMU258-IS05-00	0011	3/22/02	X					X					4/2/02	10	U2488
	SWMU258-IS05-00MS/MSD	0011	3/22/02	X					X					4/2/02	10	X2488
SWMUs 261/297	SWMU261-GW01TW-02B	0048	4/10/02				X					X		4/24/02	14	QX2488
	SWMU261-TW01-00	0029	3/27/02				X					X		4/16/02	20	M2488
	SWMU261-TW01A-07	0048	4/10/02				X					X		4/22/02	12	QY2488
	SWMU261-GW02TW-02B	0045	4/9/02				X					X		4/24/02	15	QX2488
	SWMU261-GW02TW-02BD	0045	4/9/02				X					X		4/24/02	15	QX2488
	SWMU261-TW02-00	0029	3/27/02				X					X		4/16/02	20	M2488
	SWMU261-GW03TW-02B	0045	4/9/02				X					X		4/24/02	15	QX2488

APPENDIX C

SAMPLE TRACKING AND CHAIN-OF-CUSTODY DOCUMENTATION
SWMU COMFIRMATORY SAMPLING (CTO-143)
MCB, CAMP LEJEUNE, NORTH CAROLINA

				Analysis Requested					Analysis Received							
SWMU	Sample ID	COC Number	Date Shipped	TCL VOC (SW846 8260B)	TCL SVOCs (SW846 8270C)	TCL Pesticides (SW846 8081A)	RCRA Metals (6000/7000 Series	TOC	TCL VOC (SW846 8260B)	TCL SVOCs (SW846 8270C)	TCL Pesticides (SW846 8081A)	RCRA Metals (6000/7000 Series	TOC	Date Received	Turnaround Time	SDG #
SWMUs 261/297	SWMU261-TW03-00	0029	3/27/02				X					X		4/16/02	20	M2488
(cont)	SWMU261-GW04TW-02B	0045	4/9/02				X					X		4/24/02	15	QV2488
	SWMU261-GW04TW-02BD	0045	4/9/02				X					X		4/24/02	15	QV2488
	SWMU261-TW04-00	0029	3/27/02				X					X		4/16/02	20	M2488
	SWMU261-SS02	0029	3/27/02				X					X		4/16/02	20	M2488
	SWMU261-SS02D	0029	3/27/02				X					X		4/16/02	20	M2488
	SWMU261-SS03	0028	3/27/02				X					X		4/16/02	20	M2488
SWMU 264	SWMU264-GW01TW-02B	0041	4/8/02		X		X			X		X		4/24/02	16	QV2488
	SWMU264-GW01TW-02BD	0041	4/8/02		X		X			X		X		4/24/02	16	QV2488
	SWMU264-TW01-00	0018	3/25/02		X		X			X		X		4/12/02	18	I2488
	SWMU264-TW01-04	0018	3/25/02		X		X	X		X		X	X	4/12/02	18	I2488
	SWMU264-GW02TW-02B	0041	4/8/02		X		X			X		X		4/24/02	16	QV2488
	SWMU264-TW02-00	0025	3/26/02		X		X			X		X		4/12/02	17	I2488
	SWMU264-TW02-04	0025	3/26/02		X		X			X		X		4/12/02	17	I2488
	SWMU264-TW02-04D	0025	3/26/02		X		X			X		X		4/12/02	17	I2488
	SWMU264-GW03TW-02B	0041	4/8/02		X		X			X		X		4/24/02	16	QV2488
	SWMU264-TW03-00	0028	3/27/02		X		X			X		X		4/17/02	21	L2488
	SWMU264-TW03-06	0028	3/27/02		X		X			X		X		4/17/02	21	L2488
SWMU 265	SWMU265-GW01TW-02B	0041	4/8/02		X					X				4/24/02	16	QV2488
	SWMU265-TW01-00	0018	3/25/02		X					X				4/12/02	18	I2488
	SWMU265-TW01-05	0018	3/25/02		X					X				4/12/02	18	I2488
	SWMU265-TW01-05D	0018	3/25/02		X					X				4/24/02	30	QV2488
	SWMU265-GW02TW-02B	0041	4/8/02		X					X				4/12/02	4	I2488

APPENDIX C

SAMPLE TRACKING AND CHAIN-OF-CUSTODY DOCUMENTATION
SWMU COMFIRMATORY SAMPLING (CTO-143)
MCB, CAMP LEJEUNE, NORTH CAROLINA

				Analysis Requested					Analysis Received							
SWMU	Sample ID	COC Number	Date Shipped	TCL VOC (SW846 8260B)	TCL SVOCs (SW846 8270C)	TCL Pesticides (SW846 8081A)	RCRA Metals (6000/7000 Series)	TOC	TCL VOC (SW846 8260B)	TCL SVOCs (SW846 8270C)	TCL Pesticides (SW846 8081A)	RCRA Metals (6000/7000 Series)	TOC	Date Received	Turnaround Time	SDG #
SWMU 265	SWMU265-TW02-00	0018	3/25/02		X					X				4/12/02	18	I2488
(cont.)	SWMU265-TW02-05	0018	3/25/02		X			X		X			X	4/12/02	18	I2488
	SWMU265-GW03TW-02B	0041	4/8/02		X					X				4/24/02	16	QV2488
	SWMU265-GW03TW-02BD	0041	4/8/02		X					X				4/24/02	16	QV2488
	SWMU265-TW03-00	0018	3/25/02		X					X				4/12/02	18	I2488
	SWMU265-TW03-05	0018	3/25/02		X					X				4/12/02	18	I2488
SWMU 269	SWMU269-GW01TW-02B	0041	4/8/02				X					X		4/19/02	11	QS2488
	SWMU269-TW01-00	0025	3/26/02				X					X		4/11/02	16	K2488
	SWMU269-TW01-06	0025	3/26/02		X	X	X			X	X	X		4/16/02	21	J2488
	SWMU269-GW02TW-02B	0041	4/8/02				X					X		4/19/02	11	QS2488
	SWMU269-TW02-00	0025	3/26/02				X					X		4/11/02	16	K2488
	SWMU269-TW02-06	0025	3/26/02				X					X		4/11/02	16	K2488
	SWMU269-GW03TW-02B	0041	4/8/02				X					X		4/19/02	11	QS2488
	SWMU269-TW03-00	0025	3/26/02				X					X		4/11/02	16	K2488
	SWMU269-TW03-06	0025	3/26/02		X	X	X	X		X	X	X	X	4/17/02	22	J2488
SWMU 272	SWMU272-SB01-00	0007	3/21/02		X		X			X		X		4/4/02	14	W2488
	SWMU272-SB01-03	0007	3/21/02		X		X			X		X		4/4/02	14	W2488
	SWMU272-SB02-00	0007	3/21/02		X		X			X		X		4/4/02	14	W2488
	SWMU272-SB02-00D	0007	3/21/02		X		X			X		X		4/4/02	14	W2488
	SWMU272-SB02-03	0007	3/21/02		X		X			X		X		4/4/02	14	W2488
	SWMU272-GW01TW-02B	0034	4/4/02		X		X			X		X		4/16/02	12	P2488
	SWMU272-TW01-00	0007	3/21/02		X		X			X		X		4/3/02	13	R2488
	SWMU272-TW01-03	0007	3/21/02		X		X	X		X		X	X	4/3/02	13	R2488

APPENDIX C

SAMPLE TRACKING AND CHAIN-OF-CUSTODY DOCUMENTATION
SWMU COMFIRMATORY SAMPLING (CTO-143)
MCB, CAMP LEJEUNE, NORTH CAROLINA

				Analysis Requested					Analysis Received							
SWMU	Sample ID	COC Number	Date Shipped	TCL VOC (SW846 8260B)	TCL SVOCs (SW846 8270C)	TCL Pesticides (SW846 8081A)	RCRA Metals (6000/7000 Series	TOC	TCL VOC (SW846 8260B)	TCL SVOCs (SW846 8270C)	TCL Pesticides (SW846 8081A)	RCRA Metals (6000/7000 Series	TOC	Date Received	Turnaround Time	SDG #
SWMU 272	SWMU272-MW09-02B	0034	4/4/02		X		X			X		X		4/16/02	12	P2488
(cont)	SWMU272-SB03-00	0007	3/21/02		X		X			X		X		4/3/02	13	R2488
	SWMU272-SB03-00MS/MSD	0007	3/21/02		X		X			X		X		4/3/02	13	R2488
	SWMU272-SB03-02	0007	3/21/02		X		X			X		X		4/3/02	13	R2488
	SWMU272-GW03TW-02B	0032	4/3/02		X		X			X		X		4/17/02	14	O2488
	SWMU272-TW03-00	0007	3/21/02		X		X			X		X		4/3/02	13	R2488
	SWMU272-TW03-03	0007	3/21/02		X		X			X		X		4/3/02	13	R2488
SWMU 279	SWMU279-TW03-04	0028	3/27/02		X					X				4/17/02	21	L2488
	SWMU279-GW03TW-02B	0037	4/6/02		X					X				4/17/02	11	QR2488
	SWMU279-GW01TW-02B	0037	4/6/02		X					X				4/17/02	11	QR2488
	SWMU279-GW01TW-02BD	0037	4/6/02		X					X				4/17/02	11	QR2488
	SWMU279-TW01-04	0028	3/27/02		X					X				4/17/02	21	L2488
	SWMU279-GW02TW-02B	0037	4/6/02		X					X				4/17/02	11	QR2488
	SWMU279-TW02-04	0028	3/27/02		X			X		X			X	4/17/02	21	L2488
SWMU 285	SWMU285-GW01TW-02B	0037	4/6/02	X	X				X	X				4/19/02	13	QQ2488
	SWMU285-TW01-00	0028	3/27/02	X	X				X	X				4/17/02	21	L2488
	SWMU285-TW01-00D	0028	3/27/02	X	X				X	X				4/17/02	21	L2488
	SWMU285-TW01-02	0028	3/27/02	X	X			X	X	X			X	4/17/02	21	L2488
	SWMU285-GW02TW-02B	0037	4/6/02	X	X				X	X				4/19/02	13	QQ2488
	SWMU285-TW02-00	0029	3/27/02	X	X				X	X				4/17/02	21	L2488
	SWMU285-TW02-02	0032	4/3/02	X	X				X	X				4/17/02	14	J2488
	SWMU285-TW02-02MS/MSD	0033	4/3/02	X	X				X	X				4/17/02	14	L2488
	SWMU285-GW03TW-02B	0037	4/6/02	X	X				X	X				4/19/02	13	QQ2488
	SWMU285-TW03-00	0028	3/27/02	X	X				X	X				4/17/02	21	L2488
	SWMU285-TW03-03	0028	3/27/02	X	X				X	X				4/17/02	21	L2488

APPENDIX C

SAMPLE TRACKING AND CHAIN-OF-CUSTODY DOCUMENTATION
SWMU COMFIRMATORY SAMPLING (CTO-143)
MCB, CAMP LEJEUNE, NORTH CAROLINA

				Analysis Requested					Analysis Received							
SWMU	Sample ID	COC Number	Date Shipped	TCL VOC (SW846 8260B)	TCL SVOCs (SW846 8270C)	TCL Pesticides (SW846 8081A)	RCRA Metals (6000/7000 Series	TOC	TCL VOC (SW846 8260B)	TCL SVOCs (SW846 8270C)	TCL Pesticides (SW846 8081A)	RCRA Metals (6000/7000 Series	TOC	Date Received	Turnaround Time	SDG #
SWMU 291	SWMU291-GW01TW-02B	0048	4/10/02				X					X		4/24/02	14	QX2488
	SWMU291-TW01-00	0021	3/25/02				X					X		4/1/02	7	F2488
	SWMU291-TW01-01	0021	3/25/02				X					X		4/1/02	7	F2488
	SWMU291-GW02TW-02B	0048	4/10/02				X					X		4/24/02	14	QX2488
	SWMU291-TW02-00	0021	3/25/02				X					X		4/1/02	7	F2488
	SWMU291-TW02-00MS/MSD	0021	3/25/02				X					X		4/1/02	7	F2488
	SWMU291-TW02-04	0021	3/25/02				X					X		4/1/02	7	F2488
	SWMU291-GW03TW-02B	0048	4/10/02				X					X		4/24/02	14	QX2488
	SWMU291-TW03-00	0021	3/25/02				X					X		4/1/02	7	F2488
	SWMU291-TW03-04	0021	3/25/02				X					X		4/1/02	7	F2488
	SWMU291-TW03-04D	0021	3/25/02				X					X		4/1/02	7	F2488
SWMU 293	SWMU293-GW01TW-02B	0037	4/6/02				X					X		4/19/02	13	QS2488
	SWMU293-TW01-00	0015	3/25/02				X					X		4/4/02	10	Z2488
	SWMU293-TW01-04	0015	3/25/02				X					X		4/4/02	10	Z2488
	SWMU293-TW01-04MS/MSD	0015	3/25/02				X					X		4/4/02	10	Z2488
	SWMU293-GW02TW-02B	0037	4/6/02				X					X		4/19/02	13	QS2488
	SWMU293-TW02-00	0014	3/25/02				X					X		4/4/02	10	B2488
	SWMU293-TW02-04	0014	3/25/02				X					X		4/4/02	10	B2488
	SWMU293-GW03TW-02B	0037	4/6/02				X					X		4/19/02	13	QS2488
	SWMU293-TW03-00	0015	3/25/02				X					X		4/4/02	10	B2488
	SWMU293-TW03-03	0015	3/25/02				X					X		4/4/02	10	B2488
SWMU 294	SWMU294-GW01TW-02B	0037	4/6/02		X		X			X		X		4/17/02	11	QR2488
	SWMU294-TW01-00	0013	3/25/02		X		X			X		X		4/4/02	10	B2488
	SWMU294-TW01-04	0013	3/25/02		X		X	X		X		X	X	4/4/02	10	B2488
	SWMU294-GW02TW-02B	0037	4/6/02		X		X			X		X		4/17/02	11	QR2488
	SWMU294-TW02-00	0021	3/25/02		X		X			X		X		4/12/02	18	I2488
	SWMU294-TW02-04	0021	3/25/02		X		X			X		X		4/9/02	15	C2488
	SWMU294-GW03TW-02B	0037	4/6/02		X		X			X		X		4/17/02	11	QR2488
	SWMU294-TW03-00	0021	3/25/02		X		X			X		X		4/12/02	18	I2488
	SWMU294-TW03-04	0021	3/25/02		X		X			X		X		4/12/02	18	I2488

APPENDIX C

SAMPLE TRACKING AND CHAIN-OF-CUSTODY DOCUMENTATION
SWMU COMFIRMATORY SAMPLING (CTO-143)
MCB, CAMP LEJEUNE, NORTH CAROLINA

				Analysis Requested					Analysis Received							
SWMU	Sample ID	COC Number	Date Shipped	TCL VOC (SW846 8260B)	TCL SVOCs (SW846 8270C)	TCL Pesticides (SW846 8081A)	RCRA Metals (6000/7000 Series	TOC	TCL VOC (SW846 8260B)	TCL SVOCs (SW846 8270C)	TCL Pesticides (SW846 8081A)	RCRA Metals (6000/7000 Series	TOC	Date Received	Turnaround Time	SDG #
SWMU 294	SWMU294-TW03-04D	0021	3/25/02		X		X			X		X		4/12/02	18	I2488
(cont)	SWMU294-GW04TW-02B	0037	4/6/02		X		X			X		X		4/17/02	11	QR2488
	SWMU294-TW04-00	0014	3/25/02		X		X			X		X		4/4/02	10	B2488
	SWMU294-TW04-04	0014	3/25/02		X		X			X		X		4/4/02	10	B2488
	SWMU294-TW04-01MS/MSD	0014	3/25/02		X		X			X		X		4/4/02	10	B2488
	SWMU294-GW05TW-02B	0038	4/6/02		X		X			X		X		4/17/02	11	QR2488
	SWMU294-TW05-00	0013	3/25/02		X		X			X		X		4/4/02	10	B2488
	SWMU294-TW05-04	0013	3/25/02		X		X			X		X		4/4/02	10	B2488
	SWMU294-GW06TW-02B	0038	4/6/02		X		X			X		X		4/17/02	11	QR2488
	SWMU294-TW06-00	0014	3/25/02		X		X			X		X		4/4/02	10	B2488
	SWMU294-TW06-00D	0014	3/25/02		X		X			X		X		4/4/02	10	B2488
	SWMU294-TW06-04	0014	3/25/02		X		X			X		X		4/4/02	10	B2488
	SWMU294-SS01	0013	3/25/02		X		X			X		X		4/4/02	10	B2488
	SWMU294-SS02	0013	3/25/02		X		X			X		X		4/4/02	10	B2488
	SWMU294-SS03	0013	3/25/02		X		X			X		X		4/4/02	10	B2488
SWMU 295	SWMU295-SB01-00	0015	3/25/02		X		X			X		X		4/9/02	15	C2488
	SWMU295-SB01-04	0015	3/25/02		X		X			X		X		4/9/02	15	C2488
	SWMU295-SB02-00	0015	3/25/02		X		X			X		X		4/9/02	15	C2488
	SWMU295-SB02-00MS/MSD	0015	3/25/02		X		X			X		X		4/9/02	15	C2488
	SWMU295-SB02-04	0015	3/25/02		X		X			X		X		4/9/02	15	C2488
	SWMU295-GW01TW-02B	0038	4/6/02		X		X			X		X		4/17/02	11	QR2488
	SWMU295-TW01-00	0015	3/25/02		X		X			X		X		4/4/02	10	B2488
	SWMU295-TW01-04	0015	3/25/02		X		X	X		X		X	X	4/4/02	10	B2488
	SWMU295-GW02TW-02B	0038	4/6/02		X		X			X		X		4/17/02	11	QR2488
	SWMU295-TW02-00	0018	3/25/02		X		X			X		X		4/12/02	18	I2488
	SWMU295-TW02-05	0017	3/25/02		X		X			X		X		4/12/02	18	I2488
	SWMU295-GW03TW-02B	0038	4/6/02		X		X			X		X		4/17/02	11	QR2488
	SWMU295-TW03-00	0015	3/25/02		X		X			X		X		4/4/02	10	B2488
	SWMU295-TW03-04	0015	3/25/02		X		X			X		X		4/4/02	10	B2488
	Existing Well 78GW09-1	0042	4/8/02		X		X			X		X		4/24/02	16	QV2488

APPENDIX C

SAMPLE TRACKING AND CHAIN-OF-CUSTODY DOCUMENTATION
SWMU COMFIRMATORY SAMPLING (CTO-143)
MCB, CAMP LEJEUNE, NORTH CAROLINA

				Analysis Requested					Analysis Received							
SWMU	Sample ID	COC Number	Date Shipped	TCL VOC (SW846 8260B)	TCL SVOCs (SW846 8270C)	TCL Pesticides (SW846 8081A)	RCRA Metals (6000/7000 Series	TOC	TCL VOC (SW846 8260B)	TCL SVOCs (SW846 8270C)	TCL Pesticides (SW846 8081A)	RCRA Metals (6000/7000 Series	TOC	Date Received	Turnaround Time	SDG #
SWMU 299	SWMU299-SB01-00	0001	3/19/02		X		X			X		X		4/2/02	14	Q2488
	SWMU299-SB01-01	0001	3/19/02		X		X			X		X		4/2/02	14	Q2488
	SWMU299-SB02-00	0005	3/20/02		X		X			X		X		4/2/02	13	Q2488
	SWMU299-SB02-02	0005	3/20/02		X		X			X		X		4/2/02	13	Q2488
	SWMU299-SB03-00	0001	3/19/02		X		X			X		X		4/2/02	14	Q2488
	SWMU299-SB03-02	0001	3/19/02		X		X	X		X		X	X	4/2/02	14	Q2488
	SWMU299-SB04-00	0003	3/20/02		X		X			X		X		4/2/02	13	Q2488
	SWMU299-SB04-00MS/MSD	0003	3/20/02		X		X			X		X		4/2/02	13	Q2488
	SWMU299-SB04-02	0003	3/20/02		X		X			X		X		4/2/02	13	Q2488
	SWMU299-GW01TW-02B	0032	4/3/02		X		X			X		X		4/16/02	13	O2488
	SWMU299-TW01-00	0003	3/20/02		X		X			X		X		4/3/02	14	R2488
	SWMU299-TW01-02	0003	3/20/02		X		X			X		X		4/3/02	14	R2488
	SWMU299-GW02TW-02B	0031	4/2/02		X		X			X		X		4/16/02	14	O2488
	SWMU299-TW02-00	0001	3/19/02		X		X			X		X		4/3/02	15	R2488
	SWMU299-TW02-02	0001	3/19/02		X		X			X		X		4/3/02	15	R2488
	SWMU299-GW03TW-02B	0032	4/3/02		X		X			X		X		4/16/02	13	O2488
	SWMU299-TW03-00	0003	3/20/02		X		X			X		X		4/3/02	14	R2488
	SWMU299-TW03-02	0003	3/20/02		X		X			X		X		4/3/02	14	R2488
	SWMU299-TW03-02D	0003	3/20/02		X		X			X		X		4/3/02	14	R2488
	SWMU299-GW04TW-02B	0032	4/3/02		X		X			X		X		4/16/02	13	O2488
	SWMU299-TW04-00	0001	3/19/02		X		X			X		X		4/3/02	15	R2488
	SWMU299-TW04-02	0001	3/19/02		X		X			X		X		4/3/02	15	R2488
	SWMU299-TW04-02MS/MSD	0001	3/19/02		X		X			X		X		4/3/02	15	R2488
SWMU 300	SWMU300-GW01TW-02B	0031	4/2/02		X		X			X		X		4/16/02	14	O2488
	SWMU300-TW01-00	0003	3/20/02		X					X				4/1/02	12	T2488
	SWMU300-TW01-00D	0003	3/20/02		X					X				4/1/02	12	T2488
	SWMU300-TW01-02	0003	3/20/02		X			X		X			X	4/1/02	12	T2488
	SWMU300-GW02TW-02B	0031	4/2/02		X		X			X		X		4/16/02	14	O2488
	SWMU300-TW02-00	0003	3/20/02		X					X				4/1/02	12	T2488
	SWMU300-TW02-02	0003	3/20/02		X					X				4/1/02	12	T2488

APPENDIX C

SAMPLE TRACKING AND CHAIN-OF-CUSTODY DOCUMENTATION
SWMU COMFIRMATORY SAMPLING (CTO-143)
MCB, CAMP LEJEUNE, NORTH CAROLINA

				Analysis Requested					Analysis Received							
SWMU	Sample ID	COC Number	Date Shipped	TCL VOC (SW846 8260B)	TCL SVOCs (SW846 8270C)	TCL Pesticides (SW846 8081A)	RCRA Metals (6000/7000 Series)	TOC	TCL VOC (SW846 8260B)	TCL SVOCs (SW846 8270C)	TCL Pesticides (SW846 8081A)	RCRA Metals (6000/7000 Series)	TOC	Date Received	Turnaround Time	SDG #
SWMU 300	SWMU300-TW02-02MS/MSD	0003	3/20/02		X					X				4/1/02	12	T2488
(cont)	SWMU300-GW03TW-02B	0031	4/2/02		X		X			X		X		4/16/02	14	O2488
	SWMU300-TW03-00	0003	3/20/02		X					X				4/1/02	12	T2488
	SWMU300-TW03-02	0004	3/20/02		X					X				4/1/02	12	T2488
SWMU 302	SWMU302-GW01TW-02B	0032	4/3/02		X		X			X		X		4/16/02	13	P2488
	SWMU302-TW01-00	0004	3/20/02		X		X			X		X		4/1/02	12	S2488
	SWMU302-TW01-05	0004	3/20/02		X		X			X		X		4/1/02	12	S2488
	SWMU302-GW02TW-02B	0032	4/3/02		X		X			X		X		4/16/02	13	P2488
	SWMU302-TW02-00	0001	3/19/02		X		X			X		X		4/1/02	13	S2488
	SWMU302-TW02-00MS/MSD	0001	3/19/02		X		X			X		X		4/1/02	13	S2488
	SWMU302-TW02-04	0001	3/19/02		X		X			X		X		4/1/02	13	S2488
	SWMU302-GW03TW-02B	0031	4/2/02		X		X			X		X		4/16/02	14	P2488
	SWMU302-TW03-00	0004	3/20/02		X		X			X		X		4/1/02	12	S2488
	SWMU302-TW03-05	0004	3/20/02		X		X	X		X		X	X	4/1/02	12	S2488
SWMU 303	SWMU303-SB01-00	0004	3/20/02		X		X			X		X		4/2/02	13	Q2488
	SWMU303-SB01-04	0004	3/20/02		X		X			X		X		4/2/02	13	Q2488
	SWMU303-SB01-04D	0004	3/20/02		X		X			X		X		4/2/02	13	Q2488
	SWMU303-SB02-00	0004	3/20/02		X		X			X		X		4/2/02	13	Q2488
	SWMU303-SB02-04	0004	3/20/02		X		X			X		X		4/2/02	13	Q2488
	SWMU303-GW01TW-02B	0032	4/3/02		X		X			X		X		4/16/02	13	O2488
	SWMU303-TW01-00	0005	3/20/02		X		X			X		X		4/3/02	14	R2488
	SWMU303-TW01-04	0005	3/20/02		X		X	X		X		X	X	4/3/02	14	R2488
	SWMU303-GW02TW-02B	0032	4/3/02		X		X			X		X		4/16/02	13	O2488
	SWMU303-TW02-00	0005	3/20/02		X		X			X		X		4/3/02	14	R2488
	SWMU303-TW02-04	0005	3/20/02		X		X			X		X		4/3/02	14	R2488
	SWMU303-GW03TW-02B	0032	4/3/02		X		X			X		X		4/16/02	13	O2488
	SWMU303-TW03-00	0005	3/20/02		X		X			X		X		4/3/02	14	R2488
	SWMU303-TW03-03	0005	3/20/02		X		X			X		X		4/3/02	14	R2488
	SWMU303-IS04-00	0004	3/20/02		X		X			X		X		4/2/02	13	U2488
	SWMU303-IS04-00D	0004	3/20/02		X		X			X		X		4/2/02	13	U2488

APPENDIX C

SAMPLE TRACKING AND CHAIN-OF-CUSTODY DOCUMENTATION
SWMU COMFIRMATORY SAMPLING (CTO-143)
MCB, CAMP LEJEUNE, NORTH CAROLINA

				Analysis Requested					Analysis Received							
SWMU	Sample ID	COC Number	Date Shipped	TCL VOC (SW846 8260B)	TCL SVOCs (SW846 8270C)	TCL Pesticides (SW846 8081A)	RCRA Metals (6000/7000 Series)	TOC	TCL VOC (SW846 8260B)	TCL SVOCs (SW846 8270C)	TCL Pesticides (SW846 8081A)	RCRA Metals (6000/7000 Series)	TOC	Date Received	Turnaround Time	SDG #
SWMU 305	SWMU305-GW01TW-02B	0036	4/6/02				X					X		4/19/02	13	QQ2488
	SWMU305-TW01-00	0021	3/25/02				X					X		4/9/02	15	H2488
	SWMU305-TW01-02	0021	3/25/02				X					X		4/9/02	15	H2488
	SWMU305-GW02TW-02B	0036	4/6/02				X					X		4/19/02	13	QQ2488
	SWMU305-TW02-00	0022	3/25/02				X					X		4/9/02	15	H2488
	SWMU305-TW02-02	0022	3/25/02				X					X		4/9/02	15	H2488
	SWMU305-GW03TW-02B	0036	4/6/02				X					X		4/19/02	13	QQ2488
	SWMU305-TW03-00	0022	3/25/02				X					X		4/9/02	15	H2488
	SWMU305-TW03-02	0022	3/25/02				X					X		4/9/02	15	H2488

APPENDIX C

SAMPLE TRACKING AND CHAIN-OF-CUSTODY DOCUMENTATION
SWMU COMFIRMATORY SAMPLING (CTO-143)
MCB, CAMP LEJEUNE, NORTH CAROLINA

				Analysis Requested					Analysis Received							
SWMU	Sample ID	COC Number	Date Shipped	TCL VOC (SW846 8260B)	TCL SVOCs (SW846 8270C)	TCL Pesticides (SW846 8081A)	RCRA Metals (6000/7000 Series	TOC	TCL VOC (SW846 8260B)	TCL SVOCs (SW846 8270C)	TCL Pesticides (SW846 8081A)	RCRA Metals (6000/7000 Series	TOC	Date Received	Turnaround Time	SDG #
SWMU 306	SWMU306-GW01TW-02B	0045	4/9/02				X					X		4/24/02	15	QV2488
	SWMU306-TW01-00	0025	3/26/02				X					X		4/9/02	14	H2488
	SWMU306-TW01-00D	0025	3/26/02				X					X		4/9/02	14	H2488
	SWMU306-TW01-06	0025	3/26/02				X					X		4/9/02	14	H2488
	SWMU306-GW02TW-02B	0048	4/10/02				X					X		4/24/02	14	QX2488
	SWMU306-TW02-00	0025	3/26/02				X					X		4/9/02	14	H2488
	SWMU306-TW02A-07	0048	4/10/02				X					X		4/22/02	12	QY2488
	SWMU306-TW02-03	0025	3/26/02				X					X		4/9/02	14	H2488
	SWMU306-GW03TW-02B	0045	4/9/02				X					X		4/24/02	15	QV2488
	SWMU306-GW03TW-02BD	0045	4/9/02				X					X		4/24/02	15	QV2488
	SWMU306-TW03-00	0025	3/26/02				X					X		4/9/02	14	H2488
	SWMU306-TW03-06	0025	3/26/02				X					X		4/9/02	14	H2488
SWMU 307	SWMU307-GW01TW-02B	0034	4/4/02				X					X		4/16/02	12	P2488
	SWMU307-TW01-00	0008	3/21/02				X					X		4/1/02	11	S2488
	SWMU307-TW01-02	0008	3/21/02				X					X		4/1/02	11	S2488
	SWMU307-GW02TW-02B	0034	4/4/02				X					X		4/16/02	12	P2488
	SWMU307-TW02-00	0009	3/22/02				X					X		4/1/02	10	S2488
	SWMU307-TW02-03	0009	3/22/02				X					X		4/1/02	10	S2488
	SWMU307-GW03TW-02B	0034	4/4/02				X					X		4/16/02	12	P2488
	SWMU307-TW03-00	0008	3/21/02				X					X		4/1/02	11	S2488
	SWMU307-TW03-03	0008	3/21/02				X					X		4/1/02	11	S2488
SWMU 308	SWMU308-GW01TW-02B	0042	4/8/02		X					X				4/24/02	16	QV2488
	SWMU308-TW01-00	0024	3/26/02		X					X				4/12/02	17	I2488
	SWMU308-TW01-07	0024	3/26/02		X			X		X			X	4/12/02	17	I2488
	SWMU308-GW02TW-02B	0042	4/8/02		X					X				4/24/02	16	QV2488

APPENDIX C

SAMPLE TRACKING AND CHAIN-OF-CUSTODY DOCUMENTATION
SWMU COMFIRMATORY SAMPLING (CTO-143)
MCB, CAMP LEJEUNE, NORTH CAROLINA

				Analysis Requested					Analysis Received							
SWMU	Sample ID	COC Number	Date Shipped	TCL VOC (SW846 8260B)	TCL SVOCs (SW846 8270C)	TCL Pesticides (SW846 8081A)	RCRA Metals (6000/7000 Series	TOC	TCL VOC (SW846 8260B)	TCL SVOCs (SW846 8270C)	TCL Pesticides (SW846 8081A)	RCRA Metals (6000/7000 Series	TOC	Date Received	Turnaround Time	SDG #
SWMU 308	SWMU308-TW02-00	0024	3/26/02		X					X				4/11/02	16	K2488
(cont.)	SWMU308-TW02-07	0024	3/26/02		X					X				4/11/02	16	K2488
	SWMU308-GW03TW-02B	0042	4/8/02		X					X				4/24/02	16	QV2488
	SWMU308-TW03-00	0024	3/26/02		X					X				4/11/02	16	K2488
	SWMU308-TW03-07	0024	3/26/02		X					X				4/11/02	16	K2488
SWMU 311	SWMU311-SB01-00	0020	3/25/02	X			X		X			X		4/2/02	8	E2488
	SWMU311-SB01-00MS/MSD	0020	3/25/02	X			X		X			X		4/2/02	8	E2488
	SWMU311-SB01-03	0020	3/25/02	X			X		X			X		4/2/02	8	E2488
	SWMU311-SB02-00	0022	3/25/02	X			X		X			X		4/2/02	8	E2488
	SWMU311-SB02-03	0023	3/25/02	X			X		X			X		4/2/02	8	E2488
	SWMU311-SB02-03D	0023	3/25/02	X			X		X			X		4/2/02	8	E2488
	SWMU311-SB03-00	0023	3/25/02	X			X		X			X		4/2/02	8	E2488
	SWMU311-SB03-03	0023	3/25/02	X			X		X			X		4/2/02	8	E2488
	SWMU311-GW01TW-02B	0036	4/6/02	X			X		X			X		4/19/02	13	QQ2488
	SWMU311-GW01TW-02BD	0036	4/6/02	X			X		X			X		4/19/02	13	QQ2488
	SWMU311-TW01-00	0020	3/25/02	X			X		X			X		4/2/02	8	E2488
	SWMU311-TW01-03	0020	3/25/02	X			X		X			X		4/2/02	8	E2488
	SWMU311-GW02TW-02B	0036	4/6/02	X			X		X			X		4/19/02	13	QQ2488
	SWMU311-TW02-00	0020	3/25/02	X			X		X			X		4/2/02	8	E2488
	SWMU311-TW02-03	0020	3/25/02	X			X		X			X		4/2/02	8	E2488
	SWMU311-GW03TW-02B	0036	4/6/02	X			X		X			X		4/25/02	19	QW2488
	SWMU311-TW03-00	0022	3/25/02	X			X		X			X		4/2/02	8	E2488
	SWMU311-TW03-00D	0022	3/25/02	X			X		X			X		4/2/02	8	E2488
	SWMU311-TW03A-08	0046	4/9/02	X			X		X			X		4/22/02	13	Q2488
	SWMU311-TW03-03	0022	3/25/02	X			X	X	X			X	X	4/2/02	8	E2488

APPENDIX C

SAMPLE TRACKING AND CHAIN-OF-CUSTODY DOCUMENTATION
SWMU COMFIRMATORY SAMPLING (CTO-143)
MCB, CAMP LEJEUNE, NORTH CAROLINA

				Analysis Requested					Analysis Received							
SWMU	Sample ID	COC Number	Date Shipped	TCL VOC (SW846 8260B)	TCL SVOCs (SW846 8270C)	TCL Pesticides (SW846 8081A)	RCRA Metals (6000/7000 Series)	TOC	TCL VOC (SW846 8260B)	TCL SVOCs (SW846 8270C)	TCL Pesticides (SW846 8081A)	RCRA Metals (6000/7000 Series)	TOC	Date Received	Turnaround Time	SDG #
SWMU 312	SWMU312-SB01-00	0009	3/22/02		X		X			X		X		4/4/02	13	W2488
	SWMU312-SB01-02	0009	3/22/02		X		X			X		X		4/4/02	13	W2488
	SWMU312-SB02-00	0009	3/22/02		X		X			X		X		4/4/02	13	W2488
	SWMU312-SB02-04	0009	3/22/02		X		X			X		X		4/4/02	13	W2488
	SWMU312-GW01TW-02B	0035	4/4/02		X		X			X		X		4/19/02	15	QQ2488
	SWMU312-TW01-00	0009	3/22/02		X		X			X		X		4/9/02	18	Y2488
	SWMU312-TW01-02	0009	3/22/02		X		X	X		X		X	X	4/9/02	18	Y2488
	SWMU312-GW02TW-02B	0035	4/4/02		X		X			X		X		4/19/02	15	QQ2488
	SWMU312-TW02-00	0009	3/22/02		X		X			X		X		4/9/02	18	Y2488
	SWMU312-TW02-04	0009	3/22/02		X		X			X		X		4/9/02	18	Y2488
	SWMU312-GW03TW-02B	0035	4/4/02		X		X			X		X		4/19/02	15	QQ2488
	SWMU312-TW03-00	0009	3/22/02		X		X			X		X		4/9/02	18	Y2488
	SWMU312-TW03-03	0009	3/22/02		X		X			X		X		4/9/02	18	Y2488
	SWMU312-TW03-03MS/MSD	0009	3/22/02		X		X			X		X		4/9/02	18	Y2488
SWMU 313	SWMU313-SB01-00	0012	3/22/02				X					X		4/4/02	13	Z2488
	SWMU313-SB01-01	0012	3/22/02				X					X		4/4/02	13	Z2488
	SWMU313-SB01-01D	0012	3/22/02				X					X		4/4/02	13	Z2488
	SWMU313-SB02-00	0011	3/22/02				X					X		4/4/02	13	Z2488
	SWMU313-SB02-01	0011	3/22/02				X					X		4/4/02	13	Z2488
	SWMU313-GW01TW-02B	0036	4/6/02				X					X		4/19/02	13	QQ2488
	SWMU313-GW01TW-02BD	0036	4/6/02				X					X		4/19/02	13	QQ2488
	SWMU313-TW01-00	0011	3/22/02				X					X		4/4/02	13	Z2488
	SWMU313-TW01-01	0011	3/22/02				X					X		4/4/02	13	Z2488
	SWMU313-GW02TW-02B	0036	4/6/02				X					X		4/19/02	13	QQ2488
	SWMU313-GW02TW-02BMS/MSD	0036	4/6/02				X					X		4/19/02	13	QQ2488
	SWMU313-TW02-00	0011	3/22/02				X					X		4/4/02	13	Z2488
	SWMU313-TW02-01	0011	3/22/02				X					X		4/4/02	13	Z2488
	SWMU313-GW03TW-02B	0037	4/6/02				X					X		4/19/02	13	QQ2488
	SWMU313-TW03-00	0011	3/22/02				X					X		4/4/02	13	Z2488
	SWMU313-TW03-01	0011	3/22/02				X					X		4/4/02	13	Z2488

APPENDIX C

SAMPLE TRACKING AND CHAIN-OF-CUSTODY DOCUMENTATION
SWMU COMFIRMATORY SAMPLING (CTO-143)
MCB, CAMP LEJEUNE, NORTH CAROLINA

				Analysis Requested					Analysis Received							
SWMU	Sample ID	COC Number	Date Shipped	TCL VOC (SW846 8260B)	TCL SVOCs (SW846 8270C)	TCL Pesticides (SW846 8081A)	RCRA Metals (6000/7000 Series	TOC	TCL VOC (SW846 8260B)	TCL SVOCs (SW846 8270C)	TCL Pesticides (SW846 8081A)	RCRA Metals (6000/7000 Series	TOC	Date Received	Turnaround Time	SDG #
SWMU 314	SWMU314-GW01TW-02B	0040	4/8/02		X		X			X		X		4/19/02	11	QS2488
	SWMU314-GW01TW-02BMS/MSD	0040	4/8/02		X		X			X		X		4/19/02	11	QS2488
	SWMU314-TW01-00	0019	3/25/02		X		X			X		X		4/9/02	15	C2488
	SWMU314-TW01-02	0019	3/25/02		X		X	X		X		X	X	4/9/02	15	C2488
	SWMU314-GW02TW-02B	0040	4/8/02		X		X			X		X		4/19/02	11	QS2488
	SWMU314-TW02-00	0019	3/25/02		X		X			X		X		4/9/02	15	C2488
	SWMU314-TW02-02	0019	3/25/02		X		X			X		X		4/9/02	15	C2488
	SWMU314-GW03TW-02B	0040	4/8/02		X		X			X		X		4/19/02	11	QS2488
	SWMU314-TW03-00	0019	3/25/02		X		X			X		X		4/9/02	15	C2488
	SWMU314-TW03-02	0019	3/25/02		X		X			X		X		4/9/02	15	C2488
SWMU 315	SWMU315-SB01-00	0020	3/25/02		X		X			X		X		4/9/02	15	C2488
	SWMU315-SB01-11	0019	3/25/02		X		X			X		X		4/9/02	15	C2488
	SWMU315-GW01TW-02B	0040	4/8/02		X		X			X		X		4/19/02	11	QS2488
	SWMU315-TW01-00	0020	3/25/02		X		X			X		X		4/9/02	15	C2488
	SWMU315-TW01-11	0020	3/25/02		X		X			X		X		4/9/02	15	C2488
	SWMU315-TW01-11D	0020	3/25/02		X		X			X		X		4/9/02	15	C2488
	SWMU315-GW02TW-02B	0041	4/8/02		X		X			X		X		4/24/02	16	QV2488
	SWMU315-GW02TW-02BMS/MSD	0041	4/8/02		X		X			X		X		4/24/02	16	QV2488
	SWMU315-TW02-00	0020	3/25/02		X		X			X		X		4/9/02	15	C2488
	SWMU315-TW02-11	0020	3/25/02		X		X	X		X		X	X	4/9/02	15	C2488
	SWMU315-GW03TW-02B	0041	4/8/02		X		X			X		X		4/24/02	16	QV2488
	SWMU315-GW03TW-02BD	0041	4/8/02		X		X			X		X		4/24/02	16	QV2488
	SWMU315-TW03-00	0020	3/25/02		X		X			X		X		4/9/02	15	C2488
	SWMU315-TW03-11	0020	3/25/02		X		X			X		X		4/9/02	15	C2488
SWMU 316	SWMU316-GW01TW-02B	0034	4/4/02		X		X			X		X		4/16/02	11	P2488
	SWMU316-GW01TW-02BD	0034	4/4/02		X		X			X		X		4/16/02	11	P2488
	SWMU316-TW01-00	0008	3/21/02		X		X			X		X		4/2/02	12	Q2488
	SWMU316-TW01-04	0008	3/21/02		X		X			X		X		4/2/02	12	Q2488
	SWMU316-GW02TW-02B	0034	4/4/02		X		X			X		X		4/16/02	11	P2488
	SWMU316-TW02-00	0008	3/21/02		X		X			X		X		4/2/02	12	Q2488

APPENDIX C

SAMPLE TRACKING AND CHAIN-OF-CUSTODY DOCUMENTATION
SWMU COMFIRMATORY SAMPLING (CTO-143)
MCB, CAMP LEJEUNE, NORTH CAROLINA

				Analysis Requested					Analysis Received							
SWMU	Sample ID	COC Number	Date Shipped	TCL VOC (SW846 8260B)	TCL SVOCs (SW846 8270C)	TCL Pesticides (SW846 8081A)	RCRA Metals (6000/7000 Series	TOC	TCL VOC (SW846 8260B)	TCL SVOCs (SW846 8270C)	TCL Pesticides (SW846 8081A)	RCRA Metals (6000/7000 Series	TOC	Date Received	Turnaround Time	SDG #
SWMUI 316	SWMU316-TW02-04	0008	3/21/02		X		X	X		X		X	X	4/2/02	12	Q2488
(cont.)	SWMU316-GW03TW-02B	0034	4/4/02		X		X			X		X		4/16/02	11	P2488
	SWMU316-TW03-00	0007	3/21/02		X		X			X		X		4/2/02	12	Q2488
	SWMU316-TW03-00D	0007	3/21/02		X		X			X		X		4/2/02	12	Q2488
	SWMU316-TW03-04	0007	3/21/02		X		X			X		X		4/2/02	12	Q2488
SWMU 317	SWMU317-GW01TW-02B	0047	4/10/02				X					X		4/24/02	14	QX2488
	SWMU317-TW01-00	0022	3/25/02				X					X		4/9/02	15	H2488
	SWMU317-TW01A-10	0046	4/9/02				X					X		4/22/02	13	QY2488
	SWMU317-TW03A-10	0046	4/9/02				X					X		4/22/02	13	QY2488
	SWMU317-TW01-02	0022	3/25/02				X					X		4/9/02	15	H2488
	SWMU317-GW02TW-02B	0046	4/9/02				X					X		4/24/02	15	QX2488
	SWMU317-TW02-00	0022	3/25/02				X					X		4/9/02	15	H2488
	SWMU317-TW02-00D	0022	3/25/02				X					X		4/9/02	15	H2488
	SWMU317-TW02-02	0022	3/25/02				X					X		4/9/02	15	H2488
	SWMU317-SB01-00	0022	3/25/02				X					X		4/9/02	15	H2488
	SWMU317-SB01-02	0022	3/25/02				X					X		4/9/02	15	H2488
	SWMU317-GW03TW-02B	0047	4/10/02				X					X		4/24/02	14	QX2488

APPENDIX C

SAMPLE TRACKING AND CHAIN-OF-CUSTODY DOCUMENTATION
SWMU COMFIRMATORY SAMPLING (CTO-143)
MCB, CAMP LEJEUNE, NORTH CAROLINA

				Analysis Requested					Analysis Received							
SWMU	Sample ID	COC Number	Date Shipped	TCL VOC (SW846 8260B)	TCL SVOCs (SW846 8270C)	TCL Pesticides (SW846 8081A)	RCRA Metals (6000/7000 Series)	TOC	TCL VOC (SW846 8260B)	TCL SVOCs (SW846 8270C)	TCL Pesticides (SW846 8081A)	RCRA Metals (6000/7000 Series)	TOC	Date Received	Turnaround Time	SDG #
SWMU 318	SWMU318-SS02	0001	3/19/02	X	X		X		X	X		X		4/2/02	14	U2488
	SWMU318-SS03	0001	3/19/02	X	X		X		X	X		X		4/2/02	14	U2488
	SWMU318-SS03D	0001	3/19/02	X	X		X		X	X		X		4/2/02	14	U2488
	SWMU318-GW01TW-02B	0032	4/3/02	X	X		X		X	X		X		4/16/02	13	O2488
	SWMU318-TW01-00	0006	3/20/02	X	X		X		X	X		X		4/2/02	13	U2488
	SWMU318-TW01-04	0006	3/20/02	X	X		X		X	X		X		4/2/02	13	U2488
	SWMU318-GW02TW-02B	0032	4/3/02	X	X		X		X	X		X		4/16/02	13	O2488
	SWMU318-GW02TW-02BD	0032	4/3/02	X	X		X		X	X		X		4/16/02	13	O2488
	SWMU318-TW02-00	0006	3/20/02	X	X		X		X	X		X		4/2/02	13	U2488
	SWMU318-TW02-04	0006	3/20/02	X	X		X		X	X		X		4/2/02	13	U2488
	SWMU318-GW03TW-02B	0032	4/3/02	X	X		X		X	X		X		4/16/02	13	O2488
	SWMU318-TW03-00	0004	3/20/02	X	X		X		X	X		X		4/2/02	13	U2488
	SWMU318-TW03-04	0004	3/20/02	X	X		X	X	X	X		X	X	4/2/02	13	U2488
	SWMU318-TW03-04D	0004	3/20/02	X	X		X		X	X		X		4/2/02	13	U2488
SWMU 319	SWMU319-SB01-00	0008	3/21/02		X		X	X		X		X	X	4/2/02	12	S2488
	SWMU319-SB01-01	0008	3/21/02		X		X			X		X		4/2/02	12	S2488
SWMU 336	SWMU336-GW01TW-02B	0034	4/4/02	X	X		X		X	X		X		4/16/02	12	P2488
	SWMU336-TW01-00	0006	3/21/02	X	X		X		X	X		X		4/2/02	12	E2488; S2488
	SWMU336-TW01-04	0006	3/21/02	X	X		X		X	X		X		4/2/02	12	E2488; S2488
	SWMU336-TW01-04D	0006	3/21/02	X	X		X		X	X		X		4/2/02	12	E2488; S2488
	SWMU336-GW02TW-02B	0034	4/4/02	X	X		X		X	X		X		4/16/02	12	P2488
	SWMU336-TW02-00	0006	3/21/02	X	X		X		X	X		X		4/2/02	12	E2488; S2488
	SWMU336-TW02-04	0006	3/21/02	X	X		X	X	X	X		X	X	4/2/02	12	E2488; S2488
SWMU 339	SWMU339-IS01-01 (Re)	0006	3/21/02	X	X				X	X				4/2/02	12	U2488
	SWMU339-GW01TW-02B	0034	4/4/02	X	X				X	X				4/16/02	12	P2488

APPENDIX C

SAMPLE TRACKING AND CHAIN-OF-CUSTODY DOCUMENTATION
SWMU COMFIRMATORY SAMPLING (CTO-143)
MCB, CAMP LEJEUNE, NORTH CAROLINA

				Analysis Requested					Analysis Received							
SWMU	Sample ID	COC Number	Date Shipped	TCL VOC (SW846 8260B)	TCL SVOCs (SW846 8270C)	TCL Pesticides (SW846 8081A)	RCRA Metals (6000/7000 Series	TOC	TCL VOC (SW846 8260B)	TCL SVOCs (SW846 8270C)	TCL Pesticides (SW846 8081A)	RCRA Metals (6000/7000 Series	TOC	Date Received	Turnaround Time	SDG #
SWMU 339	SWMU339-TW01-00	0005	3/20/02	X	X				X	X				4/2/02	13	U2488
(cont.)	SWMU339-TW01-03	0005	3/20/02	X	X			X	X	X			X	4/2/02	13	U2488
	SWMU339-GW02TW-02B	0034	4/4/02	X	X				X	X				4/16/02	12	P2488
	SWMU339-TW02-00	0006	3/21/02	X	X				X	X				4/1/02	11	T2488; D2488 (VOCs)
	SWMU339-TW02-06	0006	3/21/02	X	X				X	X				4/1/02	11	T2488; Q2488
	SWMU339-GW03TW-02B	0034	4/4/02	X	X				X	X				4/16/02	12	P2488
	SWMU339-TW03-00	0006	3/21/02	X	X				X	X				4/2/02	12	U2488
	SWMU339-TW03-00D	0006	3/21/02	X	X				X	X				4/2/02	12	U2488
	SWMU339-TW03-02	0006	3/21/02	X	X				X	X				4/2/02	12	U2488
SWMU 359	SWMU359-GW01TW-02B	0048	4/10/02	X	X	X	X		X	X	X	X		4/25/02	15	QW2488
	SWMU359-TW01-02	0028	3/27/02	X	X	X	X		X	X	X	X		4/17/02	21	J2488
	SWMU359-TW01-02D	0028	3/27/02	X	X	X	X		X	X	X	X		4/17/02	21	L2488
	SWMU359-TW02-02MS/MSD	0028	3/27/02			X	X				X	X		4/17/02	21	J2488
	SWMU359-GW02TW-02B	0048	4/10/02	X	X	X	X		X	X	X	X		4/25/02	15	QW2488
	SWMU359-TW02-02	0028	3/27/02	X	X	X	X		X	X	X	X		4/17/02	21	L2488
SWMU 360	SWMU360-GW01TW-02B	0047	4/10/02	X	X	X	X		X	X	X	X		4/24/02	14	QW2488
	SWMU360-TW01-00	0024	3/26/02	X	X	X	X		X	X	X	X		4/17/02	22	J2488
	SWMU360-TW01-01	0024	3/26/02	X	X	X	X		X	X	X	X		4/17/02	22	J2488
	SWMU360TW01A-10	0046	4/9/02	X	X	X	X		X	X	X	X		4/22/02	13	QY2488
	SWMU360-GW02TW-02B	0047	4/10/02	X	X	X	X		X	X	X	X		4/25/02	15	QW2488
	SWMU360-GW02TW-02BD	0047	4/10/02	X	X	X	X		X	X	X	X		4/25/02	15	QW2488
	SWMU360-TW02-00	0024	3/26/02	X	X	X	X		X	X	X	X		4/17/02	22	J2488
	SWMU360-TW02-02	0024	3/26/02	X	X	X	X		X	X	X	X		4/17/02	22	J2488
	SWMU360-TW02A-10	0046	4/9/02	X	X	X	X		X	X	X	X		4/22/02	13	QY2488
	SWMU360-GW03TW-02B	0047	4/10/02	X	X	X	X		X	X	X	X		4/25/02	15	QW2488

APPENDIX C

SAMPLE TRACKING AND CHAIN-OF-CUSTODY DOCUMENTATION
SWMU COMFIRMATORY SAMPLING (CTO-143)
MCB, CAMP LEJEUNE, NORTH CAROLINA

				Analysis Requested					Analysis Received							
SWMU	Sample ID	COC Number	Date Shipped	TCL VOC (SW846 8260B)	TCL SVOCs (SW846 8270C)	TCL Pesticides (SW846 8081A)	RCRA Metals (6000/7000 Series	TOC	TCL VOC (SW846 8260B)	TCL SVOCs (SW846 8270C)	TCL Pesticides (SW846 8081A)	RCRA Metals (6000/7000 Series	TOC	Date Received	Turnaround Time	SDG #
SWMU 360	SWMU360-TW03-00	0024	3/26/02	X	X	X	X		X	X	X	X		4/17/02	22	J2488
(cont.)	SWMU360-TW03A-10	0046	4/9/02	X	X	X	X		X	X	X	X		4/22/02	13	QY2488
	SWMU360-TW03-02	0024	3/26/02	X	X	X	X		X	X	X	X		4/17/02	22	J2488
	SWMU360-GW04TW-02B	0047	4/10/02	X	X	X	X		X	X	X	X		4/25/02	15	QW2488
	SWMU360-TW04-00	0024	3/26/02	X	X	X	X		X	X	X	X		4/17/02	22	J2488
	SWMU360-TW04A-11	0046	4/9/02	X	X	X	X		X	X	X	X		4/22/02	13	QY2488
	SWMU360-TW04-06	0024	3/26/02	X	X	X	X	X	X	X	X	X	X	4/17/02	22	J2488
SWMU 361	SWMU361-SB02-00	0017	3/25/02	X	X	X	X		X	X	X	X		4/9/02	15	D2488
	SWMU361-SB02-00D	0017	3/25/02	X	X	X	X		X	X	X	X		4/9/02	15	D2488
	SWMU361-SB02-06	0017	3/25/02	X	X	X	X		X	X	X	X		4/9/02	15	D2488
	SWMU361-SB03-00	0017	3/25/02	X	X	X	X		X	X	X	X		4/9/02	15	D2488
	SWMU361-SB03-05	0017	3/25/02	X	X	X	X		X	X	X	X		4/9/02	15	D2488
	SWMU361-SB04-00	0017	3/25/02	X	X	X	X		X	X	X	X		4/9/02	15	D2488
	SWMU361-SB04-06	0017	3/25/02	X	X	X	X		X	X	X	X		4/9/02	15	D2488
	SWMU361-SB05-00	0017	3/25/02	X	X	X	X		X	X	X	X		4/9/02	15	D2488
	SWMU361-SB05-06	0017	3/25/02	X	X	X	X		X	X	X	X		4/9/02	15	D2488
	SWMU361-SB05-06D	0017	3/25/02	X	X	X	X		X	X	X	X		4/9/02	15	D2488
	SWMU361-SB06-00	0017	3/25/02	X	X	X	X		X	X	X	X		4/9/02	15	D2488
	SWMU361-SB06-05	0017	3/25/02	X	X	X	X		X	X	X	X		4/9/02	15	D2488
	SWMU361-GW01TW-02B	0042	4/8/02	X	X	X	X		X	X	X	X		4/25/02	17	QW2488
	SWMU361-TW01-00	0017	3/25/02	X	X	X	X		X	X	X	X		4/9/02	15	D2488
	SWMU361-TW01-02	0017	3/25/02	X	X	X	X	X	X	X	X	X	X	4/9/02	15	D2488
	SWMU361-MW02-02B	0042	4/8/02	X	X	X	X		X	X	X	X		4/25/02	17	QW2488
	SWMU361-MW03-02B	0042	4/8/02	X	X	X	X		X	X	X	X		4/25/02	17	QW2488
	SWMU361-MW04-02B	0042	4/8/02	X	X	X	X		X	X	X	X		4/25/02	17	QW2488
	SWMU361-MW04-02BMS/MSD	0042	4/8/02	X	X		X		X	X		X		4/25/02	17	QW2488
	SWMU361-MW05-02B	0042	4/8/02	X	X	X	X		X	X	X	X		4/25/02	17	QW2488
	SWMU361-MW06-02B	0042	4/8/02	X	X	X	X		X	X	X	X		4/25/02	17	QW2488

APPENDIX C

SAMPLE TRACKING AND CHAIN-OF-CUSTODY DOCUMENTATION
SWMU COMFIRMATORY SAMPLING (CTO-143)
MCB, CAMP LEJEUNE, NORTH CAROLINA

				Analysis Requested					Analysis Received							
SWMU	Sample ID	COC Number	Date Shipped	TCL VOC (SW846 8260B)	TCL SVOCs (SW846 8270C)	TCL Pesticides (SW846 8081A)	RCRA Metals (6000/7000 Series	TOC	TCL VOC (SW846 8260B)	TCL SVOCs (SW846 8270C)	TCL Pesticides (SW846 8081A)	RCRA Metals (6000/7000 Series	TOC	Date Received	Turnaround Time	SDG #
SWMU 362	SWMU362-SB01-00	0029	3/27/02	X	X	X	X		X	X	X	X		4/17/02	21	J2488
	SWMU362-SB01-01	0029	3/27/02	X	X	X	X	X	X	X	X	X	X	4/17/02	21	J2488
	SWMU362-SS01	0029	3/27/02	X	X	X	X		X	X	X	X		4/17/02	21	J2488
	SWMU362-SS01MS/MSD	0029	3/27/02	X	X	X	X		X	X	X	X		4/17/02	21	J2488
	SWMU362-SS02	0029	3/27/02	X	X	X	X		X	X	X	X		4/17/02	21	J2488
	SWMU362-SS03	0029	3/27/02	X	X	X	X		X	X	X	X		4/17/02	21	J2488
	SWMU362-SW01-02B	0049	4/10/02	X	X	X	X		X	X	X	X		4/25/02	15	QW2488
	SWMU362-SW01-02BD	0049	4/10/02	X	X	X	X		X	X	X	X		4/25/02	15	QW2488
	SWMU362-SD01	0048	4/10/02	X	X	X	X		X	X	X	X		4/22/02	12	QY2488
	SWMU362-SW02-02B	0049	4/10/02	X	X	X	X		X	X	X	X		4/25/02	15	QW2488
	SWMU362-SD02	0048	4/10/02	X	X	X	X		X	X	X	X		4/22/02	12	QY2488
	SWMU362-SW03-02B	0049	4/10/02	X	X	X	X		X	X	X	X		4/25/02	15	QW2488
	SWMU362-SD03	0048	4/10/02	X	X	X	X		X	X	X	X		4/22/02	12	QY2488
SWMU 363	SWMU363-GW01TW-02B	0034	4/3/02	X	X	X	X		X	X	X	X		4/16/02	12	P2488
	SWMU363-TW01-00	0016	3/25/02	X	X	X	X		X	X	X	X		4/9/02	15	D2488
	SWMU363-TW01-05	0015	3/25/02	X	X	X	X		X	X	X	X		4/9/02	15	D2488
	SWMU363-GW02TW-02B	0034	4/3/02	X	X	X	X		X	X	X	X		4/16/02	12	P2488
	SWMU363-TW02-00	0016	3/25/02	X	X	X	X		X	X	X	X		4/9/02	15	D2488
	SWMU363-TW02-05	0016	3/25/02	X	X	X	X	X	X	X	X	X	X	4/9/02	15	D2488
Investigation	IDW-01	0049	4/10/02	X	X	X			X	X	X			4/24/02	14	QA2488
Derived Waste	IDW-02	0049	4/10/02	X	X	X			X	X	X			4/24/02	14	QA2488
	IDW-03	0049	4/10/02											4/25/02	15	QB2488

APPENDIX C

SAMPLE TRACKING AND CHAIN-OF-CUSTODY DOCUMENTATION
SWMU COMFIRMATORY SAMPLING (CTO-143)
MCB, CAMP LEJEUNE, NORTH CAROLINA

				Analysis Requested					Analysis Received							
SWMU	Sample ID	COC Number	Date Shipped	TCL VOC (SW846 8260B)	TCL SVOCs (SW846 8270C)	TCL Pesticides (SW846 8081A)	RCRA Metals (6000/7000 Series)	TOC	TCL VOC (SW846 8260B)	TCL SVOCs (SW846 8270C)	TCL Pesticides (SW846 8081A)	RCRA Metals (6000/7000 Series)	TOC	Date Received	Turnaround Time	SDG #
QA/QC SAMPLES																
TRIP BLANKS	TB01	0002	3/19/02	X					X					4/1/02	13	V2488
	TB02	0005	3/20/02	X					X					4/1/02	12	V2488
	TB03	0008	3/21/02	X					X					4/1/02	11	V2488
	TB04	0012	3/22/02	X					X					4/1/02	10	V2488
	TB05	0016	3/25/02	X					X					4/1/02	7	V2488
	TB06	0016	3/25/02	X					X					4/12/02	18	G2488
	TB07	0027	3/26/02	X					X					4/12/02	17	G2488
	TB08	0028	3/27/02	X					X					4/12/02	16	G2488
	TB09	0032	4/3/02	X					X					4/16/02	13	O2488
	TB10	0035	4/4/02	X					X					4/17/02	13	QQ2488
	TB11	0039	4/6/02	X					X					4/17/02	11	QQ2488
	TB12	0042	4/8/02	X					X					4/25/02	17	QW2488
	TB13	0046	4/9/02	X					X					4/25/02	16	QW2488
	TB14	0047	4/10/02	X					X					4/25/02	15	QW2488
EQUIPMENT RINSATES	ER01	0008	3/21/02	X	X		X		X	X		X		4/1/02	11	V2488
	ER02	0008	3/21/02	X	X		X		X	X		X		4/24/02	34	X2488
	ER03	0012	3/22/02	X	X		X		X	X		X		4/1/02	10	V2488
	ER04	0016	3/25/02	X	X		X		X	X		X		4/1/02	7	V2488
	ER05	0030	3/27/02	X	X	X	X		X	X	X	X		4/12/02	16	G2488
	ER06	0030	3/27/02	X	X	X	X		X	X	X	X		4/12/02	16	G2488
	ER07	0030	3/27/02	X	X	X	X		X	X	X	X		4/12/02	16	G2488
	ER08	0030	3/27/02	X	X	X	X		X	X	X	X		4/12/02	16	G2488
	ER09-02B	0049	4/10/02	X	X	X	X		X	X	X	X		4/25/02	15	QW2488
FIELD BLANKS	FB01	0049	4/10/02	X	X	X	X		X	X	X	X		4/25/02	15	QC2488
	FB02	0049	4/10/02	X	X	X	X		X	X	X	X		4/25/02	15	QC2488
	FB03	0049	4/10/02	X	X	X	X		X	X	X	X		4/25/02	15	QC2488
	FB04	0049	4/10/02	X	X	X	X		X	X	X	X		4/25/02	15	QC2488

Additional Phase II Sampling COCs

BAKER ENVIRONMENTAL

NUMBER OF COOLERS 3

CHAIN OF CUSTODY NUMBER: 01

PAGE NUMBER: 1 OF 2

R2915 L4

CUSTOMER INFORMATION

Company: Baker Environmental
Project Number: 26007-143-0000-05200
Address: 100 Airside Business Park
100 Airside Drive
Moon Twp, PA 15108
Phone: 1-800-553-1153
Fax: (412)269-2002

Project Name: MCB Camp Lejeune RCRA
Address: Lot 203, Piney Green Road
Camp Lejeune, NC 28542
Contact: Michelle Joy
Phone Number: (412)269-6135
Fax Number: (412)269-6100

Sample Identification	Matrix	Sample Date	Sample Time	Number of Containers	TCL VOCs (8260B)	TCL SVOCs (8270C)	TCL Pesticides (8081C)	RCRA Metals (6000/7000 Series)		TCLP VOCs (1311/8260B)	TCLP SVOCs (1311/8270C)	TCLP Pesticides (8081A)	TCLP Metals (6000/7000Series)								COMMENTS/ PRECAUTIONS
SWMU43-SB04-00	SS	6 17 03	1230	1			X	X													QUICK TURN SAMPLE
SWMU43-SB04-04	SU	6 17 03	1213	1			X	X													QUICK TURN SAMPLE
SWMU43-SB04-07	SU	6 17 03	1220	1			X	X													QUICK TURN SAMPLE
SWMU43-SB05-00	SS	6 17 03	1249	1			X	X													QUICK TURN SAMPLE
SWMU43-SB05-04	SU	6 17 03	1237	1			X	X													QUICK TURN SAMPLE
SWMU43-SB05-07	SU	6 17 03	1300	1			X	X													QUICK TURN SAMPLE
SWMU43-SB06-00	SS	6 17 03	1150	1			X	X													QUICK TURN SAMPLE
SWMU43-SB06-03	SU	6 17 03	1210	1			X	X													QUICK TURN SAMPLE
SWMU43-SB06-03D	SU	6 17 03	1210	1			X	X													QUICK TURN SAMPLE
SWMU43-SB06-07	SU	6 17 03	1225	1			X	X													QUICK TURN SAMPLE
SWMU43-SB07-00	SS	6 17 03	1115	1			X	X													QUICK TURN SAMPLE
SWMU43-SB07-03	SU	6 17 03	1127	1			X	X													QUICK TURN SAMPLE
SWMU43-SB07-08	SU	6 17 03	1140	1			X	X													QUICK TURN SAMPLE
SWMU43-SB08-00	SS	6 17 03	0935	1			X	X													QUICK TURN SAMPLE
SWMU43-SB08-01	SU	6 17 03	0942	1			X	X													QUICK TURN SAMPLE
SWMU43-SB08-07	SU	6 17 03	1005	1			X	X													QUICK TURN SAMPLE
SWMU43-SB08-07 MS MSD	SU	6 17 03	1005	2			X	X													QUICK TURN SAMPLE
SWMU43-SB09-00	SS	6 17 03	1108	1			X	X													QUICK TURN SAMPLE
SWMU43-SB09-01	SU	6 17 03	1110	1			X	X													QUICK TURN SAMPLE
SWMU43-SB09-07	SU	6 17 03	1124	1			X	X													QUICK TURN SAMPLE
SWMU43-SB10-00	SS	6 17 03	0937	1			X	X													QUICK TURN SAMPLE
SWMU43-SB10-00D	SS	6 17 03	0937	1			X	X													QUICK TURN SAMPLE
SWMU43-SB10-04	SU	6 17 03	0950	1			X	X													QUICK TURN SAMPLE

Matrix - A - Air, SS - Surface Soil, SW - Surface Water, GW - Groundwater, SU - SubSurface Soil, W - Waste, LB - Lab Supplied Water (Trip or Field Blank)

NOTES: Samples SWMU43-SB10-00D & SWMU43-SB10-04 is in Project # R2916.

FED EX TRACKING NUMBER:

1.) Relinquished By: Robert M. Sok II		2.) Relinquished By:		SPECIAL INSTRUCTIONS
Signature:	Date: 6/17/03	Signature:	Date: 6/18/03	
Company: Baker Environmental	Time: 1700	Company: FedEx	Time: 915	
1.) Received By:		2.) Received By:		
Signature:	Date: 6/18/03	Signature:	Date:	
Company: Chemtech	Time: 915	Company:	Time:	

BAKER ENVIRONMENTAL

NUMBER OF COOLERS 3

CHAIN OF CUSTODY NUMBER: 02

PAGE NUMBER: 2 OF 2

B2916 L4

CUSTOMER INFORMATION

Company: Baker Environmental
Project Number: 26007-143-0000-05200
Address: 100 Airside Business Park
100 Airside Drive
Moon Twp, PA 15108
Phone: 1-800-553-1153
Fax: (412)269-2502

Project Name: MCB Camp Lejeune: RCRA
Address: Lot 203, Piney Green Road
Camp Lejeune, NC 28542
Contact: Michelle Joy
Phone Number: (412)269-6133
Fax Number: (412)269-6100

	Sample Identification	Matrix	Sample Date	Sample Time	Number of Containers	TCL VOCs (8260B)	TCL SVOCs (8270C)	TCL Pesticides (8081C)	RCRA Metals (6000/7000 Series)		TCLP VOCs (1311/8260B)	TCLP SVOCs (1311/8270C)	TCLP Pesticides (8081A)	TCLP Metals (6000/7000 Series)								COMMENTS/ PRECAUTIONS
1	SWMU43-SB10-07	SU	6 17 03	1003	1			X	X													
2	SWMU43-SB19-02	SU	6 17 03	1405	1			X	X													QUICK TURN SAMPLE
3	SWMU43-SB19-08	SU	6 17 03	1430	1			X	X													QUICK TURN SAMPLE
4	SWMU43-SB20-04	SU	6 17 03	1336	1			X	X													QUICK TURN SAMPLE
5	SWMU43-SB20-07	SU	6 17 03	1353	1			X	X													QUICK TURN SAMPLE
6	SWMU43-SB21-05	SU	6 17 03	1315	1			X	X													QUICK TURN SAMPLE
7	SWMU43-SB21-07	SU	6 17 03	1323	1			X	X													QUICK TURN SAMPLE
8	SWMU43-GW06	GW	6 17 03	1240	2			X														QUICK TURN SAMPLE
9	SWMU43-GW08	GW	6 17 03	1100	2			X														QUICK TURN SAMPLE
10	SWMU43-GW09	GW	6 17 03	1145	2			X														QUICK TURN SAMPLE
11	SWMU43-GW10	GW	6 17 03	1050	2			X														QUICK TURN SAMPLE
12	SWMU43-GW19	GW	6 17 03	1440	2			X														QUICK TURN SAMPLE
13	SWMU43-GW20	GW	6 17 03	1415	2			X														QUICK TURN SAMPLE
14	SWMU43-GW20D	GW	6 17 03	1415	2			X														QUICK TURN SAMPLE
15	SWMU43-GW21	GW	6 17 03	1340	2			X														QUICK TURN SAMPLE
16																						
17																						

Matrix: A - Air, SS - Surface Soil, SW - Surface Water, GW - Groundwater, SU - SubSurface Soil, W - Waste, LB - Lab Supplied Water (Trip or Field Blank)

NOTES:

FED EX TRACKING NUMBER:

1.) Relinquished By: Robert M. Sok II		2.) Relinquished By:		SPECIAL INSTRUCTIONS
Signature	Date 6/17/03	Signature	Date 6/18/03	
Company Baker Environmental	Time 1900	Company Fed Ex	Time 9 15	
1.) Received By:		**2.) Received By:**		
Signature	Date 6/18/03	Signature	Date	
Company Chemtech	Time 915	Company	Time	

BAKER ENVIRONMENTAL

R2936

NUMBER OF COOLERS 1

CHAIN OF CUSTODY NUMBER: 03

PAGE NUMBER: 1 OF 1

CUSTOMER INFORMATION

Company: Baker Environmental
Project Number: 26007-143-0000-05200
Address: 100 Airside Business Park
100 Airside Drive
Moon Twp, PA 15108
Phone: 1-800-553-1153
Fax: (412)269-2502

Project Name: MCB Camp Lejeune RCRA
Address: Lot 203, Piney Green Road
Camp Lejeune, NC 28542
Contact: Michelle Joy
Phone Number: (412)269-6135
Fax Number: (412)269-6100

Sample Identification	Matrix	Sample Date	Sample Time	Number of Containers	TCL VOCs (OLMO 4.2)	TCL SVOCs (OLMO 4.2)	TCL Pesticides (OLMO 4.2)	RCRA Metals (ILMO 4.1)		TCLP VOCs (1311/8260B)	TCLP SVOCs (1311/8270C)	TCLP Pesticides (8081A)	TCLP Metals (6000/7000Series)								COMMENTS/ PRECAUTIONS
1 SWMU269-TW04-00	SS	6 17 03	1542	4	X	X		X													QUICK EXTRACTION SAMPLE
2 SWMU269-TW04-07	SU	6 17 03	1556	4	X	X		X													QUICK EXTRACTION SAMPLE
3 SWMU269-TW05-00	SS	6 17 03	1600	4	X	X		X													QUICK EXTRACTION SAMPLE
4 SWMU269-TW05-08	SU	6 17 03	1628	4	X	X		X													QUICK EXTRACTION SAMPLE
5 SWMU269-TW06-00	SS	6 18 03	0745	4	X	X		X													
6 SWMU269-TW06-08	SU	6 18 03	0825	4	X	X		X													
7 SWMU269-TW07-00	SS	6 18 03	0745	4	X	X		X													
8, 9 SWMU269-TW07-00 MS MSD	SS	6 18 03	0745	8	X	X		X													
10 SWMU269-TW07-08	SU	6 18 03	0810	4	X	X		X													
11 SWMU269-TW08-00	SS	6 18 03	0850	4	X	X		X													
12 SWMU269-TW08-08	SU	6 18 03	0915	4	X	X		X													
13 SWMU269-TW08-08D	SU	6 18 03	0915	4	X	X		X													
14 SWMU361-TW04-00	SS	6 18 03	1105	1				X													
15 SWMU361-TW04-06	SU	6 18 03	1140	1				X													
16 SWMU361-TW05-00	SS	6 18 03	1155	1				X													
17 SWMU361-TW05-08	SU	6 18 03	1225	1				X													
18 TB01	LB	6 18 03	1600	3	X																
19 SWMU311-SB05-02	SU	6 18 03	1525	1				X													
20 SWMU311-SB05-04	SU	6 18 03	1530	4	X			X													

Matrix: A - Air, SS - Surface Soil, SW - Surface Water, GW - Groundwater, SU - SubSurface Soil, W - Waste, LB - Lab Supplied Water (Trip or Field Blank)

NOTES:

FED EX TRACKING NUMBER:

1.) Relinquished By: Robert M. Sok II		2.) Relinquished By:		SPECIAL INSTRUCTIONS
Signature	Date	Signature FedEX	Date 6/19/03	
Company Baker Environmental	Time	Company FedEX	Time 9:30	
1.) Received By:		**2.) Received By:**		
Signature	Date	Signature Sunny Patel	Date 6/19/03	
Company	Time	Company Chemtech	Time 9:30	

BAKER ENVIRONMENTAL

NUMBER OF COOLERS 1

CHAIN OF CUSTODY NUMBER: 04

PAGE NUMBER: 1 OF 2

B29574

CUSTOMER INFORMATION

Company: Baker Environmental
Project Number: 26007-143-0000-05200
Address: 100 Airside Business Park
100 Airside Drive
Moon Twp, PA 15108
Phone: 1-800-553-1153
Fax: (412)269-2002

Project Name: MCB Camp Lejeune: RCRA
Address: Lot 203, Piney Green Road
Camp Lejeune, NC 28542
Contact: Michelle Fox
Phone Number: (412)269-6135
Fax Number: (412)269-6100

	Sample Identification	Matrix	Sample Date	Sample Time	Number of Containers	TCL VOCs (OLMO 4.2)	TCL SVOCs (OLMO 4.2)	TCL Pesticides (OLMO 4.2)	RCRA Metals (ILMO 4.1)		TCLP VOCs	TCLP SVOCs	TCLP Pesticides	TCLP Metals							COMMENTS/ PRECAUTIONS
1	SWMU311-SB10-02	SU	6 18 03	1645	4	X			X												QUICK EXTRACTION SAMPLE
2	SWMU311-SB10-04	SU	6 18 03	1650	1				X												QUICK EXTRACTION SAMPLE
3	SWMU311-SB10-08	SU	6 18 03	1705	1				X												QUICK EXTRACTION SAMPLE
4	SWMU311-SB11-02	SU	6 18 03	1532	1				X												QUICK EXTRACTION SAMPLE
5	SWMU311-SB11-03	SU	6 18 03	1545	4	X			X												Quick Extraction
6	SWMU311-SB11-06	SU	6 18 03	1610	1				X												
7	SWMU311-SB04-01	SU	6 19 03	0828	4	X			X												
8	SWMU311-SB04-04	SU	6 19 03	0832	1				X												
9	SWMU311-SB04-06	SU	6 19 03	0838	1				X												
10	SWMU311-SB06-01	SU	6 19 03	0930	4	X			X												
11	SWMU311-SB06-04	SU	6 19 03	0938	1				X												
12	SWMU311-SB15-01	SU	6 19 03	0815	1				X												
13	SWMU311-SB15-02	SU	6 19 03	0830	1				X												
14	SWMU311-SB15-08	SU	6 19 03	0855	4	X			X												
15	SWMU311-SB16-01	SU	6 19 03	0955	1				X												
16	SWMU311-SB16-05	SU	6 19 03	1013	1				X												
17	SWMU311-SB16-08	SU	6 19 03	1040	4	X			X												
18	SWMU311-SB16-08D	SU	6 19 03	1040	4	X			X												
19	SWMU360-SB05-04	SU	6 19 03	1240	1			X	X												
20	SWMU360-SB05-06	SU	6 19 03	1247	4	X		X	X												
1	SWMU360-SB05-08	SU	6 19 03	1253	1			X	X												
2	TB02	LB	6 19 03	1430	3	X															
3	SWMU360-SB01-03	SU	6 19 03	1430	1			X	X												

Matrix: A - Air, SS - Surface Soil, SW - Surface Water, GW - Groundwater, SU - SubSurface Soil, W - Waste, LB - Lab Supplied Water (Trip or Field Blank)

NOTES:

FED EX TRACKING NUMBER:

1.) Relinquished By: Robert M. Suk II		2.) Relinquished By:		SPECIAL INSTRUCTIONS
Signature:	Date: 6/19/03	Signature:	Date: 6/20/03	
Company: Baker Environmental	Time: 1630	Company: Fed Ex	Time: 930	
1.) Received By:		2.) Received By:		
Signature:	Date:	Signature: C. Wawer	Date: 6/20/03	
Company:	Time:	Company: Chemtech	Time: 930	

BAKER ENVIRONMENTAL

NUMBER OF COOLERS 1

CHAIN OF CUSTODY NUMBER: 05

R295744

CUSTOMER INFORMATION

Company: Baker Environmental
Project Number: 2c007-143-6000-05200
Address: 100 Airside Business Park
100 Airside Drive
Moon Twp, PA 15108
Phone: 1-800-553-1153
Fax: (412)269-2002

Project Name: MCB Camp Lejeune RCRA
Address: Lot 203, Piney Green Road
Camp Lejeune, NC 28542
Contact: Michelle Joy
Phone Number: (412)269-6135
Fax Number: (412)269-6160

Sample Identification	Matrix	Sample Date	Sample Time	Number of Containers	TCL VOCs (OLMO 4.2)	TCL SVOCs (OLMO 4.2)	TCL Pesticides (OLMO 4.2)	RCRA Metals (ILMO 4.1)		TCLP VOCs	TCLP SVOCs	TCLP Pesticides	TCLP Metals							COMMENTS/ PRECAUTIONS
SWMU360-SB01-05	SU	6 19 03	1440	1			X	X												QUICK TURN SAMPLE
SWMU360-SB01-09	SU	6 19 03	1456	4	X		X	X												QUICK TURN SAMPLE
SWMU360-SB01-09 MS MSD	SU	6 19 03	1456	8	X		X	X												QUICK TURN SAMPLE
SWMU360-SB06-01	SU	6 19 03	1242	1			X	X												QUICK TURN SAMPLE
SWMU360-SB06-08	SU	6 19 03	1315	1			X	X												QUICK TURN SAMPLE
SWMU360-SB06-11	SU	6 19 03	1340	4	X		X	X												QUICK TURN SAMPLE
SWMU360-SB07-04	SU	6 19 03	1414	4	X		X	X												QUICK TURN SAMPLE
SWMU360-SB07-04D	SU	6 19 03	1414	4	X		X	X												QUICK TURN SAMPLE
SWMU360-SB07-08	SU	6 19 03	1425	1			X	X												QUICK TURN SAMPLE
SWMU360-SB07-12	SU	6 19 03	1440	1			X	X												QUICK TURN SAMPLE
																				QUICK TURN SAMPLE
																				QUICK TURN SAMPLE
																				QUICK TURN SAMPLE
																				QUICK TURN SAMPLE
																				QUICK TURN SAMPLE

Matrix: A - Air, SS - Surface Soil, SW - Surface Water, GW - Groundwater, SU - SubSurface Soil, W - Waste, LB - Lab Supplied Water (Trip or Field Blank)

NOTES:

FED EX TRACKING NUMBER:

1.) Relinquished By: Robert M. Sokil		2.) Relinquished By:		SPECIAL INSTRUCTIONS
Signature	Date 6/19/03	Signature	Date 6/20/94	
Company Baker Environmental	Time 1630	Company Chemtech via Fed Ex	Time 930	
1.) Received By:		**2.) Received By:**		
Signature	Date	Signature C Warren	Date 6/20/94	
Company	Time	Company Chemtech	Time 930	

COCTF 06

CHEMTECH

CHAIN OF CUSTODY RECORD

284 Sheffield Street, Mountainside, NJ 07092
(908) 789-8900 Fax (908) 789-8922
www.chemtech.net

CHEMTECH JOB NO.: R2991 14
CHEMTECH QUOTE NO.:

CLIENT INFORMATION

REPORT TO BE SENT TO:

COMPANY: Baker Environmental
ADDRESS: 100 Airside Drive
CITY: Moon Township STATE: PA ZIP: 15143
ATTENTION: Michelle Joy
PHONE: (412) 269-6135 FAX:

PROJECT INFORMATION

PROJECT NAME: RCRA - Camp Lejeune
PROJECT NO.: LOCATION:
PROJECT MANAGER: Kurt Hummler
E-MAIL:
PHONE: FAX:

BILLING INFORMATION

BILL TO: PO #:
ADDRESS:
CITY: STATE: ZIP:
ATTENTION: PHONE:

DATA TURNAROUND INFORMATION

FAX: DAYS *
HARD COPY: DAYS *
EDD: DAYS *
* TO BE APPROVED BY CHEMTECH
** NORMAL TURNAROUND TIME - 14 DAYS

DATA DELIVERABLE INFORMATION

☐ RESULTS ONLY ☐ USEPA CLP
☐ RESULTS + QC ☐ NYS ASP "B"
☐ NJ REDUCED ☐ NYS ASP "A"
☐ NJ CLP ☐ EDD
☐ EDD FORMAT:

ANALYSIS

1 TCL VOCs
2 TCL Pesticides
3 TCL RCRA Metals
4
5
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8
9

CHEMTECH SAMPLE ID	PROJECT SAMPLE IDENTIFICATION	SAMPLE MATRIX	SAMPLE TYPE COMP	SAMPLE TYPE GRAB	SAMPLE COLLECTION DATE	SAMPLE COLLECTION TIME	# OF BOTTLES	PRESERVATIVES 1	2	3	4	5	6	7	8	9	COMMENTS
1. 1	SWMU 360-SB02-02	Soil		X	6/19/03	1600	1		X	X							
2. 2	SWMU 360-SB02-05					1610	1		X	X							
3. 3	SWMU 360-SB02-09					1635	4	X	X	X							Quick Extract
4. 4	SWMU 360-SB04-02					1545	4	X	X	X							Quick Extract
5. 5	SWMU 360-SB04-02D					1545	1		X	X							
6. 6	SWMU 360-SB04-06					1551	1		X	X							
7. 7	SWMU 360-SB04-10					1605	1		X	X							
8. 8	SWMU 360-SB03-01				6/20/03	0812	1		X	X							

Specify Preservatives: A – HCl B – HNO_3 C – H_2SO_4 D – NaOH E – ICE F – Other

SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESSION INCLUDING COURIER DELIVERY

RELINQUISHED BY SAMPLER:	DATE/TIME:	RECEIVED BY:
1.	6/20/03 1700	1.
RELINQUISHED BY: 2.	DATE/TIME:	RECEIVED BY: 2.
RELINQUISHED BY: 3. FedEx	DATE/TIME: 6/21/03 830	RECEIVED FOR LAB BY: 3.

Conditions of bottles or coolers at receipt: ☑ Compliant ☐ Non-Compliant ☐ Temp. of Cooler 4°C
MeOH extractions requires an additional 4oz. jar for percent solid.
Comments:

Page 1 of 4

Shipped Via: Client ☐ Hand Delivered ☑ Overnight
Chemtech ☐ Picked Up ☐ Overnight

Shipment Complete ☑ Yes ☐ No

Ver 9/2002

WHITE = CHEMTECH COPY FOR RETURN TO CLIENT YELLOW – CHEMTECH COPY PINK – SAMPLER COPY

34713

COC # 07

CHEMTECH

CHAIN OF CUSTODY RECORD

284 Sheffield Street, Mountainside, NJ 07092
(908) 789-8900 Fax (908) 789-8922
www.chemtech.net

CHEMTECH JOB NO.: K2991 LL

CHEMTECH QUOTE NO.:

CLIENT INFORMATION

REPORT TO BE SENT TO:

COMPANY: Baker

ADDRESS: 11

CITY: 11 STATE: a ZIP: 11

ATTENTION: 11

PHONE: FAX:

PROJECT INFORMATION

PROJECT NAME: RCRA-Camp Lejeune

PROJECT NO.: LOCATION:

PROJECT MANAGER:

E-MAIL:

PHONE: FAX:

BILLING INFORMATION

BILL TO: PO #:

ADDRESS:

CITY: STATE: ZIP:

ATTENTION: PHONE:

DATA TURNAROUND INFORMATION

FAX: DAYS *
HARD COPY: DAYS *
EDD: DAYS *
* TO BE APPROVED BY CHEMTECH
** NORMAL TURNAROUND TIME - 14 DAYS

DATA DELIVERABLE INFORMATION

- [ ] RESULTS ONLY
- [ ] RESULTS + QC
- [ ] NJ REDUCED
- [ ] NJ CLP
- [ ] EDD FORMAT:
- [ ] USEPA CLP
- [ ] NYS ASP "B"
- [ ] NYS ASP "A"
- [ ] EDD

ANALYSIS

1 TCL VOCs
2 TCL Pesticides
3 TCL RCRA Metals
4
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9

CHEMTECH SAMPLE ID	PROJECT SAMPLE IDENTIFICATION	SAMPLE MATRIX	SAMPLE TYPE COMP	SAMPLE TYPE GRAB	SAMPLE COLLECTION DATE	SAMPLE COLLECTION TIME	# OF BOTTLES	PRESERVATIVES 1	2	3	4	5	6	7	8	9	COMMENTS
1	9 SWMU 360-SB03-04	Soil		X	6/20/03	0826	1		X	X							
2	10 SWMU 360-SB03-10					0845	4	X	X	X							
3	11 SWMU 760-SB08-01					0944	1		X	X							
4	12 SWMU 360-SB08-02					0955	1		X	X							
5	13 SWMU 360-SB08-10					1022	4	X	X	X							
6	14 SWMU 360-SB09-01					1442	1		X	X							
7	15 SWMU 360-SB09-06					1505	4	X	X	X							
8	16 SWMU 360-SB11-03					0812	1		X	X							

Specify Preservatives: A – HCl, B – HNO_3, C – H_2SO_4, D – NaOH, E – ICE, F – Other

SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESSION INCLUDING COURIER DELIVERY

RELINQUISHED BY SAMPLER:	DATE/TIME:	RECEIVED BY:
1.	6/20/03 1700	1.
RELINQUISHED BY:	DATE/TIME:	RECEIVED BY:
2.		2.
RELINQUISHED BY:	DATE/TIME:	RECEIVED FOR LAB BY:
3. Fed Ex	6/21/03 8:30	3.

Conditions of bottles or coolers at receipt: [x] Compliant [ ] Non-Compliant [ ] Temp. of Cooler 4°
MeOH extractions requires an additional 4oz. jar for percent solid.
Comments:

Page 2 of 4

Shipped Via: [x] Client [ ] Hand Delivered [x] Overnight
Chemtech [ ] Picked Up [ ] Overnight

Shipment Complete [x] Yes [ ] No

Ver 9/2002

WHITE = CHEMTECH COPY FOR RETURN TO CLIENT YELLOW – CHEMTECH COPY PINK – SAMPLER COPY

34714

CHEMTECH
CHAIN OF CUSTODY RECORD

LOC# 08

284 Sheffield Street, Mountainside, NJ 07092
(908) 789-8900 Fax (908) 789-8922
www.chemtech.net

CHEMTECH JOB NO.: B2992 211
CHEMTECH QUOTE NO.:

CLIENT INFORMATION (REPORT TO BE SENT TO:)

COMPANY: Baker
ADDRESS: 11
CITY: 11 STATE: 11 ZIP: 11
ATTENTION: 11
PHONE: FAX:

PROJECT INFORMATION

PROJECT NAME: RCRA - Camp Lejeune
PROJECT NO.: LOCATION:
PROJECT MANAGER:
E-MAIL:
PHONE: FAX:

BILLING INFORMATION

BILL TO: PO #:
ADDRESS:
CITY: STATE: ZIP:
ATTENTION: PHONE:

DATA TURNAROUND INFORMATION

FAX: DAYS *
HARD COPY: DAYS *
EDD: DAYS *
* TO BE APPROVED BY CHEMTECH
** NORMAL TURNAROUND TIME - 14 DAYS

DATA DELIVERABLE INFORMATION

☐ RESULTS ONLY ☐ USEPA CLP
☐ RESULTS + QC ☐ NYS ASP "B"
☐ NJ REDUCED ☐ NYS ASP "A"
☐ NJ CLP ☐ EDD
☐ EDD FORMAT:

ANALYSIS

1 TCL VOCs 2 TCL Pesticides 3 TCL RCRA metals 4 5 6 7 8 9

CHEMTECH SAMPLE ID	PROJECT SAMPLE IDENTIFICATION	SAMPLE MATRIX	SAMPLE TYPE COMP	SAMPLE TYPE GRAB	SAMPLE COLLECTION DATE	SAMPLE COLLECTION TIME	# OF BOTTLES	PRESERVATIVES 1	2	3	4	5	6	7	8	9	COMMENTS
1. 1	SWMU 360 - SB11-06	Soil		X	6/20/03	0816	1		X	X							
2. 2	- SB11-09					0832	4	X	X	X							
3. 3	- SB12-04					0957	4	X	X	X							
4. 4	- SB12-[redacted]040					0957	1		X	X							
5. 5	- SB12-06					1000	1		X	X							
6. 6	- SB13-04					1430	4	X	X	X							
7. 7	- SB13-04D					1430	3	X									
8. 8	- SB14-02					1326			X	X							

COMMENTS: « Specify Preservatives
A – HCl B – HNO_3
C – H_2SO_4 D – NaOH
E – ICE F – Other

SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESSION INCLUDING COURIER DELIVERY

RELINQUISHED BY SAMPLER:	DATE/TIME:	RECEIVED BY:
1.	6/20/03 1700	1.
RELINQUISHED BY: 2.	DATE/TIME:	RECEIVED BY: 2.
RELINQUISHED BY: 3. Fed Ex	DATE/TIME: 6/21/03	RECEIVED FOR LAB BY: 3.

Conditions of bottles or coolers at receipt: ☑ Compliant ☐ Non-Compliant ☐ Temp. of Cooler
MeOH extractions requires an additional 4oz. jar for percent solid.
Comments:

Page 3 of 4

Shipped Via: Client ☐ Hand Delivered ☐ Overnight
Chemtech ☐ Picked Up ☐ Overnight

Shipment Complete ☑ Yes ☐ No

Ver. 9/2002

WHITE – CHEMTECH COPY FOR RETURN TO CLIENT YELLOW – CHEMTECH COPY PINK – SAMPLER COPY

34715

CHEMTECH
CHAIN OF CUSTODY RECORD

COC # 07

284 Sheffield Street, Mountainside, NJ 07092
(908) 789-8900 Fax (908) 789-8922
www.chemtech.net

CHEMTECH JOB NO.: R2991
CHEMTECH QUOTE NO.:

REPORT INFORMATION

REPORT TO BE SENT TO:
COMPANY: Baker
ADDRESS: "
CITY: " STATE: " ZIP: "
ATTENTION: "
PHONE: FAX:

PROJECT INFORMATION

PROJECT NAME: RCRA - Camp Lejeune
PROJECT NO.: LOCATION:
PROJECT MANAGER:
E-MAIL:
PHONE: FAX:

BILLING INFORMATION

BILL TO: PO #:
ADDRESS:
CITY: STATE: ZIP:
ATTENTION: PHONE:

DATA TURNAROUND INFORMATION

FAX: ____ DAYS *
HARD COPY: ____ DAYS *
EDD: ____ DAYS *
* TO BE APPROVED BY CHEMTECH
** NORMAL TURNAROUND TIME - 14 DAYS

DATA DELIVERABLE INFORMATION

- [ ] RESULTS ONLY
- [ ] RESULTS + QC
- [ ] NJ REDUCED
- [ ] NJ CLP
- [ ] EDD FORMAT: ____
- [ ] USEPA CLP
- [ ] NYS ASP "B"
- [ ] NYS ASP "A"
- [ ] EDD

ANALYSIS

1 TCL VOCs
2 TCL pesticides
3 TCL RCRA metals
4
5
6
7
8
9

CHEMTECH SAMPLE ID	PROJECT SAMPLE IDENTIFICATION	SAMPLE MATRIX	SAMPLE TYPE COMP	SAMPLE TYPE GRAB	SAMPLE COLLECTION DATE	SAMPLE COLLECTION TIME	# OF BOTTLES	PRESERVATIVES 1	2	3	4	5	6	7	8	9	COMMENTS
1. 17	SWMU 360 - SB14-04	Soil		X	6/20/03	1331	4	X	X	X							
2. 18	- SB15-02					1338	1		X	X							
3. 19	- SB15-04					1345	1		X	X							
4. 20	- SB16-05					1400	4	X	X	X							
5. 21	TB03	Water		X	6/20/03	1600	3	X									
6.																	
7.																	
8.																	

PRESERVATIVES: A – HCl, B – HNO_3, C – H_2SO_4, D – NaOH, E – ICE, F – Other

SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESSION INCLUDING COURIER DELIVERY

RELINQUISHED BY SAMPLER	DATE/TIME	RECEIVED BY
1.	6/20/03 1700	1.
RELINQUISHED BY: 2.	DATE/TIME:	RECEIVED BY: 2.
RELINQUISHED BY: 3. Fed Ex	DATE/TIME: 6/21/03 830	RECEIVED FOR LAB BY: 3.

Conditions of bottles or coolers at receipt: [x] Compliant [ ] Non-Compliant [ ] Temp. of Cooler 4°
MeOH extractions requires an additional 4oz. jar for percent solid.
Comments:

Page 4 of 4

Shipped Via: (Client) [ ] Hand Delivered [x] Overnight
Chemtech [ ] Picked Up [ ] Overnight

Shipment Complete [x] Yes [ ] No

Ver. 9/2002

WHITE – CHEMTECH COPY FOR RETURN TO CLIENT YELLOW – CHEMTECH COPY PINK – SAMPLER COPY

34716

BAKER ENVIRONMENTAL

R 3028

NUMBER OF COOLERS 4

CHAIN OF CUSTODY NUMBER: 10

CUSTOMER INFORMATION

Company: Baker Environmental
Project Name: MCB Camp Lejeune RCRA
Project Number: 26067-143-0000-05200
Address: Lot 203, Piney Green Road
Camp Lejeune, NC 28542
Address: 100 Airside Business Park
100 Airside Drive
Moon Twp, PA 15108
Contact: Michelle Joa
Phone: 1-800-553-1153
Phone Number: (412)269-6135
Fax: (412)269-2002
Fax Number: (412)269-6100

Sample Identification	Matrix	Sample Date	Sample Time	Number of Containers	TCL VOCs (OLMO 4.2)	TCL SVOCs (OLMO 4.2)	TCL Pesticides (OLMO 4.2)	RCRA Metals (ILMO 4.1)	TCLP VOCs	TCLP SVOCs	TCLP Pesticides	TCLP Metals	COMMENTS/ PRECAUTIONS
1 SWMU299-SB05-00	SS	6 21 03	1015	1		X		X					
2 SWMU299-SB05-00D	SS	6 21 03	1015	1		X		X					
3 SWMU299-SB05-02	SU	6 21 03	1018	1		X		X					
4 SWMU299-SB06-00	SS	6 21 03	0947	1		X		X					
5 SWMU299-SB06-01	SU	6 21 03	0950	1		X		X					
6 SWMU299-SB07-00	SS	6 21 03	0955	1		X		X					
7 SWMU299-SB07-02	SU	6 21 03	0956	1		X		X					
8 SWMU299-SB08-00	SS	6 21 03	1044	1		X		X					
9 SWMU299-SB08-02	SU	6 21 03	1045	1		X		X					
10 SWMU299-SB09-00	SS	6 21 03	1057	1		X		X					
11 SWMU299-SB09-01	SU	6 21 03	1058	1		X		X					
12 SWMU299-SB10-00	SS	6 21 03	1103	1		X		X					
13 SWMU299-SB10-01	SU	6 21 03	1105	1		X		X					
14 SWMU299-SB11-00	SS	6 21 03	1127	1		X		X					
15 SWMU361-TW02-00	SS	6 22 03	0939	1			X	X					
16 SWMU361-TW02-05	SU	6 22 03	0952	1			X	X					
17,18 SWMU361-TW02-05 MS MSD	SU	6 22 03	0952	1			X	X					
19 SWMU361-TW03-00	SS	6 22 03	0940	1			X	X					
20 SWMU361-TW03-06	SU	6 22 03	0953	1			X	X					
21 SWMU361-TW03-06D	SU	6 22 03	0953	1			X	X					
SWMU336-TW03-00	SS	6 23 03	1030	4	X			X					
SWMU336-TW03-04	SU	6 23 03	1050	4	X			X					
SWMU336-TW03-04D	SU	6 23 03	1050	4	X			X					

Matrix: A - Air, SS - Surface Soil, SW - Surface Water, GW - Groundwater, SU - SubSurface Soil, W - Waste, LB - Lab Supplied Water (Trip or Field Blank)

NOTES: Samples SWMW336-TW03-00 TO SWMW336-TW03-04D is in Project R3029

FED EX TRACKING NUMBER:

1.) Relinquished By: Robert M. Sok II		2.) Relinquished By:		SPECIAL INSTRUCTIONS
Signature	Date 6/23/03	Signature FedEX	Date 06/25/03	
Company Baker Environmental	Time 1900	Company FedEX	Time 09:45	
1.) Received By: SP 6/25/03		2.) Received By:		
Signature Fed Ex Sunny Patel	Date 6/25/03	Signature	Date	
Company Chemtech	Time 09:45	Company	Time	

BAKER ENVIRONMENTAL

R 3029

NUMBER OF COOLERS 4

CHAIN OF CUSTODY NUMBER: 11 PAGE NUMBER: 2 OF 3

CUSTOMER INFORMATION

Company: Baker Environmental
Project Number: 26607-143-0000-65200
Address: 100 Airside Business Park
100 Airside Drive
Moon Twp. PA 15108
Phone: 1-800-553-1153
Fax: (412)269-2002

Project Name: MCB Camp Lejeune RCRA
Address Lot 203, Piney Green Road
Camp Lejeune, NC 28542
Contact: Michelle Joy
Phone Number: (412)269-6135
Fax Number: (412)269-6166

Sample Identification	Matrix	Sample Date	Sample Time	Number of Containers	TCL VOCs (OLMO 4.2)	TCL SVOCs (OLMO 4.2)	TCL Pesticides (OLMO 4.2)	RCRA Metals (ILMO 4.1)		TCLP VOCs	TCLP SVOCs	TCLP Pesticides	TCLP Metals							COMMENTS/ PRECAUTIONS
4 SWMU336-TW04-00	SS	6 23 03	1400	4	X			X												
5 SWMU336-TW04-06	SU	6 23 03	1420	4	X			X												
6 SWMU336-TW05-00	SS	6 23 03	1300	4	X			X												
SWMU336-TW05-01	SU	6 23 03	1315	4	X			X												
SWMU336-TW06-00	SS	6 23 03	1135	4	X			X												
7 SWMU336-TW06-07	SU	6 23 03	1200	4	X			X												

Matrix: A - Air, SS - Surface Soil, SW - Surface Water, GW - Groundwater, SU - SubSurface Soil, W - Waste, LB - Lab Supplied Water (Trip or Field Blank)

NOTES:

FED EX TRACKING NUMBER:

1.) Relinquished By: Robert M. Sok II		2.) Relinquished By:		SPECIAL INSTRUCTIONS
Signature	Date 6/25/03	Signature FedEx	Date 06/25/03	
Company Baker Environmental	Time 1700	Company FedEx	Time 09:45	
1.) Received By:		2.) Received By:		
Signature Sunny. Patel	Date 6/25/03	Signature	Date	
Company Chemtech	Time 09:45	Company	Time	

BAKER ENVIRONMENTAL

R3029

NUMBER OF COOLERS 4

CHAIN OF CUSTODY NUMBER: 12

PAGE NUMBER: 3 OF 3

CUSTOMER INFORMATION

Company: Baker Environmental
Project Number: 26607-143-0000-05206
Address: 100 Airside Business Park
100 Airside Drive
Moon Twp, PA 15108
Phone: 1-800-553-1153
Fax: (412)269-2002

Project Name: MCB Camp Lejeune RCRA
Address: Lot 204, Piney Green Road
Camp Lejeune, NC 28542
Contact: Michelle Joy
Phone Number: (412)269-6135
Fax Number: (412)269-6100

	Sample Identification	Matrix	Sample Date	Sample Time	Number of Containers	TCL VOCs (OLMO 4.2)	TCL SVOCs (OLMO 4.2)	TCL Pesticides (OLMO 4.2)	RCRA Metals (ILMO 4.1)		TCLP VOCs	TCLP SVOCs	TCLP Pesticides	TCLP Metals							COMMENTS/ PRECAUTIONS
10	SWMU360-SB13-02	SU	6 20 03	1425	1			X	X												
11	SWMU360-SB13-05	SU	6 20 03	1440	1			X	X												
12	SWMU360-SB14-10	SU	6 22 03	1623	1			X	X												
13	SWMU360-SB10-01	SU	6 22 03	1610	1	X		X	X												
14	SWMU360-SB10-03	SU	6 22 03	1628	1			X	X												
15	SWMU360-SB10-05	SU	6 22 03	1646	1			X	X												
16	ER01	LB	6 17 03	1800	7	X	X	X	X												
17	ER02	LB	6 18 03	1800	7	X	X	X	X												
18	ER03	LB	6 19 03	1800	7	X	X	X	X												
19	ER04	LB	6 20 03	1800	7	X	X	X	X												
20	ER05	LB	6 21 03	1800	7	X	X	X	X												
21	ER06	LB	6 22 03	1800	7	X	X	X	X												
22	SWMU311-SB18-02	SU	6 23 03	0735	4	X			X												
23,24	SWMU311-SB18-02MS MSD	SU	6 23 03	0735	4	X			X												
	SWMU311-SB18-04	SU	6 23 03	0740	1				X												
	SWMU311-SB18-06	SU	6 23 03	0745	1				X												
	SWMU311-SB20-01	SU	6 23 03	0748	1				X												
	SWMU311-SB20-03	SU	6 23 03	0800	4	X			X												
	SWMU311-SB20-03D	SU	6 23 03	0800	4	X			X												
	SWMU311-SB20-06	SU	6 23 03	0827	1				X												
	TB04	LB	6/23/03	1630	3	X															

Matrix: A - Air, SS - Surface Soil, SW - Surface Water, GW - Groundwater, SU - SubSurface Soil, W - Waste, LB - Lab Supplied Water (Trip or Field Blank)

NOTES: Sample SWMU311-SB18-04 TO TB04 is in Project R3030

FED EX TRACKING NUMBER:

1.) Relinquished By: Robert M. Sok II		2.) Relinquished By:		SPECIAL INSTRUCTIONS
Signature: [signature]	Date: 6/23/03	Signature: FedEx	Date: 06125/03	
Company: Baker Environmental	Time: 1700	Company: FedEx	Time: 09:45	
1.) Received By:		2.) Received By: 6125/03		
Signature: Sunny Patel	Date: 6/25/03	Signature: [signature]	Date:	
Company: Chemtech	Time: 09:45	Company:	Time:	

BAKER ENVIRONMENTAL

R3030

NUMBER OF COOLERS 1

CHAIN OF CUSTODY NUMBER: 13

PAGE NUMBER: 1 OF 1

CUSTOMER INFORMATION

Company: Baker Environmental
Project Number: 26007-143-6000-05200
Address: 100 Airside Business Park
100 Airside Drive
Moon Twp PA 15108
Phone: 1-800-553-1153
Fax: (412)269-2002

Project Name: MCB Camp Lejeune RCRA
Address Lot 203, Piney Green Road
Camp Lejeune, NC 28542
Contact: Michelle Joy
Phone Number: (412)269-6135
Fax Number: (412)269-6100

	Sample Identification	Matrix	Sample Date	Sample Time	Number of Containers	TCL VOCs (OLMO 4.2)	TCL SVOCs (OLMO 4.2)	TCL Pesticides (OLMO 4.2)	RCRA Metals (ILMO 4.1)		TPH - DRO											COMMENTS/ PRECAUTIONS
8	SWMU314-SS01	SS	6 23 03	1045	1		X		X													
9	SWMU314-SS01D	SS	6 23 03	1045	1		X		X													
10, 11	SWMU314-SS01 MS MSD	SS	6 23 03	1045	1		X		X													
12	SWMU314-SS02	SS	6 23 03	1048	1		X		X													
13	SWMU314-SS03	SS	6 23 03	1050	1		X		X													
14	SWMU314-SS04	SS	6 23 03	1053	1		X		X													
15	SWMU314-SS05	SS	6 23 03	1055	1		X		X													
16	SWMU269-SB09-06	SU	6 23 03	1653	5	X	X		X		X											QUICK EXTRACTION
17	SWMU269-SB10-02	SU	6 23 03	1704	4	X	X		X													QUICK EXTRACTION
18	SWMU269-SB10-06	SU	6 23 03	1728	4	X	X		X													QUICK EXTRACTION
19	SWMU269-SB10-08	SU	6 23 03	1744	2		X		X		X											
20	SWMU269-SB11-02	SU	6 23 03	1805	5	X	X		X		X											QUICK EXTRACTION
21	SWMU269-SB11-08	SU	6 23 03	1848	1		X		X													
22	SWMU269-SB12-02	SU	6 23 03	1740	5	X	X		X		X											QUICK EXTRACTION
23	TB05	LB	6 24 03	1200	3	X																
	SWMU360-SB16-02	SU	6 24 03	0830	1			X	X													
	SWMU360-SB16-03	SU	6 24 03	0840	1			X	X													
	SWMU360-SB16-09	SU	6 24 03	0915	4	X		X	X													

Matrix: A - Air, SS - Surface Soil, SW - Surface Water, GW - Groundwater, SU - SubSurface Soil, W - Waste, LB - Lab Supplied Water (Trip or Field Blank)

NOTES: Samples SWMU360-SB16-02 TO SWMU360-SB16-09 is in Project R3031

FED EX TRACKING NUMBER: 8390 3018 4055

1.) Relinquished By: Robert M. Sok II		2.) Relinquished By:		SPECIAL INSTRUCTIONS
Signature	Date 6/24/03	Signature FedEx	Date 6/25/03	
Company Baker Environmental	Time 1700	Company FedEx	Time 9:45	
1.) Received By:		**2.) Received By:**		
Signature Sunny.Patel	Date 6/25/03	Signature	Date	
Company CHEMTECH	Time 9:45	Company	Time	

BAKER ENVIRONMENTAL

R3031

NUMBER OF COOLERS 3

CHAIN OF CUSTODY NUMBER: 14

CUSTOMER INFORMATION

Company: Baker Environmental
Project Number: 26007-143-0000-05200
Address: 100 Airside Business Park
100 Airside Drive
Moon Twp, PA 15108
Phone: 1-800-553-1153
Fax: (412)269-2002

Project Name: MCB Camp Lejeune RCRA
Address: Lot 203, Piney Green Road
Camp Lejeune, NC 28542
Contact: Michelle Joy
Phone Number: (412)269-6135
Fax Number: (412)269-6100

	Sample Identification	Matrix	Sample Date	Sample Time	Number of Containers	TCL VOCs (OLMO 4.2)	TCL SVOCs (OLMO 4.2)	TCL Pesticides (OLMO 4.2)	RCRA Metals (ILMO 4.1)	COMMENTS/ PRECAUTIONS
4	SWMU311-SB07-01	SU	6 24 03	1617	1				X	
5	SWMU311-SB07-04	SU	6 24 03	1630	1				X	
6	SWMU311-SB07-08	SU	6 24 03	1650	4	X			X	QUICK EXTRACTION
7	SWMU43-SS05	SS	6 24 03	0835	1			X	X	
8	SWMU43-SS06	SS	6 24 03	0836	1			X	X	
9	TB06	LB	6 25 03	1415	3	X				
10	SWMU43-SS07	SS	6 25 03	1312	1			X	X	
11	SWMU43-SS08	SS	6 25 03	1238	1			X	X	
12	SWMU43-SS09	SS	6 25 03	1309	1			X	X	
13	SWMU43-SS10	SS	6 25 03	1305	1			X	X	
14	SWMU43-SS10D	SS	6 25 03	1305	1			X	X	
15	SWMU43-SS11	SS	6 25 03	1303	1			X	X	
16	SWMU43-SS12	SS	6 25 03	1258	1			X	X	
17	SWMU43-SS13	SS	6 25 03	1252	1			X	X	
18	SWMU43-SS13D	SS	6 25 03	1252	1			X	X	
19	SWMU43-SS14	SS	6 25 03	1245	1			X	X	
	SWMU43-SS15	SS	6 25 03	1247	1			X	X	
	SWMU43-SS16	SS	6 25 03	1240	1			X	X	
	SWMU43-SS17	SS	6 25 03	1236	1			X	X	
	SWMU43-SS18	SS	6 25 03	1250	1			X	X	
	SWMU43-SS19	SS	6 25 03	1256	1			X	X	
	SWMU43-SS20	SS	6 25 03	1234	1			X	X	
20	SWMU43-SS21	SS	6 25 03	1220	1			X	X	

Matrix: A - Air, SS - Surface Soil, SW - Surface Water, GW - Groundwater, SU - SubSurface Soil, W - Waste, LB - Lab Supplied Water (Trip or Field Blank)

NOTES: Samples SWMU43-SS15 TO SWMU43-SS20 is in Project # R3050

FED EX TRACKING NUMBER: 8390 3018 3942

1.) Relinquished By: Robert M. Sokil		2.) Relinquished By:		SPECIAL INSTRUCTIONS
Signature	Date 6/25/03	Signature FedEx	Date 6/26/03	
Company Baker Environmental	Time 1700	Company FedEx	Time 09:45	
1.) Received By:		2.) Received By:		
Signature Sunny Patel	Date 6/26/03	Signature	Date	
Company Chemtech	Time 09:45	Company	Time	

BAKER ENVIRONMENTAL

R3031

NUMBER OF COOLERS 3

CHAIN OF CUSTODY NUMBER: 15 PAGE NUMBER: 2 OF 2

CUSTOMER INFORMATION

Company: Baker Environmental
Project Number: 26007-143-0000-03206
Address: 100 Airside Business Park
100 Airside Drive
Moon Twp PA 15108
Phone: 1-800-553-1153
Fax: (412)269-2002

Project Name: MCB Camp Lejeune RCRA
Address Lot 203, Piney Green Road
Camp Lejeune, NC 28542
Contact: Michelle Jov
Phone Number: (412)269-6135
Fax Number: (412)269-6100

Sample Identification	Matrix	Sample Date	Sample Time	Number of Containers	TCL VOCs (OLMO 4.2)	TCL SVOCs (OLMO 4.2)	TCL Pesticides (OLMO 4.2)	RCRA Metals (ILMO 4.1)	0	0	0	0	COMMENTS/ PRECAUTIONS
21 22 SWMU43-SS21 MS MSD	SS	6 25 03	1220	2			X	X					
SWMU43-SS22	SS	6 25 03	1219	1			X	X					
SWMU43-SS23	SS	6 25 03	1215	1			X	X					
SWMU43-SS21	SS	6 25 03	1214	1			X	X					
FB01	LB	6 25 03	1000	7	X	X	X	X					
ER07	LB	6/23/03	1015	7	X	X	X	X					
ER08	LB	6/24/03	1700	7	X	X	X	X					
SWMU43-SB11-00	SS	6 25 03	0950	1			X	X					
SWMU43-GW11	GW	6 25 03	1020	1			X	X					
SWMU43-SB12-00	SS	6 25 03	0908	1			X	X					
SWMU43-GW12	GW	6 25 03	0940	1			X	X					
SWMU43-SB15-00	SS	6 25 03	0820	1			X	X					
SWMU43-SB15-00D	SS	6 25 03	0820	1			X	X					
SWMU43-GW15	GW	6 25 03	0824	1			X	X					
SWMU43-SB17-00	SS	6 25 03	0900	1			X	X					
SWMU43-GW17	GW	6 25 03	0930	1			X	X					
SWMU43-SB18-00	SS	6 25 03	0820	1			X	X					
SWMU43-SB18-00 MS MSD	SS	6 25 03	0820	2			X	X					
SWMU43-GW18	GW	6 25 03	0850	1			X	X					

Matrix A - Air, SS - Surface Soil, SW - Surface Water, GW - Groundwater, SU - SubSurface Soil, W - Waste, LB - Lab Supplied Water (Trip or Field Blank)

NOTES: Samples SWMU43-SS22 TO SWMU43-GW18 is in Project # R3050

FED EX TRACKING NUMBER: 8390 3018 3942

1.) Relinquished By: Robert M. Sok II		2.) Relinquished By:		SPECIAL INSTRUCTIONS
Signature	Date 6/25/03	Signature FedEx	Date 6/26/03	
Company Baker Environmental	Time 1700	Company FedEx	Time 09:45	
1.) Received By:		**2.) Received By:**		
Signature Sunny Patel	Date 6/26/03	Signature	Date	
Company Chemtech	Time 09:45	Company	Time	

CHEMTECH

CHAIN OF CUSTODY RECORD

COC #16

284 Sheffield Street, Mountainside, NJ 07092
(908) 789-8900 Fax (908) 789-8922
www.chemtech.net

CHEMTECH JOB NO.: R3035

CHEMTECH QUOTE NO.:

CLIENT INFORMATION

REPORT TO BE SENT TO:

COMPANY: Baker Environmental Inc.

ADDRESS: 100 Airside Drive

CITY: Moon Twp STATE: PA ZIP: 15108

ATTENTION: Michelle Joy

PHONE: (412)269-6135 FAX:

PROJECT INFORMATION

PROJECT NAME: RCRA - Camp Lejeune

PROJECT NO.: LOCATION:

PROJECT MANAGER: Kurt Hummler

E-MAIL:

PHONE: FAX:

BILLING INFORMATION

BILL TO: PO #:

ADDRESS:

CITY: STATE: ZIP:

ATTENTION: PHONE:

DATA TURNAROUND INFORMATION

FAX: DAYS *
HARD COPY: DAYS *
EDD: DAYS *
* TO BE APPROVED BY CHEMTECH
** NORMAL TURNAROUND TIME - 14 DAYS

DATA DELIVERABLE INFORMATION

☐ RESULTS ONLY ☐ USEPA CLP
☐ RESULTS + QC ☐ NYS ASP "B"
☐ NJ REDUCED ☐ NYS ASP "A"
☐ NJ CLP ☐ EDD
☐ EDD FORMAT:

ANALYSIS

1 TCL VOCs
2 TCL SVOCs
3 TCL Pesticides
4 RCRA Metals
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CHEMTECH SAMPLE ID	PROJECT SAMPLE IDENTIFICATION	SAMPLE MATRIX	SAMPLE TYPE COMP	SAMPLE TYPE GRAB	SAMPLE COLLECTION DATE	SAMPLE COLLECTION TIME	# OF BOTTLES	PRESERVATIVES 1 HCl	2	3	4 HNO3	5	6	7	8	9	COMMENTS
1 1	SWMU269-TW04	GW		X	6/25/03	1650	6	X	X		X						
2. 2	SWMU269-TW05					1505	6	X	X		X						
3. 3	" TW06					1515	6	X	X		X						
4. 4	" TW06D					1515	6	X	X		X						
5. 5	" TW07					1625	6	X	X		X						
6. 6	TB07	LB		X	6/26/03	0830	3	X									
7. 7	FB02	Water		X		0800	7	X	X	X	X						
8. 8	FB03	Water		X		0810	7	X	X	X	X						

Specify Preservatives: A – HCl B – HNO_3 C – H_2SO_4 D – NaOH E – ICE F – Other

SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESSION INCLUDING COURIER DELIVERY

RELINQUISHED BY SAMPLER	DATE/TIME	RECEIVED BY
1.	6/26/03 1700	1.
RELINQUISHED BY: 2.	DATE/TIME:	RECEIVED BY: 2.
RELINQUISHED BY: 3. FedEx	DATE/TIME: 6/27/03 9:30	RECEIVED FOR LAB BY: 3. Sunny Patel

Conditions of bottles or coolers at receipt: ☐ Compliant ☐ Non-Compliant ☑ Temp. of Cooler 4
MeOH extractions requires an additional 4oz. jar for percent solid.
Comments:

Page ____ of ____

Shipped Via: Client ☐ Hand Delivered ☑ Overnight
Chemtech ☐ Picked Up ☐ Overnight

Shipment Complete ☑ Yes ☐ No

Ver. 9/2002

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34717

CHEMTECH

CHAIN OF CUSTODY RECORD

COC #17

284 Sheffield Street, Mountainside, NJ 07092
(908) 789-8900 Fax (908) 789-8922
www.chemtech.net

CHEMTECH JOB NO.: R30855

CHEMTECH QUOTE NO.:

CLIENT INFORMATION

REPORT TO BE SENT TO:

COMPANY: Baker

ADDRESS: SAME

CITY: STATE: ZIP:

ATTENTION:

PHONE: FAX:

PROJECT INFORMATION

PROJECT NAME: RCRA - Camplejeune

PROJECT NO.: LOCATION:

PROJECT MANAGER: Kurt Hammler

E-MAIL:

PHONE: FAX:

BILLING INFORMATION

BILL TO: PO #:

ADDRESS:

CITY: STATE: ZIP:

ATTENTION: PHONE:

DATA TURNAROUND INFORMATION

FAX: DAYS *
HARD COPY: DAYS *
EDD: DAYS *
* TO BE APPROVED BY CHEMTECH
** NORMAL TURNAROUND TIME - 14 DAYS

DATA DELIVERABLE INFORMATION

☐ RESULTS ONLY ☐ USEPA CLP
☐ RESULTS + QC ☐ NYS ASP "B"
☐ NJ REDUCED ☐ NYS ASP "A"
☐ NJ CLP ☐ EDD
☐ EDD FORMAT:

ANALYSIS

1 TCL VOCs
2 TCL SVOCs
3 TCL Pesticides
4 PCBs
5 RCRA metals
6
7
8
9

CHEMTECH SAMPLE ID	PROJECT SAMPLE IDENTIFICATION	SAMPLE MATRIX	SAMPLE TYPE COMP	SAMPLE TYPE GRAB	SAMPLE COLLECTION DATE	SAMPLE COLLECTION TIME	# OF BOTTLES	PRESERVATIVES 1	2	3	4	5	6	7	8	9	COMMENTS
1 9	ER09	LB		X	6/26/03	0825	7	X	X	X	X						
2. 10	SWMU 269 - TW08	GW		X		0930	6	X	X		X						
3. 11,12	" TW08 MS/MSD	GW		X		0930	10	X	X								
4. 13	SWMU 361 - MW02	GW		X		1100	2			X	X						
5. 14,15	SWMU 361 - MW02 MS/MSD	GW		X		1100	4			X	X						
6. 16	SWMU 361 - TW03	GW		X		1350	2			X	X						
7. 17	SWMU 361 - TW02	GW		X		1050	2			X	X						
8. 18	SWMU 361 - TW04	GW		X		1230	2			X	X						

PRESERVATIVES: 1 HCl, 2 ✓, 3 ✓, 4 HNO_3

COMMENTS: Specify Preservatives
A – HCl B – HNO_3
C – H_2SO_4 D – NaOH
E – ICE F – Other

SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESSION INCLUDING COURIER DELIVERY

RELINQUISHED BY SAMPLER	DATE/TIME	RECEIVED BY
1.	6/26/03 1700	1.
RELINQUISHED BY: 2.	DATE/TIME:	RECEIVED BY: 2.
RELINQUISHED BY: 3. Fedex	DATE/TIME 6/27/03 9:30	RECEIVED FOR LAB BY: 3.

Conditions of bottles or coolers at receipt: ☐ Compliant ☐ Non-Compliant ☑ Temp. of Cooler 4
MeOH extractions requires an additional 4oz. jar for percent solid.
Comments:

Page ____ of ____

Shipped Via: Client ☐ Hand Delivered ☑ Overnight
Chemtech ☐ Picked Up ☐ Overnight

Shipment Complete ☑ Yes ☐ No

CHEMTECH

CHAIN OF CUSTODY RECORD

COC #18

284 Sheffield Street, Mountainside, NJ 07092
(908) 789-8900 Fax (908) 789-8922
www.chemtech.net

CHEMTECH JOB NO.: R3285

CHEMTECH QUOTE NO.:

CLIENT INFORMATION

REPORT TO BE SENT TO

COMPANY: Baker Env. Inc

ADDRESS:

CITY: SAME STATE: ZIP:

ATTENTION:

PHONE: FAX:

PROJECT INFORMATION

PROJECT NAME: RCRA - Camp Lejeune

PROJECT NO.: LOCATION:

PROJECT MANAGER: Kurt Hummler

E-MAIL:

PHONE: FAX:

BILLING INFORMATION

BILL TO: PO #:

ADDRESS:

CITY: STATE: ZIP:

ATTENTION: PHONE:

DATA TURNAROUND INFORMATION

FAX: DAYS *
HARD COPY: DAYS *
EDD: DAYS *
* TO BE APPROVED BY CHEMTECH
** NORMAL TURNAROUND TIME - 14 DAYS

DATA DELIVERABLE INFORMATION

☐ RESULTS ONLY ☐ USEPA CLP
☐ RESULTS + QC ☐ NYS ASP "B"
☐ NJ REDUCED ☐ NYS ASP "A"
☐ NJ CLP ☐ EDD
☐ EDD FORMAT:

ANALYSIS

1 TCL VOCs
2 TCL SVOCs
3 TCL Pesticides
4 RCRA Metals
5
6
7
8
9

CHEMTECH SAMPLE ID	PROJECT SAMPLE IDENTIFICATION	SAMPLE MATRIX	SAMPLE TYPE COMP	SAMPLE TYPE GRAB	SAMPLE COLLECTION DATE	SAMPLE COLLECTION TIME	# OF BOTTLES	PRESERVATIVES 1	2	3	4	5	6	7	8	9	COMMENTS
								A			B						
1. 19	SWMU361-TW05	GW		X	6/26/03	1310	2			X	X						
2. 20	SWMU361-MW06	GW		X	↓	1335	2			X	X						
3. 21	SWMU361-MW06D	GW		X	↓	1335	2			X	X						
4.																	
5.																	
6.																	
7.																	
8.																	

Specify Preservatives
A – HCl B – HNO_3
C – H_2SO_4 D – NaOH
E – ICE F – Other

SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESSION INCLUDING COURIER DELIVERY

RELINQUISHED BY SAMPLER:	DATE/TIME:	RECEIVED BY:
1.	6/26/03 1700	1.
RELINQUISHED BY: 2.	DATE/TIME:	RECEIVED BY: 2.
RELINQUISHED BY: 3. FedEx	DATE/TIME: 6/27/03 9:30	RECEIVED FOR LAB BY: 3.

Conditions of bottles or coolers at receipt: ☐ Compliant ☐ Non-Compliant ☑ Temp. of Cooler 4
MeOH extractions requires an additional 4oz. jar for percent solid.
Comments:

Page ____ of ____

Shipped Via: Client ☐ Hand Delivered ☑ Overnight
Chemtech ☐ Picked Up ☐ Overnight

Shipment Complete ☑ Yes ☐ No

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34719

BAKER ENVIRONMENTAL

R3360

NUMBER OF COOLERS _____

CHAIN OF CUSTODY NUMBER: 19 PAGE NUMBER: 1 OF 1

CUSTOMER INFORMATION

Company: Baker Environmental
Project Number: 26607-143-6000-05200
Address: 100 Airside Business Park
100 Airside Drive
Moon Twp, PA 15108
Phone: 1-800-553-1153
Fax: (412)269-2002

Project Name: MCB Camp Lejeune RCRA
Address Lot 203, Piney Green Road
Camp Lejeune, NC 28542
Contact: Michelle Joy
Phone Number: (412)269-6135
Fax Number: (412)269-6160

	Sample Identification	Matrix	Sample Date	Sample Time	Number of Containers	TCL VOCs (OLMO 4.2)	TCL SVOCs (OLMO 4.2)	TCL Pesticides (OLMO 4.2)	RCRA Metals (ILMO 4.1)		TCLP VOCs	TCLP SVOCs	TCLP Pesticides	TCLP Metals								COMMENTS/ PRECAUTIONS
1	SWMU307-TW04	GW	7 13 03	1500	1				X													
2	SWMU307-TW04D	GW	7 13 03	1500	1				X													
3	SWMU307-TW05	GW	7 13 03	1245	1				X													
4	SWMU307-TW06	GW	7 13 03	1335	1				X													
5	SWMU307-TW07	GW	7 13 03	1550	1				X													
6	SWMU362-SD04	SD	7 15 03	1600	1			X														
7	SWMU362-SW04	SW	7 15 03	1600	2			X														
8	SWMU362-SD05	SD	7 15 03	1545	1			X														
9	SWMU362-SW05	SW	7 15 03	1545	2			X														
10	SWMU336-TW03	GW	6 21 03	0945	4	X			X													
11	SWMU336-TW04	GW	6 21 03	1120	4	X			X													
12	SWMU336-TW05	GW	6 21 03	0945	4	X			X													
13	SWMU336-TW06	GW	6 21 03	0900	4	X			X													
14	TB08	LB	7 16 03	1230	3	X																

Matrix: A - Air, SS - Surface Soil, SW - Surface Water, GW - Groundwater, SO - SubSurface Soil, W - Waste, LB - Lab Supplied Water (Trip or Field Blank)

NOTES:

FED EX TRACKING NUMBER:

1.) Relinquished By: Robert M. Sok II		2.) Relinquished By:		SPECIAL INSTRUCTIONS
Signature	Date 7/16/03	Signature FedEx	Date 7/17/03	
Company Baker Environmental	Time 1300	Company FedEx	Time 9:45	
1.) Received By:		**2.) Received By:**		
Signature	Date	Signature Sunny Patel	Date 7/17/03	
Company	Time	Company Chemtech	Time 9:45	

BAKER ENVIRONMENTAL

R3486

NUMBER OF COOLERS 5

CHAIN OF CUSTODY NUMBER: 20

PAGE NUMBER: 1 OF 1

CUSTOMER INFORMATION

Company: Baker Environmental
Project Number: 26007-143-0000-05200
Address: 100 Airside Business Park
100 Airside Drive
Moon Twp, PA 15108
Phone: 1-800-553-1153
Fax: (412)269-2002

Project Name: MCB Camp Lejeune, RCRA
Address: Lot 203, Piney Green Road
Camp Lejeune, NC 28542
Contact: Michelle Joy
Phone Number: (412)269-6135
Fax Number: (412)269-6100

	Sample Identification	Matrix	Sample Date	Sample Time	Number of Containers	TCL VOCs (OLMO 4.2)	TCL SVOCs (OLMO 4.2)	TCL Pesticides (OLMO 4.2)	RCRA Metals (ILMO 4.1)		TCLP VOCs	TCLP SVOCs	TCLP Pesticides	TCLP Metals							COMMENTS/ PRECAUTIONS
1	SWMU360-MW03	GW	7 22 03	1535	5	X		X	X												
2	SWMU360-MW03W	GW	7 22 03	1550	5	X		X	X												
3	SWMU360-MW01	GW	7 23 03	1320	5	X		X	X												
4	SWMU360-MW05	GW	7 22 03	1040	5	X		X	X												
5	SWMU360-MW06	GW	7 22 03	1030	5	X		X	X												
6	SWMU360-MW07	GW	7 22 03	1355	7	X	X	X	X												
7	SWMU360-MW08	GW	7 22 03	1345	5	X		X	X												
8	SWMU43-MW01	GW	7 23 03	0955	2			X	X												
9,10	SWMU43-MW01 MS MSD	GW	7 23 03	0955	6			X	X												
11	SWMU43-MW02	GW	7 23 03	1105	2			X	X												
12	SWMU43-MW02D	GW	7 23 03	1105	2			X	X												
13	SWMU43-MW03	GW	7 23 03	0925	2			X	X												
14	SWMU43-MW01	GW	7 23 03	0855	2			X	X												
15	SWMU314-MW04	GW	7 21 03	1145	2				X												
16	TB09	LB	7 23 03	XX	3	X															ONLY ONE ANALYSIS, CON AUD IS THE ONE BOTTLE

Matrix: A - Air, SS - Surface Soil, SW - Surface Water, GW - Groundwater, SO - SubSurface Soil, W - Waste, LB - Lab Supplied Water (Trip or Field Blank)

NOTES: Any Questions, please call Rob Sok @ 412-897-1934

FED EX TRACKING NUMBER: 8390-3018-3964

1.) Relinquished By: Robert AL Sok II		2.) Relinquished By:		SPECIAL INSTRUCTIONS
Signature:	Date: 7/23/03	Signature:	Date:	
Company: Baker Environmental	Time: 1700	Company:	Time:	
1.) Received By: Kandesh Shah		2.) Received By:		
Signature: Kandesh	Date: 7/24/03	Signature:	Date:	
Company:	Time: 9:35	Company:	Time:	

BAKER ENVIRONMENTAL

R3521

NUMBER OF COOLERS 3

CHAIN OF CUSTODY NUMBER: 21 PAGE NUMBER: 1 OF 1

CUSTOMER INFORMATION

Company: Baker Environmental
Project Number: 26607-143-0000-05200
Address: 100 Airside Business Park
100 Airside Drive
Moon Twp, PA 15108
Phone: 1-800-553-1153
Fax: (412)269-2002

Project Name: MCB Camp Lejeune RCRA
Address Lot 203 Piney Green Road
Camp Lejeune, NC 28542
Contact: Michelle Joy
Phone Number: (412)269-6135
Fax Number: (412)269-6160

	Sample Identification	Matrix	Sample Date	Sample Time	Number of Containers	TCL VOCs (OLMO 4.2)	TCL SVOCs (OLMO 4.2)	TCL Pesticides (OLMO 4.2)	RCRA Metals (ILMO 4.1)		TCLP VOCs	TCLP SVOCs	TCLP Pesticides	TCLP Metals							COMMENTS/ PRECAUTIONS
1	SWMU360-MW01	GW	7 24 03	1130	7	X	X	X	X												SVOC (ccc method)
2	SWMU360-MW01D	GW	7 24 03	1130	5	X		X	X												
3	SWMU360-MW01IW	GW	7 24 03	1230	5	X		X	X												
4,5	SWMU360-MW01IW MS MSD	GW	7 24 03	1230	10	X		X	X												
6	SWMU360-MW02	GW	7 24 03	0950	7	X	X	X	X												SVOC (ccc method)
7	SWMU360-MW02IW	GW	7 24 03	1035	5	X		X	X												
8	1817-MW01	GW	7 24 03	1235	5	X		X	X												
9	ER09	LB	7 23 03	1650	7	X	X	X	X												SVOC (ccc method)
10	TB10	LB	7 24 03		3	X															

Matrix: A - Air, SS - Surface Soil, SW - Surface Water, GW - Groundwater, SO - SubSurface Soil, W - Waste, LB - Lab Supplied Water (Trip or Field Blank)

NOTES: Any Questions, call Rob Sak (412) 897-1934

FED EX TRACKING NUMBER: 8390-3018-3975

1.) Relinquished By: Robert M. Sak II		2.) Relinquished By:		SPECIAL INSTRUCTIONS
Signature	Date 7/24/03	Signature	Date	
Company Baker Environmental	Time 1700	Company	Time	
1.) Received By:		2.) Received By:		
Signature FedEx	Date 7/25/03	Signature Sammy Parker	Date 7/25/03	
Company FedEx	Time 9:45	Company Chemtech	Time 9:45	Temp 4°C

APPENDIX D
WELL PARAMETERS

APPENDIX D

SUMMARY OF GROUNDWATER SAMPLING FIELD PARAMETERS
SWMU 43
RCRA PHASE II CONFIRMATORY SAMPLING INVESTIGATION, CTO - 143
MCB, CAMP LEJEUNE, NORTH CAROLINA

Well Number	Sampling Date	Well Depth (ft)[1]	Depth to Water (ft)[1]	Purge Volume (gal)	Field Parameters					
					Well Volume	Specific Cond.[2] (ms/cm)	pH (SU)[3]	Temp. (deg. C)	Dissolved Oxygen (mg/l)	Turbidity (NTU)[4]
SWMU 43-TW01	4/8/02	20.5	16.1	0.18	1	0.105	4.95	17.1	2.81	120.0
					2	0.104	4.90	17.1	2.93	82.0
					3	0.098	4.92	17.1	2.66	53.0
					4	0.099	4.81	17.1	2.56	14.0
					5	0.098	4.93	17.1	2.46	8.2
					6	***0.099***	***4.89***	***17.1***	***2.51***	***6.0***
SWMU 43-TW02	4/9/02	19.7	16.45	0.13	1	0.177	5.55	18.5	2.79	112.0
					2	0.171	5.49	18.3	2.94	21.3
					3	0.162	5.42	18.2	2.91	11.4
					4	***0.153***	***5.37***	***18.1***	***2.98***	***7.2***
SWMU 43-TW03	4/8/02	21.8	16.58	0.21	1	0.304	5.47	17.4	2.59	520.0
					2	0.267	5.27	16.8	2.99	380.0
					3	0.243	5.15	17.0	3.29	140.0
					4	0.241	5.14	17.0	3.24	110.0
					5	0.243	5.14	17.0	3.28	83.0
					6	***0.241***	***5.13***	***17.0***	***3.24***	45.0
					7	NR	NR	NR	NR	26.0
					8	NR	NR	NR	NR	12.0
					9	NR	NR	NR	NR	***8.4***

Notes:

[1] - Measured from top of PVC Casing

[2] - Specific Conductance at 25 deg. C

[3] - SU = Standard Units

[4] - NTU = Nephelometric Turbidity Units

The bold and italicized parameters where taken immediately prior to sampling the well.

NR= Readings were not taken because these parameters were stable.

>1100 indicates that turbidity was outside of meter's range of detection

APPENDIX D

SUMMARY OF GROUNDWATER SAMPLING FIELD PARAMETERS
SWMU 46
RCRA PHASE II CONFIRMATORY SAMPLING INVESTIGATION, CTO - 143
MCB, CAMP LEJEUNE, NORTH CAROLINA

Well Number	Sampling Date	Well Depth (ft)[1]	Depth to Water (ft)[1]	Purge Volume (gal)	Field Parameters					
					Well Volume	Specific Cond.[2] (ms/cm)	pH (SU)[3]	Temp. (deg. C)	Dissolved Oxygen (mg/l)	Turbidity (NTU)[4]
SWMU 46-TW01	4/6/02	16.55	11.6	0.2	1	0.691	6.39	16.8	1.09	>1100
					2	0.680	6.33	16.0	0.96	340.0
					3	0.678	6.32	15.9	0.97	160.0
					4	0.677	6.33	15.9	0.96	160.0
					5	0.676	6.32	16.0	0.99	91.0
					6	***0.676***	***6.33***	***16.0***	***1.00***	80.0
					7	NR	NR	NR	NR	65.0
					8	NR	NR	NR	NR	45.0
					9	NR	NR	NR	NR	***45.0***
SWMU 46-TW02	4/6/02	15.93	11	0.2	1	0.525	5.74	15.3	1.37	210.0
					2	0.514	5.83	15.9	0.87	150.0
					3	0.492	5.84	16.1	0.85	75.0
					4	0.482	5.83	16.1	0.81	45.0
					5	0.484	5.81	16.1	0.81	28.0
					6	***0.476***	***5.77***	***16.1***	***0.50***	19.0
					7	NR	NR	NR	NR	***8.9***
SWMU 46-TW03	4/6/02	16.8	11.33	0.25	2	0.613	5.83	15.8	0.23	>1100
					3	0.616	5.86	15.8	0.21	533.0
					4	0.608	5.88	15.8	0.37	269.0
					5	0.611	5.89	15.9	0.18	192.0
					6	0.614	5.9	15.8	0.23	158.0
					7	0.613	5.91	15.9	0.43	127.0
					8	0.612	5.92	15.8	0.43	95.0
					9	0.616	5.92	15.9	0.32	77.0
					10	***0.621***	***5.92***	***15.9***	***0.28***	***57.0***

APPENDIX D

SUMMARY OF GROUNDWATER SAMPLING FIELD PARAMETERS
SWMU 46
RCRA PHASE II CONFIRMATORY SAMPLING INVESTIGATION, CTO - 143
MCB, CAMP LEJEUNE, NORTH CAROLINA

Well Number	Sampling Date	Well Depth (ft)[1]	Depth to Water (ft)[1]	Purge Volume (gal)	Field Parameters					
					Well Volume	Specific Cond.[2] (ms/cm)	pH (SU)[3]	Temp. (deg. C)	Dissolved Oxygen (mg/l)	Turbidity (NTU)[4]
SWMU 46-TW04	4/6/02	16.96	11.28	0.25	1	0.127	5.03	16.3	0.49	862.0
					2	0.130	5.04	16.1	0.48	476.0
					3	0.131	5.04	16.2	0.51	359.0
					4	0.131	5.03	16.3	0.55	297.0
					5	0.129	5	16.3	0.57	181.0
					6	0.127	4.92	16.3	0.62	44.0
					7	0.126	4.91	16.2	0.72	84.0
					8	0.126	4.93	16.3	0.64	294.0
					9	***0.127***	***4.93***	***16.3***	***0.68***	***64.0***
SWMU 46-TW05	4/6/02	16	10.62	0.25	2	0.094	4.40	15.4	3.99	>1100
					4	0.097	4.37	15.5	3.90	>1100
					5	0.094	4.44	15.4	3.80	1057.0
					6	0.094	4.46	15.4	3.90	504.0
					8	0.093	4.48	15.4	3.60	245.0
					10	0.093	4.43	15.4	3.80	101.0
					12	***0.095***	***4.37***	***15.5***	***3.80***	***57.0***
SWMU 46-TW06	4/6/02	16.1	10.32	0.24	1	0.089	4.72	14.8	5.62	>1000
					2	0.086	4.42	14.5	3.63	>1100
					3	0.086	4.02	14.9	3.72	>1100
					4	0.086	4.03	15.0	2.55	>1100
					5	0.086	4.03	15.1	2.48	>1100
					6	0.086	4.01	15.1	2.63	>1100
					7	0.086	4.01	15.1	2.97	>1100
					8	***0.086***	***4.02***	***15.1***	***2.61***	>1100
					9	NR	NR	NR	NR	***900.0***

Notes:

[1] - Measured from top of PVC Casing

[2] - Specific Conductance at 25 deg. C

[3] - SU = Standard Units

[4] - NTU = Nephelometric Turbidity Units

The bold and italicized parameters where taken immediately prior to sampling the well.

NR= Readings were not taken because these parameters were stable.

>1100 indicates that turbidity was outside of meter's range of detection

APPENDIX D

SUMMARY OF GROUNDWATER SAMPLING FIELD PARAMETERS
SWMU 53
RCRA PHASE II CONFIRMATORY SAMPLING INVESTIGATION, CTO - 143
MCB, CAMP LEJEUNE, NORTH CAROLINA

Well Number	Sampling Date	Well Depth (ft)[1]	Depth to Water (ft)[1]	Purge Volume (gal)	Field Parameters					
					Well Volume	Specific Cond.[2] (ms/cm)	pH (SU)[3]	Temp. (deg. C)	Dissolved Oxygen (mg/l)	Turbidity (NTU)[4]
SWMU 53-TW01	4/4/02	14.6	3.71	0.4	1	0.591	5.22	17.0	0.90	5.9
					2	0.560	5.12	17.2	0.90	5.0
					3	0.559	5.09	17.0	0.50	15.5
					4	0.573	5.1	17.1	0.60	10.5
					5	0.586	5.09	17.1	0.60	20.3
					6	***0.566***	***5.06***	***17.0***	***0.60***	***26.0***
SWMU 53-TW02	4/4/02	15.46	4.66	0.4	1	0.128	5.41	15.5	1.80	666.0
					2	0.140	5.47	15.7	1.70	403.0
					3	0.146	5.51	15.7	1.00	327.0
					4	0.147	5.51	15.7	1.50	202.0
					5	0.148	5.53	15.8	1.40	121.0
					6	***0.139***	***5.46***	***15.9***	***1.60***	***562.0***

Notes:

[1] - Measured from top of PVC Casing

[2] - Specific Conductance at 25 deg. C

[3] - SU = Standard Units

[4] - NTU = Nephelometric Turbidity Units

The bold and italicized parameters where taken immediately prior to sampling the well.

APPENDIX D

SUMMARY OF GROUNDWATER SAMPLING FIELD PARAMETERS
SWMU 253
RCRA PHASE II CONFIRMATORY SAMPLING INVESTIGATION, CTO - 143
MCB, CAMP LEJEUNE, NORTH CAROLINA

Well Number	Sampling Date	Well Depth (ft)[1]	Depth to Water (ft)[1]	Purge Volume (gal)	Field Parameters					
					Well Volume	Specific Cond.[2] (ms/cm)	pH (SU)[3]	Temp. (deg. C)	Dissolved Oxygen (mg/l)	Turbidity (NTU)[4]
SWMU 253-TW01	4/5/02	19	10.92	0.33	1	0.111	5.39	17.6	4.87	>1100
					2	0.106	5.01	17.6	4.81	>1000
					3	0.106	4.98	17.9	4.05	>1100
					4	0.106	4.97	17.9	4.32	294.0
					5	0.106	4.96	17.9	4.17	99.3
					6	***0.106***	***4.97***	***17.9***	***4.15***	41.8
					7	NR	NR	NR	NR	***28.7***
SWMU 253-TW02	4/5/02	18	10.56	0.3	1	0.171	5.51	16.3	4.09	>1100
					2	0.232	5.99	17.0	3.59	>1000
					3	0.230	6.02	17.0	3.71	>1000
					4	0.218	5.96	16.6	3.70	533.0
					5	0.223	6.01	16.6	3.78	98.1
					6	0.229	6.04	16.2	2.96	45.8
					7	0.229	6.05	16.2	2.89	36.5
					8	***0.229***	***6.04***	***16.2***	***2.82***	***15.2***
SWMU 253-TW03	4/5/02	19	10.75	0.34	1	0.22	6.39	17.7	4.70	>1100
					2	0.22	6.36	17.85	4.87	>1100
					3	0.217	6.35	18.03	4.22	935.0
					4	0.216	6.32	18.15	3.76	572.0
					5	0.213	6.33	17.98	3.67	255.0
					6	0.213	6.32	17.96	3.68	203.0
					7	0.213	6.3	17.94	3.64	201.0
					8	***0.212***	***6.28***	***18.06***	***3.25***	***205.0***

Notes:

[1] - Measured from top of PVC Casing

[2] - Specific Conductance at 25 deg. C

[3] - SU = Standard Units

[4] - NTU = Nephelometric Turbidity Units

The bold and italicized parameters where taken immediately prior to sampling the well.

NR= Readings were not taken because these parameters were stable.

>1100 indicates that turbidity was outside of meter's range of detection

APPENDIX D

SUMMARY OF GROUNDWATER SAMPLING FIELD PARAMETERS
SWMU 254
RCRA PHASE II CONFIRMATORY SAMPLING INVESTIGATION, CTO - 143
MCB, CAMP LEJEUNE, NORTH CAROLINA

Well Number	Sampling Date	Well Depth (ft)[1]	Depth to Water (ft)[1]	Purge Volume (gal)	Field Parameters					
					Well Volume	Specific Cond.[2] (ms/cm)	pH (SU)[3]	Temp. (deg. C)	Dissolved Oxygen (mg/l)	Turbidity (NTU)[4]
SWMU 254-TW01	4/4/02	17.93	9.35	0.33	1	0.216	6.04	17.3	3.20	>1100
					2	0.239	6.02	17.8	2.60	>1100
					3	0.251	5.98	18.0	2.60	>1100
					4	0.259	5.98	18.1	2.20	679.0
					5	0.264	5.93	17.9	2.00	307.0
					6	0.265	5.91	18.1	2.10	215.0
					7	***0.266***	***5.92***	***18.1***	***2.10***	134.0
					8	NR	NR	NR	NR	***97.0***
SWMU 254-TW02	4/4/02	17.8	9.05	0.33	1	0.469	6.85	17.1	0.64	>1100
					2	0.450	6.76	17.4	0.54	>1100
					3	0.542	6.75	17.4	0.42	>1000
					4	0.441	6.75	17.4	0.63	603.0
					5	0.441	6.7	17.4	0.54	506.0
					6	***0.440***	***6.71***	***17.4***	***0.66***	***455.0***
SWMU 254-TW03	4/4/02	17.8	9.48	0.34	1	0.478	6.65	17.84	0.56	>1100
					2	0.468	6.54	17.71	0.56	>1100
					3	0.469	6.54	17.72	0.44	725.0
					4	0.464	6.49	17.76	0.56	679.0
					5	0.457	6.46	17.97	0.60	438.0
					6	***0.457***	***6.48***	***17.98***	***0.41***	***267.0***

Notes:

[1] - Measured from top of PVC Casing

[2] - Specific Conductance at 25 deg. C

[3] - SU = Standard Units

[4] - NTU = Nephelometric Turbidity Units

The bold and italicized parameters where taken immediately prior to sampling the well.

NR= Readings were not taken because these parameters were stable.

>1100 indicates that turbidity was outside of meter's range of detection

APPENDIX D

SUMMARY OF GROUNDWATER SAMPLING FIELD PARAMETERS
SWMU 255
RCRA PHASE II CONFIRMATORY SAMPLING INVESTIGATION, CTO - 143
MCB, CAMP LEJEUNE, NORTH CAROLINA

Well Number	Sampling Date	Well Depth (ft)[1]	Depth to Water (ft)[1]	Purge Volume (gal)	Field Parameters					
					Well Volume	Specific Cond.[2] (ms/cm)	pH (SU)[3]	Temp. (deg. C)	Dissolved Oxygen (mg/l)	Turbidity (NTU)[4]
SWMU 255-TW01	4/5/02	17.89	9.48	0.33	1	0.280	5.25	18.6	1.30	246.0
					2	0.279	5.38	18.6	1.30	67.0
					3	2.720	5.43	18.1	1.20	59.7
					5	0.267	5.45	18.4	1.40	48.4
					7	0.270	5.46	18.5	1.30	74.7
					9	***0.274***	***5.46***	***17.9***	***1.30***	***67.7***

Notes:

[1] - Measured from top of PVC Casing

[2] - Specific Conductance at 25 deg. C

[3] - SU = Standard Units

[4] - NTU = Nephelometric Turbidity Units

The bold and italicized parameters where taken immediately prior to sampling the well.

APPENDIX D

SUMMARY OF GROUNDWATER SAMPLING FIELD PARAMETERS
SWMU 256
RCRA PHASE II CONFIRMATORY SAMPLING INVESTIGATION, CTO - 143
MCB, CAMP LEJEUNE, NORTH CAROLINA

Well Number	Sampling Date	Well Depth (ft)[1]	Depth to Water (ft)[1]	Purge Volume (gal)	Field Parameters					
					Well Volume	Specific Cond.[2] (ms/cm)	pH (SU)[3]	Temp. (deg. C)	Dissolved Oxygen (mg/l)	Turbidity (NTU)[4]
SWMU 256-TW01	4/4/02	14.88	5.2	0.4	1	1.488	6.24	15.9	1.60	92.0
					2	1.510	6.25	16.5	1.90	51.0
					3	1.426	6.27	16.5	1.50	177.0
					4	1.383	6.27	16.4	2.50	203.0
					5	1.340	6.27	16.1	1.50	52.0
					6	***1.344***	***6.29***	***16.0***	***2.40***	***16.0***
SWMU 256-TW02	4/4/02	16.21	7.65	0.34	1	0.612	6.13	17.2	1.90	4.9
					2	0.596	6.07	17.5	1.80	4.0
					3	0.575	6.03	17.1	1.80	1.4
					4	0.619	5.8	16.4	2.00	3.6
					5	***0.579***	***6.07***	***17.1***	***1.50***	***1.3***
SWMU 256-TW03	4/4/02	14.65	4.15	0.43	1	1.710	6.07	17.6	0.57	90.0
					2	1.688	6.24	17.6	0.49	29.0
					3	1.696	6.25	17.6	0.64	13.0
					4	1.698	6.24	17.6	0.62	3.0
					5	***1.692***	***6.21***	***17.7***	***0.69***	***2.0***
SWMU 256-TW04	4/4/02	14.42	8.56	0.24	1	1.615	6.36	16.55	2.00	20.0
					2	1.597	6.29	16.65	1.69	5.0
					3	1.584	6.27	16.66	1.68	4.8
					4	1.522	6.23	16.76	1.66	3.2
					5	***1.521***	***6.22***	***16.78***	***1.69***	***3.0***

Notes:

[1] - Measured from top of PVC Casing

[2] - Specific Conductance at 25 deg. C

[3] - SU = Standard Units

[4] - NTU = Nephelometric Turbidity Units

The bold and italicized parameters where taken immediately prior to sampling the well.

APPENDIX D

SUMMARY OF GROUNDWATER SAMPLING FIELD PARAMETERS
SWMU 258
RCRA PHASE II CONFIRMATORY SAMPLING INVESTIGATION, CTO - 143
MCB, CAMP LEJEUNE, NORTH CAROLINA

Well Number	Sampling Date	Well Depth (ft)[1]	Depth to Water (ft)[1]	Purge Volume (gal)	Field Parameters					
					Well Volume	Specific Cond.[2] (ms/cm)	pH (SU)[3]	Temp. (deg. C)	Dissolved Oxygen (mg/l)	Turbidity (NTU)[4]
SWMU 258-TW01	4/6/02	13.1	3.04	0.4	1	0.568	6.62	17.9	0.14	39.1
					2	0.568	6.66	17.8	0.09	21.7
					3	0.565	6.68	17.8	0.08	13.1
					4	***0.562***	***6.68***	***17.8***	***0.08***	***9.5***
SWMU 258-TW02	4/6/02	12.9	3.1	0.4	1	0.522	6.68	17.4	0.35	>1100
					2	0.540	6.66	17.4	0.34	120.0
					3	0.535	6.55	17.2	0.33	24.0
					4	***0.533***	***6.61***	***17.3***	***0.30***	***10.2***
SWMU 258-TW03	4/6/02	12.95	3.25	0.4	1	0.465	6.98	17.4	0.37	>1100
					2	0.468	6.76	17.3	0.31	900.0
					3	0.476	6.75	17.4	0.36	400.0
					4	0.476	6.68	17.3	0.16	350.0
					5	0.477	6.68	17.4	0.13	400.0
					6	***0.479***	***6.68***	***17.3***	***0.13***	320.0
					7	NR	NR	NR	NR	280.0
					8	NR	NR	NR	NR	***390.0***

Notes:

[1] - Measured from top of PVC Casing

[2] - Specific Conductance at 25 deg. C

[3] - SU = Standard Units

[4] - NTU = Nephelometric Turbidity Units

The bold and italicized parameters where taken immediately prior to sampling the well.

NR= Readings were not taken because these parameters were stable.

>1100 indicates that turbidity was outside of meter's range of detection

APPENDIX D

SUMMARY OF GROUNDWATER SAMPLING FIELD PARAMETERS
SWMU 261
RCRA PHASE II CONFIRMATORY SAMPLING INVESTIGATION, CTO - 143
MCB, CAMP LEJEUNE, NORTH CAROLINA

Well Number	Sampling Date	Well Depth (ft)[1]	Depth to Water (ft)[1]	Purge Volume (gal)	Field Parameters					
					Well Volume	Specific Cond.[2] (ms/cm)	pH (SU)[3]	Temp. (deg. C)	Dissolved Oxygen (mg/l)	Turbidity (NTU)[4]
SWMU 261-TW01	4/8/02	20	14.9	0.2	1	0.062	5.61	22.7	1.56	>1100
					2	0.057	5.50	22.5	0.91	>1100
					3	0.056	5.47	22.5	0.80	>1100
					4	0.054	5.43	20.5	0.72	>1100
					5	0.053	5.41	22.5	0.59	>1100
					6	0.052	5.40	22.5	0.57	>1100
					7	0.051	5.39	22.5	0.58	>1100
					8	***0.051***	***5.38***	***22.5***	***0.56***	***>1100***
SWMU 261-TW02	4/8/02	12	10.8	0.1	1	0.105	5.47	17.2	0.28	>1100
					2	0.104	5.46	17.1	0.20	>1100
					3	0.103	5.46	17.1	0.13	>1100
					4	0.102	5.44	17.1	0.22	>1100
					5	0.101	5.42	17.0	0.15	>1100
					6	***0.100***	***5.14***	***17.1***	***0.40***	***>1100***
SWMU 261-TW03	4/8/02	12.18	10.5	0.1	1	0.130	5.71	15.4	0.90	>1100
					2	0.126	5.67	15.4	0.85	951.0
					3	0.112	5.60	15.5	0.33	309.0
					4	0.114	5.60	15.5	0.31	135.0
					5	0.115	5.59	15.45	0.35	***106.8***
					6	***0.117***	***5.59***	***15.5***	***0.38***	NR

APPENDIX D

SUMMARY OF GROUNDWATER SAMPLING FIELD PARAMETERS
SWMU 261
RCRA PHASE II CONFIRMATORY SAMPLING INVESTIGATION, CTO - 143
MCB, CAMP LEJEUNE, NORTH CAROLINA

Well Number	Sampling Date	Well Depth (ft)[1]	Depth to Water (ft)[1]	Purge Volume (gal)	Field Parameters					
					Well Volume	Specific Cond.[2] (ms/cm)	pH (SU)[3]	Temp. (deg. C)	Dissolved Oxygen (mg/l)	Turbidity (NTU)[4]
SWMU 261-TW04	4/8/02	12	3.4	0.37	1	0.035	5.96	24.5	2.39	122.0
					2	0.035	6.10	25.7	1.44	70.9
					3	0.035	6.13	25.9	1.49	63.0
					4	0.035	6.15	26.1	1.82	35.1
					5	0.035	6.16	26.2	2.00	20.8
					6	***0.035***	***6.15***	***26.1***	***1.92***	***10.9***

Notes:

[1] - Measured from top of PVC Casing

[2] - Specific Conductance at 25 deg. C

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The bold and italicized parameters where taken immediately prior to sampling the well.

NR= Readings were not taken because these parameters were stable.

>1100 indicates that turbidity was outside of meter's range of detection

APPENDIX D

SUMMARY OF GROUNDWATER SAMPLING FIELD PARAMETERS
SWMU 264
RCRA PHASE II CONFIRMATORY SAMPLING INVESTIGATION, CTO - 143
MCB, CAMP LEJEUNE, NORTH CAROLINA

Well Number	Sampling Date	Well Depth (ft)[1]	Depth to Water (ft)[1]	Purge Volume (gal)	Field Parameters					
					Well Volume	Specific Cond.[2] (ms/cm)	pH (SU)[3]	Temp. (deg. C)	Dissolved Oxygen (mg/l)	Turbidity (NTU)[4]
SWMU 264-TW01	4/7/02	16.02	9.85	0.25	1	0.112	5.41	18.6	0.41	3.8
					2	0.094	5.12	18.7	0.23	3.0
					3	0.088	4.93	18.8	0.14	4.4
					4	0.084	4.91	18.9	0.19	3.5
					5	***0.081***	***4.93***	***18.9***	***0.20***	***2.6***
SWMU 264-TW02	4/7/02	16.01	10.41	0.25	1	0.087	4.80	17.9	1.50	92.0
					2	0.082	4.78	18.0	1.30	68.0
					3	0.076	4.87	18.0	1.10	45.4
					4	0.071	4.84	18.0	1.70	25.8
					5	0.068	4.72	18.2	0.50	37.8
					6	***0.068***	***4.73***	***18.1***	***0.80***	***31.4***
SWMU 264-TW03	4/7/02	14.1	9.49	0.2	1	0.102	5.32	17.8	0.18	7.4
					2	0.108	5.43	17.9	0.11	3.6
					3	0.121	5.5	17.9	0.10	5.9
					4	0.161	5.75	18.3	0.10	3.8
					5	0.161	5.76	18.3	0.08	2.1
					6	***0.153***	***5.72***	***18.4***	***0.09***	***2.4***

Notes:

[1] - Measured from top of PVC Casing

[2] - Specific Conductance at 25 deg. C

[3] - SU = Standard Units

[4] - NTU = Nephelometric Turbidity Units

The bold and italicized parameters where taken immediately prior to sampling the well.

APPENDIX D

SUMMARY OF GROUNDWATER SAMPLING FIELD PARAMETERS
SWMU 265
RCRA PHASE II CONFIRMATORY SAMPLING INVESTIGATION, CTO - 143
MCB, CAMP LEJEUNE, NORTH CAROLINA

Well Number	Sampling Date	Well Depth (ft)[1]	Depth to Water (ft)[1]	Purge Volume (gal)	Field Parameters					
					Well Volume	Specific Cond.[2] (ms/cm)	pH (SU)[3]	Temp. (deg. C)	Dissolved Oxygen (mg/l)	Turbidity (NTU)[4]
SWMU 265-TW01	4/7/02	16.12	10.76	0.22	1	0.192	5.24	20.2	0.51	180.0
					2	0.187	5.22	20.4	0.55	75.0
					3	0.186	5.23	20.4	0.48	50.0
					4	0.181	5.15	20.3	0.72	34.0
					5	0.180	5.18	20.4	0.72	20.0
					6	***0.178***	***5.19***	***20.4***	***0.74***	***10.0***
SWMU 265-TW02	4/7/02	16.3	10.57	0.23	1	0.293	4.23	19.4	1.18	260.0
					2	0.293	4.22	19.5	1.00	60.0
					3	0.294	4.20	19.7	0.75	40.0
					4	0.286	4.21	19.8	1.10	21.3
					5	0.285	4.20	19.9	1.13	15.1
					6	***0.282***	***4.19***	***19.9***	***1.09***	***10.2***
SWMU 265-TW03	4/7/02	16.4	11	0.22	1	0.212	5.09	18.2	0.51	>1100
					2	0.208	5.04	18.2	0.33	260.0
					3	0.203	4.99	18.2	0.28	170.0
					4	0.2	5	18.3	0.24	120.0
					5	0.198	5	18.32	0.27	118.0
					6	***0.198***	***4.99***	***18.36***	***0.25***	120.0
					7	NR	NR	NR	NR	***110.0***

Notes:

[1] - Measured from top of PVC Casing

[2] - Specific Conductance at 25 deg. C

[3] - SU = Standard Units

[4] - NTU = Nephelometric Turbidity Units

The bold and italicized parameters where taken immediately prior to sampling the well.

NR= Readings were not taken because these parameters were stable.

>1100 indicates that turbidity was outside of meter's range of detection

APPENDIX D

SUMMARY OF GROUNDWATER SAMPLING FIELD PARAMETERS
SWMU 269
RCRA PHASE II CONFIRMATORY SAMPLING INVESTIGATION, CTO - 143
MCB, CAMP LEJEUNE, NORTH CAROLINA

Well Number	Sampling Date	Well Depth (ft)[1]	Depth to Water (ft)[1]	Purge Volume (gal)	Field Parameters					
					Well Volume	Specific Cond.[2] (ms/cm)	pH (SU)[3]	Temp. (deg. C)	Dissolved Oxygen (mg/l)	Turbidity (NTU)[4]
SWMU 269-TW01	4/7/02	20.1	16.68	0.1	1	0.372	5.77	18.7	0.19	>1100
					2	0.353	5.71	18.7	0.13	1093.0
					3	0.346	5.76	18.5	0.15	503.0
					4	0.333	5.75	18.6	0.11	253.0
					5	0.320	5.75	18.6	0.16	37.1
					6	***0.317***	***5.75***	***18.7***	***0.13***	***20.8***
SWMU 269-TW02	4/7/02	19.95	16.16	0.2	2	0.210	5.43	18.8	0.22	>1100
					3	0.193	5.36	18.7	0.19	>1100
					5	0.164	5.23	18.8	0.17	780.0
					7	0.149	5.13	18.7	0.15	275.0
					8	0.144	5.07	18.7	0.15	71.4
					10	0.140	5.05	18.7	0.15	35.5
					12	***1.133***	***4.98***	***18.7***	***0.16***	***20.5***
SWMU 269-TW03	4/7/02	18.76	15.64	0.1	2	0.247	5.53	18.1	2.10	264.0
					5	***0.226***	***5.48***	***18.0***	***2.10***	99.0
					8	NR	NR	NR	NR	77.7
					10	NR	NR	NR	NR	***47.4***

Notes:

[1] - Measured from top of PVC Casing

[2] - Specific Conductance at 25 deg. C

[3] - SU = Standard Units

[4] - NTU = Nephelometric Turbidity Units

The bold and italicized parameters where taken immediately prior to sampling the well.

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>1100 indicates that turbidity was outside of meter's range of detection

APPENDIX D

SUMMARY OF GROUNDWATER SAMPLING FIELD PARAMETERS
SWMU 272
RCRA PHASE II CONFRIMATORY SAMPLING INVESTIGATION, CTO - 143
MCB, CAMP LEJEUNE, NORTH CAROLINA

Well Number	Sampling Date	Well Depth (ft)[1]	Depth to Water (ft)[1]	Purge Volume (gal)	Field Parameters					
					Well Volume	Specific Cond.[2] (ms/cm)	pH (SU)[3]	Temp. (deg. C)	Dissolved Oxygen (mg/l)	Turbidity (NTU)[4]
SWMU 272-TW01	4/3/02	14.38	2.39	0.49	1	0.488	6.33	19.4	0.16	615.0
					2	0.477	6.3	18.9	0.65	490.0
					3	0.466	6.25	18.7	0.54	105.5
					4	0.446	6.2	18.8	0.52	86.3
					5	0.432	6.16	18.9	0.45	76.4
					6	0.427	6.16	18.8	0.65	27.9
					7	***0.423***	***6.14***	***18.9***	***0.74***	***25.9***
SWMU 272-MW09	4/3/02	18.45	5.52	2.1	1	0.412	5.71	18.6	0.82	14.9
					2	0.375	5.59	18.0	0.86	10.9
					3	0.416	5.69	18.4	0.65	7.0
					4	***0.413***	***5.76***	***18.8***	***0.65***	***7.7***
SWMU 272-TW03	4/2/02	15.1	2.24	0.52	1	1.125	6.38	17.2	0.81	861.0
					2	1.129	6.31	17.2	0.70	515.0
					3	1.128	6.36	17.1	0.48	249.0
					4	1.125	6.32	17.2	0.38	1111.0
					5	1.116	6.36	17.4	0.51	87.5
					6	***1.11***	***6.37***	***17.4***	***0.43***	***48.0***

Notes:

[1] - Measured from top of PVC Casing

[2] - Specific Conductance at 25 deg. C

[3] - SU = Standard Units

[4] - NTU = Nephelometric Turbidity Units

The bold and italicized parameters where taken immediately prior to sampling the well.

APPENDIX D

SUMMARY OF GROUNDWATER SAMPLING FIELD PARAMETERS
SWMU 279
RCRA PHASE II CONFIRMATORY SAMPLING INVESTIGATION, CTO - 143
MCB, CAMP LEJEUNE, NORTH CAROLINA

Well Number	Sampling Date	Well Depth (ft)[1]	Depth to Water (ft)[1]	Purge Volume (gal)	Field Parameters					
					Well Volume	Specific Cond.[2] (ms/cm)	pH (SU)[3]	Temp. (deg. C)	Dissolved Oxygen (mg/l)	Turbidity (NTU)[4]
SWMU 279-TW01	4/5/02	14.8	7.91	0.28	1	0.582	6.06	17.7	1.50	>1100
					2	0.322	5.57	17.3	1.30	>1100
					4	0.253	5.33	17.2	1.10	>1100
					5	0.224	5.23	17.2	1.10	>1100
					7	0.213	5.12	17.2	1.10	>1100
					8	0.207	5.09	17.1	1.40	>1100
					10	***0.201***	***5.15***	***17.1***	***1.50***	***524.0***
SWMU 279-TW02	4/5/02	14.05	8.09	0.25	1	0.391	5.56	18.1	1.80	>1100
					2	0.357	5.37	16.4	1.70	>1100
					4	0.330	5.21	16.4	1.40	>1100
					6	0.310	5.17	16.3	1.40	>1100
					8	0.303	5.21	16.6	1.40	587.0
					9	0.296	5.14	16.5	1.40	374.0
					10	***0.289***	***5.09***	***16.2***	***1.50***	***258.0***
SWMU 279-TW03	4/5/02	14.9	8.17	0.28	1	1.269	5.92	17	2.10	>1100
					2	1.252	5.91	16.4	1.80	>1100
					3	1.229	5.9	16.5	1.80	>1100
					4	1.194	5.95	16.5	1.60	>1100
					5	1.166	5.91	16.3	1.70	1091.0
					6	***1.119***	***5.89***	***16.4***	***1.80***	***921.0***

Notes:

[1] - Measured from top of PVC Casing

[2] - Specific Conductance at 25 deg. C

[3] - SU = Standard Units

[4] - NTU = Nephelometric Turbidity Units

The bold and italicized parameters where taken immediately prior to sampling the well.

>1100 indicates that turbidity was outside of meter's range of detection

APPENDIX D

SUMMARY OF GROUNDWATER SAMPLING FIELD PARAMETERS
SWMU 285
RCRA PHASE II CONFIRMATORY SAMPLING INVESTIGATION, CTO - 143
MCB, CAMP LEJEUNE, NORTH CAROLINA

Well Number	Sampling Date	Well Depth (ft)[1]	Depth to Water (ft)[1]	Purge Volume (gal)	Field Parameters					
					Well Volume	Specific Cond.[2] (ms/cm)	pH (SU)[3]	Temp. (deg. C)	Dissolved Oxygen (mg/l)	Turbidity (NTU)[4]
SWMU 285-TW01	4/5/02	12.1	5.19	0.28	1	0.358	5.78	16.7	1.46	>1000
					2	0.331	5.6	16.0	1.41	895.0
					3	0.306	5.78	16.5	1.29	601.0
					4	0.306	5.91	16.6	1.24	186.0
					5	0.305	5.89	16.5	1.22	132.0
					6	***0.306***	***5.88***	***16.5***	***1.24***	***118.0***
SWMU 285-TW02	4/5/02	12	6.9	0.29	1	1.042	5.55	16.4	1.60	17.4
					2	1.054	5.27	16.7	1.60	10.3
					3	***1.060***	***5.25***	***16.7***	***1.62***	***10.3***
SWMU 285-TW03	4/5/02	13.8	6.8	0.29	1	0.448	5.57	15.51	1.50	140.0
					2	0.432	5.5	15.52	1.12	64.3
					3	0.434	5.38	15.54	1.29	49.7
					4	0.439	5.36	15.52	1.02	29.0
					5	***0.438***	***5.39***	***15.52***	***1.12***	***14.8***

Notes:

[1] - Measured from top of PVC Casing

[2] - Specific Conductance at 25 deg. C

[3] - SU = Standard Units

[4] - NTU = Nephelometric Turbidity Units

The bold and italicized parameters where taken immediately prior to sampling the well.

APPENDIX D

SUMMARY OF GROUNDWATER SAMPLING FIELD PARAMETERS
SWMU 291
RCRA PHASE II CONFIRMATORY SAMPLING INVESTIGATION, CTO - 143
MCB, CAMP LEJEUNE, NORTH CAROLINA

Well Number	Sampling Date	Well Depth (ft)[1]	Depth to Water (ft)[1]	Purge Volume (gal)	Field Parameters					
					Well Volume	Specific Cond.[2] (ms/cm)	pH (SU)[3]	Temp. (deg. C)	Dissolved Oxygen (mg/l)	Turbidity (NTU)[4]
SWMU 291-TW01	4/9/02	20	15	0.2	1	0.300	5.50	19.8	2.15	>1100
					2	0.299	5.28	19.7	1.32	330.0
					3	0.290	5.21	19.5	0.81	120.0
					4	0.259	4.91	19.3	0.39	70.0
					5	0.260	4.92	19.2	0.33	40.0
					6	***0.259***	***4.93***	***19.2***	***0.33***	14.0
					7	NR	NR	NR	NR	***10.0***
SWMU 291-TW02	4/9/02	15	13	0.08	1	0.956	6.02	17.2	0.70	400.0
					2	0.943	6.00	17.2	0.30	140.0
					3	0.936	6.01	17.2	0.28	160.0
					4	0.939	6.06	17.3	0.62	175.0
					5	0.938	6.05	17.3	0.62	170.0
					6	***0.937***	***6.05***	***17.3***	***0.63***	***35.8***
SWMU 291-TW03	4/9/02	12.25	10.25	0.08	1	1.250	6.11	17.2	1.08	>1100
					2	1.147	6.14	17.1	0.36	>1100
					3	1.123	6.12	17.1	0.18	550.0
					4	1.112	6.12	17.1	0.24	35.0
					5	1.110	6.12	17.1	0.21	15.1
					6	***1.109***	***6.12***	***17.1***	***0.18***	12.3
					7	NR	NR	NR	NR	***15.5***

Notes:

[1] - Measured from top of PVC Casing

[2] - Specific Conductance at 25 deg. C

[3] - SU = Standard Units

[4] - NTU = Nephelometric Turbidity Units

The bold and italicized parameters where taken immediately prior to sampling the well.

NR= Readings were not taken because these parameters were stable.

>1100 indicates that turbidity was outside of meter's range of detection

APPENDIX D

SUMMARY OF GROUNDWATER SAMPLING FIELD PARAMETERS
SWMU 293
RCRA PHASE II CONFIRMATORY SAMPLING INVESTIGATION, CTO - 143
MCB, CAMP LEJEUNE, NORTH CAROLINA

Well Number	Sampling Date	Well Depth (ft)[1]	Depth to Water (ft)[1]	Purge Volume (gal)	Field Parameters					
					Well Volume	Specific Cond.[2] (ms/cm)	pH (SU)[3]	Temp. (deg. C)	Dissolved Oxygen (mg/l)	Turbidity (NTU)[4]
SWMU 293-TW01	4/5/02	16.05	9.68	0.26	2	0.387	6.13	22.3	1.10	151.0
					4	0.383	6.24	23.2	0.96	285.0
					6	0.383	6.23	22.9	0.99	189.0
					7	***0.381***	***6.25***	***23.1***	***1.00***	***230.0***
SWMU 293-TW02	4/5/02	15.9	9.69	0.25	1	0.228	5.9	19.0	1.50	895.0
					3	0.224	5.91	19.1	1.30	266.0
					4	0.227	5.96	18.4	1.50	171.0
					6	0.232	5.94	18.6	2.00	109.0
					8	***0.235***	***5.97***	***18.4***	***1.80***	69.0
					10	NR	NR	NR	NR	***56.0***
SWMU 293-TW03	4/5/02	14.7	8.11	0.27	1	0.271	6.18	19.8	1.50	705.0
					2	0.271	6.19	20.0	1.40	494.0
					3	0.269	6.19	20.4	1.40	524.0
					5	0.272	6.19	20.2	1.30	426.0
					6	***0.27***	***6.17***	***19.90***	***1.40***	***503.0***

Notes:

[1] - Measured from top of PVC Casing

[2] - Specific Conductance at 25 deg. C

[3] - SU = Standard Units

[4] - NTU = Nephelometric Turbidity Units

The bold and italicized parameters where taken immediately prior to sampling the well.

NR= Readings were not taken because these parameters were stable.

APPENDIX D

SUMMARY OF GROUNDWATER SAMPLING FIELD PARAMETERS
SWMU 294
RCRA PHASE II CONFIRMATORY SAMPLING INVESTIGATION, CTO - 143
MCB, CAMP LEJEUNE, NORTH CAROLINA

Well Number	Sampling Date	Well Depth (ft)[1]	Depth to Water (ft)[1]	Purge Volume (gal)	Field Parameters					
					Well Volume	Specific Cond.[2] (ms/cm)	pH (SU)[3]	Temp. (deg. C)	Dissolved Oxygen (mg/l)	Turbidity (NTU)[4]
SWMU 294-TW01	4/5/02	16	9.95	0.25	1	0.232	6.51	17.7	4.31	>1100
					2	0.234	6.38	17.7	4.16	>1100
					3	0.234	6.35	17.6	3.46	920.0
					4	0.237	6.33	17.7	3.42	575.0
					5	0.238	6.26	17.7	3.40	385.0
					6	0.239	6.25	17.7	3.22	219.0
					7	0.239	6.18	17.7	3.11	100.0
					8	***0.240***	***6.24***	***17.7***	***2.98***	***89.0***
SWMU 294-TW02	4/5/02	17.9	10.9	0.29	1	0.154	5.13	18.3	3.45	>1100
					2	0.152	4.89	18.4	2.97	790.0
					3	0.151	4.79	18.4	2.89	506.0
					4	0.149	4.8	18.2	2.64	296.0
					5	0.149	4.8	18.2	2.78	189.0
					6	0.149	4.79	18.2	2.62	152.0
					7	0.150	4.79	18.2	2.27	89.9
					8	***0.149***	***4.8***	***18.2***	***2.19***	48.0
					9	NR	NR	NR	NR	***24.5***
SWMU 294-TW03	4/5/02	17.9	11	0.28	1	0.228	5.65	17.8	1.68	>1100
					2	0.288	5.62	17.9	1.46	>1100
					3	0.228	5.64	17.9	1.42	353.0
					4	0.215	5.52	17.7	1.42	210.0
					5	0.215	5.5	17.7	1.48	39.4
					6	***0.214***	***5.48***	***17.6***	***1.28***	***16.6***

APPENDIX D

SUMMARY OF GROUNDWATER SAMPLING FIELD PARAMETERS
SWMU 294
RCRA PHASE II CONFIRMATORY SAMPLING INVESTIGATION, CTO - 143
MCB, CAMP LEJEUNE, NORTH CAROLINA

Well Number	Sampling Date	Well Depth (ft)[1]	Depth to Water (ft)[1]	Purge Volume (gal)	Field Parameters					
					Well Volume	Specific Cond.[2] (ms/cm)	pH (SU)[3]	Temp. (deg. C)	Dissolved Oxygen (mg/l)	Turbidity (NTU)[4]
SWMU 294-TW04	4/5/02	17.9	10.6	0.3	1	0.361	5.69	18.2	4.72	>1100
					2	0.362	5.5	18.2	3.71	246.0
					3	0.352	5.47	18.2	2.55	89.9
					4	0.350	5.34	18.2	2.34	38.7
					5	0.351	5.28	18.3	2.45	23.1
					6	***0.350***	***5.28***	***18.2***	***2.31***	***15.6***
SWMU 294-TW05	4/5/02	17.8	9.8	0.33	1	0.236	6.52	18.1	4.70	>1000
					2	0.239	6.2	17.9	4.08	>1000
					3	0.239	6.29	17.9	3.80	>1100
					4	0.240	6.29	17.9	3.77	>1100
					5	0.240	6.26	18.0	3.73	447.0
					6	0.241	6.22	18.0	2.95	132.0
					7	0.241	6.21	18.0	2.92	33.6
					8	***0.244***	***6.19***	***18.0***	***2.16***	***28.5***
SWMU 294-TW06	4/5/02	17.82	9.65	0.33	1	0.242	6.37	18.43	5.14	>1100
					2	0.215	5.92	18.21	4.65	770.0
					3	0.214	5.94	18.24	4.05	274.0
					4	0.212	5.93	18.27	3.92	90.9
					5	0.214	5.87	18.24	3.20	21.4
					6	***0.216***	***5.89***	***18.23***	***3.19***	***12.8***

Notes:

[1] - Measured from top of PVC Casing

[2] - Specific Conductance at 25 deg. C

[3] - SU = Standard Units

[4] - NTU = Nephelometric Turbidity Units

The bold and italicized parameters where taken immediately prior to sampling the well.

NR= Readings were not taken because these parameters were stable.

>1100 indicates that turbidity was outside of meter's range of detection

APPENDIX D

SUMMARY OF GROUNDWATER SAMPLING FIELD PARAMETERS
SWMU 295
RCRA PHASE II CONFIRMATORY SAMPLING INVESTIGATION, CTO - 143
MCB, CAMP LEJEUNE, NORTH CAROLINA

Well Number	Sampling Date	Well Depth (ft)[1]	Depth to Water (ft)[1]	Purge Volume (gal)	Field Parameters					
					Well Volume	Specific Cond.[2] (ms/cm)	pH (SU)[3]	Temp. (deg. C)	Dissolved Oxygen (mg/l)	Turbidity (NTU)[4]
SWMU 295-TW01	4/5/02	16	13.16	0.041	1	0.081	4.89	16.9	3.15	71.3
					2	0.103	4.83	17.6	4.80	42.2
					3	0.088	4.84	17.6	2.72	44.7
					4	***0.080***	***4.9***	***17.8***	***3.05***	***30.3***
SWMU 295-TW02	4/5/02	16.3	11.89	0.2	1	0.645	6.17	16.8	3.50	>1100
					2	0.654	6.23	16.7	3.50	>1100
					3	0.652	6.20	15.7	3.20	>1100
					4	0.622	6.18	17.1	3.70	921.0
					5	0.606	6.16	17.1	3.60	441.0
					8	0.593	6.15	16.9	3.70	281.0
					12	0.555	5.91	17.2	3.50	222.0
					14	***0.540***	***5.92***	***17.0***	***3.70***	***163.0***
SWMU 295-TW03	4/5/02	16.6	12.42	0.17	1	0.46	6.13	17.5	3.16	85.8
					2	0.365	5.96	17.7	2.99	151.0
					3	0.35	5.82	17.4	3.54	133.0
					4	***0.327***	***5.72***	***17.2***	***3.71***	25.1
					5	17.16	NR	NR	NR	***10.2***
78-GW09-1	4/7/02	21.8	12.2	1.6	1	0.181	5.8	18.6	1.92	8.7
					2	0.181	5.79	19.2	1.39	2.6
					3	***0.181***	***5.76***	***19.4***	***1.45***	***1.0***

Notes:

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[2] - Specific Conductance at 25 deg. C

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[4] - NTU = Nephelometric Turbidity Units

The bold and italicized parameters where taken immediately prior to sampling the well.

>1100 indicates that turbidity was outside of meter's range of detection

NR= Readings were not taken because these parameters were stable.

APPENDIX D

SUMMARY OF GROUNDWATER SAMPLING FIELD PARAMETERS
SWMU 299
RCRA PHASE II CONFIRMATORY SAMPLING INVESTIGATION, CTO - 143
MCB, CAMP LEJEUNE, NORTH CAROLINA

Well Number	Sampling Date	Well Depth (ft)[1]	Depth to Water (ft)[1]	Purge Volume (gal)	Field Parameters					
					Well Volume	Specific Cond.[2] (ms/cm)	pH (SU)[3]	Temp. (deg. C)	Dissolved Oxygen (mg/l)	Turbidity (NTU)[4]
SWMU 299-TW01	4/2/02	12.82	0.91	0.49	1	0.523	6.52	17.5	1.02	29.0
					2	0.524	6.05	17.0	0.90	14.1
					3	0.512	6	17.0	0.94	14.5
					4	0.525	6.2	17.2	1.25	21.4
					5	0.521	6.24	17.8	1.33	36.3
					6	0.524	6.2	18.3	1.16	39.1
					7	***0.548***	***6.3***	***17.9***	***1.19***	***37.1***
SWMU 299-TW02	4/2/02	12.95	2.15	0.44	1	1.490	6.21	20.1	0.71	343.0
					2	1.406	6.06	19.5	0.75	58.8
					3	1.328	6.03	19.4	0.64	42.4
					4	1.213	5.98	19.1	2.06	23.3
					5	1.127	5.90	19.2	0.37	18.0
					6	1.053	5.83	19.2	0.38	20.1
					7	***0.985***	***5.81***	***19.2***	***0.34***	***24.0***
SWMU 299-TW03	4/2/02	12.8	1.85	0.44	1	1.135	6.32	18.9	0.73	69.6
					2	1.021	6.07	18.6	0.61	18.9
					3	0.941	5.97	18.5	0.69	10.9
					4	***0.875***	***5.87***	***18.5***	***0.70***	***9.7***

APPENDIX D

SUMMARY OF GROUNDWATER SAMPLING FIELD PARAMETERS
SWMU 299
RCRA PHASE II CONFIRMATORY SAMPLING INVESTIGATION, CTO - 143
MCB, CAMP LEJEUNE, NORTH CAROLINA

Well Number	Sampling Date	Well Depth (ft)[1]	Depth to Water (ft)[1]	Purge Volume (gal)	Field Parameters					
					Well Volume	Specific Cond.[2] (ms/cm)	pH (SU)[3]	Temp. (deg. C)	Dissolved Oxygen (mg/l)	Turbidity (NTU)[4]
SWMU 299-TW04	4/2/02	12.75	2.17	0.43	1	1.098	6.31	20.4	0.48	*
					2	0.914	6.03	20.1	0.30	158.0
					3	0.860	5.9	20.1	0.28	83.8
					4	0.897	5.9	19.9	0.23	30.8
					5	0.810	5.84	20.1	0.40	148.0
					6	0.791	5.81	20.1	0.23	54.6
					7	***0.791***	***5.83***	***20.4***	***0.28***	***13.8***

Notes:

[1] - Measured from top of PVC Casing

[2] - Specific Conductance at 25 deg. C

[3] - SU = Standard Units

[4] - NTU = Nephelometric Turbidity Units

* too high to read

The bold and italicized parameters where taken immediately prior to sampling the well.

APPENDIX D

SUMMARY OF GROUNDWATER SAMPLING FIELD PARAMETERS
SWMU 300
RCRA PHASE II CONFIRMATORY SAMPLING INVESTIGATION, CTO - 143
MCB, CAMP LEJEUNE, NORTH CAROLINA

Well Number	Sampling Date	Well Depth (ft)[1]	Depth to Water (ft)[1]	Purge Volume (gal)	Field Parameters					
					Well Volume	Specific Cond.[2] (ms/cm)	pH (SU)[3]	Temp. (deg. C)	Dissolved Oxygen (mg/l)	Turbidity (NTU)[4]
SWMU 300-TW01	4/2/02	12.09	0.89	0.46	1	0.470	6.26	19.3	0.92	22.9
					2	0.490	6.28	19.2	0.85	11.9
					3	0.478	6.26	19.1	0.73	6.9
					4	0.472	6.17	19.1	0.69	4.5
					5	***0.486***	***6.16***	***19.0***	***0.63***	***3.7***
SWMU 300-TW02	4/2/02	11.97	1.82	0.42	1	0.515	5.96	19.9	1.34	42.0
					2	0.520	5.76	19.6	0.79	8.9
					3	0.493	5.76	19.7	0.76	5.1
					4	0.470	5.84	19.5	0.70	3.5
					5	***0.451***	***5.93***	***19.5***	***0.76***	***4.9***
SWMU 300-TW03	4/2/02	10.97	0.92	0.41	1	0.766	6.92	20.0	1.02	68.5
					2	0.749	7.02	20.0	0.81	27.6
					3	0.751	7.01	19.9	1.04	24.6
					4	0.752	6.99	19.9	1.02	11.7
					5	***0.753***	***6.97***	***19.8***	***1.03***	***16.1***

Notes:

[1] - Measured from top of PVC Casing

[2] - Specific Conductance at 25 deg. C

[3] - SU = Standard Units

[4] - NTU = Nephelometric Turbidity Units

The bold and italicized parameters where taken immediately prior to sampling the well.

APPENDIX D

SUMMARY OF GROUNDWATER SAMPLING FIELD PARAMETERS
SWMU 302
RCRA PHASE II CONFIRMATORY SAMPLING INVESTIGATION, CTO - 143
MCB, CAMP LEJEUNE, NORTH CAROLINA

Well Number	Sampling Date	Well Depth (ft)[1]	Depth to Water (ft)[1]	Purge Volume (gal)	Field Parameters					
					Well Volume	Specific Cond.[2] (ms/cm)	pH (SU)[3]	Temp. (deg. C)	Dissolved Oxygen (mg/l)	Turbidity (NTU)[4]
SWMU 302-TW01	4/2/02	17.8	7.8	0.41	1	0.887	5.97	19.9	3.50	>1000
					2	0.667	5.52	19.7	0.81	>1000
					3	0.582	5.37	19.8	0.89	>1000
					4	0.581	5.36	19.8	0.85	>1000
					5	0.584	5.32	19.8	0.79	824.0
					6	0.584	5.3	19.8	0.69	726.0
					7	***0.585***	***5.29***	***19.8***	***0.47***	***583.0***
SWMU 302-TW02	4/2/02	17.5	7.5	0.41	1	0.806	5.75	20.9	3.51	>1000
					2	0.742	5.62	20.6	2.61	>1100
					3	0.682	5.43	20.2	1.38	>1000
					4	0.640	5.35	20.2	0.51	971.0
					5	0.642	5.36	20.1	0.45	865.0
					6	0.644	5.37	20.2	0.46	762.0
					7	***0.640***	***5.35***	***20.3***	***0.05***	568.0
					8	NR	NR	NR	NR	***532.0***
SWMU 302-TW03	4/2/02	17.9	0.9	0.45	1	0.43	4.73	19.7	1.86	>1000
					2	0.378	4.93	19.4	0.84	>1000
					3	0.366	4.79	19.4	0.56	>1000
					4	0.366	4.8	19.3	0.48	>1000
					5	0.355	4.76	19.3	0.05	567.0
					6	***0.355***	***4.69***	***19.3***	***0.05***	***376.0***

Notes:

[1] - Measured from top of PVC Casing

[2] - Specific Conductance at 25 deg. C

[3] - SU = Standard Units

[4] - NTU = Nephelometric Turbidity Units

The bold and italicized parameters where taken immediately prior to sampling the well.

>1100 indicates that turbidity was outside of meter's range of detection

APPENDIX D

SUMMARY OF GROUNDWATER SAMPLING FIELD PARAMETERS
SWMU 303
RCRA PHASE II CONFRIMATORY SAMPLING INVESTIGATION, CTO - 143
MCB, CAMP LEJEUNE, NORTH CAROLINA

Well Number	Sampling Date	Well Depth (ft)[1]	Depth to Water (ft)[1]	Purge Volume (gal)	Field Parameters					
					Well Volume	Specific Cond.[2] (ms/cm)	pH (SU)[3]	Temp. (deg. C)	Dissolved Oxygen (mg/l)	Turbidity (NTU)[4]
SWMU 303-TW01	4/2/02	15.62	6.68	0.37	1	1.420	6.31	19.3	0.62	895.0
					2	0.807	6.08	19.4	1.12	>1000
					3	0.717	6.06	19.6	0.99	>1000
					4	0.715	6.02	19.8	0.97	>1000
					5	0.714	6.01	19.8	0.43	>1000
					6	0.681	5.99	19.9	0.41	360.0
					7	***0.684***	***5.96***	***19.9***	***0.64***	***285.0***
SWMU 303-TW02	4/2/02	14.25	6.55	0.32	1	0.683	6.06	19.0	4.00	>1000
					2	0.687	5.96	18.9	1.64	>1000
					3	0.691	5.91	18.9	1.17	>1000
					4	0.685	5.92	18.9	1.18	>1000
					5	0.684	5.91	19.0	0.86	810.0
					6	0.684	5.91	19.0	0.65	733.0
					7	***0.684***	***5.91***	***19.0***	***0.60***	***700.0***
SWMU 303-TW03	4/2/02	14.6	6.95	0.31	1	0.923	6.11	18.52	2.50	>1000
					2	0.935	6.06	18.54	1.44	>1000
					3	0.942	6.03	18.72	1.10	>1000
					4	0.947	6.01	18.67	1.07	>1000
					5	0.945	6.01	18.65	1.09	900.0
					6	0.943	6.01	18.65	1.10	846.0
					7	***0.944***	***6.02***	***18.65***	***1.08***	852.0
					8	NR	NR	NR	NR	***812.0***

Notes:

[1] - Measured from top of PVC Casing

[2] - Specific Conductance at 25 deg. C

[3] - SU = Standard Units

[4] - NTU = Nephelometric Turbidity Units

The bold and italicized parameters where taken immediately prior to sampling the well.

NR= Readings were not taken because these parameters were stable.

APPENDIX D

SUMMARY OF GROUNDWATER SAMPLING FIELD PARAMETERS
SWMU 305
RCRA PHASE II CONFIRMATORY SAMPLING INVESTIGATION, CTO - 143
MCB, CAMP LEJEUNE, NORTH CAROLINA

Well Number	Sampling Date	Well Depth (ft)[1]	Depth to Water (ft)[1]	Purge Volume (gal)	Field Parameters					
					Well Volume	Specific Cond.[2] (ms/cm)	pH (SU)[3]	Temp. (deg. C)	Dissolved Oxygen (mg/l)	Turbidity (NTU)[4]
SWMU 305-TW01	4/4/02	13.28	4.48	0.36	1	0.623	5.99	15.4	7.60	20.8
					2	0.610	5.97	15.5	7.14	31.6
					3	0.597	5.97	15.4	6.98	15.2
					4	***0.595***	***5.98***	***15.5***	***7.02***	***12.0***
SWMU 305-TW02	4/4/02	11.71	4.32	0.3	1	0.201	5.85	15.6	4.20	>1100
					2	0.216	5.78	15.6	4.78	195.0
					3	0.215	5.73	15.3	4.61	253.0
					4	***0.212***	***5.77***	***15.3***	***4.64***	***13.0***
SWMU 305-TW03	4/4/02	12.43	4.15	0.33	1	0.253	5.96	16.6	1.34	>1100
					2	0.251	6.02	16.1	1.05	>1100
					3	0.251	6.03	16.1	1.12	>1100
					4	0.256	6.07	16.2	1.45	590.0
					5	0.25	6.05	15.8	1.15	228.0
					6	***0.244***	***6.02***	***15.8***	***1.34***	***550.0***

Notes:

[1] - Measured from top of PVC Casing

[2] - Specific Conductance at 25 deg. C

[3] - SU = Standard Units

[4] - NTU = Nephelometric Turbidity Units

The bold and italicized parameters where taken immediately prior to sampling the well.

>1100 indicates that turbidity was outside of meter's range of detection

APPENDIX D

SUMMARY OF GROUNDWATER SAMPLING FIELD PARAMETERS
SWMU 306
RCRA PHASE II CONFIRMATORY SAMPLING INVESTIGATION, CTO - 143
MCB, CAMP LEJEUNE, NORTH CAROLINA

Well Number	Sampling Date	Well Depth (ft)[1]	Depth to Water (ft)[1]	Purge Volume (gal)	Field Parameters					
					Well Volume	Specific Cond.[2] (ms/cm)	pH (SU)[3]	Temp. (deg. C)	Dissolved Oxygen (mg/l)	Turbidity (NTU)[4]
SWMU 306-TW01	4/8/02	19	16	0.12	1	0.138	4.51	20.1	2.19	76.0
					2	0.139	4.52	21.0	1.46	25.0
					3	***0.138***	***4.54***	***21.0***	***0.85***	***12.0***
SWMU 306-TW02	4/10/02	19.87	16.3	0.14	1	0.47	5.53	19.8	2.56	521.0
					2	0.48	5.62	19.5	2.48	450.0
					3	0.48	5.71	19.5	2.48	189.0
					4	0.47	5.75	19.6	2.89	40.3
					5	0.47	5.74	19.6	3.07	22.4
					6	***0.47***	***5.77***	***19.6***	***2.77***	27.3
					7	NR	NR	NR	NR	21.4
					8	NR	NR	NR	NR	***3.3***
SWMU 306-TW03	4/8/02	18.5	14.5	0.16	1	0.133	4.67	19.7	0.39	186.0
					2	0.128	4.54	19.2	0.30	***85.9***
					3	0.125	4.52	19.3	0.16	NR
					4	***0.126***	***4.52***	***19.3***	***0.23***	NR

Notes:

[1] - Measured from top of PVC Casing

[2] - Specific Conductance at 25 deg. C

[3] - SU = Standard Units

[4] - NTU = Nephelometric Turbidity Units

The bold and italicized parameters where taken immediately prior to sampling the well.

NR= Readings were not taken because these parameters were stable.

APPENDIX D

SUMMARY OF GROUNDWATER SAMPLING FIELD PARAMETERS
SWMU 307
RCRA PHASE II CONFIRMATORY SAMPLING INVESTIGATION, CTO - 143
MCB, CAMP LEJEUNE, NORTH CAROLINA

Well Number	Sampling Date	Well Depth (ft)[1]	Depth to Water (ft)[1]	Purge Volume (gal)	Field Parameters					
					Well Volume	Specific Cond.[2] (ms/cm)	pH (SU)[3]	Temp. (deg. C)	Dissolved Oxygen (mg/l)	Turbidity (NTU)[4]
SWMU 307-TW01	4/3/02	11.83	3.17	0.36	1	0.669	6.11	24.8	0.80	>1100
					2	0.516	5.9	23.3	0.63	>1100
					3	0.532	5.9	23.2	0.74	>1100
					4	0.549	5.93	23.4	0.70	900.0
					5	***0.549***	***5.94***	***23.3***	***0.84***	***450.0***
SWMU 307-TW02	4/3/02	13.25	3.69	0.39	1	0.483	5.92	17.7	1.24	>1100
					2	0.487	5.95	17.5	1.30	>1100
					3	0.489	5.96	17.5	1.20	>1100
					4	0.480	5.98	17.7	1.18	>1100
					5	0.471	5.96	17.7	1.10	>1100
					6	0.464	5.98	17.8	1.36	800.0
					7	0.457	5.98	17.6	1.34	500.0
					8	0.454	5.96	17.6	1.32	400.0
					9	0.444	6.01	17.7	1.69	500.0
					10	***0.444***	***6.00***	***17.7***	***1.33***	450.0
					11	NR	NR	NR	NR	200.0
					12	NR	NR	NR	NR	250.0
					13	NR	NR	NR	NR	310.0
					14	NR	NR	NR	NR	***320.0***

APPENDIX D

SUMMARY OF GROUNDWATER SAMPLING FIELD PARAMETERS
SWMU 307
RCRA PHASE II CONFIRMATORY SAMPLING INVESTIGATION, CTO - 143
MCB, CAMP LEJEUNE, NORTH CAROLINA

Well Number	Sampling Date	Well Depth (ft)[1]	Depth to Water (ft)[1]	Purge Volume (gal)	Field Parameters					
					Well Volume	Specific Cond.[2] (ms/cm)	pH (SU)[3]	Temp. (deg. C)	Dissolved Oxygen (mg/l)	Turbidity (NTU)[4]
SWMU 307-TW03	4/3/02	15.57	3.99	0.47	1	0.178	4.94	18.0	1.04	>1100
					2	0.166	4.96	17.7	0.66	>1100
					3	0.159	5	18.0	1.05	>1100
					4	0.157	4.99	18.1	0.63	>1100
					5	0.155	5.03	18.0	1.15	>1100
					6	0.154	4.98	17.8	1.15	>1100
					7	***0.157***	***4.99***	***17.7***	***1.20***	***>1100***

Notes:

[1] - Measured from top of PVC Casing

[2] - Specific Conductance at 25 deg. C

[3] - SU = Standard Units

[4] - NTU = Nephelometric Turbidity Units

The bold and italicized parameters where taken immediately prior to sampling the well.

NR= Readings were not taken because these parameters were stable.

>1100 indicates that turbidity was outside of meter's range of detection

APPENDIX D

SUMMARY OF GROUNDWATER SAMPLING FIELD PARAMETERS
SWMU 308
RCRA PHASE II CONFIRMATORY SAMPLING INVESTIGATION, CTO - 143
MCB, CAMP LEJEUNE, NORTH CAROLINA

Well Number	Sampling Date	Well Depth (ft)[1]	Depth to Water (ft)[1]	Purge Volume (gal)	Field Parameters					
					Well Volume	Specific Cond.[2] (ms/cm)	pH (SU)[3]	Temp. (deg. C)	Dissolved Oxygen (mg/l)	Turbidity (NTU)[4]
SWMU 308-TW01	4/7/02	22.1	16.4	0.23	1	0.160	4.61	17.6	1.96	>1100
					2	0.158	4.54	17.7	3.58	>1100
					3	0.158	4.47	17.7	2.03	564.0
					4	***0.159***	***4.47***	***17.7***	***1.62***	318.0
					5	NR	NR	NR	NR	248.0
					6	NR	NR	NR	NR	***256.0***
SWMU 308-TW02	4/7/02	20.8	17	0.16	1	0.204	5.38	17.8	0.66	82.1
					2	0.204	5.35	17.7	0.34	33.8
					3	0.205	5.34	17.7	0.25	10.9
					4	***0.206***	***5.34***	***17.7***	***0.19***	***8.2***
SWMU 308-TW03	4/7/02	19.8	16.3	0.14	1	0.052	4.88	17.7	1.56	564.0
					2	0.052	4.86	17.8	1.33	387.0
					3	0.051	4.83	17.8	1.23	196.0
					4	***0.051***	***4.82***	***17.8***	***1.12***	187.0
					5	NR	NR	NR	NR	***62.2***

Notes:

[1] - Measured from top of PVC Casing

[2] - Specific Conductance at 25 deg. C

[3] - SU = Standard Units

[4] - NTU = Nephelometric Turbidity Units

The bold and italicized parameters where taken immediately prior to sampling the well.

NR= Readings were not taken because these parameters were stable.

>1100 indicates that turbidity was outside of meter's range of detection

APPENDIX D

SUMMARY OF GROUNDWATER SAMPLING FIELD PARAMETERS
SWMU 311
RCRA PHASE II CONFIRMATORY SAMPLING INVESTIGATION, CTO - 143
MCB, CAMP LEJEUNE, NORTH CAROLINA

Well Number	Sampling Date	Well Depth (ft)[1]	Depth to Water (ft)[1]	Purge Volume (gal)	Field Parameters					
					Well Volume	Specific Cond.[2] (ms/cm)	pH (SU)[3]	Temp. (deg. C)	Dissolved Oxygen (mg/l)	Turbidity (NTU)[4]
SWMU 311-TW01	4/4/02	12.3	7.61	0.2	1	0.362	6.16	15.5	1.70	260.0
					2	0.359	6.22	15.8	2.50	106.0
					3	0.364	6.22	15.9	2.40	315.0
					5	0.362	6.2	15.8	1.80	81.0
					6	0.356	6.18	15.8	1.70	60.0
					8	***0.352***	***6.19***	***15.9***	***1.70***	***78.0***
SWMU 311-TW02	4/4/02	13.6	11.51	0.1	1	0.216	6.48	15.8	4.00	13.1
					3	0.228	6.39	16.0	2.80	5.9
					5	***0.251***	***6.46***	***15.9***	***4.20***	***19.0***
SWMU 311-TW03	4/9/02	20.07	13.85	0.26	1	0.315	5.66	19.5	2.46	350.0
					2	0.314	5.66	19.5	2.10	165.0
					3	0.314	5.67	19.5	1.86	39.0
					4	0.314	5.67	19.6	1.76	18.2
					5	0.315	5.67	19.6	1.73	11.3
					6	***0.315***	***5.68***	***19.6***	***1.74***	***8.2***

Notes:

[1] - Measured from top of PVC Casing

[2] - Specific Conductance at 25 deg. C

[3] - SU = Standard Units

[4] - NTU = Nephelometric Turbidity Units

The bold and italicized parameters where taken immediately prior to sampling the well.

NR= Readings were not taken because these parameters were stable.

>1100 indicates that turbidity was outside of meter's range of detection

APPENDIX D

SUMMARY OF GROUNDWATER SAMPLING FIELD PARAMETERS
SWMU 312
RCRA PHASE II CONFIRMATORY SAMPLING INVESTIGATION, CTO - 143
MCB, CAMP LEJEUNE, NORTH CAROLINA

Well Number	Sampling Date	Well Depth (ft)[1]	Depth to Water (ft)[1]	Purge Volume (gal)	Field Parameters					
					Well Volume	Specific Cond.[2] (ms/cm)	pH (SU)[3]	Temp. (deg. C)	Dissolved Oxygen (mg/l)	Turbidity (NTU)[4]
SWMU 312-TW01	4/4/02	14.95	5	0.4	1	0.842	5.4	18.0	1.55	140.0
					2	0.426	4.86	19.9	0.51	27.0
					3	0.308	4.75	18.0	0.45	12.0
					4	***0.310***	***4.69***	***18.2***	***0.31***	14.0
					5	NR	NR	NR	NR	***12.0***
SWMU 312-TW02	4/4/02	14.7	5.68	0.37	1	0.283	3.95	19.1	3.05	>1000
					2	0.221	4.26	19.7	3.40	>1000
					3	0.185	4.49	19.6	1.59	700.0
					4	0.183	4.51	20.1	2.00	400.0
					5	0.183	4.51	20.0	1.96	180.0
					6	***0.183***	***4.52***	***20.0***	***1.58***	***90.0***
SWMU 312-TW03	4/4/02	16.05	6.68	0.38	1	0.821	4.84	18.48	0.90	800.0
					2	0.831	4.89	18.69	0.73	200.0
					3	0.827	4.89	18.7	0.55	60.0
					4	0.826	4.88	18.72	0.04	29.0
					5	***0.826***	***4.89***	***18.7***	***0.04***	12.0
					6	NR	NR	NR	NR	***12.0***

Notes:

[1] - Measured from top of PVC Casing

[2] - Specific Conductance at 25 deg. C

[3] - SU = Standard Units

[4] - NTU = Nephelometric Turbidity Units

The bold and italicized parameters where taken immediately prior to sampling the well.

NR= Readings were not taken because these parameters were stable.

APPENDIX D

SUMMARY OF GROUNDWATER SAMPLING FIELD PARAMETERS
SWMU 313
RCRA PHASE II CONFIRMATORY SAMPLING INVESTIGATION, CTO - 143
MCB, CAMP LEJEUNE, NORTH CAROLINA

Well Number	Sampling Date	Well Depth (ft)[1]	Depth to Water (ft)[1]	Purge Volume (gal)	Field Parameters					
					Well Volume	Specific Cond.[2] (ms/cm)	pH (SU)[3]	Temp. (deg. C)	Dissolved Oxygen (mg/l)	Turbidity (NTU)[4]
SWMU 313-TW01	4/4/02	12.1	1.52	0.43	1	0.519	6.24	17.9	1.20	70.0
					2	0.544	6.13	17.5	0.46	38.0
					3	0.519	6.06	17.7	0.29	16.0
					4	0.516	6.08	17.9	0.31	8.0
					5	***0.515***	***6.08***	***17.8***	***0.34***	***6.0***
SWMU 313-TW02	4/4/02	12	6.55	0.22	1	0.520	5.9	18.5	1.03	>1000
					2	0.465	5.95	18.9	0.67	823.0
					3	0.463	5.94	18.9	0.48	406.0
					4	0.461	5.93	18.8	0.37	380.0
					5	0.462	5.94	18.8	0.38	240.0
					6	***0.461***	***5.94***	***18.8***	***0.40***	***100.0***
SWMU 313-TW03	4/4/02	12.05	3.5	0.35	1	0.601	6.46	16.59	3.00	340.0
					2	0.595	6.33	16.71	2.92	20.8
					3	0.584	6.29	16.74	2.69	17.0
					4	0.551	6.26	16.66	2.16	12.7
					5	***0.551***	***6.26***	***16.68***	***1.64***	***8.9***

Notes:

[1] - Measured from top of PVC Casing

[2] - Specific Conductance at 25 deg. C

[3] - SU = Standard Units

[4] - NTU = Nephelometric Turbidity Units

The bold and italicized parameters where taken immediately prior to sampling the well.

NR= Readings were not taken because these parameters were stable.

APPENDIX D

SUMMARY OF GROUNDWATER SAMPLING FIELD PARAMETERS
SWMU 314
RCRA PHASE II CONFIRMATORY SAMPLING INVESTIGATION, CTO - 143
MCB, CAMP LEJEUNE, NORTH CAROLINA

Well Number	Sampling Date	Well Depth (ft)[1]	Depth to Water (ft)[1]	Purge Volume (gal)	Field Parameters					
					Well Volume	Specific Cond.[2] (ms/cm)	pH (SU)[3]	Temp. (deg. C)	Dissolved Oxygen (mg/l)	Turbidity (NTU)[4]
SWMU 314-TW01	4/6/02	11.72	3.53	0.3	1	0.506	5.73	16.2	0.43	>1100
					2	0.506	5.96	16.8	0.23	>1100
					3	0.472	5.69	16.0	0.20	>1100
					4	0.456	6.02	16.5	0.19	>1100
					5	0.449	6.03	16.1	0.27	750.0
					6	0.442	6.08	16.0	0.31	450.0
					7	0.44	6.04	15.96	0.35	240.0
					8	***0.44***	***6.06***	***16.02***	***0.30***	75.0
					9	NR	NR	NR	NR	30.0
					10	NR	NR	NR	NR	***22.0***
SWMU 314-TW02	4/6/02	12.2	3.96	0.33	1	0.685	6.12	15.6	0.18	>1100
					2	0.641	6.12	15.7	0.11	>1100
					3	0.609	6.1	15.7	0.10	>1100
					4	0.585	6.07	15.7	0.09	>1100
					5	0.564	6.02	15.7	0.14	773.0
					6	0.565	6.04	15.6	0.30	480.0
					8	0.539	6	15.6	0.18	618.0
					10	0.528	5.97	15.6	0.21	299.0
					11	0.522	5.98	15.6	0.33	198.0
					12	***0.525***	***5.97***	***15.6***	***0.34***	***155.0***

APPENDIX D

SUMMARY OF GROUNDWATER SAMPLING FIELD PARAMETERS
SWMU 314
RCRA PHASE II CONFIRMATORY SAMPLING INVESTIGATION, CTO - 143
MCB, CAMP LEJEUNE, NORTH CAROLINA

Well Number	Sampling Date	Well Depth (ft)[1]	Depth to Water (ft)[1]	Purge Volume (gal)	Field Parameters					
					Well Volume	Specific Cond.[2] (ms/cm)	pH (SU)[3]	Temp. (deg. C)	Dissolved Oxygen (mg/l)	Turbidity (NTU)[4]
SWMU 314-TW03	4/6/02	11.1	3.5	0.3	1	0.495	6.23	15.6	0.77	>1100
					2	0.522	6.02	15.2	0.71	>1100
					3	0.561	6.19	15.5	0.68	>1100
					4	0.578	6.02	15.3	0.75	850.0
					5	0.576	6.22	15.2	0.89	650.0
					6	0.585	6.24	15.2	0.90	550.0
					7	0.584	6.24	15.2	1.04	>1100
					8	0.588	6.28	15.7	0.21	850.0
					9	***0.588***	***6.28***	***15.7***	***0.12***	***>1100***

Notes:

[1] - Measured from top of PVC Casing

[2] - Specific Conductance at 25 deg. C

[3] - SU = Standard Units

[4] - NTU = Nephelometric Turbidity Units

NA= Not Available

The bold and italicized parameters where taken immediately prior to sampling the well.

NR= Readings were not taken because these parameters were stable.

>1100 indicates that turbidity was outside of meter's range of detection

APPENDIX D

SUMMARY OF GROUNDWATER SAMPLING FIELD PARAMETERS
SWMU 315
RCRA PHASE II CONFIRMATORY SAMPLING INVESTIGATION, CTO - 143
MCB, CAMP LEJEUNE, NORTH CAROLINA

Well Number	Sampling Date	Well Depth (ft)[1]	Depth to Water (ft)[1]	Purge Volume (gal)	Field Parameters					
					Well Volume	Specific Cond.[2] (ms/cm)	pH (SU)[3]	Temp. (deg. C)	Dissolved Oxygen (mg/l)	Turbidity (NTU)[4]
SWMU 315-TW01	4/6/02	30	15.5	0.59	1	0.828	3.96	18.3	0.76	>1100
					2	0.808	3.98	18.2	0.78	450.0
					3	0.799	3.94	18.2	0.83	200.0
					4	0.785	3.97	18.3	0.98	103.0
					5	0.780	3.95	18.4	0.66	55.0
					6	***0.772***	***3.95***	***17.9***	***0.58***	28.0
					7	NR	NR	NR	NR	17.0
					8	NR	NR	NR	NR	***7.0***
SWMU 315-TW02	4/6/02	30	16.12	0.57	1	0.065	4.33	20.4	3.60	>1100
					2	0.065	4.30	20.3	3.50	1073.0
					3	0.065	4.29	20.2	3.50	183.0
					4	0.066	4.23	20.2	3.40	42.4
					5	***0.066***	***4.20***	***20.3***	***3.60***	***24.9***
SWMU 315-TW03	4/6/02	27.95	15.3	0.52	1	0.068	4.11	19.8	3.12	>1100
					2	0.066	4.08	19.7	3.96	700.0
					3	0.066	4.09	19.7	3.46	550.0
					4	0.064	4.07	19.5	4.11	380.0
					5	0.065	4.09	19.5	3.59	180.0
					6	0.064	4.05	19.2	3.48	106.0
					7	0.065	4.09	19.2	2.60	85.0
					8	***0.065***	***4.08***	***19.3***	***2.68***	75.0
					9	NR	NR	NR	NR	65.0
					10	NR	NR	NR	NR	45.0
					11	NR	NR	NR	NR	***25.0***

Notes:

[1] - Measured from top of PVC Casing

[2] - Specific Conductance at 25 deg. C

[3] - SU = Standard Units

[4] - NTU = Nephelometric Turbidity Units

The bold and italicized parameters where taken immediately prior to sampling the well.

NR= Readings were not taken because these parameters were stable.

>1100 indicates that turbidity was outside of meter's range of detection

APPENDIX D

SUMMARY OF GROUNDWATER SAMPLING FIELD PARAMETERS
SWMU 316
RCRA PHASE II CONFIRMATORY SAMPLING INVESTIGATION, CTO - 143
MCB, CAMP LEJEUNE, NORTH CAROLINA

Well Number	Sampling Date	Well Depth (ft)[1]	Depth to Water (ft)[1]	Purge Volume (gal)	Field Parameters					
					Well Volume	Specific Cond.[2] (ms/cm)	pH (SU)[3]	Temp. (deg. C)	Dissolved Oxygen (mg/l)	Turbidity (NTU)[4]
SWMU 316-TW01	4/4/02	16	6.85	0.39	1	0.467	5	18.6	1.31	>1100
					2	0.470	5.17	18.7	1.64	>1100
					3	0.477	5.19	18.8	1.67	>1100
					4	***0.472***	***5.1***	***18.7***	***1.64***	***335.0***
SWMU 316-TW02	4/4/02	15.95	6.8	0.37	1	0.216	4.55	19.8	1.19	>1100
					2	0.222	4.58	19.8	1.20	>1100
					3	0.220	4.67	19.2	1.23	>1100
					4	0.216	4.83	19.0	1.44	850.0
					5	0.219	4.94	19.2	1.09	240.0
					6	***0.224***	***4.90***	***19.2***	***1.36***	***40.0***
SWMU 316-TW03	4/4/02	15.86	6.6	0.38	1	0.358	5.39	18.0	1.20	>1100
					2	0.357	5.43	18.5	1.23	>1100
					3	0.389	5.41	18.9	1.31	>1100
					4	0.381	5.36	18.7	1.35	>1100
					5	0.371	5.34	18.5	1.41	>1100
					6	0.365	5.29	18.7	1.43	>1100
					7	***0.361***	***5.26***	***18.6***	***1.54***	***232.0***

Notes:

[1] - Measured from top of PVC Casing

[2] - Specific Conductance at 25 deg. C

[3] - SU = Standard Units

[4] - NTU = Nephelometric Turbidity Units

The bold and italicized parameters where taken immediately prior to sampling the well.

>1100 indicates that turbidity was outside of meter's range of detection

APPENDIX D

SUMMARY OF GROUNDWATER SAMPLING FIELD PARAMETERS
SWMU 317
RCRA PHASE II CONFIRMATORY SAMPLING INVESTIGATION, CTO - 143
MCB, CAMP LEJEUNE, NORTH CAROLINA

Well Number	Sampling Date	Well Depth (ft)[1]	Depth to Water (ft)[1]	Purge Volume (gal)	Field Parameters					
					Well Volume	Specific Cond.[2] (ms/cm)	pH (SU)[3]	Temp. (deg. C)	Dissolved Oxygen (mg/l)	Turbidity (NTU)[4]
SWMU 317-TW01	4/9/02	25.02	19.88	0.21	1	0.250	6.32	21.4	5.26	>1100
					2	0.220	6.36	20.8	4.59	35.7
					3	0.196	6.4	20.9	5.18	64.5
					4	0.185	6.4	20.9	5.05	23.8
					5	0.177	6.48	20.9	5.48	16.7
					6	0.163	6.34	20.6	5.35	1.6
					7	0.158	6.39	20.7	5.05	4.2
					8	0.151	6.37	20.8	4.83	4.0
					9	***0.148***	***6.3***	***20.6***	***5.15***	***1.3***
SWMU 317-TW02	4/8/02	26.44	22.64	2.5	1	0.071	4.55	16.1	1.74	3.5
					2	0.053	4.53	17.7	1.57	1.7
					3	***0.052***	***4.54***	***17.8***	***1.39***	***1.2***
SWMU 317-TW03	4/9/02	24.95	20.05	0.2	1	0.09	5.59	21.3	3.61	>1100
					2	0.087	5.13	21.1	3.40	>1100
					3	0.085	4.94	21.0	3.34	230.0
					4	***0.082***	***4.88***	***20.9***	***3.35***	48.6
					5	NR	NR	NR	NR	***9.2***

Notes:

[1] - Measured from top of PVC Casing

[2] - Specific Conductance at 25 deg. C

[3] - SU = Standard Units

[4] - NTU = Nephelometric Turbidity Units

The bold and italicized parameters where taken immediately prior to sampling the well.

>1100 indicates that turbidity was outside of meter's range of detection

APPENDIX D

SUMMARY OF GROUNDWATER SAMPLING FIELD PARAMETERS
SWMU 318
RCRA PHASE II CONFIRMATORY SAMPLING INVESTIGATION, CTO - 143
MCB, CAMP LEJEUNE, NORTH CAROLINA

Well Number	Sampling Date	Well Depth (ft)[1]	Depth to Water (ft)[1]	Purge Volume (gal)	Field Parameters					
					Well Volume	Specific Cond.[2] (ms/cm)	pH (SU)[3]	Temp. (deg. C)	Dissolved Oxygen (mg/l)	Turbidity (NTU)[4]
SWMU 318-TW01	4/2/02	15.12	5.15	0.4	1	0.603	5.8	18.6	2.46	>1000
					2	0.683	5.79	18.2	2.28	>1000
					3	0.683	5.75	18.1	1.44	>1000
					4	0.555	5.54	18.2	0.84	>1000
					5	0.556	5.52	18.2	0.65	>1000
					6	0.556	5.53	18.2	0.48	985.0
					7	0.550	5.57	18.2	0.46	857.0
					8	***0.555***	***5.56***	***18.2***	***0.42***	***762.0***
SWMU 318-TW02	4/2/02	15.6	6.25	0.38	1	0.269	4.93	18.2	1.95	>1000
					2	0.264	4.88	18.3	1.75	>1000
					3	0.244	4.71	18.3	0.86	>1000
					4	0.247	4.72	18.3	0.63	872.0
					5	0.246	4.72	18.3	0.67	756.0
					6	0.242	4.72	18.4	0.20	633.0
					7	0.240	4.73	18.3	0.22	510.0
					8	***0.242***	***4.73***	***18.3***	***0.25***	***481.0***

APPENDIX D

SUMMARY OF GROUNDWATER SAMPLING FIELD PARAMETERS
SWMU 318
RCRA PHASE II CONFIRMATORY SAMPLING INVESTIGATION, CTO - 143
MCB, CAMP LEJEUNE, NORTH CAROLINA

Well Number	Sampling Date	Well Depth (ft)[1]	Depth to Water (ft)[1]	Purge Volume (gal)	Field Parameters					
					Well Volume	Specific Cond.[2] (ms/cm)	pH (SU)[3]	Temp. (deg. C)	Dissolved Oxygen (mg/l)	Turbidity (NTU)[4]
SWMU 318-TW03	4/2/02	16.85	5.92	0.45	1	0.305	4.98	18.72	1.04	>1000
					2	0.293	4.89	18.51	0.83	>1000
					3	0.291	4.85	18.51	0.81	850.0
					4	0.285	4.84	18.54	0.76	600.0
					5	0.284	4.82	18.53	0.79	450.0
					6	0.283	4.81	18.54	0.72	360.0
					7	0.279	4.78	18.54	0.63	270.0
					8	***0.277***	***4.8***	***18.55***	***0.80***	***200.0***

Notes:

[1] - Measured from top of PVC Casing

[2] - Specific Conductance at 25 deg. C

[3] - SU = Standard Units

[4] - NTU = Nephelometric Turbidity Units

The bold and italicized parameters where taken immediately prior to sampling the well.

>1100 indicates that turbidity was outside of meter's range of detection

APPENDIX D

SUMMARY OF GROUNDWATER SAMPLING FIELD PARAMETERS
SWMU 336
RCRA PHASE II CONFIRMATORY SAMPLING INVESTIGATION, CTO - 143
MCB, CAMP LEJEUNE, NORTH CAROLINA

Well Number	Sampling Date	Well Depth (ft)[1]	Depth to Water (ft)[1]	Purge Volume (gal)	Field Parameters					
					Well Volume	Specific Cond.[2] (ms/cm)	pH (SU)[3]	Temp. (deg. C)	Dissolved Oxygen (mg/l)	Turbidity (NTU)[4]
SWMU 336-TW01	4/3/02	15.3	11.7	0.14	1	0.175	6.57	19.1	2.75	>1000
					2	0.205	5.81	19.2	1.19	800.0
					3	0.208	5.2	19.2	1.15	120.0
					4	***0.208***	***5.1***	***19.1***	***1.00***	30.0
					5	NR	NR	NR	NR	***19.0***
SWMU 336-TW02	4/3/02	15.75	11.6	0.17	1	0.258	5.08	19.4	2.26	160.0
					2	0.259	4.88	18.8	2.12	55.0
					3	0.252	4.78	18.8	0.96	32.0
					4	***0.247***	***4.76***	***18.9***	***1.00***	***17.0***

Notes:

[1] - Measured from top of PVC Casing

[2] - Specific Conductance at 25 deg. C

[3] - SU = Standard Units

[4] - NTU = Nephelometric Turbidity Units

The bold and italicized parameters where taken immediately prior to sampling the well.

NR= Readings were not taken because these parameters were stable.

APPENDIX D

SUMMARY OF GROUNDWATER SAMPLING FIELD PARAMETERS
SWMU 339
RCRA PHASE II CONFRIMATORY SAMPLING INVESTIGATION, CTO - 143
MCB, CAMP LEJEUNE, NORTH CAROLINA

Well Number	Sampling Date	Well Depth (ft)[1]	Depth to Water (ft)[1]	Purge Volume (gal)	Field Parameters					
					Well Volume	Specific Cond.[2] (ms/cm)	pH (SU)[3]	Temp. (deg. C)	Dissolved Oxygen (mg/l)	Turbidity (NTU)[4]
SWMU 339-TW01	4/3/02	15.19	1.7	0.55	1	1.505	6.06	21.3	1.14	21.1
					2	1.479	5.94	20.5	0.87	7.5
					3	1.367	5.84	20.4	0.98	6.3
					4	***1.303***	***5.76***	***20.5***	***0.97***	***4.4***
SWMU 339-TW02	4/3/02	14.95	2.15	0.492	1	0.764	5.54	21.0	1.26	11.0
					2	0.884	5.52	20.3	0.58	2.8
					3	0.953	5.54	20.1	0.66	2.9
					4	***0.951***	***5.54***	***20.1***	***0.70***	***3.0***
SWMU 339-TW03	4/3/02	15.1	2.39	0.52	1	1.121	5.36	19.3	0.82	18.0
					2	1.062	5.13	18.3	1.06	9.0
					3	1.106	5.18	18.2	0.92	5.5
					4	***1.104***	***5.2***	***18.1***	***0.95***	***2.3***

Notes:

[1] - Measured from top of PVC Casing

[2] - Specific Conductance at 25 deg. C

[3] - SU = Standard Units

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The bold and italicized parameters where taken immediately prior to sampling the well.

>1100 indicates that turbidity was outside of meter's range of detection

APPENDIX D

SUMMARY OF GROUNDWATER SAMPLING FIELD PARAMETERS
SWMU 359
RCRA PHASE II CONFRIMATORY SAMPLING INVESTIGATION, CTO - 143
MCB, CAMP LEJEUNE, NORTH CAROLINA

Well Number	Sampling Date	Well Depth (ft)[1]	Depth to Water (ft)[1]	Purge Volume (gal)	Field Parameters					
					Well Volume	Specific Cond.[2] (ms/cm)	pH (SU)[3]	Temp. (deg. C)	Dissolved Oxygen (mg/l)	Turbidity (NTU)[4]
SWMU 359-TW01	4/9/02	12.97	6.04	0.33	2	0.166	5.24	17.9	0.40	>1100
					3	0.160	5.32	15.9	1.00	782.0
					6	0.149	5.51	15.7	1.00	197.0
					7	0.145	5.5	15.4	1.10	220.0
					8	0.143	5.38	15.4	1.10	231.0
					9	***0.136***	***5.59***	***15.6***	***1.20***	***363.0***
SWMU 359-TW02	4/9/02	12.88	5.85	0.33	2	0.028	5.00	15.9	3.20	973.0
					3	0.028	4.31	15.4	3.00	433.0
					4	0.028	4.36	15.4	2.90	266.0
					5	0.029	4.22	15.2	3.00	134.0
					6	0.029	4.20	15.2	2.90	96.1
					7	0.028	4.30	15.2	3.00	53.7
					8	***0.029***	***4.28***	***15.2***	***2.80***	***45.0***

Notes:

[1] - Measured from top of PVC Casing

[2] - Specific Conductance at 25 deg. C

[3] - SU = Standard Units

[4] - NTU = Nephelometric Turbidity Units

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APPENDIX D

SUMMARY OF GROUNDWATER SAMPLING FIELD PARAMETERS
SWMU 360
RCRA PHASE II CONFIRMATORY SAMPLING INVESTIGATION, CTO - 143
MCB, CAMP LEJEUNE, NORTH CAROLINA

Well Number	Sampling Date	Well Depth (ft)[1]	Depth to Water (ft)[1]	Purge Volume (gal)	Field Parameters					
					Well Volume	Specific Cond.[2] (ms/cm)	pH (SU)[3]	Temp. (deg. C)	Dissolved Oxygen (mg/l)	Turbidity (NTU)[4]
SWMU 360-TW01	4/9/02	30.01	22.95	0.28	1	0.667	6.40	21.8	0.69	>1100
					2	0.646	6.43	21.8	0.52	>1100
					3	0.633	6.46	22.0	0.40	405.0
					4	0.631	6.46	22.0	0.39	222.0
					5	0.624	6.44	22.0	0.36	106.8
					6	***0.621***	***6.44***	***22.1***	***0.35***	112.0
					7	NR	NR	NR	NR	105.8
					8	NR	NR	NR	NR	99.8
					9	NR	NR	NR	NR	68.5
					10	NR	NR	NR	NR	***50.8***
SWMU 360-TW02	4/9/02	29.92	22.25	0.29	1	0.497	6.64	20.9	2.82	>1100
					2	0.496	6.57	20.7	1.21	550.0
					3	0.494	6.52	20.6	1.01	140.0
					4	0.485	6.49	20.6	0.93	89.0
					5	0.482	6.47	20.6	0.76	24.5
					6	***0.480***	***6.47***	***20.5***	***0.74***	***10.8***
SWMU 360-TW03	4/9/02	30.02	23.75	0.26	1	0.577	6.23	21.7	1.50	280.0
					2	0.571	6.24	21.7	1.30	110.0
					3	0.551	6.23	21.6	1.17	22.0
					4	0.499	5.93	20.8	1.11	128.0
					5	0.497	5.91	20.8	0.93	10.9
					6	***0.496***	***5.90***	***20.8***	***0.91***	***8.3***
SWMU 360-TW04	4/9/02	30.01	24.35	0.23	1	0.752	6.41	21.54	3.01	>1100
					2	0.722	6.38	21.48	2.82	82.3
					3	0.698	6.38	21.38	2.59	18.6
					4	***0.689***	***6.39***	***21.42***	***2.43***	***10.8***

Notes:

[1] - Measured from top of PVC Casing

[2] - Specific Conductance at 25 deg. C

[3] - SU = Standard Units

[4] - NTU = Nephelometric Turbidity Units

The bold and italicized parameters where taken immediately prior to sampling the well.

NR= Readings were not taken because these parameters were stable.

>1100 indicates that turbidity was outside of meter's range of detection

APPENDIX D

SUMMARY OF GROUNDWATER SAMPLING FIELD PARAMETERS
SWMU 361
RCRA PHASE II CONFIRMATORY SAMPLING INVESTIGATION, CTO - 143
MCB, CAMP LEJEUNE, NORTH CAROLINA

Well Number	Sampling Date	Well Depth (ft)[1]	Depth to Water (ft)[1]	Purge Volume (gal)	Field Parameters					
					Well Volume	Specific Cond.[2] (ms/cm)	pH (SU)[3]	Temp. (deg. C)	Dissolved Oxygen (mg/l)	Turbidity (NTU)[4]
SWMU 361-MW01	4/7/02	13.55	10.27	0.1	1	0.119	5.28	18.5	2.50	9.2
					3	0.121	5.3	18.4	2.30	2.6
					5	0.128	5.34	18.5	2.40	3.3
					6	0.130	5.36	18.4	2.30	3.4
					8	***0.131***	***5.36***	***18.5***	***2.10***	***4.1***
SWMU 361-MW02	4/7/02	16.55	10.8	0.94	1	0.076	4.73	18.9	3.41	6.8
					2	0.075	4.69	18.5	2.66	1.0
					3	***0.073***	***4.70***	***18.5***	***2.67***	***1.2***
SWMU 361-MW03	4/7/02	16.72	12.12	0.75	1	0.062	4.31	18.5	0.67	56.3
					2	0.061	4.36	18.5	0.55	9.3
					3	***0.060***	***4.39***	***18.5***	***0.48***	***5.5***
SWMU 361-MW04	4/7/02	17.15	13.79	0.6	1	0.042	4.04	17.9	2.60	2.4
					2	0.043	3.99	17.9	2.20	1.5
					3	0.043	3.96	18.0	1.80	0.6
					4	***0.044***	***3.97***	***18.0***	***1.70***	***0.4***
SWMU 361-MW05	4/7/02	16.6	10.94	0.92	1	0.107	5.15	18.0	3.03	8.3
					2	0.103	5.04	18.2	2.77	4.5
					3	***0.102***	***4.98***	***18.3***	***2.21***	***1.8***
SWMU 361-MW06	4/7/02	16.95	13.41	0.6	1	0.080	3.93	19.7	5.00	3.7
					2	0.080	3.89	19.7	5.10	1.1
					3	0.079	3.88	19.7	5.20	0.8
					4	0.079	3.86	19.6	5.40	0.8
					5	***0.080***	***3.86***	***19.6***	***5.50***	***0.3***

Notes:

[1] - Measured from top of PVC Casing

[2] - Specific Conductance at 25 deg. C

[3] - SU = Standard Units

[4] - NTU = Nephelometric Turbidity Units

The bold and italicized parameters where taken immediately prior to sampling the well.

APPENDIX D

SUMMARY OF GROUNDWATER SAMPLING FIELD PARAMETERS
SWMU 363
RCRA PHASE II CONFIRMATORY SAMPLING INVESTIGATION, CTO - 143
MCB, CAMP LEJEUNE, NORTH CAROLINA

Well Number	Sampling Date	Well Depth (ft)[1]	Depth to Water (ft)[1]	Purge Volume (gal)	Field Parameters					
					Well Volume	Specific Cond.[2] (ms/cm)	pH (SU)[3]	Temp. (deg. C)	Dissolved Oxygen (mg/l)	Turbidity (NTU)[4]
SWMU 363-TW01	4/3/02	16.9	6.6	0.42	1	0.146	4.39	19.5	0.51	>1000
					2	0.143	4.99	19.5	0.49	1000.0
					3	0.136	4.5	19.3	0.46	280.0
					4	0.135	4.51	19.2	0.40	170.0
					5	0.132	4.98	19.2	0.60	150.0
					6	***0.128***	***5.08***	***19.3***	***0.62***	***148.0***
SWMU 363-TW02	4/3/02	16.85	6.3	0.43	1	0.281	5.27	19.6	0.78	>1000
					2	0.254	4.91	19.3	0.56	>1000
					3	0.231	4.88	19.8	0.56	>1000
					4	0.230	4.83	19.9	0.60	650.0
					5	0.223	4.79	20.0	0.67	550.0
					6	***0.220***	***4.82***	***20.0***	***0.61***	***500.0***

Notes:

[1] - Measured from top of PVC Casing

[2] - Specific Conductance at 25 deg. C

[3] - SU = Standard Units

[4] - NTU = Nephelometric Turbidity Units

The bold and italicized parameters where taken immediately prior to sampling the well.

APPENDIX E
QA/QC RESULTS

QA/QC SUMMARY
EQUIPMENT RINSE, FIELD AND TRIP BLANKS
SWMU CONFIRMATORY SAMPLING (CTO-0143)
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	ER01	ER02	ER03	ER04	ER05	ER06	ER07	ER08	ER09-02B	FB01
SAMPLE DATE	03-19-2002	03-20-2002	03-21-2002	03-22-2002	03-23-2002	03-24-2002	03-25-2002	03-26-2002	04-10-2002	4/10/2002
VOLATILES (ug/L)										
Acetone	ND	NA	ND	ND	ND	ND	22	ND	ND	ND
Bromodichloromethane	ND	NA	ND	ND	ND	1 J	ND	ND	ND	ND
Chloroform	2 J	NA	1 J	ND	4 J	4 J	2 J	1 J	ND	ND
Dibromochloromethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Methyl-t-butyl ether	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Methylene chloride	ND	ND	ND	ND	ND	ND	ND	ND	ND	2 J
Toluene	2 J	NA	1 J	1 J	ND	ND	1 J	ND	ND	ND
SEMIVOLATILES (ug/L)										
2-Methylphenol	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND
4-Methylphenol	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND
bis(2-Ethylhexyl)phthalate	ND	NA	ND	ND	ND	ND	ND	ND	ND	1 J
Caprolactam	ND	NA	ND	ND	ND	ND	ND	ND	ND	40
METALS (ug/L)										
Barium	9.3 B	9.6 J	7.2 B	6.5 B	6.8 J	6.3 J	7.3 J	5.8 J	ND	11.3
Lead	ND	ND	ND	ND	1.7 J	2.1 J	2.5 J	1.8 J	ND	1.6 J
Mercury	ND	ND	ND	0.15 B	ND	ND	ND	ND	ND	ND
Selenium	ND	ND	ND	ND	ND	ND	ND	1.9 J	ND	ND
PESTICIDES (ug/L)										
4,4'-DDT	NA	NA	NA	NA	ND	ND	ND	ND	ND	ND
alpha-Chlordane	NA	NA	NA	NA	ND	ND	ND	ND	ND	ND
delta-BHC	NA	NA	NA	NA	ND	ND	ND	ND	ND	ND
gamma-BHC (Lindane)	NA	NA	NA	NA	ND	ND	ND	ND	ND	ND
gamma-Chlordane	NA	NA	NA	NA	ND	ND	ND	ND	ND	ND
Heptachlor	NA	NA	NA	NA	ND	ND	ND	ND	ND	ND

B - Analyte detected. Report value is estimated due to probable blank contamination.
J - Analyte detected. Report value is estimated.
ND - Analyte not detected
NA - Not analyzed
R - Rejected data point

QA/QC SUMMARY
EQUIPMENT RINSE, FIELD AND TRIP BLANKS
SWMU CONFIRMATORY SAMPLING (CTO-0143)
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	FB02	FB03	FB04	TB01	TB02	TB03	TB04	TB05	TB06	TB07	TB08	TB09
SAMPLE DATE	4/10/2002	4/10/2002	4/10/2002	3/19/2002	3/20/2002	3/21/2002	3/22/2002	3/23/2002	3/25/2002	3/25/2002	3/27/2002	4/3/2002
VOLATILES (ug/L)												
Acetone	60	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	4 J
Bromodichloromethane	ND	13	5	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloroform	ND	85	13	ND	ND	2 J	ND	ND	2 J	2 J	ND	ND
Dibromochloromethane	ND	3 J	2 J	ND	ND	ND	ND	ND	ND	ND	ND	ND
Methyl-t-butyl ether	2 J	ND	ND	ND	ND	ND	ND	ND	NA	ND	ND	ND
Methylene chloride	ND	2 J	2 J	ND	ND	ND	ND	ND	ND	ND	ND	ND
Toluene	ND	ND	ND	2 J	2 J	1 J	1 J	1 J	ND	ND	ND	ND
SEMIVOLATILES (ug/L)												
2-Methylphenol	11	10	10 R	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methylphenol	1 J	10	10 R	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Ethylhexyl)phthalate	10	10	10	NA	NA	NA	NA	NA	NA	NA	NA	NA
Caprolactam	10	10	10	NA	NA	NA	NA	NA	NA	NA	NA	NA
METALS (ug/L)												
Barium	0.51 J	1.2 J	5.1 J	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	1.1	1.5 J	1.1	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA
PESTICIDES (ug/L)												
4,4'-DDT	0.072 J	0.045 J	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA
alpha-Chlordane	0.094 J	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA
delta-BHC	0.064	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA
gamma-BHC (Lindane)	0.035 J	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA
gamma-Chlordane	0.018 J	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	0.22 J	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA

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R - Rejected data point

QA/QC SUMMARY
EQUIPMENT RINSE, FIELD AND TRIP BLANKS
SWMU CONFIRMATORY SAMPLING (CTO-0143)
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	TB10	TB11	TB12	TB13	TB14
SAMPLE DATE	4/4/2002	4/5/2002	4/7/2002	4/8/2002	4/9/2002
VOLATILES (ug/L)					
Acetone	ND	ND	ND	5 J	ND
Bromodichloromethane	ND	ND	ND	ND	ND
Chloroform	ND	ND	ND	1 J	ND
Dibromochloromethane	ND	ND	ND	ND	ND
Methyl-t-butyl ether	ND	ND	ND	ND	ND
Methylene chloride	ND	ND	ND	ND	ND
Toluene	ND	ND	ND	ND	ND
SEMIVOLATILES (ug/L)					
2-Methylphenol	NA	NA	NA	NA	NA
4-Methylphenol	NA	NA	NA	NA	NA
bis(2-Ethylhexyl)phthalate	NA	NA	NA	NA	NA
Caprolactam	NA	NA	NA	NA	NA
METALS (ug/L)					
Barium	NA	NA	NA	NA	NA
Lead	NA	NA	NA	NA	NA
Mercury	NA	NA	NA	NA	NA
Selenium	NA	NA	NA	NA	NA
PESTICIDES (ug/L)					
4,4'-DDT	NA	NA	NA	NA	NA
alpha-Chlordane	NA	NA	NA	NA	NA
delta-BHC	NA	NA	NA	NA	NA
gamma-BHC (Lindane)	NA	NA	NA	NA	NA
gamma-Chlordane	NA	NA	NA	NA	NA
Heptachlor	NA	NA	NA	NA	NA

B - Analyte detected. Report value is estimated due to probable blank contamination.
J - Analyte detected. Report value is estimated.
ND - Analyte not detected
NA - Not analyzed
R - Rejected data point

QA/QC SUMMARY
WATER - MATRIX SPIKES AND MATRIX SPIKE DUPLICATES
SWMU CONFIRMATORY SAMPLING (CTO-0143)
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	BASE-GW03ITWMS	BASE-GW03ITWSD	BASE-GW23STWMS	BASE-GW23STWMSD	SWMU43-GW03MS	SWMU43-GW03MSD
SAMPLE DATE	4/6/2002	4/6/2002	4/8/2002	4/8/2002	4/8/2002	4/8/2002
VOLATILES (ug/L)						
1,1-Dichloroethane	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	NA	NA	NA	NA	NA	NA
Acetone	NA	NA	NA	NA	NA	NA
Benzene	NA	NA	NA	NA	NA	NA
Chlorobenzene	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	NA	NA	NA	NA	NA	NA
Cyclohexane	NA	NA	NA	NA	NA	NA
Ethylbenzene	NA	NA	NA	NA	NA	NA
Isopropylbenzene	NA	NA	NA	NA	NA	NA
Methylcyclohexane	NA	NA	NA	NA	NA	NA
Toluene	NA	NA	NA	NA	NA	NA
Trichloroethene	NA	NA	NA	NA	NA	NA
Vinyl chloride	NA	NA	NA	NA	NA	NA
Xylene (Total)	NA	NA	NA	NA	NA	NA
SEMIVOLATILES (ug/L)						
1,1'-Biphenyl	NA	NA	NA	NA	52	50
2,2'-oxybis(1-Chloropropane)	NA	NA	NA	NA	63	59
2,4,5-Trichlorophenol	NA	NA	NA	NA	56	58
2,4,6-Trichlorophenol	NA	NA	NA	NA	59	57
2,4-Dichlorophenol	NA	NA	NA	NA	61	66
2,4-Dimethylphenol	NA	NA	NA	NA	45	44
2,4-Dinitrophenol	NA	NA	NA	NA	26 J	27 J
2,4-Dinitrotoluene	NA	NA	NA	NA	51	55
2,6-Dinitrotoluene	NA	NA	NA	NA	48	49
2-Chloronaphthalene	NA	NA	NA	NA	58	56
2-Chlorophenol	NA	NA	NA	NA	54	49
2-Methylnaphthalene	NA	NA	NA	NA	50	50
2-Methylphenol	NA	NA	NA	NA	51	44
2-Nitroaniline	NA	NA	NA	NA	54	57
2-Nitrophenol	NA	NA	NA	NA	57	53
3,3'-Dichlorobenzidine	NA	NA	NA	NA	44	41
3-Nitroaniline	NA	NA	NA	NA	46	48
4,6-Dinitro-2-methylphenol	NA	NA	NA	NA	57	59
4-Bromophenyl phenyl ether	NA	NA	NA	NA	70	70
4-Chloro-3-methylphenol	NA	NA	NA	NA	61	59
4-Chloroaniline	NA	NA	NA	NA	57	54
4-Chlorophenyl phenyl ether	NA	NA	NA	NA	72	75
4-Methylphenol	NA	NA	NA	NA	110	100
4-Nitroaniline	NA	NA	NA	NA	48	48

QA/QC SUMMARY
WATER - MATRIX SPIKES AND MATRIX SPIKE DUPLICATES
SWMU CONFIRMATORY SAMPLING (CTO-0143)
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	BASE-GW03ITWMS	BASE-GW03ITWSD	BASE-GW23STWMS	BASE-GW23STWMSD	SWMU43-GW03MS	SWMU43-GW03MSD
SAMPLE DATE	4/6/2002	4/6/2002	4/8/2002	4/8/2002	4/8/2002	4/8/2002
SEMIVOLATILES (cont.)						
4-Nitrophenol	NA	NA	NA	NA	36	38
Acenaphthene	NA	NA	NA	NA	33	34
Acenaphthylene	NA	NA	NA	NA	34	36
Acetophenone	NA	NA	NA	NA	56	51
Anthracene	NA	NA	NA	NA	39	39
Atrazine	NA	NA	NA	NA	58	59
Benzaldehyde	NA	NA	NA	NA	32	30
Benzo(a)anthracene	NA	NA	NA	NA	44	45
Benzo(a)pyrene	NA	NA	NA	NA	38	38
Benzo(b)fluoranthene	NA	NA	NA	NA	41	42
Benzo(g,h,i)perylene	NA	NA	NA	NA	36	35
Benzo(k)fluoranthene	NA	NA	NA	NA	36	35
bis(2-Chloroethoxy)methane	NA	NA	NA	NA	56	56
bis(2-Chloroethyl)ether	NA	NA	NA	NA	53	49
bis(2-Ethylhexyl)phthalate	NA	NA	NA	NA	68	69
Butyl benzyl phthalate	NA	NA	NA	NA	60	63
Caprolactam	NA	NA	NA	NA	29	28
Carbazole	NA	NA	NA	NA	55	55
Chrysene	NA	NA	NA	NA	38	35
di-N-Butyl phthalate	NA	NA	NA	NA	80	80
di-N-Octyl phthalate	NA	NA	NA	NA	67	67
Dibenzo(a,h)anthracene	NA	NA	NA	NA	37	37
Dibenzofuran	NA	NA	NA	NA	57	60
Diethyl phthalate	NA	NA	NA	NA	67	70
Dimethyl phthalate	NA	NA	NA	NA	78	78
Fluoranthene	NA	NA	NA	NA	49	49
Fluorene	NA	NA	NA	NA	37	38
Hexachlorobenzene	NA	NA	NA	NA	58	59
Hexachlorobutadiene	NA	NA	NA	NA	56	55
Hexachlorocyclopentadiene	NA	NA	NA	NA	64	65
Hexachloroethane	NA	NA	NA	NA	56	53
Indeno(1,2,3-cd)pyrene	NA	NA	NA	NA	60	60
Isophorone	NA	NA	NA	NA	56	54
N-Nitroso-di-N-propylamine	NA	NA	NA	NA	73	66
N-Nitrosodiphenylamine(1)	NA	NA	NA	NA	76	76
Naphthalene	NA	NA	NA	NA	36	36
Nitrobenzene	NA	NA	NA	NA	54	50
Pentachlorophenol	NA	NA	NA	NA	57	58
Phenanthrene	NA	NA	NA	NA	39	39
Phenol	NA	NA	NA	NA	45	34
Pyrene	NA	NA	NA	NA	43	41

QA/QC SUMMARY
WATER - MATRIX SPIKES AND MATRIX SPIKE DUPLICATES
SWMU CONFIRMATORY SAMPLING (CTO-0143)
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	BASE-GW03ITWMS	BASE-GW03ITWSD	BASE-GW23STWMS	BASE-GW23STWMSD	SWMU43-GW03MS	SWMU43-GW03MSD
SAMPLE DATE	4/6/2002	4/6/2002	4/8/2002	4/8/2002	4/8/2002	4/8/2002
METALS (ug/L)						
Aluminum	NA	NA	2774.34	2828.388	NA	NA
Antimony	456.4266	447.8941	468.4096	480.8197	NA	NA
Arsenic	34.3711	32.7671	34.473	36.034	37.621	39.4337
Barium	1882.019	1858.241	1885.751	1935.752	2241.918	2251.293
Beryllium	47.1172	46.3138	47.6687	48.8916	NA	NA
Cadmium	45.1842	44.3702	46.7606	48.2728	52.194	52.9211
Chromium	188.529	186.2435	191.2434	195.6368	216.5276	217.2929
Cobalt	466.7089	460.4042	475.6442	487.1891	NA	NA
Copper	305.7332	301.3947	290.7278	298.7359	NA	NA
Iron	2495.084	2485.418	1516.332	1553.704	NA	NA
Lead	19.0262	18.69	19.212	19.9094	21.6722	22.7445
Manganese	611.5956	605.3798	484.3313	496.8832	NA	NA
Mercury	0.7524	0.7968	0.8942	0.9742	1.213	1.207
Nickel	471.0714	463.9438	474.8807	487.0581	NA	NA
Selenium	10.821	11.1661	4.27 BN	4.746 BN	13.6972	14.8099
Silver	46.5398	45.494	46.8032	47.529	52.3322	52.9535
Thallium	44.4124	41.6097	43.0923	44.5093	NA	NA
Vanadium	469.7249	463.6289	479.769	492.6988	NA	NA
Zinc	498.7003	492.4774	480.2306	491.6593	NA	NA
PESTICIDES (ug/L)						
4,4'-DDT	NA	NA	NA	NA	0.52	0.52
Aldrin	NA	NA	NA	NA	0.13	0.16
alpha-Chlordane	NA	NA	NA	NA	0.037 J	0.034 J
Dieldrin	NA	NA	NA	NA	0.46	0.46
Endrin	NA	NA	NA	NA	0.42	0.42
Endrin ketone	NA	NA	NA	NA	0.074 J	0.068 J
gamma-BHC (Lindane)	NA	NA	NA	NA	0.18	0.19
Heptachlor	NA	NA	NA	NA	0.15	0.17

BN - Analyte detected. Report value is estimated due to probable blank contamination.
N - Indicates presumptive evidence of a compound.
ND - Analyte not detected
NA - Not analyzed

QA/QC SUMMARY
WATER - MATRIX SPIKES AND MATRIX SPIKE DUPLICATES
SWMU CONFIRMATORY SAMPLING (CTO-0143)
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU311-GW01MS		SWMU311-GW01MSD		SWMU313-GW02MS	SWMU313-GW02MSD	SWMU314-GW02MS	SWMU314-GW02MSD
SAMPLE DATE	4/4/2002		4/4/2002		4/4/2002	4/4/2002	4/6/2002	4/6/2002
VOLATILES (ug/L)								
1,1-Dichloroethane	ND		ND		NA	NA	NA	NA
1,1-Dichloroethene	39		42		NA	NA	NA	NA
1,2-Dichlorobenzene	ND		ND		NA	NA	NA	NA
1,2-Dichloroethane	1	J	2	J	NA	NA	NA	NA
Acetone	4	J	ND		NA	NA	NA	NA
Benzene	43		45		NA	NA	NA	NA
Chlorobenzene	42		43		NA	NA	NA	NA
cis-1,2-Dichloroethene	ND		ND		NA	NA	NA	NA
Cyclohexane	3	J	3	J	NA	NA	NA	NA
Ethylbenzene	2	J	2	J	NA	NA	NA	NA
Isopropylbenzene	3	J	3	J	NA	NA	NA	NA
Methylcyclohexane	3	J	3	J	NA	NA	NA	NA
Toluene	44		44		NA	NA	NA	NA
Trichloroethene	42		43		NA	NA	NA	NA
Vinyl chloride	ND		ND		NA	NA	NA	NA
Xylene (Total)	3	J	3	J	NA	NA	NA	NA
SEMIVOLATILES (ug/L)								
1,1'-Biphenyl	NA		NA		NA	NA	57	68
2,2'-oxybis(1-Chloropropane)	NA		NA		NA	NA	100	120
2,4,5-Trichlorophenol	NA		NA		NA	NA	64	68
2,4,6-Trichlorophenol	NA		NA		NA	NA	64	69
2,4-Dichlorophenol	NA		NA		NA	NA	51	61
2,4-Dimethylphenol	NA		NA		NA	NA	45	50
2,4-Dinitrophenol	NA		NA		NA	NA	130	150
2,4-Dinitrotoluene	NA		NA		NA	NA	75	73
2,6-Dinitrotoluene	NA		NA		NA	NA	62	64
2-Chloronaphthalene	NA		NA		NA	NA	57	70
2-Chlorophenol	NA		NA		NA	NA	42	55
2-Methylnaphthalene	NA		NA		NA	NA	46	56
2-Methylphenol	NA		NA		NA	NA	44	53
2-Nitroaniline	NA		NA		NA	NA	110	110
2-Nitrophenol	NA		NA		NA	NA	46	58
3,3'-Dichlorobenzidine	NA		NA		NA	NA	25	25
3-Nitroaniline	NA		NA		NA	NA	59	54
4,6-Dinitro-2-methylphenol	NA		NA		NA	NA	67	64
4-Bromophenyl phenyl ether	NA		NA		NA	NA	89	89
4-Chloro-3-methylphenol	NA		NA		NA	NA	66	65
4-Chloroaniline	NA		NA		NA	NA	49	50
4-Chlorophenyl phenyl ether	NA		NA		NA	NA	93	97
4-Methylphenol	NA		NA		NA	NA	86	100
4-Nitroaniline	NA		NA		NA	NA	55	50

QA/QC SUMMARY
WATER - MATRIX SPIKES AND MATRIX SPIKE DUPLICATES
SWMU CONFIRMATORY SAMPLING (CTO-0143)
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU311-GW01MS	SWMU311-GW01MSD	SWMU313-GW02MS	SWMU313-GW02MSD	SWMU314-GW02MS	SWMU314-GW02MSD
SAMPLE DATE	4/4/2002	4/4/2002	4/4/2002	4/4/2002	4/6/2002	4/6/2002
SEMIVOLATILES (cont.)						
4-Nitrophenol	NA	NA	NA	NA	65	68
Acenaphthene	NA	NA	NA	NA	37	43
Acenaphthylene	NA	NA	NA	NA	38	44
Acetophenone	NA	NA	NA	NA	50	60
Anthracene	NA	NA	NA	NA	47	44
Atrazine	NA	NA	NA	NA	74	71
Benzaldehyde	NA	NA	NA	NA	49	53
Benzo(a)anthracene	NA	NA	NA	NA	36	33
Benzo(a)pyrene	NA	NA	NA	NA	39	40
Benzo(b)fluoranthene	NA	NA	NA	NA	47	43
Benzo(g,h,i)perylene	NA	NA	NA	NA	33	35
Benzo(k)fluoranthene	NA	NA	NA	NA	41	50
bis(2-Chloroethoxy)methane	NA	NA	NA	NA	67	79
bis(2-Chloroethyl)ether	NA	NA	NA	NA	55	68
bis(2-Ethylhexyl)phthalate	NA	NA	NA	NA	78	72
Butyl benzyl phthalate	NA	NA	NA	NA	66	62
Caprolactam	NA	NA	NA	NA	26	25
Carbazole	NA	NA	NA	NA	68	62
Chrysene	NA	NA	NA	NA	34	34
di-N-Butyl phthalate	NA	NA	NA	NA	95	89
di-N-Octyl phthalate	NA	NA	NA	NA	96	92
Dibenzo(a,h)anthracene	NA	NA	NA	NA	37	39
Dibenzofuran	NA	NA	NA	NA	67	71
Diethyl phthalate	NA	NA	NA	NA	87	85
Dimethyl phthalate	NA	NA	NA	NA	80	81
Fluoranthene	NA	NA	NA	NA	45	42
Fluorene	NA	NA	NA	NA	49	50
Hexachlorobenzene	NA	NA	NA	NA	76	75
Hexachlorobutadiene	NA	NA	NA	NA	47	64
Hexachlorocyclopentadiene	NA	NA	NA	NA	45	74
Hexachloroethane	NA	NA	NA	NA	43	60
Indeno(1,2,3-cd)pyrene	NA	NA	NA	NA	56	58
Isophorone	NA	NA	NA	NA	66	73
N-Nitroso-di-N-propylamine	NA	NA	NA	NA	70	83
N-Nitrosodiphenylamine(1)	NA	NA	NA	NA	83	80
Naphthalene	NA	NA	NA	NA	33	40
Nitrobenzene	NA	NA	NA	NA	65	81
Pentachlorophenol	NA	NA	NA	NA	61	64
Phenanthrene	NA	NA	NA	NA	48	46
Phenol	NA	NA	NA	NA	29	34
Pyrene	NA	NA	NA	NA	33	30

QA/QC SUMMARY
WATER - MATRIX SPIKES AND MATRIX SPIKE DUPLICATES
SWMU CONFIRMATORY SAMPLING (CTO-0143)
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU311-GW01MS	SWMU311-GW01MSD	SWMU313-GW02MS	SWMU313-GW02MSD	SWMU314-GW02MS	SWMU314-GW02MSD
SAMPLE DATE	4/4/2002	4/4/2002	4/4/2002	4/4/2002	4/6/2002	4/6/2002
METALS (ug/L)						
Aluminum	NA	NA	NA	NA	NA	NA
Antimony	NA	NA	NA	NA	NA	NA
Arsenic	NA	NA	37.6695	38.362	42.3329	42.9537
Barium	NA	NA	2142.158	2204.495	2002.996	1979.455
Beryllium	NA	NA	NA	NA	NA	NA
Cadmium	NA	NA	51.0244	52.2198	47.8772	47.8815
Chromium	NA	NA	224.4694	231.6083	205.6415	205.0546
Cobalt	NA	NA	NA	NA	NA	NA
Copper	NA	NA	NA	NA	NA	NA
Iron	NA	NA	NA	NA	NA	NA
Lead	NA	NA	25.4263	26.6285	22.5301	22.4182
Manganese	NA	NA	NA	NA	NA	NA
Mercury	NA	NA	1.296 N	1.11	0.9223	0.898
Nickel	NA	NA	NA	NA	NA	NA
Selenium	NA	NA	5.5713	5.7455	7.4681	9.9049
Silver	NA	NA	52.1305	53.2301	49.312	49.2439
Thallium	NA	NA	NA	NA	NA	NA
Vanadium	NA	NA	NA	NA	NA	NA
Zinc	NA	NA	NA	NA	NA	NA
PESTICIDES (ug/L)						
4,4'-DDT	NA	NA	NA	NA	NA	NA
Aldrin	NA	NA	NA	NA	NA	NA
alpha-Chlordane	NA	NA	NA	NA	NA	NA
Dieldrin	NA	NA	NA	NA	NA	NA
Endrin	NA	NA	NA	NA	NA	NA
Endrin ketone	NA	NA	NA	NA	NA	NA
gamma-BHC (Lindane)	NA	NA	NA	NA	NA	NA
Heptachlor	NA	NA	NA	NA	NA	NA

BN - Analyte detected. Report value is estimated due to probable blank contamination.
N - Indicates presumptive evidence of a compound.
ND - Analyte not detected
NA - Not analyzed

QA/QC SUMMARY
WATER - MATRIX SPIKES AND MATRIX SPIKE DUPLICATES
SWMU CONFIRMATORY SAMPLING (CTO-0143)
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU315-GW02MS	SWMU315-GW02MSD	SWMU318-GW01TWMS	SWMU318-GW01TWMSD	SWMU361-MW04MS	SWMU361-MW04MSD
SAMPLE DATE	4/6/2002	4/6/2002	4/2/2002	4/2/2002	4/7/2002	4/7/2002
VOLATILES (ug/L)						
1,1-Dichloroethane	NA	NA	0.9 J	0.9 J	ND	ND
1,1-Dichloroethene	NA	NA	45	38	44	45
1,2-Dichlorobenzene	NA	NA	2 J	2 J	ND	ND
1,2-Dichloroethane	NA	NA	ND	ND	1 J	1 J
Acetone	NA	NA	7 J	9 J	ND	6 J
Benzene	NA	NA	47	42	46	46
Chlorobenzene	NA	NA	44	38	44	45
cis-1,2-Dichloroethene	NA	NA	21	20	ND	ND
Cyclohexane	NA	NA	ND	ND	ND	ND
Ethylbenzene	NA	NA	1 J	1 J	1 J	1 J
Isopropylbenzene	NA	NA	ND	ND	3 J	3 J
Methylcyclohexane	NA	NA	ND	ND	1 J	1 J
Toluene	NA	NA	44	38	45	47
Trichloroethene	NA	NA	58	52	44	45
Vinyl chloride	NA	NA	2 J	2 J	ND	ND
Xylene (Total)	NA	NA	ND	ND	51	52
SEMIVOLATILES (ug/L)						
1,1'-Biphenyl	63	73	NA	NA	63	54
2,2'-oxybis(1-Chloropropane)	62	76	NA	NA	58	43
2,4,5-Trichlorophenol	73	73	NA	NA	66	72
2,4,6-Trichlorophenol	69	76	NA	NA	69	59
2,4-Dichlorophenol	57	73	NA	NA	73	63
2,4-Dimethylphenol	41	58	NA	NA	56	52
2,4-Dinitrophenol	250	240	NA	NA	35 J	36 J
2,4-Dinitrotoluene	78	75	NA	NA	61	68
2,6-Dinitrotoluene	76	75	NA	NA	57	62
2-Chloronaphthalene	63	74	NA	NA	66	56
2-Chlorophenol	54	66	NA	NA	46	30
2-Methylnaphthalene	57	73	NA	NA	98	74
2-Methylphenol	52	60	NA	NA	41	33
2-Nitroaniline	140	140	NA	NA	62	69
2-Nitrophenol	54	70	NA	NA	60	52
3,3'-Dichlorobenzidine	52	54	NA	NA	47	40
3-Nitroaniline	130	130	NA	NA	53	58
4,6-Dinitro-2-methylphenol	170	170	NA	NA	64	62
4-Bromophenyl phenyl ether	90	94	NA	NA	77	80
4-Chloro-3-methylphenol	62	73	NA	NA	67	65
4-Chloroaniline	51	64	NA	NA	61	49
4-Chlorophenyl phenyl ether	87	93	NA	NA	87	89
4-Methylphenol	110	140	NA	NA	87	57
4-Nitroaniline	120	110	NA	NA	62	61

QA/QC SUMMARY
WATER - MATRIX SPIKES AND MATRIX SPIKE DUPLICATES
SWMU CONFIRMATORY SAMPLING (CTO-0143)
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU315-GW02MS	SWMU315-GW02MSD	SWMU318-GW01TWMS	SWMU318-GW01TWMSD	SWMU361-MW04MS	SWMU361-MW04MSD
SAMPLE DATE	4/6/2002	4/6/2002	4/2/2002	4/2/2002	4/7/2002	4/7/2002
SEMIVOLATILES (cont.)						
4-Nitrophenol	92	110	NA	NA	28	28
Acenaphthene	42	46	NA	NA	38	39
Acenaphthylene	43	48	NA	NA	42	46
Acetophenone	59	71	NA	NA	62	45
Anthracene	48	45	NA	NA	43	36
Atrazine	79	83	NA	NA	77	66
Benzaldehyde	50	56	NA	NA	45	36
Benzo(a)anthracene	46	45	NA	NA	45	42
Benzo(a)pyrene	47	45	NA	NA	41	40
Benzo(b)fluoranthene	46	53	NA	NA	46	37
Benzo(g,h,i)perylene	53	50	NA	NA	38	37
Benzo(k)fluoranthene	50	40	NA	NA	40	45
bis(2-Chloroethoxy)methane	66	82	NA	NA	64	65
bis(2-Chloroethyl)ether	66	80	NA	NA	51	42
bis(2-Ethylhexyl)phthalate	88	83	NA	NA	77	82
Butyl benzyl phthalate	86	83	NA	NA	71	78
Caprolactam	31	36	NA	NA	20	20
Carbazole	71	67	NA	NA	63	64
Chrysene	45	45	NA	NA	38	35
di-N-Butyl phthalate	89	92	NA	NA	92	92
di-N-Octyl phthalate	85	79	NA	NA	73	71
Dibenzo(a,h)anthracene	54	52	NA	NA	40	39
Dibenzofuran	70	74	NA	NA	70	71
Diethyl phthalate	96	92	NA	NA	80	86
Dimethyl phthalate	93	91	NA	NA	93	86
Fluoranthene	48	47	NA	NA	52	44
Fluorene	46	49	NA	NA	44	46
Hexachlorobenzene	75	78	NA	NA	64	61
Hexachlorobutadiene	53	71	NA	NA	69	60
Hexachlorocyclopentadiene	59	79	NA	NA	76	52
Hexachloroethane	51	64	NA	NA	57	40
Indeno(1,2,3-cd)pyrene	79	76	NA	NA	64	63
Isophorone	59	70	NA	NA	62	53
N-Nitroso-di-N-propylamine	66	79	NA	NA	72	44
N-Nitrosodiphenylamine(1)	88	88	NA	NA	87	77
Naphthalene	35	45	NA	NA	58	58
Nitrobenzene	56	72	NA	NA	56	49
Pentachlorophenol	160	160	NA	NA	65	63
Phenanthrene	46	49	NA	NA	42	38
Phenol	36	47	NA	NA	21	17
Pyrene	48	45	NA	NA	40	36

QA/QC SUMMARY
WATER - MATRIX SPIKES AND MATRIX SPIKE DUPLICATES
SWMU CONFIRMATORY SAMPLING (CTO-0143)
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU315-GW02MS	SWMU315-GW02MSD	SWMU318-GW01TWMS	SWMU318-GW01TWMSD	SWMU361-MW04MS		SWMU361-MW04MSD	
SAMPLE DATE	4/6/2002	4/6/2002	4/2/2002	4/2/2002	4/7/2002		4/7/2002	
METALS (ug/L)								
Aluminum	NA	NA	NA	NA	NA		NA	
Antimony	NA	NA	NA	NA	NA		NA	
Arsenic	36.4485	35.0269	NA	NA	37.4845		34.9318	
Barium	1893.235	1961.72	NA	NA	2108.15		2063.47	
Beryllium	NA	NA	NA	NA	NA		NA	
Cadmium	45.8139	47.6364	NA	NA	50.4083		49.6705	
Chromium	190.8463	197.7592	NA	NA	204.5364		200.5527	
Cobalt	NA	NA	NA	NA	NA		NA	
Copper	NA	NA	NA	NA	NA		NA	
Iron	NA	NA	NA	NA	NA		NA	
Lead	19.0536	19.9183	NA	NA	21.4471		21.5398	
Manganese	NA	NA	NA	NA	NA		NA	
Mercury	0.969	1.045	NA	NA	0.5502	N	0.4352	N
Nickel	NA	NA	NA	NA	NA		NA	
Selenium	9.7741	10.2914	NA	NA	9.251		10.0462	
Silver	47.134	48.361	NA	NA	49.6016		48.6827	
Thallium	NA	NA	NA	NA	NA		NA	
Vanadium	NA	NA	NA	NA	NA		NA	
Zinc	NA	NA	NA	NA	NA		NA	
PESTICIDES (ug/L)								
4,4'-DDT	NA	NA	NA	NA	0.48		0.47	
Aldrin	NA	NA	NA	NA	0.15		0.14	
alpha-Chlordane	NA	NA	NA	NA	ND		ND	
Dieldrin	NA	NA	NA	NA	0.43		0.43	
Endrin	NA	NA	NA	NA	0.39		0.39	
Endrin ketone	NA	NA	NA	NA	0.064	J	0.065	J
gamma-BHC (Lindane)	NA	NA	NA	NA	0.2		0.21	
Heptachlor	NA	NA	NA	NA	0.15		0.16	

BN - Analyte detected. Report value is estimated due to probable blank contamination.
N - Indicates presumptive evidence of a compound.
ND - Analyte not detected
NA - Not analyzed

QA/QC SUMMARY
SOIL - MATRIX SPIKES AND MATRIX SPIKE DUPLICATES
SWMU CONFIRMATORY SAMPLING (CTO-0143)
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU43-SB02-06MS	SWMU43-SB02-06MSD	SWMU53-SB01-03MS	SWMU53-SB01-03MSD	SWMU258-IS05-00MS	SWMU258-IS05-00MSD
SAMPLE DATE	3/25/2002	3/25/2002	3/21/2002	3/21/2002	3/22/2002	3/22/2002
VOLATILES (ug/kg)						
1,1-Dichloroethene	NA	NA	NA	NA	56	63
1,2-Dichloroethane	NA	NA	NA	NA	ND	ND
1,2-Dichloroethane-d4	NA	NA	NA	NA	NA	NA
2-Butanone	NA	NA	NA	NA	10 J	9 J
Acetone	NA	NA	NA	NA	34	23
Benzene	NA	NA	NA	NA	58	66
Bromofluorobenzene	NA	NA	NA	NA	NA	NA
Bromoform	NA	NA	NA	NA	ND	ND
Chlorobenzene	NA	NA	NA	NA	49	56
cis-1,2-Dichloroethene	NA	NA	NA	NA	ND	ND
Dibromofluoromethane	NA	NA	NA	NA	NA	NA
Ethylbenzene	NA	NA	NA	NA	2 J	1 J
Isopropylbenzene	NA	NA	NA	NA	ND	ND
Methyl acetate	NA	NA	NA	NA	3 J	3 J
Methylcyclohexane	NA	NA	NA	NA	ND	ND
Methylene chloride	NA	NA	NA	NA	30	39
Toluene	NA	NA	NA	NA	53	57
Toluene-d8	NA	NA	NA	NA	NA	NA
Trichloroethene	NA	NA	NA	NA	51	60
Xylene (Total)	NA	NA	NA	NA	ND	ND
SEMIVOLATILES (ug/kg)						
1,1'-Biphenyl	2600	2500	2800	2700	NA	NA
2,2'-oxybis(1-Chloropropane)	1800	2200	2400	2300	NA	NA
2,4,5-Trichlorophenol	2700	3000	2000	2900	NA	NA
2,4,6-Tribromophenol	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	2100	2500	3000	2900	NA	NA
2,4-Dichlorophenol	2100	2700	2700	2700	NA	NA
2,4-Dimethylphenol	2000	1900	3000	2800	NA	NA
2,4-Dinitrophenol	570 J	1000 J	290 J	750 J	NA	NA
2,4-Dinitrotoluene	2200	2700	1800	2300	NA	NA
2,6-Dinitrotoluene	2700	3300	2100	2900	NA	NA
2-Chloronaphthalene	2400	2400	2600	2500	NA	NA
2-Chlorophenol	1800	2300	2300	2600	NA	NA
2-Fluorobiphenyl	NA	NA	NA	NA	NA	NA
2-Fluorophenol	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene	2300	2500	2600	2700	NA	NA
2-Methylphenol	2100	2500	2600	2900	NA	NA
2-Nitroaniline	2000	2900	1800	2500	NA	NA
2-Nitrophenol	2300	2800	2300	3000	NA	NA
3,3'-Dichlorobenzidine	1300	1300	750 J	680 J	NA	NA
3-Nitroaniline	1900	2200	1500	1800	NA	NA
4,6-Dinitro-2-methylphenol	1500	2000	650 J	1600	NA	NA
4-Bromophenyl phenyl ether	2100	2800	2500	2600	NA	NA

QA/QC SUMMARY
SOIL - MATRIX SPIKES AND MATRIX SPIKE DUPLICATES
SWMU CONFIRMATORY SAMPLING (CTO-0143)
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU43-SB02-06MS	SWMU43-SB02-06MSD	SWMU53-SB01-03MS	SWMU53-SB01-03MSD	SWMU258-IS05-00MS	SWMU258-IS05-00MSD
SAMPLE DATE	3/25/2002	3/25/2002	3/21/2002	3/21/2002	3/22/2002	3/22/2002
SEMIVOLATILES (cont.)						
4-Chloro-3-methylphenol	2200	3100	2600	2900	NA	NA
4-Chloroaniline	1500	1600	870	1200	NA	NA
4-Chlorophenyl phenyl ether	2600	2900	2500	2700	NA	NA
4-Methylphenol	4100	4600	5000	5400	NA	NA
4-Nitroaniline	2000	2300	1700	2100	NA	NA
4-Nitrophenol	2200	2600	2300	2400	NA	NA
Acenaphthene	1600	1700	1800	1800	NA	NA
Acenaphthylene	1800	2000	1800	1800	NA	NA
Acetophenone	1900	2200	2200	1500	NA	NA
Anthracene	1600	1900	1800	1800	NA	NA
Atrazine	2400	3300	2400	2400	NA	NA
Benzaldehyde	2000	2400	3000	3400	NA	NA
Benzo(a)anthracene	1400	1600	1700	1900	NA	NA
Benzo(a)pyrene	1400	1600	1600	1700	NA	NA
Benzo(b)fluoranthene	1400	1600	2000	1900	NA	NA
Benzo(g,h,i)perylene	1200	1400	1100	1200	NA	NA
Benzo(k)fluoranthene	1500	2000	1600	1900	NA	NA
bis(2-Chloroethoxy)methane	1900	2800	2600	2500	NA	NA
bis(2-Chloroethyl)ether	1700	2100	2300	2300	NA	NA
bis(2-Ethylhexyl)phthalate	2200	2500	3000	2900	NA	NA
Butyl benzyl phthalate	1800	2700	3300	2600	NA	NA
Caprolactam	2100	2800	2100	2300	NA	NA
Carbazole	2400	2400	2700	2800	NA	NA
Chrysene	1500	1500	1800	1800	NA	NA
di-N-Butyl phthalate	2000	2800	2500	2700	NA	NA
di-N-Octyl phthalate	2400	2700	4100	3900	NA	NA
Dibenzo(a,h)anthracene	1300	1500	1300	1400	NA	NA
Dibenzofuran	2400	2500	2500	2700	NA	NA
Diethyl phthalate	2500	3000	2200	2300	NA	NA
Dimethyl phthalate	2700	2600	2900	2700	NA	NA
Fluoranthene	1600	2200	1500	1700	NA	NA
Fluorene	1600	1800	1500	1800	NA	NA
Hexachlorobenzene	2500	2900	2800	2800	NA	NA
Hexachlorobutadiene	2100	3000	2700	2500	NA	NA
Hexachlorocyclopentadiene	1600	2100	300 J	1300	NA	NA
Hexachloroethane	1800	2200	1900	2200	NA	NA
Indeno(1,2,3-cd)pyrene	2000	2500	2100	2200	NA	NA
Isophorone	2100	2400	2600	2400	NA	NA
N-Nitroso-di-N-propylamine	2200	2300	2400	2700	NA	NA
N-Nitrosodiphenylamine(1)	2300	2600	2600	2600	NA	NA
Naphthalene	1500	2100	1600	1700	NA	NA
Nitrobenzene	2300	2600	2300	2700	NA	NA

QA/QC SUMMARY
SOIL - MATRIX SPIKES AND MATRIX SPIKE DUPLICATES
SWMU CONFIRMATORY SAMPLING (CTO-0143)
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU43-SB02-06MS		SWMU43-SB02-06MSD		SWMU53-SB01-03MS		SWMU53-SB01-03MSD		SWMU258-IS05-00MS		SWMU258-IS05-00MSD	
SAMPLE DATE	3/25/2002		3/25/2002		3/21/2002		3/21/2002		3/22/2002		3/22/2002	
SEMIVOLATILES (cont.)												
Nitrobenzene-d5	NA		NA		NA		NA		NA		NA	
Pentachlorophenol	1700		2500		2500		2900		NA		NA	
Phenanthrene	1600		2000		1700		1600		NA		NA	
Phenol	2000		2500		2800		2700		NA		NA	
Phenol-d5	NA		NA		NA		NA		NA		NA	
Pyrene	1300		1900		1900		2000		NA		NA	
Terphenyl-d14	NA		NA		NA		NA		NA		NA	
METALS (mg/kg)												
Arsenic	NA		NA		NA		NA		NA		NA	
Barium	NA		NA		NA		NA		NA		NA	
Cadmium	NA		NA		NA		NA		NA		NA	
Chromium	NA		NA		NA		NA		NA		NA	
Lead	NA		NA		NA		NA		NA		NA	
Mercury	NA		NA		NA		NA		NA		NA	
Selenium	NA		NA		NA		NA		NA		NA	
Silver	NA		NA		NA		NA		NA		NA	
PESTICIDES (ug/kg)												
4,4'-DDD	ND		ND		NA		NA		NA		NA	
4,4'-DDE	ND		ND		NA		NA		NA		NA	
4,4'-DDT	24		18		NA		NA		NA		NA	
Aldrin	8		6.5		NA		NA		NA		NA	
alpha-Chlordane	ND		ND		NA		NA		NA		NA	
beta-BHC	ND		ND		NA		NA		NA		NA	
Dieldrin	22	E	18	E	NA		NA		NA		NA	
Endrin	19		15		NA		NA		NA		NA	
Endrin aldehyde	ND		0.82	JP	NA		NA		NA		NA	
Endrin ketone	2.6	J	2.3	J	NA		NA		NA		NA	
gamma-BHC (Lindane)	8.8	E	6.8		NA		NA		NA		NA	
gamma-Chlordane	ND		ND		NA		NA		NA		NA	
Heptachlor	9.4	E	9.1	EP	NA		NA		NA		NA	
Methoxychlor	ND		ND		NA		NA		NA		NA	

B - Analyte detected. Report value is estimated due to probable blank contamination.
D - Result from reanalysis at a higher dilution factor.
E - Concentration exceeds upper level of calibration range.
EP - Concentration exceeds upper level of calibration range.
J - Analyte detected. Report value is estimated.
JB - Analyte detected. Report value is estimated.
JP - Analyte detected. Report value is estimated.
N - Indicates presumptive evidence of a compound.
ND - Analyte not detected
NA - Not analyzed

QA/QC SUMMARY
SOIL - MATRIX SPIKES AND MATRIX SPIKE DUPLICATES
SWMU CONFIRMATORY SAMPLING (CTO-0143)
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU269-TW01-06MS	SWMU269-TW01-06MSD	SWMU272-SB03-00MS	SWMU272-SB03-00MSD	SWMU285-TW02-02MS	SWMU285-TW02-02MSD
SAMPLE DATE	3/25/2002	3/25/2002	3/20/2002	3/20/2002	3/3/2002	3/3/2002
VOLATILES (ug/kg)						
1,1-Dichloroethene	6900	6700	NA	NA	44	51
1,2-Dichloroethane	ND	ND	NA	NA	ND	ND
1,2-Dichloroethane-d4	NA	NA	NA	NA	NA	NA
2-Butanone	ND	ND	NA	NA	ND	ND
Acetone	ND	ND	NA	NA	8 J	7 J
Benzene	6200	6100	NA	NA	49	57
Bromofluorobenzene	NA	NA	NA	NA	NA	NA
Bromoform	ND	ND	NA	NA	ND	ND
Chlorobenzene	6000	5900	NA	NA	46	53
cis-1,2-Dichloroethene	110 J	110 J	NA	NA	ND	ND
Dibromofluoromethane	NA	NA	NA	NA	NA	NA
Ethylbenzene	2500	2500	NA	NA	ND	ND
Isopropylbenzene	1700	1700	NA	NA	ND	ND
Methyl acetate	ND	ND	NA	NA	ND	3 J
Methylcyclohexane	1500	1500	NA	NA	ND	ND
Methylene chloride	ND	ND	NA	NA	20	20
Toluene	6600	6600	NA	NA	45	52
Toluene-d8	NA	NA	NA	NA	NA	NA
Trichloroethene	6300	6300	NA	NA	46	54
Xylene (Total)	44000	43000	NA	NA	ND	ND
SEMIVOLATILES (ug/kg)						
1,1'-Biphenyl	NA	NA	1500	2200	1500	1600
2,2'-oxybis(1-Chloropropane)	NA	NA	1100	1400	2400	2600
2,4,5-Trichlorophenol	NA	NA	890	990	1200	1400
2,4,6-Tribromophenol	NA	NA	NA	NA	NA	1300
2,4,6-Trichlorophenol	NA	NA	1600	1900	1500	1600
2,4-Dichlorophenol	NA	NA	2200	3100	1500	1500
2,4-Dimethylphenol	NA	NA	1700	2600	1500	1700
2,4-Dinitrophenol	NA	NA	360 J	560 J	ND	ND
2,4-Dinitrotoluene	NA	NA	2000	2600	1600	1900
2,6-Dinitrotoluene	NA	NA	2000	2100	1600	1700
2-Chloronaphthalene	NA	NA	1600	2000	1600	1700
2-Chlorophenol	NA	NA	1700	2200	1500	1600
2-Fluorobiphenyl	NA	NA	NA	NA	NA	700
2-Fluorophenol	NA	NA	NA	NA	NA	1400
2-Methylnaphthalene	NA	NA	2700	3400	1400	1600
2-Methylphenol	NA	NA	1400	2000	1500	1700
2-Nitroaniline	NA	NA	1300	1300	2300	2500
2-Nitrophenol	NA	NA	1500	2500	1300	1400
3,3'-Dichlorobenzidine	NA	NA	140 J	160 J	720	790
3-Nitroaniline	NA	NA	1500	1900	1300	1400
4,6-Dinitro-2-methylphenol	NA	NA	830 J	1200	560 J	500 J
4-Bromophenyl phenyl ether	NA	NA	2000	2600	1600	1700

QA/QC SUMMARY
SOIL - MATRIX SPIKES AND MATRIX SPIKE DUPLICATES
SWMU CONFIRMATORY SAMPLING (CTO-0143)
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU269-TW01-06MS	SWMU269-TW01-06MSD	SWMU272-SB03-00MS	SWMU272-SB03-00MSD	SWMU285-TW02-02MS	SWMU285-TW02-02MSD
SAMPLE DATE	3/25/2002	3/25/2002	3/20/2002	3/20/2002	3/3/2002	3/3/2002
SEMIVOLATILES (cont.)						
4-Chloro-3-methylphenol	NA	NA	1100	1700	1700	1900
4-Chloroaniline	NA	NA	820	910	1100	1200
4-Chlorophenyl phenyl ether	NA	NA	2200	2900	1700	1900
4-Methylphenol	NA	NA	3200	3900	2900	3200
4-Nitroaniline	NA	NA	1800	2000	1200	1500
4-Nitrophenol	NA	NA	2300	2900	1700	2200
Acenaphthene	NA	NA	1300	1800	1000	1100
Acenaphthylene	NA	NA	1200	1500	1100	1100
Acetophenone	NA	NA	940	1200	1500	1700
Anthracene	NA	NA	1200	1700	1000	1200
Atrazine	NA	NA	2200	2500	1800	2100
Benzaldehyde	NA	NA	2100	2600	520	530
Benzo(a)anthracene	NA	NA	1200	1700	960	1000
Benzo(a)pyrene	NA	NA	1200	1600	1000	1100
Benzo(b)fluoranthene	NA	NA	1400	1600	1100	1100
Benzo(g,h,i)perylene	NA	NA	860	1100	890	1000
Benzo(k)fluoranthene	NA	NA	1300	1800	1000	1400
bis(2-Chloroethoxy)methane	NA	NA	1200	1700	1700	1800
bis(2-Chloroethyl)ether	NA	NA	1500	2000	1400	1600
bis(2-Ethylhexyl)phthalate	NA	NA	2100 B	2600 B	1600	1800
Butyl benzyl phthalate	NA	NA	1700	2400	1500	1700
Caprolactam	NA	NA	1300	12000 E	1200	1300
Carbazole	NA	NA	1900	2600	1600	1800
Chrysene	NA	NA	1300	1500	830	1000
di-N-Butyl phthalate	NA	NA	1900	2600	1700	1900
di-N-Octyl phthalate	NA	NA	2500	3200	1800	2000
Dibenzo(a,h)anthracene	NA	NA	990	1200	960	1100
Dibenzofuran	NA	NA	2000	2600	1700	1800
Diethyl phthalate	NA	NA	2200	2800	1700	1800
Dimethyl phthalate	NA	NA	1800	1900	1600	1700
Fluoranthene	NA	NA	1400	1400	1000	1200
Fluorene	NA	NA	1400	1900	1100	1200
Hexachlorobenzene	NA	NA	2100	2300	1600	1800
Hexachlorobutadiene	NA	NA	2100	2900	1300	1500
Hexachlorocyclopentadiene	NA	NA	200 J	240 J	1300	1600
Hexachloroethane	NA	NA	1800	2200	1300	1500
Indeno(1,2,3-cd)pyrene	NA	NA	1500	2000	1400	1600
Isophorone	NA	NA	880	1200	1800	2000
N-Nitroso-di-N-propylamine	NA	NA	1200	1300	1600	1800
N-Nitrosodiphenylamine(1)	NA	NA	2100	2500	1600	1800
Naphthalene	NA	NA	1200	1700	1000	1100
Nitrobenzene	NA	NA	2000	3300	1800	2000

QA/QC SUMMARY
SOIL - MATRIX SPIKES AND MATRIX SPIKE DUPLICATES
SWMU CONFIRMATORY SAMPLING (CTO-0143)
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU269-TW01-06MS	SWMU269-TW01-06MSD	SWMU272-SB03-00MS	SWMU272-SB03-00MSD	SWMU285-TW02-02MS	SWMU285-TW02-02MSD
SAMPLE DATE	3/25/2002	3/25/2002	3/20/2002	3/20/2002	3/3/2002	3/3/2002
SEMIVOLATILES (cont.)						
Nitrobenzene-d5	NA	NA	NA	NA	NA	840
Pentachlorophenol	NA	NA	2100	2500	220 J	220 J
Phenanthrene	NA	NA	1200	1800	1100	1300
Phenol	NA	NA	1900	2300	1500	1700
Phenol-d5	NA	NA	NA	NA	NA	1400
Pyrene	NA	NA	1500	1900	860	990
Terphenyl-d14	NA	NA	NA	NA	NA	610
METALS (mg/kg)						
Arsenic	NA	NA	NA	NA	NA	NA
Barium	NA	NA	NA	NA	NA	NA
Cadmium	NA	NA	NA	NA	NA	NA
Chromium	NA	NA	NA	NA	NA	NA
Lead	NA	NA	NA	NA	NA	NA
Mercury	NA	NA	NA	NA	NA	NA
Selenium	NA	NA	NA	NA	NA	NA
Silver	NA	NA	NA	NA	NA	NA
PESTICIDES (ug/kg)						
4,4'-DDD	NA	NA	NA	NA	NA	NA
4,4'-DDE	NA	NA	NA	NA	NA	NA
4,4'-DDT	NA	NA	NA	NA	NA	NA
Aldrin	NA	NA	NA	NA	NA	NA
alpha-Chlordane	NA	NA	NA	NA	NA	NA
beta-BHC	NA	NA	NA	NA	NA	NA
Dieldrin	NA	NA	NA	NA	NA	NA
Endrin	NA	NA	NA	NA	NA	NA
Endrin aldehyde	NA	NA	NA	NA	NA	NA
Endrin ketone	NA	NA	NA	NA	NA	NA
gamma-BHC (Lindane)	NA	NA	NA	NA	NA	NA
gamma-Chlordane	NA	NA	NA	NA	NA	NA
Heptachlor	NA	NA	NA	NA	NA	NA
Methoxychlor	NA	NA	NA	NA	NA	NA

B - Analyte detected. Report value is estimated due to probable blank contamination.
D - Result from reanalysis at a higher dilution factor.
E - Concentration exceeds upper level of calibration range.
EP - Concentration exceeds upper level of calibration range.
J - Analyte detected. Report value is estimated.
JB - Analyte detected. Report value is estimated.
JP - Analyte detected. Report value is estimated.
N - Indicates presumptive evidence of a compound.
ND - Analyte not detected
NA - Not analyzed

QA/QC SUMMARY
SOIL - MATRIX SPIKES AND MATRIX SPIKE DUPLICATES
SWMU CONFIRMATORY SAMPLING (CTO-0143)
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU294-TW04-04MS	SWMU294-TW04-04MSD	SWMU295-SB02-00MS	SWMU295-SB02-00MSD	SWMU299-SB04-00MS	SWMU299-SB04-00MSD
SAMPLE DATE	3/22/2002	3/22/2002	3/22/2002	3/22/2002	3/19/2002	3/19/2002
VOLATILES (ug/kg)						
1,1-Dichloroethene	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane-d4	NA	NA	NA	NA	NA	NA
2-Butanone	NA	NA	NA	NA	NA	NA
Acetone	NA	NA	NA	NA	NA	NA
Benzene	NA	NA	NA	NA	NA	NA
Bromofluorobenzene	NA	NA	NA	NA	NA	NA
Bromoform	NA	NA	NA	NA	NA	NA
Chlorobenzene	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	NA	NA	NA	NA	NA	NA
Dibromofluoromethane	NA	NA	NA	NA	NA	NA
Ethylbenzene	NA	NA	NA	NA	NA	NA
Isopropylbenzene	NA	NA	NA	NA	NA	NA
Methyl acetate	NA	NA	NA	NA	NA	NA
Methylcyclohexane	NA	NA	NA	NA	NA	NA
Methylene chloride	NA	NA	NA	NA	NA	NA
Toluene	NA	NA	NA	NA	NA	NA
Toluene-d8	NA	NA	NA	NA	NA	NA
Trichloroethene	NA	NA	NA	NA	NA	NA
Xylene (Total)	NA	NA	NA	NA	NA	NA
SEMIVOLATILES (ug/kg)						
1,1'-Biphenyl	1700	1800	2600	2900	2700	3800
2,2'-oxybis(1-Chloropropane)	1600	1900	1900	2000	2100	2900
2,4,5-Trichlorophenol	2000	2100	2900	3100	2900	4100
2,4,6-Tribromophenol	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	2200	2300	3000	3200	2300	3100
2,4-Dichlorophenol	2700	2800	2600	2800	1900	2600
2,4-Dimethylphenol	1300	1300	1500	1700	1900	2600
2,4-Dinitrophenol	1100 J	1200 J	2800	3200	4700	8200
2,4-Dinitrotoluene	2400	2500	2100	2300	1800	2500
2,6-Dinitrotoluene	2100	2300	2400	2400	1900	2700
2-Chloronaphthalene	1900	2000	2800	3000	2300	3300
2-Chlorophenol	1700	2000	1900	1900	1800	2300
2-Fluorobiphenyl	NA	NA	NA	NA	NA	NA
2-Fluorophenol	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene	1900	2000	2000	2200	2400	3200
2-Methylphenol	1800	2000	1700	1800	2200	2900
2-Nitroaniline	2300	2300	2400	2400	2800	3800
2-Nitrophenol	2100	2300	2500	2700	2000	2800
3,3'-Dichlorobenzidine	1400	1200	1400	1600	1100	1500
3-Nitroaniline	1600	1600	1500	1600	2100	2900
4,6-Dinitro-2-methylphenol	2200	2100	1400	1600	2100	3100
4-Bromophenyl phenyl ether	2300	2300	3400	3600	3000	4100

QA/QC SUMMARY
SOIL - MATRIX SPIKES AND MATRIX SPIKE DUPLICATES
SWMU CONFIRMATORY SAMPLING (CTO-0143)
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU294-TW04-04MS	SWMU294-TW04-04MSD	SWMU295-SB02-00MS	SWMU295-SB02-00MSD	SWMU299-SB04-00MS	SWMU299-SB04-00MSD
SAMPLE DATE	3/22/2002	3/22/2002	3/22/2002	3/22/2002	3/19/2002	3/19/2002
SEMIVOLATILES (cont.)						
4-Chloro-3-methylphenol	2300	2300	2000	2100	1600	2200
4-Chloroaniline	1300	1200	1300	1500	1500	2100
4-Chlorophenyl phenyl ether	2100	2200	2600	2800	2500	3400
4-Methylphenol	3700	4000	3400	3500	4000	5200
4-Nitroaniline	2100	1900	1100	1300	2000	2500
4-Nitrophenol	2200	2200	2500	2400	2500	3700
Acenaphthene	1400	1500	1400	1500	1700	2400
Acenaphthylene	1200	1300	1700	1800	2000	2700
Acetophenone	1700	1900	1900	1900	1700	2200
Anthracene	1300	1300	1500	1700	1800	2600
Atrazine	2700	2900	2800	3000	2300	3100
Benzaldehyde	1900	2200	750	740	1200	2100
Benzo(a)anthracene	1800	1700	1400	1600	1800	2400
Benzo(a)pyrene	1500	1500	1400	1700	1700	2300
Benzo(b)fluoranthene	1500	1500	1700	1900	1800	2300
Benzo(g,h,i)perylene	1600	1600	1100	1200	1200	1600
Benzo(k)fluoranthene	1600	1600	1600	2300	2100	3100
bis(2-Chloroethoxy)methane	2300	2400	2200	2400	2200	3000
bis(2-Chloroethyl)ether	1500	1800	1800	1800	1800	2400
bis(2-Ethylhexyl)phthalate	2800	2700	1700	2100	2600	3600
Butyl benzyl phthalate	3000	2800	1600	1900	2400	3300
Caprolactam	2500	2300	1700	1600	1300	1800
Carbazole	2200	2000	2000	2000	2300	3100
Chrysene	1700	1500	1400	1700	1800	2500
di-N-Butyl phthalate	2800	2800	2000	2100	2500	3500
di-N-Octyl phthalate	2500	2500	1700	2400	2700	4000
Dibenzo(a,h)anthracene	1700	1600	1300	1400	1400	1800
Dibenzofuran	2100	2200	2400	2500	2700	3800
Diethyl phthalate	2100	2100	2300	2500	2600	3600
Dimethyl phthalate	2000	2000	2700	2900	2700	3700
Fluoranthene	1600	1700	1600	1700	1800	2500
Fluorene	1500	1500	1600	1800	1800	2500
Hexachlorobenzene	2200	2200	61 J	ND	2300	3200
Hexachlorobutadiene	2400	2700	3000	3200	1800	2400
Hexachlorocyclopentadiene	1800	2100	ND	ND	1500	2000
Hexachloroethane	1700	2100	1700	1800	1400	1800
Indeno(1,2,3-cd)pyrene	2700	2600	1900	2000	1700	2200
Isophorone	2000	2200	2400	2400	1800	2400
N-Nitroso-di-N-propylamine	1800	2000	1800	1900	1900	2500
N-Nitrosodiphenylamine(1)	2500	2500	2300	2600	2700	3700
Naphthalene	1600	1700	1500	1700	1700	2300
Nitrobenzene	1900	2100	2700	2800	2000	2600

QA/QC SUMMARY
SOIL - MATRIX SPIKES AND MATRIX SPIKE DUPLICATES
SWMU CONFIRMATORY SAMPLING (CTO-0143)
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU294-TW04-04MS	SWMU294-TW04-04MSD	SWMU295-SB02-00MS	SWMU295-SB02-00MSD	SWMU299-SB04-00MS	SWMU299-SB04-00MSD
SAMPLE DATE	3/22/2002	3/22/2002	3/22/2002	3/22/2002	3/19/2002	3/19/2002
SEMIVOLATILES (cont.)						
Nitrobenzene-d5	NA	NA	NA	NA	NA	NA
Pentachlorophenol	2100	2100	2000	2100	1700	2500
Phenanthrene	1400	1400	1500	1800	2000	2800
Phenol	2200	2400	2000	2000	1700	2400
Phenol-d5	NA	NA	NA	NA	NA	NA
Pyrene	2000	2000	1500	1700	2000	2600
Terphenyl-d14	NA	NA	NA	NA	NA	NA
METALS (mg/kg)						
Arsenic	NA	NA	NA	NA	NA	NA
Barium	NA	NA	NA	NA	NA	NA
Cadmium	NA	NA	NA	NA	NA	NA
Chromium	NA	NA	NA	NA	NA	NA
Lead	NA	NA	NA	NA	NA	NA
Mercury	NA	NA	NA	NA	NA	NA
Selenium	NA	NA	NA	NA	NA	NA
Silver	NA	NA	NA	NA	NA	NA
PESTICIDES (ug/kg)						
4,4'-DDD	NA	NA	NA	NA	NA	NA
4,4'-DDE	NA	NA	NA	NA	NA	NA
4,4'-DDT	NA	NA	NA	NA	NA	NA
Aldrin	NA	NA	NA	NA	NA	NA
alpha-Chlordane	NA	NA	NA	NA	NA	NA
beta-BHC	NA	NA	NA	NA	NA	NA
Dieldrin	NA	NA	NA	NA	NA	NA
Endrin	NA	NA	NA	NA	NA	NA
Endrin aldehyde	NA	NA	NA	NA	NA	NA
Endrin ketone	NA	NA	NA	NA	NA	NA
gamma-BHC (Lindane)	NA	NA	NA	NA	NA	NA
gamma-Chlordane	NA	NA	NA	NA	NA	NA
Heptachlor	NA	NA	NA	NA	NA	NA
Methoxychlor	NA	NA	NA	NA	NA	NA

B - Analyte detected. Report value is estimated due to probable blank contamination.
D - Result from reanalysis at a higher dilution factor.
E - Concentration exceeds upper level of calibration range.
EP - Concentration exceeds upper level of calibration range.
J - Analyte detected. Report value is estimated.
JB - Analyte detected. Report value is estimated.
JP - Analyte detected. Report value is estimated.
N - Indicates presumptive evidence of a compound.
ND - Analyte not detected
NA - Not analyzed

QA/QC SUMMARY
SOIL - MATRIX SPIKES AND MATRIX SPIKE DUPLICATES
SWMU CONFIRMATORY SAMPLING (CTO-0143)
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU299-TW04-02MS	SWMU299-TW04-02MSD	SWMU300-TW02-02MS	SWMU300-TW02-02MSD	SWMU302-TW02-00MS	SWMU302-TW02-00MSD
SAMPLE DATE	3/19/2002	3/19/2002	3/20/2002	3/20/2002	3/19/2002	3/19/2002
VOLATILES (ug/kg)						
1,1-Dichloroethene	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane-d4	NA	NA	NA	NA	NA	NA
2-Butanone	NA	NA	NA	NA	NA	NA
Acetone	NA	NA	NA	NA	NA	NA
Benzene	NA	NA	NA	NA	NA	NA
Bromofluorobenzene	NA	NA	NA	NA	NA	NA
Bromoform	NA	NA	NA	NA	NA	NA
Chlorobenzene	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	NA	NA	NA	NA	NA	NA
Dibromofluoromethane	NA	NA	NA	NA	NA	NA
Ethylbenzene	NA	NA	NA	NA	NA	NA
Isopropylbenzene	NA	NA	NA	NA	NA	NA
Methyl acetate	NA	NA	NA	NA	NA	NA
Methylcyclohexane	NA	NA	NA	NA	NA	NA
Methylene chloride	NA	NA	NA	NA	NA	NA
Toluene	NA	NA	NA	NA	NA	NA
Toluene-d8	NA	NA	NA	NA	NA	NA
Trichloroethene	NA	NA	NA	NA	NA	NA
Xylene (Total)	NA	NA	NA	NA	NA	NA
SEMIVOLATILES (ug/kg)						
1,1'-Biphenyl	2800	2600	1300	1900	1700	1900
2,2'-oxybis(1-Chloropropane)	2100	2000	990	1300	1600	1500
2,4,5-Trichlorophenol	3400	2800	1300	1600	2000	2600
2,4,6-Tribromophenol	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	2800	2700	1400	1900	1500	1800
2,4-Dichlorophenol	2500	2300	1200	1700	1600	1600
2,4-Dimethylphenol	2500	2100	980	1400	1400	1100
2,4-Dinitrophenol	2000 J	1600 J	290 J	630 J	3300	5800
2,4-Dinitrotoluene	2200	1900	990	1000	1500	1500
2,6-Dinitrotoluene	1700	1700	980	1400	1700	1600
2-Chloronaphthalene	2300	2100	1200	1500	1500	1700
2-Chlorophenol	2200	2200	1300	1600	1400	1400
2-Fluorobiphenyl	NA	NA	NA	NA	NA	NA
2-Fluorophenol	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene	3400	3100	1100	1600	2000	1900
2-Methylphenol	2400	2400	1200	1600	1800	1800
2-Nitroaniline	2700	2300	1000	1300	2100	2000
2-Nitrophenol	2400	2000	910	1200	1500	1500
3,3'-Dichlorobenzidine	590 J	530 J	700 J	920	560 J	870
3-Nitroaniline	1900	2000	760 J	1200	1600	1600
4,6-Dinitro-2-methylphenol	2700	2400	590 J	1100	2200	1900
4-Bromophenyl phenyl ether	3000	2700	1400	1800	1900	2300

QA/QC SUMMARY
SOIL - MATRIX SPIKES AND MATRIX SPIKE DUPLICATES
SWMU CONFIRMATORY SAMPLING (CTO-0143)
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU299-TW04-02MS	SWMU299-TW04-02MSD	SWMU300-TW02-02MS	SWMU300-TW02-02MSD	SWMU302-TW02-00MS	SWMU302-TW02-00MSD
SAMPLE DATE	3/19/2002	3/19/2002	3/20/2002	3/20/2002	3/19/2002	3/19/2002
SEMIVOLATILES (cont.)						
4-Chloro-3-methylphenol	2400	2000	1100	1400	1700	1300
4-Chloroaniline	930	920	340 J	710	1100	1300
4-Chlorophenyl phenyl ether	3300	3000	1300	1900	1600	2000
4-Methylphenol	4800	4900	2300	3200	3700	3300
4-Nitroaniline	2600	2400	930	1500	1600	1600
4-Nitrophenol	2700	2600	1100	1600	2200	2200
Acenaphthene	2100	1900	830	1200	1300	1300
Acenaphthylene	2100	1900	820	1100	1300	1400
Acetophenone	2000	1800	990	1300	1500	1400
Anthracene	2100	1900	720	1100	1300	1400
Atrazine	2600	2100	1300	1900	1800	1800
Benzaldehyde	1800	1700	1200	1700	840	630
Benzo(a)anthracene	1900	1700	860	1100	1200	1500
Benzo(a)pyrene	1900	1600	730	1000	1200	1400
Benzo(b)fluoranthene	2000	1700	710	1100	1200	1300
Benzo(g,h,i)perylene	1600	1400	530	760	1200	1400
Benzo(k)fluoranthene	2000	1900	850	1000	1300	1600
bis(2-Chloroethoxy)methane	2800	2400	1000	1500	1900	1600
bis(2-Chloroethyl)ether	2300	2300	1200	1500	1600	1400
bis(2-Ethylhexyl)phthalate	2700	2400	1100	1400	2000	1600
Butyl benzyl phthalate	3200	2700	1400	1700	2000	1700
Caprolactam	2200	2000	620	1300	1700	1300
Carbazole	3200	3000	1100	1500	2200	1900
Chrysene	1900	1600	780	1100	1200	1500
di-N-Butyl phthalate	2800	2400	1200	1500	2200	1800
di-N-Octyl phthalate	2700	2400	1200	1700	2000	1900
Dibenzo(a,h)anthracene	1700	1500	590	850	1200	1500
Dibenzofuran	3400	3000	1100	1600	2000	2100
Diethyl phthalate	2900	2600	1200	1600	2100	2000
Dimethyl phthalate	2800	2700	1100	1700	2000	2100
Fluoranthene	2300	2000	830	1300	1300	1500
Fluorene	2100	1900	800	1100	1200	1400
Hexachlorobenzene	2400	2200	1300	1700	1500	1900
Hexachlorobutadiene	2700	2300	1100	1300	1400	1500
Hexachlorocyclopentadiene	2200	1900	640	910	1200	1600
Hexachloroethane	1600	1500	870	1100	1300	1200
Indeno(1,2,3-cd)pyrene	2300	2000	990	1400	1700	1900
Isophorone	2000	1700	880	1200	1400	1300
N-Nitroso-di-N-propylamine	3100	2900	1400	1600	1600	1600
N-Nitrosodiphenylamine(1)	2600	2300	1100	1400	1900	2000
Naphthalene	2200	1800	700	860	1200	1300
Nitrobenzene	2200	1800	920	1100	1400	1500

QA/QC SUMMARY
SOIL - MATRIX SPIKES AND MATRIX SPIKE DUPLICATES
SWMU CONFIRMATORY SAMPLING (CTO-0143)
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU299-TW04-02MS	SWMU299-TW04-02MSD	SWMU300-TW02-02MS	SWMU300-TW02-02MSD	SWMU302-TW02-00MS	SWMU302-TW02-00MSD
SAMPLE DATE	3/19/2002	3/19/2002	3/20/2002	3/20/2002	3/19/2002	3/19/2002
SEMIVOLATILES (cont.)						
Nitrobenzene-d5	NA	NA	NA	NA	NA	NA
Pentachlorophenol	3000	2800	1300	2000	1400	1400
Phenanthrene	2100	1800	730	1100	1400	1500
Phenol	2000	2100	1200	1500	1300	1400
Phenol-d5	NA	NA	NA	NA	NA	NA
Pyrene	2200	1900	750	1100	1200	1500
Terphenyl-d14	NA	NA	NA	NA	NA	NA
METALS (mg/kg)						
Arsenic	NA	NA	NA	NA	NA	NA
Barium	NA	NA	NA	NA	NA	NA
Cadmium	NA	NA	NA	NA	NA	NA
Chromium	NA	NA	NA	NA	NA	NA
Lead	NA	NA	NA	NA	NA	NA
Mercury	NA	NA	NA	NA	NA	NA
Selenium	NA	NA	NA	NA	NA	NA
Silver	NA	NA	NA	NA	NA	NA
PESTICIDES (ug/kg)						
4,4'-DDD	NA	NA	NA	NA	NA	NA
4,4'-DDE	NA	NA	NA	NA	NA	NA
4,4'-DDT	NA	NA	NA	NA	NA	NA
Aldrin	NA	NA	NA	NA	NA	NA
alpha-Chlordane	NA	NA	NA	NA	NA	NA
beta-BHC	NA	NA	NA	NA	NA	NA
Dieldrin	NA	NA	NA	NA	NA	NA
Endrin	NA	NA	NA	NA	NA	NA
Endrin aldehyde	NA	NA	NA	NA	NA	NA
Endrin ketone	NA	NA	NA	NA	NA	NA
gamma-BHC (Lindane)	NA	NA	NA	NA	NA	NA
gamma-Chlordane	NA	NA	NA	NA	NA	NA
Heptachlor	NA	NA	NA	NA	NA	NA
Methoxychlor	NA	NA	NA	NA	NA	NA

B - Analyte detected. Report value is estimated due to probable blank contamination.
D - Result from reanalysis at a higher dilution factor.
E - Concentration exceeds upper level of calibration range.
EP - Concentration exceeds upper level of calibration range.
J - Analyte detected. Report value is estimated.
JB - Analyte detected. Report value is estimated.
JP - Analyte detected. Report value is estimated.
N - Indicates presumptive evidence of a compound.
ND - Analyte not detected
NA - Not analyzed

QA/QC SUMMARY
SOIL - MATRIX SPIKES AND MATRIX SPIKE DUPLICATES
SWMU CONFIRMATORY SAMPLING (CTO-0143)
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU311-SB01-00MS	SWMU311-SB01-00MSD	SWMU311-TW03A-08REMS	SWMU311-TW03A-08REMSD	SWMU312-TW03-03MS
SAMPLE DATE	3/24/2002	3/24/2002	4/8/2002	4/8/2002	3/21/2002
VOLATILES (ug/kg)					
1,1-Dichloroethene	71	71	2400	2500	NA
1,2-Dichloroethane	ND	ND	130 J	130 J	NA
1,2-Dichloroethane-d4	NA	NA	2500	2500	NA
2-Butanone	ND	ND	ND	ND	NA
Acetone	ND	ND	220 JB	ND	NA
Benzene	56	57	2500	2500	NA
Bromofluorobenzene	NA	NA	2800	2900	NA
Bromoform	15	14	ND	ND	NA
Chlorobenzene	48	52	2700	2700	NA
cis-1,2-Dichloroethene	ND	ND	ND	ND	NA
Dibromofluoromethane	NA	NA	2400	2500	NA
Ethylbenzene	ND	ND	ND	ND	NA
Isopropylbenzene	ND	ND	ND	ND	NA
Methyl acetate	ND	ND	ND	ND	NA
Methylcyclohexane	ND	ND	ND	ND	NA
Methylene chloride	38	34	ND	ND	NA
Toluene	50	52	2600	2600	NA
Toluene-d8	NA	NA	2400	2300	NA
Trichloroethene	55	56	2500	2500	NA
Xylene (Total)	ND	ND	45 JB	42 JB	NA
SEMIVOLATILES (ug/kg)					
1,1'-Biphenyl	NA	NA	NA	NA	2100
2,2'-oxybis(1-Chloropropane)	NA	NA	NA	NA	2000
2,4,5-Trichlorophenol	NA	NA	NA	NA	2200
2,4,6-Tribromophenol	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	NA	NA	NA	NA	2100
2,4-Dichlorophenol	NA	NA	NA	NA	2100
2,4-Dimethylphenol	NA	NA	NA	NA	2100
2,4-Dinitrophenol	NA	NA	NA	NA	3500
2,4-Dinitrotoluene	NA	NA	NA	NA	2200
2,6-Dinitrotoluene	NA	NA	NA	NA	2200
2-Chloronaphthalene	NA	NA	NA	NA	2100
2-Chlorophenol	NA	NA	NA	NA	1900
2-Fluorobiphenyl	NA	NA	NA	NA	NA
2-Fluorophenol	NA	NA	NA	NA	NA
2-Methylnaphthalene	NA	NA	NA	NA	2000
2-Methylphenol	NA	NA	NA	NA	2100
2-Nitroaniline	NA	NA	NA	NA	2200
2-Nitrophenol	NA	NA	NA	NA	2100
3,3'-Dichlorobenzidine	NA	NA	NA	NA	1300
3-Nitroaniline	NA	NA	NA	NA	1700
4,6-Dinitro-2-methylphenol	NA	NA	NA	NA	1900
4-Bromophenyl phenyl ether	NA	NA	NA	NA	2100

QA/QC SUMMARY
SOIL - MATRIX SPIKES AND MATRIX SPIKE DUPLICATES
SWMU CONFIRMATORY SAMPLING (CTO-0143)
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU311-SB01-00MS	SWMU311-SB01-00MSD	SWMU311-TW03A-08REMS	SWMU311-TW03A-08REMSD	SWMU312-TW03-03MS
SAMPLE DATE	3/24/2002	3/24/2002	4/8/2002	4/8/2002	3/21/2002
SEMIVOLATILES (cont.)					
4-Chloro-3-methylphenol	NA	NA	NA	NA	2100
4-Chloroaniline	NA	NA	NA	NA	1600
4-Chlorophenyl phenyl ether	NA	NA	NA	NA	2300
4-Methylphenol	NA	NA	NA	NA	3900
4-Nitroaniline	NA	NA	NA	NA	1800
4-Nitrophenol	NA	NA	NA	NA	2100
Acenaphthene	NA	NA	NA	NA	1400
Acenaphthylene	NA	NA	NA	NA	1500
Acetophenone	NA	NA	NA	NA	1900
Anthracene	NA	NA	NA	NA	1500
Atrazine	NA	NA	NA	NA	2500
Benzaldehyde	NA	NA	NA	NA	1000
Benzo(a)anthracene	NA	NA	NA	NA	1500
Benzo(a)pyrene	NA	NA	NA	NA	1400
Benzo(b)fluoranthene	NA	NA	NA	NA	1500
Benzo(g,h,i)perylene	NA	NA	NA	NA	1300
Benzo(k)fluoranthene	NA	NA	NA	NA	1500
bis(2-Chloroethoxy)methane	NA	NA	NA	NA	2100
bis(2-Chloroethyl)ether	NA	NA	NA	NA	1900
bis(2-Ethylhexyl)phthalate	NA	NA	NA	NA	2200
Butyl benzyl phthalate	NA	NA	NA	NA	2100
Caprolactam	NA	NA	NA	NA	2100
Carbazole	NA	NA	NA	NA	2200
Chrysene	NA	NA	NA	NA	1500
di-N-Butyl phthalate	NA	NA	NA	NA	2100
di-N-Octyl phthalate	NA	NA	NA	NA	2300
Dibenzo(a,h)anthracene	NA	NA	NA	NA	1300
Dibenzofuran	NA	NA	NA	NA	2200
Diethyl phthalate	NA	NA	NA	NA	2200
Dimethyl phthalate	NA	NA	NA	NA	2200
Fluoranthene	NA	NA	NA	NA	1500
Fluorene	NA	NA	NA	NA	1500
Hexachlorobenzene	NA	NA	NA	NA	2100
Hexachlorobutadiene	NA	NA	NA	NA	1700
Hexachlorocyclopentadiene	NA	NA	NA	NA	1600
Hexachloroethane	NA	NA	NA	NA	1800
Indeno(1,2,3-cd)pyrene	NA	NA	NA	NA	2000
Isophorone	NA	NA	NA	NA	2100
N-Nitroso-di-N-propylamine	NA	NA	NA	NA	2000
N-Nitrosodiphenylamine(1)	NA	NA	NA	NA	2200
Naphthalene	NA	NA	NA	NA	1400
Nitrobenzene	NA	NA	NA	NA	2000

QA/QC SUMMARY
SOIL - MATRIX SPIKES AND MATRIX SPIKE DUPLICATES
SWMU CONFIRMATORY SAMPLING (CTO-0143)
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU311-SB01-00MS	SWMU311-SB01-00MSD	SWMU311-TW03A-08REMS	SWMU311-TW03A-08REMSD	SWMU312-TW03-03MS
SAMPLE DATE	3/24/2002	3/24/2002	4/8/2002	4/8/2002	3/21/2002
SEMIVOLATILES (cont.)					
Nitrobenzene-d5	NA	NA	NA	NA	NA
Pentachlorophenol	NA	NA	NA	NA	2100
Phenanthrene	NA	NA	NA	NA	1600
Phenol	NA	NA	NA	NA	1900
Phenol-d5	NA	NA	NA	NA	NA
Pyrene	NA	NA	NA	NA	1500
Terphenyl-d14	NA	NA	NA	NA	NA
METALS (mg/kg)					
Arsenic	NA	NA	NA	NA	NA
Barium	NA	NA	NA	NA	NA
Cadmium	NA	NA	NA	NA	NA
Chromium	NA	NA	NA	NA	NA
Lead	NA	NA	NA	NA	NA
Mercury	NA	NA	NA	NA	NA
Selenium	NA	NA	NA	NA	NA
Silver	NA	NA	NA	NA	NA
PESTICIDES (ug/kg)					
4,4'-DDD	NA	NA	NA	NA	NA
4,4'-DDE	NA	NA	NA	NA	NA
4,4'-DDT	NA	NA	NA	NA	NA
Aldrin	NA	NA	NA	NA	NA
alpha-Chlordane	NA	NA	NA	NA	NA
beta-BHC	NA	NA	NA	NA	NA
Dieldrin	NA	NA	NA	NA	NA
Endrin	NA	NA	NA	NA	NA
Endrin aldehyde	NA	NA	NA	NA	NA
Endrin ketone	NA	NA	NA	NA	NA
gamma-BHC (Lindane)	NA	NA	NA	NA	NA
gamma-Chlordane	NA	NA	NA	NA	NA
Heptachlor	NA	NA	NA	NA	NA
Methoxychlor	NA	NA	NA	NA	NA

B - Analyte detected. Report value is estimated due to probable blank contamination.
D - Result from reanalysis at a higher dilution factor.
E - Concentration exceeds upper level of calibration range.
EP - Concentration exceeds upper level of calibration range.
J - Analyte detected. Report value is estimated.
JB - Analyte detected. Report value is estimated.
JP - Analyte detected. Report value is estimated.
N - Indicates presumptive evidence of a compound.
ND - Analyte not detected
NA - Not analyzed

QA/QC SUMMARY
SOIL - MATRIX SPIKES AND MATRIX SPIKE DUPLICATES
SWMU CONFIRMATORY SAMPLING (CTO-0143)
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU359-TW02-02MS	SWMU359-TW02-02MSD	SWMU362-SS01MS	SWMU362-SS01MSD	SWMU363-TW02-00DLMS	SWMU363-TW02-00DLMSD
SAMPLE DATE	3/26/2002	3/26/2002	3/26/2002	3/26/2002	3/23/2002	3/23/2002
VOLATILES (ug/kg)						
1,1-Dichloroethene	NA	NA	NA	NA	1800 D	1800 D
1,2-Dichloroethane	NA	NA	NA	NA	ND	ND
1,2-Dichloroethane-d4	NA	NA	NA	NA	NA	NA
2-Butanone	NA	NA	NA	NA	ND	ND
Acetone	NA	NA	NA	NA	ND	ND
Benzene	NA	NA	NA	NA	2100 D	2200 D
Bromofluorobenzene	NA	NA	NA	NA	NA	NA
Bromoform	NA	NA	NA	NA	ND	ND
Chlorobenzene	NA	NA	NA	NA	2100 D	2100 D
cis-1,2-Dichloroethene	NA	NA	NA	NA	ND	ND
Dibromofluoromethane	NA	NA	NA	NA	NA	NA
Ethylbenzene	NA	NA	NA	NA	ND	ND
Isopropylbenzene	NA	NA	NA	NA	ND	ND
Methyl acetate	NA	NA	NA	NA	300 D	310 D
Methylcyclohexane	NA	NA	NA	NA	ND	ND
Methylene chloride	NA	NA	NA	NA	ND	ND
Toluene	NA	NA	NA	NA	1900 D	2000 D
Toluene-d8	NA	NA	NA	NA	NA	NA
Trichloroethene	NA	NA	NA	NA	2200 D	2200 D
Xylene (Total)	NA	NA	NA	NA	ND	ND
SEMIVOLATILES (ug/kg)						
1,1'-Biphenyl	NA	NA	NA	NA	NA	NA
2,2'-oxybis(1-Chloropropane)	NA	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	NA	NA	NA	NA	NA	NA
2,4,6-Tribromophenol	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	NA	NA	NA	NA	NA	NA
2,4-Dichlorophenol	NA	NA	NA	NA	NA	NA
2,4-Dimethylphenol	NA	NA	NA	NA	NA	NA
2,4-Dinitrophenol	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	NA	NA	NA	NA	NA	NA
2-Chloronaphthalene	NA	NA	NA	NA	NA	NA
2-Chlorophenol	NA	NA	NA	NA	NA	NA
2-Fluorobiphenyl	NA	NA	NA	NA	NA	NA
2-Fluorophenol	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene	NA	NA	NA	NA	NA	NA
2-Methylphenol	NA	NA	NA	NA	NA	NA
2-Nitroaniline	NA	NA	NA	NA	NA	NA
2-Nitrophenol	NA	NA	NA	NA	NA	NA
3,3'-Dichlorobenzidine	NA	NA	NA	NA	NA	NA
3-Nitroaniline	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	NA	NA	NA	NA	NA	NA
4-Bromophenyl phenyl ether	NA	NA	NA	NA	NA	NA

QA/QC SUMMARY
SOIL - MATRIX SPIKES AND MATRIX SPIKE DUPLICATES
SWMU CONFIRMATORY SAMPLING (CTO-0143)
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU359-TW02-02MS	SWMU359-TW02-02MSD	SWMU362-SS01MS	SWMU362-SS01MSD	SWMU363-TW02-00DLMS	SWMU363-TW02-00DLMSD
SAMPLE DATE	3/26/2002	3/26/2002	3/26/2002	3/26/2002	3/23/2002	3/23/2002
SEMIVOLATILES (cont.)						
4-Chloro-3-methylphenol	NA	NA	NA	NA	NA	NA
4-Chloroaniline	NA	NA	NA	NA	NA	NA
4-Chlorophenyl phenyl ether	NA	NA	NA	NA	NA	NA
4-Methylphenol	NA	NA	NA	NA	NA	NA
4-Nitroaniline	NA	NA	NA	NA	NA	NA
4-Nitrophenol	NA	NA	NA	NA	NA	NA
Acenaphthene	NA	NA	NA	NA	NA	NA
Acenaphthylene	NA	NA	NA	NA	NA	NA
Acetophenone	NA	NA	NA	NA	NA	NA
Anthracene	NA	NA	NA	NA	NA	NA
Atrazine	NA	NA	NA	NA	NA	NA
Benzaldehyde	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	NA	NA	NA	NA	NA	NA
bis(2-Chloroethoxy)methane	NA	NA	NA	NA	NA	NA
bis(2-Chloroethyl)ether	NA	NA	NA	NA	NA	NA
bis(2-Ethylhexyl)phthalate	NA	NA	NA	NA	NA	NA
Butyl benzyl phthalate	NA	NA	NA	NA	NA	NA
Caprolactam	NA	NA	NA	NA	NA	NA
Carbazole	NA	NA	NA	NA	NA	NA
Chrysene	NA	NA	NA	NA	NA	NA
di-N-Butyl phthalate	NA	NA	NA	NA	NA	NA
di-N-Octyl phthalate	NA	NA	NA	NA	NA	NA
Dibenzo(a,h)anthracene	NA	NA	NA	NA	NA	NA
Dibenzofuran	NA	NA	NA	NA	NA	NA
Diethyl phthalate	NA	NA	NA	NA	NA	NA
Dimethyl phthalate	NA	NA	NA	NA	NA	NA
Fluoranthene	NA	NA	NA	NA	NA	NA
Fluorene	NA	NA	NA	NA	NA	NA
Hexachlorobenzene	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	NA	NA	NA	NA	NA	NA
Hexachlorocyclopentadiene	NA	NA	NA	NA	NA	NA
Hexachloroethane	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	NA	NA	NA	NA	NA	NA
Isophorone	NA	NA	NA	NA	NA	NA
N-Nitroso-di-N-propylamine	NA	NA	NA	NA	NA	NA
N-Nitrosodiphenylamine(1)	NA	NA	NA	NA	NA	NA
Naphthalene	NA	NA	NA	NA	NA	NA
Nitrobenzene	NA	NA	NA	NA	NA	NA

QA/QC SUMMARY
SOIL - MATRIX SPIKES AND MATRIX SPIKE DUPLICATES
SWMU CONFIRMATORY SAMPLING (CTO-0143)
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU359-TW02-02MS	SWMU359-TW02-02MSD	SWMU362-SS01MS	SWMU362-SS01MSD	SWMU363-TW02-00DLMS	SWMU363-TW02-00DLMSD
SAMPLE DATE	3/26/2002	3/26/2002	3/26/2002	3/26/2002	3/23/2002	3/23/2002
SEMIVOLATILES (cont.)						
Nitrobenzene-d5	NA	NA	NA	NA	NA	NA
Pentachlorophenol	NA	NA	NA	NA	NA	NA
Phenanthrene	NA	NA	NA	NA	NA	NA
Phenol	NA	NA	NA	NA	NA	NA
Phenol-d5	NA	NA	NA	NA	NA	NA
Pyrene	NA	NA	NA	NA	NA	NA
Terphenyl-d14	NA	NA	NA	NA	NA	NA
METALS (mg/kg)						
Arsenic	3.2946 N	3.1167 N	4.684	4.3149	NA	NA
Barium	196.694	197.5286	239.4624	210.5254	NA	NA
Cadmium	4.8083	4.7934	6.1329	5.5145	NA	NA
Chromium	22.7477	23.0241	30.6348	28.5781	NA	NA
Lead	3.3598	3.4184	11.7081	12.9287	NA	NA
Mercury	0.1977	0.1889	0.2042	0.2015	NA	NA
Selenium	1.0222	0.9252	1.4313 N	1.331	NA	NA
Silver	3.4319 N	3.4069 N	5.3401	4.8829	NA	NA
PESTICIDES (ug/kg)						
4,4'-DDD	0.42 J	ND	2.4 J	3.6 J	NA	NA
4,4'-DDE	ND	ND	0.62 J	ND	NA	NA
4,4'-DDT	18	19	12	14	NA	NA
Aldrin	6.9	6.5	4.3	5	NA	NA
alpha-Chlordane	ND	ND	ND	0.61 J	NA	NA
beta-BHC	0.89 J	ND	ND	0.86 J	NA	NA
Dieldrin	19	19	12	14	NA	NA
Endrin	16	16	11	12	NA	NA
Endrin aldehyde	0.76 J	0.71 J	0.47 J	0.48 J	NA	NA
Endrin ketone	2.5 J	2.3 J	1.2 J	1.8 J	NA	NA
gamma-BHC (Lindane)	7.6	7.2	5.6	6.9	NA	NA
gamma-Chlordane	ND	ND	ND	0.48 J	NA	NA
Heptachlor	13	7.9	5.3	6.3	NA	NA
Methoxychlor	ND	ND	14	7.9 J	NA	NA

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E - Concentration exceeds upper level of calibration range.
EP - Concentration exceeds upper level of calibration range.
J - Analyte detected. Report value is estimated.
JB - Analyte detected. Report value is estimated.
JP - Analyte detected. Report value is estimated.
N - Indicates presumptive evidence of a compound.
ND - Analyte not detected
NA - Not analyzed

Additional Phase II Sampling QA/QC Data

RINSATE BLANKS ANALYTICAL RESULTS
RCRA INVESTIGATION - CTO-0143
MCB, CAMP LEJEUNE, NORTH CAROLINA

Site Sample I.D.	ER01	ER02	ER03	ER04	ER05	ER06	ER07
Lab Sample I.D.	R3029-16	R3029-17	R3029-18	R3029-19	R3029-20	R3029-21	R3050-11
Sample Date	06-17-2003	06-18-2003	06-19-2003	06-20-2003	06-21-2003	06-22-2003	06-23-2003
Volatiles (ug/L)							
1,1,1-Trichloroethane	10 U	10 U	10 U	10 U	10 U	10 U	10 U
1,1,2,2-Tetrachloroethane	10 U	10 U	10 U	10 U	10 U	10 U	10 U
1,1,2-Trichloroethane	10 U	10 U	10 U	10 U	10 U	10 U	10 U
1,1,2-Trichlorotrifluoroethane	10 U	10 U	10 U	10 U	10 U	10 U	10 U
1,1-Dichloroethane	10 U	10 U	10 U	10 U	10 U	10 U	10 U
1,1-Dichloroethene	10 U	10 U	10 U	10 U	10 U	10 U	10 U
1,2,4-Trichlorobenzene	10 U	10 U	10 U	10 U	10 U	10 U	10 U
1,2-Dibromo-3-Chloropropane	10 R	10 R	10 R	10 R	10 R	10 R	10 R
1,2-Dibromoethane	10 U	10 U	10 U	10 U	10 U	10 U	10 U
1,2-Dichlorobenzene	10 U	10 U	10 U	10 U	10 U	10 U	10 U
1,2-Dichloroethane	10 U	10 U	10 U	10 U	10 U	10 U	10 U
1,2-Dichloropropane	10 U	10 U	10 U	10 U	10 U	10 U	10 U
1,3-Dichlorobenzene	10 U	10 U	10 U	10 U	10 U	10 U	10 U
1,4-Dichlorobenzene	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2-Butanone	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2-Hexanone	10 U	10 U	10 U	10 U	10 U	10 U	10 U
4-Methyl-2-Pentanone	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Acetone	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Benzene	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Bromodichloromethane	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Bromoform	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Bromomethane	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Carbon Disulfide	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Carbon Tetrachloride	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Chlorobenzene	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Chloroethane	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Chloroform	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Chloromethane	10 U	10 U	10 U	10 U	10 U	10 U	10 U
cis-1,2-Dichloroethene	10 U	10 U	10 U	10 U	10 U	10 U	10 U
cis-1,3-Dichloropropene	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Cyclohexane	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Dibromochloromethane	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Dichlorodifluoromethane	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Ethyl Benzene	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Isopropylbenzene	10 U	10 U	10 U	10 U	10 U	10 U	10 U
m/p-Xylenes	20 U	20 U	20 U	20 U	20 U	20 U	20 U
Methyl Acetate	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Methyl tert-butyl Ether	10 U	10 U	10 U	10 U	10 U	10 U	10 U

RINSATE BLANKS ANALYTICAL RESULTS
RCRA INVESTIGATION - CTO-0143
MCB, CAMP LEJEUNE, NORTH CAROLINA

Site Sample I.D.	ER01	ER02	ER03	ER04	ER05	ER06	ER07
Lab Sample I.D.	R3029-16	R3029-17	R3029-18	R3029-19	R3029-20	R3029-21	R3050-11
Sample Date	06-17-2003	06-18-2003	06-19-2003	06-20-2003	06-21-2003	06-22-2003	06-23-2003
Methylcyclohexane	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Methylene Chloride	4.2 J	4 J	3.8 J	4.5 J	1.7 J	3.9 J	10 U
o-Xylene	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Styrene	10 U	10 U	10 U	10 U	10 U	10 U	10 U
t-1,3-Dichloropropene	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Tetrachloroethene	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Toluene	10 U	10 U	10 U	10 U	10 U	10 U	10 U
trans-1,2-Dichloroethene	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Trichloroethene	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Trichlorofluoromethane	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Vinyl Chloride	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Semivolatiles (ug/L)							
1,1-Biphenyl	10 U	10 U	10 U	11 U	11 U	10 U	10 U
2,2-oxybis(1-Chloropropane)	10 U	10 U	10 U	11 U	11 U	10 U	10 U
2,4,5-Trichlorophenol	10 U	10 U	10 U	11 U	11 U	10 U	10 U
2,4,6-Trichlorophenol	10 U	10 U	10 U	11 U	11 U	10 U	10 U
2,4-Dichlorophenol	10 U	10 U	10 U	11 U	11 U	10 U	10 U
2,4-Dimethylphenol	10 U	10 U	10 U	11 U	11 U	10 U	10 U
2,4-Dinitrophenol	21 U	21 U	20 U	21 U	21 U	21 U	21 U
2,4-Dinitrotoluene	10 U	10 U	10 U	11 U	11 U	10 U	10 U
2,6-Dinitrotoluene	10 U	10 U	10 U	11 U	11 U	10 U	10 U
2-Chloronaphthalene	10 U	10 U	10 U	11 U	11 U	10 U	10 U
2-Chlorophenol	10 U	10 U	10 U	11 U	11 U	10 U	10 U
2-Methylnaphthalene	10 U	10 U	10 U	11 U	11 U	10 U	10 U
2-Methylphenol	10 U	10 U	10 U	11 U	11 U	10 U	10 U
2-Nitroaniline	10 U	10 U	10 U	11 U	11 U	10 U	10 U
2-Nitrophenol	10 U	10 U	10 U	11 U	11 U	10 U	10 U
3,3-Dichlorobenzidine	21 U	21 U	20 U	21 U	21 U	21 U	21 U
3+4-Methylphenols	10 U	10 U	10 U	11 U	11 U	10 U	10 U
3-Nitroaniline	10 U	10 U	10 U	11 U	11 U	10 U	10 U
4,6-Dinitro-2-methylphenol	21 U	21 U	20 U	21 U	21 U	21 U	21 U
4-Bromophenyl-phenylether	10 U	10 U	10 U	11 U	11 U	10 U	10 U
4-Chloro-3-methylphenol	10 U	10 U	10 U	11 U	11 U	10 U	10 U
4-Chloroaniline	10 U	10 U	10 U	11 U	11 U	10 U	10 U
4-Chlorophenyl-phenylether	10 U	10 U	10 U	11 U	11 U	10 U	10 U
4-Nitroaniline	10 U	10 U	10 U	11 U	11 U	10 U	10 U
4-Nitrophenol	21 U	21 U	20 U	21 U	21 U	21 U	21 U
Acenaphthene	10 U	10 U	10 U	11 U	11 U	10 U	10 U
Acenaphthylene	10 U	10 U	10 U	11 U	11 U	10 U	10 U

RINSATE BLANKS ANALYTICAL RESULTS
RCRA INVESTIGATION - CTO-0143
MCB, CAMP LEJEUNE, NORTH CAROLINA

Site Sample I.D.	ER01	ER02	ER03	ER04	ER05	ER06	ER07
Lab Sample I.D.	R3029-16	R3029-17	R3029-18	R3029-19	R3029-20	R3029-21	R3050-11
Sample Date	06-17-2003	06-18-2003	06-19-2003	06-20-2003	06-21-2003	06-22-2003	06-23-2003
Acetophenone	10 U	10 U	10 U	11 U	11 U	10 U	10 U
Anthracene	10 U	10 U	10 U	11 U	11 U	10 U	10 U
Atrazine	10 U	10 U	10 U	11 U	11 U	10 U	10 U
Benzaldehyde	10 U	10 U	10 U	11 U	11 U	10 U	10 UJ
Benzo(a)anthracene	10 U	10 U	10 U	11 U	11 U	10 U	10 U
Benzo(a)pyrene	10 U	10 U	10 U	11 U	11 U	10 U	10 U
Benzo(b)fluoranthene	10 U	10 U	10 U	11 U	11 U	10 U	10 U
Benzo(g,h,i)perylene	10 U	10 U	10 U	11 U	11 U	10 U	10 U
Benzo(k)fluoranthene	10 U	10 U	10 U	11 U	11 U	10 U	10 U
bis(2-Chloroethoxy)methane	10 U	10 U	10 U	11 U	11 U	10 U	10 U
bis(2-Chloroethyl)ether	10 U	10 U	10 U	11 U	11 U	10 U	10 U
bis(2-Ethylhexyl)phthalate	10 U	10 U	10 U	11 U	11 U	10 U	10 U
Butylbenzylphthalate	10 U	10 U	10 U	11 U	11 U	10 U	10 U
Caprolactam	10 U	10 U	10 U	11 U	11 U	10 U	10 U
Carbazole	10 U	10 U	10 U	11 U	11 U	10 U	10 U
Chrysene	10 U	10 U	10 U	11 U	11 U	10 U	10 U
Dibenz(a,h)anthracene	10 U	10 U	10 U	11 U	11 U	10 U	10 U
Dibenzofuran	10 U	10 U	10 U	11 U	11 U	10 U	10 U
Diethylphthalate	10 U	10 U	10 U	11 U	11 U	10 U	10 U
Dimethylphthalate	10 U	10 U	10 U	11 U	11 U	10 U	10 U
Di-n-butylphthalate	10 U	10 U	10 U	11 U	11 U	10 U	10 U
Di-n-octyl phthalate	10 U	10 U	10 U	11 U	11 U	10 U	10 U
Fluoranthene	10 U	10 U	10 U	11 U	11 U	10 U	10 U
Fluorene	10 U	10 U	10 U	11 U	11 U	10 U	10 U
Hexachlorobenzene	10 U	10 U	10 U	11 U	11 U	10 U	10 U
Hexachlorobutadiene	10 U	10 U	10 U	11 U	11 U	10 U	10 U
Hexachlorocyclopentadiene	10 U	10 U	10 U	11 U	11 U	10 U	10 U
Hexachloroethane	10 U	10 U	10 U	11 U	11 U	10 U	10 U
Indeno(1,2,3-cd)pyrene	10 U	10 U	10 U	11 U	11 U	10 U	10 U
Isophorone	10 U	10 U	10 U	11 U	11 U	10 U	10 U
Naphthalene	10 U	10 U	10 U	11 U	11 U	10 U	10 U
Nitrobenzene	10 U	10 U	10 U	11 U	11 U	10 U	10 U
N-Nitroso-di-n-propylamine	10 U	10 U	10 U	11 U	11 U	10 U	10 U
N-Nitrosodiphenylamine	10 U	10 U	10 U	11 U	11 U	10 U	10 U
Pentachlorophenol	21 U	21 U	20 U	21 U	21 U	21 U	21 U
Phenanthrene	10 U	10 U	10 U	11 U	11 U	10 U	10 U
Phenol	10 U	10 U	10 U	11 U	11 U	10 U	10 U
Pyrene	10 U	10 U	10 U	11 U	11 U	10 U	10 U
Pesticides (ug/L)							

RINSATE BLANKS ANALYTICAL RESULTS
RCRA INVESTIGATION - CTO-0143
MCB, CAMP LEJEUNE, NORTH CAROLINA

Site Sample I.D.	ER01	ER02	ER03	ER04	ER05	ER06	ER07
Lab Sample I.D.	R3029-16	R3029-17	R3029-18	R3029-19	R3029-20	R3029-21	R3050-11
Sample Date	06-17-2003	06-18-2003	06-19-2003	06-20-2003	06-21-2003	06-22-2003	06-23-2003
4,4-DDD	0.1 UJ	0.1 UJ	0.1 UJ	0.1 UJ	0.1 UJ	0.1 UJ	0.1 U
4,4-DDE	0.1 UJ	0.1 UJ	0.1 UJ	0.1 UJ	0.1 UJ	0.1 UJ	0.1 U
4,4-DDT	0.1 UJ	0.1 UJ	0.1 UJ	0.1 UJ	0.1 UJ	0.1 UJ	0.1 U
Aldrin	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ	0.052 U
alpha-BHC	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ	0.052 U
alpha-Chlordane	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ	0.052 U
beta-BHC	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ	0.052 U
delta-BHC	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ	0.052 U
Dieldrin	0.1 UJ	0.1 UJ	0.1 UJ	0.1 UJ	0.1 UJ	0.1 UJ	0.1 U
Endosulfan I	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ	0.052 U
Endosulfan II	0.1 UJ	0.1 UJ	0.1 UJ	0.1 UJ	0.1 UJ	0.1 UJ	0.1 U
Endosulfan Sulfate	0.1 UJ	0.1 UJ	0.1 UJ	0.1 UJ	0.1 UJ	0.1 UJ	0.1 U
Endrin	0.1 UJ	0.1 UJ	0.1 UJ	0.1 UJ	0.1 UJ	0.1 UJ	0.1 U
Endrin aldehyde	0.1 UJ	0.1 UJ	0.1 UJ	0.1 UJ	0.1 UJ	0.1 UJ	0.1 U
Endrin ketone	0.1 UJ	0.1 UJ	0.1 UJ	0.1 UJ	0.1 UJ	0.1 UJ	0.1 U
gamma-BHC	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ	0.052 U
gamma-Chlordane	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ	0.052 U
Heptachlor	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ	0.052 U
Heptachlor epoxide	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ	0.052 U
Methoxychlor	0.5 UJ	0.5 UJ	0.5 UJ	0.5 UJ	0.5 UJ	0.5 UJ	0.52 U
Toxaphene	5 UJ	5 UJ	5 UJ	5 UJ	5 UJ	5 UJ	5.2 U
Metals (ug/L)							
Arsenic	2.8 U	2.8 U	2.8 U	2.8 U	2.8 U	2.8 U	2.8 U
Barium	0.8 U	0.8 U	0.8 U	0.8 U	0.8 U	0.8 U	0.8 U
Cadmium	0.42 J	0.41 J	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U
Chromium	4.4 J	4.4 J	4.8 J	4.6 J	3.9 J	4.4 J	0.6 U
Lead	2.1 U	2.1 U	2.1 U	2.1 U	2.1 U	2.1 U	2.1 U
Mercury	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Selenium	3 U	3 U	3 U	3 U	3 U	3 U	3 UJ
Silver	2.4 J	1.6 J	2.5 J	2.3 J	1.6 J	2.1 J	1 UJ

RINSATE BLANKS ANALYTICAL RESULTS
RCRA INVESTIGATION - CTO-0143
MCB, CAMP LEJEUNE, NORTH CAROLINA

Site Sample I.D.	ER08	ER09		ER09RE
Lab Sample I.D.	R3050-12	R3085-09	R3521-09	R3521-09RE
Sample Date	06-24-2003	06-26-2003	07-24-2003	07-24-2003
Volatiles (ug/L)				
1,1,1-Trichloroethane	10 U	10 U	10 U	
1,1,2,2-Tetrachloroethane	10 U	10 U	10 U	
1,1,2-Trichloroethane	10 U	10 U	10 U	
1,1,2-Trichlorotrifluoroethane	10 U	10 U	10 U	
1,1-Dichloroethane	10 U	10 U	10 U	
1,1-Dichloroethene	10 U	10 U	10 U	
1,2,4-Trichlorobenzene	10 U	10 U	10 U	
1,2-Dibromo-3-Chloropropane	10 R	10 R	10 U	
1,2-Dibromoethane	10 U	10 U	10 U	
1,2-Dichlorobenzene	10 U	10 U	10 U	
1,2-Dichloroethane	10 U	10 U	10 U	
1,2-Dichloropropane	10 U	10 U	10 U	
1,3-Dichlorobenzene	10 U	10 U	10 U	
1,4-Dichlorobenzene	10 U	10 U	10 U	
2-Butanone	10 U	10 U	10 U	
2-Hexanone	10 U	10 U	10 U	
4-Methyl-2-Pentanone	10 U	10 U	10 U	
Acetone	10 U	10 U	10 U	
Benzene	10 U	10 U	10 U	
Bromodichloromethane	10 U	10 U	10 U	
Bromoform	10 U	10 U	10 U	
Bromomethane	10 U	10 U	10 U	
Carbon Disulfide	10 U	10 U	10 U	
Carbon Tetrachloride	10 U	10 U	10 U	
Chlorobenzene	10 U	10 U	10 U	
Chloroethane	10 U	10 U	10 U	
Chloroform	10 U	10 U	10 U	
Chloromethane	10 U	10 U	10 U	
cis-1,2-Dichloroethene	10 U	10 U	10 U	
cis-1,3-Dichloropropene	10 U	10 U	10 U	
Cyclohexane	10 U	10 U	10 U	
Dibromochloromethane	10 U	10 U	10 U	
Dichlorodifluoromethane	10 U	10 U	10 U	
Ethyl Benzene	10 U	10 U	10 U	
Isopropylbenzene	10 U	10 U	10 U	
m/p-Xylenes	20 U	20 U	20 U	
Methyl Acetate	10 U	10 U	10 U	
Methyl tert-butyl Ether	10 U	10 U	10 U	

RINSATE BLANKS ANALYTICAL RESULTS
RCRA INVESTIGATION - CTO-0143
MCB, CAMP LEJEUNE, NORTH CAROLINA

Site Sample I.D.	ER08	ER09		ER09RE
Lab Sample I.D.	R3050-12	R3085-09	R3521-09	R3521-09RE
Sample Date	06-24-2003	06-26-2003	07-24-2003	07-24-2003
Methylcyclohexane	10 U	10 U	10 U	
Methylene Chloride	10 U	2.2 J	10 U	
o-Xylene	10 U	10 U	10 U	
Styrene	10 U	10 U	10 U	
t-1,3-Dichloropropene	10 U	10 U	10 U	
Tetrachloroethene	10 U	10 U	10 U	
Toluene	10 U	10 U	10 U	
trans-1,2-Dichloroethene	10 U	10 U	10 U	
Trichloroethene	10 U	10 U	7.3 J	
Trichlorofluoromethane	10 U	10 U	10 U	
Vinyl Chloride	10 U	10 U	10 U	
Semivolatiles (ug/L)				
1,1-Biphenyl	11 U	10 U	10 UJ	10 UJ
2,2-oxybis(1-Chloropropane)	11 U	10 U	10 UJ	10 UJ
2,4,5-Trichlorophenol	11 U	10 U	10 UJ	10 UJ
2,4,6-Trichlorophenol	11 U	10 U	10 UJ	10 UJ
2,4-Dichlorophenol	11 U	10 U	10 UJ	10 UJ
2,4-Dimethylphenol	11 U	10 U	10 UJ	10 UJ
2,4-Dinitrophenol	21 U	20 U	20 UJ	20 UJ
2,4-Dinitrotoluene	11 U	10 U	10 UJ	10 UJ
2,6-Dinitrotoluene	11 U	10 U	10 UJ	10 UJ
2-Chloronaphthalene	11 U	10 U	10 UJ	10 UJ
2-Chlorophenol	11 U	10 U	10 UJ	10 UJ
2-Methylnaphthalene	11 U	10 U	10 UJ	10 UJ
2-Methylphenol	11 U	10 U	10 UJ	10 UJ
2-Nitroaniline	11 U	10 U	10 UJ	10 UJ
2-Nitrophenol	11 U	10 U	10 UJ	10 UJ
3,3-Dichlorobenzidine	21 U	20 U	20 UJ	20 UJ
3+4-Methylphenols	11 U	10 U	10 UJ	10 UJ
3-Nitroaniline	11 U	10 U	10 UJ	10 UJ
4,6-Dinitro-2-methylphenol	21 U	20 U	20 UJ	20 UJ
4-Bromophenyl-phenylether	11 U	10 U	10 UJ	10 UJ
4-Chloro-3-methylphenol	11 U	10 U	10 UJ	10 UJ
4-Chloroaniline	11 U	10 U	10 UJ	10 UJ
4-Chlorophenyl-phenylether	11 U	10 U	10 UJ	10 UJ
4-Nitroaniline	11 U	10 U	10 UJ	10 UJ
4-Nitrophenol	21 U	20 U	20 UJ	20 UJ
Acenaphthene	11 U	10 U	10 UJ	10 UJ
Acenaphthylene	11 U	10 U	10 UJ	10 UJ

RINSATE BLANKS ANALYTICAL RESULTS
RCRA INVESTIGATION - CTO-0143
MCB, CAMP LEJEUNE, NORTH CAROLINA

Site Sample I.D.	ER08	ER09		ER09RE
Lab Sample I.D.	R3050-12	R3085-09	R3521-09	R3521-09RE
Sample Date	06-24-2003	06-26-2003	07-24-2003	07-24-2003
Acetophenone	11 U	10 U	10 UJ	10 UJ
Anthracene	11 U	10 U	10 UJ	10 UJ
Atrazine	11 U	10 U	10 UJ	10 UJ
Benzaldehyde	11 UJ	10 U	10 UJ	10 UJ
Benzo(a)anthracene	11 U	10 U	10 UJ	10 UJ
Benzo(a)pyrene	11 U	10 U	10 UJ	10 UJ
Benzo(b)fluoranthene	11 U	10 U	10 UJ	10 UJ
Benzo(g,h,i)perylene	11 U	10 U	10 UJ	10 UJ
Benzo(k)fluoranthene	11 U	10 U	10 UJ	10 UJ
bis(2-Chloroethoxy)methane	11 U	10 U	10 UJ	10 UJ
bis(2-Chloroethyl)ether	11 U	10 U	10 UJ	10 UJ
bis(2-Ethylhexyl)phthalate	11 U	10 U	10 UJ	10 UJ
Butylbenzylphthalate	11 U	10 U	10 UJ	10 UJ
Caprolactam	11 U	10 U	10 UJ	10 UJ
Carbazole	11 U	10 U	10 UJ	10 UJ
Chrysene	11 U	10 U	10 UJ	10 UJ
Dibenz(a,h)anthracene	11 U	10 U	10 UJ	10 UJ
Dibenzofuran	11 U	10 U	10 UJ	10 UJ
Diethylphthalate	11 U	10 U	10 UJ	10 UJ
Dimethylphthalate	11 U	10 U	10 UJ	10 UJ
Di-n-butylphthalate	11 U	10 U	10 UJ	10 UJ
Di-n-octyl phthalate	11 U	10 U	10 UJ	10 UJ
Fluoranthene	11 U	10 U	10 UJ	10 UJ
Fluorene	11 U	10 U	10 UJ	10 UJ
Hexachlorobenzene	11 U	10 U	10 UJ	10 UJ
Hexachlorobutadiene	11 U	10 U	10 UJ	10 UJ
Hexachlorocyclopentadiene	11 U	10 U	10 UJ	10 UJ
Hexachloroethane	11 U	10 U	10 UJ	10 UJ
Indeno(1,2,3-cd)pyrene	11 U	10 U	10 UJ	10 UJ
Isophorone	11 U	10 U	10 UJ	10 UJ
Naphthalene	11 U	10 U	10 UJ	10 UJ
Nitrobenzene	11 U	10 U	10 UJ	10 UJ
N-Nitroso-di-n-propylamine	11 U	10 U	10 UJ	10 UJ
N-Nitrosodiphenylamine	11 U	10 U	10 UJ	10 UJ
Pentachlorophenol	21 U	20 U	20 UJ	20 UJ
Phenanthrene	11 U	10 U	10 UJ	10 UJ
Phenol	11 U	10 U	10 UJ	10 UJ
Pyrene	11 U	10 U	10 UJ	10 UJ
Pesticides (ug/L)				

RINSATE BLANKS ANALYTICAL RESULTS
RCRA INVESTIGATION - CTO-0143
MCB, CAMP LEJEUNE, NORTH CAROLINA

Site Sample I.D.	ER08	ER09		ER09RE
Lab Sample I.D.	R3050-12	R3085-09	R3521-09	R3521-09RE
Sample Date	06-24-2003	06-26-2003	07-24-2003	07-24-2003
4,4-DDD	0.1 U	0.11 U	0.1 U	
4,4-DDE	0.1 U	0.11 U	0.1 U	
4,4-DDT	0.1 U	0.11 U	0.1 U	
Aldrin	0.052 U	0.053 U	0.052 U	
alpha-BHC	0.052 U	0.053 U	0.052 U	
alpha-Chlordane	0.052 U	0.053 U	0.052 U	
beta-BHC	0.052 U	0.053 U	0.052 U	
delta-BHC	0.052 U	0.053 U	0.052 U	
Dieldrin	0.1 U	0.11 U	0.1 U	
Endosulfan I	0.052 U	0.053 U	0.052 U	
Endosulfan II	0.1 U	0.11 U	0.1 U	
Endosulfan Sulfate	0.1 U	0.11 U	0.1 U	
Endrin	0.1 U	0.11 U	0.1 U	
Endrin aldehyde	0.1 U	0.11 U	0.1 U	
Endrin ketone	0.1 U	0.11 U	0.1 U	
gamma-BHC	0.052 U	0.053 U	0.052 U	
gamma-Chlordane	0.052 U	0.053 U	0.052 U	
Heptachlor	0.052 U	0.053 U	0.052 U	
Heptachlor epoxide	0.052 U	0.053 U	0.052 U	
Methoxychlor	0.52 U	0.53 U	0.52 U	
Toxaphene	5.2 U	5.3 U	5.2 U	
Metals (ug/L)				
Arsenic	2.8 U	2.8 U	3.6 U	
Barium	1.2 J	0.8 U	1.3 U	
Cadmium	0.46 J	0.4 U	1 U	
Chromium	0.6 U	0.6 U	0.8 U	
Lead	2.1 U	2.1 U	1.6 U	
Mercury	0.2 U	0.2 U	0.2 U	
Selenium	3.5 J	3 UJ	2.6 U	
Silver	1 UJ	1 UJ	1.7 UJ	

FIELD BLANKS ANALYTICAL RESULTS
RCRA INVESTIGATION - CTO-0143
MCB, CAMP LEJEUNE, NORTH CAROLINA

Site Sample I.D.	FB01	FB02	FB03
Lab Sample I.D.	R3050-10	R3085-07	R3085-08
Sample Date	06-25-2003	06-26-2003	06-26-2003
Volatiles (ug/L)			
1,1,1-Trichloroethane	10 U	10 U	10 U
1,1,2,2-Tetrachloroethane	10 U	10 U	10 U
1,1,2-Trichloroethane	10 U	10 U	10 U
1,1,2-Trichlorotrifluoroethane	10 U	10 U	10 U
1,1-Dichloroethane	10 U	10 U	10 U
1,1-Dichloroethene	10 U	10 U	10 U
1,2,4-Trichlorobenzene	10 U	10 U	10 U
1,2-Dibromo-3-Chloropropane	10 R	10 R	10 R
1,2-Dibromoethane	10 U	10 U	10 U
1,2-Dichlorobenzene	10 U	10 U	10 U
1,2-Dichloroethane	10 U	10 U	10 U
1,2-Dichloropropane	10 U	10 U	10 U
1,3-Dichlorobenzene	10 U	10 U	10 U
1,4-Dichlorobenzene	10 U	10 U	10 U
2-Butanone	10 U	10 U	10 U
2-Hexanone	10 U	10 U	10 U
4-Methyl-2-Pentanone	10 U	10 U	10 U
Acetone	10 U	10 U	10 U
Benzene	10 U	10 U	10 U
Bromodichloromethane	10	10 U	10 U
Bromoform	10 U	10 U	10 U
Bromomethane	10 U	10 U	10 U
Carbon Disulfide	10 U	10 U	10 U
Carbon Tetrachloride	10 U	10 U	10 U
Chlorobenzene	10 U	10 U	10 U
Chloroethane	10 U	10 U	10 U
Chloroform	21	10 U	10 U
Chloromethane	10 U	10 U	10 U
cis-1,2-Dichloroethene	10 U	10 U	10 U
cis-1,3-Dichloropropene	10 U	10 U	10 U
Cyclohexane	10 U	10 U	10 U
Dibromochloromethane	4.9 J	10 U	10 U
Dichlorodifluoromethane	10 U	10 U	10 U
Volatiles (ug/L) (cont.)			
Ethyl Benzene	10 U	10 U	10 U
Isopropylbenzene	10 U	10 U	10 U
m/p-Xylenes	20 U	20 U	20 U
Methyl Acetate	10 U	10 U	10 U

FIELD BLANKS ANALYTICAL RESULTS
RCRA INVESTIGATION - CTO-0143
MCB, CAMP LEJEUNE, NORTH CAROLINA

Site Sample I.D.	FB01	FB02	FB03
Lab Sample I.D.	R3050-10	R3085-07	R3085-08
Sample Date	06-25-2003	06-26-2003	06-26-2003
Methyl tert-butyl Ether	10 U	10 U	10 U
Methylcyclohexane	10 U	10 U	10 U
Methylene Chloride	10 U	10 U	10 U
o-Xylene	10 U	10 U	10 U
Styrene	10 U	10 U	10 U
t-1,3-Dichloropropene	10 U	10 U	10 U
Tetrachloroethene	10 U	10 U	10 U
Toluene	10 U	10 U	10 U
trans-1,2-Dichloroethene	10 U	10 U	10 U
Trichloroethene	10 U	10 U	10 U
Trichlorofluoromethane	10 U	10 U	10 U
Vinyl Chloride	10 U	10 U	10 U
Semivolatiles (ug/L)			
1,1-Biphenyl	10 U	10 U	10 U
2,2-oxybis(1-Chloropropane)	10 U	10 U	10 U
2,4,5-Trichlorophenol	10 U	10 U	10 U
2,4,6-Trichlorophenol	10 U	10 U	10 U
2,4-Dichlorophenol	10 U	10 U	10 U
2,4-Dimethylphenol	10 U	10 U	10 U
2,4-Dinitrophenol	21 U	20 U	20 U
2,4-Dinitrotoluene	10 U	10 U	10 U
2,6-Dinitrotoluene	10 U	10 U	10 U
2-Chloronaphthalene	10 U	10 U	10 U
2-Chlorophenol	10 U	10 U	10 U
2-Methylnaphthalene	10 U	10 U	10 U
2-Methylphenol	10 U	10 U	10 U
2-Nitroaniline	10 U	10 U	10 U
2-Nitrophenol	10 U	10 U	10 U
3,3-Dichlorobenzidine	21 U	20 U	20 U
Semivolatiles (ug/L) (cont.)			
3+4-Methylphenols	10 U	10 U	10 U
3-Nitroaniline	10 U	10 U	10 U
4,6-Dinitro-2-methylphenol	21 U	20 U	20 U
4-Bromophenyl-phenylether	10 U	10 U	10 U
4-Chloro-3-methylphenol	10 U	10 U	10 U
4-Chloroaniline	10 U	10 U	10 U
4-Chlorophenyl-phenylether	10 U	10 U	10 U
4-Nitroaniline	10 U	10 U	10 U
4-Nitrophenol	21 U	20 U	20 U

FIELD BLANKS ANALYTICAL RESULTS
RCRA INVESTIGATION - CTO-0143
MCB, CAMP LEJEUNE, NORTH CAROLINA

Site Sample I.D.	FB01	FB02	FB03
Lab Sample I.D.	R3050-10	R3085-07	R3085-08
Sample Date	06-25-2003	06-26-2003	06-26-2003
Acenaphthene	10 U	10 U	10 U
Acenaphthylene	10 U	10 U	10 U
Acetophenone	10 U	10 U	10 U
Anthracene	10 U	10 U	10 U
Atrazine	10 U	10 U	10 U
Benzaldehyde	10 UJ	10 UJ	10 U
Benzo(a)anthracene	10 U	10 U	10 U
Benzo(a)pyrene	10 U	10 U	10 U
Benzo(b)fluoranthene	10 U	10 U	10 U
Benzo(g,h,i)perylene	10 U	10 U	10 U
Benzo(k)fluoranthene	10 U	10 U	10 U
bis(2-Chloroethoxy)methane	10 U	10 U	10 U
bis(2-Chloroethyl)ether	10 U	10 U	10 U
bis(2-Ethylhexyl)phthalate	10 U	10 U	10 U
Butylbenzylphthalate	10 U	10 U	10 U
Caprolactam	10 U	10 U	10 U
Carbazole	10 U	10 U	10 U
Chrysene	10 U	10 U	10 U
Dibenz(a,h)anthracene	10 U	10 U	10 U
Dibenzofuran	10 U	10 U	10 U
Diethylphthalate	10 U	10 U	10 U
Dimethylphthalate	10 U	10 U	10 U
Di-n-butylphthalate	10 U	10 U	10 U
Di-n-octyl phthalate	10 U	10 U	10 U
Semivolatiles (ug/L) (cont.)			
Fluoranthene	10 U	10 U	10 U
Fluorene	10 U	10 U	10 U
Hexachlorobenzene	10 U	10 U	10 U
Hexachlorobutadiene	10 U	10 U	10 U
Hexachlorocyclopentadiene	10 U	10 U	10 U
Hexachloroethane	10 U	10 U	10 U
Indeno(1,2,3-cd)pyrene	10 U	10 U	10 U
Isophorone	10 U	10 U	10 U
Naphthalene	10 U	10 U	10 U
Nitrobenzene	10 U	10 U	10 U
N-Nitroso-di-n-propylamine	10 U	10 U	10 U
N-Nitrosodiphenylamine	10 U	10 U	10 U
Pentachlorophenol	21 U	20 U	20 U
Phenanthrene	10 U	10 U	10 U

FIELD BLANKS ANALYTICAL RESULTS
RCRA INVESTIGATION - CTO-0143
MCB, CAMP LEJEUNE, NORTH CAROLINA

Site Sample I.D.	FB01	FB02	FB03
Lab Sample I.D.	R3050-10	R3085-07	R3085-08
Sample Date	06-25-2003	06-26-2003	06-26-2003
Phenol	10 U	10 U	10 U
Pyrene	10 U	10 U	10 U
Pesticides (ug/L)			
4,4-DDD	0.11 U	0.1 U	0.1 U
4,4-DDE	0.11 U	0.1 U	0.1 U
4,4-DDT	0.11 U	0.1 U	0.1 U
Aldrin	0.054 U	0.052 U	0.051 U
alpha-BHC	0.054 U	0.052 U	0.051 U
alpha-Chlordane	0.054 U	0.052 U	0.051 U
beta-BHC	0.054 U	0.052 U	0.051 U
delta-BHC	0.054 U	0.052 U	0.051 U
Dieldrin	0.11 U	0.1 U	0.1 U
Endosulfan I	0.054 U	0.052 U	0.051 U
Endosulfan II	0.11 U	0.1 U	0.1 U
Endosulfan Sulfate	0.11 U	0.1 U	0.1 U
Endrin	0.11 U	0.1 U	0.1 U
Endrin aldehyde	0.11 U	0.1 U	0.1 U
Endrin ketone	0.11 U	0.1 U	0.1 U
gamma-BHC	0.054 U	0.052 U	0.051 U
Pesticides (ug/L) (cont.)			
gamma-Chlordane	0.054 U	0.052 U	0.051 U
Heptachlor	0.054 U	0.052 U	0.051 U
Heptachlor epoxide	0.054 U	0.052 U	0.051 U
Methoxychlor	0.54 U	0.52 U	0.51 U
Toxaphene	5.4 U	5.2 U	5.1 U
Metals (ug/L)			
Arsenic	2.8 U	2.8 U	2.8 U
Barium	0.8 U	0.8 U	0.8 U
Cadmium	0.4 U	0.4 U	0.4 U
Chromium	0.6 U	0.6 U	0.6 U
Lead	2.1 U	2.1 U	2.1 U
Mercury	0.2 U	0.2 U	0.2 U
Selenium	3 UJ	3 UJ	3 UJ
Silver	1 UJ	1 UJ	1 UJ

TRIP BLANKS ANALYTICAL RESULTS
RCRA INVESTIGATION - CTO-0143
MCB, CAMP LEJEUNE, NORTH CAROLINA

Site Sample I.D.	TB01	TB02	TB03	TB04	TB05	TB06	TB07	TB09	TB10
Lab Sample I.D.	R2936-18	R2957-02	R2991-21	R3030-07	R3030-23	R3031-09	R3085-06	R3486-16	R3521-10
Sample Date	06-18-2003	06-19-2003	06-20-2003	06-23-2003	06-24-2003	06-25-2003	06-26-2003	07-23-2003	07-24-2003
Volatiles (ug/L)									
1,1,1-Trichloroethane	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
1,1,2,2-Tetrachloroethane	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
1,1,2-Trichloroethane	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
1,1,2-Trichlorotrifluoroethane	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
1,1-Dichloroethane	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
1,1-Dichloroethene	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
1,2,4-Trichlorobenzene	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
1,2-Dibromo-3-Chloropropane	10 U	10 U	10 U	10 R	10 U	10 R	10 R	10 U	10 U
1,2-Dibromoethane	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
1,2-Dichlorobenzene	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
1,2-Dichloroethane	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
1,2-Dichloropropane	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
1,3-Dichlorobenzene	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
1,4-Dichlorobenzene	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2-Butanone	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2-Hexanone	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
4-Methyl-2-Pentanone	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Acetone	15	23	17	10 U	10 U	10 U	10 U	10 U	10 U
Benzene	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Bromodichloromethane	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Bromoform	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Bromomethane	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Carbon Disulfide	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Carbon Tetrachloride	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Chlorobenzene	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Chloroethane	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Chloroform	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Chloromethane	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
cis-1,2-Dichloroethene	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
cis-1,3-Dichloropropene	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Cyclohexane	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Dibromochloromethane	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Dichlorodifluoromethane	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Volatiles (ug/L) (cont.)									
Ethyl Benzene	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Isopropylbenzene	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
m/p-Xylenes	20 U	20 U	20 U	20 R	20 U	20 R	20 U	20 U	20 U
Methyl Acetate	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U

TRIP BLANKS ANALYTICAL RESULTS
RCRA INVESTIGATION - CTO-0143
MCB, CAMP LEJEUNE, NORTH CAROLINA

Site Sample I.D.	TB01	TB02	TB03	TB04	TB05	TB06	TB07	TB09	TB10
Lab Sample I.D.	R2936-18	R2957-02	R2991-21	R3030-07	R3030-23	R3031-09	R3085-06	R3486-16	R3521-10
Sample Date	06-18-2003	06-19-2003	06-20-2003	06-23-2003	06-24-2003	06-25-2003	06-26-2003	07-23-2003	07-24-2003
Methyl tert-butyl Ether	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Methylcyclohexane	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Methylene Chloride	10 U	2.3 J	2.4 J	10 U	10 U	10 U	10 U	10 U	10 U
o-Xylene	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Styrene	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
t-1,3-Dichloropropene	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Tetrachloroethene	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Toluene	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
trans-1,2-Dichloroethene	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Trichloroethene	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Trichlorofluoromethane	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Vinyl Chloride	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U

APPENDIX F
FIELD DUPLICATE RESULTS

DETECTION SUMMARY
SURFACE AND SUBSURFACE SOIL DUPLICATES
SWMU CONFIRMATORY SAMPLING (CTO-0143)
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWM43-IS02-00D	SWM43-IS04-01D	SWM43-SB01-00D	SWM43-SS04-00D	SWM43-TW02-06D	SWM46-IS01-04D	SWM46-TW02-04D
SAMPLE DATE	09-10-1997	09-10-1997	03-25-2002	03-25-2002	03-25-2002	09-09-1997	03-23-2002
DEPTH	0' - 2'	2' - 4'	0' - 1'	0' - 1'	11' - 13'	8' - 10'	7' - 9'
VOLATILES (g/kg)							
1,1,1-Trichloroethane	ND	ND	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	ND	ND	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	NA	NA	NA	NA	NA	NA	NA
2-Btanone	ND	ND	NA	NA	NA	NA	NA
2-Hexanone	ND	ND	NA	NA	NA	NA	NA
4-Methyl-2-pentanone	ND	ND	NA	NA	NA	NA	NA
Acetone	ND	320	NA	NA	NA	NA	NA
Carbon dislfide	ND	ND	NA	NA	NA	NA	NA
Chloroethane	ND	ND	NA	NA	NA	NA	NA
Chloroform	ND	ND	NA	NA	NA	NA	NA
Cyclohexane	NA	NA	NA	NA	NA	NA	NA
Methylcyclohexane	NA	NA	NA	NA	NA	NA	NA
Methylene chloride	2.7 J	2.1 J	NA	NA	NA	NA	NA
Tetrachloroethene	ND	ND	NA	NA	NA	NA	NA
Trichloroethene	ND	ND	NA	NA	NA	NA	NA
SEMIVOLATILES (g/kg)							
2-Methylnaphthalene	ND	ND	ND	ND	ND	ND	NA
Acenaphthene	ND	ND	ND	ND	ND	ND	NA
Acenaphthylene	ND	ND	ND	ND	ND	ND	NA
Anthracene	ND	ND	ND	ND	ND	ND	NA
Benzaldehyde	NA	NA	ND	ND	ND	NA	NA
Benzo(a)anthracene	ND	ND	ND	ND	ND	ND	NA
Benzo(a)pyrene	ND	ND	ND	ND	ND	ND	NA
Benzo(b)floranthene	ND	ND	ND	ND	ND	ND	NA
Benzo(ghi)perylene	ND	ND	ND	ND	ND	ND	NA
Benzo(k)floranthene	ND	ND	ND	ND	ND	ND	NA
bis(2-Ethylhexyl) phthalate	44 J	ND	67 J	57 J	130 J	ND	NA
Btyl benzyl phthalate	ND	ND	ND	34 J	ND	ND	NA
Caprolactam	NA	NA	ND	ND	ND	NA	NA
Carbazole	ND	ND	ND	ND	ND	ND	NA
Chrysene	ND	ND	ND	ND	ND	ND	NA
Di-n-btyl phthalate	ND	ND	ND	ND	ND	ND	NA
Di-n-octyl phthalate	ND	ND	ND	ND	ND	ND	NA
Dibenz(a,h)anthracene	ND	ND	ND	ND	ND	ND	NA
Dibenzofran	ND	ND	ND	ND	ND	ND	NA
Floranthene	ND	ND	ND	28 J	ND	ND	NA
Florene	ND	ND	ND	ND	ND	ND	NA
Indeno(1,2,3-cd)pyrene	ND	ND	ND	ND	ND	ND	NA
Naphthalene	ND	ND	ND	ND	ND	ND	NA

DETECTION SUMMARY
SURFACE AND SUBSURFACE SOIL DUPLICATES
SWMU CONFIRMATORY SAMPLING (CTO-0143)
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWM43-IS02-00D	SWM43-IS04-01D	SWM43-SB01-00D	SWM43-SS04-00D	SWM43-TW02-06D	SWM46-IS01-04D	SWM46-TW02-04D
SAMPLE DATE	09-10-1997	09-10-1997	03-25-2002	03-25-2002	03-25-2002	09-09-1997	03-23-2002
DEPTH	0' - 2'	2' - 4'	0' - 1'	0' - 1'	11' - 13'	8' - 10'	7' - 9'
SEMIVOLATILES (g/kg) (cont)							
Phenanthrene	ND	ND	ND	ND	ND	ND	NA
Pyrene	ND	ND	ND	ND	ND	ND	NA
METALS (mg/kg)							
Arsenic	3.5	1.5	2.7 J	2.8 J	ND J	ND	ND
Barim	ND	ND	11.1 J	25.6 J	2.2 J	ND	1.2
Cadmim	ND	ND	ND	ND	ND	ND	ND
Chromim	14.6	14.9	7 J	8 J	3.6 J	3.7	1
Lead	8.6	6.3	23.7 J	23.2 J	2.9 J	1.2	1.7
Mercry	ND	ND	0.07 J	0.11 J	ND	ND	0.022 J
Selenim	ND	ND	0.2 J	0.59 J	ND J	ND	ND
Silver	ND	ND	0.1	ND	ND	ND	ND
PESTICIDES (g/kg)							
4,4'-DDD	ND	ND	28 J	ND	ND J	NA	NA
4,4'-DDE	35	ND	140	320	ND J	NA	NA
4,4'-DDT	40	6.6	550	220	ND J	NA	NA
alpha-Chlordane	NA	NA	160 J	120 J	ND J	NA	NA
beta-BHC	ND	ND	NA	NA	NA	NA	NA
Chlordane (technical)	100	ND	NA	NA	NA	NA	NA
delta-BHC	ND	ND	NA	NA	NA	NA	NA
gamma-BHC (Lindane)	ND	ND	NA	NA	NA	NA	NA
HERBICIDES (g/kg)							
Dalapon	46	91	NA	NA	NA	NA	NA

B - Analyte detected. Report value is estimated due to probable blank contamination.
J - Analyte detected. Report value is estimated.
JB - Analyte detected. Report value is estimated.
NA - Not analyzed
ND - Analyte not detected

DETECTION SUMMARY
SURFACE AND SUBSURFACE SOIL DUPLICATES
SWMU CONFIRMATORY SAMPLING (CTO-0143)
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWM53-IS06-01D	SWM253-TW03-06D	SWM254-IS01-03D	SWM254-TW02-00D	SWM257-IS01-00D	SWM258-IS04-01D
SAMPLE DATE	09-11-1997	03-22-2002	09-12-1997	03-22-2002	09-11-1997	09-11-1997
DEPTH	2' - 4'	11' - 13'	6' - 8'	0' - 1'	0' - 2'	2' - 4'
VOLATILES (g/kg)						
1,1,1-Trichloroethane	NA	NA	ND	NA	ND	ND
1,1,2,2-Tetrachloroethane	NA	NA	ND	NA	2 J	ND
1,2-Dichlorobenzene	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	NA	NA	NA	NA	NA	NA
2-Btanone	NA	NA	ND	NA	7.2 J	ND
2-Hexanone	NA	NA	ND	NA	5.5 J	ND
4-Methyl-2-pentanone	NA	NA	ND	NA	6.7 J	ND
Acetone	NA	NA	ND	NA	ND	ND
Carbon dislfide	NA	NA	ND	NA	ND	ND
Chloroethane	NA	NA	ND	NA	ND	ND
Chloroform	NA	NA	ND	NA	ND	ND
Cyclohexane	NA	NA	NA	NA	NA	NA
Methylcyclohexane	NA	NA	NA	NA	NA	NA
Methylene chloride	NA	NA	ND	NA	ND	ND
Tetrachloroethene	NA	NA	ND	NA	ND	ND
Trichloroethene	NA	NA	ND	NA	ND	ND
SEMIVOLATILES (g/kg)						
2-Methylnaphthalene	59 J	ND	ND	ND	91 J	ND
Acenaphthene	ND	ND	ND	ND	ND	ND
Acenaphthylene	ND	ND	ND	ND	ND	ND
Anthracene	ND	ND	ND	ND	ND	ND
Benzaldehyde	NA	ND	NA	ND	NA	NA
Benzo(a)anthracene	ND	ND	ND	ND	ND	ND
Benzo(a)pyrene	ND	ND	ND	ND	ND	ND
Benzo(b)floranthene	ND	ND	ND	ND	ND	ND
Benzo(ghi)perylene	ND	ND	ND	ND	ND	ND
Benzo(k)floranthene	ND	ND	ND	ND	ND	ND
bis(2-Ethylhexyl) phthalate	220 J	ND	110 J	1600	110 J	62 J
Btyl benzyl phthalate	ND	ND	ND	ND	ND	ND
Caprolactam	NA	ND	NA	ND	NA	NA
Carbazole	ND	ND	ND	ND	ND	ND
Chrysene	ND	ND	ND	ND	ND	ND
Di-n-btyl phthalate	ND	ND	ND	ND	ND	ND
Di-n-octyl phthalate	ND	110 J	ND	ND	ND	ND
Dibenz(a,h)anthracene	ND	ND	ND	ND	ND	ND
Dibenzofran	ND	ND	ND	ND	ND	ND
Floranthene	ND	ND	ND	ND	ND	ND
Florene	ND	ND	ND	ND	ND	ND
Indeno(1,2,3-cd)pyrene	ND	ND	ND	ND	ND	ND
Naphthalene	ND	ND	ND	ND	51 J	ND

DETECTION SUMMARY
SURFACE AND SUBSURFACE SOIL DUPLICATES
SWMU CONFIRMATORY SAMPLING (CTO-0143)
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWM53-IS06-01D	SWM253-TW03-06D	SWM254-IS01-03D	SWM254-TW02-00D	SWM257-IS01-00D	SWM258-IS04-01D
SAMPLE DATE	09-11-1997	03-22-2002	09-12-1997	03-22-2002	09-11-1997	09-11-1997
DEPTH	2' - 4'	11' - 13'	6' - 8'	0' - 1'	0' - 2'	2' - 4'
SEMIVOLATILES (g/kg) (cont)						
Phenanthrene	49 J	ND	ND	ND	58 J	ND
Pyrene	ND	ND	ND	ND	ND	ND
METALS (mg/kg)						
Arsenic	ND	ND	ND	NA	NA	ND
Barim	ND	7.4	ND	NA	NA	ND
Cadmim	ND	ND	ND	NA	NA	ND
Chromim	6.2	2.7	5.3	NA	NA	9.3
Lead	3.7	3.9 J	2.9	NA	NA	15.9
Mercry	ND	ND	ND	NA	NA	ND
Selenim	ND	ND	ND	NA	NA	ND
Silver	ND	ND	ND	NA	NA	ND
PESTICIDES (g/kg)						
4,4'-DDD	NA	NA	NA	NA	NA	NA
4,4'-DDE	NA	NA	NA	NA	NA	NA
4,4'-DDT	NA	NA	NA	NA	NA	NA
alpha-Chlordane	NA	NA	NA	NA	NA	NA
beta-BHC	NA	NA	NA	NA	NA	NA
Chlordane (technical)	NA	NA	NA	NA	NA	NA
delta-BHC	NA	NA	NA	NA	NA	NA
gamma-BHC (Lindane)	NA	NA	NA	NA	NA	NA
HERBICIDES (g/kg)						
Dalapon	NA	NA	NA	NA	NA	NA

B - Analyte detected. Report value is estimated due to probable blank contamination.
J - Analyte detected. Report value is estimated.
JB - Analyte detected. Report value is estimated.
NA - Not analyzed
ND - Analyte not detected

DETECTION SUMMARY
SURFACE AND SUBSURFACE SOIL DUPLICATES
SWMU CONFIRMATORY SAMPLING (CTO-0143)
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWM258-TW03-00D	SWM261-IS01-00D	SWM261-IS02-06D	SWM261-SS02-00D	SWM264-TW02-04D	SWM265-TW01-05D
SAMPLE DATE	03-22-2002	09-13-1997	09-13-1997	03-26-2002	03-25-2002	03-24-2002
DEPTH	0' - 1'	0' - 2'	12' - 14'	0' - 1'	7' - 9'	9' - 11'
VOLATILES (g/kg)						
1,1,1-Trichloroethane	NA	ND	ND	NA	NA	NA
1,1,2,2-Tetrachloroethane	NA	ND	ND	NA	NA	NA
1,2-Dichlorobenzene	NA	ND	ND	NA	NA	NA
1,3-Dichlorobenzene	NA	ND	ND	NA	NA	NA
1,4-Dichlorobenzene	NA	ND	ND	NA	NA	NA
2-Btanone	NA	ND	ND	NA	NA	NA
2-Hexanone	NA	ND	ND	NA	NA	NA
4-Methyl-2-pentanone	NA	ND	ND	NA	NA	NA
Acetone	NA	ND	27	NA	NA	NA
Carbon dislfide	NA	ND	ND	NA	NA	NA
Chloroethane	NA	ND	ND	NA	NA	NA
Chloroform	NA	ND	ND	NA	NA	NA
Cyclohexane	NA	NA	NA	NA	NA	NA
Methylcyclohexane	NA	NA	NA	NA	NA	NA
Methylene chloride	NA	ND	ND	NA	NA	NA
Tetrachloroethene	NA	ND	ND	NA	NA	NA
Trichloroethene	NA	ND	ND	NA	NA	NA
SEMIVOLATILES (g/kg)						
2-Methylnaphthalene	NA	ND	ND	NA	ND	ND
Acenaphthene	NA	ND	ND	NA	ND	ND
Acenaphthylene	NA	ND	ND	NA	ND	ND
Anthracene	NA	ND	ND	NA	ND	ND
Benzaldehyde	NA	NA	NA	NA	ND	ND
Benzo(a)anthracene	NA	ND	ND	NA	ND	ND
Benzo(a)pyrene	NA	ND	ND	NA	ND	ND
Benzo(b)floranthene	NA	ND	ND	NA	ND	ND
Benzo(ghi)perylene	NA	ND	ND	NA	ND	ND
Benzo(k)floranthene	NA	ND	ND	NA	ND	ND
bis(2-Ethylhexyl) phthalate	NA	74 JB	120 JB	NA	75 J	88 J
Btyl benzyl phthalate	NA	ND	ND	NA	ND	ND
Caprolactam	NA	NA	NA	NA	ND	ND
Carbazole	NA	ND	ND	NA	ND	ND
Chrysene	NA	ND	ND	NA	ND	ND
Di-n-btyl phthalate	NA	ND	ND	NA	ND	ND
Di-n-octyl phthalate	NA	ND	ND	NA	ND	ND
Dibenz(a,h)anthracene	NA	ND	ND	NA	ND	ND
Dibenzofran	NA	ND	ND	NA	ND	ND
Floranthene	NA	ND	ND	NA	ND	ND
Florene	NA	ND	ND	NA	ND	ND
Indeno(1,2,3-cd)pyrene	NA	ND	ND	NA	ND	ND
Naphthalene	NA	ND	ND	NA	ND	ND

DETECTION SUMMARY
SURFACE AND SUBSURFACE SOIL DUPLICATES
SWMU CONFIRMATORY SAMPLING (CTO-0143)
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWM258-TW03-00D	SWM261-IS01-00D	SWM261-IS02-06D	SWM261-SS02-00D	SWM264-TW02-04D	SWM265-TW01-05D
SAMPLE DATE	03-22-2002	09-13-1997	09-13-1997	03-26-2002	03-25-2002	03-24-2002
DEPTH	0' - 1'	0' - 2'	12' - 14'	0' - 1'	7' - 9'	9' - 11'
SEMIVOLATILES (g/kg) (cont)						
Phenanthrene	NA	ND	ND	NA	ND	ND
Pyrene	NA	ND	ND	NA	ND	ND
METALS (mg/kg)						
Arsenic	2.5	1.3	ND	ND	3.8 J	NA
Barim	36.5	ND	ND	19.2 J	3.7 J	NA
Cadmim	1.9	ND	ND	0.98 J	ND	NA
Chromim	7.1 J	13.8	10.4	7.5 J	6.7 J	NA
Lead	109	5.9	3.5	39.2 J	3.3 J	NA
Mercry	0.07 J	ND	ND	0.05 J	ND	NA
Selenim	1	ND	ND	ND J	ND J	NA
Silver	ND	ND	ND	ND	ND	NA
PESTICIDES (g/kg)						
4,4'-DDD	NA	NA	NA	NA	NA	NA
4,4'-DDE	NA	NA	NA	NA	NA	NA
4,4'-DDT	NA	NA	NA	NA	NA	NA
alpha-Chlordane	NA	NA	NA	NA	NA	NA
beta-BHC	NA	NA	NA	NA	NA	NA
Chlordane (technical)	NA	NA	NA	NA	NA	NA
delta-BHC	NA	NA	NA	NA	NA	NA
gamma-BHC (Lindane)	NA	NA	NA	NA	NA	NA
HERBICIDES (g/kg)						
Dalapon	NA	NA	NA	NA	NA	NA

B - Analyte detected. Report value is estimated due to probable blank contamination.
J - Analyte detected. Report value is estimated.
JB - Analyte detected. Report value is estimated.
NA - Not analyzed
ND - Analyte not detected

DETECTION SUMMARY
SURFACE AND SUBSURFACE SOIL DUPLICATES
SWMU CONFIRMATORY SAMPLING (CTO-0143)
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWM269-IS04-06D	SWM272-SB02-00D	SWM273-IS01-01D	SWM275-IS01-00D	SWM276-IS01-00D	SWM283-IS01-04D
SAMPLE DATE	09-13-1997	03-20-2002	09-14-1997	09-14-1997	09-14-1997	09-12-1997
DEPTH	12' - 14'	0' - 1'	2' - 4'	0' - 2'	0' - 2'	8' - 10'
VOLATILES (g/kg)						
1,1,1-Trichloroethane	NA	NA	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane	NA	NA	ND	ND	ND	ND
1,2-Dichlorobenzene	ND	NA	NA	NA	NA	ND
1,3-Dichlorobenzene	ND	NA	NA	NA	NA	ND
1,4-Dichlorobenzene	19	NA	NA	NA	NA	ND
2-Btanone	NA	NA	ND	ND	ND	ND
2-Hexanone	NA	NA	ND	ND	ND	ND
4-Methyl-2-pentanone	NA	NA	ND	ND	ND	ND
Acetone	NA	NA	74	40	24	ND
Carbon dislfide	NA	NA	ND	ND	ND	ND
Chloroethane	NA	NA	ND	ND	ND	ND
Chloroform	NA	NA	ND	ND	ND	ND
Cyclohexane	NA	NA	NA	NA	NA	NA
Methylcyclohexane	NA	NA	NA	NA	NA	NA
Methylene chloride	NA	NA	ND	3 J	1.8 J	ND
Tetrachloroethene	NA	NA	ND	ND	ND	ND
Trichloroethene	NA	NA	ND	ND	ND	ND
SEMIVOLATILES (g/kg)						
2-Methylnaphthalene	ND	ND	ND	ND	ND	ND
Acenaphthene	ND	ND	ND	ND	ND	ND
Acenaphthylene	ND	ND	ND	ND	ND	ND
Anthracene	ND	ND	ND	ND	ND	ND
Benzaldehyde	NA	ND	NA	NA	NA	NA
Benzo(a)anthracene	ND	ND	ND	ND	ND	ND
Benzo(a)pyrene	ND	ND	ND	ND	ND	ND
Benzo(b)floranthene	ND	ND	ND	ND	ND	ND
Benzo(ghi)perylene	ND	ND	ND	ND	ND	ND
Benzo(k)floranthene	ND	ND	ND	ND	ND	ND
bis(2-Ethylhexyl) phthalate	71 JB	ND	98 JB	130 JB	83 JB	ND
Btyl benzyl phthalate	ND	ND	ND	ND	ND	ND
Caprolactam	NA	ND	NA	NA	NA	NA
Carbazole	ND	ND	ND	ND	ND	ND
Chrysene	ND	ND	ND	ND	ND	ND
Di-n-btyl phthalate	ND	ND	ND	ND	ND	ND
Di-n-octyl phthalate	ND	ND	ND	ND	ND	ND
Dibenz(a,h)anthracene	ND	ND	ND	ND	ND	ND
Dibenzofran	ND	ND	ND	ND	ND	ND
Floranthene	ND	ND	ND	ND	ND	ND
Florene	ND	ND	ND	ND	ND	ND
Indeno(1,2,3-cd)pyrene	ND	ND	ND	ND	ND	ND
Naphthalene	ND	ND	ND	ND	ND	ND

DETECTION SUMMARY
SURFACE AND SUBSURFACE SOIL DUPLICATES
SWMU CONFIRMATORY SAMPLING (CTO-0143)
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWM269-IS04-06D	SWM272-SB02-00D	SWM273-IS01-01D	SWM275-IS01-00D	SWM276-IS01-00D	SWM283-IS01-04D
SAMPLE DATE	09-13-1997	03-20-2002	09-14-1997	09-14-1997	09-14-1997	09-12-1997
DEPTH	12' - 14'	0' - 1'	2' - 4'	0' - 2'	0' - 2'	8' - 10'
SEMIVOLATILES (g/kg) (cont)						
Phenanthrene	ND	ND	ND	ND	ND	ND
Pyrene	ND	ND	ND	ND	ND	ND
METALS (mg/kg)						
Arsenic	ND	3.2	4.8	ND	ND	ND
Barim	ND	28.4	ND	ND	ND	ND
Cadmim	ND	0.04 J	ND	ND	ND	ND
Chromim	5.6	15.4	6	3.3	2.7	5.1
Lead	3	12.1	1.6	5.5	3.1	3.1
Mercry	ND	0.04 J	ND	ND	ND	ND
Selenim	ND	0.93	ND	ND	ND	ND
Silver	ND	ND	ND	ND	ND	ND
PESTICIDES (g/kg)						
4,4'-DDD	NA	NA	NA	NA	NA	ND
4,4'-DDE	NA	NA	NA	NA	NA	ND
4,4'-DDT	NA	NA	NA	NA	NA	ND
alpha-Chlordane	NA	NA	NA	NA	NA	NA
beta-BHC	NA	NA	NA	NA	NA	ND
Chlordane (technical)	NA	NA	NA	NA	NA	ND
delta-BHC	NA	NA	NA	NA	NA	ND
gamma-BHC (Lindane)	NA	NA	NA	NA	NA	ND
HERBICIDES (g/kg)						
Dalapon	NA	NA	NA	NA	NA	NA

B - Analyte detected. Report value is estimated due to probable blank contamination.
J - Analyte detected. Report value is estimated.
JB - Analyte detected. Report value is estimated.
NA - Not analyzed
ND - Analyte not detected

DETECTION SUMMARY
SURFACE AND SUBSURFACE SOIL DUPLICATES
SWMU CONFIRMATORY SAMPLING (CTO-0143)
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWM284-IS01-00D	SWM285-IS02-03D	SWM285-TW01-00D	SWM291-IS01-00D	SWM291-TW03-04D	SWM293-IS01-03D
SAMPLE DATE	09-13-1997	09-13-1997	03-26-2002	09-13-1997	03-24-2002	09-14-1997
DEPTH	0' - 2'	6' - 8'	0' - 1'	0' - 2'	7' - 9'	6' - 8'
VOLATILES (g/kg)						
1,1,1-Trichloroethane	NA	ND	NA	ND	NA	ND
1,1,2,2-Tetrachloroethane	NA	ND	NA	ND	NA	ND
1,2-Dichlorobenzene	ND	ND	NA	ND	NA	ND
1,3-Dichlorobenzene	ND	ND	NA	ND	NA	ND
1,4-Dichlorobenzene	1.4	ND	NA	ND	NA	ND
2-Btanone	NA	ND	NA	ND	NA	ND
2-Hexanone	NA	ND	NA	ND	NA	ND
4-Methyl-2-pentanone	NA	ND	NA	ND	NA	ND
Acetone	NA	ND	NA	ND	NA	150
Carbon dislfide	NA	ND	NA	ND	NA	ND
Chloroethane	NA	ND	NA	ND	NA	ND
Chloroform	NA	ND	NA	ND	NA	ND
Cyclohexane	NA	NA	NA	NA	NA	NA
Methylcyclohexane	NA	NA	NA	NA	NA	NA
Methylene chloride	NA	3.1 JB	NA	ND	NA	2 J
Tetrachloroethene	NA	ND	NA	1.7 J	NA	ND
Trichloroethene	NA	ND	NA	ND	NA	ND
SEMIVOLATILES (g/kg)						
2-Methylnaphthalene	ND	ND	ND	ND	NA	ND
Acenaphthene	ND	ND	ND	ND	NA	ND
Acenaphthylene	ND	ND	ND	ND	NA	ND
Anthracene	ND	ND	ND	ND	NA	ND
Benzaldehyde	NA	NA	110 J	NA	NA	NA
Benzo(a)anthracene	ND	ND	ND	ND	NA	ND
Benzo(a)pyrene	ND	ND	ND	ND	NA	ND
Benzo(b)floranthene	ND	ND	ND	ND	NA	ND
Benzo(ghi)perylene	ND	ND	ND	ND	NA	ND
Benzo(k)floranthene	ND	ND	ND	ND	NA	ND
bis(2-Ethylhexyl) phthalate	98 JB	320 JB	130 J	86 JB	NA	48 JB
Btyl benzyl phthalate	ND	ND	ND	ND	NA	ND
Caprolactam	NA	NA	ND	NA	NA	NA
Carbazole	ND	ND	ND	ND	NA	ND
Chrysene	ND	ND	ND	ND	NA	ND
Di-n-btyl phthalate	ND	ND	ND	ND	NA	ND
Di-n-octyl phthalate	ND	ND	ND	ND	NA	ND
Dibenz(a,h)anthracene	ND	ND	ND	ND	NA	ND
Dibenzofran	ND	ND	ND	ND	NA	ND
Floranthene	ND	ND	ND	ND	NA	ND
Florene	ND	ND	ND	ND	NA	ND
Indeno(1,2,3-cd)pyrene	ND	ND	ND	ND	NA	ND
Naphthalene	ND	ND	ND	ND	NA	ND

DETECTION SUMMARY
SURFACE AND SUBSURFACE SOIL DUPLICATES
SWMU CONFIRMATORY SAMPLING (CTO-0143)
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWM284-IS01-00D	SWM285-IS02-03D	SWM285-TW01-00D	SWM291-IS01-00D	SWM291-TW03-04D	SWM293-IS01-03D
SAMPLE DATE	09-13-1997	09-13-1997	03-26-2002	09-13-1997	03-24-2002	09-14-1997
DEPTH	0' - 2'	6' - 8'	0' - 1'	0' - 2'	7' - 9'	6' - 8'
SEMIVOLATILES (g/kg) (cont)						
Phenanthrene	ND	ND	ND	ND	NA	ND
Pyrene	ND	ND	ND	ND	NA	ND
METALS (mg/kg)						
Arsenic	1.8	ND	NA	ND	1.1 J	ND
Barim	ND	ND	NA	23.3	19.2	ND
Cadmim	ND	ND	NA	ND	0.11 J	ND
Chromim	9.2	9.5	NA	7.1	8.2	4.1
Lead	3.9	2.4	NA	18.8	16.3 J	6.4
Mercry	ND	ND	NA	ND	0.036 J	ND
Selenim	ND	ND	NA	ND	ND	ND
Silver	ND	ND	NA	ND	ND	ND
PESTICIDES (g/kg)						
4,4'-DDD	NA	NA	NA	14	NA	NA
4,4'-DDE	NA	NA	NA	47	NA	NA
4,4'-DDT	NA	NA	NA	25	NA	NA
alpha-Chlordane	NA	NA	NA	NA	NA	NA
beta-BHC	NA	NA	NA	ND	NA	NA
Chlordane (technical)	NA	NA	NA	ND	NA	NA
delta-BHC	NA	NA	NA	ND	NA	NA
gamma-BHC (Lindane)	NA	NA	NA	ND	NA	NA
HERBICIDES (g/kg)						
Dalapon	NA	NA	NA	NA	NA	NA

B - Analyte detected. Report value is estimated due to probable blank contamination.
J - Analyte detected. Report value is estimated.
JB - Analyte detected. Report value is estimated.
NA - Not analyzed
ND - Analyte not detected

DETECTION SUMMARY
SURFACE AND SUBSURFACE SOIL DUPLICATES
SWMU CONFIRMATORY SAMPLING (CTO-0143)
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWM294-IS01-03D	SWM294-IS04-00D	SWM294-TW03-04D	SWM294-TW06-00D	SWM295-IS01-00D	SWM299-TW03-02D
SAMPLE DATE	09-12-1997	09-12-1997	03-24-2002	03-22-2002	09-12-1997	03-19-2002
DEPTH	6' - 8'	0' - 2'	7' - 9'	0' - 1'	0' - 2'	3' - 5'
VOLATILES (g/kg)						
1,1,1-Trichloroethane	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	ND	ND	NA	NA	1.3	NA
1,3-Dichlorobenzene	ND	20	NA	NA	ND	NA
1,4-Dichlorobenzene	ND	ND	NA	NA	ND	NA
2-Btanone	NA	NA	NA	NA	NA	NA
2-Hexanone	NA	NA	NA	NA	NA	NA
4-Methyl-2-pentanone	NA	NA	NA	NA	NA	NA
Acetone	NA	NA	NA	NA	NA	NA
Carbon dislfide	NA	NA	NA	NA	NA	NA
Chloroethane	NA	NA	NA	NA	NA	NA
Chloroform	NA	NA	NA	NA	NA	NA
Cyclohexane	NA	NA	NA	NA	NA	NA
Methylcyclohexane	NA	NA	NA	NA	NA	NA
Methylene chloride	NA	NA	NA	NA	NA	NA
Tetrachloroethene	NA	NA	NA	NA	NA	NA
Trichloroethene	NA	NA	NA	NA	NA	NA
SEMIVOLATILES (g/kg)						
2-Methylnaphthalene	ND	ND	ND	ND	ND	ND
Acenaphthene	ND	ND	ND	ND	ND	ND
Acenaphthylene	ND	ND	ND	ND	ND	ND
Anthracene	ND	ND	ND	ND	ND	ND
Benzaldehyde	NA	NA	ND	ND	NA	41 J
Benzo(a)anthracene	ND	36 J	ND	ND	ND	ND
Benzo(a)pyrene	ND	ND	ND	ND	ND	ND
Benzo(b)floranthene	ND	49 J	ND	ND	ND	ND
Benzo(ghi)perylene	ND	ND	ND	ND	ND	ND
Benzo(k)floranthene	ND	ND	ND	ND	ND	ND
bis(2-Ethylhexyl) phthalate	ND	ND	2200	ND	120 JB	150 J
Btyl benzyl phthalate	ND	ND	ND	ND	ND	ND
Caprolactam	NA	NA	ND	ND	NA	ND
Carbazole	ND	ND	ND	ND	ND	ND
Chrysene	ND	41 J	ND	ND	ND	ND
Di-n-btyl phthalate	ND	ND	ND	ND	ND	ND
Di-n-octyl phthalate	ND	ND	ND	ND	ND	95 J
Dibenz(a,h)anthracene	ND	ND	ND	ND	ND	ND
Dibenzofran	ND	ND	ND	ND	ND	ND
Floranthene	ND	63 J	ND	ND	46 J	ND
Florene	ND	ND	ND	ND	ND	ND
Indeno(1,2,3-cd)pyrene	ND	ND	ND	ND	ND	ND
Naphthalene	ND	ND	ND	ND	ND	ND

DETECTION SUMMARY
SURFACE AND SUBSURFACE SOIL DUPLICATES
SWMU CONFIRMATORY SAMPLING (CTO-0143)
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWM294-IS01-03D	SWM294-IS04-00D	SWM294-TW03-04D	SWM294-TW06-00D	SWM295-IS01-00D	SWM299-TW03-02D
SAMPLE DATE	09-12-1997	09-12-1997	03-24-2002	03-22-2002	09-12-1997	03-19-2002
DEPTH	6' - 8'	0' - 2'	7' - 9'	0' - 1'	0' - 2'	3' - 5'
SEMIVOLATILES (g/kg) (cont)						
Phenanthrene	ND	ND	ND	ND	ND	ND
Pyrene	ND	52 J	ND	ND	ND	ND
METALS (mg/kg)						
Arsenic	ND	ND	1.4 J	1.4	ND	ND
Barim	ND	22.8	7.4 J	15.3	ND	7.2
Cadmim	ND	0.61	ND	0.14 J	ND	ND
Chromim	5.4	10	7.7 J	12.3	3.9	6.4 J
Lead	3	97.4	4.2 J	5.6 J	10	4.9
Mercry	ND	0.076	0.02 J	0.05	ND	ND
Selenim	ND	ND	0.49 J	0.89	ND	ND
Silver	ND	ND	ND	ND	ND	ND
PESTICIDES (g/kg)						
4,4'-DDD	NA	NA	NA	NA	NA	NA
4,4'-DDE	NA	NA	NA	NA	NA	NA
4,4'-DDT	NA	NA	NA	NA	NA	NA
alpha-Chlordane	NA	NA	NA	NA	NA	NA
beta-BHC	NA	NA	NA	NA	NA	NA
Chlordane (technical)	NA	NA	NA	NA	NA	NA
delta-BHC	NA	NA	NA	NA	NA	NA
gamma-BHC (Lindane)	NA	NA	NA	NA	NA	NA
HERBICIDES (g/kg)						
Dalapon	NA	NA	NA	NA	NA	NA

B - Analyte detected. Report value is estimated due to probable blank contamination.
J - Analyte detected. Report value is estimated.
JB - Analyte detected. Report value is estimated.
NA - Not analyzed
ND - Analyte not detected

DETECTION SUMMARY
SURFACE AND SUBSURFACE SOIL DUPLICATES
SWMU CONFIRMATORY SAMPLING (CTO-0143)
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWM300-TW01-00D	SWM302-IS03-00D	SWM303-IS01-00D	SWM303-IS01-03D	SWM303-IS04-00D	SWM303-SB01-04D
SAMPLE DATE	03-19-2002	09-08-1997	09-09-1997	09-09-1997	03-19-2002	03-19-2002
DEPTH	0' - 1'	0' - 2'	0' - 2'	6' - 8'	0' - 1'	7' - 9'
VOLATILES (g/kg)						
1,1,1-Trichloroethane	NA	NA	ND	ND	ND	NA
1,1,2,2-Tetrachloroethane	NA	NA	ND	ND	ND	NA
1,2-Dichlorobenzene	NA	ND	ND	ND	NA	NA
1,3-Dichlorobenzene	NA	ND	ND	ND	NA	NA
1,4-Dichlorobenzene	NA	ND	2.2	2.2	NA	NA
2-Btanone	NA	NA	ND	ND	9 J	NA
2-Hexanone	NA	NA	ND	ND	ND	NA
4-Methyl-2-pentanone	NA	NA	ND	ND	ND	NA
Acetone	NA	NA	ND	79	33 J	NA
Carbon dislfide	NA	NA	ND	ND	2 J	NA
Chloroethane	NA	NA	ND	ND	22 J	NA
Chloroform	NA	NA	ND	ND	ND	NA
Cyclohexane	NA	NA	NA	NA	ND	NA
Methylcyclohexane	NA	NA	NA	NA	ND	NA
Methylene chloride	NA	NA	ND	ND	2 J	NA
Tetrachloroethene	NA	NA	ND	2.1 J	ND	NA
Trichloroethene	NA	NA	ND	2.9 J	ND	NA
SEMIVOLATILES (g/kg)						
2-Methylnaphthalene	ND	ND	ND	ND	NA	ND
Acenaphthene	ND	ND	ND	ND	NA	ND
Acenaphthylene	ND	ND	ND	ND	NA	ND
Anthracene	ND	ND	ND	ND	NA	ND
Benzaldehyde	ND	NA	NA	NA	NA	ND
Benzo(a)anthracene	ND	55 J	ND	ND	NA	ND
Benzo(a)pyrene	ND	ND	ND	ND	NA	ND
Benzo(b)floranthene	ND	ND	ND	ND	NA	ND
Benzo(ghi)perylene	ND	49 J	ND	ND	NA	ND
Benzo(k)floranthene	ND	ND	ND	ND	NA	ND
bis(2-Ethylhexyl) phthalate	140 J	430	65 J	310 J	NA	110 J
Btyl benzyl phthalate	ND	ND	ND	ND	NA	ND
Caprolactam	ND	NA	NA	NA	NA	ND J
Carbazole	ND	ND	ND	ND	NA	ND
Chrysene	ND	69 J	ND	ND	NA	ND
Di-n-btyl phthalate	ND	ND	ND	ND	NA	ND
Di-n-octyl phthalate	ND	ND	ND	ND	NA	ND
Dibenz(a,h)anthracene	ND	ND	ND	ND	NA	ND
Dibenzofran	ND	ND	ND	ND	NA	ND
Floranthene	ND	ND	ND	ND	NA	ND
Florene	ND	ND	ND	ND	NA	ND
Indeno(1,2,3-cd)pyrene	ND	48 J	ND	ND	NA	ND
Naphthalene	ND	ND	ND	ND	NA	ND

DETECTION SUMMARY
SURFACE AND SUBSURFACE SOIL DUPLICATES
SWMU CONFIRMATORY SAMPLING (CTO-0143)
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWM300-TW01-00D	SWM302-IS03-00D	SWM303-IS01-00D	SWM303-IS01-03D	SWM303-IS04-00D	SWM303-SB01-04D
SAMPLE DATE	03-19-2002	09-08-1997	09-09-1997	09-09-1997	03-19-2002	03-19-2002
DEPTH	0' - 1'	0' - 2'	0' - 2'	6' - 8'	0' - 1'	7' - 9'
SEMIVOLATILES (g/kg) (cont)						
Phenanthrene	ND	ND	ND	ND	NA	ND
Pyrene	ND	100 J	ND	ND	NA	ND
METALS (mg/kg)						
Arsenic	NA	ND	1.2	6.3	NA	1.5 J
Barim	NA	ND	ND	ND	NA	15.1
Cadmim	NA	ND	ND	ND	NA	0.16 J
Chromim	NA	6.2	9.1	15.5	NA	15.1
Lead	NA	10.7	8.1	8.9	NA	10.2
Mercry	NA	ND	ND	ND	NA	0.037 J
Selenim	NA	ND	ND	ND	NA	0.67 J
Silver	NA	ND	ND	ND	NA	ND
PESTICIDES (g/kg)						
4,4'-DDD	NA	NA	NA	NA	NA	NA
4,4'-DDE	NA	NA	NA	NA	NA	NA
4,4'-DDT	NA	NA	NA	NA	NA	NA
alpha-Chlordane	NA	NA	NA	NA	NA	NA
beta-BHC	NA	NA	NA	NA	NA	NA
Chlordane (technical)	NA	NA	NA	NA	NA	NA
delta-BHC	NA	NA	NA	NA	NA	NA
gamma-BHC (Lindane)	NA	NA	NA	NA	NA	NA
HERBICIDES (g/kg)						
Dalapon	NA	NA	NA	NA	NA	NA

B - Analyte detected. Report value is estimated due to probable blank contamination.
J - Analyte detected. Report value is estimated.
JB - Analyte detected. Report value is estimated.
NA - Not analyzed
ND - Analyte not detected

DETECTION SUMMARY
SURFACE AND SUBSURFACE SOIL DUPLICATES
SWMU CONFIRMATORY SAMPLING (CTO-0143)
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWM304-IS02-01D		SWM305-IS02-01D		SWM306-IS03-02D		SWM306-TW01-00D		SWM307-IS03-00D		SWM308-IS02-00D	
SAMPLE DATE	09-14-1997		09-14-1997		09-13-1997		03-25-2002		09-09-1997		09-13-1997	
DEPTH	2' - 4'		2' - 4'		4' - 6'		0' - 1'		0' - 2'		0' - 2'	
VOLATILES (g/kg)												
1,1,1-Trichloroethane	NA		NA		ND		NA		ND		NA	
1,1,2,2-Tetrachloroethane	NA		NA		ND		NA		ND		NA	
1,2-Dichlorobenzene	ND		ND		ND		NA		ND		ND	
1,3-Dichlorobenzene	ND		ND		ND		NA		12		ND	
1,4-Dichlorobenzene	ND		ND		ND		NA		ND		ND	
2-Btanone	NA		NA		ND		NA		ND		NA	
2-Hexanone	NA		NA		ND		NA		ND		NA	
4-Methyl-2-pentanone	NA		NA		ND		NA		ND		NA	
Acetone	NA		NA		46	B	NA		ND		NA	
Carbon dislfide	NA		NA		ND		NA		ND		NA	
Chloroethane	NA		NA		ND		NA		ND		NA	
Chloroform	NA		NA		ND		NA		ND		NA	
Cyclohexane	NA		NA		NA		NA		NA		NA	
Methylcyclohexane	NA		NA		NA		NA		NA		NA	
Methylene chloride	NA		NA		2	J	NA		3.1	J	NA	
Tetrachloroethene	NA		NA		ND		NA		4	J	NA	
Trichloroethene	NA		NA		ND		NA		2.4	J	NA	
SEMIVOLATILES (g/kg)												
2-Methylnaphthalene	ND		ND		ND		NA		ND		ND	
Acenaphthene	ND		ND		ND		NA		ND		ND	
Acenaphthylene	ND		ND		ND		NA		ND		ND	
Anthracene	ND		ND		ND		NA		ND		ND	
Benzaldehyde	NA		NA		NA		NA		NA		NA	
Benzo(a)anthracene	ND		ND		ND		NA		ND		ND	
Benzo(a)pyrene	ND		ND		ND		NA		ND		ND	
Benzo(b)floranthene	ND		ND		ND		NA		ND		ND	
Benzo(ghi)perylene	ND		ND		ND		NA		ND		ND	
Benzo(k)floranthene	ND		ND		ND		NA		ND		ND	
bis(2-Ethylhexyl) phthalate	130	JB	110	JB	130	JB	NA		120	JB	160	JB
Btyl benzyl phthalate	ND		ND		ND		NA		ND		ND	
Caprolactam	NA		NA		NA		NA		NA		NA	
Carbazole	ND		ND		ND		NA		ND		ND	
Chrysene	ND		ND		ND		NA		ND		ND	
Di-n-btyl phthalate	ND		ND		ND		NA		ND		ND	
Di-n-octyl phthalate	ND		ND		ND		NA		ND		ND	
Dibenz(a,h)anthracene	ND		ND		ND		NA		ND		ND	
Dibenzofran	ND		ND		ND		NA		ND		ND	
Floranthene	ND		ND		ND		NA		ND		ND	
Florene	ND		ND		ND		NA		ND		ND	
Indeno(1,2,3-cd)pyrene	ND		ND		ND		NA		ND		ND	
Naphthalene	ND		ND		ND		NA		ND		ND	

DETECTION SUMMARY
SURFACE AND SUBSURFACE SOIL DUPLICATES
SWMU CONFIRMATORY SAMPLING (CTO-0143)
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWM304-IS02-01D	SWM305-IS02-01D	SWM306-IS03-02D	SWM306-TW01-00D	SWM307-IS03-00D	SWM308-IS02-00D
SAMPLE DATE	09-14-1997	09-14-1997	09-13-1997	03-25-2002	09-09-1997	09-13-1997
DEPTH	2' - 4'	2' - 4'	4' - 6'	0' - 1'	0' - 2'	0' - 2'
SEMIVOLATILES (g/kg) (cont)						
Phenanthrene	ND	ND	ND	NA	ND	ND
Pyrene	ND	ND	ND	NA	ND	ND
METALS (mg/kg)						
Arsenic	1.3	ND	ND	ND	2.1	ND
Barim	ND	ND	ND	5.4 J	ND	ND
Cadmim	ND	ND	ND	ND	ND	0.89
Chromim	6.6	2.8	5.3	2.9 J	10.6	8.5
Lead	14.4	7.5	7.4	2.9 J	7.5	11.6
Mercry	ND	ND	ND	0.03 J	ND	ND
Selenim	ND	ND	ND	ND	ND	ND
Silver	ND	ND	ND	ND	ND	ND
PESTICIDES (g/kg)						
4,4'-DDD	NA	ND	NA	NA	NA	NA
4,4'-DDE	NA	ND	NA	NA	NA	NA
4,4'-DDT	NA	ND	NA	NA	NA	NA
alpha-Chlordane	NA	NA	NA	NA	NA	NA
beta-BHC	NA	ND	NA	NA	NA	NA
Chlordane (technical)	NA	ND	NA	NA	NA	NA
delta-BHC	NA	ND	NA	NA	NA	NA
gamma-BHC (Lindane)	NA	ND	NA	NA	NA	NA
HERBICIDES (g/kg)						
Dalapon	NA	NA	NA	NA	NA	NA

B - Analyte detected. Report value is estimated due to probable blank contamination.
J - Analyte detected. Report value is estimated.
JB - Analyte detected. Report value is estimated.
NA - Not analyzed
ND - Analyte not detected

DETECTION SUMMARY
SURFACE AND SUBSURFACE SOIL DUPLICATES
SWMU CONFIRMATORY SAMPLING (CTO-0143)
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWM310-IS04-00D		SWM310-IS04-09D		SWM311-IS04-06D		SWM311-SB02-03D		SWM311-TW03-00D		SWM312-IS04-00D	
SAMPLE DATE	09-11-1997		09-11-1997		09-13-1997		03-25-2002		03-25-2002		09-11-1997	
DEPTH	0' - 2'		18' - 20'		12' - 14'		5' - 7'		0' - 1'		0' - 2'	
VOLATILES (g/kg)												
1,1,1-Trichloroethane	ND		ND		NA		ND		ND		NA	
1,1,2,2-Tetrachloroethane	ND		ND		NA		ND		ND		NA	
1,2-Dichlorobenzene	NA		NA		ND		NA		NA		ND	
1,3-Dichlorobenzene	NA		NA		ND		NA		NA		ND	
1,4-Dichlorobenzene	NA		NA		ND		NA		NA		ND	
2-Btanone	ND		ND		NA		ND		ND		NA	
2-Hexanone	ND		ND		NA		ND		ND		NA	
4-Methyl-2-pentanone	ND		ND		NA		ND		ND		NA	
Acetone	230		250		NA		7	J	3	J	NA	
Carbon dislfide	ND		ND		NA		ND		ND		NA	
Chloroethane	ND		ND		NA		ND		ND		NA	
Chloroform	ND		ND		NA		ND		1	J	NA	
Cyclohexane	NA		NA		NA		ND		ND		NA	
Methylcyclohexane	NA		NA		NA		ND		ND		NA	
Methylene chloride	ND		ND		NA		15		11	J	NA	
Tetrachloroethene	ND		ND		NA		ND		ND		NA	
Trichloroethene	ND		ND		NA		ND		ND		NA	
SEMIVOLATILES (g/kg)												
2-Methylnaphthalene	ND		ND		ND		NA		NA		ND	
Acenaphthene	ND		ND		ND		NA		NA		450	
Acenaphthylene	ND		ND		ND		NA		NA		ND	
Anthracene	ND		ND		ND		NA		NA		1000	
Benzaldehyde	NA		NA		NA		NA		NA		NA	
Benzo(a)anthracene	ND		ND		ND		NA		NA		4600	
Benzo(a)pyrene	ND		ND		ND		NA		NA		2600	
Benzo(b)floranthene	ND		ND		ND		NA		NA		3700	
Benzo(ghi)perylene	ND		ND		ND		NA		NA		1500	
Benzo(k)floranthene	ND		ND		ND		NA		NA		1900	
bis(2-Ethylhexyl) phthalate	120	JB	150	JB	300	JB	NA		NA		130	JB
Btyl benzyl phthalate	ND		ND		ND		NA		NA		ND	
Caprolactam	NA		NA		NA		NA		NA		NA	
Carbazole	ND		ND		ND		NA		NA		250	J
Chrysene	ND		ND		ND		NA		NA		4100	
Di-n-btyl phthalate	ND		ND		ND		NA		NA		ND	
Di-n-octyl phthalate	ND		ND		ND		NA		NA		ND	
Dibenz(a,h)anthracene	ND		ND		ND		NA		NA		810	
Dibenzofran	ND		ND		ND		NA		NA		170	J
Floranthene	ND		ND		ND		NA		NA		8900	
Florene	ND		ND		ND		NA		NA		390	
Indeno(1,2,3-cd)pyrene	ND		ND		ND		NA		NA		1500	
Naphthalene	ND		ND		ND		NA		NA		ND	

DETECTION SUMMARY
SURFACE AND SUBSURFACE SOIL DUPLICATES
SWMU CONFIRMATORY SAMPLING (CTO-0143)
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWM310-IS04-00D	SWM310-IS04-09D	SWM311-IS04-06D	SWM311-SB02-03D	SWM311-TW03-00D	SWM312-IS04-00D
SAMPLE DATE	09-11-1997	09-11-1997	09-13-1997	03-25-2002	03-25-2002	09-11-1997
DEPTH	0' - 2'	18' - 20'	12' - 14'	5' - 7'	0' - 1'	0' - 2'
SEMIVOLATILES (g/kg) (cont)						
Phenanthrene	ND	ND	ND	NA	NA	4900
Pyrene	ND	410	400	NA	NA	7000
METALS (mg/kg)						
Arsenic	ND	2.3	ND	0.57 J	0.37 J	ND
Barim	ND	ND	ND	4.9	9.5 J	ND
Cadmim	ND	ND	ND	ND	0.19 J	ND
Chromim	9.4	14.2	21.1	6.6	5.9	7.8
Lead	6	6	6.7	3.2 J	11.6 J	10.8
Mercry	ND	ND	ND	ND	0.018 J	ND
Selenim	ND	ND	ND	ND	ND	ND
Silver	ND	ND	ND	ND	ND	ND
PESTICIDES (g/kg)						
4,4'-DDD	ND	ND	NA	NA	NA	NA
4,4'-DDE	11	ND	NA	NA	NA	NA
4,4'-DDT	ND	ND	NA	NA	NA	NA
alpha-Chlordane	NA	NA	NA	NA	NA	NA
beta-BHC	ND	ND	NA	NA	NA	NA
Chlordane (technical)	ND	ND	NA	NA	NA	NA
delta-BHC	ND	ND	NA	NA	NA	NA
gamma-BHC (Lindane)	ND	ND	NA	NA	NA	NA
HERBICIDES (g/kg)						
Dalapon	NA	NA	NA	NA	NA	NA

B - Analyte detected. Report value is estimated due to probable blank contamination.
J - Analyte detected. Report value is estimated.
JB - Analyte detected. Report value is estimated.
NA - Not analyzed
ND - Analyte not detected

DETECTION SUMMARY
SURFACE AND SUBSURFACE SOIL DUPLICATES
SWMU CONFIRMATORY SAMPLING (CTO-0143)
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWM313-SB01-01D	SWM314-IS03-00D		SWM315-TW01-11D	SWM316-TW03-00D	SWM317-TW02-00D	SWM318-SS01-00D	
SAMPLE DATE	03-22-2002	09-09-1997		03-23-2002	03-21-2002	03-24-2002	09-17-1997	
DEPTH	1' - 3'	0' - 2'		21' - 23'	0' - 1'	0' - 1'	0' - 2'	
VOLATILES (g/kg)								
1,1,1-Trichloroethane	NA	ND		NA	NA	NA	NA	
1,1,2,2-Tetrachloroethane	NA	ND		NA	NA	NA	NA	
1,2-Dichlorobenzene	NA	ND		NA	NA	NA	16000	
1,3-Dichlorobenzene	NA	15		NA	NA	NA	ND	
1,4-Dichlorobenzene	NA	ND		NA	NA	NA	6800	
2-Btanone	NA	ND		NA	NA	NA	NA	
2-Hexanone	NA	ND		NA	NA	NA	NA	
4-Methyl-2-pentanone	NA	ND		NA	NA	NA	NA	
Acetone	NA	ND		NA	NA	NA	NA	
Carbon dislfide	NA	ND		NA	NA	NA	NA	
Chloroethane	NA	ND		NA	NA	NA	NA	
Chloroform	NA	ND		NA	NA	NA	NA	
Cyclohexane	NA	NA		NA	NA	NA	NA	
Methylcyclohexane	NA	NA		NA	NA	NA	NA	
Methylene chloride	NA	6		NA	NA	NA	NA	
Tetrachloroethene	NA	4.8	J	NA	NA	NA	NA	
Trichloroethene	NA	2.7	J	NA	NA	NA	NA	
SEMIVOLATILES (g/kg)								
2-Methylnaphthalene	NA	ND		ND	ND	NA	1800	J
Acenaphthene	NA	ND		ND	ND	NA	ND	
Acenaphthylene	NA	ND		ND	ND	NA	710	J
Anthracene	NA	ND		ND	ND	NA	850	J
Benzaldehyde	NA	NA		ND	ND	NA	NA	
Benzo(a)anthracene	NA	54	J	ND	ND	NA	6100	J
Benzo(a)pyrene	NA	66	J	ND	ND	NA	7100	
Benzo(b)floranthene	NA	120	J	ND	ND	NA	10000	
Benzo(ghi)perylene	NA	ND		ND	ND	NA	5800	J
Benzo(k)floranthene	NA	ND		ND	ND	NA	5000	J
bis(2-Ethylhexyl) phthalate	NA	120	JB	ND	ND	NA	26000	B
Btyl benzyl phthalate	NA	ND		ND	ND	NA	4000	J
Caprolactam	NA	NA		ND	ND	NA	NA	
Carbazole	NA	ND		ND	ND	NA	ND	
Chrysene	NA	51	J	ND	ND	NA	8400	
Di-n-btyl phthalate	NA	ND		ND	ND	NA	5100	J
Di-n-octyl phthalate	NA	ND		ND	ND	NA	ND	
Dibenz(a,h)anthracene	NA	ND		ND	ND	NA	ND	
Dibenzofran	NA	ND		ND	ND	NA	ND	
Floranthene	NA	64	J	ND	ND	NA	11000	
Florene	NA	ND		ND	ND	NA	ND	
Indeno(1,2,3-cd)pyrene	NA	42	J	ND	ND	NA	5500	J
Naphthalene	NA	ND		ND	ND	NA	16000	

DETECTION SUMMARY
SURFACE AND SUBSURFACE SOIL DUPLICATES
SWMU CONFIRMATORY SAMPLING (CTO-0143)
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWM313-SB01-01D	SWM314-IS03-00D	SWM315-TW01-11D	SWM316-TW03-00D	SWM317-TW02-00D	SWM318-SS01-00D
SAMPLE DATE	03-22-2002	09-09-1997	03-23-2002	03-21-2002	03-24-2002	09-17-1997
DEPTH	1' - 3'	0' - 2'	21' - 23'	0' - 1'	0' - 1'	0' - 2'
SEMIVOLATILES (g/kg) (cont)						
Phenanthrene	NA	ND	ND	ND	NA	1700 J
Pyrene	NA	140 J	ND	ND	NA	11000
METALS (mg/kg)						
Arsenic	ND	ND	ND	0.33 J	ND	ND
Barim	ND	ND	ND	23 J	14.7 J	262
Cadmim	ND	1.6	ND	0.067 J	ND	45.7
Chromim	13.2 J	7	2.3 J	8.1	7.4 J	62
Lead	5.4	38.3	1.8	4.8	8.2 J	114
Mercry	0.04 J	0.12	ND	0.023 J	ND	ND
Selenim	ND	ND	ND	0.7	ND	ND
Silver	ND	ND	ND	ND	ND	ND
PESTICIDES (g/kg)						
4,4'-DDD	NA	NA	NA	NA	NA	NA
4,4'-DDE	NA	NA	NA	NA	NA	NA
4,4'-DDT	NA	NA	NA	NA	NA	NA
alpha-Chlordane	NA	NA	NA	NA	NA	NA
beta-BHC	NA	NA	NA	NA	NA	NA
Chlordane (technical)	NA	NA	NA	NA	NA	NA
delta-BHC	NA	NA	NA	NA	NA	NA
gamma-BHC (Lindane)	NA	NA	NA	NA	NA	NA
HERBICIDES (g/kg)						
Dalapon	NA	NA	NA	NA	NA	NA

B - Analyte detected. Report value is estimated due to probable blank contamination.
J - Analyte detected. Report value is estimated.
JB - Analyte detected. Report value is estimated.
NA - Not analyzed
ND - Analyte not detected

DETECTION SUMMARY
SURFACE AND SUBSURFACE SOIL DUPLICATES
SWMU CONFIRMATORY SAMPLING (CTO-0143)
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWM318-SS03-00D		SWM318-TW03-04D		SWM336-TW01-04D		SWM339-TW03-00D		SWM359-TW01-02D		SWM361-SB02-00D	
SAMPLE DATE	03-19-2002		03-19-2002		03-20-2002		03-20-2002		03-26-2002		03-24-2002	
DEPTH	0' - 1'		7' - 9'		7' - 9'		0' - 1'		3' - 5'		0' - 1'	
VOLATILES (g/kg)												
1,1,1-Trichloroethane	ND		ND		5	J	ND		NA		ND	
1,1,2,2-Tetrachloroethane	ND		ND		ND		ND		NA		ND	
1,2-Dichlorobenzene	NA		NA		NA		NA		NA		NA	
1,3-Dichlorobenzene	NA		NA		NA		NA		NA		NA	
1,4-Dichlorobenzene	NA		NA		NA		NA		NA		NA	
2-Btanone	9	J	7	J	ND		13	J	NA		ND	
2-Hexanone	ND		ND		ND		ND		NA		ND	
4-Methyl-2-pentanone	ND		ND		ND		ND		NA		ND	
Acetone	21	J	32	J	ND	J	49	J	NA		2	J
Carbon dislfide	ND		4	J	ND		2	J	NA		ND	
Chloroethane	ND		ND	J	ND		ND		NA		ND	
Chloroform	ND		ND		ND		ND		NA		ND	
Cyclohexane	4	J	ND		ND		ND		NA		ND	
Methylcyclohexane	2	J	ND		ND		ND		NA		ND	
Methylene chloride	2	J	3	J	37		35		NA		12	J
Tetrachloroethene	ND		ND		5	J	ND		NA		ND	
Trichloroethene	ND		ND		ND		ND		NA		ND	
SEMIVOLATILES (g/kg)												
2-Methylnaphthalene	ND	J	ND	J	ND		ND		NA		ND	
Acenaphthene	64	J	ND		ND		ND		NA		ND	
Acenaphthylene	ND		ND		ND		ND		NA		ND	
Anthracene	45	J	ND		ND		ND		NA		ND	
Benzaldehyde	ND		ND		ND		ND		NA		ND	
Benzo(a)anthracene	280	J	ND		ND		ND		NA		ND	
Benzo(a)pyrene	240	J	ND		ND		ND		NA		ND	
Benzo(b)floranthene	290	J	ND		ND		ND		NA		ND	
Benzo(ghi)perylene	120	J	ND		ND		ND		NA		ND	
Benzo(k)floranthene	280	J	ND		ND		ND		NA		ND	
bis(2-Ethylhexyl) phthalate	490	J	63	J	ND		320	J	NA		ND	
Btyl benzyl phthalate	ND		ND		ND		ND		NA		ND	
Caprolactam	78	J	ND		ND		ND		NA		ND	
Carbazole	35	J	ND		ND		ND		NA		ND	
Chrysene	340	J	ND		ND		ND		NA		ND	
Di-n-btyl phthalate	ND		ND		ND		ND		NA		ND	
Di-n-octyl phthalate	ND		ND		ND		ND		NA		25	J
Dibenz(a,h)anthracene	72	J	ND		ND		ND		NA		ND	
Dibenzofran	44	J	ND		ND		ND		NA		ND	
Floranthene	660		ND		ND		ND		NA		ND	
Florene	47	J	ND		ND		ND		NA		ND	
Indeno(1,2,3-cd)pyrene	240	J	ND		ND		ND		NA		ND	
Naphthalene	150	J	ND		ND		ND		NA		ND	

DETECTION SUMMARY
SURFACE AND SUBSURFACE SOIL DUPLICATES
SWMU CONFIRMATORY SAMPLING (CTO-0143)
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWM318-SS03-00D	SWM318-TW03-04D	SWM336-TW01-04D	SWM339-TW03-00D	SWM359-TW01-02D	SWM361-SB02-00D
SAMPLE DATE	03-19-2002	03-19-2002	03-20-2002	03-20-2002	03-26-2002	03-24-2002
DEPTH	0' - 1'	7' - 9'	7' - 9'	0' - 1'	3' - 5'	0' - 1'
SEMIVOLATILES (g/kg) (cont)						
Phenanthrene	250 J	ND	ND	ND	NA	ND
Pyrene	480	ND	ND	ND	NA	ND
METALS (mg/kg)						
Arsenic	3.8	1.1 J	ND	NA	ND J	0.32 J
Barim	1060 J	29.1	9.2	NA	ND	10.3
Cadmim	2.8	ND	ND	NA	1.3	ND
Chromim	26.6	4.2	10.5	NA	4	10.2
Lead	32.1 J	1.1 J	4.9 J	NA	10.2	4.9
Mercry	0.075	ND	ND	NA	0.04	ND
Selenim	1	ND	ND	NA	ND	ND J
Silver	ND	ND	ND	NA	ND J	ND
PESTICIDES (g/kg)						
4,4'-DDD	NA	NA	NA	NA	NA	ND
4,4'-DDE	NA	NA	NA	NA	NA	ND
4,4'-DDT	NA	NA	NA	NA	NA	ND
alpha-Chlordane	NA	NA	NA	NA	NA	ND
beta-BHC	NA	NA	NA	NA	NA	4.2 J
Chlordane (technical)	NA	NA	NA	NA	NA	NA
delta-BHC	NA	NA	NA	NA	NA	0.65 J
gamma-BHC (Lindane)	NA	NA	NA	NA	NA	0.72 J
HERBICIDES (g/kg)						
Dalapon	NA	NA	NA	NA	NA	NA

B - Analyte detected. Report value is estimated due to probable blank contamination.
J - Analyte detected. Report value is estimated.
JB - Analyte detected. Report value is estimated.
NA - Not analyzed
ND - Analyte not detected

DETECTION SUMMARY
SURFACE AND SUBSURFACE SOIL DUPLICATES
SWMU CONFIRMATORY SAMPLING (CTO-0143)
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWM361-SB05-06D	
SAMPLE DATE	03-24-2002	
DEPTH	11' - 13'	
VOLATILES (g/kg)		
1,1,1-Trichloroethane	ND	
1,1,2,2-Tetrachloroethane	ND	
1,2-Dichlorobenzene	NA	
1,3-Dichlorobenzene	NA	
1,4-Dichlorobenzene	NA	
2-Btanone	ND	J
2-Hexanone	ND	
4-Methyl-2-pentanone	ND	
Acetone	ND	J
Carbon dislfide	ND	
Chloroethane	ND	
Chloroform	ND	
Cyclohexane	ND	
Methylcyclohexane	ND	
Methylene chloride	30	
Tetrachloroethene	ND	
Trichloroethene	ND	
SEMIVOLATILES (g/kg)		
2-Methylnaphthalene	ND	
Acenaphthene	ND	
Acenaphthylene	ND	
Anthracene	ND	
Benzaldehyde	ND	
Benzo(a)anthracene	ND	
Benzo(a)pyrene	ND	
Benzo(b)floranthene	ND	
Benzo(ghi)perylene	ND	
Benzo(k)floranthene	ND	
bis(2-Ethylhexyl) phthalate	ND	
Btyl benzyl phthalate	ND	
Caprolactam	ND	
Carbazole	ND	
Chrysene	ND	
Di-n-btyl phthalate	ND	
Di-n-octyl phthalate	ND	
Dibenz(a,h)anthracene	ND	
Dibenzofran	ND	
Floranthene	ND	
Florene	ND	
Indeno(1,2,3-cd)pyrene	ND	
Naphthalene	ND	

DETECTION SUMMARY
SURFACE AND SUBSURFACE SOIL DUPLICATES
SWMU CONFIRMATORY SAMPLING (CTO-0143)
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWM361-SB05-06D	
SAMPLE DATE	03-24-2002	
DEPTH	11' - 13'	
SEMIVOLATILES (g/kg) (cont)		
Phenanthrene	ND	
Pyrene	ND	
METALS (mg/kg)		
Arsenic	1.5	J
Barim	17.3	
Cadmim	ND	
Chromim	8.9	
Lead	4.7	
Mercry	ND	
Selenim	0.28	J
Silver	ND	
PESTICIDES (g/kg)		
4,4'-DDD	1.8	J
4,4'-DDE	ND	
4,4'-DDT	ND	
alpha-Chlordane	ND	
beta-BHC	4	J
Chlordane (technical)	NA	
delta-BHC	ND	
gamma-BHC (Lindane)	ND	
HERBICIDES (g/kg)		
Dalapon	NA	

B - Analyte detected. Report value is estimated due to probable blank contamination.
J - Analyte detected. Report value is estimated.
JB - Analyte detected. Report value is estimated.
NA - Not analyzed
ND - Analyte not detected

DETECTION SUMMARY
GROUNDWATER DUPLICATES
SWMU CONFIRMATORY SAMPLING (CTO-0143)
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU43-GW03D	SWMU46-GW05D	SWMU255-GW01D	SWMU261-GW04D	SWMU264-GW01D	SWMU265-GW03D	SWMU279-GW01D
SAMPLE DATE	04-08-2002	04-06-2002	04-05-2002	04-08-2002	04-07-2002	04-07-2002	04-05-2002
VOLATILES (ug/L)							
Benzene							
cis-1,2-Dichloroethene	NA	NA	NA	NA	NA	NA	NA
Cyclohexane	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	NA	NA	NA	NA	NA	NA	NA
Methylcycloehexane	NA	NA	NA	NA	NA	NA	NA
Toluene	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	NA	NA	NA	NA	NA	NA	NA
Vinyl chloride	NA	NA	NA	NA	NA	NA	NA
Xylenes (total)	NA	NA	NA	NA	NA	NA	NA
SEMIVOLATILES (ug/L)							
2,4-Dimethylphenol	ND	NA	ND	NA	ND	ND	ND
2-Methylnaphthalene	ND	NA	ND	NA	1.2 J	ND	ND
4-Methylphenol	ND	NA	ND	NA	ND	ND	ND
Acenaphthene	ND	NA	ND	NA	ND	ND	ND
bis(2-Ethylhexyl) phthalate	ND	NA	ND	NA	ND	7.4 J	ND
Fluorene	ND	NA	ND	NA	0.7 J	ND	ND
Naphthalene	ND	NA	ND	NA	ND	ND	ND
Phenanthrene	ND	NA	ND	NA	2.5 J	ND	ND
METALS (ug/L)							
Arsenic	ND	ND	NA	ND	ND	NA	NA
Barium	43.6	93.4	NA	6.6 J	32.5	NA	NA
Chromium	1.5 J	2.9 J	NA	1.1 J	1.2 J	NA	NA
Lead	ND	2.3 J	NA	ND	ND	NA	NA
Selenium	2.9 J	ND	NA	ND	ND	NA	NA
Silver	0.68 J	ND	NA	ND	ND	NA	NA
PESTICIDES (ug/L)							
alpha-BHC	ND	NA	NA	NA	NA	NA	NA

J - Analyte detected. Report value is an estimate.
NA - Not analyzed
ND - Analyte not detected

DETECTION SUMMARY
GROUNDWATER DUPLICATES
SWMU CONFIRMATORY SAMPLING (CTO-0143)
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU306-GW03D	SWMU311-GW01D	SWMU313-GW01D	SWMU315-GW03D	SWMU316-GW01-02BD	SWMU318-GW02TW-02BD
SAMPLE DATE	04-08-2002	04-04-2002	04-04-2002	04-06-2002	04-04-2002	04-02-2002
VOLATILES (ug/L)						
Benzene						4 J
cis-1,2-Dichloroethene	NA	ND	NA	NA	NA	12
Cyclohexane	NA	3 J	NA	NA	NA	ND
Ethylbenzene	NA	2 J	NA	NA	NA	4 J
Isopropylbenzene	NA	3 J	NA	NA	NA	1 J
Methylcycloehexane	NA	3 J	NA	NA	NA	ND
Toluene	NA	ND	NA	NA	NA	2 J
Trichloroethene	NA	ND	NA	NA	NA	7
Vinyl chloride	NA	ND	NA	NA	NA	0.9 J
Xylenes (total)	NA	3 J	NA	NA	NA	3 J
SEMIVOLATILES (ug/L)						
2,4-Dimethylphenol	NA	NA	NA	ND	2 J	2 J
2-Methylnaphthalene	NA	NA	NA	ND	ND	11
4-Methylphenol	NA	NA	NA	ND	1 J	ND
Acenaphthene	NA	NA	NA	ND	ND	2 J
bis(2-Ethylhexyl) phthalate	NA	NA	NA	ND	ND	ND
Fluorene	NA	NA	NA	ND	ND	ND
Naphthalene	NA	NA	NA	ND	ND	94
Phenanthrene	NA	NA	NA	ND	1 J	ND
METALS (ug/L)						
Arsenic	ND	ND	ND	ND	ND	20.7 J
Barium	49.7	53	23.1	67.3	38.3 J	393 J
Chromium	ND	12.6	2.7 J	3.8 J	0.99 J	58 J
Lead	ND	11.8	ND	ND	ND	15.5 J
Selenium	ND	ND	ND	ND	ND	ND
Silver	ND	ND	ND	ND	ND	ND
PESTICIDES (ug/L)						
alpha-BHC	NA	NA	NA	NA	NA	NA

J - Analyte detected. Report value is an estimate.
NA - Not analyzed
ND - Analyte not detected

DETECTION SUMMARY
GROUNDWATER DUPLICATES
SWMU CONFIRMATORY SAMPLING (CTO-0143)
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU360-GW02D	
SAMPLE DATE	04-09-2002	
VOLATILES (ug/L)		
Benzene	ND	
cis-1,2-Dichloroethene	22	
Cyclohexane	ND	
Ethylbenzene	ND	
Isopropylbenzene	ND	
Methylcycloehexane	ND	
Toluene	ND	
Trichloroethene	5	
Vinyl chloride	ND	
Xylenes (total)	ND	
SEMIVOLATILES (ug/L)		
2,4-Dimethylphenol	ND	
2-Methylnaphthalene	ND	
4-Methylphenol	ND	
Acenaphthene	ND	
bis(2-Ethylhexyl) phthalate	ND	
Fluorene	ND	
Naphthalene	ND	
Phenanthrene	ND	
METALS (ug/L)		
Arsenic	ND	
Barium	40.5	
Chromium	6.5	
Lead	ND	
Selenium	ND	
Silver	ND	
PESTICIDES (ug/L)		
alpha-BHC	0.017	J

APPENDIX G
ANALYTICAL LABORATORY RESULTS

APPENDIX G
SURFACE SOIL - SWMU 043
ORGANIC COMPOUNDS
SWMU CONFIRMATORY SAMPLING (CTO-0143)
IR NUMBER 11, PEST CONTROL SHOP
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU43-IS01-00	SWMU43-IS02-00	SWMU43-IS03-00	SWMU43-IS04-00	SWMU43-SB01-00	SWMU43-SB02-00	SWMU43-SB03-00
SAMPLE DATE	09-10-1997	09-10-1997	09-10-1997	09-10-1997	03-25-2002	03-25-2002	03-25-2002
DEPTH	0' - 2'	0' - 2'	0' - 2'	0' - 2'	0' - 1'	0' - 1'	0' - 1'
SEMIVOLATILES (ug/kg)							
1,1'-Biphenyl	NA	NA	NA	NA	380 U	390 U	370 U
2,2'-Oxybis(1-Chloropropane)	390 U	390 U	360 U	370 U	380 U	390 U	370 U
2,4,5-Trichlorophenol	390 U	390 U	360 U	370 U	380 U	390 U	370 U
2,4,6-Trichlorophenol	390 U	390 U	360 U	370 U	380 U	390 U	370 U
2,4-Dichlorophenol	390 U	390 U	360 U	370 U	380 U	390 U	370 U
2,4-Dimethylphenol	390 U	390 U	360 U	370 U	380 U	390 U	370 U
2,4-Dinitrophenol	1900 U	1900 U	1800 U	1800 U	2000 UJ	2000 UJ	1900 UJ
2,4-Dinitrotoluene	390 U	390 U	360 U	370 U	380 U	390 U	370 U
2,6-Dinitrotoluene	390 U	390 U	360 U	370 U	380 U	390 U	370 U
2-Chloronaphthalene	390 U	390 U	360 U	370 U	380 U	390 U	370 U
2-Chlorophenol	390 U	390 U	360 U	370 U	380 U	390 U	370 U
2-Methylnaphthalene	390 U	390 U	360 U	370 U	380 U	390 U	370 U
2-Methylphenol	390 U	390 U	360 U	370 U	380 U	390 U	370 U
2-Nitroaniline	1900 U	1900 U	1800 U	1800 U	760 U	780 U	740 U
2-Nitrophenol	390 U	390 U	360 U	370 U	380 U	390 U	370 U
3,3'-Dichlorobenzidine	1900 U	1900 U	1800 U	1800 U	760 U	780 U	740 U
3-Nitroaniline	1900 U	1900 U	1800 U	1800 U	760 U	780 U	740 U
4,6-Dinitro-2-methylphenol	1900 U	1900 U	1800 U	1800 U	760 U	780 U	740 U
4-Bromophenyl phenyl ether	390 U	390 U	360 U	370 U	380 U	390 U	370 U
4-Chloro-3-methylphenol	390 U	390 U	360 U	370 U	380 U	390 U	370 U
4-Chloroaniline	390 U	390 U	360 U	370 U	380 U	390 U	370 U
4-Chlorophenyl phenyl ether	390 U	390 U	360 U	370 U	380 U	390 U	370 U
4-Methylphenol	390 U	390 U	360 U	370 U	380 U	390 U	370 U
4-Nitroaniline	1900 U	1900 U	1800 U	1800 U	760 U	780 U	740 U
4-Nitrophenol	1900 U	1900 U	1800 U	1800 U	760 U	780 U	740 U
Acenaphthene	390 U	390 U	360 U	370 U	380 U	390 U	370 U
Acenaphthylene	390 U	390 U	360 U	370 U	380 U	390 U	370 U
Acetophenone	NA	NA	NA	NA	380 U	390 U	370 U
Anthracene	150 J	390 U	360 U	370 U	380 U	390 U	370 U
Atrazine	NA	NA	NA	NA	380 U	390 U	370 U
Benzaldehyde	NA	NA	NA	NA	380 U	390 U	370 U
Benzo(a)anthracene	940 J	390 U	360 U	370 U	380 U	390 U	370 U
Benzo(a)pyrene	910 J	390 U	360 U	370 U	380 U	390 U	370 U
Benzo(b)fluoranthene	660 J	390 U	360 U	370 U	380 U	390 U	370 U
Benzo(ghi)perylene	440 J	390 U	360 U	370 U	380 U	390 U	370 U
Benzo(k)fluoranthene	990 J	390 U	360 U	370 U	380 U	390 U	370 U
bis(2-Chloroethoxy)methane	390 U	390 U	360 U	370 U	380 U	390 U	370 U

APPENDIX G
SURFACE SOIL - SWMU 043
ORGANIC COMPOUNDS
SWMU CONFIRMATORY SAMPLING (CTO-0143)
IR NUMBER 11, PEST CONTROL SHOP
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU43-IS01-00	SWMU43-IS02-00	SWMU43-IS03-00	SWMU43-IS04-00	SWMU43-SB01-00	SWMU43-SB02-00	SWMU43-SB03-00
SAMPLE DATE	09-10-1997	09-10-1997	09-10-1997	09-10-1997	03-25-2002	03-25-2002	03-25-2002
DEPTH	0' - 2'	0' - 2'	0' - 2'	0' - 2'	0' - 1'	0' - 1'	0' - 1'
SEMIVOLATILES (ug/kg) (cont)							
bis(2-Chloroethyl) ether	390 U	390 U	360 U	370 U	380 U	390 U	370 U
bis(2-Ethylhexyl) phthalate	390 J	390 U	45 J	370 U	55 J	110 J	370 U
Butyl benzyl phthalate	390 U	390 U	360 U	65 J	380 U	390 U	370 U
Caprolactam	NA	NA	NA	NA	380 U	390 U	370 U
Carbazole	140 J	390 U	360 U	370 U	380 U	390 U	370 U
Chrysene	1100 J	390 U	360 U	370 U	380 U	390 U	370 U
Di-n-butyl phthalate	390 U	390 U	360 U	370 U	380 U	390 U	370 U
Di-n-octyl phthalate	390 U	390 U	360 U	370 U	380 U	390 U	370 U
Dibenz(a,h)anthracene	120 J	390 U	360 U	370 U	380 U	390 U	370 U
Dibenzofuran	390 U	390 U	360 U	370 U	380 U	390 U	370 U
Diethyl phthalate	390 U	390 U	360 U	370 U	380 U	390 U	370 U
Dimethyl phthalate	390 U	390 U	360 U	370 U	380 U	390 U	370 U
Fluoranthene	1500	390 U	360 U	370 U	380 U	390 U	370 U
Fluorene	39 J	390 U	360 U	370 U	380 U	390 U	370 U
Hexachlorobenzene	390 U	390 U	360 U	370 U	380 U	390 U	370 U
Hexachlorobutadiene	390 U	390 U	360 U	370 U	380 U	390 U	370 U
Hexachlorocyclopentadiene	1900 U	1900 U	1800 U	1800 U	380 U	390 U	370 U
Hexachloroethane	390 U	390 U	360 U	370 U	380 U	390 U	370 U
Indeno(1,2,3-cd)pyrene	470 J	390 U	360 U	370 U	380 U	390 U	370 U
Isophorone	390 U	390 U	360 U	370 U	380 U	390 U	370 U
N-Nitrosodi-n-propylamine	390 U	390 U	360 U	370 U	380 U	390 U	370 U
N-Nitrosodiphenylamine	390 U	390 U	360 U	370 U	380 U	390 U	370 U
Naphthalene	390 U	390 U	360 U	370 U	380 U	390 U	370 U
Nitrobenzene	390 U	390 U	360 U	370 U	380 U	390 U	370 U
Pentachlorophenol	1900 U	1900 U	1800 U	1800 U	760 U	780 U	740 U
Phenanthrene	670	390 U	360 U	370 U	380 U	390 U	370 U
Phenol	390 U	390 U	360 U	370 U	380 U	390 U	370 U
Pyrene	580 J	390 U	360 U	370 U	380 U	390 U	370 U
PESTICIDES (ug/kg)							
4,4'-DDD	17000	4 U	5.9	1.9 U	190 U	0.88 J	1.1 J
4,4'-DDE	990 U	40	3.9	1.9 U	100	9.4 J	6 J
4,4'-DDT	25000	35	3.8 U	1.9 U	420	2.5 J	4.7 J
alpha-BHC	990 U	4 U	3.8 U	1.9 U	48 U	0.98 UJ	0.93 UJ
alpha-Chlordane	NA	NA	NA	NA	270 J	2 UJ	6.9 J
Aldrin	990 U	4 U	3.8 U	1.9 U	48 U	0.98 UJ	0.93 UJ
beta-BHC	990 U	4 U	3.8 U	1.9 U	98 UJ	2 U	1.9 U
delta-BHC	990 U	4 U	3.8 U	1.9 U	48 U	0.98 UJ	0.93 UJ
Dieldrin	990 U	4 U	3.8 U	1.9 U	130 J	2 UJ	1.9 UJ

APPENDIX G
SURFACE SOIL - SWMU 043
ORGANIC COMPOUNDS
SWMU CONFIRMATORY SAMPLING (CTO-0143)
IR NUMBER 11, PEST CONTROL SHOP
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU43-IS01-00	SWMU43-IS02-00	SWMU43-IS03-00	SWMU43-IS04-00	SWMU43-SB01-00	SWMU43-SB02-00	SWMU43-SB03-00
SAMPLE DATE	09-10-1997	09-10-1997	09-10-1997	09-10-1997	03-25-2002	03-25-2002	03-25-2002
DEPTH	0' - 2'	0' - 2'	0' - 2'	0' - 2'	0' - 1'	0' - 1'	0' - 1'
PESTICIDES (ug/kg) (cont)							
Endrin keytone	NA	NA	NA	NA	480 U	9.8 U	9.3 U
Endosulfan I	990 U	4 U	3.8 U	1.9 U	98 U	2 UJ	1.9 UJ
Endosulfan II	990 U	4 U	3.8 U	1.9 U	190 U	3.9 UJ	3.7 UJ
Endosulfan sulfate	990 U	4 U	3.8 U	1.9 U	190 U	3.9 U	3.7 U
Endrin	990 U	4 U	3.8 U	1.9 U	190 U	3.9 U	3.7 U
Endrin aldehyde	990 U	4 U	3.8 U	1.9 U	190 U	3.9 U	3.7 U
gamma-BHC (Lindane)	990 U	4 U	3.8 U	1.9 U	48 U	0.98 U	0.93 U
gamma-Chlordane	NA	NA	NA	NA	160	0.98 UJ	1.5 J
Heptachlor	990 U	4 U	3.8 U	1.9 U	48 U	0.98 UJ	0.93 UJ
Heptachlor epoxide	990 U	4 U	3.8 U	1.9 U	35 J	0.98 UJ	0.93 UJ
Methoxychlor	1900 U	7.8 U	7.3 U	3.7 U	480 U	9.8 U	9.3 U
Toxaphene	39000 U	160 U	150 U	74 U	4800 U	98 U	93 U

APPENDIX G
SURFACE SOIL - SWMU 043
ORGANIC COMPOUNDS
SWMU CONFIRMATORY SAMPLING (CTO-0143)
IR NUMBER 11, PEST CONTROL SHOP
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU43-SS01-00	SWMU43-SS02-00	SWMU43-SS03-00	SWMU43-SS04-00	SWMU43-TW01-00	SWMU43-TW02-00	SWMU43-TW03-00
SAMPLE DATE	09-17-1997	09-17-1997	09-17-1997	03-25-2002	03-25-2002	03-25-2002	03-25-2002
DEPTH	0' - 2'	0' - 2'	0' - 2'	0' - 1'	0' - 1'	0' - 1'	0' - 1'
SEMIVOLATILES (ug/kg)							
1,1'-Biphenyl	NA	NA	NA	420 U	380 U	390 U	360 U
2,2'-Oxybis(1-Chloropropane)	430 U	400 U	420 U	420 U	380 U	390 U	360 U
2,4,5-Trichlorophenol	430 U	400 U	420 U	420 U	380 U	390 U	360 U
2,4,6-Trichlorophenol	430 U	400 U	420 U	420 U	380 U	390 U	360 U
2,4-Dichlorophenol	430 U	400 U	420 U	420 U	380 U	390 U	360 U
2,4-Dimethylphenol	430 U	400 U	420 U	420 U	380 U	390 U	360 U
2,4-Dinitrophenol	2100 U	1900 U	2100 U	2200 UJ	1900 UJ	2000 UJ	1900 UJ
2,4-Dinitrotoluene	430 U	400 U	420 U	420 U	380 U	390 U	360 U
2,6-Dinitrotoluene	430 U	400 U	420 U	420 U	380 U	390 UJ	360 UJ
2-Chloronaphthalene	430 U	400 U	420 U	420 U	380 U	390 U	360 U
2-Chlorophenol	430 U	400 U	420 U	420 U	380 U	390 U	360 U
2-Methylnaphthalene	430 U	400 U	420 U	420 U	380 U	390 U	360 U
2-Methylphenol	430 U	400 U	420 U	420 U	380 U	390 U	360 U
2-Nitroaniline	2100 U	1900 U	2100 U	850 U	750 U	780 U	730 U
2-Nitrophenol	430 U	400 U	420 U	420 U	380 U	390 U	360 U
3,3'-Dichlorobenzidine	2100 U	1900 U	2100 U	850 U	750 U	780 U	730 U
3-Nitroaniline	2100 U	1900 U	2100 U	850 U	750 U	780 U	730 U
4,6-Dinitro-2-methylphenol	2100 U	1900 U	2100 U	850 U	750 U	780 U	730 U
4-Bromophenyl phenyl ether	430 U	400 U	420 U	420 U	380 U	390 U	360 U
4-Chloro-3-methylphenol	430 U	400 U	420 U	420 U	380 U	390 U	360 U
4-Chloroaniline	430 U	400 U	420 U	420 U	380 U	390 U	360 U
4-Chlorophenyl phenyl ether	430 U	400 U	420 U	420 U	380 U	390 U	360 U
4-Methylphenol	430 U	400 U	420 U	420 U	380 U	390 U	360 U
4-Nitroaniline	2100 U	1900 U	2100 U	850 U	750 U	780 U	730 U
4-Nitrophenol	2100 U	1900 U	2100 U	850 U	750 U	780 U	730 U
Acenaphthene	430 U	400 U	420 U	420 U	380 U	390 U	360 U
Acenaphthylene	430 U	400 U	420 U	420 U	380 U	390 U	360 U
Acetophenone	NA	NA	NA	420 U	380 U	390 U	360 U
Anthracene	430 U	400 U	420 U	420 U	380 U	390 U	360 U
Atrazine	NA	NA	NA	420 U	380 U	390 U	360 U
Benzaldehyde	NA	NA	NA	33 J	380 U	390 U	360 U
Benzo(a)anthracene	430 U	400 U	420 U	420 U	380 U	390 U	360 U
Benzo(a)pyrene	430 U	400 U	420 U	420 U	380 U	390 U	360 U
Benzo(b)fluoranthene	430 U	400 U	420 U	420 U	380 U	390 U	360 U
Benzo(ghi)perylene	430 U	400 U	420 U	420 U	380 U	390 U	360 U
Benzo(k)fluoranthene	430 U	400 U	420 U	420 U	380 U	390 U	360 U
bis(2-Chloroethoxy)methane	430 U	400 U	420 U	420 U	380 U	390 U	360 U

APPENDIX G
SURFACE SOIL - SWMU 043
ORGANIC COMPOUNDS
SWMU CONFIRMATORY SAMPLING (CTO-0143)
IR NUMBER 11, PEST CONTROL SHOP
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU43-SS01-00		SWMU43-SS02-00		SWMU43-SS03-00		SWMU43-SS04-00		SWMU43-TW01-00		SWMU43-TW02-00		SWMU43-TW03-00	
SAMPLE DATE	09-17-1997		09-17-1997		09-17-1997		03-25-2002		03-25-2002		03-25-2002		03-25-2002	
DEPTH	0' - 2'		0' - 2'		0' - 2'		0' - 1'		0' - 1'		0' - 1'		0' - 1'	
SEMIVOLATILES (ug/kg) (cont)														
bis(2-Chloroethyl) ether	430	U	400	U	420	U	420	U	380	U	390	U	360	U
bis(2-Ethylhexyl) phthalate	59	J	100	J	190	J	250	J	83	J	120	J	400	
Butyl benzyl phthalate	430	U	400	U	420	U	46	J	380	U	390	U	360	U
Caprolactam	NA		NA		NA		420	U	380	U	390	U	360	U
Carbazole	430	U	400	U	420	U	420	U	380	U	390	U	360	U
Chrysene	430	U	400	U	420	U	420	U	380	U	390	U	360	U
Di-n-butyl phthalate	430	U	400	U	420	U	420	U	380	U	390	U	360	U
Di-n-octyl phthalate	430	U	400	U	420	U	420	U	380	U	100	J	360	U
Dibenz(a,h)anthracene	430	U	400	U	420	U	420	U	380	U	390	U	360	U
Dibenzofuran	430	U	400	U	420	U	420	U	380	U	390	U	360	U
Diethyl phthalate	430	U	400	U	420	U	420	U	380	U	390	U	360	U
Dimethyl phthalate	430	U	400	U	420	U	420	U	380	U	390	U	360	U
Fluoranthene	430	U	400	U	420	U	420	U	380	U	390	U	360	U
Fluorene	430	U	400	U	420	U	420	U	380	U	390	U	360	U
Hexachlorobenzene	430	U	400	U	420	U	420	U	380	U	390	U	360	U
Hexachlorobutadiene	430	U	400	U	420	U	420	U	380	U	390	U	360	U
Hexachlorocyclopentadiene	2100	U	1900	U	2100	U	420	U	380	U	390	U	360	U
Hexachloroethane	430	U	400	U	420	U	420	U	380	U	390	U	360	U
Indeno(1,2,3-cd)pyrene	430	U	400	U	420	U	420	U	380	U	390	U	360	U
Isophorone	430	U	400	U	420	U	420	U	380	U	390	U	360	U
N-Nitrosodi-n-propylamine	430	U	400	U	420	U	420	U	380	U	390	U	360	U
N-Nitrosodiphenylamine	430	U	400	U	420	U	420	U	380	U	390	U	360	U
Naphthalene	430	U	400	U	420	U	420	U	380	U	390	U	360	U
Nitrobenzene	430	U	400	U	420	U	420	U	380	U	390	U	360	U
Pentachlorophenol	2100	U	1900	U	2100	U	850	U	750	U	780	U	730	U
Phenanthrene	430	U	400	U	420	U	420	U	380	U	390	U	360	U
Phenol	430	U	400	U	420	U	420	U	380	U	390	U	360	U
Pyrene	430	U	400	U	420	U	420	U	380	U	390	U	360	U
PESTICIDES (ug/kg)														
4,4'-DDD	11	U	2.1	U	8.8	U	110	U	38	U	330	J	1.4	J
4,4'-DDE	92		2.1	U	46		310		74		210	J	3.7	
4,4'-DDT	120		2.1	U	110		210		78		7200		22	
alpha-BHC	11	U	2.1	U	8.8	U	27	U	9.4	U	200	U	0.88	J
alpha-Chlordane	NA		NA		NA		110	J	68	J	870	J	1.5	J
Aldrin	11	U	2.1	U	8.8	U	27	U	9.4	U	200	U	0.91	U
beta-BHC	11	U	2.1	U	8.8	U	54	UJ	19	UJ	400	U	1.9	U
delta-BHC	11	U	2.1	U	8.8	U	27	U	9.4	U	200	U	3.8	J
Dieldrin	11	U	2.1	U	8.8	U	54	U	19	U	400	U	1.9	U

APPENDIX G
SURFACE SOIL - SWMU 043
ORGANIC COMPOUNDS
SWMU CONFIRMATORY SAMPLING (CTO-0143)
IR NUMBER 11, PEST CONTROL SHOP
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU43-SS01-00		SWMU43-SS02-00		SWMU43-SS03-00		SWMU43-SS04-00		SWMU43-TW01-00		SWMU43-TW02-00		SWMU43-TW03-00	
SAMPLE DATE	09-17-1997		09-17-1997		09-17-1997		03-25-2002		03-25-2002		03-25-2002		03-25-2002	
DEPTH	0' - 2'		0' - 2'		0' - 2'		0' - 1'		0' - 1'		0' - 1'		0' - 1'	
PESTICIDES (ug/kg) (cont)														
Endrin keytone	NA		NA		NA		270	U	94	U	2000	U	9.1	U
Endosulfan I	11	U	2.1	U	8.8	U	54	U	19	U	400	U	1.9	U
Endosulfan II	11	U	2.1	U	8.8	U	110	U	38	U	780	U	3.6	UJ
Endosulfan sulfate	11	U	2.1	U	8.8	U	110	U	38	U	780	U	3.6	U
Endrin	11	U	2.1	U	8.8	U	110	U	38	U	780	U	3.6	U
Endrin aldehyde	11	U	2.1	U	8.8	U	110	U	38	U	780	U	3.6	U
gamma-BHC (Lindane)	11	U	2.1	U	8.8	U	27	U	9.4	U	200	UJ	0.91	U
gamma-Chlordane	NA		NA		NA		14	J	17		550		1	J
Heptachlor	11	U	2.1	U	8.8	U	27	U	9.4	U	200	U	0.91	U
Heptachlor epoxide	11	U	2.1	U	8.8	U	27	U	6.6	J	200	U	0.91	U
Methoxychlor	21	U	4	U	17	U	270	U	94	U	2000	UJ	9.1	U
Toxaphene	430	U	81	U	340	U	2700	U	940	U	20000	U	91	U

APPENDIX G
SURFACE SOIL - SWMU 043
INORGANIC COMPOUNDS
SWMU CONFIRMATORY SAMPLING (CTO-0143)
IR NUMBER 11, PEST CONTROL SHOP
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU43-IS01-00	SWMU43-IS02-00	SWMU43-IS03-00	SWMU43-IS04-00	SWMU43-SB01-00	SWMU43-SB02-00	SWMU43-SB03-00
SAMPLE DATE	09-10-1997	09-10-1997	09-10-1997	09-10-1997	03-25-2002	03-25-2002	03-25-2002
DEPTH	0' - 2'	0' - 2'	0' - 2'	0' - 2'	0' - 1'	0' - 1'	0' - 1'
METALS (mg/kg)							
Arsenic	3.8	4.1	1.8	1.1 U	2.1 J	1.6 J	2.6 J
Barium	39.7	24.1	22.1 U	22.2 U	12.9 J	39.4 J	17.6 J
Cadmium	2.3	0.59 U	0.55 U	0.55 U	0.03 U	0.03 U	0.03 U
Chromium	7.4	28.2	14.1	4.9	4.1 J	15.1 J	12.3 J
Lead	25.9	8.6	8	4.5	17.7 J	6.9 J	7.2 J
Mercury	0.039 U	0.039 U	0.036 U	0.037 U	0.05 J	0.04 J	0.05 J
Selenium	0.58 U	0.64	0.55 U	0.55 U	0.22 J	0.49 J	0.52 J
Silver	1.2 U	1.2 U	1.1 U	1.1 U	0.06 U	0.06 U	0.05 U

APPENDIX G
SURFACE SOIL - SWMU 043
INORGANIC COMPOUNDS
SWMU CONFIRMATORY SAMPLING (CTO-0143)
IR NUMBER 11, PEST CONTROL SHOP
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU43-SS01-00		SWMU43-SS02-00		SWMU43-SS03-00		SWMU43-SS04-00		SWMU43-TW01-00		SWMU43-TW02-00		SWMU43-TW03-00	
SAMPLE DATE	09-17-1997		09-17-1997		09-17-1997		03-25-2002		03-25-2002		03-25-2002		03-25-2002	
DEPTH	0' - 2'		0' - 2'		0' - 2'		0' - 1'		0' - 1'		0' - 1'		0' - 1'	
METALS (mg/kg)														
Arsenic	2.2		2.2		1.3		2.7	J	0.18	UJ	4.4	J	0.25	UJ
Barium	25.8	U	31		25.7	U	24.9	J	8.9	J	13.1	J	12	J
Cadmium	0.65	U	0.6	U	0.64	U	0.06	U	0.03	U	0.1	J	0.03	U
Chromium	6.9		20.4		6.1		7.8	J	1.9	J	4.7		2	
Lead	11.5		7.1		12.1		22.4	J	4.5	J	9.5		3.6	
Mercury	0.048		0.04	U	0.042	U	0.09	J	0.04	J	0.04	J	0.04	J
Selenium	0.65	U	0.92		0.64	U	0.46	J	0.27	J	0.52	U	0.49	U
Silver	1.3	U	1.2	U	1.3	U	0.06	U	0.05	U	0.1	UJ	0.1	UJ

APPENDIX G
SUBSURFACE SOIL - SWMU 043
ORGANIC COMPOUNDS
SWMU CONFIRMATORY SAMPLING (CTO-0143)
IR NUMBER 11, PEST CONTROL SHOP
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU43-IS01-01	SWMU43-IS02-01	SWMU43-IS03-01	SWMU43-IS04-01	SWMU43-SB01-06	SWMU43-SB02-06	SWMU43-SB03-06
SAMPLE DATE	09-10-1997	09-10-1997	09-10-1997	09-10-1997	03-25-2002	03-25-2002	03-25-2002
DEPTH	2' - 4'	2' - 4'	2' - 4'	2' - 4'	11' - 13'	11' - 13'	11' - 13'
SEMIVOLATILES (ug/kg)							
1,1'-Biphenyl	NA	NA	NA	NA	390 U	410 U	440 U
2,2'-Oxybis(1-Chloropropane)	380 U	390 U	340 U	380 U	390 U	410 U	440 UJ
2,4,5-Trichlorophenol	380 U	390 U	340 U	380 U	390 U	410 U	440 U
2,4,6-Trichlorophenol	380 U	390 U	340 U	380 U	390 U	410 U	440 U
2,4-Dichlorophenol	380 U	390 U	340 U	380 U	390 U	410 U	440 U
2,4-Dimethylphenol	380 U	390 U	340 U	380 U	390 U	410 U	440 U
2,4-Dinitrophenol	1900 U	1900 U	1700 U	1800 U	2000 UJ	2100 UJ	2300 U
2,4-Dinitrotoluene	380 U	390 U	340 U	380 U	390 U	410 U	440 U
2,6-Dinitrotoluene	380 U	390 U	340 U	380 U	390 U	410 U	440 U
2-Chloronaphthalene	380 U	390 U	340 U	380 U	390 U	410 U	440 U
2-Chlorophenol	380 U	390 U	340 U	380 U	390 U	410 U	440 U
2-Methylnaphthalene	380 U	390 U	340 U	380 U	390 U	410 U	440 U
2-Methylphenol	380 U	390 U	340 U	380 U	390 U	410 U	440 U
2-Nitroaniline	1900 U	1900 U	1700 U	1800 U	780 U	810 U	880 UJ
2-Nitrophenol	380 U	390 U	340 U	380 U	390 U	410 U	440 U
3,3'-Dichlorobenzidine	1900 U	1900 U	1700 U	1800 U	780 U	810 U	880 U
3-Nitroaniline	1900 U	1900 U	1700 U	1800 U	780 U	810 U	880 U
4,6-Dinitro-2-methylphenol	1900 U	1900 U	1700 U	1800 U	780 U	810 U	880 U
4-Bromophenyl phenyl ether	380 U	390 U	340 U	380 U	390 U	410 U	440 U
4-Chloro-3-methylphenol	380 U	390 U	340 U	380 U	390 U	410 U	440 U
4-Chloroaniline	380 U	390 U	340 U	380 U	390 U	410 U	440 U
4-Chlorophenyl phenyl ether	380 U	390 U	340 U	380 U	390 U	410 U	440 U
4-Methylphenol	380 U	390 U	340 U	380 U	390 U	410 U	440 U
4-Nitroaniline	1900 U	1900 U	1700 U	1800 U	780 U	810 U	880 U
4-Nitrophenol	1900 U	1900 U	1700 U	1800 U	780 U	810 U	880 UJ
Acenaphthene	380 U	390 U	340 U	380 U	390 U	410 U	440 U
Acenaphthylene	380 U	390 U	340 U	380 U	390 U	410 U	440 U
Acetophenone	NA	NA	NA	NA	390 U	410 U	440 U
Anthracene	380 U	390 U	340 U	380 U	390 U	410 U	440 U
Atrazine	NA	NA	NA	NA	390 U	410 U	440 U
Benzaldehyde	NA	NA	NA	NA	390 U	410 U	440 U
Benzo(a)anthracene	380 U	390 U	340 U	380 U	390 U	410 U	440 U
Benzo(a)pyrene	380 U	390 U	340 U	380 U	390 U	410 U	440 U
Benzo(b)fluoranthene	380 U	390 U	340 U	380 U	390 U	410 U	440 U
Benzo(ghi)perylene	380 U	390 U	340 U	380 U	390 U	410 U	440 U
Benzo(k)fluoranthene	380 U	390 U	340 U	380 U	390 U	410 U	440 UJ
bis(2-Chloroethoxy)methane	380 U	390 U	340 U	380 U	390 U	410 U	440 U
bis(2-Chloroethyl) ether	380 U	390 U	340 U	380 U	390 U	410 U	440 U

APPENDIX G
SUBSURFACE SOIL - SWMU 043
ORGANIC COMPOUNDS
SWMU CONFIRMATORY SAMPLING (CTO-0143)
IR NUMBER 11, PEST CONTROL SHOP
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU43-IS01-01	SWMU43-IS02-01	SWMU43-IS03-01	SWMU43-IS04-01	SWMU43-SB01-06	SWMU43-SB02-06	SWMU43-SB03-06
SAMPLE DATE	09-10-1997	09-10-1997	09-10-1997	09-10-1997	03-25-2002	03-25-2002	03-25-2002
DEPTH	2' - 4'	2' - 4'	2' - 4'	2' - 4'	11' - 13'	11' - 13'	11' - 13'
SEMIVOLATILES (ug/kg) (cont)							
bis(2-Ethylhexyl) phthalate	380 U	390 U	340 U	380 U	61 J	410 U	440 U
Butyl benzyl phthalate	380 U	390 U	340 U	380 U	390 U	410 U	440 U
Caprolactam	NA	NA	NA	NA	390 U	24 J	440 U
Carbazole	380 U	390 U	340 U	380 U	390 U	410 U	440 U
Chrysene	380 U	390 U	340 U	380 U	390 U	410 U	440 U
Di-n-butyl phthalate	380 U	390 U	340 U	380 U	390 U	410 U	440 U
Di-n-octyl phthalate	380 U	390 U	340 U	380 U	390 U	410 U	440 U
Dibenz(a,h)anthracene	380 U	390 U	340 U	380 U	390 U	410 U	440 U
Dibenzofuran	380 U	390 U	340 U	380 U	390 U	410 U	440 U
Diethyl phthalate	380 U	390 U	340 U	380 U	390 U	410 U	440 U
Dimethyl phthalate	380 U	390 U	340 U	380 U	390 U	410 U	440 U
Fluoranthene	380 U	390 U	340 U	380 U	390 U	410 U	440 U
Fluorene	380 U	390 U	340 U	380 U	390 U	410 U	440 U
Hexachlorobenzene	380 U	390 U	340 U	380 U	390 U	410 U	440 U
Hexachlorobutadiene	380 U	390 U	340 U	380 U	390 U	410 U	440 U
Hexachlorocyclopentadiene	1900 U	1900 U	1700 U	1800 U	390 U	410 U	440 U
Hexachloroethane	380 U	390 U	340 U	380 U	390 U	410 U	440 U
Indeno(1,2,3-cd)pyrene	380 U	390 U	340 U	380 U	390 U	410 U	440 U
Isophorone	380 U	390 U	340 U	380 U	390 U	410 U	440 U
N-Nitrosodi-n-propylamine	380 U	390 U	340 U	380 U	390 U	410 U	440 U
N-Nitrosodiphenylamine	380 U	390 U	340 U	380 U	390 U	410 U	440 U
Naphthalene	380 U	390 U	340 U	380 U	390 U	410 U	440 U
Nitrobenzene	380 U	390 U	340 U	380 U	390 U	410 U	440 U
Pentachlorophenol	1900 U	1900 U	1700 U	1800 U	780 U	810 U	880 U
Phenanthrene	380 U	390 U	340 U	380 U	390 U	410 U	440 U
Phenol	380 U	390 U	340 U	380 U	390 U	410 U	440 U
Pyrene	380 U	390 U	340 U	380 U	390 U	410 U	440 U
PESTICIDES (ug/kg)							
4,4'-DDD	42	2 U	3.5 U	2 U	3.9 UJ	4.1 U	4.4 UJ
4,4'-DDE	20 U	17	3.5 U	2.2	2 UJ	2.1 U	2.3 UJ
4,4'-DDT	300	34	3.5 U	8.1	2.2 J	6.2 U	6.7 UJ
alpha-BHC	20 U	2 U	3.5 U	2 U	0.98 UJ	1 U	1.1 UJ
alpha-Chlordane	NA	NA	NA	NA	1.1 J	2.1 U	2.3 UJ
Aldrin	20 U	2 U	3.5 U	2 U	0.31 J	1 U	1.1 UJ
beta-BHC	20 U	2 U	3.5 U	2 U	2 U	2.1 U	2.3 U
Chlordane (technical)	200 U	47	580	20 U			
delta-BHC	20 U	2 U	3.5 U	2 U	0.98 UJ	1 U	1.1 UJ
Dieldrin	20 U	2 U	3.5 U	2 U	2 UJ	2.1 U	2.3 UJ
Endrin keytone	NA	NA	NA	NA	9.8 U	10 U	11 U

APPENDIX G
SUBSURFACE SOIL - SWMU 043
ORGANIC COMPOUNDS
SWMU CONFIRMATORY SAMPLING (CTO-0143)
IR NUMBER 11, PEST CONTROL SHOP
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU43-IS01-01	SWMU43-IS02-01	SWMU43-IS03-01	SWMU43-IS04-01	SWMU43-SB01-06	SWMU43-SB02-06	SWMU43-SB03-06
SAMPLE DATE	09-10-1997	09-10-1997	09-10-1997	09-10-1997	03-25-2002	03-25-2002	03-25-2002
DEPTH	2' - 4'	2' - 4'	2' - 4'	2' - 4'	11' - 13'	11' - 13'	11' - 13'
PESTICIDES (ug/kg) (cont)							
Endosulfan I	20 U	2 U	3.5 U	2 U	2 UJ	2.1 U	2.3 UJ
Endosulfan II	20 U	2 U	3.5 U	2 U	3.9 UJ	4.1 U	4.4 UJ
Endosulfan sulfate	20 U	2 U	3.5 U	2 U	3.9 U	4.1 U	4.4 U
Endrin	20 U	2 U	3.5 U	2 U	3.9 U	4.1 U	4.4 U
Endrin aldehyde	20 U	2 U	3.5 U	2 U	3.9 U	4.1 U	4.4 U
gamma-BHC (Lindane)	20 U	2 U	3.5 U	2 U	0.98 U	1 U	1.1 U
gamma-Chlordane	NA	NA	NA	NA	0.7 J	1 U	1.1 UJ
Heptachlor	20 U	2 U	3.5 U	2 U	0.98 UJ	1 U	1.1 UJ
Heptachlor epoxide	20 U	2 U	3.5 U	2 U	0.98 UJ	1 U	1.1 UJ
Methoxychlor	38 U	3.9 U	6.9 U	3.8 U	9.8 U	10 U	11 U
Toxaphene	780 U	79 U	140 U	77 U	98 U	100 U	110 U

APPENDIX G
SUBSURFACE SOIL - SWMU 043
ORGANIC COMPOUNDS
SWMU CONFIRMATORY SAMPLING (CTO-0143)
IR NUMBER 11, PEST CONTROL SHOP
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU43-TW01-06		SWMU43-TW02-06		SWMU43-TW03-06	
SAMPLE DATE	03-25-2002		03-25-2002		03-25-2002	
DEPTH	11' - 13'		11' - 13'		11' - 13'	
SEMIVOLATILES (ug/kg)						
1,1'-Biphenyl	360	U	420	U	350	U
2,2'-Oxybis(1-Chloropropane)	360	U	420	U	350	U
2,4,5-Trichlorophenol	360	U	420	U	350	U
2,4,6-Trichlorophenol	360	U	420	U	350	U
2,4-Dichlorophenol	360	U	420	U	350	U
2,4-Dimethylphenol	360	U	420	U	350	U
2,4-Dinitrophenol	1800	UJ	2200	UJ	1800	UJ
2,4-Dinitrotoluene	360	U	420	U	350	U
2,6-Dinitrotoluene	360	U	420	U	350	UJ
2-Chloronaphthalene	360	U	420	U	350	U
2-Chlorophenol	360	U	420	U	350	U
2-Methylnaphthalene	360	U	420	U	350	U
2-Methylphenol	360	U	420	U	350	U
2-Nitroaniline	720	U	840	U	710	U
2-Nitrophenol	360	U	420	U	350	U
3,3'-Dichlorobenzidine	720	U	840	U	710	U
3-Nitroaniline	720	U	840	U	710	U
4,6-Dinitro-2-methylphenol	720	U	840	UJ	710	U
4-Bromophenyl phenyl ether	360	U	420	U	350	U
4-Chloro-3-methylphenol	360	U	420	U	350	U
4-Chloroaniline	360	U	420	U	350	U
4-Chlorophenyl phenyl ether	360	U	420	U	350	U
4-Methylphenol	360	U	420	U	350	U
4-Nitroaniline	720	U	840	U	710	U
4-Nitrophenol	720	U	840	U	710	U
Acenaphthene	360	U	420	U	350	U
Acenaphthylene	360	U	420	U	350	U
Acetophenone	360	U	420	U	350	U
Anthracene	360	U	420	U	350	U
Atrazine	360	U	420	U	350	U
Benzaldehyde	360	U	420	U	350	U
Benzo(a)anthracene	360	U	420	U	350	U
Benzo(a)pyrene	360	U	420	U	350	U
Benzo(b)fluoranthene	360	U	420	U	350	U
Benzo(ghi)perylene	360	U	420	U	350	U
Benzo(k)fluoranthene	360	U	420	U	350	U
bis(2-Chloroethoxy)methane	360	U	420	U	350	U
bis(2-Chloroethyl) ether	360	U	420	U	350	U

APPENDIX G
SUBSURFACE SOIL - SWMU 043
ORGANIC COMPOUNDS
SWMU CONFIRMATORY SAMPLING (CTO-0143)
IR NUMBER 11, PEST CONTROL SHOP
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU43-TW01-06		SWMU43-TW02-06		SWMU43-TW03-06	
SAMPLE DATE	03-25-2002		03-25-2002		03-25-2002	
DEPTH	11' - 13'		11' - 13'		11' - 13'	
SEMIVOLATILES (ug/kg) (cont)						
bis(2-Ethylhexyl) phthalate	360	U	52	J	150	J
Butyl benzyl phthalate	360	U	420	U	350	U
Caprolactam	360	U	420	U	350	U
Carbazole	360	U	420	U	350	U
Chrysene	360	U	420	U	350	U
Di-n-butyl phthalate	360	U	420	U	350	U
Di-n-octyl phthalate	360	U	420	U	110	J
Dibenz(a,h)anthracene	360	U	420	U	350	U
Dibenzofuran	360	U	420	U	350	U
Diethyl phthalate	360	U	420	U	350	U
Dimethyl phthalate	360	U	420	U	350	U
Fluoranthene	360	U	420	U	350	U
Fluorene	360	U	420	U	350	U
Hexachlorobenzene	360	U	420	U	350	U
Hexachlorobutadiene	360	U	420	U	350	U
Hexachlorocyclopentadiene	360	U	420	U	350	U
Hexachloroethane	360	U	420	U	350	U
Indeno(1,2,3-cd)pyrene	360	U	420	U	350	U
Isophorone	360	U	420	U	350	U
N-Nitrosodi-n-propylamine	360	U	420	U	350	U
N-Nitrosodiphenylamine	360	U	420	U	350	U
Naphthalene	360	U	420	U	350	U
Nitrobenzene	360	U	420	U	350	U
Pentachlorophenol	720	U	840	U	710	U
Phenanthrene	360	U	420	U	350	U
Phenol	360	U	420	U	350	U
Pyrene	360	U	420	U	350	U
PESTICIDES (ug/kg)						
4,4'-DDD	3.6	UJ	4.2	UJ	3.6	UJ
4,4'-DDE	0.71	J	2.2	UJ	1.8	U
4,4'-DDT	1.5	J	6.3	UJ	4.2	J
alpha-BHC	0.9	UJ	1.1	UJ	0.9	U
alpha-Chlordane	0.78	J	2.2	UJ	1.8	U
Aldrin	0.9	UJ	1.1	UJ	0.75	J
beta-BHC	1.8	U	2.2	U	1.8	U
Chlordane (technical)						
delta-BHC	0.9	UJ	1.1	UJ	0.9	U
Dieldrin	1.8	UJ	2.2	UJ	1.8	U
Endrin keytone	9	UJ	11	UJ	9	U

APPENDIX G
SUBSURFACE SOIL - SWMU 043
ORGANIC COMPOUNDS
SWMU CONFIRMATORY SAMPLING (CTO-0143)
IR NUMBER 11, PEST CONTROL SHOP
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU43-TW01-06		SWMU43-TW02-06		SWMU43-TW03-06	
SAMPLE DATE	03-25-2002		03-25-2002		03-25-2002	
DEPTH	11' - 13'		11' - 13'		11' - 13'	
PESTICIDES (ug/kg) (cont)						
Endosulfan I	1.8	UJ	2.2	UJ	1.8	U
Endosulfan II	3.6	UJ	4.2	UJ	3.6	UJ
Endosulfan sulfate	3.6	UJ	4.2	UJ	3.6	U
Endrin	3.6	UJ	4.2	UJ	3.6	U
Endrin aldehyde	3.6	UJ	4.2	UJ	3.6	U
gamma-BHC (Lindane)	0.9	U	1.1	U	0.9	U
gamma-Chlordane	0.9	UJ	1.1	UJ	0.9	U
Heptachlor	0.9	UJ	1.1	UJ	0.9	U
Heptachlor epoxide	0.9	UJ	1.1	UJ	0.9	U
Methoxychlor	9	U	11	U	3.4	J
Toxaphene	90	U	110	U	90	U

APPENDIX G
SUBSURFACE SOIL - SWMU 043
INORGANIC COMPOUNDS
SWMU CONFIRMATORY SAMPLING (CTO-0143)
IR NUMBER 11, PEST CONTROL SHOP
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU43-IS01-01	SWMU43-IS02-01	SWMU43-IS03-01	SWMU43-IS04-01	SWMU43-SB01-06	SWMU43-SB02-06	SWMU43-SB03-06
SAMPLE DATE	09-10-1997	09-10-1997	09-10-1997	09-10-1997	03-25-2002	03-25-2002	03-25-2002
DEPTH	2' - 4'	2' - 4'	2' - 4'	2' - 4'	11' - 13'	11' - 13'	11' - 13'
METALS (mg/kg)							
Arsenic	2.1	3.3	2.6	1.6	1.9 J	0.21 U	0.38 J
Barium	31.3	23.7 U	20.9 U	23 U	11 J	3.8 U	6.7 J
Cadmium	0.58 U	0.59 U	0.52 U	0.57 U	0.03 U	0.04 U	0.04 U
Chromium	16.8	17.3	14.3	15.1	11.4 J	3.9	6.1 J
Lead	7.4	6.8	4.4	6.9	5.3 J	2.6	4 J
Mercury	0.038 U	0.039 U	0.034 U	0.038 U	0.02 U	0.02 U	0.02 U
Selenium	0.58 U	0.59 U	0.52 U	0.57 U	0.41 J	0.24 UJ	0.38 J
Silver	1.2 U	1.2 U	1 U	1.1 U	0.06 U	0.06 U	0.06 U

APPENDIX G
SUBSURFACE SOIL - SWMU 043
INORGANIC COMPOUNDS
SWMU CONFIRMATORY SAMPLING (CTO-0143)
IR NUMBER 11, PEST CONTROL SHOP
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU43-TW01-06		SWMU43-TW02-06		SWMU43-TW03-06	
SAMPLE DATE	03-25-2002		03-25-2002		03-25-2002	
DEPTH	11' - 13'		11' - 13'		11' - 13'	
METALS (mg/kg)						
Arsenic	0.18	UJ	0.21	UJ	0.25	UJ
Barium	2.6	J	1.5	J	4.9	U
Cadmium	0.03	U	0.04	U	0.03	U
Chromium	2.5	J	1.5	J	3.4	
Lead	3.4	J	2.7	J	5	
Mercury	0.02	U	0.02	U	0.02	U
Selenium	0.25	J	0.23	UJ	0.47	U
Silver	0.05	U	0.06	U	0.09	UJ

APPENDIX G
GROUNDWATER - SWMU 043
ORGANIC COMPOUNDS
SWMU CONFIRMATORY SAMPLING (CTO-0143)
IR NUMBER 11, PEST CONTROL SHOP
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU43-GW01		SWMU43-GW02		SWMU43-GW03	
SAMPLE DATE	04-08-2002		04-09-2002		04-08-2002	
SEMIVOLATILES (ug/L)						
1,1'-Biphenyl	10	U	11	U	10	U
2,2'-oxybis(1-Chloropropane)	10	U	11	U	10	U
2,4,5-Trichlorophenol	10	U	11	U	10	U
2,4,6-Trichlorophenol	10	U	11	U	10	U
2,4-Dichlorophenol	10	U	11	U	10	U
2,4-Dimethylphenol	10	U	11	U	10	U
2,4-Dinitrophenol	50	U	53	UJ	50	U
2,4-Dinitrotoluene	10	U	11	U	10	U
2,6-Dinitrotoluene	10	U	11	U	10	U
2-Chloronaphthalene	10	U	11	U	10	U
2-Chlorophenol	10	U	11	U	10	U
2-Methylnaphthalene	10	U	11	U	10	U
2-Methylphenol	10	U	11	U	10	U
2-Nitroaniline	20	U	21	U	20	U
2-Nitrophenol	10	U	11	U	10	U
3,3'-Dichlorobenzidine	20	U	21	U	20	U
3-Nitroaniline	20	U	21	U	20	U
4,6-dinitro-2-Methylphenol	20	U	21	U	20	U
4-Bromophenyl phenyl ether	10	U	11	U	10	U
4-Chloro-3-methylphenol	10	U	11	U	10	U
4-Chloroaniline	10	U	11	U	10	U
4-Chlorophenyl phenyl ether	10	U	11	U	10	U
4-Methylphenol	0.9	J	11	U	10	U
4-Nitroaniline	20	U	21	U	20	U
4-Nitrophenol	20	U	21	U	20	U
Acenaphthene	10	U	11	U	10	U
Acenaphthylene	10	U	11	U	10	U
Acetophenone	10	U	11	U	10	U
Anthracene	10	U	11	U	10	U
Atrazine	10	U	11	U	10	U
Benzaldehyde	10	U	11	U	10	U
Benzo(a)anthracene	10	U	11	U	10	U
Benzo(a)pyrene	10	U	11	U	10	U
Benzo(b)fluoranthene	10	U	11	U	10	U
Benzo(g,h,i)perylene	10	U	11	U	10	U
Benzo(k)fluoranthene	10	U	11	U	10	U
bis(2-Chloroethoxy)methane	10	U	11	U	10	U
bis(2-Chloroethyl)ether	10	U	11	U	10	U

APPENDIX G
GROUNDWATER - SWMU 043
ORGANIC COMPOUNDS
SWMU CONFIRMATORY SAMPLING (CTO-0143)
IR NUMBER 11, PEST CONTROL SHOP
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU43-GW01		SWMU43-GW02		SWMU43-GW03	
SAMPLE DATE	04-08-2002		04-09-2002		04-08-2002	
SEMIVOLATILES (ug/L) (cont)						
bis(2-Ethylhexyl)phthalate	10	U	11	U	10	U
Butyl benzyl phthalate	10	U	11	U	10	U
Caprolactam	10	U	11	U	10	U
Carbazole	10	U	11	U	10	U
Chrysene	10	U	11	U	10	U
di-N-Butyl phthalate	10	U	11	U	10	U
di-N-Octyl phthalate	10	U	11	U	10	U
Dibenzo(a,h)anthracene	10	U	11	U	10	U
Dibenzofuran	10	U	11	U	10	U
Diethyl phthalate	10	U	11	U	10	U
Dimethyl phthalate	10	U	11	U	10	U
Fluoranthene	10	U	11	U	10	U
Fluorene	10	U	11	U	10	U
Hexachlorobenzene	10	U	11	U	10	U
Hexachlorobutadiene	10	U	11	U	10	U
Hexachlorocyclopentadiene	10	UJ	11	U	10	UJ
Hexachloroethane	10	U	11	U	10	U
Indeno(1,2,3-cd)pyrene	10	U	11	U	10	U
Isophorone	10	U	11	U	10	U
N-Nitroso-di-N-propylamine	10	U	11	U	10	U
N-Nitrosodiphenylamine(1)	10	U	11	U	10	U
Naphthalene	10	U	11	U	10	U
Nitrobenzene	10	U	11	U	10	U
Pentachlorophenol	20	U	21	U	20	U
Phenanthrene	10	U	11	U	10	U
Phenol	10	U	11	U	10	U
Pyrene	10	U	11	U	10	U
PESTICIDES (ug/L)						
4,4'-DDD	0.2	U	0.049	J	0.2	U
4,4'-DDE	0.1	U	0.1	U	0.1	U
4,4'-DDT	0.3	U	0.3	U	0.3	U
Aldrin	0.05	U	0.05	U	0.05	U
alpha-BHC	0.05	U	0.05	U	0.05	U
alpha-Chlordane	0.056	J	0.19	J	0.039	J
beta-BHC	0.1	U	0.1	U	0.1	U
delta-BHC	0.05	U	0.05	U	0.05	U
Dieldrin	0.02	J	0.076	J	0.1	U
Endosulfan I	0.1	U	0.082	J	0.1	U

APPENDIX G
GROUNDWATER - SWMU 043
ORGANIC COMPOUNDS
SWMU CONFIRMATORY SAMPLING (CTO-0143)
IR NUMBER 11, PEST CONTROL SHOP
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU43-GW01		SWMU43-GW02		SWMU43-GW03	
SAMPLE DATE	04-08-2002		04-09-2002		04-08-2002	
PESTICIDES (ug/L) (cont)						
Endosulfan II	0.2	U	0.2	U	0.2	U
Endosulfan sulfate	0.2	U	0.2	U	0.2	U
Endrin	0.2	U	0.2	U	0.2	U
Endrin aldehyde	0.2	U	0.2	U	0.2	U
Endrin ketone	0.5	U	0.5	U	0.5	U
gamma-BHC (Lindane)	0.05	U	0.05	U	0.05	U
gamma-chlordane	0.05	U	0.054		0.05	U
Heptachlor	0.05	U	0.05	U	0.05	U
Heptachlor epoxide	0.11		0.16		0.05	U
Methoxychlor	0.5	U	0.5	U	0.5	U
Toxaphene	5	U	5	U	5	U

APPENDIX G
GROUNDWATER - SWMU 043
INORGANIC COMPOUNDS
SWMU CONFIRMATORY SAMPLING (CTO-0143)
IR NUMBER 11, PEST CONTROL SHOP
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU43-GW01		SWMU43-GW02		SWMU43-GW03	
SAMPLE DATE	04-08-2002		04-09-2002		04-08-2002	
METALS (ug/L)						
Arsenic	2	UJ	2	UJ	2	UJ
Barium	18.4		17.2		43.8	
Cadmium	0.4	U	0.4	U	0.4	U
Chromium	0.5	UJ	0.5	UJ	0.81	J
Lead	1.1	U	1.1	U	1.1	J
Mercury	0.1	U	0.1	U	0.1	U
Selenium	2.1	U	3	J	4.2	J
Silver	0.5	U	0.5	U	0.5	U

APPENDIX G
SURFACE SOIL - SWMU 046
INORGANIC COMPOUNDS
SWMU CONFIRMATORY SAMPLING (CTO-0143)
IR NUMBER 15, MONTFORD POINT DUMP SITE (1948-1958)
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU46-IS01-00	SWMU46-IS02-00	SWMU46-IS03-00	SWMU46-IS04-00	SWMU46-TW01-00	SWMU46-TW02-00	SWMU46-TW03-00	SWMU46-TW04-00
SAMPLE DATE	09-09-1997	09-09-1997	09-09-1997	09-09-1997	03-23-2002	03-23-2002	03-23-2002	03-23-2002
DEPTH	0' - 2'	0' - 2'	0' - 2'	0' - 2'	0' - 1'	0' - 1'	0' - 1'	0' - 1'
METALS (mg/kg)								
Arsenic	1.3	2	1.1 U	1.1	0.28 U	0.89 J	0.59 J	1.7
Barium	21 U	22 U	21.1 U	22.3 U	14.3	13.2	10.5	38.3
Cadmium	0.53 U	0.55 U	0.53 U	0.56 U	0.034 U	0.051 J	0.13 J	0.51 J
Chromium	9.3	7.1	3.5	4.1	4	4.6	4.2	60.6
Lead	38.6	8	28.9	5.7	4.7	16.5	11.4	1950
Mercury	0.048	0.036 U	0.053	0.037 U	0.5 J	0.061 J	0.04 J	0.075 J
Selenium	0.53 U	0.55 U	0.53 U	0.56 U	0.53 U	0.48 U	0.6	0.53 J
Silver	1.1 U	1.1 U	1.1 U	1.1 U	0.1 U	0.095 U	0.095 U	0.55

APPENDIX G
SURFACE SOIL - SWMU 046
INORGANIC COMPOUNDS
SWMU CONFIRMATORY SAMPLING (CTO-0143)
IR NUMBER 15, MONTFORD POINT DUMP SITE (1948-1958)
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU46-TW05-00		SWMU46-TW06-00	
SAMPLE DATE	03-23-2002		03-23-2002	
DEPTH	0' - 1'		0' - 1'	
METALS (mg/kg)				
Arsenic	0.62	J	1.9	
Barium	8.1		15.6	
Cadmium	0.12	J	0.25	J
Chromium	4.9		8	
Lead	34.9		242	
Mercury	0.04	J	0.047	J
Selenium	0.47	U	0.68	
Silver	0.093	U	0.099	U

APPENDIX G
SUBSURFACE SOIL - SWMU 046
INORGANIC COMPUNDS
SWMU CONFIRMATORY SAMPLING (CTO-0143)
IR NUMBER 15, MONTFORD POINT DUMP SITE (1948-1958)
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU46-IS01-04	SWMU46-IS02-04	SWMU46-IS03-04	SWMU46-IS04-04	SWMU46-TW01-05	SWMU46-TW02-04	SWMU46-TW03-04	SWMU46-TW04-04
SAMPLE DATE	09-09-1997	09-09-1997	09-09-1997	09-09-1997	03-23-2002	03-23-2002	03-23-2002	03-23-2002
DEPTH	8' - 10'	8' - 10'	8' - 10'	8' - 10'	9' - 11'	7' - 9'	7' - 9'	7' - 9'
METALS (mg/kg)								
Arsenic	1.1 U	1.7	6.1	1.2 U	0.25 U	0.28 U	0.28 U	0.27 U
Barium	22.7 U	36.6	25.3	24.2 U	1.1	2.7	3.6	3.6
Cadmium	0.57 U	4.5	0.61 U	0.61 U	0.031 U	0.035 U	0.035 U	0.034 U
Chromium	3.5	7.4	21.5	3	0.72	2	2.6	3.2
Lead	1	12300	7.2	1.8	1.2	1.8	2.8	3.7
Mercury	0.037 U	0.037 U	0.041 U	0.04 U	0.018 J	0.025 J	0.026 J	0.025 J
Selenium	0.57 U	0.56 U	0.61 U	0.61 U	0.47 U	0.54 U	0.54 U	0.55 J
Silver	1.1 U	1.1 U	1.2 U	1.2 U	0.092 U	0.11 U	0.1 U	0.1 U

APPENDIX G
SUBSURFACE SOIL - SWMU 046
INORGANIC COMPUNDS
SWMU CONFIRMATORY SAMPLING (CTO-0143)
IR NUMBER 15, MONTFORD POINT DUMP SITE (1948-1958)
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU46-TW05-05		SWMU46-TW06-04	
SAMPLE DATE	03-23-2002		03-23-2002	
DEPTH	9' - 11'		7' - 9'	
METALS (mg/kg)				
Arsenic	0.25	U	0.32	U
Barium	0.59	U	2.5	
Cadmium	0.031	U	0.4	U
Chromium	0.69		3.1	
Lead	1.1		2.1	
Mercury	0.017	U	0.024	J
Selenium	0.48	U	0.62	U
Silver	0.094	U	0.12	U

APPENDIX G
GROUNDWATER - SWMU 046
INORGANIC COMPOUNDS
SWMU CONFIRMATORY SAMPLING (CTO-0143)
IR NUMBER 15, MONTFORD POINT DUMP SITE (1948-1958)
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU46-GW01	SWMU46-GW02	SWMU46-GW03	SWMU46-GW04	SWMU46-GW05	SWMU46-GW06
SAMPLE DATE	04-06-2002	04-06-2002	04-06-2002	04-06-2002	04-06-2002	04-06-2002
METALS (ug/L)						
Arsenic	2.4 U	2.4 U	4.2 J	2.4 U	2.4 U	5.7 J
Barium	152	92.3	59.4	68.4	87.5	78.4
Cadmium	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.59 U
Chromium	4.7 J	0.83 J	2.1 J	1 J	3 J	31.4
Lead	4 J	4.6 J	1.8 UJ	4.4 J	2.2 J	21.9
Mercury	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Selenium	4.6 U	4.6 U	4.6 U	4.6 U	4.6 U	4.6 U
Silver	0.9 U	0.9 U	0.9 U	0.9 U	0.9 U	0.9 U

APPENDIX G
SURFACE SOIL - SWMU 053
ORGANIC COMPUNDS
SWMU CONFIRMATORY SAMPLING (CTO-0143)
IR NUMBER 26, COAL STORAGE AREA
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU53-IS01-00		SWMU53-IS02-00		SWMU53-IS03-00		SWMU53-IS04-00		SWMU53-IS05-00		SWMU53-IS06-00		SWMU53-IS07-00	
SAMPLE DATE	09-10-1997		09-10-1997		09-10-1997		09-10-1997		09-10-1997		09-11-1997		09-11-1997	
DEPTH	0' - 2'		0' - 2'		0' - 2'		0' - 2'		0' - 2'		0' - 2'		0' - 2'	
SEMIVOLATILES (ug/kg)														
1,1'-Biphenyl	NA		NA		NA		NA		NA		NA		NA	
2,2'-Oxybis(1-Chloropropane)	360	U	350	U	350	U	370	U	350	U	390	U	370	U
2,4,5-Trichlorophenol	360	U	350	U	350	U	370	U	350	U	390	U	370	U
2,4,6-Trichlorophenol	360	U	350	U	350	U	370	U	350	U	390	U	370	U
2,4-Dichlorophenol	360	U	350	U	350	U	370	U	350	U	390	U	370	U
2,4-Dimethylphenol	360	U	350	U	350	U	370	U	350	U	390	U	370	U
2,4-Dinitrophenol	1700	U	1700	U	1700	U	1800	U	1700	U	1900	U	1800	U
2,4-Dinitrotoluene	360	U	350	U	350	U	370	U	350	U	390	U	370	U
2,6-Dinitrotoluene	360	U	350	U	350	U	370	U	350	U	390	U	370	U
2-Chloronaphthalene	360	U	350	U	350	U	370	U	350	U	390	U	370	U
2-Chlorophenol	360	U	350	U	350	U	370	U	350	U	390	U	370	U
2-Methylnaphthalene	170	J	220	J	39	J	93	J	120	J	56	J	370	U
2-Methylphenol	360	U	350	U	350	U	370	U	350	U	390	U	370	U
2-Nitroaniline	1700	U	1700	U	1700	U	1800	U	1700	U	1900	U	1800	U
2-Nitrophenol	360	U	350	U	350	U	370	U	350	U	390	U	370	U
3,3'-Dichlorobenzidine	1700	U	1700	U	1700	U	1800	U	1700	U	1900	U	1800	U
3-Nitroaniline	1700	U	1700	U	1700	U	1800	U	1700	U	1900	U	1800	U
4,6-Dinitro-2-methylphenol	1700	U	1700	U	1700	U	1800	U	1700	U	1900	U	1800	U
4-Bromophenyl phenyl ether	360	U	350	U	350	U	370	U	350	U	390	U	370	U
4-Chloro-3-methylphenol	360	U	350	U	350	U	370	U	350	U	390	U	370	U
4-Chloroaniline	360	U	350	U	350	U	370	U	350	U	390	U	370	U
4-Chlorophenyl phenyl ether	360	U	350	U	350	U	370	U	350	U	390	U	370	U
4-Methylphenol	360	U	350	U	350	U	370	U	350	U	390	U	370	U
4-Nitroaniline	1700	U	1700	U	1700	U	1800	U	1700	U	1900	U	1800	U
4-Nitrophenol	1700	U	1700	U	1700	U	1800	U	1700	U	1900	U	1800	U
Acenaphthene	360	U	350	U	350	U	370	U	350	U	390	U	370	U
Acenaphthylene	360	U	350	U	350	U	370	U	350	U	390	U	370	U
Acetophenone	NA		NA		NA		NA		NA		NA		NA	
Anthracene	360	U	39	J	350	U	370	U	350	U	390	U	370	U
Atrazine	NA		NA		NA		NA		NA		NA		NA	
Benzaldehyde	NA		NA		NA		NA		NA		NA		NA	
Benzo(a)anthracene	43	J	53	J	350	U	100	J	20	J	390	U	370	U
Benzo(a)pyrene	360	U	41	J	350	U	100	J	53	J	48	J	370	U
Benzo(b)fluoranthene	55	J	88	J	350	U	110	J	350	U	390	U	370	U
Benzo(ghi)perylene	360	U	55	J	350	U	62	J	350	U	390	U	370	U
Benzo(k)fluoranthene	360	U	53	J	350	U	100	J	350	U	390	U	370	U
bis(2-Chloroethoxy)methane	360	U	350	U	350	U	370	U	350	U	390	U	370	U
bis(2-Chloroethyl) ether	360	U	350	U	350	U	370	U	350	U	390	U	370	U

APPENDIX G
SURFACE SOIL - SWMU 053
ORGANIC COMPUNDS
SWMU CONFIRMATORY SAMPLING (CTO-0143)
IR NUMBER 26, COAL STORAGE AREA
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU53-IS01-00		SWMU53-IS02-00		SWMU53-IS03-00		SWMU53-IS04-00		SWMU53-IS05-00		SWMU53-IS06-00		SWMU53-IS07-00	
SAMPLE DATE	09-10-1997		09-10-1997		09-10-1997		09-10-1997		09-10-1997		09-11-1997		09-11-1997	
DEPTH	0' - 2'		0' - 2'		0' - 2'		0' - 2'		0' - 2'		0' - 2'		0' - 2'	
SEMIVOLATILES (ug/kg) (cont)														
bis(2-Ethylhexyl) phthalate	140	J	160	J	160	J	120	J	250	J	100	J	150	J
Butyl benzyl phthalate	360	U	350	U	350	U	370	U	350	U	390	U	370	U
Caprolactam	NA		NA		NA		NA		NA		NA		NA	
Carbazole	360	U	350	U	350	U	370	U	350	U	390	U	370	U
Chrysene	73	J	130	J	350	U	130	J	36	J	88	J	370	U
Di-n-butyl phthalate	360	U	350	U	350	U	370	U	350	U	390	U	370	U
Di-n-octyl phthalate	360	U	350	U	350	U	370	U	350	U	390	U	370	U
Dibenz(a,h)anthracene	360	U	350	U	350	U	370	U	350	U	390	U	370	U
Dibenzofuran	360	U	56	J	350	U	370	U	350	U	390	U	370	U
Diethyl phthalate	360	U	350	U	350	U	370	U	350	U	390	U	370	U
Dimethyl phthalate	360	U	350	U	350	U	370	U	350	U	390	U	370	U
Fluoranthene	74	J	60	J	51	J	85	J	350	U	390	U	370	U
Fluorene	360	U	350	U	350	U	370	U	350	U	390	U	370	U
Hexachlorobenzene	360	U	350	U	350	U	370	U	350	U	390	U	370	U
Hexachlorobutadiene	360	U	350	U	350	U	370	U	350	U	390	U	370	U
Hexachlorocyclopentadiene	1700	U	1700	U	1700	U	1800	U	1700	U	1900	U	1800	U
Hexachloroethane	360	U	350	U	350	U	370	U	350	U	390	U	370	U
Indeno(1,2,3-cd)pyrene	360	U	350	U	350	U	53	J	350	U	390	U	370	U
Isophorone	360	U	350	U	350	U	370	U	350	U	390	U	370	U
N-Nitrosodi-n-propylamine	360	U	350	U	350	U	370	U	350	U	390	U	370	U
N-Nitrosodiphenylamine	360	U	350	U	350	U	370	U	350	U	390	U	370	U
Naphthalene	86	J	110	J	350	U	370	U	69	J	390	U	370	U
Nitrobenzene	360	U	350	U	350	U	370	U	350	U	390	U	370	U
Pentachlorophenol	1700	U	1700	U	1700	U	1800	U	1700	U	1900	U	1800	U
Phenanthrene	170	J	210	J	37	J	74	J	78	J	130	J	370	U
Phenol	360	U	350	U	350	U	370	U	350	U	390	U	370	U
Pyrene	49	J	72	J	350	U	94	J	350	U	390	U	370	U

APPENDIX G
SURFACE SOIL - SWMU 053
ORGANIC COMPUNDS
SWMU CONFIRMATORY SAMPLING (CTO-0143)
IR NUMBER 26, COAL STORAGE AREA
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU53-SB01-00		SWMU53-SB02-00		SWMU53-TW01-00		SWMU53-TW02-00	
SAMPLE DATE	03-21-2002		03-21-2002		03-21-2002		03-21-2002	
DEPTH	0' - 1'		0' - 1'		0' - 1'		0' - 1'	
SEMIVOLATILES (ug/kg)								
1,1'-Biphenyl	370	U	160	J	370	U	400	U
2,2'-Oxybis(1-Chloropropane)	370	U	380	U	370	U	400	U
2,4,5-Trichlorophenol	370	U	380	U	370	U	400	U
2,4,6-Trichlorophenol	370	U	380	U	370	U	400	U
2,4-Dichlorophenol	370	U	380	U	370	U	400	U
2,4-Dimethylphenol	370	U	44	J	370	U	400	U
2,4-Dinitrophenol	1900	UJ	2000	UJ	1900	UJ	2000	UJ
2,4-Dinitrotoluene	370	U	380	U	370	U	400	U
2,6-Dinitrotoluene	370	U	380	U	370	U	400	U
2-Chloronaphthalene	370	U	380	U	370	U	400	U
2-Chlorophenol	370	U	380	U	370	U	400	U
2-Methylnaphthalene	370	U	2200		250	J	400	U
2-Methylphenol	370	U	380	U	370	U	400	U
2-Nitroaniline	730	U	760	U	730	U	800	U
2-Nitrophenol	370	U	380	U	370	U	400	U
3,3'-Dichlorobenzidine	730	U	760	U	34	J	800	U
3-Nitroaniline	730	U	760	U	730	U	800	U
4,6-Dinitro-2-methylphenol	730	U	760	U	730	U	800	U
4-Bromophenyl phenyl ether	370	U	380	U	370	U	400	U
4-Chloro-3-methylphenol	370	U	380	U	370	U	400	U
4-Chloroaniline	370	U	380	U	370	U	400	U
4-Chlorophenyl phenyl ether	370	U	380	U	370	U	400	U
4-Methylphenol	370	U	380	U	370	U	400	U
4-Nitroaniline	730	U	760	U	730	U	800	U
4-Nitrophenol	730	U	760	U	730	U	800	U
Acenaphthene	370	U	380	U	370	U	400	U
Acenaphthylene	370	U	380	U	64	J	170	J
Acetophenone	370	U	160	J	370	U	400	U
Anthracene	29	J	380	U	160	J	510	
Atrazine	370	U	380	U	370	U	400	U
Benzaldehyde	370	U	150	J	54	J	61	J
Benzo(a)anthracene	31	J	120	J	520		1200	
Benzo(a)pyrene	32	J	47	J	400		810	
Benzo(b)fluoranthene	62	J	120	J	750		3400	
Benzo(ghi)perylene	370	U	40	J	110	J	320	J
Benzo(k)fluoranthene	78	J	66	J	720		1700	
bis(2-Chloroethoxy)methane	370	U	380	U	370	U	400	U
bis(2-Chloroethyl) ether	370	U	380	U	370	U	400	U

APPENDIX G
SURFACE SOIL - SWMU 053
ORGANIC COMPUNDS
SWMU CONFIRMATORY SAMPLING (CTO-0143)
IR NUMBER 26, COAL STORAGE AREA
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU53-SB01-00		SWMU53-SB02-00		SWMU53-TW01-00		SWMU53-TW02-00	
SAMPLE DATE	03-21-2002		03-21-2002		03-21-2002		03-21-2002	
DEPTH	0' - 1'		0' - 1'		0' - 1'		0' - 1'	
SEMIVOLATILES (ug/kg) (cont)								
bis(2-Ethylhexyl) phthalate	370	U	380	U	370	U	400	U
Butyl benzyl phthalate	370	U	380	U	370	U	400	U
Caprolactam	370	U	380	U	370	U	100	J
Carbazole	38	J	67	J	41	J	210	J
Chrysene	62	J	160	J	580		1600	
Di-n-butyl phthalate	370	U	380	U	370	U	400	U
Di-n-octyl phthalate	370	U	380	U	370	U	400	U
Dibenz(a,h)anthracene	370	U	380	U	95	J	230	J
Dibenzofuran	370	U	540		59	J	400	U
Diethyl phthalate	370	U	380	U	370	U	400	U
Dimethyl phthalate	370	U	380	U	370	U	400	U
Fluoranthene	38	J	180	J	500		1000	
Fluorene	370	U	380	U	370	U	400	U
Hexachlorobenzene	370	U	380	U	370	U	400	U
Hexachlorobutadiene	370	U	380	U	370	U	400	U
Hexachlorocyclopentadiene	370	UJ	380	UJ	370	UJ	400	UJ
Hexachloroethane	370	U	380	U	370	U	400	U
Indeno(1,2,3-cd)pyrene	370	U	35	J	260	J	820	
Isophorone	370	U	380	U	370	U	400	U
N-Nitrosodi-n-propylamine	370	U	380	U	370	U	400	U
N-Nitrosodiphenylamine	370	U	380	U	370	U	400	U
Naphthalene	370	U	950		92	J	400	U
Nitrobenzene	370	U	380	U	370	U	400	U
Pentachlorophenol	730	U	760	U	730	U	800	U
Phenanthrene	370	U	770		160	J	160	J
Phenol	370	U	380	U	370	U	400	U
Pyrene	43	J	190	J	910		1400	

APPENDIX G
SURFACE SOIL - SWMU 053
INORGANIC COMPUNDS
SWMU CONFIRMATORY SAMPLING (CTO-0143)
IR NUMBER 26, COAL STORAGE AREA
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU53-IS01-00	SWMU53-IS02-00	SWMU53-IS03-00	SWMU53-IS04-00	SWMU53-IS05-00	SWMU53-IS06-00	SWMU53-IS07-00	SWMU53-SB01-00
SAMPLE DATE	09-10-1997	09-10-1997	09-10-1997	09-10-1997	09-10-1997	09-11-1997	09-11-1997	03-21-2002
DEPTH	0' - 2'	0' - 2'	0' - 2'	0' - 2'	0' - 2'	0' - 2'	0' - 2'	0' - 1'
METALS (mg/kg)								
Arsenic	6.4	2.8	1.1 U	2.1	1.1	1.2	1.1 U	0.24 U
Barium	22	28	21.3 U	22.2 U	21.2 U	23.6 U	22.1 U	6.9 U
Cadmium	0.54 U	0.53 U	0.53 U	0.55 U	0.53 U	0.59 U	0.55 U	0.03 U
Chromium	5.4	8.8	7.7	7.4	5.8	3.8	7.4	4.5
Lead	5.7	13.5	5.3	8.3	4.7	3	3.2	20
Mercury	0.048	0.038	0.035 U	0.037 U	0.035 U	0.039 U	0.037 U	0.03 J
Selenium	1.5	0.86	0.61	0.55	0.53 U	0.59 U	0.7	0.47 U
Silver	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.2 U	1.1 U	0.09 U

APPENDIX G
SURFACE SOIL - SWMU 053
INORGANIC COMPUNDS
SWMU CONFIRMATORY SAMPLING (CTO-0143)
IR NUMBER 26, COAL STORAGE AREA
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU53-SB02-00		SWMU53-TW01-00		SWMU53-TW02-00	
SAMPLE DATE	03-21-2002		03-21-2002		03-21-2002	
DEPTH	0' - 1'		0' - 1'		0' - 1'	
METALS (mg/kg)						
Arsenic	29.6		3.7		1.2	
Barium	144		35.3		11.9	
Cadmium	0.13	J	0.03	U	0.07	J
Chromium	13.9		3.5		6.7	
Lead	14.4		7		8.6	
Mercury	0.23		0.03	J	0.03	J
Selenium	5.3		1.1		1.2	
Silver	0.09	U	0.09	U	0.1	U

APPENDIX G
SUBSURFACE SOIL - SWMU 053
ORGANIC COMPUNDS
SWMU CONFIRMATORY SAMPLING (CTO-0143)
IR NUMBER 26, COAL STORAGE AREA
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU53-IS01-01		SWMU53-IS02-01		SWMU53-IS03-01		SWMU53-IS04-01		SWMU53-IS05-01		SWMU53-IS06-01		SWMU53-IS07-01	
SAMPLE DATE	09-10-1997		09-10-1997		09-10-1997		09-10-1997		09-10-1997		09-11-1997		09-11-1997	
DEPTH	2' - 4'		2' - 4'		2' - 4'		2' - 4'		2' - 4'		2' - 4'		2' - 4'	
SEMIVOLATILES (ug/kg)														
1,1'-Biphenyl	NA		NA		NA		NA		NA		NA		NA	
2,2'-Oxybis(1-Chloropropane)	370	U	370	U	380	U	370	U	370	U	380	U	390	U
2,4,5-Trichlorophenol	370	U	370	U	380	U	370	U	370	U	380	U	390	U
2,4,6-Trichlorophenol	370	U	370	U	380	U	370	U	370	U	380	U	390	U
2,4-Dichlorophenol	370	U	370	U	380	U	370	U	370	U	380	U	390	U
2,4-Dimethylphenol	370	U	370	U	380	U	370	U	370	U	380	U	390	U
2,4-Dinitrophenol	1800	U	1800	U	1800	U	1800	U	1800	U	1800	U	1900	U
2,4-Dinitrotoluene	370	U	370	U	380	U	370	U	370	U	380	U	390	U
2,6-Dinitrotoluene	370	U	370	U	380	U	370	U	370	U	380	U	390	U
2-Chloronaphthalene	370	U	370	U	380	U	370	U	370	U	380	U	390	U
2-Chlorophenol	370	U	370	U	380	U	370	U	370	U	380	U	390	U
2-Methylnaphthalene	40	J	78	J	380	U	370	U	100	J	380	U	390	U
2-Methylphenol	370	U	370	U	380	U	370	U	370	U	380	U	390	U
2-Nitroaniline	1800	U	1800	U	1800	U	1800	U	1800	U	1800	U	1900	U
2-Nitrophenol	370	U	370	U	380	U	370	U	370	U	380	U	390	U
3,3'-Dichlorobenzidine	1800	U	1800	U	1800	U	1800	U	1800	U	1800	U	1900	U
3-Nitroaniline	1800	U	1800	U	1800	U	1800	U	1800	U	1800	U	1900	U
4,6-Dinitro-2-methylphenol	1800	U	1800	U	1800	U	1800	U	1800	U	1800	U	1900	U
4-Bromophenyl phenyl ether	370	U	370	U	380	U	370	U	370	U	380	U	390	U
4-Chloro-3-methylphenol	370	U	370	U	380	U	370	U	370	U	380	U	390	U
4-Chloroaniline	370	U	370	U	380	U	370	U	370	U	380	U	390	U
4-Chlorophenyl phenyl ether	370	U	370	U	380	U	370	U	370	U	380	U	390	U
4-Methylphenol	370	U	370	U	380	U	370	U	370	U	380	U	390	U
4-Nitroaniline	1800	U	1800	U	1800	U	1800	U	1800	U	1800	U	1900	U
4-Nitrophenol	1800	U	1800	U	1800	U	1800	U	1800	U	1800	U	1900	U
Acenaphthene	370	U	80	J	380	U	370	U	370	U	380	U	390	U
Acenaphthylene	370	U	370	U	380	U	370	U	370	U	380	U	390	U
Acetophenone	NA		NA		NA		NA		NA		NA		NA	
Anthracene	370	U	120	J	380	U	370	U	370	U	380	U	390	U
Atrazine	NA		NA		NA		NA		NA		NA		NA	
Benzaldehyde	NA		NA		NA		NA		NA		NA		NA	
Benzo(a)anthracene	370	U	110	J	380	U	370	U	33	J	380	U	390	U
Benzo(a)pyrene	370	U	38	J	42	J	370	U	41	J	380	U	390	U
Benzo(b)fluoranthene	370	U	73	J	380	U	370	U	42	J	380	U	390	U
Benzo(ghi)perylene	370	U	370	U	380	U	370	U	370	U	380	U	390	U
Benzo(k)fluoranthene	370	U	370	U	380	U	370	U	370	U	380	U	390	U
bis(2-Chloroethoxy)methane	370	U	370	U	380	U	370	U	370	U	380	U	390	U
bis(2-Chloroethyl) ether	370	U	370	U	380	U	370	U	370	U	380	U	390	U

APPENDIX G
SUBSURFACE SOIL - SWMU 053
ORGANIC COMPUNDS
SWMU CONFIRMATORY SAMPLING (CTO-0143)
IR NUMBER 26, COAL STORAGE AREA
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU53-IS01-01		SWMU53-IS02-01		SWMU53-IS03-01		SWMU53-IS04-01		SWMU53-IS05-01		SWMU53-IS06-01		SWMU53-IS07-01	
SAMPLE DATE	09-10-1997		09-10-1997		09-10-1997		09-10-1997		09-10-1997		09-11-1997		09-11-1997	
DEPTH	2' - 4'		2' - 4'		2' - 4'		2' - 4'		2' - 4'		2' - 4'		2' - 4'	
SEMIVOLATILES (ug/kg) (cont)														
bis(2-Ethylhexyl) phthalate	140	J	220	J	250	J	110	J	240	J	120	J	140	J
Butyl benzyl phthalate	370	U	370	U	380	U	370	U	370	U	380	U	390	U
Caprolactam	NA		NA		NA		NA		NA		NA		NA	
Carbazole	370	U	370	U	380	U	370	U	370	U	380	U	390	U
Chrysene	370	U	98	J	380	U	370	U	52	J	380	U	390	U
Di-n-butyl phthalate	370	U	370	U	380	U	370	U	370	U	380	U	390	U
Di-n-octyl phthalate	370	U	370	U	380	U	370	U	370	U	380	U	390	U
Dibenz(a,h)anthracene	370	U	370	U	380	U	370	U	370	U	380	U	390	U
Dibenzofuran	370	U	84	J	380	U	370	U	370	U	380	U	390	U
Diethyl phthalate	370	U	370	U	380	U	370	U	370	U	380	U	390	U
Dimethyl phthalate	370	U	370	U	380	U	370	U	370	U	380	U	390	U
Fluoranthene	45	J	310	J	47	J	370	U	60	J	380	U	390	U
Fluorene	370	U	110	J	380	U	370	U	370	U	380	U	390	U
Hexachlorobenzene	370	U	370	U	380	U	370	U	370	U	380	U	390	U
Hexachlorobutadiene	370	U	370	U	380	U	370	U	370	U	380	U	390	U
Hexachlorocyclopentadiene	1800	U	1800	U	1800	U	1800	U	1800	U	1800	U	1900	U
Hexachloroethane	370	U	370	U	380	U	370	U	370	U	380	U	390	U
Indeno(1,2,3-cd)pyrene	370	U	370	U	380	U	370	U	370	U	380	U	390	U
Isophorone	370	U	370	U	380	U	370	U	370	U	380	U	390	U
N-Nitrosodi-n-propylamine	370	U	370	U	380	U	370	U	370	U	380	U	390	U
N-Nitrosodiphenylamine	370	U	370	U	380	U	370	U	370	U	380	U	390	U
Naphthalene	370	U	64	J	380	U	370	U	51	J	380	U	390	U
Nitrobenzene	370	U	370	U	380	U	370	U	370	U	380	U	390	U
Pentachlorophenol	1800	U	1800	U	1800	U	1800	U	1800	U	1800	U	1900	U
Phenanthrene	370	U	540		52	J	370	U	87	J	380	U	390	U
Phenol	370	U	370	U	380	U	370	U	370	U	380	U	390	U
Pyrene	370	U	310	J	42	J	370	U	85	J	380	U	390	U

APPENDIX G
SUBSURFACE SOIL - SWMU 053
ORGANIC COMPUNDS
SWMU CONFIRMATORY SAMPLING (CTO-0143)
IR NUMBER 26, COAL STORAGE AREA
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU53-SB01-03		SWMU53-SB02-04		SWMU53-TW01-03		SWMU53-TW02-03	
SAMPLE DATE	03-21-2002		03-21-2002		03-21-2002		03-21-2002	
DEPTH	5' - 7'		7' - 9'		5' - 7'		5' - 7'	
SEMIVOLATILES (ug/kg)								
1,1'-Biphenyl	430	U	400	U	380	U	450	U
2,2'-Oxybis(1-Chloropropane)	430	U	400	U	380	U	450	U
2,4,5-Trichlorophenol	430	U	400	U	380	U	450	U
2,4,6-Trichlorophenol	430	U	400	U	380	U	450	U
2,4-Dichlorophenol	430	U	400	U	380	U	450	U
2,4-Dimethylphenol	430	U	400	U	380	U	450	U
2,4-Dinitrophenol	2200	U	2100	UJ	2000	UJ	2300	UJ
2,4-Dinitrotoluene	430	U	400	U	380	U	450	U
2,6-Dinitrotoluene	430	U	400	U	380	U	450	U
2-Chloronaphthalene	430	U	400	U	380	U	450	U
2-Chlorophenol	430	U	400	U	380	U	450	U
2-Methylnaphthalene	430	UJ	400	U	240	J	450	U
2-Methylphenol	430	U	400	U	380	U	450	U
2-Nitroaniline	870	U	800	U	760	U	890	U
2-Nitrophenol	430	U	400	U	380	U	450	U
3,3'-Dichlorobenzidine	870	U	800	U	760	U	890	U
3-Nitroaniline	870	U	800	U	760	U	890	U
4,6-Dinitro-2-methylphenol	870	U	800	U	760	U	890	U
4-Bromophenyl phenyl ether	430	U	400	U	380	U	450	U
4-Chloro-3-methylphenol	430	U	400	U	380	U	450	U
4-Chloroaniline	430	U	400	U	380	U	450	U
4-Chlorophenyl phenyl ether	430	U	400	U	380	U	450	U
4-Methylphenol	430	U	400	U	380	U	450	U
4-Nitroaniline	870	U	800	U	760	U	890	U
4-Nitrophenol	870	U	800	U	760	U	890	U
Acenaphthene	430	U	400	U	380	U	450	U
Acenaphthylene	430	U	400	U	380	U	450	U
Acetophenone	430	U	400	U	380	U	450	U
Anthracene	430	U	400	U	43	J	450	U
Atrazine	430	U	400	U	380	U	450	U
Benzaldehyde	410	J	400	U	31	J	450	U
Benzo(a)anthracene	430	U	400	U	150	J	34	J
Benzo(a)pyrene	430	U	400	U	120	J	450	U
Benzo(b)fluoranthene	430	U	400	U	230	J	63	J
Benzo(ghi)perylene	430	U	400	U	47	J	450	U
Benzo(k)fluoranthene	430	U	400	U	210	J	56	J
bis(2-Chloroethoxy)methane	430	U	400	U	380	U	450	U
bis(2-Chloroethyl) ether	430	U	400	U	380	U	450	U

APPENDIX G
SUBSURFACE SOIL - SWMU 053
ORGANIC COMPUNDS
SWMU CONFIRMATORY SAMPLING (CTO-0143)
IR NUMBER 26, COAL STORAGE AREA
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU53-SB01-03		SWMU53-SB02-04		SWMU53-TW01-03		SWMU53-TW02-03	
SAMPLE DATE	03-21-2002		03-21-2002		03-21-2002		03-21-2002	
DEPTH	5' - 7'		7' - 9'		5' - 7'		5' - 7'	
SEMIVOLATILES (ug/kg) (cont)								
bis(2-Ethylhexyl) phthalate	130	J	400	U	380	U	450	U
Butyl benzyl phthalate	430	U	400	U	380	U	450	U
Caprolactam	430	U	400	U	380	U	450	U
Carbazole	430	U	400	U	380	U	450	U
Chrysene	430	U	400	U	180	J	45	J
Di-n-butyl phthalate	430	U	400	U	380	U	450	U
Di-n-octyl phthalate	430	U	400	U	380	U	450	U
Dibenz(a,h)anthracene	430	U	400	U	380	U	450	U
Dibenzofuran	430	U	400	U	57	J	450	U
Diethyl phthalate	430	U	400	U	380	U	450	U
Dimethyl phthalate	430	U	400	U	380	U	450	U
Fluoranthene	430	U	400	U	120	J	25	J
Fluorene	430	U	400	U	380	U	450	U
Hexachlorobenzene	430	U	400	U	380	U	450	U
Hexachlorobutadiene	430	U	400	U	380	U	450	U
Hexachlorocyclopentadiene	430	UJ	400	UJ	380	UJ	450	UJ
Hexachloroethane	430	U	400	U	380	U	450	U
Indeno(1,2,3-cd)pyrene	430	U	400	U	100	J	450	U
Isophorone	430	U	400	U	380	U	450	U
N-Nitrosodi-n-propylamine	430	U	400	U	380	U	450	U
N-Nitrosodiphenylamine	430	U	400	U	380	U	450	U
Naphthalene	430	U	400	U	79	J	450	U
Nitrobenzene	430	U	400	U	380	U	450	U
Pentachlorophenol	870	U	800	U	760	U	890	U
Phenanthrene	430	U	400	U	140	J	450	U
Phenol	430	U	400	U	380	U	450	U
Pyrene	430	U	400	U	280	J	73	J

APPENDIX G
SUBSURFACE SOIL - SWMU 053
INORGANIC COMPOUNDS
SWMU CONFIRMATORY SAMPLING (CTO-0143)
IR NUMBER 26, COAL STORAGE AREA
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU53-IS01-01		SWMU53-IS02-01		SWMU53-IS03-01		SWMU53-IS04-01		SWMU53-IS05-01		SWMU53-IS06-01		SWMU53-IS07-01	
SAMPLE DATE	09-10-1997		09-10-1997		09-10-1997		09-10-1997		09-10-1997		09-11-1997		09-11-1997	
DEPTH	2' - 4'		2' - 4'		2' - 4'		2' - 4'		2' - 4'		2' - 4'		2' - 4'	
METALS (mg/kg)														
Arsenic	1.1	U	1.1	U	1.2	U	1.1	U	1.7		1.2	U	1.2	U
Barium	22.5	U	22.1	U	23	U	22.1	U	22.6	U	23.1	U	23.4	U
Cadmium	0.56	U	0.55	U	0.58	U	0.55	U	0.56	U	0.58	U	0.58	U
Chromium	6.9		8.5		5.5		5.1		7.1		6.6		4.4	
Lead	3.6		4.7		5.3		3		5.1		4.6		2.9	
Mercury	0.037	U	0.037	U	0.038	U	0.037	U	0.037	U	0.038	U	0.039	U
Selenium	0.56	U	0.55	U	0.58	U	0.55	U	0.78		0.58	U	0.58	U
Silver	1.1	U	1.1	U	1.2	U	1.1	U	1.1	U	1.2	U	1.2	U

APPENDIX G
SUBSURFACE SOIL - SWMU 053
INORGANIC COMPOUNDS
SWMU CONFIRMATORY SAMPLING (CTO-0143)
IR NUMBER 26, COAL STORAGE AREA
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU53-SB01-03		SWMU53-SB02-04		SWMU53-TW01-03		SWMU53-TW02-03	
SAMPLE DATE	03-21-2002		03-21-2002		03-21-2002		03-21-2002	
DEPTH	5' - 7'		7' - 9'		5' - 7'		5' - 7'	
METALS (mg/kg)								
Arsenic	0.32	U	0.27	U	0.25	U	0.3	U
Barium	6.6	U	6	U	4.2	U	8.8	U
Cadmium	0.039	U	0.03	U	0.03	U	0.04	U
Chromium	5.8		6.1		3.8		5.8	
Lead	3.5	J	3.5		2.4		25.2	
Mercury	0.022	U	0.02	U	0.02	U	0.02	U
Selenium	0.6	U	0.51	U	0.49	U	0.57	U
Silver	0.12	U	0.1	U	0.09	U	0.11	U

APPENDIX G
GROUNDWATER - SWMU 053
ORGANIC COMPOUNDS
SWMU CONFIRMATORY SAMPLING (CTO-0143)
IR NUMBER 26, COAL STORAGE AREA
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU53-GW01		SWMU53-GW02	
SAMPLE DATE	04-04-2002		04-04-2002	
SEMIVOLATILES (ug/L)				
1,1'-Biphenyl	10	U	10	U
2,2'-oxybis(1-Chloropropane)	10	U	10	U
2,4,5-Trichlorophenol	10	U	10	U
2,4,6-Trichlorophenol	10	U	10	U
2,4-Dichlorophenol	10	U	10	U
2,4-Dimethylphenol	10	U	10	U
2,4-Dinitrophenol	50	UJ	50	UJ
2,4-Dinitrotoluene	10	U	10	U
2,6-Dinitrotoluene	10	U	10	U
2-Chloronaphthalene	10	U	10	U
2-Chlorophenol	10	U	10	U
2-Methylnaphthalene	10	U	10	U
2-Methylphenol	10	U	10	U
2-Nitroaniline	20	U	20	U
2-Nitrophenol	10	U	10	U
3,3'-Dichlorobenzidine	20	U	20	U
3-Nitroaniline	20	U	20	U
4,6-dinitro-2-Methylphenol	20	U	20	U
4-Bromophenyl phenyl ether	10	U	10	U
4-Chloro-3-methylphenol	10	U	10	U
4-Chloroaniline	10	U	10	U
4-Chlorophenyl phenyl ether	10	U	10	U
4-Methylphenol	10	U	10	U
4-Nitroaniline	20	U	20	U
4-Nitrophenol	20	U	20	U
Acenaphthene	10	U	10	U
Acenaphthylene	10	U	10	U
Acetophenone	10	U	10	U
Anthracene	10	U	10	U
Atrazine	10	U	10	U
Benzaldehyde	10	U	10	U
Benzo(a)anthracene	10	U	10	U
Benzo(a)pyrene	10	U	10	U
Benzo(b)fluoranthene	10	U	10	U
Benzo(g,h,i)perylene	10	U	10	U
Benzo(k)fluoranthene	10	U	10	U
bis(2-Chloroethoxy)methane	10	U	10	U
bis(2-Chloroethyl)ether	10	U	10	U

APPENDIX G
GROUNDWATER - SWMU 053
ORGANIC COMPOUNDS
SWMU CONFIRMATORY SAMPLING (CTO-0143)
IR NUMBER 26, COAL STORAGE AREA
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU53-GW01		SWMU53-GW02	
SAMPLE DATE	04-04-2002		04-04-2002	
SEMIVOLATILES (ug/L) (cont)				
bis(2-Ethylhexyl)phthalate	10	U	10	U
Butyl benzyl phthalate	10	U	10	U
Caprolactam	10	U	10	U
Carbazole	10	U	10	U
Chrysene	10	U	10	U
di-N-Butyl phthalate	10	U	10	U
di-N-Octyl phthalate	10	U	10	U
Dibenzo(a,h)anthracene	10	U	10	U
Dibenzofuran	10	U	10	U
Diethyl phthalate	10	U	10	U
Dimethyl phthalate	10	U	10	U
Fluoranthene	10	U	10	U
Fluorene	10	U	10	U
Hexachlorobenzene	10	U	10	U
Hexachlorobutadiene	10	U	10	U
Hexachlorocyclopentadiene	10	U	10	U
Hexachloroethane	10	U	10	U
Indeno(1,2,3-cd)pyrene	10	U	10	U
Isophorone	10	U	10	U
N-Nitroso-di-N-propylamine	10	U	10	U
N-Nitrosodiphenylamine(1)	10	U	10	U
Naphthalene	10	U	10	U
Nitrobenzene	10	U	10	U
Pentachlorophenol	20	U	20	U
Phenanthrene	10	U	10	U
Phenol	10	U	10	U
Pyrene	10	U	10	U

APPENDIX G
GROUNDWATER - SWMU 053
INORGANIC COMPOUNDS
SWMU CONFIRMATORY SAMPLING (CTO-0143)
IR NUMBER 26, COAL STORAGE AREA
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU53-GW01		SWMU53-GW02	
SAMPLE DATE	04-04-2002		04-04-2002	
METALS (ug/L)				
Arsenic	2.4	U	2.4	U
Barium	31.9	J	44	J
Cadmium	0.3	U	0.3	U
Chromium	4.8	J	4.6	J
Lead	2.6	J	11.2	J
Mercury	0.1	U	0.1	U
Selenium	4.6	U	4.6	U
Silver	0.9	U	0.9	U

APPENDIX G
SURFACE SOIL - SWMU 253
ORGANIC COMPOUNDS
SWMU CONFIRMATORY SAMPLING (CTO-0143)
1205 - AST, H and S COMPANY HQSVC CO 2D MEF
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU253-IS01-00		SWMU253-TW01-00		SWMU253-TW02-00		SWMU253-TW03-00	
SAMPLE DATE	09-15-1997		03-22-2002		03-22-2002		03-22-2002	
DEPTH	0' - 2'		0' - 1'		0' - 1'		0' - 1'	
SEMIVOLATILES (ug/kg)								
1,1'-Biphenyl	NA		360	U	370	U	340	U
2,2'-Oxybis(1-Chloropropane)	350	U	360	U	370	U	340	U
2,4,5-Trichlorophenol	350	U	360	U	370	U	340	U
2,4,6-Trichlorophenol	350	U	360	U	370	U	340	U
2,4-Dichlorophenol	350	U	360	U	370	U	340	U
2,4-Dimethylphenol	350	U	360	U	370	U	340	U
2,4-Dinitrophenol	1700	U	1900	U	1900	U	1800	U
2,4-Dinitrotoluene	350	U	360	U	370	U	340	U
2,6-Dinitrotoluene	350	U	360	U	370	U	340	U
2-Chloronaphthalene	350	U	360	U	370	U	340	U
2-Chlorophenol	350	U	360	U	370	U	340	U
2-Methylnaphthalene	350	U	360	U	370	U	340	U
2-Methylphenol	350	U	360	U	370	U	340	U
2-Nitroaniline	1700	U	730	U	730	U	690	U
2-Nitrophenol	350	U	360	U	370	U	340	U
3,3'-Dichlorobenzidine	1700	U	730	U	730	U	690	U
3-Nitroaniline	1700	U	730	U	730	U	690	U
4,6-Dinitro-2-methylphenol	1700	U	730	U	730	U	690	U
4-Bromophenyl phenyl ether	350	U	360	U	370	U	340	U
4-Chloro-3-methylphenol	350	U	360	U	370	U	340	U
4-Chloroaniline	350	U	360	U	370	U	340	U
4-Chlorophenyl phenyl ether	350	U	360	U	370	U	340	U
4-Methylphenol	350	U	360	U	370	U	340	U
4-Nitroaniline	1700	U	730	U	730	U	690	U
4-Nitrophenol	1700	U	730	U	730	U	690	U
Acenaphthene	350	U	360	U	370	U	340	U
Acenaphthylene	350	U	360	U	370	U	340	U
Acetophenone	NA		360	U	370	U	340	U
Anthracene	23	J	360	U	370	U	340	U
Atrazine	NA		360	U	370	U	340	U
Benzaldehyde	NA		360	U	370	U	340	U
Benzo(a)anthracene	88	J	360	U	370	U	340	U
Benzo(a)pyrene	84	J	360	U	370	U	340	U
Benzo(b)fluoranthene	110	J	360	U	370	U	340	U
Benzo(ghi)perylene	67	J	360	U	370	U	340	U
Benzo(k)fluoranthene	110	J	360	U	370	U	340	U
bis(2-Chloroethoxy)methane	350	U	360	U	370	U	340	U
bis(2-Chloroethyl) ether	350	U	360	U	370	U	340	U

APPENDIX G
SURFACE SOIL - SWMU 253
ORGANIC COMPOUNDS
SWMU CONFIRMATORY SAMPLING (CTO-0143)
1205 - AST, H and S COMPANY HQSVC CO 2D MEF
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU253-IS01-00		SWMU253-TW01-00		SWMU253-TW02-00		SWMU253-TW03-00	
SAMPLE DATE	09-15-1997		03-22-2002		03-22-2002		03-22-2002	
DEPTH	0' - 2'		0' - 1'		0' - 1'		0' - 1'	
SEMIVOLATILES (ug/kg) (cont)								
bis(2-Ethylhexyl) phthalate	88	J	360	U	370	U	340	U
Butyl benzyl phthalate	350	U	360	U	370	U	340	U
Caprolactam	NA		360	U	370	U	340	U
Carbazole	350	U	360	U	370	U	340	U
Chrysene	130	J	360	U	370	U	340	U
Di-n-butyl phthalate	350	U	360	U	370	U	340	U
Di-n-octyl phthalate	350	U	89	J	370	U	340	U
Dibenz(a,h)anthracene	350	U	360	U	370	U	340	U
Dibenzofuran	350	U	360	U	370	U	340	U
Diethyl phthalate	350	U	360	U	370	U	340	U
Dimethyl phthalate	350	U	360	U	370	U	340	U
Fluoranthene	320	J	360	U	370	U	340	U
Fluorene	350	U	360	U	370	U	340	U
Hexachlorobenzene	350	U	360	U	370	U	340	U
Hexachlorobutadiene	350	U	360	U	370	U	340	U
Hexachlorocyclopentadiene	1700	U	360	U	370	U	340	U
Hexachloroethane	350	U	360	U	370	U	340	U
Indeno(1,2,3-cd)pyrene	68	J	360	U	370	U	340	U
Isophorone	350	U	360	U	370	U	340	U
N-Nitrosodi-n-propylamine	350	U	360	U	370	U	340	U
N-Nitrosodiphenylamine	350	U	360	U	370	U	340	U
Naphthalene	350	U	360	U	370	U	340	U
Nitrobenzene	350	U	360	U	370	U	340	U
Pentachlorophenol	1700	U	730	U	730	U	690	U
Phenanthrene	190	J	360	U	370	U	340	U
Phenol	350	U	360	U	370	U	340	U
Pyrene	220	J	360	U	370	U	340	U

APPENDIX G
SURFACE SOIL - SWMU 253
INORGANIC COMPOUNDS
SWMU CONFIRMATORY SAMPLING (CTO-0143)
1205 - AST, H and S COMPANY HQSVC CO 2D MEF
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU253-IS01-00		SWMU253-TW01-00		SWMU253-TW02-00		SWMU253-TW03-00	
SAMPLE DATE	09-15-1997		03-22-2002		03-22-2002		03-22-2002	
DEPTH	0' - 2'		0' - 1'		0' - 1'		0' - 1'	
METALS (mg/kg)								
Arsenic	1.1	U	0.26	U	0.26	U	0.24	U
Barium	21.4	U	6.6	U	5.1	U	8	
Cadmium	0.53	U	0.03	U	0.03	U	0.03	U
Chromium	5.4		2.3		1.6		0.91	
Lead	1.8		2.8	J	1.3	J	2.1	J
Mercury	0.035	U	0.02	U	0.02	U	0.02	U
Selenium	0.53	U	0.5	U	0.5	U	0.46	U
Silver	1.1	U	0.1	U	0.1	U	0.09	U

APPENDIX G
SUBSURFACE SOIL - SWMU 253
ORGANIC COMPOUNDS
SWMU CONFIRMATORY SAMPLING (CTO-0143)
1205 - AST, H and S COMPANY HQSVC CO 2D MEF
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU253-IS01-04		SWMU253-TW01-06		SWMU253-TW02-05		SWMU253-TW03-06	
SAMPLE DATE	09-15-1997		03-22-2002		03-22-2002		03-22-2002	
DEPTH	8' - 10'		11' - 13'		9' - 11'		11' - 13'	
SEMIVOLATILES (ug/kg)								
1,1'-Biphenyl	NA		390	U	390	U	390	U
2,2'-Oxybis(1-Chloropropane)	370	U	390	UJ	390	U	390	U
2,4,5-Trichlorophenol	370	U	390	U	390	U	390	U
2,4,6-Trichlorophenol	370	U	390	U	390	U	390	U
2,4-Dichlorophenol	370	U	390	U	390	U	390	U
2,4-Dimethylphenol	370	U	390	U	390	U	390	U
2,4-Dinitrophenol	1800	U	2000	U	2000	U	2000	U
2,4-Dinitrotoluene	370	U	390	U	390	U	390	U
2,6-Dinitrotoluene	370	U	390	U	390	U	390	U
2-Chloronaphthalene	370	U	390	U	390	U	390	U
2-Chlorophenol	370	U	390	U	390	U	390	U
2-Methylnaphthalene	370	U	390	U	390	U	390	U
2-Methylphenol	370	U	390	U	390	U	390	U
2-Nitroaniline	1800	U	780	U	790	U	790	U
2-Nitrophenol	370	U	390	U	390	U	390	U
3,3'-Dichlorobenzidine	1800	U	780	U	790	U	790	U
3-Nitroaniline	1800	U	780	U	790	U	790	U
4,6-Dinitro-2-methylphenol	1800	U	780	U	790	U	790	U
4-Bromophenyl phenyl ether	370	U	390	U	390	U	390	U
4-Chloro-3-methylphenol	370	U	390	U	390	U	390	U
4-Chloroaniline	370	U	390	U	390	U	390	U
4-Chlorophenyl phenyl ether	370	U	390	U	390	U	390	U
4-Methylphenol	370	U	390	U	390	U	390	U
4-Nitroaniline	1800	U	780	U	790	U	790	U
4-Nitrophenol	1800	U	780	UJ	790	U	790	U
Acenaphthene	370	U	390	U	390	U	390	U
Acenaphthylene	370	U	390	U	390	U	390	U
Acetophenone	NA		390	U	390	U	390	U
Anthracene	74	J	390	U	390	U	390	U
Atrazine	NA		390	U	390	U	390	U
Benzaldehyde	NA		390	U	390	U	390	U
Benzo(a)anthracene	150	J	390	U	390	U	390	U
Benzo(a)pyrene	79	J	390	U	390	U	390	U
Benzo(b)fluoranthene	140	J	390	U	390	U	390	U
Benzo(ghi)perylene	58	J	390	U	390	U	390	U
Benzo(k)fluoranthene	93	J	390	U	390	U	390	U
bis(2-Chloroethoxy)methane	370	U	390	U	390	U	390	U
bis(2-Chloroethyl) ether	370	U	390	U	390	U	390	U
bis(2-Ethylhexyl) phthalate	140	J	390	U	390	U	390	U
Butyl benzyl phthalate	370	U	390	U	390	U	390	U
Caprolactam	NA		390	U	390	U	390	U

APPENDIX G
SUBSURFACE SOIL - SWMU 253
ORGANIC COMPOUNDS
SWMU CONFIRMATORY SAMPLING (CTO-0143)
1205 - AST, H and S COMPANY HQSVC CO 2D MEF
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU253-IS01-04		SWMU253-TW01-06		SWMU253-TW02-05		SWMU253-TW03-06	
SAMPLE DATE	09-15-1997		03-22-2002		03-22-2002		03-22-2002	
DEPTH	8' - 10'		11' - 13'		9' - 11'		11' - 13'	
Carbazole	110	J	390	U	390	U	390	U
SEMIVOLATILES (ug/kg) (cont)								
Chrysene	180	J	390	U	390	U	390	U
Di-n-butyl phthalate	370	U	390	U	390	U	390	U
Di-n-octyl phthalate	370	U	44	J	59	J	390	U
Dibenz(a,h)anthracene	370	U	390	U	390	U	390	U
Dibenzofuran	370	U	390	U	390	U	390	U
Diethyl phthalate	370	U	390	U	390	U	390	U
Dimethyl phthalate	370	U	390	U	390	U	390	U
Fluoranthene	670		390	U	390	U	390	U
Fluorene	370	U	390	U	390	U	390	U
Hexachlorobenzene	370	U	390	U	390	U	390	U
Hexachlorobutadiene	370	U	390	U	390	U	390	U
Hexachlorocyclopentadiene	1800	U	390	U	390	U	390	U
Hexachloroethane	370	U	390	U	390	U	390	U
Indeno(1,2,3-cd)pyrene	59	J	390	U	390	U	390	U
Isophorone	370	U	390	U	390	U	390	U
N-Nitrosodi-n-propylamine	370	U	390	U	390	U	390	U
N-Nitrosodiphenylamine	370	U	390	U	390	U	390	U
Naphthalene	370	U	390	U	390	U	390	U
Nitrobenzene	370	U	390	U	390	U	390	U
Pentachlorophenol	1800	U	780	U	790	U	790	U
Phenanthrene	400		390	U	390	U	390	U
Phenol	370	U	390	U	390	U	390	U
Pyrene	450		390	U	390	U	390	U

APPENDIX G
SUBSURFACE SOIL - SWMU 253
INORGANIC COMPOUNDS
SWMU CONFIRMATORY SAMPLING (CTO-0143)
1205 - AST, H and S COMPANY HQSVC CO 2D MEF
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU253-IS01-04		SWMU253-TW01-06		SWMU253-TW02-05		SWMU253-TW03-06	
SAMPLE DATE	09-15-1997		03-22-2002		03-22-2002		03-22-2002	
DEPTH	8' - 10'		11' - 13'		9' - 11'		11' - 13'	
METALS (mg/kg)								
Arsenic	3.2		0.27	U	0.26	U	0.27	U
Barium	22.3	U	2	U	13.9		10.5	
Cadmium	0.56	U	0.03	U	0.03	U	0.03	U
Chromium	5.3		1.9		4.1		3.6	
Lead	2.6		1.7	J	4.6	J	3.6	J
Mercury	0.037	U	0.02	U	0.02	U	0.02	U
Selenium	0.56	U	0.51	U	0.5	U	0.52	U
Silver	1.1	U	0.1	U	0.1	U	0.1	U

APPENDIX G
GROUNDWATER - SWMU 253
ORGANIC COMPOUNDS
SWMU CONFIRMATORY SAMPLING (CTO-0143)
1205 - AST, H and S COMPANY HQSVC CO 2D MEF
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU253-GW01		SWMU253-GW02		SWMU253-GW03	
SAMPLE DATE	04-05-2002		04-05-2002		04-05-2002	
SEMIVOLATILES (ug/L)						
1,1'-Biphenyl	10	U	10	U	10	U
2,2'-oxybis(1-Chloropropane)	10	UJ	10	UJ	10	U
2,4,5-Trichlorophenol	10	U	10	U	10	U
2,4,6-Trichlorophenol	10	U	10	U	10	U
2,4-Dichlorophenol	10	U	10	U	10	U
2,4-Dimethylphenol	10	U	10	U	10	U
2,4-Dinitrophenol	50	U	50	U	50	U
2,4-Dinitrotoluene	10	U	10	U	10	U
2,6-Dinitrotoluene	10	U	10	U	10	U
2-Chloronaphthalene	10	U	10	U	10	U
2-Chlorophenol	10	U	10	U	10	U
2-Methylnaphthalene	10	U	10	U	10	U
2-Methylphenol	10	U	10	U	10	U
2-Nitroaniline	20	UJ	20	UJ	20	U
2-Nitrophenol	10	U	10	U	10	U
3,3'-Dichlorobenzidine	20	UJ	20	UJ	20	U
3-Nitroaniline	20	U	20	U	20	U
4,6-dinitro-2-Methylphenol	20	U	20	U	20	U
4-Bromophenyl phenyl ether	10	U	10	U	10	U
4-Chloro-3-methylphenol	10	U	10	U	10	U
4-Chloroaniline	10	U	10	U	10	U
4-Chlorophenyl phenyl ether	10	UJ	10	UJ	10	U
4-Methylphenol	10	U	10	U	10	U
4-Nitroaniline	20	U	20	U	20	U
4-Nitrophenol	20	UJ	20	UJ	20	U
Acenaphthene	10	U	10	U	10	U
Acenaphthylene	10	U	10	U	10	U
Acetophenone	10	U	10	U	10	U
Anthracene	10	U	10	U	10	U
Atrazine	10	U	10	U	10	U
Benzaldehyde	10	U	10	U	10	U
Benzo(a)anthracene	10	U	10	U	10	U
Benzo(a)pyrene	10	U	10	U	10	U
Benzo(b)fluoranthene	10	U	10	U	10	U
Benzo(g,h,i)perylene	10	U	10	U	10	U
Benzo(k)fluoranthene	10	U	10	U	10	U
bis(2-Chloroethoxy)methane	10	U	10	U	10	UJ
bis(2-Chloroethyl)ether	10	U	10	U	10	U

APPENDIX G
GROUNDWATER - SWMU 253
ORGANIC COMPOUNDS
SWMU CONFIRMATORY SAMPLING (CTO-0143)
1205 - AST, H and S COMPANY HQSVC CO 2D MEF
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU253-GW01		SWMU253-GW02		SWMU253-GW03	
SAMPLE DATE	04-05-2002		04-05-2002		04-05-2002	
SEMIVOLATILES (ug/L) (cont)						
bis(2-Ethylhexyl)phthalate	10	U	10	U	1	J
Butyl benzyl phthalate	10	UJ	10	UJ	10	U
Caprolactam	10	U	10	U	10	U
Carbazole	10	U	10	U	10	U
Chrysene	10	U	10	U	10	U
di-N-Butyl phthalate	10	U	10	U	10	U
di-N-Octyl phthalate	10	U	10	U	10	U
Dibenzo(a,h)anthracene	10	U	10	U	10	U
Dibenzofuran	10	U	10	U	10	U
Diethyl phthalate	10	U	10	U	10	U
Dimethyl phthalate	10	U	10	U	10	U
Fluoranthene	10	U	10	U	10	U
Fluorene	10	UJ	10	UJ	10	U
Hexachlorobenzene	10	U	10	U	10	U
Hexachlorobutadiene	10	U	10	U	10	U
Hexachlorocyclopentadiene	10	UJ	10	UJ	10	U
Hexachloroethane	10	U	10	U	10	U
Indeno(1,2,3-cd)pyrene	10	U	10	U	10	U
Isophorone	10	U	10	U	10	U
N-Nitroso-di-N-propylamine	10	U	10	U	10	U
N-Nitrosodiphenylamine(1)	10	U	10	U	10	U
Naphthalene	10	U	10	U	10	UJ
Nitrobenzene	10	U	10	U	10	U
Pentachlorophenol	20	U	20	U	20	U
Phenanthrene	10	U	10	U	10	U
Phenol	10	U	10	U	10	U
Pyrene	10	U	10	U	10	U

APPENDIX G
GROUNDWATER - SWMU 253
INORGANIC COMPOUNDS
SWMU CONFIRMATORY SAMPLING (CTO-0143)
1205 - AST, H and S COMPANY HQSVC CO 2D MEF
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU253-GW01		SWMU253-GW02		SWMU253-GW03	
SAMPLE DATE	04-05-2002		04-05-2002		04-05-2002	
METALS (ug/L)						
Arsenic	2.4	U	2.4	U	2.4	UJ
Barium	19.7	J	21.6	J	37.2	
Cadmium	0.3	U	0.3	U	0.3	U
Chromium	3.9	J	1.2	J	13	
Lead	3.2	J	1.8	U	7.5	
Mercury	0.1	U	0.1	U	0.1	U
Selenium	4.6	U	4.6	U	5.5	J
Silver	0.9	U	0.9	U	0.9	U

APPENDIX G
SURFACE SOIL - SWMU 254
ORGANIC COMPOUNDS
SWMU CONFIRMATORY SAMPLING (CTO-0143)
1408 DUMPSTER, BASE MOTOR TRANSPORT
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU254-IS01-00		SWMU254-SS01-00		SWMU254-SS02-00		SWMU254-TW01-00		SWMU254-TW02-00		SWMU254-TW03-00	
SAMPLE DATE	09-12-1997		09-12-1997		03-22-2002		03-22-2002		03-22-2002		03-22-2002	
DEPTH	0' - 2'		0' - 2'		0' - 1'		0' - 1'		0' - 1'		0' - 1'	
SEMIVOLATILES (ug/kg)												
1,1'-Biphenyl	NA		NA		2300	U	380	U	380	U	350	U
2,2'-Oxybis(1-Chloropropane)	2200	U	370	U	2300	U	380	U	380	U	350	U
2,4,5-Trichlorophenol	2200	U	370	U	2300	U	380	U	380	U	350	U
2,4,6-Trichlorophenol	2200	U	370	U	2300	U	380	U	380	U	350	U
2,4-Dichlorophenol	2200	U	370	U	2300	U	380	U	380	U	350	U
2,4-Dimethylphenol	2200	U	370	U	2300	U	380	U	380	U	350	U
2,4-Dinitrophenol	11000	U	1800	U	12000	U	2000	U	2000	U	1800	U
2,4-Dinitrotoluene	2200	U	370	U	2300	U	380	U	380	U	350	U
2,6-Dinitrotoluene	2200	U	370	U	2300	U	380	U	380	U	350	U
2-Chloronaphthalene	2200	U	370	U	2300	U	380	U	380	U	350	U
2-Chlorophenol	2200	U	370	U	2300	U	380	U	380	U	350	U
2-Methylnaphthalene	2200	U	370	U	2300	UJ	380	U	380	U	350	U
2-Methylphenol	2200	U	370	U	2300	U	380	U	380	U	350	U
2-Nitroaniline	11000	U	1800	U	4600	U	760	U	770	U	690	U
2-Nitrophenol	2200	U	370	U	2300	U	380	U	380	U	350	U
3,3'-Dichlorobenzidine	11000	U	1800	U	4600	U	760	U	770	U	690	U
3-Nitroaniline	11000	U	1800	U	4600	U	760	U	770	U	690	U
4,6-Dinitro-2-methylphenol	11000	U	1800	U	4600	U	760	U	770	U	690	U
4-Bromophenyl phenyl ether	2200	U	370	U	2300	U	380	U	380	U	350	U
4-Chloro-3-methylphenol	2200	U	370	U	2300	U	380	U	380	U	350	U
4-Chloroaniline	2200	U	370	U	2300	U	380	U	380	U	350	U
4-Chlorophenyl phenyl ether	2200	U	370	U	2300	U	380	U	380	U	350	U
4-Methylphenol	2200	U	370	U	2300	U	380	U	380	U	350	U
4-Nitroaniline	11000	U	1800	U	4600	U	760	U	770	U	690	U
4-Nitrophenol	11000	U	1800	U	4600	U	760	U	770	U	690	U
Acenaphthene	2200	U	370	U	170	J	380	U	380	U	350	U
Acenaphthylene	1000	J	76	J	1200	J	380	U	380	U	350	U
Acetophenone	NA		NA		2300	U	380	U	380	U	350	U
Anthracene	1600	J	100	J	2400		380	U	380	U	350	U
Atrazine	NA		NA		2300	U	380	U	380	U	350	U
Benzaldehyde	NA		NA		2300	U	380	U	380	U	350	U
Benzo(a)anthracene	6000		370		14000		57	J	380	U	350	U
Benzo(a)pyrene	9000		500		24000	J	78	J	380	U	350	U
Benzo(b)fluoranthene	15000		770		43000	J	130	J	380	U	350	U
Benzo(ghi)perylene	7700		520		17000	J	60	J	380	U	350	U
Benzo(k)fluoranthene	7200		420		21000	J	49	J	380	U	350	U
bis(2-Chloroethoxy)methane	2200	U	370	U	2300	U	380	U	380	U	350	U
bis(2-Chloroethyl) ether	2200	U	370	U	2300	U	380	U	380	U	350	U
bis(2-Ethylhexyl) phthalate	1000	J	280	J	2600		380	U	430	U	350	U
Butyl benzyl phthalate	2200	U	370	U	490	J	380	U	380	U	350	U
Caprolactam	NA		NA		2300	U	380	U	380	U	350	U
Carbazole	2100	J	110	J	2600		380	U	380	U	350	U

APPENDIX G
SURFACE SOIL - SWMU 254
ORGANIC COMPOUNDS
SWMU CONFIRMATORY SAMPLING (CTO-0143)
1408 DUMPSTER, BASE MOTOR TRANSPORT
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU254-IS01-00	SWMU254-SS01-00	SWMU254-SS02-00	SWMU254-TW01-00	SWMU254-TW02-00	SWMU254-TW03-00
SAMPLE DATE	09-12-1997	09-12-1997	03-22-2002	03-22-2002	03-22-2002	03-22-2002
DEPTH	0' - 2'	0' - 2'	0' - 1'	0' - 1'	0' - 1'	0' - 1'
SEMIVOLATILES (ug/kg) (cont)						
Chrysene	9900	540	27000	86 J	380 U	350 U
Di-n-butyl phthalate	2200 U	370 U	2300 U	380 U	380 U	350 U
Di-n-octyl phthalate	2200 U	370 U	240 J	380 U	380 U	48 J
Dibenz(a,h)anthracene	2800	370 U	5900 J	380 U	380 U	350 U
Dibenzofuran	2200 U	370 U	220 J	380 U	380 U	350 U
Diethyl phthalate	2200 U	370 U	2300 U	380 U	380 U	350 U
Dimethyl phthalate	2200 U	370 U	2300 U	380 U	380 U	350 U
Fluoranthene	17000	910	44000	130 J	380 U	350 U
Fluorene	2200 U	370 U	290 J	380 U	380 U	350 U
Hexachlorobenzene	2200 U	370 U	2300 U	380 U	380 U	350 U
Hexachlorobutadiene	2200 U	370 U	2300 U	380 U	380 U	350 U
Hexachlorocyclopentadiene	11000 U	1800 U	2300 UJ	380 U	380 U	350 U
Hexachloroethane	2200 U	370 U	2300 U	380 U	380 U	350 U
Indeno(1,2,3-cd)pyrene	7400	480	33000 J	86 J	380 U	350 U
Isophorone	2200 U	370 U	2300 U	380 U	380 U	350 U
N-Nitrosodi-n-propylamine	2200 U	370 U	2300 U	380 U	380 U	350 U
N-Nitrosodiphenylamine	2200 U	370 U	2300 U	380 U	380 U	350 U
Naphthalene	2200 U	370 U	2300 U	380 U	380 U	350 U
Nitrobenzene	2200 U	370 U	2300 U	380 U	380 U	350 U
Pentachlorophenol	11000 U	1800 U	4600 U	760 U	770 U	690 U
Phenanthrene	5000	270 J	9800	43 J	380 U	350 U
Phenol	2200 U	370 U	2300 U	380 U	380 U	350 U
Pyrene	13000	690	35000	100 J	380 U	350 U

APPENDIX G
SUBSURFACE SOIL - SWMU 254
ORGANIC COMPOUNDS
SWMU CONFIRMATORY SAMPLING (CTO-0143)
1408 DUMPSTER, BASE MOTOR TRANSPORT
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU254-IS01-03	SWMU254-TW01-04	SWMU254-TW02-04	SWMU254-TW03-04
SAMPLE DATE	09-12-1997	03-22-2002	03-22-2002	03-22-2002
DEPTH	6' - 8'	7' - 9'	7' - 9'	7' - 9'
SEMIVOLATILES (ug/kg)				
1,1'-Biphenyl	NA	370 U	390 U	360 U
2,2'-Oxybis(1-Chloropropane)	410 U	370 U	390 U	360 U
2,4,5-Trichlorophenol	410 U	370 U	390 U	360 U
2,4,6-Trichlorophenol	410 U	370 U	390 U	360 U
2,4-Dichlorophenol	410 U	370 U	390 U	360 U
2,4-Dimethylphenol	410 U	370 U	390 U	360 U
2,4-Dinitrophenol	2000 U	1900 U	2000 U	1800 U
2,4-Dinitrotoluene	410 U	370 U	390 U	360 U
2,6-Dinitrotoluene	410 U	370 U	390 U	360 U
2-Chloronaphthalene	410 U	370 U	390 U	360 U
2-Chlorophenol	410 U	370 U	390 U	360 U
2-Methylnaphthalene	410 U	370 U	390 U	360 U
2-Methylphenol	410 U	370 U	390 U	360 U
2-Nitroaniline	2000 U	730 U	790 U	720 U
2-Nitrophenol	410 U	370 U	390 U	360 U
3,3'-Dichlorobenzidine	2000 U	730 U	790 U	720 U
3-Nitroaniline	2000 U	730 U	790 U	720 U
4,6-Dinitro-2-methylphenol	2000 U	730 U	790 U	720 U
4-Bromophenyl phenyl ether	410 U	370 U	390 U	360 U
4-Chloro-3-methylphenol	410 U	370 U	390 U	360 U
4-Chloroaniline	410 U	370 U	390 U	360 U
4-Chlorophenyl phenyl ether	410 U	370 U	390 U	360 U
4-Methylphenol	410 U	370 U	390 U	360 U
4-Nitroaniline	2000 U	730 U	790 U	720 U
4-Nitrophenol	2000 U	730 U	790 U	720 U
Acenaphthene	410 U	370 U	390 U	360 U
Acenaphthylene	410 U	370 U	390 U	360 U
Acetophenone	NA	370 U	390 U	360 U
Anthracene	410 U	370 U	390 U	360 U
Atrazine	NA	370 U	390 U	360 U
Benzaldehyde	NA	370 U	390 U	360 U
Benzo(a)anthracene	410 U	370 U	390 U	360 U
Benzo(a)pyrene	410 U	370 U	390 U	360 U
Benzo(b)fluoranthene	410 U	370 U	390 U	360 U
Benzo(ghi)perylene	410 U	370 U	390 U	360 U
Benzo(k)fluoranthene	410 U	370 U	390 U	360 U
bis(2-Chloroethoxy)methane	410 U	370 U	390 U	360 U
bis(2-Chloroethyl) ether	410 U	370 U	390 U	360 U
bis(2-Ethylhexyl) phthalate	240 J	370 U	520 U	360 U
Butyl benzyl phthalate	410 U	370 U	390 U	360 U
Caprolactam	NA	370 U	390 U	360 U
Carbazole	410 U	370 U	390 U	360 U

APPENDIX G
SUBSURFACE SOIL - SWMU 254
ORGANIC COMPOUNDS
SWMU CONFIRMATORY SAMPLING (CTO-0143)
1408 DUMPSTER, BASE MOTOR TRANSPORT
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU254-IS01-03	SWMU254-TW01-04	SWMU254-TW02-04	SWMU254-TW03-04
SAMPLE DATE	09-12-1997	03-22-2002	03-22-2002	03-22-2002
DEPTH	6' - 8'	7' - 9'	7' - 9'	7' - 9'
SEMIVOLATILES (ug/kg) (cont)				
Chrysene	410 U	370 U	390 U	360 U
Di-n-butyl phthalate	410 U	370 U	390 U	360 U
Di-n-octyl phthalate	410 U	370 U	390 U	33 J
Dibenz(a,h)anthracene	410 U	370 U	390 U	360 U
Dibenzofuran	410 U	370 U	390 U	360 U
Diethyl phthalate	410 U	370 U	390 U	360 U
Dimethyl phthalate	410 U	370 U	390 U	360 U
Fluoranthene	410 U	370 U	390 U	360 U
Fluorene	410 U	370 U	390 U	360 U
Hexachlorobenzene	410 U	370 U	390 U	360 U
Hexachlorobutadiene	410 U	370 U	390 U	360 U
Hexachlorocyclopentadiene	2000 U	370 U	390 U	360 U
Hexachloroethane	410 U	370 U	390 U	360 U
Indeno(1,2,3-cd)pyrene	410 U	370 U	390 U	360 U
Isophorone	410 U	370 U	390 U	360 U
N-Nitrosodi-n-propylamine	410 U	370 U	390 U	360 U
N-Nitrosodiphenylamine	410 U	370 U	390 U	360 U
Naphthalene	410 U	370 U	390 U	360 U
Nitrobenzene	410 U	370 U	390 U	360 U
Pentachlorophenol	2000 U	730 U	790 U	720 U
Phenanthrene	410 U	370 U	390 U	360 U
Phenol	410 U	370 U	390 U	360 U
Pyrene	410 U	370 U	390 U	360 U

APPENDIX G
GROUNDWATER - SWMU 254
ORGANIC COMPOUNDS
SWMU CONFIRMATORY SAMPLING (CTO-0143)
1408 DUMPSTER, BASE MOTOR TRANSPORT
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU254-GW01		SWMU254-GW02		SWMU254-GW03	
SAMPLE DATE	04-04-2002		04-04-2002		04-04-2002	
SEMIVOLATILES (ug/L)						
1,1'-Biphenyl	10	U	10	U	10	U
2,2'-oxybis(1-Chloropropane)	10	UJ	10	UJ	10	UJ
2,4,5-Trichlorophenol	10	U	10	U	10	U
2,4,6-Trichlorophenol	10	U	10	U	10	U
2,4-Dichlorophenol	10	U	10	U	10	U
2,4-Dimethylphenol	10	U	10	U	10	U
2,4-Dinitrophenol	50	U	50	U	50	U
2,4-Dinitrotoluene	10	U	10	U	10	U
2,6-Dinitrotoluene	10	U	10	U	10	U
2-Chloronaphthalene	10	U	10	U	10	U
2-Chlorophenol	10	U	10	U	10	U
2-Methylnaphthalene	10	U	10	U	10	U
2-Methylphenol	10	U	10	U	10	U
2-Nitroaniline	20	UJ	20	UJ	20	UJ
2-Nitrophenol	10	U	10	U	10	U
3,3'-Dichlorobenzidine	20	U	20	U	20	U
3-Nitroaniline	20	U	20	U	20	U
4,6-dinitro-2-Methylphenol	20	U	20	U	20	U
4-Bromophenyl phenyl ether	10	U	10	U	10	U
4-Chloro-3-methylphenol	10	U	10	U	10	U
4-Chloroaniline	10	U	10	U	10	U
4-Chlorophenyl phenyl ether	10	UJ	10	UJ	10	UJ
4-Methylphenol	10	U	10	U	10	U
4-Nitroaniline	20	U	20	U	20	U
4-Nitrophenol	20	UJ	20	UJ	20	UJ
Acenaphthene	10	U	10	U	10	U
Acenaphthylene	10	U	10	U	10	U
Acetophenone	10	U	10	U	10	U
Anthracene	10	U	10	U	10	U
Atrazine	10	U	10	U	10	U
Benzaldehyde	10	U	10	U	10	U
Benzo(a)anthracene	10	U	10	U	10	U
Benzo(a)pyrene	10	U	10	U	10	U
Benzo(b)fluoranthene	10	U	10	U	10	U
Benzo(g,h,i)perylene	10	U	10	U	10	U
Benzo(k)fluoranthene	10	UJ	10	UJ	10	UJ
bis(2-Chloroethoxy)methane	10	U	10	U	10	U
bis(2-Chloroethyl)ether	10	U	10	U	10	U
bis(2-Ethylhexyl)phthalate	3	U	10	U	10	U

APPENDIX G
GROUNDWATER - SWMU 254
ORGANIC COMPOUNDS
SWMU CONFIRMATORY SAMPLING (CTO-0143)
1408 DUMPSTER, BASE MOTOR TRANSPORT
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU254-GW01		SWMU254-GW02		SWMU254-GW03	
SAMPLE DATE	04-04-2002		04-04-2002		04-04-2002	
SEMIVOLATILES (ug/L) (cont.)						
Butyl benzyl phthalate	10	U	10	U	10	U
Caprolactam	10	U	10	U	10	U
Carbazole	10	U	10	U	10	U
Chrysene	10	U	10	U	10	U
di-N-Butyl phthalate	10	U	10	U	10	U
di-N-Octyl phthalate	10	U	10	U	10	U
Dibenzo(a,h)anthracene	10	U	10	U	10	U
Dibenzofuran	10	U	10	U	10	U
Diethyl phthalate	10	U	10	U	10	U
Dimethyl phthalate	10	U	10	U	10	U
Fluoranthene	10	U	10	U	10	U
Fluorene	10	UJ	10	UJ	10	UJ
Hexachlorobenzene	10	U	10	U	10	U
Hexachlorobutadiene	10	U	10	U	10	U
Hexachlorocyclopentadiene	10	UJ	10	UJ	10	UJ
Hexachloroethane	10	U	10	U	10	U
Indeno(1,2,3-cd)pyrene	10	U	10	U	10	U
Isophorone	10	UJ	10	UJ	10	UJ
N-Nitroso-di-N-propylamine	10	U	10	U	10	U
N-Nitrosodiphenylamine(1)	10	U	10	U	10	U
Naphthalene	10	U	10	U	10	U
Nitrobenzene	10	U	10	U	10	U
Pentachlorophenol	20	U	20	U	20	U
Phenanthrene	10	UJ	10	UJ	10	UJ
Phenol	10	U	10	U	10	U
Pyrene	10	U	10	U	10	U

APPENDIX G
SURFACE SOIL - SWMU 255
ORGANIC COMPOUNDS
SWMU CONFIRMATORY SAMPLING (CTO-0143)
1502 - OW/1, MCB LOGISTICS VEHICLE MAINTENANCE
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU255-IS01-00	SWMU255-IS02-00	SWMU255-IS03-00	SWMU255-IS04-00	SWMU255-SS01-00	SWMU255-SS02-00	SWMU255-SS03-00	SWMU255-TW01-00
SAMPLE DATE	09-14-1997	09-14-1997	09-14-1997	09-14-1997	09-17-1997	09-17-1997	09-17-1997	03-21-2002
DEPTH	0' - 2'	0' - 2'	0' - 2'	0' - 2'	0' - 2'	0' - 2'	0' - 2'	0' - 1'
SEMIVOLATILES (ug/kg)								
1,1'-Biphenyl	NA	NA	NA	NA	NA	NA	NA	380 U
2,2'-Oxybis(1-Chloropropane)	380 U	350 U	370 U	390 U	450 U	410 U	390 U	380 U
2,4,5-Trichlorophenol	380 U	350 U	370 U	390 U	450 U	410 U	390 U	380 U
2,4,6-Trichlorophenol	380 U	350 U	370 U	390 U	450 U	410 U	390 U	380 U
2,4-Dichlorophenol	380 U	350 U	370 U	390 U	450 U	410 U	390 U	380 U
2,4-Dimethylphenol	380 U	350 U	370 U	390 U	450 U	410 U	390 U	380 U
2,4-Dinitrophenol	1800 U	1700 U	1800 U	1900 U	2200 U	2000 U	1900 U	1900 U
2,4-Dinitrotoluene	380 U	350 U	370 U	390 U	450 U	410 U	390 U	380 U
2,6-Dinitrotoluene	380 U	350 U	370 U	390 U	450 U	410 U	390 U	380 U
2-Chloronaphthalene	380 U	350 U	370 U	390 U	450 U	410 U	390 U	380 U
2-Chlorophenol	380 U	350 U	370 U	390 U	450 U	410 U	390 U	380 U
2-Methylnaphthalene	380 U	350 U	370 U	390 U	450 U	410 U	390 U	380 U
2-Methylphenol	380 U	350 U	370 U	390 U	450 U	410 U	390 U	380 U
2-Nitroaniline	1800 U	1700 U	1800 U	1900 U	2200 U	2000 U	1900 U	750 U
2-Nitrophenol	380 U	350 U	370 U	390 U	450 U	410 U	390 U	380 U
3,3'-Dichlorobenzidine	1800 U	1700 U	1800 U	1900 U	2200 U	2000 U	1900 U	750 U
3-Nitroaniline	1800 U	1700 U	1800 U	1900 U	2200 U	2000 U	1900 U	750 U
4,6-Dinitro-2-methylphenol	1800 U	1700 U	1800 U	1900 U	2200 U	2000 U	1900 U	750 U
4-Bromophenyl phenyl ether	380 U	350 U	370 U	390 U	450 U	410 U	390 U	380 U
4-Chloro-3-methylphenol	380 U	350 U	370 U	390 U	450 U	410 U	390 U	380 U
4-Chloroaniline	380 U	350 U	370 U	390 U	450 U	410 U	390 U	380 U
4-Chlorophenyl phenyl ether	380 U	350 U	370 U	390 U	450 U	410 U	390 U	380 U
4-Methylphenol	380 U	350 U	370 U	390 U	450 U	410 U	390 U	380 U
4-Nitroaniline	1800 U	1700 U	1800 U	1900 U	2200 U	2000 U	1900 U	750 U
4-Nitrophenol	1800 U	1700 U	1800 U	1900 U	2200 U	2000 U	1900 U	750 U
Acenaphthene	380 U	350 U	370 U	390 U	450 U	410 U	390 U	380 U
Acenaphthylene	380 U	350 U	370 U	390 U	450 U	410 U	390 U	380 U
Acetophenone	NA	NA	NA	NA	NA	NA	NA	380 U
Anthracene	380 U	350 U	370 U	390 U	450 U	410 U	390 U	380 U
Atrazine	NA	NA	NA	NA	NA	NA	NA	380 U
Benzaldehyde	NA	NA	NA	NA	NA	NA	NA	380 U
Benzo(a)anthracene	380 U	350 U	370 U	390 U	63 J	410 U	390 U	380 U
Benzo(a)pyrene	380 U	350 U	370 U	390 U	91 J	43 J	390 U	380 U
Benzo(b)fluoranthene	380 U	350 U	370 U	390 U	120 J	410 U	390 U	380 U
Benzo(ghi)perylene	380 U	350 U	370 U	390 U	47 J	410 U	390 U	380 U
Benzo(k)fluoranthene	380 U	350 U	370 U	390 U	130 J	410 U	390 U	380 U
bis(2-Chloroethoxy)methane	380 U	350 U	370 U	390 U	450 U	410 U	390 U	380 U
bis(2-Chloroethyl) ether	380 U	350 U	370 U	390 U	450 U	410 U	390 U	380 U
bis(2-Ethylhexyl) phthalate	160 J	79 J	160 J	140 J	300 J	89 J	65 J	380 U
Butyl benzyl phthalate	380 U	350 U	370 U	390 U	450 U	410 U	390 U	380 U
Caprolactam	NA	NA	NA	NA	NA	NA	NA	380 U
Carbazole	380 U	350 U	370 U	390 U	450 U	410 U	390 U	380 U

APPENDIX G
SURFACE SOIL - SWMU 255
ORGANIC COMPOUNDS
SWMU CONFIRMATORY SAMPLING (CTO-0143)
1502 - OW/1, MCB LOGISTICS VEHICLE MAINTENANCE
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU255-IS01-00	SWMU255-IS02-00	SWMU255-IS03-00	SWMU255-IS04-00	SWMU255-SS01-00	SWMU255-SS02-00	SWMU255-SS03-00	SWMU255-TW01-00
SAMPLE DATE	09-14-1997	09-14-1997	09-14-1997	09-14-1997	09-17-1997	09-17-1997	09-17-1997	03-21-2002
DEPTH	0' - 2'	0' - 2'	0' - 2'	0' - 2'	0' - 2'	0' - 2'	0' - 2'	0' - 1'
SEMIVOLATILES (ug/kg) (cont)								
Chrysene	380 U	350 U	370 U	390 U	100 J	45 J	390 U	380 U
Di-n-butyl phthalate	380 U	350 U	370 U	390 U	450 U	410 U	390 U	380 U
Di-n-octyl phthalate	380 U	350 U	370 U	390 U	450 U	410 U	390 U	380 U
Dibenz(a,h)anthracene	380 U	350 U	370 U	390 U	450 U	410 U	390 U	380 U
Dibenzofuran	380 U	350 U	370 U	390 U	450 U	410 U	390 U	380 U
Diethyl phthalate	380 U	350 U	370 U	390 U	450 U	410 U	390 U	380 U
Dimethyl phthalate	380 U	350 U	370 U	390 U	450 U	410 U	390 U	380 U
Fluoranthene	380 U	350 U	370 U	390 U	160 J	49 J	390 U	380 U
Fluorene	380 U	350 U	370 U	390 U	450 U	410 U	390 U	380 U
Hexachlorobenzene	380 U	350 U	370 U	390 U	450 U	410 U	390 U	380 U
Hexachlorobutadiene	380 U	350 U	370 U	390 U	450 U	410 U	390 U	380 U
Hexachlorocyclopentadiene	1800 U	1700 U	1800 U	1900 U	2200 U	2000 U	1900 U	380 U
Hexachloroethane	380 U	350 U	370 U	390 U	450 U	410 U	390 U	380 U
Indeno(1,2,3-cd)pyrene	380 U	350 U	370 U	390 U	47 J	410 U	390 U	380 U
Isophorone	380 U	350 U	370 U	390 U	450 U	410 U	390 U	380 U
N-Nitrosodi-n-propylamine	380 U	350 U	370 U	390 U	450 U	410 U	390 U	380 U
N-Nitrosodiphenylamine	380 U	350 U	370 U	390 U	450 U	410 U	390 U	380 U
Naphthalene	380 U	350 U	370 U	390 U	450 U	410 U	390 U	380 U
Nitrobenzene	380 U	350 U	370 U	390 U	450 U	410 U	390 U	380 U
Pentachlorophenol	1800 U	1700 U	1800 U	1900 U	210 J	2000 U	1900 U	750 U
Phenanthrene	380 U	350 U	370 U	390 U	72 J	410 U	390 U	380 U
Phenol	380 U	350 U	370 U	390 U	450 U	410 U	390 U	380 U
Pyrene	380 U	350 U	370 U	390 U	190 J	89 J	390 U	380 U

APPENDIX G
SUBSURFACE SOIL - SWMU 255
ORGANIC COMPOUNDS
SWMU CONFIRMATORY SAMPLING (CTO-0143)
1502 - OW/1, MCB LOGISTICS VEHICLE MAINTENANCE
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU255-IS01-04	SWMU255-IS02-04	SWMU255-IS03-03	SWMU255-IS04-02	SWMU255-TW01-04
SAMPLE DATE	09-14-1997	09-14-1997	09-14-1997	09-14-1997	03-21-2002
DEPTH	8' - 10'	8' - 10'	6' - 8'	4' - 6'	7' - 9'
SEMIVOLATILES (ug/kg)					
1,1'-Biphenyl	NA	NA	NA	NA	400 U
2,2'-Oxybis(1-Chloropropane)	360 U	370 U	380 U	400 U	400 U
2,4,5-Trichlorophenol	360 U	370 U	380 U	400 U	400 U
2,4,6-Trichlorophenol	360 U	370 U	380 U	400 U	400 U
2,4-Dichlorophenol	360 U	370 U	380 U	400 U	400 U
2,4-Dimethylphenol	360 U	370 U	380 U	400 U	400 U
2,4-Dinitrophenol	1800 U	1800 U	1800 U	1900 U	2100 U
2,4-Dinitrotoluene	360 U	370 U	380 U	400 U	400 U
2,6-Dinitrotoluene	360 U	370 U	380 U	400 U	400 U
2-Chloronaphthalene	360 U	370 U	380 U	400 U	400 U
2-Chlorophenol	360 U	370 U	380 U	400 U	400 U
2-Methylnaphthalene	360 U	370 U	380 U	400 U	400 U
2-Methylphenol	360 U	370 U	380 U	400 U	400 U
2-Nitroaniline	1800 U	1800 U	1800 U	1900 U	800 U
2-Nitrophenol	360 U	370 U	380 U	400 U	400 U
3,3'-Dichlorobenzidine	1800 U	1800 U	1800 U	1900 U	800 U
3-Nitroaniline	1800 U	1800 U	1800 U	1900 U	800 U
4,6-Dinitro-2-methylphenol	1800 U	1800 U	1800 U	1900 U	800 U
4-Bromophenyl phenyl ether	360 U	370 U	380 U	400 U	400 U
4-Chloro-3-methylphenol	360 U	370 U	380 U	400 U	400 U
4-Chloroaniline	360 U	370 U	380 U	400 U	400 U
4-Chlorophenyl phenyl ether	360 U	370 U	380 U	400 U	400 U
4-Methylphenol	360 U	370 U	380 U	400 U	400 U
4-Nitroaniline	1800 U	1800 U	1800 U	1900 U	800 U
4-Nitrophenol	1800 U	1800 U	1800 U	1900 U	800 U
Acenaphthene	360 U	370 U	380 U	400 U	400 U
Acenaphthylene	360 U	370 U	380 U	400 U	400 U
Acetophenone	NA	NA	NA	NA	400 U
Anthracene	360 U	370 U	380 U	400 U	400 U
Atrazine	NA	NA	NA	NA	400 U
Benzaldehyde	NA	NA	NA	NA	400 U
Benzo(a)anthracene	360 U	370 U	380 U	400 U	400 U
Benzo(a)pyrene	360 U	370 U	380 U	400 U	400 U
Benzo(b)fluoranthene	360 U	370 U	380 U	400 U	400 U
Benzo(ghi)perylene	360 U	370 U	380 U	400 U	400 U
Benzo(k)fluoranthene	360 U	370 U	380 U	400 U	400 U
bis(2-Chloroethoxy)methane	360 U	370 U	380 U	400 U	400 U
bis(2-Chloroethyl) ether	360 U	370 U	380 U	400 U	400 U
bis(2-Ethylhexyl) phthalate	130 J	100 J	140 J	460	79 J
Butyl benzyl phthalate	360 U	370 U	380 U	400 U	400 U
Caprolactam	NA	NA	NA	NA	400 U
Carbazole	360 U	370 U	380 U	400 U	400 U

APPENDIX G
SUBSURFACE SOIL - SWMU 255
ORGANIC COMPOUNDS
SWMU CONFIRMATORY SAMPLING (CTO-0143)
1502 - OW/1, MCB LOGISTICS VEHICLE MAINTENANCE
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU255-IS01-04	SWMU255-IS02-04	SWMU255-IS03-03	SWMU255-IS04-02	SWMU255-TW01-04
SAMPLE DATE	09-14-1997	09-14-1997	09-14-1997	09-14-1997	03-21-2002
DEPTH	8' - 10'	8' - 10'	6' - 8'	4' - 6'	7' - 9'
SEMIVOLATILES (ug/kg) (cont)					
Chrysene	360 U	370 U	380 U	400 U	400 U
Di-n-butyl phthalate	360 U	370 U	380 U	400 U	400 U
Di-n-octyl phthalate	360 U	370 U	380 U	400 U	400 U
Dibenz(a,h)anthracene	360 U	370 U	380 U	400 U	400 U
Dibenzofuran	360 U	370 U	380 U	400 U	400 U
Diethyl phthalate	360 U	370 U	380 U	400 U	400 U
Dimethyl phthalate	360 U	370 U	380 U	400 U	400 U
Fluoranthene	360 U	370 U	380 U	400 U	400 U
Fluorene	360 U	370 U	380 U	400 U	400 U
Hexachlorobenzene	360 U	370 U	380 U	400 U	400 U
Hexachlorobutadiene	360 U	370 U	380 U	400 U	400 U
Hexachlorocyclopentadiene	1800 U	1800 U	1800 U	1900 U	400 U
Hexachloroethane	360 U	370 U	380 U	400 U	400 U
Indeno(1,2,3-cd)pyrene	360 U	370 U	380 U	400 U	400 U
Isophorone	360 U	370 U	380 U	400 U	400 U
N-Nitrosodi-n-propylamine	360 U	370 U	380 U	400 U	400 U
N-Nitrosodiphenylamine	360 U	370 U	380 U	400 U	400 U
Naphthalene	360 U	370 U	380 U	400 U	400 U
Nitrobenzene	360 U	370 U	380 U	400 U	400 U
Pentachlorophenol	1800 U	1800 U	1800 U	1900 U	800 U
Phenanthrene	360 U	370 U	380 U	400 U	400 U
Phenol	360 U	370 U	380 U	400 U	400 U
Pyrene	360 U	370 U	380 U	400 U	400 U

APPENDIX G
GROUNDWATER - SWMU 255
ORGANIC COMPOUNDS
SWMU CONFIRMATORY SAMPLING (CTO-0143)
IR NUMBER 15, MONTFORD POINT DUMP SITE (1948-1958)
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU255-GW01		SWMU255-GW01D	
SAMPLE DATE	04-05-2002		04-05-2002	
SEMIVOLATILES (ug/L)				
1,1'-Biphenyl	10	U	10	U
2,2'-oxybis(1-Chloropropane)	10	UJ	10	U
2,4,5-Trichlorophenol	10	U	10	U
2,4,6-Trichlorophenol	10	U	10	U
2,4-Dichlorophenol	10	U	10	U
2,4-Dimethylphenol	10	U	10	U
2,4-Dinitrophenol	50	U	50	UJ
2,4-Dinitrotoluene	10	U	10	U
2,6-Dinitrotoluene	10	U	10	U
2-Chloronaphthalene	10	U	10	U
2-Chlorophenol	10	U	10	U
2-Methylnaphthalene	10	U	10	U
2-Methylphenol	10	U	10	U
2-Nitroaniline	20	UJ	20	U
2-Nitrophenol	10	U	10	U
3,3'-Dichlorobenzidine	20	U	20	U
3-Nitroaniline	20	U	20	U
4,6-dinitro-2-Methylphenol	20	U	20	U
4-Bromophenyl phenyl ether	10	U	10	U
4-Chloro-3-methylphenol	10	U	10	U
4-Chloroaniline	10	U	10	U
4-Chlorophenyl phenyl ether	10	UJ	10	U
4-Methylphenol	10	U	10	U
4-Nitroaniline	20	U	20	U
4-Nitrophenol	20	UJ	20	U
Acenaphthene	10	U	10	U
Acenaphthylene	10	U	10	U
Acetophenone	10	U	10	U
Anthracene	10	U	10	U
Atrazine	10	U	10	U
Benzaldehyde	10	U	10	U
Benzo(a)anthracene	10	U	10	U
Benzo(a)pyrene	10	U	10	U
Benzo(b)fluoranthene	10	U	10	U
Benzo(g,h,i)perylene	10	U	10	U
Benzo(k)fluoranthene	10	UJ	10	U
bis(2-Chloroethoxy)methane	10	U	10	U
bis(2-Chloroethyl)ether	10	U	10	U
bis(2-Ethylhexyl)phthalate	10	U	10	U

APPENDIX G
GROUNDWATER - SWMU 255
ORGANIC COMPOUNDS
SWMU CONFIRMATORY SAMPLING (CTO-0143)
IR NUMBER 15, MONTFORD POINT DUMP SITE (1948-1958)
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU255-GW01		SWMU255-GW01D	
SAMPLE DATE	04-05-2002		04-05-2002	
SEMIVOLATILES (ug/L) (cont.)				
Butyl benzyl phthalate	10	U	10	UJ
Caprolactam	10	U	10	U
Carbazole	10	U	10	U
Chrysene	10	U	10	UJ
di-N-Butyl phthalate	10	U	10	U
di-N-Octyl phthalate	10	U	10	U
Dibenzo(a,h)anthracene	10	U	10	U
Dibenzofuran	10	U	10	U
Diethyl phthalate	10	U	10	U
Dimethyl phthalate	10	U	10	U
Fluoranthene	10	U	10	U
Fluorene	10	UJ	10	U
Hexachlorobenzene	10	U	10	U
Hexachlorobutadiene	10	U	10	U
Hexachlorocyclopentadiene	10	UJ	10	U
Hexachloroethane	10	U	10	U
Indeno(1,2,3-cd)pyrene	10	U	10	U
Isophorone	10	UJ	10	U
N-Nitroso-di-N-propylamine	10	U	10	U
N-Nitrosodiphenylamine(1)	10	U	10	U
Naphthalene	10	U	10	U
Nitrobenzene	10	U	10	U
Pentachlorophenol	20	U	20	U
Phenanthrene	10	UJ	10	U
Phenol	10	U	10	U
Pyrene	10	U	10	U

APPENDIX G
SURFACE SOIL - SWMU 256/257
ORGANIC COMPOUNDS
SWMU CONFIRMATORY SAMPLING (CTO-0143)
1700 - O/W-1, BASE MAINTENANCE
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU256-IS01-00	SWMU256-IS02-00	SWMU256-IS03-00	SWMU256-IS04-00	SWMU256-SB01-00	SWMU256-TW01-00	SWMU256-TW02-00
SAMPLE DATE	09-10-1997	09-10-1997	09-10-1997	09-10-1997	03-21-2002	03-21-2002	03-21-2002
DEPTH	0' - 2'	0' - 2'	0' - 2'	0' - 2'	0' - 1'	0' - 1'	0' - 1'
SEMIVOLATILES (ug/kg)							
1,1'-Biphenyl	NA	NA	NA	NA	360 U	770 U	360 U
2,2'-Oxybis(1-Chloropropane)	350 U	340 U	350 U	340 U	360 U	770 U	360 U
2,4,5-Trichlorophenol	350 U	340 U	350 U	340 U	360 U	770 U	360 U
2,4,6-Trichlorophenol	350 U	340 U	350 U	340 U	360 U	770 U	360 U
2,4-Dichlorophenol	350 U	340 U	350 U	340 U	360 U	770 U	360 U
2,4-Dimethylphenol	350 U	340 U	350 U	340 U	360 U	770 U	360 U
2,4-Dinitrophenol	1700 U	1700 U	1700 U	1600 U	1800 U	4000 U	1900 U
2,4-Dinitrotoluene	350 U	340 U	350 U	340 U	360 U	770 U	360 U
2,6-Dinitrotoluene	350 U	340 U	350 U	340 U	360 U	770 U	360 U
2-Chloronaphthalene	350 U	340 U	350 U	340 U	360 U	770 U	360 U
2-Chlorophenol	350 U	340 U	350 U	340 U	360 U	770 U	360 U
2-Methylnaphthalene	350 U	340 U	89 J	340 U	360 UJ	770 U	360 U
2-Methylphenol	350 U	340 U	350 U	340 U	360 U	770 U	360 U
2-Nitroaniline	1700 U	1700 U	1700 U	1600 U	720 U	1500 U	730 U
2-Nitrophenol	350 U	340 U	350 U	340 U	360 U	770 U	360 U
3,3'-Dichlorobenzidine	1700 U	1700 U	1700 U	1600 U	720 U	1500 U	730 U
3-Nitroaniline	1700 U	1700 U	1700 U	1600 U	720 U	1500 U	730 U
4,6-Dinitro-2-methylphenol	1700 U	1700 U	1700 U	1600 U	720 U	1500 U	730 U
4-Bromophenyl phenyl ether	350 U	340 U	350 U	340 U	360 U	770 U	360 U
4-Chloro-3-methylphenol	350 U	340 U	350 U	340 U	360 U	770 U	360 U
4-Chloroaniline	350 U	340 U	350 U	340 U	360 U	770 U	360 U
4-Chlorophenyl phenyl ether	350 U	340 U	350 U	340 U	360 U	770 U	360 U
4-Methylphenol	350 U	340 U	350 U	340 U	360 U	770 U	360 U
4-Nitroaniline	1700 U	1700 U	1700 U	1600 U	720 U	1500 U	730 U
4-Nitrophenol	1700 U	1700 U	1700 U	1600 U	720 U	1500 U	730 U
Acenaphthene	350 U	340 U	350 U	340 U	360 U	770 U	360 U
Acenaphthylene	350 U	94 J	350 U	340 U	360 U	770 U	360 U
Acetophenone	NA	NA	NA	NA	360 U	770 U	360 U
Anthracene	350 U	210 J	38 J	340 U	360 U	770 U	38 J
Atrazine	NA	NA	NA	NA	360 U	770 U	360 U
Benzaldehyde	NA	NA	NA	NA	360 U	770 U	360 U
Benzo(a)anthracene	350 U	440	94 J	340 U	360 U	770 U	32 J
Benzo(a)pyrene	350 U	400	110 J	42 J	360 U	770 U	55 J
Benzo(b)fluoranthene	350 U	530	150 J	340 U	360 U	770 U	91 J
Benzo(ghi)perylene	350 U	130 J	350 U	340 U	360 U	84 J	43 J
Benzo(k)fluoranthene	350 U	560	120 J	340 U	360 U	770 U	74 J
bis(2-Chloroethoxy)methane	350 U	340 U	350 U	340 U	360 U	770 U	360 U
bis(2-Chloroethyl) ether	350 U	340 U	350 U	340 U	360 U	770 U	360 U
bis(2-Ethylhexyl) phthalate	130 J	120 J	200 J	160 J	160 J	770 U	360 U
Butyl benzyl phthalate	350 U	340 U	350 U	340 U	360 U	770 U	360 U
Caprolactam	NA	NA	NA	NA	360 U	770 U	360 U

APPENDIX G
SURFACE SOIL - SWMU 256/257
ORGANIC COMPOUNDS
SWMU CONFIRMATORY SAMPLING (CTO-0143)
1700 - O/W-1, BASE MAINTENANCE
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU256-IS01-00	SWMU256-IS02-00	SWMU256-IS03-00	SWMU256-IS04-00	SWMU256-SB01-00	SWMU256-TW01-00	SWMU256-TW02-00
SAMPLE DATE	09-10-1997	09-10-1997	09-10-1997	09-10-1997	03-21-2002	03-21-2002	03-21-2002
DEPTH	0' - 2'	0' - 2'	0' - 2'	0' - 2'	0' - 1'	0' - 1'	0' - 1'
SEMIVOLATILES (ug/kg) (cont)							
Carbazole	350 U	72 J	350 U	340 U	360 U	770 U	360 U
Chrysene	350 U	580	140 J	340 U	360 U	770 U	39 J
Di-n-butyl phthalate	350 U	340 U	350 U	340 U	360 U	770 U	360 U
Di-n-octyl phthalate	350 U	340 U	350 U	340 U	360 U	770 U	360 U
Dibenz(a,h)anthracene	350 U	340 U	350 U	340 U	360 U	770 U	360 U
Dibenzofuran	350 U	340 U	350 U	340 U	360 U	770 U	360 U
Diethyl phthalate	350 U	340 U	350 U	340 U	360 U	770 U	360 U
Dimethyl phthalate	350 U	340 U	350 U	340 U	360 U	770 U	360 U
Fluoranthene	44 J	440	150 J	340 U	360 U	770 U	25 J
Fluorene	350 U	340 U	350 U	340 U	360 U	770 U	360 U
Hexachlorobenzene	350 U	340 U	350 U	340 U	360 U	770 U	360 U
Hexachlorobutadiene	350 U	340 U	350 U	340 U	360 U	770 U	360 U
Hexachlorocyclopentadiene	1700 U	1700 U	1700 U	1600 U	360 UJ	770 U	360 U
Hexachloroethane	350 U	340 U	350 U	340 U	360 U	770 U	360 U
Indeno(1,2,3-cd)pyrene	350 U	130 J	350 U	340 U	360 U	770 U	59 J
Isophorone	350 U	340 U	350 U	340 U	360 U	770 U	360 U
N-Nitrosodi-n-propylamine	350 U	340 U	350 U	340 U	360 U	770 U	360 U
N-Nitrosodiphenylamine	350 U	340 U	350 U	340 U	360 U	770 U	360 U
Naphthalene	350 U	340 U	53 J	340 U	360 U	770 U	360 U
Nitrobenzene	350 U	340 U	350 U	340 U	360 U	770 U	360 U
Pentachlorophenol	1700 U	1700 U	1700 U	1600 U	720 U	1500 U	730 U
Phenanthrene	350 U	57 J	110 J	340 U	360 U	770 U	360 U
Phenol	350 U	340 U	350 U	340 U	360 U	770 U	360 U
Pyrene	350 U	530	220 J	340 U	360 U	64 J	45 J

APPENDIX G
SURFACE SOIL - SWMU 256/257
ORGANIC COMPOUNDS
SWMU CONFIRMATORY SAMPLING (CTO-0143)
1700 - O/W-1, BASE MAINTENANCE
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU256-TW03-00		SWMU256-TW04-00		SWMU257-IS01-00		SWMU257-IS02-00		SWMU257-IS03-00		SWMU257-IS04-00	
SAMPLE DATE	03-21-2002		03-21-2002		09-11-1997		09-11-1997		09-11-1997		09-11-1997	
DEPTH	0' - 1'		0' - 1'		0' - 2'		0' - 2'		0' - 2'		0' - 2'	
SEMIVOLATILES (ug/kg)												
1,1'-Biphenyl	370	U	370	U	NA		NA		NA		NA	
2,2'-Oxybis(1-Chloropropane)	370	U	370	U	370	U	350	U	350	U	420	U
2,4,5-Trichlorophenol	370	U	370	U	370	U	350	U	350	U	420	U
2,4,6-Trichlorophenol	370	U	370	U	370	U	350	U	350	U	420	U
2,4-Dichlorophenol	370	U	370	U	370	U	350	U	350	U	420	U
2,4-Dimethylphenol	370	U	370	U	370	U	350	U	350	U	420	U
2,4-Dinitrophenol	1900	UJ	1900	U	1800	U	1700	U	1700	U	2000	U
2,4-Dinitrotoluene	370	U	370	U	370	U	350	U	350	U	420	U
2,6-Dinitrotoluene	370	U	370	U	370	U	350	U	350	U	420	U
2-Chloronaphthalene	370	U	370	U	370	U	350	U	350	U	420	U
2-Chlorophenol	370	U	370	U	370	U	350	U	350	U	420	U
2-Methylnaphthalene	370	U	370	U	160	J	160	J	350	U	420	U
2-Methylphenol	370	U	370	U	370	U	350	U	350	U	420	U
2-Nitroaniline	730	U	730	U	1800	U	1700	U	1700	U	2000	U
2-Nitrophenol	370	U	370	U	370	U	350	U	350	U	420	U
3,3'-Dichlorobenzidine	730	U	730	U	1800	U	1700	U	1700	U	2000	U
3-Nitroaniline	730	U	730	U	1800	U	1700	U	1700	U	2000	U
4,6-Dinitro-2-methylphenol	730	U	730	U	1800	U	1700	U	1700	U	2000	U
4-Bromophenyl phenyl ether	370	U	370	U	370	U	350	U	350	U	420	U
4-Chloro-3-methylphenol	370	U	370	U	370	U	350	U	350	U	420	U
4-Chloroaniline	370	U	370	U	370	U	350	U	350	U	420	U
4-Chlorophenyl phenyl ether	370	U	370	U	370	U	350	U	350	U	420	U
4-Methylphenol	370	U	370	U	370	U	350	U	350	U	420	U
4-Nitroaniline	730	U	730	U	1800	U	1700	U	1700	U	2000	U
4-Nitrophenol	730	U	730	U	1800	U	1700	U	1700	U	2000	U
Acenaphthene	370	U	370	U	370	U	350	U	350	U	420	U
Acenaphthylene	370	U	370	U	370	U	350	U	350	U	420	U
Acetophenone	370	U	370	U	NA		NA		NA		NA	
Anthracene	370	U	370	U	370	U	350	U	350	U	420	U
Atrazine	370	U	370	U	NA		NA		NA		NA	
Benzaldehyde	370	U	370	U	NA		NA		NA		NA	
Benzo(a)anthracene	370	U	370	U	370	U	43	J	350	U	420	U
Benzo(a)pyrene	370	U	370	U	370	U	36	J	37	J	420	U
Benzo(b)fluoranthene	370	U	370	U	370	U	47	J	350	U	420	U
Benzo(ghi)perylene	370	U	370	U	370	U	350	U	42	J	420	U
Benzo(k)fluoranthene	370	U	370	U	370	U	350	U	350	U	420	U
bis(2-Chloroethoxy)methane	370	U	370	U	370	U	350	U	350	U	420	U
bis(2-Chloroethyl) ether	370	U	370	U	370	U	350	U	350	U	420	U
bis(2-Ethylhexyl) phthalate	370	U	60	J	100	J	130	J	120	J	71	J
Butyl benzyl phthalate	370	U	370	U	370	U	350	U	350	U	420	U
Caprolactam	370	U	370	U	NA		NA		NA		NA	

APPENDIX G
SURFACE SOIL - SWMU 256/257
ORGANIC COMPOUNDS
SWMU CONFIRMATORY SAMPLING (CTO-0143)
1700 - O/W-1, BASE MAINTENANCE
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU256-TW03-00	SWMU256-TW04-00	SWMU257-IS01-00	SWMU257-IS02-00	SWMU257-IS03-00	SWMU257-IS04-00
SAMPLE DATE	03-21-2002	03-21-2002	09-11-1997	09-11-1997	09-11-1997	09-11-1997
DEPTH	0' - 1'	0' - 1'	0' - 2'	0' - 2'	0' - 2'	0' - 2'
SEMIVOLATILES (ug/kg) (cont)						
Carbazole	370 U	370 U	370 U	350 U	350 U	420 U
Chrysene	370 U	370 U	38 J	50 J	41 J	420 U
Di-n-butyl phthalate	370 U	370 U	370 U	350 U	350 U	420 U
Di-n-octyl phthalate	370 U	27 J	370 U	350 U	350 U	420 U
Dibenz(a,h)anthracene	370 U	370 U	370 U	350 U	350 U	420 U
Dibenzofuran	370 U	370 U	370 U	350 U	350 U	420 U
Diethyl phthalate	370 U	370 U	370 U	350 U	350 U	420 U
Dimethyl phthalate	370 U	370 U	370 U	350 U	350 U	420 U
Fluoranthene	370 U	370 U	370 U	49 J	46 J	420 U
Fluorene	370 U	370 U	370 U	350 U	350 U	420 U
Hexachlorobenzene	370 U	370 U	370 U	350 U	350 U	420 U
Hexachlorobutadiene	370 U	370 U	370 U	350 U	350 U	420 U
Hexachlorocyclopentadiene	370 UJ	370 U	1800 U	1700 U	1700 U	2000 U
Hexachloroethane	370 U	370 U	370 U	350 U	350 U	420 U
Indeno(1,2,3-cd)pyrene	370 U	370 U	370 U	350 U	350 U	420 U
Isophorone	370 U	370 U	370 U	350 U	350 U	420 U
N-Nitrosodi-n-propylamine	370 U	370 U	370 U	350 U	350 U	420 U
N-Nitrosodiphenylamine	370 U	370 U	370 U	350 U	350 U	420 U
Naphthalene	370 U	370 U	84 J	81 J	350 U	420 U
Nitrobenzene	370 U	370 U	370 U	350 U	350 U	420 U
Pentachlorophenol	730 U	730 U	1800 U	1700 U	1700 U	2000 U
Phenanthrene	370 U	370 U	91 J	86 J	44 J	420 U
Phenol	370 U	370 U	370 U	350 U	350 U	420 U
Pyrene	370 U	370 U	40 J	55 J	43 J	420 U

APPENDIX G
SURFACE SOIL - SWMU 256/257
INORGANIC COMPOUNDS
SWMU CONFIRMATORY SAMPLING (CTO-0143)
1700 - O/W-1, BASE MAINTENANCE
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU256-IS01-00	SWMU256-IS02-00	SWMU256-IS03-00	SWMU256-IS04-00	SWMU256-SB01-00	SWMU256-TW01-00	SWMU256-TW02-00
SAMPLE DATE	09-10-1997	09-10-1997	09-10-1997	09-10-1997	03-21-2002	03-21-2002	03-21-2002
DEPTH	0' - 2'	0' - 2'	0' - 2'	0' - 2'	0' - 1'	0' - 1'	0' - 1'
METALS (mg/kg)							
Arsenic	NA	NA	NA	NA	NA	NA	NA
Barium	NA	NA	NA	NA	NA	NA	NA
Cadmium	NA	NA	NA	NA	NA	NA	NA
Chromium	NA	NA	NA	NA	NA	NA	NA
Lead	NA	NA	NA	NA	NA	NA	NA
Mercury	NA	NA	NA	NA	NA	NA	NA
Selenium	NA	NA	NA	NA	NA	NA	NA
Silver	NA	NA	NA	NA	NA	NA	NA

APPENDIX G
SURFACE SOIL - SWMU 256/257
INORGANIC COMPOUNDS
SWMU CONFIRMATORY SAMPLING (CTO-0143)
1700 - O/W-1, BASE MAINTENANCE
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU256-TW03-00		SWMU256-TW04-00	SWMU257-IS01-00	SWMU257-IS02-00	SWMU257-IS03-00	SWMU257-IS04-00
SAMPLE DATE	03-21-2002		03-21-2002	09-11-1997	09-11-1997	09-11-1997	09-11-1997
DEPTH	0' - 1'		0' - 1'	0' - 2'	0' - 2'	0' - 2'	0' - 2'
METALS (mg/kg)							
Arsenic	0.53	J	NA	NA	NA	NA	NA
Barium	13.2		NA	NA	NA	NA	NA
Cadmium	0.11	J	NA	NA	NA	NA	NA
Chromium	6.1		NA	NA	NA	NA	NA
Lead	60.5		NA	NA	NA	NA	NA
Mercury	0.08		NA	NA	NA	NA	NA
Selenium	0.47	U	NA	NA	NA	NA	NA
Silver	0.1	J	NA	NA	NA	NA	NA

APPENDIX G
SUBSURFACE SOIL - SWMU 256/257
ORGANIC COMPOUNDS
SWMU CONFIRMATORY SAMPLING (CTO-0143)
1700 - O/W-1, BASE MAINTENANCE
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU256-IS01-01	SWMU256-IS02-01	SWMU256-IS03-01	SWMU256-IS04-01	SWMU256-SB01-03	SWMU256-TW01-03	SWMU256-TW02-03
SAMPLE DATE	09-10-1997	09-10-1997	09-10-1997	09-10-1997	03-21-2002	03-21-2002	03-21-2002
DEPTH	2' - 4'	2' - 4'	2' - 4'	2' - 4'	5' - 7'	5' - 7'	5' - 7'
SEMIVOLATILES (ug/kg)							
1,1'-Biphenyl	NA	NA	NA	NA	380 U	400 U	400 U
2,2'-Oxybis(1-Chloropropane)	360 U	380 U	380 U	360 U	380 U	400 U	400 U
2,4,5-Trichlorophenol	360 U	380 U	380 U	360 U	380 U	400 U	400 U
2,4,6-Trichlorophenol	360 U	380 U	380 U	360 U	380 U	400 U	400 U
2,4-Dichlorophenol	360 U	380 U	380 U	360 U	380 U	400 U	400 U
2,4-Dimethylphenol	360 U	380 U	380 U	360 U	380 U	400 U	400 U
2,4-Dinitrophenol	1700 U	1800 U	1800 U	1800 U	2000 U	2000 U	2000 U
2,4-Dinitrotoluene	360 U	380 U	380 U	360 U	380 U	400 U	400 U
2,6-Dinitrotoluene	360 U	380 U	380 U	360 U	380 U	400 U	400 U
2-Chloronaphthalene	360 U	380 U	380 U	360 U	380 U	400 U	400 U
2-Chlorophenol	360 U	380 U	380 U	360 U	380 U	400 U	400 U
2-Methylnaphthalene	360 U	380 U	380 U	360 U	380 U	51 J	220 J
2-Methylphenol	360 U	380 U	380 U	360 U	380 U	400 U	400 U
2-Nitroaniline	1700 U	1800 U	1800 U	1800 U	770 U	800 U	800 U
2-Nitrophenol	360 U	380 U	380 U	360 U	380 U	400 U	400 U
3,3'-Dichlorobenzidine	1700 U	1800 U	1800 U	1800 U	770 U	800 U	800 U
3-Nitroaniline	1700 U	1800 U	1800 U	1800 U	770 U	800 U	800 U
4,6-Dinitro-2-methylphenol	1700 U	1800 U	1800 U	1800 U	770 U	800 U	800 U
4-Bromophenyl phenyl ether	360 U	380 U	380 U	360 U	380 U	400 U	400 U
4-Chloro-3-methylphenol	360 U	380 U	380 U	360 U	380 U	400 U	400 U
4-Chloroaniline	360 U	380 U	380 U	360 U	380 U	400 U	400 U
4-Chlorophenyl phenyl ether	360 U	380 U	380 U	360 U	380 U	400 U	400 U
4-Methylphenol	360 U	380 U	380 U	360 U	380 U	400 U	400 U
4-Nitroaniline	1700 U	1800 U	1800 U	1800 U	770 U	800 U	800 U
4-Nitrophenol	1700 U	1800 U	1800 U	1800 U	770 U	800 U	800 U
Acenaphthene	360 U	380 U	380 U	360 U	380 U	400 U	400 U
Acenaphthylene	360 U	380 U	380 U	360 U	380 U	400 U	400 U
Acetophenone	NA	NA	NA	NA	380 U	400 U	400 U
Anthracene	360 U	380 U	36 J	360 U	380 U	400 U	400 U
Atrazine	NA	NA	NA	NA	380 U	400 U	400 U
Benzaldehyde	NA	NA	NA	NA	380 U	400 U	30 J
Benzo(a)anthracene	360 U	380 U	380 U	360 U	380 U	400 U	80 J
Benzo(a)pyrene	360 U	380 U	380 U	360 U	380 U	400 U	100 J
Benzo(b)fluoranthene	360 U	380 U	380 U	360 U	380 U	400 U	130 J
Benzo(ghi)perylene	360 U	380 U	380 U	360 U	380 U	400 U	59 J
Benzo(k)fluoranthene	360 U	380 U	380 U	360 U	380 U	400 U	130 J
bis(2-Chloroethoxy)methane	360 U	380 U	380 U	360 U	380 U	400 U	400 U
bis(2-Chloroethyl) ether	360 U	380 U	380 U	360 U	380 U	400 U	400 U
bis(2-Ethylhexyl) phthalate	190 J	120 J	180 J	180 J	64 J	220 J	280 J
Butyl benzyl phthalate	360 U	380 U	380 U	360 U	380 U	400 U	400 U
Caprolactam	NA	NA	NA	NA	380 U	400 U	400 U
Carbazole	360 U	380 U	380 U	360 U	380 U	400 U	400 U

APPENDIX G
SUBSURFACE SOIL - SWMU 256/257
ORGANIC COMPOUNDS
SWMU CONFIRMATORY SAMPLING (CTO-0143)
1700 - O/W-1, BASE MAINTENANCE
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU256-IS01-01	SWMU256-IS02-01	SWMU256-IS03-01	SWMU256-IS04-01	SWMU256-SB01-03	SWMU256-TW01-03	SWMU256-TW02-03
SAMPLE DATE	09-10-1997	09-10-1997	09-10-1997	09-10-1997	03-21-2002	03-21-2002	03-21-2002
DEPTH	2' - 4'	2' - 4'	2' - 4'	2' - 4'	5' - 7'	5' - 7'	5' - 7'
SEMIVOLATILES (ug/kg) (cont)							
Chrysene	360 U	380 U	380 U	360 U	380 U	400 U	100 J
Di-n-butyl phthalate	360 U	380 U	380 U	360 U	380 U	400 U	400 U
Di-n-octyl phthalate	360 U	380 U	380 U	360 U	380 U	400 U	90 J
Dibenz(a,h)anthracene	360 U	380 U	380 U	360 U	380 U	400 U	400 U
Dibenzofuran	360 U	380 U	380 U	360 U	380 U	400 U	71 J
Diethyl phthalate	360 U	380 U	380 U	360 U	380 U	400 U	400 U
Dimethyl phthalate	360 U	380 U	380 U	360 U	380 U	400 U	400 U
Fluoranthene	52 J	49 J	67 J	360 U	380 U	400 U	110 J
Fluorene	360 U	380 U	380 U	360 U	380 U	400 U	400 U
Hexachlorobenzene	360 U	380 U	380 U	360 U	380 U	400 U	400 U
Hexachlorobutadiene	360 U	380 U	380 U	360 U	380 U	400 U	400 U
Hexachlorocyclopentadiene	1700 U	1800 U	1800 U	1800 U	380 U	400 U	400 U
Hexachloroethane	360 U	380 U	380 U	360 U	380 U	400 U	400 U
Indeno(1,2,3-cd)pyrene	360 U	380 U	380 U	360 U	380 U	400 U	85 J
Isophorone	360 U	380 U	380 U	360 U	380 U	400 U	400 U
N-Nitrosodi-n-propylamine	360 U	380 U	380 U	360 U	380 U	400 U	400 U
N-Nitrosodiphenylamine	360 U	380 U	380 U	360 U	380 U	400 U	400 U
Naphthalene	360 U	380 U	380 U	360 U	380 U	400 U	92 J
Nitrobenzene	360 U	380 U	380 U	360 U	380 U	400 U	400 U
Pentachlorophenol	1700 U	1800 U	1800 U	1800 U	770 U	800 U	800 U
Phenanthrene	360 U	380 U	39 J	360 U	380 U	400 U	99 J
Phenol	360 U	380 U	380 U	360 U	380 U	400 U	400 U
Pyrene	360 U	380 U	380 U	360 U	380 U	400 U	150 J

APPENDIX G
SUBSURFACE SOIL - SWMU 256/257
ORGANIC COMPOUNDS
SWMU CONFIRMATORY SAMPLING (CTO-0143)
1700 - O/W-1, BASE MAINTENANCE
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU256-TW03-03	SWMU256-TW04-03	SWMU257-IS01-02	SWMU257-IS02-01	SWMU257-IS03-01	SWMU257-IS04-02
SAMPLE DATE	03-21-2002	03-21-2002	09-11-1997	09-11-1997	09-11-1997	09-11-1997
DEPTH	5' - 7'	5' - 7'	4' - 6'	2' - 4'	2' - 4'	4' - 6'
SEMIVOLATILES (ug/kg)						
1,1'-Biphenyl	380 U	420 U	NA	NA	NA	NA
2,2'-Oxybis(1-Chloropropane)	380 U	420 U	380 U	370 U	410 U	440 U
2,4,5-Trichlorophenol	380 U	420 U	380 U	370 U	410 U	440 U
2,4,6-Trichlorophenol	380 U	420 U	380 U	370 U	410 U	440 U
2,4-Dichlorophenol	380 U	420 U	380 U	370 U	410 U	440 U
2,4-Dimethylphenol	380 U	420 U	380 U	370 U	410 U	440 U
2,4-Dinitrophenol	2000 UJ	2200 U	1900 U	1800 U	2000 U	2100 U
2,4-Dinitrotoluene	380 U	420 U	380 U	370 U	410 U	440 U
2,6-Dinitrotoluene	380 U	420 U	380 U	370 U	410 U	440 U
2-Chloronaphthalene	380 U	420 U	380 U	370 U	410 U	440 U
2-Chlorophenol	380 U	420 U	380 U	370 U	410 U	440 U
2-Methylnaphthalene	380 U	420 U	380 U	61 J	410 U	440 U
2-Methylphenol	380 U	420 U	380 U	370 U	410 U	440 U
2-Nitroaniline	770 U	840 U	1900 U	1800 U	2000 U	2100 U
2-Nitrophenol	380 U	420 U	380 U	370 U	410 U	440 U
3,3'-Dichlorobenzidine	770 U	840 U	1900 U	1800 U	2000 U	2100 U
3-Nitroaniline	770 U	840 U	1900 U	1800 U	2000 U	2100 U
4,6-Dinitro-2-methylphenol	770 U	840 U	1900 U	1800 U	2000 U	2100 U
4-Bromophenyl phenyl ether	380 U	420 U	380 U	370 U	410 U	440 U
4-Chloro-3-methylphenol	380 U	420 U	380 U	370 U	410 U	440 U
4-Chloroaniline	380 U	420 U	380 U	370 U	410 U	440 U
4-Chlorophenyl phenyl ether	380 U	420 U	380 U	370 U	410 U	440 U
4-Methylphenol	380 U	420 U	380 U	370 U	410 U	440 U
4-Nitroaniline	770 U	840 U	1900 U	1800 U	2000 U	2100 U
4-Nitrophenol	770 U	840 U	1900 U	1800 U	2000 U	2100 U
Acenaphthene	380 U	420 U	380 U	370 U	410 U	440 U
Acenaphthylene	380 U	420 U	380 U	370 U	410 U	440 U
Acetophenone	380 U	420 U	NA	NA	NA	NA
Anthracene	380 U	420 U	380 U	370 U	410 U	440 U
Atrazine	380 U	420 U	NA	NA	NA	NA
Benzaldehyde	380 U	420 U	NA	NA	NA	NA
Benzo(a)anthracene	380 U	420 U	380 U	370 U	410 U	440 U
Benzo(a)pyrene	380 U	420 U	380 U	46 J	73 J	440 U
Benzo(b)fluoranthene	380 U	420 U	380 U	370 U	410 U	440 U
Benzo(ghi)perylene	380 U	420 U	380 U	370 U	410 U	440 U
Benzo(k)fluoranthene	380 U	420 U	380 U	370 U	410 U	440 U
bis(2-Chloroethoxy)methane	380 U	420 U	380 U	370 U	410 U	440 U
bis(2-Chloroethyl) ether	380 U	420 U	380 U	370 U	410 U	440 U
bis(2-Ethylhexyl) phthalate	380 U	52 J	120 J	130 J	80 J	110 J
Butyl benzyl phthalate	380 U	420 U	380 U	370 U	410 U	440 U
Caprolactam	380 U	420 U	NA	NA	NA	NA
Carbazole	380 U	420 U	380 U	370 U	410 U	440 U

APPENDIX G
SUBSURFACE SOIL - SWMU 256/257
ORGANIC COMPOUNDS
SWMU CONFIRMATORY SAMPLING (CTO-0143)
1700 - O/W-1, BASE MAINTENANCE
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU256-TW03-03	SWMU256-TW04-03	SWMU257-IS01-02	SWMU257-IS02-01	SWMU257-IS03-01	SWMU257-IS04-02
SAMPLE DATE	03-21-2002	03-21-2002	09-11-1997	09-11-1997	09-11-1997	09-11-1997
DEPTH	5' - 7'	5' - 7'	4' - 6'	2' - 4'	2' - 4'	4' - 6'
SEMIVOLATILES (ug/kg) (cont)						
Chrysene	380 U	420 U	380 U	370 U	410 U	440 U
Di-n-butyl phthalate	380 U	420 U	380 U	370 U	410 U	440 U
Di-n-octyl phthalate	380 U	420 U	380 U	370 U	410 U	440 U
Dibenz(a,h)anthracene	380 U	420 U	380 U	370 U	410 U	440 U
Dibenzofuran	380 U	420 U	380 U	370 U	410 U	440 U
Diethyl phthalate	380 U	420 U	380 U	370 U	410 U	440 U
Dimethyl phthalate	380 U	420 U	380 U	370 U	410 U	440 U
Fluoranthene	380 U	420 U	380 U	370 U	410 U	440 U
Fluorene	380 U	420 U	380 U	370 U	410 U	440 U
Hexachlorobenzene	380 U	420 U	380 U	370 U	410 U	440 U
Hexachlorobutadiene	380 U	420 U	380 U	370 U	410 U	440 U
Hexachlorocyclopentadiene	380 UJ	420 U	1900 U	1800 U	2000 U	2100 U
Hexachloroethane	380 U	420 U	380 U	370 U	410 U	440 U
Indeno(1,2,3-cd)pyrene	380 U	420 U	380 U	370 U	410 U	440 U
Isophorone	380 U	420 U	380 U	370 U	410 U	440 U
N-Nitrosodi-n-propylamine	380 U	420 U	380 U	370 U	410 U	440 U
N-Nitrosodiphenylamine	380 U	420 U	380 U	370 U	410 U	440 U
Naphthalene	380 U	420 U	380 U	370 U	410 U	440 U
Nitrobenzene	380 U	420 U	380 U	370 U	410 U	440 U
Pentachlorophenol	770 U	840 U	1900 U	1800 U	2000 U	2100 U
Phenanthrene	380 U	420 U	380 U	42 J	410 U	440 U
Phenol	380 U	420 U	380 U	370 U	410 U	440 U
Pyrene	380 U	420 U	380 U	370 U	410 U	440 U

APPENDIX G
SUBSURFACE SOIL - SWMU 256/257
INORGANIC COMPOUNDS
SWMU CONFIRMATORY SAMPLING (CTO-0143)
1700 - O/W-1, BASE MAINTENANCE
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU256-IS01-01	SWMU256-IS02-01	SWMU256-IS03-01	SWMU256-IS04-01	SWMU256-SB01-03	SWMU256-TW01-03	SWMU256-TW02-03
SAMPLE DATE	09-10-1997	09-10-1997	09-10-1997	09-10-1997	03-21-2002	03-21-2002	03-21-2002
DEPTH	2' - 4'	2' - 4'	2' - 4'	2' - 4'	5' - 7'	5' - 7'	5' - 7'
METALS (mg/kg)							
Arsenic	NA	NA	NA	NA	NA	NA	NA
Barium	NA	NA	NA	NA	NA	NA	NA
Cadmium	NA	NA	NA	NA	NA	NA	NA
Chromium	NA	NA	NA	NA	NA	NA	NA
Lead	NA	NA	NA	NA	NA	NA	NA
Mercury	NA	NA	NA	NA	NA	NA	NA
Selenium	NA	NA	NA	NA	NA	NA	NA
Silver	NA	NA	NA	NA	NA	NA	NA

APPENDIX G
SUBSURFACE SOIL - SWMU 256/257
INORGANIC COMPOUNDS
SWMU CONFIRMATORY SAMPLING (CTO-0143)
1700 - O/W-1, BASE MAINTENANCE
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU256-TW03-03		SWMU256-TW04-03	SWMU257-IS01-02	SWMU257-IS02-01	SWMU257-IS03-01	SWMU257-IS04-02
SAMPLE DATE	03-21-2002		03-21-2002	09-11-1997	09-11-1997	09-11-1997	09-11-1997
DEPTH	5' - 7'		5' - 7'	4' - 6'	2' - 4'	2' - 4'	4' - 6'
METALS (mg/kg)							
Arsenic	0.54	J	NA	NA	NA	NA	NA
Barium	2.4	U	NA	NA	NA	NA	NA
Cadmium	0.03	U	NA	NA	NA	NA	NA
Chromium	2		NA	NA	NA	NA	NA
Lead	1.5		NA	NA	NA	NA	NA
Mercury	0.02	U	NA	NA	NA	NA	NA
Selenium	0.49	U	NA	NA	NA	NA	NA
Silver	0.1	U	NA	NA	NA	NA	NA

APPENDIX G
GROUNDWATER - SWMU 256/257
ORGANIC COMPOUNDS
SWMU CONFIRMATORY SAMPLING (CTO-0143)
1700 - O/W-1, BASE MAINTENANCE
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU256-GW01		SWMU256-GW02		SWMU256-GW03		SWMU256-GW04	
SAMPLE DATE	04-04-2002		04-04-2002		04-04-2002		04-04-2002	
SEMIVOLATILES (ug/L)								
1,1'-Biphenyl	10	U	10	U	10	U	10	U
2,2'-oxybis(1-Chloropropane)	10	U	10	U	10	U	10	U
2,4,5-Trichlorophenol	10	U	10	U	10	U	10	U
2,4,6-Trichlorophenol	10	U	10	U	10	U	10	U
2,4-Dichlorophenol	10	U	10	U	10	U	10	U
2,4-Dimethylphenol	10	U	10	U	10	U	10	U
2,4-Dinitrophenol	50	U	50	U	50	U	50	U
2,4-Dinitrotoluene	10	U	10	U	10	U	10	U
2,6-Dinitrotoluene	10	U	10	U	10	U	10	U
2-Chloronaphthalene	10	U	10	U	10	U	10	U
2-Chlorophenol	10	U	10	U	10	U	10	U
2-Methylnaphthalene	10	U	10	U	10	U	10	U
2-Methylphenol	10	U	10	U	10	U	10	U
2-Nitroaniline	20	U	20	U	20	U	20	U
2-Nitrophenol	10	U	10	U	10	U	10	U
3,3'-Dichlorobenzidine	20	U	20	U	20	U	20	U
3-Nitroaniline	20	U	20	U	20	U	20	U
4,6-dinitro-2-Methylphenol	20	U	20	U	20	U	20	U
4-Bromophenyl phenyl ether	10	U	10	U	10	U	10	U
4-Chloro-3-methylphenol	10	U	10	U	10	U	10	U
4-Chloroaniline	10	U	10	U	10	U	10	U
4-Chlorophenyl phenyl ether	10	U	10	U	10	U	10	U
4-Methylphenol	10	U	10	U	10	U	10	U
4-Nitroaniline	20	U	20	U	20	U	20	U
4-Nitrophenol	20	U	20	U	20	U	20	U
Acenaphthene	10	U	10	U	10	U	10	U
Acenaphthylene	10	U	10	U	10	U	10	U
Acetophenone	10	U	10	U	10	U	10	U
Anthracene	10	U	10	U	10	U	10	U
Atrazine	10	U	10	U	10	U	10	U
Benzaldehyde	10	U	10	U	10	U	10	U
Benzo(a)anthracene	10	U	10	U	10	U	10	U
Benzo(a)pyrene	10	U	10	U	10	U	10	U
Benzo(b)fluoranthene	10	U	10	U	10	U	10	U
Benzo(g,h,i)perylene	10	U	10	U	10	U	10	U
Benzo(k)fluoranthene	10	U	10	U	10	U	10	U
bis(2-Chloroethoxy)methane	10	U	10	U	10	U	10	U
bis(2-Chloroethyl)ether	10	U	10	U	10	U	10	U

APPENDIX G
GROUNDWATER - SWMU 256/257
ORGANIC COMPOUNDS
SWMU CONFIRMATORY SAMPLING (CTO-0143)
1700 - O/W-1, BASE MAINTENANCE
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU256-GW01		SWMU256-GW02		SWMU256-GW03		SWMU256-GW04	
SAMPLE DATE	04-04-2002		04-04-2002		04-04-2002		04-04-2002	
SEMIVOLATILES (ug/L) (cont)								
bis(2-Ethylhexyl)phthalate	10	U	0.7	J	10	U	10	U
Butyl benzyl phthalate	10	U	10	U	10	U	10	U
Caprolactam	10	U	10	U	10	U	10	U
Carbazole	10	U	10	U	10	U	10	U
Chrysene	10	U	10	U	10	U	10	U
di-N-Butyl phthalate	10	U	10	U	10	U	10	U
di-N-Octyl phthalate	10	U	10	U	10	U	10	U
Dibenzo(a,h)anthracene	10	U	10	U	10	U	10	U
Dibenzofuran	10	U	10	U	10	U	10	U
Diethyl phthalate	10	U	10	U	10	U	10	U
Dimethyl phthalate	10	U	10	U	10	U	10	U
Fluoranthene	10	U	10	U	10	U	10	U
Fluorene	10	U	10	U	10	U	10	U
Hexachlorobenzene	10	U	10	U	10	U	10	U
Hexachlorobutadiene	10	U	10	U	10	U	10	U
Hexachlorocyclopentadiene	10	UJ	10	UJ	10	UJ	10	UJ
Hexachloroethane	10	U	10	U	10	U	10	U
Indeno(1,2,3-cd)pyrene	10	U	10	U	10	U	10	U
Isophorone	10	U	10	U	10	U	10	U
N-Nitroso-di-N-propylamine	10	U	10	U	10	U	10	U
N-Nitrosodiphenylamine(1)	10	U	10	U	10	U	10	U
Naphthalene	10	U	10	U	10	U	10	U
Nitrobenzene	10	UJ	10	UJ	10	UJ	10	UJ
Pentachlorophenol	20	U	20	U	20	U	20	U
Phenanthrene	10	U	10	U	10	U	10	U
Phenol	10	U	10	U	10	U	10	U
Pyrene	10	U	10	U	10	U	10	U

APPENDIX G
GROUNDWATER - SWMU 256/257
INORGANIC COMPOUNDS
SWMU CONFIRMATORY SAMPLING (CTO-0143)
1700 - O/W-1, BASE MAINTENANCE
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU256-GW01	SWMU256-GW02	SWMU256-GW03	SWMU256-GW04
SAMPLE DATE	04-04-2002	04-04-2002	04-04-2002	04-04-2002
METALS (ug/L)				
Arsenic	NA	NA	2.4 UJ	NA
Barium	NA	NA	23 J	NA
Cadmium	NA	NA	0.3 U	NA
Chromium	NA	NA	0.74 J	NA
Lead	NA	NA	1.8 U	NA
Mercury	NA	NA	0.1 U	NA
Selenium	NA	NA	4.6 UJ	NA
Silver	NA	NA	0.9 UJ	NA

APPENDIX G
SURFACE SOIL - SWMU 258
ORGANIC COMPOUNDS
SWMU CONFIRMATORY SAMPLING (CTO-0143)
S1745-O/W, TRUCK COMPANY OPERATIONS, HQ BATTERY, 2D MAR DIV
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU258-IS01-00	SWMU258-IS02-00	SWMU258-IS03-00	SWMU258-IS04-00	SWMU258-IS05-00	SWMU258-IS05-00	SWMU258-IS06-00	SWMU258-TW01-00	SWMU258-TW02-00	SWMU258-TW03-00
SAMPLE DATE	09-11-1997	09-11-1997	09-11-1997	09-11-1997	09-11-1997	03-22-2002	09-11-1997	03-22-2002	03-22-2002	03-22-2002
DEPTH	0' - 2'	0' - 2'	0' - 2'	0' - 2'	0' - 2'	0' - 1'	0' - 2'	0' - 1'	0' - 1'	0' - 1'
VOLATILES (ug/kg)										
1,1,1-Trichloroethane	5.7 U	5.9 U	5.7 U	5.6 U	5.4 U	6 U	5.5 U	NA	NA	NA
1,1,2,2-Tetrachloroethane	5.7 U	5.9 U	5.7 U	5.6 U	5.4 U	6 U	5.5 U	NA	NA	NA
1,1,2-Trichloro-1,2,2-trifluoroethane	NA	NA	NA	NA	NA	6 U	NA	NA	NA	NA
1,1,2-Trichloroethane	5.7 U	5.9 U	5.7 U	5.6 U	5.4 U	6 U	5.5 U	NA	NA	NA
1,1-Dichloroethane	5.7 U	5.9 U	5.7 U	5.6 U	5.4 U	6 U	5.5 U	NA	NA	NA
1,1-Dichloroethene	5.7 U	5.9 U	5.7 U	5.6 U	5.4 U	6 U	5.5 U	NA	NA	NA
1,2,4-Trichlorobenzene	NA	NA	NA	NA	NA	6 U	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	NA	NA	NA	NA	NA	6 U	NA	NA	NA	NA
1,2-Dibromoethane	NA	NA	NA	NA	NA	6 U	NA	NA	NA	NA
1,2-Dichlorobenzene	NA	NA	NA	NA	NA	6 U	NA	NA	NA	NA
1,2-Dichloroethane	5.7 U	5.9 U	5.7 U	5.6 U	5.4 U	6 U	5.5 U	NA	NA	NA
1,2-Dichloropropane	5.7 U	5.9 U	5.7 U	5.6 U	5.4 U	6 U	5.5 U	NA	NA	NA
1,3-Dichlorobenzene	NA	NA	NA	NA	NA	6 U	NA	NA	NA	NA
1,4-Dichlorobenzene	NA	NA	NA	NA	NA	6 U	NA	NA	NA	NA
2-Butanone	23 U	24 U	23 U	23 U	22 U	9 J	22 U	NA	NA	NA
2-Hexanone	23 U	24 U	23 U	23 U	22 U	15 U	22 U	NA	NA	NA
4-Methyl-2-pentanone	23 U	24 U	23 U	23 U	22 U	15 U	22 U	NA	NA	NA
Acetone	23 U	24 U	23 U	23 U	3100	28	22 U	NA	NA	NA
Benzene	5.7 U	5.9 U	5.7 U	5.6 U	5.4 U	1 J	5.5 U	NA	NA	NA
Bromodichloromethane	5.7 U	5.9 U	5.7 U	5.6 U	5.4 U	6 U	5.5 U	NA	NA	NA
Bromoform	5.7 U	5.9 U	5.7 U	5.6 U	5.4 U	6 U	5.5 U	NA	NA	NA
Bromomethane	11 U	12 U	11 U	11 U	11 U	6 UJ	11 U	NA	NA	NA
Carbon disulfide	5.7 U	5.9 U	5.7 U	5.6 U	5.4 U	1 J	5.5 U	NA	NA	NA
Carbon tetrachloride	5.7 U	5.9 U	5.7 U	5.6 U	5.4 U	6 U	5.5 U	NA	NA	NA
Chlorobenzene	5.7 U	5.9 U	5.7 U	5.6 U	5.4 U	6 U	5.5 U	NA	NA	NA
Chloroethane	11 U	12 U	11 U	11 U	11 U	6 U	11 U	NA	NA	NA
Chloroform	5.7 U	5.9 U	5.7 U	5.6 U	5.4 U	6 U	5.5 U	NA	NA	NA
Chloromethane	11 U	12 U	11 U	11 U	11 U	6 U	11 U	NA	NA	NA
cis-1,2-Dichloroethene	NA	NA	NA	NA	NA	6 U	NA	NA	NA	NA
cis-1,3-Dichloropropene	5.7 U	5.9 U	5.7 U	5.6 U	5.4 U	6 U	5.5 U	NA	NA	NA
Cyclohexane	NA	NA	NA	NA	NA	6 U	NA	NA	NA	NA
Dichlorodifluoromethane	NA	NA	NA	NA	NA	6 U	NA	NA	NA	NA
Dibromochloromethane	5.7 U	5.9 U	5.7 U	5.6 U	5.4 U	6 U	5.5 U	NA	NA	NA
Ethylbenzene	5.7 U	5.9 U	5.7 U	5.6 U	5.4 U	2 J	5.5 U	NA	NA	NA
Isopropylbenzene	NA	NA	NA	NA	NA	6 U	NA	NA	NA	NA
Methyl acetate	NA	NA	NA	NA	NA	6 U	NA	NA	NA	NA
Methyl-t-Butyl Ether	NA	NA	NA	NA	NA	6 U	NA	NA	NA	NA
Methylcyclohexane	NA	NA	NA	NA	NA	6 U	NA	NA	NA	NA
Methylene chloride	5 J	5.9 U	5.7 U	5.6 U	6	31	5.5 U	NA	NA	NA
Styrene	5.7 U	5.9 U	5.7 U	5.6 U	5.4 U	6 U	5.5 U	NA	NA	NA
Tetrachloroethene	5.7 U	5.9 U	5.7 U	5.6 U	5.4 U	6 U	5.5 U	NA	NA	NA
Toluene	5.7 U	5.9 U	5.7 U	5.6 U	5.4 U	6 U	5.5 U	NA	NA	NA
trans-1,2-Dichloroethene	NA	NA	NA	NA	NA	6 U	NA	NA	NA	NA
trans-1,3-Dichloropropene	5.7 U	5.9 U	5.7 U	5.6 U	5.4 U	6 U	5.5 U	NA	NA	NA
Trichloroethene	5.7 U	5.9 U	5.7 U	5.6 U	5.4 U	6 U	5.5 U	NA	NA	NA
Trichlorofluoromethane	NA	NA	NA	NA	NA	6 U	NA	NA	NA	NA
Vinyl chloride	11 U	12 U	11 U	11 U	11 U	6 U	11 U	NA	NA	NA
Xylenes (total)	5.7 U	5.9 U	5.7 U	5.6 U	5.4 U	18 UJ	5.5 U	NA	NA	NA

APPENDIX G
SURFACE SOIL - SWMU 258
INORGANIC COMPOUNDS
SWMU CONFIRMATORY SAMPLING (CTO-0143)
S1745-O/W, TRUCK COMPANY OPERATIONS, HQ BATTERY, 2D MAR DIV
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU258-IS01-00	SWMU258-IS02-00	SWMU258-IS03-00	SWMU258-IS04-00	SWMU258-IS05-00	SWMU258-IS05-00	SWMU258-IS06-00
SAMPLE DATE	09-11-1997	09-11-1997	09-11-1997	09-11-1997	09-11-1997	03-22-2002	09-11-1997
DEPTH	0' - 2'	0' - 2'	0' - 2'	0' - 2'	0' - 2'	0' - 1'	0' - 2'
METALS (mg/kg)							
Arsenic	1.1 U	1.2 U	NA	1.1 U	1.1 U	NA	1.1 U
Barium	22.7 U	23.5 U	NA	22.6 U	21.8 U	NA	22.2 U
Cadmium	3.2	1.3	NA	0.56 U	0.54 U	NA	0.55 U
Chromium	19	19.2	NA	10.9	11.1	NA	9.6
Lead	36.2	62.7	NA	4.5	3.6	NA	8.7
Mercury	0.037 U	0.099	NA	0.037 U	0.036 U	NA	0.037 U
Selenium	0.57 U	0.59 U	NA	0.56 U	0.54 U	NA	0.55 U
Silver	1.1 U	1.2 U	NA	1.1 U	1.1 U	NA	1.1 U

APPENDIX G
SURFACE SOIL - SWMU 258
INORGANIC COMPOUNDS
SWMU CONFIRMATORY SAMPLING (CTO-0143)
S1745-O/W, TRUCK COMPANY OPERATIONS, HQ BATTERY, 2D MAR DIV
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU258-TW01-00		SWMU258-TW02-00		SWMU258-TW03-00	
SAMPLE DATE	03-22-2002		03-22-2002		03-22-2002	
DEPTH	0' - 1'		0' - 1'		0' - 1'	
METALS (mg/kg)						
Arsenic	20.4		1.4		2	
Barium	35.8		34.3		43.8	
Cadmium	0.17	J	1.2		0.94	
Chromium	14.7	J	46.9	J	12	J
Lead	24.4		373		79.5	
Mercury	0.12	J	0.16	J	0.08	J
Selenium	1		0.56	U	0.56	U
Silver	0.12	U	0.11	U	0.11	U

APPENDIX G
SUBSURFACE SOIL - SWMU 258
INORGANIC COMPOUNDS
SWMU CONFIRMATORY SAMPLING (CTO-0143)
S1745-O/W, TRUCK COMPANY OPERATIONS, HQ BATTERY, 2D MAR DIV
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU258-IS02-01	SWMU258-IS03-01	SWMU258-IS04-01	SWMU258-IS05-01	SWMU258-IS06-01	SWMU258-TW01-02	SWMU258-TW02-02	SWMU258-TW03-02
SAMPLE DATE	09-11-1997	09-11-1997	09-11-1997	09-11-1997	09-11-1997	03-22-2002	03-22-2002	03-22-2002
DEPTH	2' - 4'	2' - 4'	2' - 4'	2' - 4'	2' - 4'	3' - 5'	3' - 5'	3' - 5'
METALS (mg/kg)								
Arsenic	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	0.28 U	0.3 U	0.3 U
Barium	24.3 U	24.6 U	23.4 U	23.1 U	24.4 U	3.7 U	7.7	5.9 U
Cadmium	0.61 U	0.62 U	0.59 U	0.58 U	0.61 U	0.04 U	0.04 U	0.04 U
Chromium	10.5	10	9.6	8.8	8.2	6.6 J	10.4 J	8.2 J
Lead	11.7	9.8	12.2	13.1	3.9	2.6	3.7	2.9
Mercury	0.04	0.041 U	0.039 U	0.038 U	0.04 U	0.02 J	0.02 U	0.02 J
Selenium	0.61 U	0.62 U	0.59 U	0.58 U	0.61 U	0.54 U	0.58 U	0.57 U
Silver	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	0.11 U	0.11 U	0.11 U

APPENDIX G
GROUNDWATER - SWMU 258
INORGANIC COMPOUNDS
SWMU CONFIRMATORY SAMPLING (CTO-0143)
S1745-O/W, TRUCK COMPANY OPERATIONS, HQ BATTERY, 2D MAR DIV
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU258-GW01		SWMU258-GW02		SWMU258-GW03	
SAMPLE DATE	04-06-2002		04-06-2002		04-06-2002	
METALS (ug/L)						
Arsenic	2.4	U	12.2		3.7	J
Barium	24.9		21.7		36.4	
Cadmium	0.3	U	0.3	U	0.3	U
Chromium	2.4	J	0.6	U	14.3	
Lead	1.8	UJ	1.8	UJ	7.7	J
Mercury	0.1	U	0.1	U	0.1	U
Selenium	4.6	U	4.6	U	4.6	U
Silver	0.9	U	0.9	U	0.9	U

APPENDIX G
SURFACE SOIL - SWMU 261
INORGANIC COMPOUNDS
SWMU CONFIRMATORY SAMPLING (CTO-0143)
1780 - UST-1, TRUCK COMPANY, MAINTENANCE, HQ BN, 2D MAR DIV
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU261-IS01-00	SWMU261-IS02-00	SWMU261-SS01-00	SWMU261-SS02-00	SWMU261-SS03-00	SWMU261-TW01-00	SWMU261-TW02-00	SWMU261-TW03-00	SWMU261-TW04-00
SAMPLE DATE	09-13-1997	09-13-1997	09-17-1997	03-26-2002	03-26-2002	03-26-2002	03-26-2002	03-26-2002	03-26-2002
DEPTH	0' - 2'	0' - 2'	0' - 2'	0' - 1'	0' - 1'	0' - 1'	0' - 1'	0' - 1'	0' - 1'
METALS (mg/kg)									
Arsenic	1.3	1.1 U	1.5 U	0.37 U	0.59 U	1.9 J	0.3 U	0.89 J	0.39 J
Barium	21.8 U	21.9 U	140	22.5 J	36.9 J	19.9 J	13 J	9.2 J	16.4 J
Cadmium	0.54 U	0.55 U	31.6	1.3 J	11.9 J	0.13 U	0.19 U	0.03 U	0.3 U
Chromium	15.7	10.9	65.8	9.6 J	28.7 J	16.9 J	5.5 J	5.6 J	6.9 J
Lead	5.4	4.1	604	53.9 J	587 J	7.2 U	12.3 J	5.7 U	17.2 J
Mercury	0.036 U	0.036 U	0.048 U	0.05 J	0.19 J	0.03 J	0.03 J	0.03 J	0.04 J
Selenium	0.54 U	0.55 U	0.73 U	0.71 UJ	1.6 UJ	0.51 UJ	0.57 UJ	0.53 UJ	0.63 UJ
Silver	1.1 U	1.1 U	1.5 U	0.14 U	0.22 U	0.1 U	0.11 U	0.1 U	0.1 U

APPENDIX G
SUBSURFACE SOIL - SWMU 261
INORGANIC COMPOUNDS
SWMU CONFIRMATORY SAMPLING (CTO-0143)
1780 - UST-1, TRUCK COMPANY, MAINTENANCE, HQ BN, 2D MAR DIV
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU261-IS01-06		SWMU261-IS02-06		SWMU261-TW01A-07	
SAMPLE DATE	09-13-1997		09-13-1997		04-09-2002	
DEPTH	12' - 14'		12' - 14'		13' - 15'	
METALS (mg/kg)						
Arsenic	1.1	U	1.1	U	0.23	U
Barium	22.7	U	22.9	U	8.2	J
Cadmium	0.57	U	0.57	U	0.05	U
Chromium	12.3		8.8		6.8	J
Lead	5.6		3.4		3.5	J
Mercury	0.047		0.038	U	0.05	U
Selenium	0.57	U	0.57	U	0.31	J
Silver	1.1	U	1.1	U	0.06	U

APPENDIX G
GROUNDWATER - SWMU 261
INORGANIC COMPOUNDS
SWMU CONFIRMATORY SAMPLING (CTO-0143)
1780 - UST-1, TRUCK COMPANY, MAINTENANCE, HQ BN, 2D MAR DIV
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU261-GW01		SWMU261-GW02		SWMU261-GW03		SWMU261-GW04	
SAMPLE DATE	04-09-2002		04-08-2002		04-08-2002		04-08-2002	
METALS (ug/L)								
Arsenic	67.1		24.2		2	UJ	2.4	U
Barium	2360	J	532	J	32.9		8.6	J
Cadmium	9.4	J	4.4	J	0.4	U	0.3	U
Chromium	1210		313		17.8		1.4	J
Lead	1200	J	249	J	8.1		2	U
Mercury	3.6		1.1		0.1	U	0.1	U
Selenium	23.7		7.7		2.1	U	4.6	U
Silver	0.5	UJ	0.5	UJ	0.5	U	0.9	U

APPENDIX G
SURFACE SOIL - SWMU 264
ORGANIC COMPOUNDS
SWMU CONFIRMATORY SAMPLING (CTO-0143)
2611 - CONTAINER, GUN CLUB, CTO-0371
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU264-IS01-00		SWMU264-SS01-00		SWMU264-TW01-00		SWMU264-TW02-00		SWMU264-TW03-00	
SAMPLE DATE	09-10-1997		09-17-1997		03-24-2002		03-25-2002		03-26-2002	
DEPTH	0' - 2'		0' - 2'		0' - 1'		0' - 1'		0' - 1'	
SEMIVOLATILES (ug/kg)										
1,1'-Biphenyl	NA		NA		380	U	390	U	390	U
2,2'-Oxybis(1-Chloropropane)	400	U	390	U	380	U	390	U	390	U
2,4,5-Trichlorophenol	400	U	390	U	380	U	390	U	390	U
2,4,6-Trichlorophenol	400	U	390	U	380	U	390	U	390	U
2,4-Dichlorophenol	400	U	390	U	380	U	390	U	390	U
2,4-Dimethylphenol	400	U	390	U	380	U	390	U	390	U
2,4-Dinitrophenol	2000	U	1900	U	2000	UJ	2000	UJ	2000	UJ
2,4-Dinitrotoluene	400	U	390	U	380	U	390	U	390	U
2,6-Dinitrotoluene	400	U	390	U	380	U	390	U	390	UJ
2-Chloronaphthalene	400	U	390	U	380	U	390	U	390	U
2-Chlorophenol	400	U	390	U	380	U	390	U	390	U
2-Methylnaphthalene	400	U	390	U	380	U	390	U	390	U
2-Methylphenol	400	U	390	U	380	U	390	U	390	U
2-Nitroaniline	2000	U	1900	U	770	U	790	U	780	U
2-Nitrophenol	400	U	390	U	380	U	390	U	390	U
3,3'-Dichlorobenzidine	2000	U	1900	U	770	U	790	U	780	U
3-Nitroaniline	2000	U	1900	U	770	U	790	U	780	U
4,6-Dinitro-2-methylphenol	2000	U	1900	U	770	U	790	U	780	U
4-Bromophenyl phenyl ether	400	U	390	U	380	U	390	U	390	U
4-Chloro-3-methylphenol	400	U	390	U	380	U	390	U	390	U
4-Chloroaniline	400	U	390	U	380	U	390	U	390	U
4-Chlorophenyl phenyl ether	400	U	390	U	380	U	390	U	390	U
4-Methylphenol	400	U	390	U	380	U	390	U	390	U
4-Nitroaniline	2000	U	1900	U	770	U	790	U	780	U
4-Nitrophenol	2000	U	1900	U	770	U	790	U	780	U
Acenaphthene	400	U	390	U	380	U	390	U	390	U
Acenaphthylene	400	U	390	U	380	U	390	U	390	U
Acetophenone	NA		NA		380	U	390	U	390	U
Anthracene	400	U	390	U	380	U	390	U	390	U
Atrazine	NA		NA		380	U	390	U	390	U
Benzaldehyde	NA		NA		380	U	390	U	390	U
Benzo(a)anthracene	400	U	390	U	380	U	390	U	390	U
Benzo(a)pyrene	400	U	390	U	380	U	390	U	390	U
Benzo(b)fluoranthene	400	U	390	U	380	U	390	U	390	U
Benzo(ghi)perylene	400	U	390	U	380	U	390	U	390	U
Benzo(k)fluoranthene	400	U	390	U	380	U	390	U	390	U
bis(2-Chloroethoxy)methane	400	U	390	U	380	U	390	U	390	U
bis(2-Chloroethyl) ether	400	U	390	U	380	U	390	U	390	U
bis(2-Ethylhexyl) phthalate	140	J	97	J	400		86	J	290	J
Butyl benzyl phthalate	400	U	390	U	380	U	390	U	390	U
Caprolactam	NA		NA		380	U	390	U	390	U

APPENDIX G
SURFACE SOIL - SWMU 264
ORGANIC COMPOUNDS
SWMU CONFIRMATORY SAMPLING (CTO-0143)
2611 - CONTAINER, GUN CLUB, CTO-0371
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU264-IS01-00		SWMU264-SS01-00		SWMU264-TW01-00		SWMU264-TW02-00		SWMU264-TW03-00	
SAMPLE DATE	09-10-1997		09-17-1997		03-24-2002		03-25-2002		03-26-2002	
DEPTH	0' - 2'		0' - 2'		0' - 1'		0' - 1'		0' - 1'	
SEMIVOLATILES (ug/kg) (cont)										
Carbazole	400	U	390	U	380	U	390	U	390	U
Chrysene	400	U	390	U	380	U	390	U	390	U
Di-n-butyl phthalate	400	U	390	U	380	U	390	U	390	U
Di-n-octyl phthalate	400	U	390	U	380	U	390	U	390	U
Dibenz(a,h)anthracene	400	U	390	U	380	U	390	U	390	U
Dibenzofuran	400	U	390	U	380	U	390	U	390	U
Diethyl phthalate	400	U	390	U	380	U	390	U	390	U
Dimethyl phthalate	400	U	390	U	380	U	390	U	390	U
Fluoranthene	400	U	390	U	380	U	390	U	390	U
Fluorene	400	U	390	U	380	U	390	U	390	U
Hexachlorobenzene	400	U	390	U	380	U	390	U	390	U
Hexachlorobutadiene	400	U	390	U	380	U	390	U	390	U
Hexachlorocyclopentadiene	2000	U	1900	U	380	U	390	U	390	U
Hexachloroethane	400	U	390	U	380	U	390	U	390	U
Indeno(1,2,3-cd)pyrene	400	U	390	U	380	U	390	U	390	U
Isophorone	400	U	390	U	380	U	390	U	390	U
N-Nitrosodi-n-propylamine	400	U	390	U	380	U	390	U	390	U
N-Nitrosodiphenylamine	400	U	390	U	380	U	390	U	390	U
Naphthalene	400	U	390	U	380	U	390	U	390	U
Nitrobenzene	400	U	390	U	380	U	390	U	390	U
Pentachlorophenol	2000	U	870	J	770	U	790	U	780	U
Phenanthrene	400	U	390	U	380	U	390	U	390	U
Phenol	400	U	390	U	380	U	390	U	390	U
Pyrene	400	U	58	J	380	U	390	U	390	U

APPENDIX G
SURFACE SOIL - SWMU 264
INORGANIC COMPOUNDS
SWMU CONFIRMATORY SAMPLING (CTO-0143)
2611 - CONTAINER, GUN CLUB, CTO-0371
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU264-IS01-00		SWMU264-SS01-00		SWMU264-TW01-00		SWMU264-TW02-00		SWMU264-TW03-00	
SAMPLE DATE	09-10-1997		09-17-1997		03-24-2002		03-25-2002		03-26-2002	
DEPTH	0' - 2'		0' - 2'		0' - 1'		0' - 1'		0' - 1'	
METALS (mg/kg)										
Arsenic	5.2		1.3		1.3	J	4.2	J	1.7	J
Barium	28.7		24.3		8.1	J	15	J	6.8	J
Cadmium	0.61	U	0.59	U	0.03	U	0.03	U	0.04	U
Chromium	24.9		9.8		8.2	J	19.9	J	8.6	
Lead	8.6		9.5		4.4	J	6.9	J	4.5	
Mercury	0.04	U	0.039	U	0.02	U	0.02	J	0.02	J
Selenium	0.61	U	0.59	U	0.33	J	0.47	J	0.54	U
Silver	1.2	U	1.2	U	0.05	U	0.06	U	0.11	UJ

APPENDIX G
SUBSURFACE SOIL - SWMU 264
ORGANIC COMPOUNDS
SWMU CONFIRMATORY SAMPLING (CTO-0143)
2611 - CONTAINER, GUN CLUB, CTO-0371
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU264-IS01-02		SWMU264-TW01-04		SWMU264-TW02-04		SWMU264-TW03-03	
SAMPLE DATE	09-10-1997		03-24-2002		03-25-2002		03-26-2002	
DEPTH	4' - 6'		7' - 9'		7' - 9'		5' - 7'	
SEMIVOLATILES (ug/kg)								
1,1'-Biphenyl	NA		400	U	420	U	380	U
2,2'-Oxybis(1-Chloropropane)	370	U	400	U	420	U	380	U
2,4,5-Trichlorophenol	370	U	400	U	420	U	380	U
2,4,6-Trichlorophenol	370	U	400	U	420	U	380	U
2,4-Dichlorophenol	370	U	400	U	420	U	380	U
2,4-Dimethylphenol	370	U	400	U	420	U	380	U
2,4-Dinitrophenol	1800	U	2000	UJ	2200	UJ	1900	UJ
2,4-Dinitrotoluene	370	U	400	U	420	U	380	U
2,6-Dinitrotoluene	370	U	400	U	420	U	380	UJ
2-Chloronaphthalene	370	U	400	U	420	U	380	U
2-Chlorophenol	370	U	400	U	420	U	380	U
2-Methylnaphthalene	370	U	400	U	420	U	380	U
2-Methylphenol	370	U	400	U	420	U	380	U
2-Nitroaniline	1800	U	800	U	840	U	750	U
2-Nitrophenol	370	U	400	U	420	U	380	U
3,3'-Dichlorobenzidine	1800	U	800	U	840	U	750	U
3-Nitroaniline	1800	U	800	U	840	U	750	U
4,6-Dinitro-2-methylphenol	1800	U	800	U	840	U	750	U
4-Bromophenyl phenyl ether	370	U	400	U	420	U	380	U
4-Chloro-3-methylphenol	370	U	400	U	420	U	380	U
4-Chloroaniline	370	U	400	U	420	U	380	U
4-Chlorophenyl phenyl ether	370	U	400	U	420	U	380	U
4-Methylphenol	370	U	400	U	420	U	380	U
4-Nitroaniline	1800	U	800	U	840	U	750	U
4-Nitrophenol	1800	U	800	U	840	U	750	U
Acenaphthene	370	U	400	U	420	U	380	U
Acenaphthylene	370	U	400	U	420	U	380	U
Acetophenone	NA		400	U	420	U	380	U
Anthracene	370	U	400	U	420	U	380	U
Atrazine	NA		400	U	420	U	380	U
Benzaldehyde	NA		400	U	420	U	380	U
Benzo(a)anthracene	370	U	400	U	420	U	380	U
Benzo(a)pyrene	370	U	400	U	420	U	380	U
Benzo(b)fluoranthene	370	U	400	U	420	U	380	U
Benzo(ghi)perylene	370	U	400	U	420	U	380	U
Benzo(k)fluoranthene	370	U	400	U	420	U	380	U
bis(2-Chloroethoxy)methane	370	U	400	U	420	U	380	U
bis(2-Chloroethyl) ether	370	U	400	U	420	U	380	U
bis(2-Ethylhexyl) phthalate	85	J	400	U	100	J	380	U
Butyl benzyl phthalate	370	U	400	U	420	U	380	U
Caprolactam	NA		400	U	420	U	380	U

APPENDIX G
SUBSURFACE SOIL - SWMU 264
ORGANIC COMPOUNDS
SWMU CONFIRMATORY SAMPLING (CTO-0143)
2611 - CONTAINER, GUN CLUB, CTO-0371
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU264-IS01-02		SWMU264-TW01-04		SWMU264-TW02-04		SWMU264-TW03-03	
SAMPLE DATE	09-10-1997		03-24-2002		03-25-2002		03-26-2002	
DEPTH	4' - 6'		7' - 9'		7' - 9'		5' - 7'	
SEMIVOLATILES (ug/kg) (cont)								
Carbazole	370	U	400	U	420	U	380	U
Chrysene	370	U	400	U	420	U	380	U
Di-n-butyl phthalate	370	U	400	U	420	U	380	U
Di-n-octyl phthalate	370	U	400	U	420	U	380	U
Dibenz(a,h)anthracene	370	U	400	U	420	U	380	U
Dibenzofuran	370	U	400	U	420	U	380	U
Diethyl phthalate	370	U	400	U	420	U	380	U
Dimethyl phthalate	370	U	400	U	420	U	380	U
Fluoranthene	370	U	400	U	420	U	380	U
Fluorene	370	U	400	U	420	U	380	U
Hexachlorobenzene	370	U	400	U	420	U	380	U
Hexachlorobutadiene	370	U	400	U	420	U	380	U
Hexachlorocyclopentadiene	1800	U	400	U	420	U	380	U
Hexachloroethane	370	U	400	U	420	U	380	U
Indeno(1,2,3-cd)pyrene	370	U	400	U	420	U	380	U
Isophorone	370	U	400	U	420	U	380	U
N-Nitrosodi-n-propylamine	370	U	400	U	420	U	380	U
N-Nitrosodiphenylamine	370	U	400	U	420	U	380	U
Naphthalene	370	U	400	U	420	U	380	U
Nitrobenzene	370	U	400	U	420	U	380	U
Pentachlorophenol	1800	U	800	U	840	U	750	U
Phenanthrene	370	U	400	U	420	U	380	U
Phenol	370	U	400	U	420	U	380	U
Pyrene	370	U	400	U	420	U	380	U

APPENDIX G
SUBSURFACE SOIL - SWMU 264
INORGANIC COMPOUNDS
SWMU CONFIRMATORY SAMPLING (CTO-0143)
2611 - CONTAINER, GUN CLUB, CTO-0371
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU264-IS01-02		SWMU264-TW01-04		SWMU264-TW02-04		SWMU264-TW03-03	
SAMPLE DATE	09-10-1997		03-24-2002		03-25-2002		03-26-2002	
DEPTH	4' - 6'		7' - 9'		7' - 9'		5' - 7'	
METALS (mg/kg)								
Arsenic	2.7		3.3	J	2.6	J	0.27	UJ
Barium	22.7	U	10.7	J	3.9	J	2.9	U
Cadmium	0.57	U	0.03	U	0.04	U	0.03	U
Chromium	16.7		16.8	J	5.9	J	2.5	
Lead	5.4		6.2	J	3.4	J	1.7	U
Mercury	0.037	U	0.02	U	0.02	U	0.02	U
Selenium	0.57	U	0.46	J	0.23	UJ	0.51	U
Silver	1.1	U	0.06	U	0.06	U	0.1	UJ

APPENDIX G
GROUNDWATER - SWMU 264
ORGANIC COMPOUNDS
SWMU CONFIRMATORY SAMPLING (CTO-0143)
2611 - CONTAINER, GUN CLUB, CTO-0371
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU264-GW01		SWMU264-GW02		SWMU264-GW03	
SAMPLE DATE	04-07-2002		04-07-2002		04-07-2002	
SEMIVOLATILES (ug/L)						
1,1'-Biphenyl	11	U	10	U	10	U
2,2'-oxybis(1-Chloropropane)	11	U	10	U	10	U
2,4,5-Trichlorophenol	11	U	10	U	10	U
2,4,6-Trichlorophenol	11	U	10	U	10	U
2,4-Dichlorophenol	11	U	10	U	10	U
2,4-Dimethylphenol	11	U	10	U	10	U
2,4-Dinitrophenol	54	UJ	50	UJ	50	UJ
2,4-Dinitrotoluene	11	U	10	U	10	U
2,6-Dinitrotoluene	11	U	10	U	10	U
2-Chloronaphthalene	11	U	10	U	10	U
2-Chlorophenol	11	U	10	U	10	U
2-Methylnaphthalene	1.1	J	10	U	10	U
2-Methylphenol	11	U	10	U	10	U
2-Nitroaniline	22	U	20	U	20	U
2-Nitrophenol	11	U	10	U	10	U
3,3'-Dichlorobenzidine	22	U	20	U	20	U
3-Nitroaniline	22	U	20	U	20	U
4,6-dinitro-2-Methylphenol	22	U	20	U	20	U
4-Bromophenyl phenyl ether	11	U	10	U	10	U
4-Chloro-3-methylphenol	11	U	10	U	10	U
4-Chloroaniline	11	U	10	U	10	U
4-Chlorophenyl phenyl ether	11	U	10	U	10	U
4-Methylphenol	11	U	10	U	10	U
4-Nitroaniline	22	U	20	U	20	U
4-Nitrophenol	22	U	20	U	20	U
Acenaphthene	11	U	10	U	10	U
Acenaphthylene	11	U	10	U	10	U
Acetophenone	11	U	10	U	10	U
Anthracene	11	U	10	U	10	U
Atrazine	11	U	10	U	10	U
Benzaldehyde	11	U	10	U	10	U
Benzo(a)anthracene	11	U	10	U	10	U
Benzo(a)pyrene	11	U	10	U	10	U
Benzo(b)fluoranthene	11	U	10	U	10	U
Benzo(g,h,i)perylene	11	U	10	U	10	U
Benzo(k)fluoranthene	11	U	10	U	10	U
bis(2-Chloroethoxy)methane	11	U	10	U	10	U
bis(2-Chloroethyl)ether	11	U	10	U	10	U

APPENDIX G
GROUNDWATER - SWMU 264
ORGANIC COMPOUNDS
SWMU CONFIRMATORY SAMPLING (CTO-0143)
2611 - CONTAINER, GUN CLUB, CTO-0371
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU264-GW01		SWMU264-GW02		SWMU264-GW03	
SAMPLE DATE	04-07-2002		04-07-2002		04-07-2002	
SEMIVOLATILES (ug/L) (cont)						
bis(2-Ethylhexyl)phthalate	11	U	10	U	10	U
Butyl benzyl phthalate	11	U	10	U	10	U
Caprolactam	11	U	10	U	10	U
Carbazole	11	U	10	U	10	U
Chrysene	11	U	10	U	10	U
di-N-Butyl phthalate	11	U	10	U	10	U
di-N-Octyl phthalate	11	U	10	U	10	U
Dibenzo(a,h)anthracene	11	U	10	U	10	U
Dibenzofuran	11	U	10	U	10	U
Diethyl phthalate	11	U	10	U	10	U
Dimethyl phthalate	11	U	10	U	10	U
Fluoranthene	11	U	10	U	10	U
Fluorene	11	U	10	U	10	U
Hexachlorobenzene	11	U	10	U	10	U
Hexachlorobutadiene	11	U	10	U	10	U
Hexachlorocyclopentadiene	11	U	10	U	10	U
Hexachloroethane	11	U	10	U	10	U
Indeno(1,2,3-cd)pyrene	11	U	10	U	10	U
Isophorone	11	U	10	U	10	U
N-Nitroso-di-N-propylamine	11	U	10	U	10	U
N-Nitrosodiphenylamine(1)	11	U	10	U	10	U
Naphthalene	11	U	10	U	10	U
Nitrobenzene	11	U	10	U	10	U
Pentachlorophenol	22	U	20	U	20	U
Phenanthrene	2	J	10	U	10	U
Phenol	11	U	10	U	10	U
Pyrene	11	U	10	U	10	U

APPENDIX G
GROUNDWATER - SWMU 264
INORGANIC COMPOUNDS
SWMU CONFIRMATORY SAMPLING (CTO-0143)
2611 - CONTAINER, GUN CLUB, CTO-0371
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU264-GW01		SWMU264-GW02		SWMU264-GW03	
SAMPLE DATE	04-07-2002		04-07-2002		04-07-2002	
METALS (ug/L)						
Arsenic	2.4	U	2.4	U	6.5	J
Barium	32.4		38.3		193	
Cadmium	0.3	U	0.3	U	4.1	J
Chromium	0.94	J	0.75	J	8.7	
Lead	1.8	U	1.8	U	2	U
Mercury	0.1	U	0.1	U	0.1	U
Selenium	4.6	U	4.6	U	4.9	J
Silver	0.9	U	0.9	U	0.9	U

APPENDIX G
SURFACE SOIL - SWMU 265
ORGANIC COMPOUNDS
SWMU CONFIRMATORY SAMPLING (CTO-0143)
2615 - O/W, OFFICER'S CLUB
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU265-IS01-00	SWMU265-IS02-00	SWMU265-IS03-00	SWMU265-IS04-00	SWMU265-TW01-00	SWMU265-TW02-00	SWMU265-TW03-00
SAMPLE DATE	09-10-1997	09-10-1997	09-10-1997	09-10-1997	03-24-2002	03-24-2002	03-24-2002
DEPTH	0' - 2'	0' - 2'	0' - 2'	0' - 2'	0' - 1'	0' - 1'	0' - 1'
SEMIVOLATILES (ug/kg)							
1,1'-Biphenyl	NA	NA	NA	NA	370 U	380 U	370 U
2,2'-Oxybis(1-Chloropropane)	400 U	380 U	380 U	370 U	370 U	380 U	370 U
2,4,5-Trichlorophenol	400 U	380 U	380 U	370 U	370 U	380 U	370 U
2,4,6-Trichlorophenol	400 U	380 U	380 U	370 U	370 U	380 U	370 U
2,4-Dichlorophenol	400 U	380 U	380 U	370 U	370 U	380 U	370 U
2,4-Dimethylphenol	400 U	380 U	380 U	370 U	370 U	380 U	370 U
2,4-Dinitrophenol	1900 U	1800 U	1800 U	1800 U	1900 UJ	2000 UJ	1900 UJ
2,4-Dinitrotoluene	400 U	380 U	380 U	370 U	370 U	380 U	370 U
2,6-Dinitrotoluene	400 U	380 U	380 U	370 U	370 U	380 U	370 U
2-Chloronaphthalene	400 U	380 U	380 U	370 U	370 U	380 U	370 U
2-Chlorophenol	400 U	380 U	380 U	370 U	370 U	380 U	370 U
2-Methylnaphthalene	400 U	380 U	380 U	370 U	370 U	380 U	370 U
2-Methylphenol	400 U	380 U	380 U	370 U	370 U	380 U	370 U
2-Nitroaniline	1900 U	1800 U	1800 U	1800 U	740 U	760 U	740 U
2-Nitrophenol	400 U	380 U	380 U	370 U	370 U	380 U	370 U
3,3'-Dichlorobenzidine	1900 U	1800 U	1800 U	1800 U	740 U	760 U	740 U
3-Nitroaniline	1900 U	1800 U	1800 U	1800 U	740 U	760 U	740 U
4,6-Dinitro-2-methylphenol	1900 U	1800 U	1800 U	1800 U	740 U	760 U	740 U
4-Bromophenyl phenyl ether	400 U	380 U	380 U	370 U	370 U	380 U	370 U
4-Chloro-3-methylphenol	400 U	380 U	380 U	370 U	370 U	380 U	370 U
4-Chloroaniline	400 U	380 U	380 U	370 U	370 U	380 U	370 U
4-Chlorophenyl phenyl ether	400 U	380 U	380 U	370 U	370 U	380 U	370 U
4-Methylphenol	400 U	380 U	380 U	370 U	370 U	380 U	370 U
4-Nitroaniline	1900 U	1800 U	1800 U	1800 U	740 U	760 U	740 U
4-Nitrophenol	1900 U	1800 U	1800 U	1800 U	740 U	760 U	740 U
Acenaphthene	400 U	380 U	380 U	370 U	370 U	380 U	370 U
Acenaphthylene	400 U	380 U	380 U	370 U	370 U	380 U	370 U
Acetophenone	NA	NA	NA	NA	370 U	380 U	370 U
Anthracene	400 U	380 U	380 U	370 U	370 U	380 U	370 U
Atrazine	NA	NA	NA	NA	370 U	380 U	370 U
Benzaldehyde	NA	NA	NA	NA	370 U	380 U	370 U
Benzo(a)anthracene	66 J	380 U	380 U	370 U	370 U	380 U	370 U
Benzo(a)pyrene	120 J	380 U	380 U	370 U	370 U	380 U	370 U
Benzo(b)fluoranthene	110 J	380 U	380 U	370 U	370 U	380 U	370 U
Benzo(ghi)perylene	83 J	380 U	380 U	370 U	370 U	380 U	370 U
Benzo(k)fluoranthene	86 J	380 U	380 U	370 U	370 U	380 U	370 U
bis(2-Chloroethoxy)methane	400 U	380 U	380 U	370 U	370 U	380 U	370 U
bis(2-Chloroethyl) ether	400 U	380 U	380 U	370 U	370 U	380 U	370 U
bis(2-Ethylhexyl) phthalate	130 J	170 J	160 J	110 J	63 J	150 J	53 J
Butyl benzyl phthalate	400 U	380 U	380 U	370 U	370 U	380 U	370 U
Caprolactam	NA	NA	NA	NA	370 U	380 U	370 U

APPENDIX G
SURFACE SOIL - SWMU 265
ORGANIC COMPOUNDS
SWMU CONFIRMATORY SAMPLING (CTO-0143)
2615 - O/W, OFFICER'S CLUB
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU265-IS01-00	SWMU265-IS02-00	SWMU265-IS03-00	SWMU265-IS04-00	SWMU265-TW01-00	SWMU265-TW02-00	SWMU265-TW03-00
SAMPLE DATE	09-10-1997	09-10-1997	09-10-1997	09-10-1997	03-24-2002	03-24-2002	03-24-2002
DEPTH	0' - 2'	0' - 2'	0' - 2'	0' - 2'	0' - 1'	0' - 1'	0' - 1'
SEMIVOLATILES (ug/kg) (cont)							
Carbazole	400 U	380 U	380 U	370 U	370 U	380 U	370 U
Chrysene	110 J	380 U	380 U	370 U	370 U	380 U	370 U
Di-n-butyl phthalate	400 U	380 U	380 U	370 U	370 U	380 U	370 U
Di-n-octyl phthalate	400 U	380 U	380 U	370 U	370 U	380 U	370 U
Dibenz(a,h)anthracene	400 U	380 U	380 U	370 U	370 U	380 U	370 U
Dibenzofuran	400 U	380 U	380 U	370 U	370 U	380 U	370 U
Diethyl phthalate	400 U	380 U	380 U	370 U	370 U	380 U	370 U
Dimethyl phthalate	400 U	380 U	380 U	370 U	370 U	380 U	370 U
Fluoranthene	33 J	380 U	380 U	370 U	370 U	380 U	370 U
Fluorene	400 U	380 U	380 U	370 U	370 U	380 U	370 U
Hexachlorobenzene	400 U	380 U	380 U	370 U	370 U	380 U	370 U
Hexachlorobutadiene	400 U	380 U	380 U	370 U	370 U	380 U	370 U
Hexachlorocyclopentadiene	1900 U	1800 U	1800 U	1800 U	370 U	380 U	370 U
Hexachloroethane	400 U	380 U	380 U	370 U	370 U	380 U	370 U
Indeno(1,2,3-cd)pyrene	69 J	380 U	380 U	370 U	370 U	380 U	370 U
Isophorone	400 U	380 U	380 U	370 U	370 U	380 U	370 U
N-Nitrosodi-n-propylamine	400 U	380 U	380 U	370 U	370 U	380 U	370 U
N-Nitrosodiphenylamine	400 U	380 U	380 U	370 U	370 U	380 U	370 U
Naphthalene	400 U	380 U	380 U	370 U	370 U	380 U	370 U
Nitrobenzene	400 U	380 U	380 U	370 U	370 U	380 U	370 U
Pentachlorophenol	1900 U	1800 U	1800 U	1800 U	740 U	760 U	740 U
Phenanthrene	400 U	380 U	380 U	370 U	370 U	380 U	370 U
Phenol	400 U	380 U	380 U	370 U	370 U	380 U	370 U
Pyrene	76 J	380 U	380 U	370 U	370 U	380 U	370 U

APPENDIX G
SUBSURFACE SOIL - SWMU 265
ORGANIC COMPOUNDS
SWMU CONFIRMATORY SAMPLING (CTO-0143)
2615 - O/W, OFFICER'S CLUB
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU265-IS01-01	SWMU265-IS02-01	SWMU265-IS03-01	SWMU265-IS04-01	SWMU265-TW01-05	SWMU265-TW02-05	SWMU265-TW03-05
SAMPLE DATE	09-10-1997	09-10-1997	09-10-1997	09-10-1997	03-24-2002	03-24-2002	03-24-2002
DEPTH	2' - 4'	2' - 4'	2' - 4'	2' - 4'	9' - 11'	9' - 11'	9' - 11'
SEMIVOLATILES (ug/kg)							
1,1'-Biphenyl	NA	NA	NA	NA	410 U	390 U	390 U
2,2'-Oxybis(1-Chloropropane)	400 U	400 U	390 U	390 U	410 U	390 U	390 U
2,4,5-Trichlorophenol	400 U	400 U	390 U	390 U	410 U	390 U	390 U
2,4,6-Trichlorophenol	400 U	400 U	390 U	390 U	410 U	390 U	390 U
2,4-Dichlorophenol	400 U	400 U	390 U	390 U	410 U	390 U	390 U
2,4-Dimethylphenol	400 U	400 U	390 U	390 U	410 U	390 U	390 U
2,4-Dinitrophenol	2000 U	1900 U	1900 U	1900 U	2100 UJ	2000 UJ	2000 UJ
2,4-Dinitrotoluene	400 U	400 U	390 U	390 U	410 U	390 U	390 U
2,6-Dinitrotoluene	400 U	400 U	390 U	390 U	410 U	390 U	390 U
2-Chloronaphthalene	400 U	400 U	390 U	390 U	410 U	390 U	390 U
2-Chlorophenol	400 U	400 U	390 U	390 U	410 U	390 U	390 U
2-Methylnaphthalene	400 U	400 U	390 U	390 U	410 U	390 U	390 U
2-Methylphenol	400 U	400 U	390 U	390 U	410 U	390 U	390 U
2-Nitroaniline	2000 U	1900 U	1900 U	1900 U	810 U	780 U	780 U
2-Nitrophenol	400 U	400 U	390 U	390 U	410 U	390 U	390 U
3,3'-Dichlorobenzidine	2000 U	1900 U	1900 U	1900 U	810 U	780 U	780 U
3-Nitroaniline	2000 U	1900 U	1900 U	1900 U	810 U	780 U	780 U
4,6-Dinitro-2-methylphenol	2000 U	1900 U	1900 U	1900 U	810 U	780 U	780 U
4-Bromophenyl phenyl ether	400 U	400 U	390 U	390 U	410 U	390 U	390 U
4-Chloro-3-methylphenol	400 U	400 U	390 U	390 U	410 U	390 U	390 U
4-Chloroaniline	400 U	400 U	390 U	390 U	410 U	390 U	390 U
4-Chlorophenyl phenyl ether	400 U	400 U	390 U	390 U	410 U	390 U	390 U
4-Methylphenol	400 U	400 U	390 U	390 U	410 U	390 U	390 U
4-Nitroaniline	2000 U	1900 U	1900 U	1900 U	810 U	780 U	780 U
4-Nitrophenol	2000 U	1900 U	1900 U	1900 U	810 U	780 U	780 U
Acenaphthene	400 U	400 U	390 U	390 U	410 U	390 U	390 U
Acenaphthylene	400 U	400 U	390 U	390 U	410 U	390 U	390 U
Acetophenone	NA	NA	NA	NA	410 U	390 U	390 U
Anthracene	400 U	400 U	390 U	390 U	410 U	390 U	390 U
Atrazine	NA	NA	NA	NA	410 U	390 U	390 U
Benzaldehyde	NA	NA	NA	NA	410 U	390 U	390 U
Benzo(a)anthracene	56 J	400 U	390 U	390 U	410 U	390 U	390 U
Benzo(a)pyrene	86 J	400 U	390 U	390 U	410 U	390 U	390 U
Benzo(b)fluoranthene	50 J	400 U	390 U	390 U	410 U	390 U	390 U
Benzo(ghi)perylene	50 J	400 U	390 U	390 U	410 U	390 U	390 U
Benzo(k)fluoranthene	400 U	400 U	390 U	390 U	410 U	390 U	390 U
bis(2-Chloroethoxy)methane	400 U	400 U	390 U	390 U	410 U	390 U	390 U
bis(2-Chloroethyl) ether	400 U	400 U	390 U	390 U	410 U	390 U	390 U
bis(2-Ethylhexyl) phthalate	160 J	150 J	150 J	160 J	170 J	56 J	440
Butyl benzyl phthalate	400 U	400 U	390 U	390 U	410 U	390 U	390 U
Caprolactam	NA	NA	NA	NA	410 U	390 U	390 U

APPENDIX G
SUBSURFACE SOIL - SWMU 265
ORGANIC COMPOUNDS
SWMU CONFIRMATORY SAMPLING (CTO-0143)
2615 - O/W, OFFICER'S CLUB
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU265-IS01-01	SWMU265-IS02-01	SWMU265-IS03-01	SWMU265-IS04-01	SWMU265-TW01-05	SWMU265-TW02-05	SWMU265-TW03-05
SAMPLE DATE	09-10-1997	09-10-1997	09-10-1997	09-10-1997	03-24-2002	03-24-2002	03-24-2002
DEPTH	2' - 4'	2' - 4'	2' - 4'	2' - 4'	9' - 11'	9' - 11'	9' - 11'
SEMIVOLATILES (ug/kg) (cont)							
Carbazole	400 U	400 U	390 U	390 U	410 U	390 U	390 U
Chrysene	100 J	400 U	390 U	390 U	410 U	390 U	390 U
Di-n-butyl phthalate	400 U	400 U	390 U	390 U	410 U	390 U	390 U
Di-n-octyl phthalate	400 U	400 U	390 U	390 U	410 U	390 U	31 J
Dibenz(a,h)anthracene	400 U	400 U	390 U	390 U	410 U	390 U	390 U
Dibenzofuran	400 U	400 U	390 U	390 U	410 U	390 U	390 U
Diethyl phthalate	400 U	400 U	390 U	390 U	410 U	390 U	390 U
Dimethyl phthalate	400 U	400 U	390 U	390 U	410 U	390 U	390 U
Fluoranthene	67 J	400 U	390 U	390 U	410 U	390 U	390 U
Fluorene	400 U	400 U	390 U	390 U	410 U	390 U	390 U
Hexachlorobenzene	400 U	400 U	390 U	390 U	410 U	390 U	390 U
Hexachlorobutadiene	400 U	400 U	390 U	390 U	410 U	390 U	390 U
Hexachlorocyclopentadiene	2000 U	1900 U	1900 U	1900 U	410 U	390 U	390 U
Hexachloroethane	400 U	400 U	390 U	390 U	410 U	390 U	390 U
Indeno(1,2,3-cd)pyrene	400 U	400 U	390 U	390 U	410 U	390 U	390 U
Isophorone	400 U	400 U	390 U	390 U	410 U	390 U	390 U
N-Nitrosodi-n-propylamine	400 U	400 U	390 U	390 U	410 U	390 U	390 U
N-Nitrosodiphenylamine	400 U	400 U	390 U	390 U	410 U	390 U	390 U
Naphthalene	400 U	400 U	390 U	390 U	410 U	390 U	390 U
Nitrobenzene	400 U	400 U	390 U	390 U	410 U	390 U	390 U
Pentachlorophenol	2000 U	1900 U	1900 U	1900 U	810 U	780 U	780 U
Phenanthrene	400 U	400 U	390 U	390 U	410 U	390 U	390 U
Phenol	400 U	400 U	390 U	390 U	410 U	390 U	390 U
Pyrene	130 J	400 U	390 U	390 U	410 U	390 U	390 U

APPENDIX G
GROUNDWATER - SWMU 265
ORGANIC COMPOUNDS
SWMU CONFIRMATORY SAMPLING (CTO-0143)
2615 - O/W, OFFICER'S CLUB
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU265-GW01		SWMU265-GW02		SWMU265-GW03	
SAMPLE DATE	04-07-2002		04-07-2002		04-07-2002	
SEMIVOLATILES (ug/L)						
1,1'-Biphenyl	10	U	10	U	10	U
2,2'-oxybis(1-Chloropropane)	10	U	10	U	10	U
2,4,5-Trichlorophenol	10	U	10	U	10	U
2,4,6-Trichlorophenol	10	U	10	U	10	U
2,4-Dichlorophenol	10	U	10	U	10	U
2,4-Dimethylphenol	10	U	10	U	10	U
2,4-Dinitrophenol	50	UJ	50	UJ	50	UJ
2,4-Dinitrotoluene	10	U	10	U	10	U
2,6-Dinitrotoluene	10	U	10	U	10	U
2-Chloronaphthalene	10	U	10	U	10	U
2-Chlorophenol	10	U	10	U	10	U
2-Methylnaphthalene	10	U	10	U	10	U
2-Methylphenol	10	U	10	U	10	U
2-Nitroaniline	20	U	20	U	20	U
2-Nitrophenol	10	U	10	U	10	U
3,3'-Dichlorobenzidine	20	U	20	U	20	U
3-Nitroaniline	20	U	20	U	20	U
4,6-dinitro-2-Methylphenol	20	U	20	U	20	U
4-Bromophenyl phenyl ether	10	U	10	U	10	U
4-Chloro-3-methylphenol	10	U	10	U	10	U
4-Chloroaniline	10	U	10	U	10	U
4-Chlorophenyl phenyl ether	10	U	10	U	10	U
4-Methylphenol	10	U	10	U	10	U
4-Nitroaniline	20	U	20	U	20	U
4-Nitrophenol	20	U	20	U	20	U
Acenaphthene	10	U	10	U	10	U
Acenaphthylene	10	U	10	U	10	U
Acetophenone	10	U	10	U	10	U
Anthracene	10	U	10	U	10	U
Atrazine	10	U	10	U	10	U
Benzaldehyde	10	U	10	U	10	U
Benzo(a)anthracene	10	U	10	U	10	U
Benzo(a)pyrene	10	U	10	U	10	U
Benzo(b)fluoranthene	10	U	10	U	10	U
Benzo(g,h,i)perylene	10	U	10	U	10	U
Benzo(k)fluoranthene	10	U	10	U	10	U
bis(2-Chloroethoxy)methane	10	U	10	U	10	U
bis(2-Chloroethyl)ether	10	U	10	U	10	U

APPENDIX G
GROUNDWATER - SWMU 265
ORGANIC COMPOUNDS
SWMU CONFIRMATORY SAMPLING (CTO-0143)
2615 - O/W, OFFICER'S CLUB
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU265-GW01		SWMU265-GW02		SWMU265-GW03	
SAMPLE DATE	04-07-2002		04-07-2002		04-07-2002	
SEMIVOLATILES (ug/L) (cont)						
bis(2-Ethylhexyl)phthalate	0.77	J	10	U	10	U
Butyl benzyl phthalate	10	U	10	U	10	U
Caprolactam	10	U	10	U	10	U
Carbazole	10	U	10	U	10	U
Chrysene	10	U	10	U	10	U
di-N-Butyl phthalate	10	U	10	U	10	U
di-N-Octyl phthalate	10	U	10	U	10	U
Dibenzo(a,h)anthracene	10	U	10	U	10	U
Dibenzofuran	10	U	10	U	10	U
Diethyl phthalate	10	U	10	U	10	U
Dimethyl phthalate	10	U	10	U	10	U
Fluoranthene	10	U	10	U	10	U
Fluorene	10	U	10	U	10	U
Hexachlorobenzene	10	U	10	U	10	U
Hexachlorobutadiene	10	U	10	U	10	U
Hexachlorocyclopentadiene	10	U	10	U	10	U
Hexachloroethane	10	U	10	U	10	U
Indeno(1,2,3-cd)pyrene	10	U	10	U	10	U
Isophorone	10	U	10	U	10	U
N-Nitroso-di-N-propylamine	10	U	10	U	10	U
N-Nitrosodiphenylamine(1)	10	U	10	U	10	U
Naphthalene	10	U	10	U	10	U
Nitrobenzene	10	U	10	U	10	U
Pentachlorophenol	20	U	20	U	20	U
Phenanthrene	10	U	10	U	10	U
Phenol	10	U	10	U	10	U
Pyrene	10	U	10	U	10	U

APPENDIX G
SURFACE SOIL - SWMU 269
INORGANIC COMPOUNDS
SWMU CONFIRMATORY SAMPLING (CTO-0143)
816 - O/W, 8th ENGINEER 2D FSSG
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU269-IS01-00	SWMU269-IS02-00	SWMU269-IS03-00	SWMU269-IS04-00	SWMU269-TW01-00	SWMU269-TW02-00	SWMU269-TW03-00
SAMPLE DATE	09-13-1997	09-13-1997	09-13-1997	09-13-1997	03-25-2002	03-25-2002	03-25-2002
DEPTH	0' - 2'	0' - 2'	0' - 2'	0' - 2'	0' - 1'	0' - 1'	0' - 1'
METALS (mg/kg)							
Arsenic	3.1	1.1 U	1.1 U	1.2 U	0.18 UJ	0.21 UJ	0.18 UJ
Barium	22.5 U	21.8 U	22.1 U	23.3 U	76.9 J	9.8 J	8.5 J
Cadmium	0.56 U	0.54 U	0.55 U	0.58 U	0.03 U	0.04 U	0.04 U
Chromium	6.9	10.1	5.5	7.5	4.7 J	4.5 J	4.9 J
Lead	6.2	10.6	9.4	9	4.5 J	3.8 J	13.5 J
Mercury	0.037 U	0.036 U	0.037 U	0.038 U	0.02 U	0.04 J	0.02
Selenium	0.56 U	0.54 U	0.55 U	0.58 U	0.2 UJ	0.27 J	0.24 J
Silver	1.1 U	1.1 U	1.1 U	1.2 U	0.05 U	0.06 U	0.05 U

APPENDIX G
SUBSURFACE SOIL - SWMU 269
ORGANIC COMPOUNDS
SWMU CONFIRMATORY SAMPLING (CTO-0143)
816 - O/W, 8th ENGINEER 2D FSSG
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU269-IS01-06	SWMU269-IS02-06	SWMU269-IS03-06	SWMU269-IS04-06	SWMU269-TW01-06	SWMU269-TW02-06	SWMU269-TW03-06
SAMPLE DATE	09-13-1997	09-13-1997	09-13-1997	09-13-1997	03-25-2002	03-25-2002	03-25-2002
DEPTH	12' - 14'	12' - 14'	12' - 14'	12' - 14'	11' - 13'	11' - 13'	11' - 13'
VOLATILES (ug/kg)							
1,1,1-Trichloroethane	NA	NA	NA	NA	660 U	NA	6 U
1,1,2,2-Tetrachloroethane	NA	NA	NA	NA	660 U	NA	6 U
1,1,2-Trichloro-1,2,2-trifluoroethane	NA	NA	NA	NA	660 U	NA	6 U
1,1,2-Trichloroethane	NA	NA	NA	NA	660 U	NA	6 U
1,1-Dichloroethane	NA	NA	NA	NA	660 UJ	NA	6 UJ
1,1-Dichloroethene	NA	NA	NA	NA	660 U	NA	6 U
1,2,4-Trichlorobenzene	NA	NA	NA	NA	660 U	NA	6 U
1,2-Dibromo-3-chloropropane	NA	NA	NA	NA	660 U	NA	6 U
1,2-Dibromoethane	NA	NA	NA	NA	660 U	NA	6 U
1,2-Dichlorobenzene	1.2 U	1.5	1.1 U	1.1 U	660 U	NA	6 U
1,2-Dichloroethane	NA	NA	NA	NA	660 U	NA	6 U
1,2-Dichloropropane	NA	NA	NA	NA	660 U	NA	6 U
1,3-Dichlorobenzene	1.2 U	1.2 U	1.1 U	1.1 U	660 U	NA	6 U
1,4-Dichlorobenzene	1.2 U	4.8	15	7.1	660 U	NA	6 U
2-Butanone	NA	NA	NA	NA	1600 UJ	NA	14 UJ
2-Hexanone	NA	NA	NA	NA	1600 U	NA	14 U
4-Methyl-2-pentanone	NA	NA	NA	NA	1600 U	NA	14 U
Acetone	NA	NA	NA	NA	1600 UJ	NA	15 UJ
Benzene	1.2 U	1.2 U	1.1 U	1.1 U	150 J	NA	6 U
Bromodichloromethane	NA	NA	NA	NA	660 U	NA	6 U
Bromoform	NA	NA	NA	NA	660 U	NA	6 U
Bromomethane	NA	NA	NA	NA	660 UJ	NA	6 UJ
Carbon disulfide	NA	NA	NA	NA	660 UJ	NA	6 UJ
Carbon tetrachloride	NA	NA	NA	NA	660 U	NA	6 U
Chlorobenzene	1.2 U	1.2 U	1.1 U	1.1 U	660 U	NA	6 U
Chloroethane	NA	NA	NA	NA	660 U	NA	6 U
Chloroform	NA	NA	NA	NA	660 U	NA	6 U
Chloromethane	NA	NA	NA	NA	660 UJ	NA	6 U
cis-1,2-Dichloroethene	NA	NA	NA	NA	120 J	NA	6 U
cis-1,3-Dichloropropene	NA	NA	NA	NA	660 U	NA	6 U
Cyclohexane	NA	NA	NA	NA	390 J	NA	6 U
Dibromochloromethane	NA	NA	NA	NA	660 U	NA	6 U
Dichlorodifluoromethane	NA	NA	NA	NA	660 UJ	NA	6 U
Ethylbenzene	1.2 U	1.2 U	1.1 U	1.1 U	2300	NA	6 U
Isopropylbenzene	NA	NA	NA	NA	1600	NA	6 U
Methyl acetate	NA	NA	NA	NA	660 UJ	NA	6 UJ
Methyl-t-Butyl Ether	NA	NA	NA	NA	660 U	NA	6 U
Methylcyclohexane	NA	NA	NA	NA	1400	NA	6 U
Methylene chloride	NA	NA	NA	NA	660 U	NA	6 U
Styrene	NA	NA	NA	NA	660 U	NA	6 U
Tetrachloroethene	NA	NA	NA	NA	660 U	NA	6 U
Toluene	1.2 U	1.2 U	1.1 U	1.1 U	960	NA	6 U
trans-1,2-Dichloroethene	NA	NA	NA	NA	660 U	NA	6 U
trans-1,3-Dichloropropene	NA	NA	NA	NA	660 U	NA	6 U
Trichloroethene	NA	NA	NA	NA	660 U	NA	6 U
Trichlorofluoromethane	NA	NA	NA	NA	660 U	NA	6 U
Vinyl chloride	NA	NA	NA	NA	660 U	NA	6 U
Xylenes (total)	1.2 U	1.2 U	1.1 U	1.1 U	42000	NA	17 U

APPENDIX G
SUBSURFACE SOIL - SWMU 269
ORGANIC COMPOUNDS
SWMU CONFIRMATORY SAMPLING (CTO-0143)
816 - O/W, 8th ENGINEER 2D FSSG
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU269-IS01-06	SWMU269-IS02-06	SWMU269-IS03-06	SWMU269-IS04-06	SWMU269-TW01-06	SWMU269-TW02-06	SWMU269-TW03-06
SAMPLE DATE	09-13-1997	09-13-1997	09-13-1997	09-13-1997	03-25-2002	03-25-2002	03-25-2002
DEPTH	12' - 14'	12' - 14'	12' - 14'	12' - 14'	11' - 13'	11' - 13'	11' - 13'
SEMIVOLATILES (ug/kg)							
1,1'-Biphenyl	NA	NA	NA	NA	2800	NA	400 U
2,2'-Oxybis(1-Chloropropane)	410 U	390 U	370 U	370 U	390 U	NA	400 U
2,4,5-Trichlorophenol	410 U	390 U	370 U	370 U	390 U	NA	400 U
2,4,6-Trichlorophenol	410 U	390 U	370 U	370 U	390 U	NA	400 U
2,4-Dichlorophenol	410 U	390 U	370 U	370 U	390 U	NA	400 U
2,4-Dimethylphenol	410 U	390 U	370 U	370 U	390 U	NA	400 U
2,4-Dinitrophenol	2000 U	1900 U	1800 U	1800 U	2000 U	NA	2100 U
2,4-Dinitrotoluene	410 U	390 U	370 U	370 U	390 U	NA	400 U
2,6-Dinitrotoluene	410 U	390 U	370 U	370 U	390 U	NA	400 U
2-Chloronaphthalene	410 U	390 U	370 U	370 U	390 U	NA	400 U
2-Chlorophenol	410 U	390 U	370 U	370 U	390 U	NA	400 U
2-Methylnaphthalene	410 U	390 U	370 U	370 U	28000	NA	400 U
2-Methylphenol	410 U	390 U	370 U	370 U	390 U	NA	400 U
2-Nitroaniline	2000 U	1900 U	1800 U	1800 U	780 U	NA	800 U
2-Nitrophenol	410 U	390 U	370 U	370 U	390 U	NA	400 U
3,3'-Dichlorobenzidine	2000 U	1900 U	1800 U	1800 U	780 U	NA	800 U
3-Nitroaniline	2000 U	1900 U	1800 U	1800 U	780 U	NA	800 U
4,6-Dinitro-2-methylphenol	2000 U	1900 U	1800 U	1800 U	780 U	NA	800 U
4-Bromophenyl phenyl ether	410 U	390 U	370 U	370 U	390 U	NA	400 U
4-Chloro-3-methylphenol	410 U	390 U	370 U	370 U	390 U	NA	400 U
4-Chloroaniline	410 U	390 U	370 U	370 U	390 U	NA	400 U
4-Chlorophenyl phenyl ether	410 U	390 U	370 U	370 U	390 U	NA	400 U
4-Methylphenol	410 U	390 U	370 U	370 U	390 U	NA	400 U
4-Nitroaniline	2000 U	1900 U	1800 U	1800 U	780 U	NA	800 U
4-Nitrophenol	2000 U	1900 U	1800 U	1800 U	780 U	NA	800 U
Acenaphthene	410 U	390 U	370 U	370 U	390 U	NA	400 U
Acenaphthylene	410 U	390 U	370 U	370 U	390 U	NA	400 U
Acetophenone	NA	NA	NA	NA	390 U	NA	400 U
Anthracene	410 U	390 U	370 U	370 U	390 U	NA	400 U
Atrazine	NA	NA	NA	NA	390 U	NA	400 U
Benzaldehyde	NA	NA	NA	NA	390 U	NA	400 U
Benzo(a)anthracene	410 U	390 U	370 U	370 U	390 U	NA	400 U
Benzo(a)pyrene	410 U	390 U	370 U	370 U	36 J	NA	400 U
Benzo(b)fluoranthene	410 U	390 U	370 U	370 U	390 U	NA	400 U

APPENDIX G
SUBSURFACE SOIL - SWMU 269
ORGANIC COMPOUNDS
SWMU CONFIRMATORY SAMPLING (CTO-0143)
816 - O/W, 8th ENGINEER 2D FSSG
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU269-IS01-06		SWMU269-IS02-06		SWMU269-IS03-06		SWMU269-IS04-06		SWMU269-TW01-06		SWMU269-TW02-06	SWMU269-TW03-06	
SAMPLE DATE	09-13-1997		09-13-1997		09-13-1997		09-13-1997		03-25-2002		03-25-2002	03-25-2002	
DEPTH	12' - 14'		12' - 14'		12' - 14'		12' - 14'		11' - 13'		11' - 13'	11' - 13'	
SEMIVOLATILES (ug/kg) (cont)													
Benzo(ghi)perylene	410	U	390	U	370	U	370	U	390	U	NA	400	U
Benzo(k)fluoranthene	410	U	390	U	370	U	370	U	390	U	NA	400	U
bis(2-Chloroethoxy)methane	410	U	390	U	370	U	370	U	390	U	NA	400	U
bis(2-Chloroethyl) ether	410	U	390	U	370	U	370	U	390	U	NA	400	U
bis(2-Ethylhexyl) phthalate	100	J	140	J	450	J	83	J	2200		NA	140	J
Butyl benzyl phthalate	410	U	390	U	370	U	370	U	390	U	NA	400	U
Caprolactam	NA		NA		NA		NA		390	U	NA	400	U
Carbazole	410	U	390	U	370	U	370	U	390	U	NA	400	U
Chrysene	410	U	390	U	370	U	370	U	390	U	NA	400	U
Di-n-butyl phthalate	410	U	390	U	370	U	370	U	390	U	NA	400	U
Di-n-octyl phthalate	410	U	390	U	370	U	370	U	63	J	NA	25	J
Dibenz(a,h)anthracene	410	U	390	U	370	U	370	U	390	U	NA	400	U
Dibenzofuran	410	U	390	U	370	U	370	U	860		NA	400	U
Diethyl phthalate	410	U	390	U	370	U	370	U	390	U	NA	400	U
Dimethyl phthalate	410	U	390	U	370	U	370	U	390	U	NA	400	U
Fluoranthene	410	U	390	U	370	U	370	U	390	U	NA	400	U
Fluorene	410	U	390	U	370	U	370	U	850		NA	400	U
Hexachlorobenzene	410	U	390	U	370	U	370	U	390	U	NA	400	U
Hexachlorobutadiene	410	U	390	U	370	U	370	U	390	U	NA	400	U
Hexachlorocyclopentadiene	2000	U	1900	U	1800	U	1800	U	390	UJ	NA	400	UJ
Hexachloroethane	410	U	390	U	370	U	370	U	390	U	NA	400	U
Indeno(1,2,3-cd)pyrene	410	U	390	U	370	U	370	U	390	U	NA	400	U
Isophorone	410	U	390	U	370	U	370	U	390	U	NA	400	U
N-Nitrosodi-n-propylamine	410	U	390	U	370	U	370	U	390	U	NA	400	U
N-Nitrosodiphenylamine	410	U	390	U	370	U	370	U	390	U	NA	400	U
Naphthalene	410	U	390	U	370	U	370	U	5400		NA	400	U
Nitrobenzene	410	U	390	U	370	U	370	U	390	U	NA	400	U
Pentachlorophenol	2000	U	1900	U	1800	U	1800	U	780	U	NA	800	U
Phenanthrene	410	U	390	U	370	U	370	U	1500		NA	400	U
Phenol	410	U	390	U	370	U	370	U	390	U	NA	400	U
Pyrene	410	U	390	U	370	U	370	U	160	J	NA	400	U

APPENDIX G
SUBSURFACE SOIL - SWMU 269
INORGANIC COMPOUNDS
SWMU CONFIRMATORY SAMPLING (CTO-0143)
816 - O/W, 8th ENGINEER 2D FSSG
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU269-IS01-06	SWMU269-IS02-06	SWMU269-IS03-06	SWMU269-IS04-06	SWMU269-TW01-06	SWMU269-TW02-06	SWMU269-TW03-06
SAMPLE DATE	09-13-1997	09-13-1997	09-13-1997	09-13-1997	03-25-2002	03-25-2002	03-25-2002
DEPTH	12' - 14'	12' - 14'	12' - 14'	12' - 14'	11' - 13'	11' - 13'	11' - 13'
METALS (mg/kg)							
Arsenic	2.5	2.1	1.4	1.1 U	4.3	0.43 J	2.5
Barium	24.7 U	23.5 U	22.5 U	22.2 U	13.5	22.7 J	7.6 U
Cadmium	0.62 U	0.59 U	0.56 U	0.55 U	0.1 U	0.03 U	0.04 U
Chromium	14.2	9	8.6	5.9	15.7	8.2 J	8.9
Lead	5.8	4.4	8.6	3.1	6.4	4.7 J	3.7
Mercury	0.041 U	0.039 U	0.037 U	0.037 U	0.02 UJ	0.05 J	0.02 UJ
Selenium	0.62 U	0.59 U	0.56 U	0.55 U	0.59 J	0.31 J	0.82 J
Silver	1.2 U	1.2 U	1.1 U	1.1 U	0.1 U	0.06 U	0.11 U

APPENDIX G
GROUNDWATER - SWMU 269
INORGANIC COMPOUNDS
SWMU CONFIRMATORY SAMPLING (CTO-0143)
816 - O/W, 8th ENGINEER 2D FSSG
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU269-GW01		SWMU269-GW02		SWMU269-GW03	
SAMPLE DATE	04-07-2002		04-07-2002		04-07-2002	
METALS (ug/L)						
Arsenic	2.4	U	2.6	J	2.4	U
Barium	31.4		97.5		73.5	
Cadmium	1.3	U	0.3	U	0.3	U
Chromium	0.6	U	25.2		2.5	J
Lead	1.8	UJ	17.5		4	J
Mercury	0.1	U	0.13	J	0.1	U
Selenium	5.8		4.6	U	4.6	U
Silver	0.9	U	0.9	U	0.9	U

APPENDIX G
SURFACE SOIL - SWMU 272
ORGANIC COMPOUNDS
SWMU CONFIRMATORY SAMPLING (CTO-0143)
AS137 - O/W, MCAS
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU272-IS01-00	SWMU272-IS02-00	SWMU272-IS03-00	SWMU272-IS04-00	SWMU272-SB01-00	SWMU272-SB02-00	SWMU272-SB03-00	SWMU272-TW01-00	SWMU272-TW03-00
SAMPLE DATE	09-08-1997	09-08-1997	09-08-1997	09-08-1997	03-20-2002	03-20-2002	03-20-2002	03-21-2002	03-21-2002
DEPTH	0' - 2'	0' - 2'	0' - 2'	0' - 2'	0' - 1'	0' - 1'	0' - 1'	0' - 1'	0' - 1'
SEMIVOLATILES (ug/kg)									
1,1'-Biphenyl	NA	NA	NA	NA	420 U	420 U	450 U	380 U	390 U
2,2'-Oxybis(1-Chloropropane)	360 U	350 U	360 U	370 U	420 U	420 U	450 U	380 U	390 U
2,4,5-Trichlorophenol	360 U	350 U	360 U	370 U	420 U	420 U	450 U	380 U	390 U
2,4,6-Trichlorophenol	360 U	350 U	360 U	370 U	420 U	420 U	450 U	380 U	390 U
2,4-Dichlorophenol	360 U	350 U	360 U	370 U	420 U	420 U	450 U	380 U	390 U
2,4-Dimethylphenol	360 U	350 U	360 U	370 U	420 U	420 U	450 U	380 U	390 U
2,4-Dinitrophenol	1700 U	1700 U	1800 U	1800 U	2200 U	2200 U	2300 U	1900 U	2000 U
2,4-Dinitrotoluene	360 U	350 U	360 U	370 U	420 U	420 U	450 U	380 U	390 U
2,6-Dinitrotoluene	360 U	350 U	360 U	370 U	420 U	420 U	450 U	380 U	390 U
2-Chloronaphthalene	360 U	350 U	360 U	370 U	420 U	420 U	450 U	380 U	390 U
2-Chlorophenol	360 U	350 U	360 U	370 U	420 U	420 U	450 U	380 U	390 U
2-Methylnaphthalene	360 U	570	360 U	370 U	420 U	420 U	450 U	380 U	390 U
2-Methylphenol	360 U	350 U	360 U	370 U	420 U	420 U	450 U	380 U	390 U
2-Nitroaniline	1700 U	1700 U	1800 U	1800 U	840 U	850 U	890 U	750 U	780 U
2-Nitrophenol	360 U	350 U	360 U	370 U	420 U	420 U	450 U	380 U	390 U
3,3'-Dichlorobenzidine	1700 U	1700 U	1800 U	1800 U	840 U	850 U	890 U	750 U	780 U
3-Nitroaniline	1700 U	1700 U	1800 U	1800 U	840 U	850 U	890 U	750 U	780 U
4,6-Dinitro-2-methylphenol	1700 U	1700 U	1800 U	1800 U	840 U	850 U	890 U	750 U	780 U
4-Bromophenyl phenyl ether	360 U	350 U	360 U	370 U	420 U	420 U	450 U	380 U	390 U
4-Chloro-3-methylphenol	360 U	350 U	360 U	370 U	420 U	420 U	450 U	380 U	390 U
4-Chloroaniline	360 U	350 U	360 U	370 U	420 U	420 U	450 U	380 U	390 U
4-Chlorophenyl phenyl ether	360 U	350 U	360 U	370 U	420 U	420 U	450 U	380 U	390 U
4-Methylphenol	360 U	350 U	360 U	370 U	420 U	420 U	450 U	380 U	390 U
4-Nitroaniline	1700 U	1700 U	1800 U	1800 U	840 U	850 U	890 U	750 U	780 U
4-Nitrophenol	1700 U	1700 U	1800 U	1800 U	840 U	850 U	890 U	750 U	780 U
Acenaphthene	360 U	350 U	360 U	370 U	420 U	420 U	450 U	380 U	390 U
Acenaphthylene	360 U	350 U	360 U	370 U	420 U	420 U	450 U	380 U	390 U
Acetophenone	NA	NA	NA	NA	420 UJ	420 UJ	450 UJ	380 U	390 U
Anthracene	360 U	350 U	360 U	370 U	420 U	420 U	450 U	380 U	390 U
Atrazine	NA	NA	NA	NA	420 U	420 U	450 U	380 U	390 U
Benzaldehyde	NA	NA	NA	NA	420 U	420 U	450 U	380 U	31 J
Benzo(a)anthracene	360 U	350 U	74 J	370 U	420 U	420 U	450 U	73 J	390 U
Benzo(a)pyrene	360 U	350 U	48 J	370 U	420 U	420 U	450 U	60 J	390 U
Benzo(b)fluoranthene	360 U	350 U	53 J	370 U	420 U	420 U	450 U	60 J	390 U
Benzo(ghi)perylene	360 U	350 U	360 U	370 U	420 U	420 U	450 U	380 U	390 U
Benzo(k)fluoranthene	360 U	350 U	45 J	370 U	420 U	420 U	450 U	70 J	390 U
bis(2-Chloroethoxy)methane	360 U	350 U	360 U	370 U	420 U	420 U	450 U	380 U	390 U
bis(2-Chloroethyl) ether	360 U	350 U	360 U	370 U	420 U	420 U	450 U	380 U	390 U
bis(2-Ethylhexyl) phthalate	360 U	350 U	40 J	39 J	420 U	420 U	450 U	56 J	1100
Butyl benzyl phthalate	360 U	350 U	360 U	370 U	420 U	420 U	450 U	380 U	390 U
Caprolactam	NA	NA	NA	NA	420 U	420 U	450 U	380 U	390 U

APPENDIX G
SURFACE SOIL - SWMU 272
ORGANIC COMPOUNDS
SWMU CONFIRMATORY SAMPLING (CTO-0143)
AS137 - O/W, MCAS
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU272-IS01-00	SWMU272-IS02-00	SWMU272-IS03-00	SWMU272-IS04-00	SWMU272-SB01-00	SWMU272-SB02-00	SWMU272-SB03-00	SWMU272-TW01-00	SWMU272-TW03-00
SAMPLE DATE	09-08-1997	09-08-1997	09-08-1997	09-08-1997	03-20-2002	03-20-2002	03-20-2002	03-21-2002	03-21-2002
DEPTH	0' - 2'	0' - 2'	0' - 2'	0' - 2'	0' - 1'	0' - 1'	0' - 1'	0' - 1'	0' - 1'
SEMIVOLATILES (ug/kg) (cont)									
Carbazole	360 U	350 U	360 U	370 U	420 U	420 U	450 U	380 U	390 U
Chrysene	360 U	350 U	68 J	370 U	420 U	420 U	450 U	75 J	390 U
Di-n-butyl phthalate	360 U	350 U	360 U	370 U	420 U	420 U	450 U	380 U	390 U
Di-n-octyl phthalate	360 U	350 U	360 U	370 U	91 J	420 U	450 U	380 U	390 U
Dibenz(a,h)anthracene	360 U	350 U	360 U	370 U	420 U	420 U	450 U	380 U	390 U
Dibenzofuran	360 U	350 U	360 U	370 U	420 U	420 U	450 U	380 U	390 U
Diethyl phthalate	360 U	350 U	360 U	370 U	420 U	420 U	450 U	380 U	390 U
Dimethyl phthalate	360 U	350 U	360 U	370 U	420 U	420 U	450 U	380 U	390 U
Fluoranthene	360 U	350 U	120 J	370 U	420 U	420 U	450 U	110 J	390 U
Fluorene	360 U	350 U	360 U	370 U	420 U	420 U	450 U	380 U	390 U
Hexachlorobenzene	360 U	350 U	360 U	370 U	420 U	420 U	450 U	380 UJ	390 UJ
Hexachlorobutadiene	360 U	350 U	360 U	370 U	420 U	420 U	450 U	380 U	390 U
Hexachlorocyclopentadiene	1700 U	1700 U	1800 U	1800 U	420 U	420 U	450 U	380 U	390 U
Hexachloroethane	360 U	350 U	360 U	370 U	420 U	420 U	450 U	380 U	390 U
Indeno(1,2,3-cd)pyrene	360 U	350 U	360 U	370 U	420 U	420 U	450 U	59 J	390 U
Isophorone	360 U	350 U	360 U	370 U	420 U	420 U	450 U	380 U	390 U
N-Nitrosodi-n-propylamine	360 U	350 U	360 U	370 U	420 U	420 U	450 U	380 U	390 U
N-Nitrosodiphenylamine	360 U	350 U	360 U	370 U	420 U	420 U	450 U	380 U	390 U
Naphthalene	360 U	350 U	360 U	370 U	420 U	420 U	450 U	380 U	390 U
Nitrobenzene	360 U	350 U	360 U	370 U	420 U	420 U	450 U	380 U	390 U
Pentachlorophenol	1700 U	1700 U	1800 U	1800 U	840 U	850 U	890 U	750 U	780 U
Phenanthrene	360 U	350 U	360 U	370 U	420 U	420 U	450 U	29 J	390 U
Phenol	360 U	350 U	360 U	370 U	420 U	420 U	450 U	380 U	390 U
Pyrene	360 U	350 U	130 J	370 U	420 U	420 U	450 U	95 J	390 U

APPENDIX G
SURFACE SOIL - SWMU 272
INORGANIC COMPOUNDS
SWMU CONFIRMATORY SAMPLING (CTO-0143)
AS137 - O/W, MCAS
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU272-IS01-00	SWMU272-IS02-00	SWMU272-IS03-00	SWMU272-IS04-00	SWMU272-SB01-00	SWMU272-SB02-00	SWMU272-SB03-00	SWMU272-TW01-00	SWMU272-TW03-00
SAMPLE DATE	09-08-1997	09-08-1997	09-08-1997	09-08-1997	03-20-2002	03-20-2002	03-20-2002	03-21-2002	03-21-2002
DEPTH	0' - 2'	0' - 2'	0' - 2'	0' - 2'	0' - 1'	0' - 1'	0' - 1'	0' - 1'	0' - 1'
METALS (mg/kg)									
Arsenic	1.3	1.1 U	2.4	1.4	3.2	2.7	0.3 U	2.2	1.5
Barium	21.5 U	21.2 U	21.9 U	22.4 U	21.7	26.5	3.8 U	19.3	10.6
Cadmium	0.54 U	0.53 U	0.55 U	0.56 U	0.05 J	0.06 J	0.06 J	0.2 U	0.035 U
Chromium	5.5	5.4	11.4	7.8	16	13.3	7.4	12.8 J	6.8 J
Lead	3.8	3.1	14.4	10.9	12.4	12.4	1.1	24.5	6.3
Mercury	0.036 U	0.035 U	0.11	0.044	0.04 J	0.06	0.02 U	0.22	0.31 U
Selenium	0.54 U	0.53 U	0.63	0.67	0.9	0.85	0.57 U	0.69	0.55 J
Silver	1.1 U	1.1 U	1.1 U	1.1 U	0.1 U	0.11 U	0.11 U	0.1 U	0.11 U

APPENDIX G
SUBSURFACE SOIL - SWMU 272
ORGANIC COMPOUNDS
SWMU CONFIRMATORY SAMPLING (CTO-0143)
AS137 - O/W, MCAS
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU272-IS01-02	SWMU272-IS02-02	SWMU272-IS03-02	SWMU272-IS04-02	SWMU272-SB01-03	SWMU272-SB02-03	SWMU272-SB03-02	SWMU272-TW01-03	SWMU272-TW03-03
SAMPLE DATE	09-08-1997	09-08-1997	09-08-1997	09-08-1997	03-20-2002	03-20-2002	03-20-2002	03-21-2002	03-21-2002
DEPTH	4' - 6'	4' - 6'	4' - 6'	4' - 6'	5' - 7'	5' - 7'	3' - 5'	5' - 7'	5' - 7'
SEMIVOLATILES (ug/kg)									
1,1'-Biphenyl	NA	NA	NA	NA	530 U	490 U	3800 U	570 U	530 U
2,2'-Oxybis(1-Chloropropane)	380 U	460 U	460 U	480 U	530 U	490 U	3800 U	570 U	530 U
2,4,5-Trichlorophenol	380 U	460 U	460 U	480 U	530 U	490 U	3800 U	570 U	530 U
2,4,6-Trichlorophenol	380 U	460 U	460 U	480 U	530 U	490 U	3800 U	570 U	530 U
2,4-Dichlorophenol	380 U	460 U	460 U	480 U	530 U	490 U	3800 U	570 U	530 U
2,4-Dimethylphenol	380 U	460 U	460 U	480 U	530 U	490 U	3800 U	570 U	530 U
2,4-Dinitrophenol	1800 U	2200 U	2200 U	2300 U	2700 U	2500 U	20000 U	2900 U	2700 U
2,4-Dinitrotoluene	380 U	460 U	460 U	51 J	530 U	490 U	3800 U	570 U	530 U
2,6-Dinitrotoluene	380 U	460 U	460 U	480 U	530 U	490 U	3800 U	570 U	530 U
2-Chloronaphthalene	380 U	460 U	460 U	480 U	530 U	490 U	3800 U	570 U	530 U
2-Chlorophenol	380 U	460 U	460 U	58 J	530 U	490 U	3800 U	570 U	530 U
2-Methylnaphthalene	380 U	5300 J	1900	480 U	530 U	490 U	3800 U	570 U	530 U
2-Methylphenol	380 U	460 U	460 U	480 U	530 U	490 U	3800 U	570 U	530 U
2-Nitroaniline	1800 U	2200 U	2200 U	2300 U	1100 U	970 U	7700 U	1100 U	1100 U
2-Nitrophenol	380 U	460 U	460 U	480 U	530 U	490 U	3800 U	570 U	530 U
3,3'-Dichlorobenzidine	1800 U	2200 U	2200 U	2300 U	1100 U	970 U	7700 U	1100 U	1100 U
3-Nitroaniline	1800 U	2200 U	2200 U	2300 U	1100 U	970 U	7700 U	1100 U	1100 U
4,6-Dinitro-2-methylphenol	1800 U	2200 U	2200 U	2300 U	1100 U	970 U	7700 U	1100 U	1100 U
4-Bromophenyl phenyl ether	380 U	460 U	460 U	480 U	530 U	490 U	3800 U	570 U	530 U
4-Chloro-3-methylphenol	380 U	460 U	460 U	90 J	530 U	490 U	3800 U	570 U	530 U
4-Chloroaniline	380 U	460 U	460 U	480 U	530 U	490 U	3800 U	570 U	530 U
4-Chlorophenyl phenyl ether	380 U	460 U	460 U	480 U	530 U	490 U	3800 U	570 U	530 U
4-Methylphenol	380 U	460 U	460 U	480 U	530 U	490 U	3800 U	570 U	530 U
4-Nitroaniline	1800 U	2200 U	2200 U	2300 U	1100 U	970 U	7700 U	1100 U	1100 U
4-Nitrophenol	1800 U	2200 U	2200 U	370 J	1100 U	970 U	7700 U	1100 U	1100 U
Acenaphthene	380 U	460 U	460 U	58 J	530 U	490 U	3800 U	570 U	530 U
Acenaphthylene	380 U	460 U	460 U	480 U	530 U	490 U	3800 U	570 U	530 U
Acetophenone	NA	NA	NA	NA	530 UJ	490 UJ	740 J	570 U	530 U
Anthracene	380 U	460 U	460 U	480 U	530 U	490 U	3800 U	140 J	530 U
Atrazine	NA	NA	NA	NA	530 U	490 U	3800 U	570 U	530 U
Benzaldehyde	NA	NA	NA	NA	530 U	490 U	3800 U	570 U	530 U
Benzo(a)anthracene	380 U	460 U	460 U	480 U	530 U	490 U	3800 U	640	530 U
Benzo(a)pyrene	380 U	460 U	98 J	480 U	530 U	490 U	3800 U	390 J	530 U
Benzo(b)fluoranthene	380 U	460 U	460 U	480 U	530 U	490 U	3800 U	460 J	530 U
Benzo(ghi)perylene	380 U	460 U	460 U	480 U	530 U	490 U	3800 U	130 J	530 U
Benzo(k)fluoranthene	380 U	460 U	460 U	480 U	530 U	490 U	3800 U	410 J	530 U
bis(2-Chloroethoxy)methane	380 U	460 U	460 U	480 U	530 U	490 U	3800 U	570 U	530 U
bis(2-Chloroethyl) ether	380 U	460 U	460 U	480 U	530 U	490 U	3800 U	570 U	530 U
bis(2-Ethylhexyl) phthalate	39 J	51 J	130 J	170 J	530 U	490 U	3800 U	110 J	530 U
Butyl benzyl phthalate	380 U	460 U	460 U	480 U	530 U	490 U	3800 U	570 U	530 U
Caprolactam	NA	NA	NA	NA	530 U	490 U	3800 U	570 U	530 U

APPENDIX G
SUBSURFACE SOIL - SWMU 272
ORGANIC COMPOUNDS
SWMU CONFIRMATORY SAMPLING (CTO-0143)
AS137 - O/W, MCAS
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU272-IS01-02	SWMU272-IS02-02	SWMU272-IS03-02	SWMU272-IS04-02	SWMU272-SB01-03	SWMU272-SB02-03	SWMU272-SB03-02	SWMU272-TW01-03	SWMU272-TW03-03
SAMPLE DATE	09-08-1997	09-08-1997	09-08-1997	09-08-1997	03-20-2002	03-20-2002	03-20-2002	03-21-2002	03-21-2002
DEPTH	4' - 6'	4' - 6'	4' - 6'	4' - 6'	5' - 7'	5' - 7'	3' - 5'	5' - 7'	5' - 7'
SEMIVOLATILES (ug/kg) (cont)									
Carbazole	380 U	460 U	460 U	480 U	530 U	490 U	3800 U	70 J	530 U
Chrysene	380 U	460 U	460 U	480 U	530 U	490 U	940 J	670	530 U
Di-n-butyl phthalate	380 U	460 U	460 U	480 U	530 U	490 U	3800 U	570 U	530 U
Di-n-octyl phthalate	380 U	460 U	460 U	480 U	130 J	490 U	3800 U	570 U	530 U
Dibenz(a,h)anthracene	380 U	460 U	460 U	480 U	530 U	490 U	3800 U	69 J	530 U
Dibenzofuran	380 U	160 J	66 J	480 U	530 U	490 U	3800 U	570 U	530 U
Diethyl phthalate	380 U	460 U	460 U	480 U	530 U	490 U	3800 U	570 U	530 U
Dimethyl phthalate	380 U	460 U	460 U	480 U	530 U	490 U	3800 U	570 U	530 U
Fluoranthene	380 U	460 U	460 U	480 U	530 U	490 U	3800 U	1300	530 U
Fluorene	380 U	460 U	460 U	480 U	530 U	490 U	240 J	43 J	530 U
Hexachlorobenzene	380 U	460 U	460 U	480 U	530 U	490 U	3800 U	570 UJ	530 UJ
Hexachlorobutadiene	380 U	460 U	460 U	480 U	530 U	490 U	3800 U	570 U	530 U
Hexachlorocyclopentadiene	1800 U	2200 U	2200 U	2300 U	530 U	490 U	3800 U	570 U	530 U
Hexachloroethane	380 U	460 U	460 U	480 U	530 U	490 U	3800 U	570 U	530 U
Indeno(1,2,3-cd)pyrene	380 U	460 U	460 U	480 U	530 U	490 U	3800 U	280 J	530 U
Isophorone	380 U	460 U	460 U	480 U	530 U	490 U	3800 U	570 U	530 U
N-Nitrosodi-n-propylamine	380 U	460 U	460 U	480 U	530 U	490 U	3800 U	570 U	530 U
N-Nitrosodiphenylamine	380 U	460 U	460 U	480 U	530 U	490 U	3800 U	570 U	530 U
Naphthalene	380 U	2100 J	360 J	480 U	530 U	490 U	3800 U	570 U	530 U
Nitrobenzene	380 U	460 U	460 U	480 U	530 U	490 U	3800 U	570 U	530 U
Pentachlorophenol	1800 U	2200 U	2200 U	440 J	1100 U	970 U	7700 U	1100 U	1100 U
Phenanthrene	380 U	460 U	460 U	480 U	530 U	490 U	3800 U	650	530 U
Phenol	380 U	460 U	460 U	63 J	530 U	490 U	3800 U	570 U	530 U
Pyrene	380 U	460 U	460 U	94 J	530 U	490 U	3800 U	1100	530 U

APPENDIX G
SUBSURFACE SOIL - SWMU 272
INORGANIC COMPOUNDS
SWMU CONFIRMATORY SAMPLING (CTO-0143)
AS137 - O/W, MCAS
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU272-IS01-02	SWMU272-IS02-02	SWMU272-IS03-02	SWMU272-IS04-02	SWMU272-SB01-03	SWMU272-SB02-03	SWMU272-SB03-02	SWMU272-TW01-03	SWMU272-TW03-03
SAMPLE DATE	09-08-1997	09-08-1997	09-08-1997	09-08-1997	03-20-2002	03-20-2002	03-20-2002	03-21-2002	03-21-2002
DEPTH	4' - 6'	4' - 6'	4' - 6'	4' - 6'	5' - 7'	5' - 7'	3' - 5'	5' - 7'	5' - 7'
METALS (mg/kg)									
Arsenic	1.2 U	3.4	7	13.4	0.59 J	0.44 J	1.3	2.4	5.8
Barium	23.1 U	27.7 U	30.3	28.9 U	19.5	16.5	4.9 U	30.1	28.6
Cadmium	0.58 U	0.69 U	0.7 U	0.72 U	0.045 U	0.1 J	0.12 J	0.24 U	0.24 U
Chromium	4.5	18.2	25.5	25	14.1	17	8.2	20.6 J	30.6 J
Lead	2.4	11.6	15.1	10.2	12	10.8	2	27.2	15.7
Mercury	0.038 U	0.046 U	0.046 U	0.048 U	0.04 J	0.06	0.02 U	0.29	0.05 U
Selenium	0.58 U	0.69	0.91	1	0.77	0.74	0.5 U	1.5	1.3
Silver	1.2 U	1.4 U	1.4 U	1.4 U	0.13 U	0.12 U	0.1 U	0.15 U	0.14 U

APPENDIX G
GROUNDWATER - SWMU 272
ORGANIC COMPOUNDS
SWMU CONFIRMATORY SAMPLING (CTO-0143)
AS137 - O/W, MCAS
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU272-GW01		SWMU272-GW03TW		SWMU272-MW09	
SAMPLE DATE	04-03-2002		04-02-2002		04-03-2002	
SEMIVOLATILES (ug/L)						
1,1'-Biphenyl	10	U	10	U	10	U
2,2'-oxybis(1-Chloropropane)	10	U	10	UJ	10	U
2,4,5-Trichlorophenol	10	U	10	U	10	U
2,4,6-Trichlorophenol	10	U	10	U	10	U
2,4-Dichlorophenol	10	U	10	U	10	U
2,4-Dimethylphenol	10	U	10	U	10	U
2,4-Dinitrophenol	50	UJ	50	U	50	UJ
2,4-Dinitrotoluene	10	U	10	U	10	U
2,6-Dinitrotoluene	10	U	10	U	10	U
2-Chloronaphthalene	10	U	10	U	10	U
2-Chlorophenol	10	U	10	U	10	U
2-Methylnaphthalene	10	U	10	U	10	U
2-Methylphenol	10	U	10	U	10	U
2-Nitroaniline	20	U	20	UJ	20	U
2-Nitrophenol	10	U	10	U	10	U
3,3'-Dichlorobenzidine	20	U	20	U	20	U
3-Nitroaniline	20	U	20	U	20	U
4,6-dinitro-2-Methylphenol	20	U	20	U	20	U
4-Bromophenyl phenyl ether	10	U	10	U	10	U
4-Chloro-3-methylphenol	10	U	10	U	10	U
4-Chloroaniline	10	U	10	U	10	U
4-Chlorophenyl phenyl ether	10	U	10	UJ	10	U
4-Methylphenol	10	U	10	U	10	U
4-Nitroaniline	20	U	20	U	20	U
4-Nitrophenol	20	U	20	UJ	20	U
Acenaphthene	10	U	10	U	10	U
Acenaphthylene	10	U	10	U	10	U
Acetophenone	10	U	10	U	10	U
Anthracene	10	U	10	U	10	U
Atrazine	10	U	10	U	10	U
Benzaldehyde	10	U	10	U	10	U
Benzo(a)anthracene	10	U	10	U	10	U
Benzo(a)pyrene	10	U	10	U	10	U
Benzo(b)fluoranthene	10	U	10	U	10	U
Benzo(g,h,i)perylene	10	U	10	U	10	U
Benzo(k)fluoranthene	10	U	10	U	10	U
bis(2-Chloroethoxy)methane	10	U	10	U	10	U
bis(2-Chloroethyl)ether	10	U	10	U	10	U

APPENDIX G
GROUNDWATER - SWMU 272
ORGANIC COMPOUNDS
SWMU CONFIRMATORY SAMPLING (CTO-0143)
AS137 - O/W, MCAS
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU272-GW01		SWMU272-GW03TW		SWMU272-MW09	
SAMPLE DATE	04-03-2002		04-02-2002		04-03-2002	
SEMIVOLATILES (ug/L) (cont)						
bis(2-Ethylhexyl)phthalate	10	U	10	U	10	U
Butyl benzyl phthalate	10	U	10	U	10	U
Caprolactam	10	U	10	U	10	U
Carbazole	10	U	10	U	10	U
Chrysene	10	U	10	U	10	U
di-N-Butyl phthalate	10	U	10	U	10	U
di-N-Octyl phthalate	10	U	10	U	10	U
Dibenzo(a,h)anthracene	10	U	10	U	10	U
Dibenzofuran	10	U	10	U	10	U
Diethyl phthalate	10	U	10	U	10	U
Dimethyl phthalate	10	U	10	U	10	U
Fluoranthene	10	U	10	U	10	U
Fluorene	10	U	10	U	10	U
Hexachlorobenzene	10	U	10	U	10	U
Hexachlorobutadiene	10	U	10	U	10	U
Hexachlorocyclopentadiene	10	U	10	U	10	U
Hexachloroethane	10	U	10	U	10	U
Indeno(1,2,3-cd)pyrene	10	U	10	U	10	U
Isophorone	10	U	10	U	10	U
N-Nitroso-di-N-propylamine	10	U	10	U	10	U
N-Nitrosodiphenylamine(1)	10	U	10	U	10	U
Naphthalene	10	U	10	U	10	U
Nitrobenzene	10	U	10	U	10	U
Pentachlorophenol	20	U	20	U	20	U
Phenanthrene	0.8	J	1	J	10	U
Phenol	10	U	10	U	10	U
Pyrene	10	U	10	U	10	U

APPENDIX G
GROUNDWATER - SWMU 272
INORGANIC COMPOUNDS
SWMU CONFIRMATORY SAMPLING (CTO-0143)
AS137 - O/W, MCAS
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU272-GW01		SWMU272-GW03TW		SWMU272-MW09	
SAMPLE DATE	04-03-2002		04-02-2002		04-03-2002	
METALS (ug/L)						
Arsenic	2.4	U	2.4	U	2.4	U
Barium	25.6	J	87.1	J	62.8	J
Cadmium	0.3	U	0.52	U	0.3	U
Chromium	1.7	J	0.6	U	0.68	J
Lead	2	J	1.8	U	1.8	U
Mercury	0.1	U	0.1	U	0.1	U
Selenium	4.6	U	4.6	U	4.6	U
Silver	0.9	U	0.9	U	0.9	U

APPENDIX G
SURFACE SOIL - SWMU 279
ORGANIC COMPOUNDS
SWMU CONFIRMATORY SAMPLING (CTO-0143)
FC200 - O/W, 8th ENGINEERING 2D FSSG
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU279-IS01-00		SWMU279-IS02-00		SWMU279-IS03-00	
SAMPLE DATE	09-12-1997		09-12-1997		09-12-1997	
DEPTH	0' - 2'		0' - 2'		0' - 2'	
SEMIVOLATILES (ug/kg)						
1,2,4-Trichlorobenzene	360	U	360	U	370	U
1,2-Dichlorobenzene	360	U	360	U	370	U
1,3-Dichlorobenzene	360	U	360	U	370	U
1,4-Dichlorobenzene	360	U	360	U	370	U
2,2'-Oxybis(1-Chloropropane)	360	U	360	U	370	U
2,4,5-Trichlorophenol	360	U	360	U	370	U
2,4,6-Trichlorophenol	360	U	360	U	370	U
2,4-Dichlorophenol	360	U	360	U	370	U
2,4-Dimethylphenol	360	U	360	U	370	U
2,4-Dinitrophenol	1700	U	1800	U	1800	U
2,4-Dinitrotoluene	360	U	360	U	370	U
2,6-Dinitrotoluene	360	U	360	U	370	U
2-Chloronaphthalene	360	U	360	U	370	U
2-Chlorophenol	360	U	360	U	370	U
2-Methylnaphthalene	360	U	360	U	370	U
2-Methylphenol	360	U	360	U	370	U
2-Nitroaniline	1700	U	1800	U	1800	U
2-Nitrophenol	360	U	360	U	370	U
3,3'-Dichlorobenzidine	1700	U	1800	U	1800	U
3-Nitroaniline	1700	U	1800	U	1800	U
4,6-Dinitro-2-methylphenol	1700	U	1800	U	1800	U
4-Bromophenyl phenyl ether	360	U	360	U	370	U
4-Chloro-3-methylphenol	360	U	360	U	370	U
4-Chloroaniline	360	U	360	U	370	U
4-Chlorophenyl phenyl ether	360	U	360	U	370	U
4-Methylphenol	360	U	360	U	370	U
4-Nitroaniline	1700	U	1800	U	1800	U
4-Nitrophenol	1700	U	1800	U	1800	U
Acenaphthene	360	U	360	U	370	U
Acenaphthylene	360	U	360	U	370	U
Anthracene	360	U	360	U	370	U
Benzo(a)anthracene	360	U	360	U	370	U
Benzo(a)pyrene	360	U	360	U	370	U
Benzo(b)fluoranthene	360	U	360	U	370	U
Benzo(ghi)perylene	360	U	360	U	370	U
Benzo(k)fluoranthene	360	U	360	U	370	U
bis(2-Chloroethoxy)methane	360	U	360	U	370	U
bis(2-Chloroethyl) ether	360	U	360	U	370	U
bis(2-Ethylhexyl) phthalate	85	J	120	J	140	J
Butyl benzyl phthalate	360	U	360	U	370	U
Carbazole	360	U	360	U	370	U

APPENDIX G
SURFACE SOIL - SWMU 279
ORGANIC COMPOUNDS
SWMU CONFIRMATORY SAMPLING (CTO-0143)
FC200 - O/W, 8th ENGINEERING 2D FSSG
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU279-IS01-00	SWMU279-IS02-00	SWMU279-IS03-00
SAMPLE DATE	09-12-1997	09-12-1997	09-12-1997
DEPTH	0' - 2'	0' - 2'	0' - 2'
SEMIVOLATILES (ug/kg) (cont)			
Chrysene	360 U	360 U	370 U
Di-n-butyl phthalate	360 U	360 U	370 U
Di-n-octyl phthalate	360 U	360 U	370 U
Dibenz(a,h)anthracene	360 U	360 U	370 U
Dibenzofuran	360 U	360 U	370 U
Diethyl phthalate	360 U	360 U	370 U
Dimethyl phthalate	360 U	360 U	370 U
Fluoranthene	360 U	360 U	370 U
Fluorene	360 U	360 U	370 U
Hexachlorobenzene	360 U	360 U	370 U
Hexachlorobutadiene	360 U	360 U	370 U
Hexachlorocyclopentadiene	1700 U	1800 U	1800 U
Hexachloroethane	360 U	360 U	370 U
Indeno(1,2,3-cd)pyrene	360 U	360 U	370 U
Isophorone	360 U	360 U	370 U
N-Nitrosodi-n-propylamine	360 U	360 U	370 U
N-Nitrosodiphenylamine	360 U	360 U	370 U
Naphthalene	360 U	360 U	370 U
Nitrobenzene	360 U	360 U	370 U
Pentachlorophenol	1700 U	1800 U	1800 U
Phenanthrene	360 U	360 U	370 U
Phenol	360 U	360 U	370 U
Pyrene	360 U	360 U	370 U

APPENDIX G
SUBSURFACE SOIL - SWMU 279
ORGANIC COMPOUNDS
SWMU CONFIRMATORY SAMPLING (CTO-0143)
FC200 - O/W, 8th ENGINEERING 2D FSSG
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU279-IS01-03	SWMU279-IS02-03	SWMU279-IS03-03	SWMU279-TW01-04	SWMU279-TW02-04	SWMU279-TW03-04
SAMPLE DATE	09-12-1997	09-12-1997	09-12-1997	03-26-2002	03-26-2002	03-26-2002
DEPTH	6' - 8'	6' - 8'	6' - 8'	7' - 9'	7' - 9'	7' - 9'
SEMIVOLATILES (ug/kg)						
1,1'-Biphenyl	NA	NA	NA	190 U	390 U	410 U
2,2'-Oxybis(1-Chloropropane)	380 U	370 U	370 U	190 U	390 U	410 U
2,4,5-Trichlorophenol	380 U	370 U	370 U	190 U	390 U	410 U
2,4,6-Trichlorophenol	380 U	370 U	370 U	190 U	390 U	410 U
2,4-Dichlorophenol	380 U	370 U	370 U	190 U	390 U	410 U
2,4-Dimethylphenol	380 U	370 U	370 U	190 U	390 U	410 U
2,4-Dinitrophenol	1900 U	1800 U	1800 U	980 UJ	2000 UJ	2100 UJ
2,4-Dinitrotoluene	380 U	370 U	370 U	190 U	390 U	410 U
2,6-Dinitrotoluene	380 U	370 U	370 U	190 U	390 U	410 U
2-Chloronaphthalene	380 U	370 U	370 U	190 U	390 U	410 U
2-Chlorophenol	380 U	370 U	370 U	190 U	390 U	410 U
2-Methylnaphthalene	380 U	370 U	370 U	190 U	390 U	410 U
2-Methylphenol	380 U	370 U	370 U	190 U	390 U	410 U
2-Nitroaniline	1900 U	1800 U	1800 U	380 U	790 U	830 U
2-Nitrophenol	380 U	370 U	370 U	190 U	390 U	410 U
3,3'-Dichlorobenzidine	1900 U	1800 U	1800 U	380 U	790 U	830 U
3-Nitroaniline	1900 U	1800 U	1800 U	380 U	790 U	830 U
4,6-Dinitro-2-methylphenol	1900 U	1800 U	1800 U	380 UJ	790 UJ	830 UJ
4-Bromophenyl phenyl ether	380 U	370 U	370 U	190 U	390 U	410 U
4-Chloro-3-methylphenol	380 U	370 U	370 U	190 U	390 U	410 U
4-Chloroaniline	380 U	370 U	370 U	190 U	390 U	410 U
4-Chlorophenyl phenyl ether	380 U	370 U	370 U	190 U	390 U	410 U
4-Methylphenol	380 U	370 U	370 U	190 U	390 U	410 U
4-Nitroaniline	1900 U	1800 U	1800 U	380 U	790 U	830 U
4-Nitrophenol	1900 U	1800 U	1800 U	380 U	790 U	830 U
Acenaphthene	380 U	370 U	370 U	190 U	390 U	410 U
Acenaphthylene	380 U	370 U	370 U	190 U	390 U	410 U
Acetophenone	NA	NA	NA	190 U	390 U	410 U
Anthracene	380 U	370 U	370 U	190 U	390 U	410 U
Atrazine	NA	NA	NA	190 U	390 U	410 U
Benzaldehyde	NA	NA	NA	190 U	390 U	410 U
Benzo(a)anthracene	380 U	370 U	370 U	190 U	390 U	410 U
Benzo(a)pyrene	380 U	370 U	93 J	190 U	390 U	410 U
Benzo(b)fluoranthene	380 U	370 U	370 U	190 U	390 U	410 U
Benzo(ghi)perylene	380 U	370 U	370 U	190 U	390 U	410 U
Benzo(k)fluoranthene	380 U	370 U	370 U	190 U	390 U	410 U
bis(2-Chloroethoxy)methane	380 U	370 U	370 U	190 U	390 U	410 U
bis(2-Chloroethyl) ether	380 U	370 U	370 U	190 U	390 U	410 U
bis(2-Ethylhexyl) phthalate	91 J	220 J	120 J	1200	190 J	94 J
Butyl benzyl phthalate	380 U	370 U	370 U	190 U	390 U	410 U
Caprolactam	NA	NA	NA	190 U	390 U	410 U

APPENDIX G
SUBSURFACE SOIL - SWMU 279
ORGANIC COMPOUNDS
SWMU CONFIRMATORY SAMPLING (CTO-0143)
FC200 - O/W, 8th ENGINEERING 2D FSSG
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU279-IS01-03		SWMU279-IS02-03		SWMU279-IS03-03		SWMU279-TW01-04		SWMU279-TW02-04		SWMU279-TW03-04	
SAMPLE DATE	09-12-1997		09-12-1997		09-12-1997		03-26-2002		03-26-2002		03-26-2002	
DEPTH	6' - 8'		6' - 8'		6' - 8'		7' - 9'		7' - 9'		7' - 9'	
SEMIVOLATILES (ug/kg) (cont)												
Carbazole	380	U	370	U	370	U	190	U	390	U	410	U
Chrysene	380	U	370	U	370	U	190	U	390	U	410	U
Di-n-butyl phthalate	380	U	370	U	370	U	190	U	390	U	410	U
Di-n-octyl phthalate	380	U	370	U	370	U	16	J	360	J	410	U
Dibenz(a,h)anthracene	380	U	370	U	370	U	190	U	390	U	410	U
Dibenzofuran	380	U	370	U	370	U	190	U	390	U	410	U
Diethyl phthalate	380	U	370	U	370	U	190	U	390	U	410	U
Dimethyl phthalate	380	U	370	U	370	U	190	U	390	U	410	U
Fluoranthene	380	U	370	U	370	U	190	U	390	U	410	U
Fluorene	380	U	370	U	370	U	190	U	390	U	410	U
Hexachlorobenzene	380	U	370	U	370	U	190	U	390	U	410	U
Hexachlorobutadiene	380	U	370	U	370	U	190	U	390	U	410	U
Hexachlorocyclopentadiene	1900	U	1800	U	1800	U	190	U	390	U	410	U
Hexachloroethane	380	U	370	U	370	U	190	U	390	U	410	U
Indeno(1,2,3-cd)pyrene	380	U	370	U	370	U	190	U	390	U	410	U
Isophorone	380	U	370	U	370	U	190	U	390	U	410	U
N-Nitrosodi-n-propylamine	380	U	370	U	370	U	190	U	390	U	410	U
N-Nitrosodiphenylamine	380	U	370	U	370	U	190	U	390	U	410	U
Naphthalene	380	U	370	U	370	U	190	U	390	U	410	U
Nitrobenzene	380	U	370	U	370	U	190	U	390	U	410	U
Pentachlorophenol	1900	U	1800	U	1800	U	380	U	790	U	830	U
Phenanthrene	380	U	370	U	370	U	190	U	390	U	410	U
Phenol	380	U	370	U	370	U	190	U	390	U	410	U
Pyrene	380	U	44	J	370	U	190	U	390	U	410	U

APPENDIX G
GROUNDWATER - SWMU 279
ORGANIC COMPOUNDS
SWMU CONFIRMATORY SAMPLING (CTO-0143)
FC200-O/W, 8th ENGINEERING 2D FSSG
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU279-GW01		SWMU279-GW01D		SWMU279-GW02		SWMU279-GW03	
SAMPLE DATE	04-04-2002		04-05-2002		04-05-2002		04-05-2002	
SEMIVOLATILES (ug/L)								
1,1'-Biphenyl	10	U	10	U	10	U	10	U
2,2'-oxybis(1-Chloropropane)	10	U	10	U	10	U	10	U
2,4,5-Trichlorophenol	10	U	10	U	10	U	10	U
2,4,6-Trichlorophenol	10	U	10	U	10	U	10	U
2,4-Dichlorophenol	10	U	10	U	10	U	10	U
2,4-Dimethylphenol	10	U	10	U	10	U	10	U
2,4-Dinitrophenol	50	UJ	50	UJ	50	UJ	50	UJ
2,4-Dinitrotoluene	10	U	10	U	10	U	10	U
2,6-Dinitrotoluene	10	U	10	U	10	U	10	U
2-Chloronaphthalene	10	U	10	U	10	U	10	U
2-Chlorophenol	10	U	10	U	10	U	10	U
2-Methylnaphthalene	10	U	10	U	10	U	10	U
2-Methylphenol	10	U	10	U	10	U	10	U
2-Nitroaniline	20	U	20	U	20	U	20	U
2-Nitrophenol	10	U	10	U	10	U	10	U
3,3'-Dichlorobenzidine	20	U	20	U	20	U	20	U
3-Nitroaniline	20	U	20	U	20	U	20	U
4,6-dinitro-2-Methylphenol	20	U	20	U	20	U	20	U
4-Bromophenyl phenyl ether	10	U	10	U	10	U	10	U
4-Chloro-3-methylphenol	10	U	10	U	10	U	10	U
4-Chloroaniline	10	U	10	U	10	U	10	U
4-Chlorophenyl phenyl ether	10	U	10	U	10	U	10	U
4-Methylphenol	10	U	10	U	10	U	10	U
4-Nitroaniline	20	U	20	U	20	U	20	U
4-Nitrophenol	20	U	20	U	20	U	20	U
Acenaphthene	10	U	10	U	10	U	10	U
Acenaphthylene	10	U	10	U	10	U	10	U
Acetophenone	10	U	10	U	10	U	10	U
Anthracene	10	U	10	U	10	U	10	U
Atrazine	10	U	10	U	10	U	10	U
Benzaldehyde	10	U	10	U	10	U	10	U
Benzo(a)anthracene	10	U	10	U	10	U	10	U
Benzo(a)pyrene	10	U	10	U	10	U	10	U
Benzo(b)fluoranthene	10	U	10	U	10	U	10	U
Benzo(g,h,i)perylene	10	U	10	U	10	U	10	U
Benzo(k)fluoranthene	10	U	10	U	10	U	10	U
bis(2-Chloroethoxy)methane	10	U	10	U	10	U	10	U
bis(2-Chloroethyl)ether	10	U	10	U	10	U	10	U
bis(2-Ethylhexyl)phthalate	10	U	10	U	10	U	10	U

APPENDIX G
GROUNDWATER - SWMU 279
ORGANIC COMPOUNDS
SWMU CONFIRMATORY SAMPLING (CTO-0143)
FC200-O/W, 8th ENGINEERING 2D FSSG
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU279-GW01		SWMU279-GW01D		SWMU279-GW02		SWMU279-GW03	
SAMPLE DATE	04-04-2002		04-05-2002		04-05-2002		04-05-2002	
SEMIVOLATILES (ug/L) (cont.)								
Butyl benzyl phthalate	10	UJ	10	UJ	10	UJ	10	UJ
Caprolactam	10	U	10	U	10	U	10	U
Carbazole	10	U	10	U	10	U	10	U
Chrysene	10	UJ	10	UJ	10	UJ	10	UJ
di-N-Butyl phthalate	10	U	10	U	10	U	10	U
di-N-Octyl phthalate	10	U	10	U	10	U	10	U
Dibenzo(a,h)anthracene	10	U	10	U	10	U	10	U
Dibenzofuran	10	U	10	U	10	U	10	U
Diethyl phthalate	10	U	10	U	10	U	10	U
Dimethyl phthalate	10	U	10	U	10	U	10	U
Fluoranthene	10	U	10	U	10	U	10	U
Fluorene	10	U	10	U	10	U	10	U
Hexachlorobenzene	10	U	10	U	10	U	10	U
Hexachlorobutadiene	10	U	10	U	10	U	10	U
Hexachlorocyclopentadiene	10	U	10	U	10	U	10	U
Hexachloroethane	10	U	10	U	10	U	10	U
Indeno(1,2,3-cd)pyrene	10	U	10	U	10	U	10	U
Isophorone	10	U	10	U	10	U	10	U
N-Nitroso-di-N-propylamine	10	U	10	U	10	U	10	U
N-Nitrosodiphenylamine(1)	10	U	10	U	10	U	10	U
Naphthalene	10	U	10	U	10	U	10	U
Nitrobenzene	10	U	10	U	10	U	10	U
Pentachlorophenol	20	U	20	U	20	U	20	U
Phenanthrene	10	U	10	U	10	U	10	U
Phenol	10	U	10	U	10	U	10	U
Pyrene	10	U	10	U	10	U	10	U

APPENDIX G
SURFACE SOIL - SWMU 285
ORGANIC COMPOUNDS
SWMU CONFIRMATORY SAMPLING (CTO-0143)
S947 - O/W, ENVIRONMENTAL MANAGEMENT DIVISION
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU285-IS01-00	SWMU285-IS02-00	SWMU285-IS03-00	SWMU285-IS04-00	SWMU285-TW01-00	SWMU285-TW02-00	SWMU285-TW03-00
SAMPLE DATE	09-13-1997	09-13-1997	09-13-1997	09-13-1997	03-26-2002	03-27-2002	03-26-2002
DEPTH	0' - 2'	0' - 2'	0' - 2'	0' - 2'	0' - 1'	0' - 1'	0' - 1'
SEMIVOLATILES (ug/kg)							
1,1'-Biphenyl	NA	NA	NA	NA	400 U	370 U	480 U
2,2'-Oxybis(1-Chloropropane)	370 U	360 U	360 U	360 U	400 UJ	370 U	480 U
2,4,5-Trichlorophenol	370 U	360 U	360 U	360 U	400 U	370 U	480 U
2,4,6-Trichlorophenol	370 U	360 U	360 U	360 U	400 U	370 U	480 U
2,4-Dichlorophenol	370 U	360 U	360 U	360 U	400 U	370 U	480 U
2,4-Dimethylphenol	370 U	360 U	360 U	360 U	400 U	370 U	480 U
2,4-Dinitrophenol	1800 U	1800 U	1800 U	1700 U	2000 U	1900 UJ	2500 UJ
2,4-Dinitrotoluene	370 U	360 U	360 U	360 U	400 U	370 U	480 U
2,6-Dinitrotoluene	370 U	360 U	360 U	360 U	400 U	370 U	480 U
2-Chloronaphthalene	370 U	360 U	360 U	360 U	400 U	370 U	480 U
2-Chlorophenol	370 U	360 U	360 U	360 U	400 U	370 U	480 U
2-Methylnaphthalene	370 U	360 U	360 U	360 U	400 U	370 U	480 U
2-Methylphenol	370 U	360 U	360 U	360 U	400 U	370 U	480 U
2-Nitroaniline	1800 U	1800 U	1800 U	1700 U	800 UJ	740 U	960 U
2-Nitrophenol	370 U	360 U	360 U	360 U	400 U	370 U	480 U
3,3'-Dichlorobenzidine	1800 U	1800 U	1800 U	1700 U	800 U	740 U	960 U
3-Nitroaniline	1800 U	1800 U	1800 U	1700 U	800 U	740 U	960 U
4,6-Dinitro-2-methylphenol	1800 U	1800 U	1800 U	1700 U	800 U	740 UJ	960 UJ
4-Bromophenyl phenyl ether	370 U	360 U	360 U	360 U	400 U	370 U	480 U
4-Chloro-3-methylphenol	370 U	360 U	360 U	360 U	400 U	370 U	480 U
4-Chloroaniline	370 U	360 U	360 U	360 U	400 U	370 U	480 U
4-Chlorophenyl phenyl ether	370 U	360 U	360 U	360 U	400 U	370 U	480 U
4-Methylphenol	370 U	360 U	360 U	360 U	400 U	370 U	480 U
4-Nitroaniline	1800 U	1800 U	1800 U	1700 U	800 U	740 U	960 U
4-Nitrophenol	1800 U	1800 U	1800 U	1700 U	800 UJ	740 U	960 U
Acenaphthene	370 U	360 U	360 U	360 U	400 U	370 U	480 U
Acenaphthylene	370 U	360 U	74 J	360 U	400 U	370 U	480 U
Acetophenone	NA	NA	NA	NA	400 U	370 U	480 U
Anthracene	370 U	360 U	140 J	360 U	400 U	370 U	480 U
Atrazine	NA	NA	NA	NA	400 U	370 U	480 U
Benzaldehyde	NA	NA	NA	NA	75 J	370 U	310 J
Benzo(a)anthracene	42 J	360 U	2600	27 J	400 U	370 U	480 U
Benzo(a)pyrene	58 J	38 J	2700	360 U	400 U	370 U	480 U
Benzo(b)fluoranthene	65 J	360 U	2300	360 U	400 U	370 U	480 U
Benzo(ghi)perylene	48 J	360 U	1100	360 U	400 U	370 U	480 U
Benzo(k)fluoranthene	57 J	360 U	2500	360 U	400 U	370 U	480 U
bis(2-Chloroethoxy)methane	370 U	360 U	360 U	360 U	400 U	370 U	480 U
bis(2-Chloroethyl) ether	370 U	360 U	360 U	360 U	400 U	370 U	480 U
bis(2-Ethylhexyl) phthalate	92 J	110 J	88 J	140 J	1500 J	97 J	92 J
Butyl benzyl phthalate	370 U	360 U	360 U	360 U	400 U	370 U	480 U
Caprolactam	NA	NA	NA	NA	400 U	370 U	480 U

APPENDIX G
SURFACE SOIL - SWMU 285
ORGANIC COMPOUNDS
SWMU CONFIRMATORY SAMPLING (CTO-0143)
S947 - O/W, ENVIRONMENTAL MANAGEMENT DIVISION
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU285-IS01-00	SWMU285-IS02-00	SWMU285-IS03-00	SWMU285-IS04-00	SWMU285-TW01-00	SWMU285-TW02-00	SWMU285-TW03-00
SAMPLE DATE	09-13-1997	09-13-1997	09-13-1997	09-13-1997	03-26-2002	03-27-2002	03-26-2002
DEPTH	0' - 2'	0' - 2'	0' - 2'	0' - 2'	0' - 1'	0' - 1'	0' - 1'
SEMIVOLATILES (ug/kg) (cont)							
Carbazole	370 U	360 U	100 J	360 U	400 U	370 U	480 U
Chrysene	66 J	360 U	2500	43 J	400 U	370 U	480 U
Di-n-butyl phthalate	370 U	360 U	360 U	360 U	400 U	370 U	480 U
Di-n-octyl phthalate	370 U	360 U	360 U	360 U	83 J	370 U	40 J
Dibenz(a,h)anthracene	370 U	360 U	660	360 U	400 U	370 U	480 U
Dibenzofuran	370 U	360 U	360 U	360 U	400 U	370 U	480 U
Diethyl phthalate	370 U	360 U	360 U	360 U	400 U	370 U	480 U
Dimethyl phthalate	370 U	360 U	360 U	360 U	400 U	370 U	480 U
Fluoranthene	73 J	360 U	3100	360 U	400 U	370 U	480 U
Fluorene	370 U	360 U	360 U	360 U	400 U	370 U	480 U
Hexachlorobenzene	370 U	360 U	360 U	360 U	400 U	370 U	480 U
Hexachlorobutadiene	370 U	360 U	360 U	360 U	400 U	370 U	480 U
Hexachlorocyclopentadiene	1800 U	1800 U	1800 U	1700 U	400 UJ	370 U	480 U
Hexachloroethane	370 U	360 U	360 U	360 U	400 U	370 U	480 U
Indeno(1,2,3-cd)pyrene	40 J	360 U	1200	360 U	400 U	370 U	480 U
Isophorone	370 U	360 U	360 U	360 U	400 U	370 U	480 U
N-Nitrosodi-n-propylamine	370 U	360 U	360 U	360 U	400 U	370 U	480 U
N-Nitrosodiphenylamine	370 U	360 U	360 U	360 U	400 U	370 U	480 U
Naphthalene	370 U	360 U	360 U	360 U	400 U	370 U	480 U
Nitrobenzene	370 U	360 U	360 U	360 U	400 U	370 U	480 U
Pentachlorophenol	1800 U	1800 U	1800 U	1700 U	800 U	740 U	960 U
Phenanthrene	38 J	360 U	140 J	36 J	400 U	370 U	480 U
Phenol	370 U	360 U	360 U	360 U	400 U	370 U	480 U
Pyrene	67 J	360 U	3100	360 U	400 U	370 U	480 U

APPENDIX G
SUBSURFACE SOIL - SWMU 285
ORGANIC COMPOUNDS
SWMU CONFIRMATORY SAMPLING (CTO-0143)
S947 - O/W, ENVIRONMENTAL MANAGEMENT DIVISION
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU285-IS01-03	SWMU285-IS02-03	SWMU285-IS03-03	SWMU285-IS04-03	SWMU285-TW01-02	SWMU285-TW02-02	SWMU285-TW03-03
SAMPLE DATE	09-12-1997	09-13-1997	09-13-1997	09-13-1997	03-26-2002	03-03-2002	03-26-2002
DEPTH	6' - 8'	6' - 8'	6' - 8'	6' - 8'	3' - 5'	3' - 5'	5' - 7'
VOLATILES (ug/kg)							
1,1,1-Trichloroethane	6.1 U	5.9 U	6.1 U	5.8 U	NA	5 U	NA
1,1,2,2-Tetrachloroethane	6.1 U	5.9 U	6.1 U	5.8 U	NA	5 U	NA
1,1,2-Trichloro-1,2,2-trifluoroethane	NA	NA	NA	NA	NA	5 U	NA
1,1,2-Trichloroethane	6.1 U	5.9 U	6.1 U	5.8 U	NA	5 U	NA
1,1-Dichloroethane	6.1 U	5.9 U	6.1 U	5.8 U	NA	5 UJ	NA
1,1-Dichloroethene	6.1 U	5.9 U	6.1 U	5.8 U	NA	5 U	NA
1,2,4-Trichlorobenzene	NA	NA	NA	NA	NA	5 U	NA
1,2-Dibromo-3-chloropropane	NA	NA	NA	NA	NA	5 U	NA
1,2-Dibromoethane	NA	NA	NA	NA	NA	5 U	NA
1,2-Dichlorobenzene	1.2 U	1.2 U	1.2 U	1.2 U	NA	5 U	NA
1,2-Dichloroethane	6.1 U	5.9 U	6.1 U	5.8 U	NA	5 U	NA
1,2-Dichloroethene (total)	6.1 U	5.9 U	6.1 U	5.8 U	NA		NA
1,2-Dichloropropane	6.1 U	5.9 U	6.1 U	5.8 U	NA	5 U	NA
1,3-Dichlorobenzene	1.2 U	1.2 U	1.2 U	1.2 U	NA	5 U	NA
1,4-Dichlorobenzene	1.2 U	1.2 U	1.2 U	1.2 U	NA	5 U	NA
2-Butanone	24 U	24 U	24 U	23 U	NA	12 UJ	NA
2-Hexanone	24 U	24 U	24 U	23 U	NA	12 U	NA
4-Methyl-2-pentanone	24 U	24 U	24 U	23 U	NA	12 U	NA
Acetone	44 J	22 J	57 J	21 J	NA	6 UJ	NA
Benzene	6.1 U	5.9 U	6.1 U	5.8 U	NA	5 U	NA
Bromodichloromethane	6.1 U	5.9 U	6.1 U	5.8 U	NA	5 U	NA
Bromoform	6.1 U	5.9 U	6.1 U	5.8 U	NA	5 U	NA
Bromomethane	12 U	12 U	12 U	12 U	NA	5 UJ	NA
Carbon disulfide	6.1 U	5.9 U	6.1 U	5.8 U	NA	5 UJ	NA
Carbon tetrachloride	6.1 U	5.9 U	6.1 U	5.8 U	NA	5 U	NA
Chlorobenzene	6.1 U	5.9 U	6.1 U	5.8 U	NA	5 U	NA
Chloroethane	12 U	12 U	12 U	12 U	NA	5 U	NA
Chloroform	6.1 U	5.9 U	6.1 U	5.8 U	NA	5 U	NA
Chloromethane	12 U	12 U	12 U	12 U	NA	5 U	NA
cis-1,2-Dichloroethene	NA	NA	NA	NA	NA	5 U	NA
cis-1,3-Dichloropropene	6.1 U	5.9 U	6.1 U	5.8 U	NA	5 U	NA
Cyclohexane	NA	NA	NA	NA	NA	5 U	NA
Dibromochloromethane	6.1 U	5.9 U	6.1 U	5.8 U	NA	5 U	NA
Dichlorodifluoromethane	NA	NA	NA	NA	NA	5 U	NA
Ethylbenzene	6.1 U	5.9 U	6.1 U	5.8 U	NA	5 U	NA
Isopropylbenzene	NA	NA	NA	NA	NA	5 U	NA
Methyl acetate	NA	NA	NA	NA	NA	5 U	NA
Methyl-t-Butyl Ether	NA	NA	NA	NA	NA	5 U	NA
Methylcyclohexane	NA	NA	NA	NA	NA	5 U	NA
Methylene chloride	6.1 U	3 J	3 J	3 J	NA	14	NA
Styrene	6.1 U	5.9 U	6.1 U	5.8 U	NA	5 U	NA
Tetrachloroethene	6.1 U	5.9 U	6.1 U	5.8 U	NA	5 U	NA
Toluene	6.1 U	5.9 U	6.1 U	5.8 U	NA	5 U	NA
trans-1,2-Dichloroethene	NA	NA	NA	NA	NA	5 U	NA
trans-1,3-Dichloropropene	6.1 U	5.9 U	6.1 U	5.8 U	NA	5 U	NA
Trichloroethene	6.1 U	5.9 U	6.1 U	5.8 U	NA	5 U	NA
Trichlorofluoromethane	NA	NA	NA	NA	NA	5 U	NA
Vinyl chloride	12 U	12 U	12 U	12 U	NA	5 U	NA
Xylenes (total)	6.1 U	5.9 U	6.1 U	5.8 U	NA	15 U	NA

APPENDIX G
SUBSURFACE SOIL - SWMU 285
ORGANIC COMPOUNDS
SWMU CONFIRMATORY SAMPLING (CTO-0143)
S947 - O/W, ENVIRONMENTAL MANAGEMENT DIVISION
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU285-IS01-03	SWMU285-IS02-03	SWMU285-IS03-03	SWMU285-IS04-03	SWMU285-TW01-02	SWMU285-TW02-02	SWMU285-TW03-03
SAMPLE DATE	09-12-1997	09-13-1997	09-13-1997	09-13-1997	03-26-2002	03-03-2002	03-26-2002
DEPTH	6' - 8'	6' - 8'	6' - 8'	6' - 8'	3' - 5'	3' - 5'	5' - 7'
SEMIVOLATILES (ug/kg)							
1,1'-Biphenyl	NA	NA	NA	NA	400 U	360 U	390 U
2,2'-Oxybis(1-Chloropropane)	400 U	390 U	400 U	380 U	400 U	360 UJ	390 U
2,4,5-Trichlorophenol	400 U	390 U	400 U	380 U	400 U	360 U	390 U
2,4,6-Trichlorophenol	400 U	390 U	400 U	380 U	400 U	360 U	390 U
2,4-Dichlorophenol	400 U	390 U	400 U	380 U	400 U	360 U	390 U
2,4-Dimethylphenol	400 U	390 U	400 U	380 U	400 U	360 U	390 U
2,4-Dinitrophenol	1900 U	1900 U	1900 U	1900 U	2100 UJ	1800 U	2000 UJ
2,4-Dinitrotoluene	400 U	390 U	400 U	380 U	400 U	360 U	390 U
2,6-Dinitrotoluene	400 U	390 U	400 U	380 U	400 UJ	360 U	390 U
2-Chloronaphthalene	400 U	390 U	400 U	380 U	400 U	360 U	390 U
2-Chlorophenol	400 U	390 U	400 U	380 U	400 U	360 U	390 U
2-Methylnaphthalene	400 U	390 U	400 U	380 U	400 U	360 U	390 U
2-Methylphenol	400 U	390 U	400 U	380 U	400 U	360 U	390 U
2-Nitroaniline	1900 U	1900 U	1900 U	1900 U	800 U	720 UJ	790 U
2-Nitrophenol	400 U	390 U	400 U	380 U	400 U	360 U	390 U
3,3'-Dichlorobenzidine	1900 U	1900 U	1900 U	1900 U	800 U	720 U	790 U
3-Nitroaniline	1900 U	1900 U	1900 U	1900 U	800 U	720 U	790 U
4,6-Dinitro-2-methylphenol	1900 U	1900 U	1900 U	1900 U	800 U	720 U	790 UJ
4-Bromophenyl phenyl ether	400 U	390 U	400 U	380 U	400 U	360 U	390 U
4-Chloro-3-methylphenol	400 U	390 U	400 U	380 U	400 U	360 U	390 U
4-Chloroaniline	400 U	390 U	400 U	380 U	400 U	360 U	390 U
4-Chlorophenyl phenyl ether	400 U	390 U	400 U	380 U	400 U	360 U	390 U
4-Methylphenol	400 U	390 U	400 U	380 U	400 U	360 U	390 U
4-Nitroaniline	1900 U	1900 U	1900 U	1900 U	800 U	720 U	790 U
4-Nitrophenol	1900 U	1900 U	1900 U	1900 U	800 U	720 UJ	790 U
Acenaphthene	400 U	390 U	400 U	380 U	400 U	360 U	390 U
Acenaphthylene	400 U	390 U	400 U	380 U	400 U	360 U	390 U
Acetophenone	NA	NA	NA	NA	400 U	360 U	390 U
Anthracene	400 U	390 U	400 U	380 U	400 U	360 U	390 U
Atrazine	NA	NA	NA	NA	400 U	360 U	390 U
Benzaldehyde	NA	NA	NA	NA	400 U	360 U	390 U
Benzo(a)anthracene	400 U	390 U	400 U	380 U	400 U	360 U	390 U
Benzo(a)pyrene	400 U	390 U	400 U	380 U	400 U	360 U	390 U
Benzo(b)fluoranthene	400 U	390 U	400 U	380 U	400 U	360 U	390 U
Benzo(ghi)perylene	400 U	390 U	400 U	380 U	400 U	360 U	390 U
Benzo(k)fluoranthene	400 U	390 U	400 U	380 U	400 U	360 U	390 U
bis(2-Chloroethoxy)methane	400 U	390 U	400 U	380 U	400 U	360 U	390 U
bis(2-Chloroethyl) ether	400 U	390 U	400 U	380 U	400 U	360 U	390 U
bis(2-Ethylhexyl) phthalate	120 J	86 J	130 J	250 J	320 J	360 U	160 J
Butyl benzyl phthalate	400 U	390 U	400 U	380 U	400 U	360 U	390 U
Caprolactam	NA	NA	NA	NA	400 U	360 U	390 U
Carbazole	400 U	390 U	400 U	380 U	400 U	360 U	390 U
Chrysene	400 U	390 U	400 U	380 U	400 U	360 U	390 U
Di-n-butyl phthalate	400 U	390 U	400 U	380 U	400 U	360 U	390 U
Di-n-octyl phthalate	400 U	390 U	400 U	380 U	400 U	360 U	390 U
Dibenz(a,h)anthracene	400 U	390 U	400 U	380 U	400 U	360 U	390 U
Dibenzofuran	400 U	390 U	400 U	380 U	400 U	360 U	390 U
Diethyl phthalate	400 U	390 U	400 U	380 U	400 U	360 U	390 U
Dimethyl phthalate	400 U	390 U	400 U	380 U	400 U	360 U	390 U
Fluoranthene	400 U	390 U	400 U	380 U	400 U	360 U	390 U
Fluorene	400 U	390 U	400 U	380 U	400 U	360 U	390 U
Hexachlorobenzene	400 U	390 U	400 U	380 U	400 U	360 U	390 U
Hexachlorobutadiene	400 U	390 U	400 U	380 U	400 U	360 U	390 U
Hexachlorocyclopentadiene	1900 U	1900 U	1900 U	1900 U	400 U	360 UJ	390 U

APPENDIX G
SUBSURFACE SOIL - SWMU 285
ORGANIC COMPOUNDS
SWMU CONFIRMATORY SAMPLING (CTO-0143)
S947 - O/W, ENVIRONMENTAL MANAGEMENT DIVISION
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU285-IS01-03	SWMU285-IS02-03	SWMU285-IS03-03	SWMU285-IS04-03	SWMU285-TW01-02	SWMU285-TW02-02	SWMU285-TW03-03
SAMPLE DATE	09-12-1997	09-13-1997	09-13-1997	09-13-1997	03-26-2002	03-03-2002	03-26-2002
DEPTH	6' - 8'	6' - 8'	6' - 8'	6' - 8'	3' - 5'	3' - 5'	5' - 7'
SEMIVOLATILES (ug/kg) (cont)							
Hexachloroethane	400 U	390 U	400 U	380 U	400 U	360 U	390 U
Indeno(1,2,3-cd)pyrene	400 U	390 U	400 U	380 U	400 U	360 U	390 U
Isophorone	400 U	390 U	400 U	380 U	400 U	360 U	390 U
N-Nitrosodi-n-propylamine	400 U	390 U	400 U	380 U	400 U	360 U	390 U
N-Nitrosodiphenylamine	400 U	390 U	400 U	380 U	400 U	360 U	390 U
Naphthalene	400 U	390 U	400 U	380 U	400 U	360 U	390 U
Nitrobenzene	400 U	390 U	400 U	380 U	400 U	360 U	390 U
Pentachlorophenol	1900 U	1900 U	1900 U	1900 U	800 U	720 U	790 U
Phenanthrene	400 U	390 U	400 U	380 U	400 U	360 U	390 U
Phenol	400 U	390 U	400 U	380 U	400 U	360 U	390 U
Pyrene	400 U	390 U	400 U	380 U	400 U	360 U	390 U

APPENDIX G
GROUNDWATER - SWMU 285
ORGANIC COMPOUNDS
SWMU CONFIRMATORY SAMPLING (CTO-0143)
S947 - O/W, ENVIRONMENTAL MANAGEMENT DIVISION
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU285-GW01		SWMU285-GW02		SWMU285-GW03	
SAMPLE DATE	04-05-2002		04-05-2002		04-05-2002	
VOLATILES (ug/L)						
1,1,1-Trichloroethane	5	U	5	U	5	U
1,1,2,2-Tetrachloroethane	5	U	5	U	5	U
1,1,2-Trichloro-1,2,2-trifluoroethane	5	U	5	U	5	U
1,1,2-Trichloroethane	5	U	5	U	5	U
1,1-Dichloroethane	5	U	5	U	5	U
1,1-Dichloroethene	5	U	5	U	5	U
1,2,4-Trichlorobenzene	5	UJ	5	UJ	5	UJ
1,2-Dibromo-3-chloropropane	5	U	5	U	5	U
1,2-Dibromoethane	5	U	5	U	5	U
1,2-Dichlorobenzene	5	U	5	U	5	U
1,2-Dichloroethane	5	U	5	U	5	U
1,2-Dichloropropane	5	U	5	U	5	U
1,3-Dichlorobenzene	5	U	5	U	5	U
1,4-Dichlorobenzene	5	U	5	U	5	U
2-Butanone	13	U	13	U	13	U
2-Hexanone	13	U	13	U	13	U
4-Methyl-2-pentanone	13	U	13	U	13	U
Acetone	5	U	5	U	13	U
Benzene	5	U	5	U	5	U
Bromodichloromethane	5	U	5	U	5	U
Bromoform	5	U	5	U	5	U
Bromomethane	5	UJ	5	UJ	5	UJ
Carbon disulfide	5	U	5	U	5	U
Carbon tetrachloride	5	U	5	U	5	U
Chlorobenzene	5	U	5	U	5	U
Chloroethane	5	U	5	U	5	U
Chloroform	5	U	5	U	5	U
Chloromethane	5	U	5	U	5	U
cis-1,2-Dichloroethene	5	U	5	U	5	U
cis-1,3-Dichloropropene	5	U	5	U	5	U
Cyclohexane	5	U	5	U	5	U
Dibromochloromethane	5	U	5	U	5	U
Dichlorodifluoromethane	5	U	5	U	5	U
Ethylbenzene	5	U	5	U	5	U
Isopropylbenzene	5	U	5	U	5	U
Methyl acetate	5	U	5	U	5	U
Methyl-t-butyl ether	5	U	5	U	5	U
Methylcyclohexane	5	U	5	U	5	U

APPENDIX G
GROUNDWATER - SWMU 285
ORGANIC COMPOUNDS
SWMU CONFIRMATORY SAMPLING (CTO-0143)
S947 - O/W, ENVIRONMENTAL MANAGEMENT DIVISION
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU285-GW01		SWMU285-GW02		SWMU285-GW03	
SAMPLE DATE	04-05-2002		04-05-2002		04-05-2002	
VOLATILES (ug/L) (cont)						
Methylene chloride	5	U	5	U	5	U
Styrene	5	U	5	U	5	U
Tetrachloroethene	5	U	5	U	5	U
Toluene	5	U	5	U	5	U
trans-1,2-Dichloroethene	5	U	5	U	5	U
trans-1,3-Dichloropropene	5	U	5	U	5	U
Trichloroethene	5	U	5	U	5	U
Trichlorofluoromethane	5	U	5	U	5	U
Vinyl chloride	5	U	5	U	5	U
Xylene (Total)	5	U	5	U	5	U
SEMIVOLATILES (ug/L)						
1,1'-Biphenyl	10	U	10	U	10	U
2,2'-oxybis(1-Chloropropane)	10	U	10	U	10	U
2,4,5-Trichlorophenol	10	U	10	U	10	U
2,4,6-Trichlorophenol	10	U	10	U	10	U
2,4-Dichlorophenol	10	U	10	U	10	U
2,4-Dimethylphenol	10	U	10	U	10	U
2,4-Dinitrophenol	50	U	50	U	50	U
2,4-Dinitrotoluene	10	U	10	U	10	U
2,6-Dinitrotoluene	10	U	10	U	10	U
2-Chloronaphthalene	10	U	10	U	10	U
2-Chlorophenol	10	U	10	U	10	U
2-Methylnaphthalene	10	U	10	U	10	U
2-Methylphenol	10	U	10	U	10	U
2-Nitroaniline	20	U	20	U	20	U
2-Nitrophenol	10	U	10	U	10	U
3,3'-Dichlorobenzidine	20	U	20	U	20	U
3-Nitroaniline	20	U	20	U	20	U
4,6-dinitro-2-Methylphenol	20	U	20	U	20	U
4-Bromophenyl phenyl ether	10	U	10	U	10	U
4-Chloro-3-methylphenol	10	U	10	U	10	U
4-Chloroaniline	10	U	10	U	10	U
4-Chlorophenyl phenyl ether	10	U	10	U	10	U
4-Methylphenol	10	U	10	U	10	U
4-Nitroaniline	20	U	20	U	20	U
4-Nitrophenol	20	U	20	U	20	U
Acenaphthene	10	U	10	U	10	U
Acenaphthylene	10	U	10	U	10	U

APPENDIX G
GROUNDWATER - SWMU 285
ORGANIC COMPOUNDS
SWMU CONFIRMATORY SAMPLING (CTO-0143)
S947 - O/W, ENVIRONMENTAL MANAGEMENT DIVISION
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU285-GW01		SWMU285-GW02		SWMU285-GW03	
SAMPLE DATE	04-05-2002		04-05-2002		04-05-2002	
SEMIVOLATILES (ug/L) (cont)						
Acetophenone	10	U	10	U	10	U
Anthracene	10	U	10	U	10	U
Atrazine	10	U	10	U	10	U
Benzaldehyde	10	U	10	U	10	U
Benzo(a)anthracene	10	U	10	U	10	U
Benzo(a)pyrene	10	U	10	U	10	U
Benzo(b)fluoranthene	10	U	10	U	10	U
Benzo(g,h,i)perylene	10	U	10	U	10	U
Benzo(k)fluoranthene	10	U	10	U	10	U
bis(2-Chloroethoxy)methane	10	UJ	10	U	10	U
bis(2-Chloroethyl)ether	10	U	10	U	10	U
bis(2-Ethylhexyl)phthalate	0.8	J	10	U	10	U
Butyl benzyl phthalate	10	U	10	U	10	U
Caprolactam	10	U	10	U	10	U
Carbazole	10	U	10	U	10	U
Chrysene	10	U	10	U	10	U
di-N-Butyl phthalate	10	U	10	U	10	U
di-N-Octyl phthalate	10	U	10	U	10	U
Dibenzo(a,h)anthracene	10	U	10	U	10	U
Dibenzofuran	10	U	10	U	10	U
Diethyl phthalate	10	U	10	U	10	U
Dimethyl phthalate	10	U	10	U	10	U
Fluoranthene	10	U	10	U	10	U
Fluorene	10	U	10	U	10	U
Hexachlorobenzene	10	U	10	U	10	U
Hexachlorobutadiene	10	U	10	U	10	U
Hexachlorocyclopentadiene	10	U	10	UJ	10	UJ
Hexachloroethane	10	U	10	U	10	U
Indeno(1,2,3-cd)pyrene	10	U	10	U	10	U
Isophorone	10	U	10	U	10	U
N-Nitroso-di-N-propylamine	10	U	10	U	10	U
N-Nitrosodiphenylamine(1)	10	U	10	U	10	U
Naphthalene	10	UJ	10	U	10	U
Nitrobenzene	10	U	10	U	10	U
Pentachlorophenol	20	U	20	U	20	U
Phenanthrene	10	U	10	U	10	U
Phenol	10	U	10	U	10	U
Pyrene	10	U	10	U	10	U

APPENDIX G
SURFACE SOIL - SWMU 291
INORGANIC COMPOUNDS
SWMU CONFIRMATORY SAMPLING (CTO-0143)
034 DITCH, 5th BN, 10th MARINES 2D MAR DIV
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU291-IS01-00	SWMU291-IS02-00	SWMU291-TW01-00	SWMU291-TW02-00	SWMU291-TW03-00
SAMPLE DATE	09-13-1997	09-13-1997	03-24-2002	03-24-2002	03-24-2002
DEPTH	0' - 2'	0' - 2'	0' - 1'	0' - 1'	0' - 1'
METALS (mg/kg)					
Arsenic	1.1 U	1.2 U	0.26 U	0.27 U	0.27 U
Barium	23.8	23 U	7.5	11.5	14.9
Cadmium	0.54 U	0.58 U	0.032 U	0.034 U	0.055 J
Chromium	7.1	6.4	4.9	5.2	6.4
Lead	17.6	13.7	3.6	3.6	14.7
Mercury	0.036 U	0.038 U	0.023 J	0.023 J	0.049 J
Selenium	0.54 U	0.58 U	0.49 U	0.53 U	0.52 U
Silver	1.1 U	1.2 U	0.097 U	0.1 U	0.1 U

APPENDIX G
SUBSURFACE SOIL - SWMU 291
INORGANIC COMPOUNDS
SWMU CONFIRMATORY SAMPLING (CTO-0143)
034 DITCH, 5th BN, 10th MARINES 2D MAR DIV
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU291-IS01-04	SWMU291-IS02-04	SWMU291-TW01-04	SWMU291-TW02-04	SWMU291-TW03-04
SAMPLE DATE	09-13-1997	09-13-1997	03-24-2002	03-24-2002	03-24-2002
DEPTH	8' - 10'	8' - 10'	7' - 9'	7' - 9'	7' - 9'
METALS (mg/kg)					
Arsenic	11.3	2.7	0.27 U	0.27 U	0.28 U
Barium	37.3	23.4 U	13.4	19.8	12.7
Cadmium	0.7 U	0.59 U	0.034 U	0.058 J	0.034 U
Chromium	43.3	11.2	5.8	8.2	4.8
Lead	11.3	4.7	7.1	15.6	8 J
Mercury	0.046 U	0.039 U	0.032 J	0.048 J	0.041 J
Selenium	0.95	0.59 U	0.53 U	0.52 U	0.53 U
Silver	1.4 U	1.2 U	0.1 U	0.1 U	0.1 U

APPENDIX G
GROUNDWATER - SWMU 291
INORGANIC COMPOUNDS
SWMU CONFIRMATORY SAMPLING (CTO-0143)
034 DITCH, 5th BN, 10th MARINES, 2D MAR DIV
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU291-GW01		SWMU291-GW02		SWMU291-GW03	
SAMPLE DATE	04-09-2002		04-09-2002		04-09-2002	
METALS (ug/L)						
Arsenic	2	UJ	2	UJ	23.6	
Barium	42.5		97.8	J	137	J
Cadmium	0.4	U	0.4	U	0.64	J
Chromium	0.5	UJ	1	J	1.9	J
Lead	1.1	U	2.1	J	3.9	J
Mercury	0.1	U	0.1	U	0.1	U
Selenium	2.3	J	2.7	J	4.4	J
Silver	0.5	U	0.5	UJ	0.5	J

APPENDIX G
SURFACE SOIL - SWMU 293
INORGANIC COMPOUNDS
SWMU CONFIRMATORY SAMPLING (CTO-0143)
1106/1107 - O/W, MOTOR T - AUTO HOBBY SHOP MWR
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU293-IS01-00	SWMU293-IS02-00	SWMU293-IS03-00	SWMU293-TW01-00	SWMU293-TW02-00	SWMU293-TW03-00
SAMPLE DATE	09-14-1997	09-14-1997	09-14-1997	03-22-2002	03-22-2002	03-22-2002
DEPTH	0' - 2'	0' - 2'	0' - 2'	0' - 1'	0' - 1'	0' - 1'
METALS (mg/kg)						
Arsenic	1.1 U	1.1 U	1.2 U	0.25 U	0.26 U	0.26 U
Barium	21.3 U	41.5	23.1 U	9.4	14.4	26.9
Cadmium	0.53 U	0.56 U	0.58 U	0.03 U	0.75	0.35 J
Chromium	12	10.6	9.1	5 J	4.7	8.8
Lead	66	295	26.2	19.6	23.8 J	103 J
Mercury	0.043	0.045	0.04	0.04 J	0.04	0.07
Selenium	0.53 U	0.56 U	0.58 U	0.48 U	0.5 U	0.5 U
Silver	1.1 U	1.1 U	1.2 U	0.09 U	0.1 U	0.24 J

APPENDIX G
SUBSURFACE SOIL - SWMU 293
INORGANIC COMPOUNDS
SWMU CONFIRMATORY SAMPLING (CTO-0143)
1106/1107 - O/W, MOTOR T - AUTO HOBBY SHOP MWR
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU293-IS01-03	SWMU293-IS02-03	SWMU293-IS03-02	SWMU293-TW01-04	SWMU293-TW02-04	SWMU293-TW03-03
SAMPLE DATE	09-14-1997	09-14-1997	09-14-1997	03-22-2002	03-22-2002	03-22-2002
DEPTH	6' - 8'	6' - 8'	4' - 6'	7' - 9'	7' - 9'	5' - 7'
METALS (mg/kg)						
Arsenic	1.1 U	1.1 U	1.1 U	0.27 U	0.26 U	0.26 U
Barium	21.1 U	21.9 U	23 U	2.5 U	3.1	4.6
Cadmium	0.53 U	0.55 U	0.57 U	0.03 U	0.03 U	0.3 U
Chromium	4.5	3.2	9.4	3.5 J	3.4	5
Lead	6.6	2.7	20.8	2.1	2.3 J	2.8 J
Mercury	0.035 U	0.036 U	0.038 U	0.02 U	0.02 U	0.02 U
Selenium	0.53 U	0.55 U	0.57 U	0.51 U	0.5 U	0.5 U
Silver	1.1 U	1.1 U	1.1 U	0.1 U	0.1 U	0.1 U

APPENDIX G
GROUNDWATER - SWMU 293
INORGANIC COMPOUNDS
SWMU CONFIRMATORY SAMPLING (CTO-0143)
1106/1107 - O/W, MOTOR T - AUTO HOBBY SHOP MWR
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU293-GW01		SWMU293-GW02		SWMU293-GW03	
SAMPLE DATE	04-05-2002		04-05-2002		04-05-2002	
METALS (ug/L)						
Arsenic	6.7	J	3.7	J	20.6	
Barium	16.8		13.6		32.7	
Cadmium	0.3	U	0.3	U	0.3	U
Chromium	4.3	J	2.8	J	16.1	
Lead	2.5	J	1.8	UJ	9.2	J
Mercury	0.1	U	0.1	U	0.1	U
Selenium	4.6	U	4.6	U	4.6	U
Silver	0.9	U	0.9	U	0.9	U

APPENDIX G
SURFACE SOIL - SWMU 294
ORGANIC COMPOUNDS
SWMU CONFIRMATORY SAMPLING (CTO-0143)
1203 - O/W, BASE MAINTENANCE
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU294-IS01-00	SWMU294-IS02-00	SWMU294-IS03-00	SWMU294-IS04-00	SWMU294-IS05-00	SWMU294-IS06-00	SWMU294-SS01-00
SAMPLE DATE	09-12-1997	09-12-1997	09-12-1997	09-12-1997	09-12-1997	09-12-1997	03-22-2002
DEPTH	0' - 2'	0' - 2'	0' - 2'	0' - 2'	0' - 2'	0' - 2'	0' - 1'
SEMIVOLATILES (ug/kg)							
1,1'-Biphenyl	NA	NA	NA	NA	NA	NA	380 U
2,2'-Oxybis(1-Chloropropane)	380 U	380 U	350 U	340 U	350 U	370 U	380 U
2,4,5-Trichlorophenol	380 U	380 U	350 U	340 U	350 U	370 U	380 U
2,4,6-Trichlorophenol	380 U	380 U	350 U	340 U	350 U	370 U	380 U
2,4-Dichlorophenol	380 U	380 U	350 U	340 U	350 U	370 U	380 U
2,4-Dimethylphenol	380 U	380 U	350 U	340 U	350 U	370 U	380 U
2,4-Dinitrophenol	1800 U	1900 U	1700 U	1700 U	1700 U	1800 U	2000 U
2,4-Dinitrotoluene	380 U	380 U	350 U	340 U	350 U	370 U	380 U
2,6-Dinitrotoluene	380 U	380 U	350 U	340 U	350 U	370 U	380 U
2-Chloronaphthalene	380 U	380 U	350 U	340 U	350 U	370 U	380 U
2-Chlorophenol	380 U	380 U	350 U	340 U	350 U	370 U	380 U
2-Methylnaphthalene	380 U	380 U	350 U	340 U	350 U	370 U	380 U
2-Methylphenol	380 U	380 U	350 U	340 U	350 U	370 U	380 U
2-Nitroaniline	1800 U	1900 U	1700 U	1700 U	1700 U	1800 U	770 U
2-Nitrophenol	380 U	380 U	350 U	340 U	350 U	370 U	380 U
3,3'-Dichlorobenzidine	1800 U	1900 U	1700 U	1700 U	1700 U	1800 U	770 U
3-Nitroaniline	1800 U	1900 U	1700 U	1700 U	1700 U	1800 U	770 U
4,6-Dinitro-2-methylphenol	1800 U	1900 U	1700 U	1700 U	1700 U	1800 U	770 U
4-Bromophenyl phenyl ether	380 U	380 U	350 U	340 U	350 U	370 U	380 U
4-Chloro-3-methylphenol	380 U	380 U	350 U	340 U	350 U	370 U	380 U
4-Chloroaniline	380 U	380 U	350 U	340 U	350 U	370 U	380 U
4-Chlorophenyl phenyl ether	380 U	380 U	350 U	340 U	350 U	370 U	380 U
4-Methylphenol	380 U	380 U	350 U	340 U	350 U	370 U	380 U
4-Nitroaniline	1800 U	1900 U	1700 U	1700 U	1700 U	1800 U	770 U
4-Nitrophenol	1800 U	1900 U	1700 U	1700 U	1700 U	1800 U	770 U
Acenaphthene	380 U	380 U	350 U	340 U	350 U	370 U	380 U
Acenaphthylene	380 U	380 U	350 U	340 U	350 U	370 U	380 U
Acetophenone	NA	NA	NA	NA	NA	NA	380 U
Anthracene	380 U	380 U	350 U	340 U	350 U	370 U	380 U
Atrazine	NA	NA	NA	NA	NA	NA	380 U
Benzaldehyde	NA	NA	NA	NA	NA	NA	380 U
Benzo(a)anthracene	380 U	380 U	350 U	340 U	350 U	72 J	380 U
Benzo(a)pyrene	380 U	380 U	350 U	340 U	350 U	71 J	380 U
Benzo(b)fluoranthene	380 U	380 U	350 U	340 U	350 U	93 J	380 U
Benzo(ghi)perylene	380 U	380 U	350 U	340 U	350 U	51 J	380 U
Benzo(k)fluoranthene	380 U	380 U	350 U	340 U	350 U	68 J	380 U
bis(2-Chloroethoxy)methane	380 U	380 U	350 U	340 U	350 U	370 U	380 U
bis(2-Chloroethyl) ether	380 U	380 U	350 U	340 U	350 U	370 U	380 U

APPENDIX G
SURFACE SOIL - SWMU 294
ORGANIC COMPOUNDS
SWMU CONFIRMATORY SAMPLING (CTO-0143)
1203 - O/W, BASE MAINTENANCE
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU294-IS01-00	SWMU294-IS02-00	SWMU294-IS03-00	SWMU294-IS04-00	SWMU294-IS05-00	SWMU294-IS06-00	SWMU294-SS01-00
SAMPLE DATE	09-12-1997	09-12-1997	09-12-1997	09-12-1997	09-12-1997	09-12-1997	03-22-2002
DEPTH	0' - 2'	0' - 2'	0' - 2'	0' - 2'	0' - 2'	0' - 2'	0' - 1'
SEMIVOLATILES (ug/kg) (cont)							
bis(2-Ethylhexyl) phthalate	380 U	250 J	350 U	340 U	350 U	120 J	380 U
Butyl benzyl phthalate	380 U	380 U	350 U	340 U	350 U	370 U	380 U
Caprolactam	NA	NA	NA	NA	NA	NA	380 U
Carbazole	380 U	380 U	350 U	340 U	350 U	370 U	380 U
Chrysene	380 U	380 U	350 U	340 U	350 U	94 J	380 U
Di-n-butyl phthalate	380 U	380 U	350 U	340 U	350 U	370 U	380 U
Di-n-octyl phthalate	380 U	380 U	350 U	340 U	350 U	370 U	380 U
Dibenz(a,h)anthracene	380 U	380 U	350 U	340 U	350 U	370 U	380 U
Dibenzofuran	380 U	380 U	350 U	340 U	350 U	370 U	380 U
Diethyl phthalate	380 U	380 U	350 U	340 U	350 U	370 U	380 U
Dimethyl phthalate	380 U	380 U	350 U	340 U	350 U	370 U	380 U
Fluoranthene	380 U	380 U	350 U	46 J	350 U	180 J	380 U
Fluorene	380 U	380 U	350 U	340 U	350 U	370 U	380 U
Hexachlorobenzene	380 U	380 U	350 U	340 U	350 U	370 U	380 U
Hexachlorobutadiene	380 U	380 U	350 U	340 U	350 U	370 U	380 U
Hexachlorocyclopentadiene	1800 U	1900 U	1700 U	1700 U	1700 U	1800 U	380 U
Hexachloroethane	380 U	380 U	350 U	340 U	350 U	370 U	380 U
Indeno(1,2,3-cd)pyrene	380 U	380 U	350 U	340 U	350 U	49 J	380 U
Isophorone	380 U	380 U	350 U	340 U	350 U	370 U	380 U
N-Nitrosodi-n-propylamine	380 U	380 U	350 U	340 U	350 U	370 U	380 U
N-Nitrosodiphenylamine	380 U	380 U	350 U	340 U	350 U	370 U	380 U
Naphthalene	380 U	380 U	350 U	340 U	350 U	370 U	380 U
Nitrobenzene	380 U	380 U	350 U	340 U	350 U	370 U	380 U
Pentachlorophenol	1800 U	1900 U	1700 U	1700 U	1700 U	1800 U	770 U
Phenanthrene	380 U	380 U	350 U	340 U	350 U	68 J	380 U
Phenol	380 U	380 U	350 U	340 U	350 U	370 U	380 U
Pyrene	380 U	380 U	350 U	340 U	350 U	140 J	380 U

APPENDIX G
SURFACE SOIL - SWMU 294
ORGANIC COMPOUNDS
SWMU CONFIRMATORY SAMPLING (CTO-0143)
1203 - O/W, BASE MAINTENANCE
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU294-SS02-00	SWMU294-SS03-00	SWMU294-TW01-00	SWMU294-TW02-00	SWMU294-TW03-00	SWMU294-TW04-00
SAMPLE DATE	03-22-2002	03-22-2002	03-22-2002	03-24-2002	03-24-2002	03-22-2002
DEPTH	0' - 1'	0' - 1'	0' - 1'	0' - 1'	0' - 1'	0' - 1'
SEMIVOLATILES (ug/kg)						
1,1'-Biphenyl	360 U	370 U	380 U	380 U	400 U	350 U
2,2'-Oxybis(1-Chloropropane)	360 U	370 U	380 U	380 U	400 U	350 U
2,4,5-Trichlorophenol	360 U	370 U	380 U	380 U	400 U	350 U
2,4,6-Trichlorophenol	360 U	370 U	380 U	380 U	400 U	350 U
2,4-Dichlorophenol	360 U	370 U	380 U	380 U	400 U	350 U
2,4-Dimethylphenol	360 U	370 U	380 U	380 U	400 U	350 U
2,4-Dinitrophenol	1900 U	1900 U	2000 U	2000 U	2000 UJ	1800 U
2,4-Dinitrotoluene	360 U	370 U	380 U	380 U	400 U	350 U
2,6-Dinitrotoluene	360 U	370 U	380 U	380 U	400 U	350 U
2-Chloronaphthalene	360 U	370 U	380 U	380 U	400 U	350 U
2-Chlorophenol	360 U	370 U	380 U	380 U	400 U	350 U
2-Methylnaphthalene	360 U	370 U	380 U	380 U	400 U	350 U
2-Methylphenol	360 U	370 U	380 U	380 U	400 U	350 U
2-Nitroaniline	730 U	730 U	760 U	760 U	800 U	710 U
2-Nitrophenol	360 U	370 U	380 U	380 U	400 U	350 U
3,3'-Dichlorobenzidine	730 U	730 U	760 U	760 U	800 U	710 U
3-Nitroaniline	730 U	730 U	760 U	760 U	800 U	710 U
4,6-Dinitro-2-methylphenol	730 U	730 U	760 U	760 U	800 U	710 U
4-Bromophenyl phenyl ether	360 U	370 U	380 U	380 U	400 U	350 U
4-Chloro-3-methylphenol	360 U	370 U	380 U	380 U	400 U	350 U
4-Chloroaniline	360 U	370 U	380 U	380 U	400 U	350 U
4-Chlorophenyl phenyl ether	360 U	370 U	380 U	380 U	400 U	350 U
4-Methylphenol	360 U	370 U	380 U	380 U	400 U	350 U
4-Nitroaniline	730 U	730 U	760 U	760 U	800 U	710 U
4-Nitrophenol	730 U	730 U	760 U	760 U	800 U	710 U
Acenaphthene	360 U	370 U	380 U	380 U	400 U	350 U
Acenaphthylene	360 U	370 U	380 U	380 U	400 U	350 U
Acetophenone	360 U	370 U	380 U	380 U	400 U	350 U
Anthracene	360 U	370 U	380 U	380 U	400 U	350 U
Atrazine	360 U	370 U	380 U	380 U	400 U	350 U
Benzaldehyde	360 U	370 U	380 U	380 U	400 U	350 U
Benzo(a)anthracene	360 U	370 U	380 U	380 U	400 U	350 U
Benzo(a)pyrene	360 U	370 U	380 U	380 U	400 U	350 U
Benzo(b)fluoranthene	360 U	370 U	380 U	380 U	400 U	350 U
Benzo(ghi)perylene	360 U	370 U	380 U	380 U	400 U	350 U
Benzo(k)fluoranthene	360 U	370 U	380 U	380 U	400 U	350 U
bis(2-Chloroethoxy)methane	360 U	370 U	380 U	380 U	400 U	350 U
bis(2-Chloroethyl) ether	360 U	370 U	380 U	380 U	400 U	350 U

APPENDIX G
SURFACE SOIL - SWMU 294
ORGANIC COMPOUNDS
SWMU CONFIRMATORY SAMPLING (CTO-0143)
1203 - O/W, BASE MAINTENANCE
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU294-SS02-00	SWMU294-SS03-00	SWMU294-TW01-00	SWMU294-TW02-00	SWMU294-TW03-00	SWMU294-TW04-00
SAMPLE DATE	03-22-2002	03-22-2002	03-22-2002	03-24-2002	03-24-2002	03-22-2002
DEPTH	0' - 1'	0' - 1'	0' - 1'	0' - 1'	0' - 1'	0' - 1'
SEMIVOLATILES (ug/kg) (cont)						
bis(2-Ethylhexyl) phthalate	360 U	370 U	380 U	140 J	400 U	350 U
Butyl benzyl phthalate	360 U	370 U	380 U	380 U	400 U	350 U
Caprolactam	360 U	370 U	380 U	380 U	400 U	350 U
Carbazole	360 U	370 U	380 U	380 U	400 U	350 U
Chrysene	360 U	370 U	380 U	380 U	400 U	350 U
Di-n-butyl phthalate	360 U	370 U	380 U	380 U	400 U	350 U
Di-n-octyl phthalate	360 U	370 U	380 U	380 U	400 U	350 U
Dibenz(a,h)anthracene	360 U	370 U	380 U	380 U	400 U	350 U
Dibenzofuran	360 U	370 U	380 U	380 U	400 U	350 U
Diethyl phthalate	360 U	370 U	380 U	380 U	400 U	350 U
Dimethyl phthalate	360 U	370 U	380 U	380 U	400 U	350 U
Fluoranthene	360 U	370 U	380 U	380 U	400 U	350 U
Fluorene	360 U	370 U	380 U	380 U	400 U	350 U
Hexachlorobenzene	360 U	370 U	380 U	380 U	400 U	350 U
Hexachlorobutadiene	360 U	370 U	380 U	380 U	400 U	350 U
Hexachlorocyclopentadiene	360 U	370 U	380 U	380 U	400 U	350 U
Hexachloroethane	360 U	370 U	380 U	380 U	400 U	350 U
Indeno(1,2,3-cd)pyrene	360 U	370 U	380 U	380 U	400 U	350 U
Isophorone	360 U	370 U	380 U	380 U	400 U	350 U
N-Nitrosodi-n-propylamine	360 U	370 U	380 U	380 U	400 U	350 U
N-Nitrosodiphenylamine	360 U	370 U	380 U	380 U	400 U	350 U
Naphthalene	360 U	370 U	380 U	380 U	400 U	350 U
Nitrobenzene	360 U	370 U	380 U	380 U	400 U	350 U
Pentachlorophenol	730 U	730 U	760 U	760 U	800 U	710 U
Phenanthrene	360 U	370 U	380 U	380 U	400 U	350 U
Phenol	360 U	370 U	380 U	380 U	400 U	350 U
Pyrene	360 U	370 U	380 U	380 U	400 U	350 U

APPENDIX G
SURFACE SOIL - SWMU 294
ORGANIC COMPOUNDS
SWMU CONFIRMATORY SAMPLING (CTO-0143)
1203 - O/W, BASE MAINTENANCE
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU294-TW05-00	SWMU294-TW06-00
SAMPLE DATE	03-22-2002	03-22-2002
DEPTH	0' - 1'	0' - 1'
SEMIVOLATILES (ug/kg)		
1,1'-Biphenyl	370 U	380 U
2,2'-Oxybis(1-Chloropropane)	370 U	380 U
2,4,5-Trichlorophenol	370 U	380 U
2,4,6-Trichlorophenol	370 U	380 U
2,4-Dichlorophenol	370 U	380 U
2,4-Dimethylphenol	370 U	380 U
2,4-Dinitrophenol	1900 U	2000 U
2,4-Dinitrotoluene	370 U	380 U
2,6-Dinitrotoluene	370 U	380 U
2-Chloronaphthalene	370 U	380 U
2-Chlorophenol	370 U	380 U
2-Methylnaphthalene	370 U	380 U
2-Methylphenol	370 U	380 U
2-Nitroaniline	730 U	770 U
2-Nitrophenol	370 U	380 U
3,3'-Dichlorobenzidine	730 U	770 U
3-Nitroaniline	730 U	770 U
4,6-Dinitro-2-methylphenol	730 U	770 U
4-Bromophenyl phenyl ether	370 U	380 U
4-Chloro-3-methylphenol	370 U	380 U
4-Chloroaniline	370 U	380 U
4-Chlorophenyl phenyl ether	370 U	380 U
4-Methylphenol	370 U	380 U
4-Nitroaniline	730 U	770 U
4-Nitrophenol	730 U	770 U
Acenaphthene	370 U	380 U
Acenaphthylene	370 U	380 U
Acetophenone	370 U	380 U
Anthracene	370 U	380 U
Atrazine	370 U	380 U
Benzaldehyde	370 U	380 U
Benzo(a)anthracene	370 U	380 U
Benzo(a)pyrene	370 U	380 U
Benzo(b)fluoranthene	370 U	380 U
Benzo(ghi)perylene	370 U	380 U
Benzo(k)fluoranthene	370 U	380 U
bis(2-Chloroethoxy)methane	370 U	380 U
bis(2-Chloroethyl) ether	370 U	380 U

APPENDIX G
SURFACE SOIL - SWMU 294
ORGANIC COMPOUNDS
SWMU CONFIRMATORY SAMPLING (CTO-0143)
1203 - O/W, BASE MAINTENANCE
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU294-TW05-00		SWMU294-TW06-00	
SAMPLE DATE	03-22-2002		03-22-2002	
DEPTH	0' - 1'		0' - 1'	
SEMIVOLATILES (ug/kg) (cont)				
bis(2-Ethylhexyl) phthalate	370	U	11000	J
Butyl benzyl phthalate	370	U	380	U
Caprolactam	370	U	380	U
Carbazole	370	U	380	U
Chrysene	370	U	380	U
Di-n-butyl phthalate	370	U	380	U
Di-n-octyl phthalate	370	U	38	J
Dibenz(a,h)anthracene	370	U	380	U
Dibenzofuran	370	U	380	U
Diethyl phthalate	370	U	380	U
Dimethyl phthalate	370	U	380	U
Fluoranthene	370	U	380	U
Fluorene	370	U	380	U
Hexachlorobenzene	370	U	380	U
Hexachlorobutadiene	370	U	380	U
Hexachlorocyclopentadiene	370	U	380	U
Hexachloroethane	370	U	380	U
Indeno(1,2,3-cd)pyrene	370	U	380	U
Isophorone	370	U	380	U
N-Nitrosodi-n-propylamine	370	U	380	U
N-Nitrosodiphenylamine	370	U	380	U
Naphthalene	370	U	380	U
Nitrobenzene	370	U	380	U
Pentachlorophenol	730	U	770	U
Phenanthrene	370	U	380	U
Phenol	370	U	380	U
Pyrene	370	U	380	U

APPENDIX G
SURFACE SOIL - SWMU 294
INORGANIC COMPOUNDS
SWMU CONFIRMATORY SAMPLING (CTO-0143)
1203 - O/W, BASE MAINTENANCE
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU294-IS01-00	SWMU294-IS02-00	SWMU294-IS03-00	SWMU294-IS04-00	SWMU294-IS05-00	SWMU294-IS06-00	SWMU294-SS01-00	SWMU294-SS02-00
SAMPLE DATE	09-12-1997	09-12-1997	09-12-1997	09-12-1997	09-12-1997	09-12-1997	03-22-2002	03-22-2002
DEPTH	0' - 2'	0' - 2'	0' - 2'	0' - 2'	0' - 2'	0' - 2'	0' - 1'	0' - 1'
METALS (mg/kg)								
Arsenic	1.2 U	1.2 U	1 U	1 U	1.1 U	1.1 U	0.43 J	0.27 J
Barium	23.1 U	25.7	21 U	22.3	21.5 U	21.1 U	26.5	25.4
Cadmium	0.58 U	0.58 U	0.52 U	0.53	0.54 U	0.53 U	1.3	1.4
Chromium	5.4	10.5	5.4	11.3	6.5	7.4	8.4	9.7
Lead	12.8	36.1	33.7	89.9	33.3	8.6	123 J	108 J
Mercury	0.059	0.16	0.036	0.068	0.045	0.037	0.12	0.1
Selenium	0.58 U	0.58 U	0.52 U	0.52 U	0.54 U	0.53 U	0.48 U	0.5 U
Silver	1.2 U	1.2 U	1 U	1 U	1.1 U	1.1 U	0.09 U	0.17 J

APPENDIX G
SURFACE SOIL - SWMU 294
INORGANIC COMPOUNDS
SWMU CONFIRMATORY SAMPLING (CTO-0143)
1203 - O/W, BASE MAINTENANCE
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU294-SS03-00	SWMU294-TW01-00	SWMU294-TW02-00	SWMU294-TW03-00	SWMU294-TW04-00	SWMU294-TW05-00	SWMU294-TW06-00
SAMPLE DATE	03-22-2002	03-22-2002	03-24-2002	03-24-2002	03-22-2002	03-22-2002	03-22-2002
DEPTH	0' - 1'	0' - 1'	0' - 1'	0' - 1'	0' - 1'	0' - 1'	0' - 1'
METALS (mg/kg)							
Arsenic	0.89 J	0.26 U	0.18 U	0.2 U	0.5 J	0.26 U	0.97 J
Barium	14.3	9.7	10 J	7.6 J	15.8	21.6	13.8
Cadmium	0.41 J	0.03 U	0.03 U	0.04 U	0.03 J	0.16 J	0.08 J
Chromium	7.7	2.2	3.7 J	4 J	6.2	4.2	11.4
Lead	62.7 J	3 J	4.6 J	7.8 J	38.7 J	10.4 J	5.3 J
Mercury	0.08	0.02 J	0.03 J	0.05 J	0.02 J	0.02 J	0.03 J
Selenium	0.8	0.5 U	0.32 J	0.4 J	0.48 U	0.51 U	0.52 J
Silver	0.1 U	0.1 U	0.05 U	0.06 U	0.09 U	0.1 U	0.1 U

APPENDIX G
SUBSURFACE SOIL - SWMU 294
ORGANIC COMPOUNDS
SWMU CONFIRMATORY SAMPLING (CTO-0143)
1203 - O/W, BASE MAINTENANCE
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU294-IS01-03	SWMU294-IS02-03	SWMU294-IS03-03	SWMU294-IS04-03	SWMU294-IS05-03	SWMU294-IS06-03	SWMU294-TW01-04
SAMPLE DATE	09-12-1997	09-12-1997	09-12-1997	09-12-1997	09-12-1997	09-12-1997	03-22-2002
DEPTH	6' - 8'	6' - 8'	6' - 8'	6' - 8'	6' - 8'	6' - 8'	7' - 9'
SEMIVOLATILES (ug/kg)							
1,1'-Biphenyl	NA	NA	NA	NA	NA	NA	420 U
2,2'-Oxybis(1-Chloropropane)	1900 U	380 U	380 U	360 U	1100 U	350 U	420 U
2,4,5-Trichlorophenol	1900 U	380 U	380 U	360 U	1100 U	350 U	420 U
2,4,6-Trichlorophenol	1900 U	380 U	380 U	360 U	1100 U	350 U	420 U
2,4-Dichlorophenol	1900 U	380 U	380 U	360 U	1100 U	350 U	420 U
2,4-Dimethylphenol	1900 U	380 U	380 U	360 U	1100 U	350 U	420 U
2,4-Dinitrophenol	9100 U	1800 U	1900 U	1700 U	5400 U	1700 U	2200 U
2,4-Dinitrotoluene	1900 U	380 U	380 U	360 U	1100 U	350 U	420 U
2,6-Dinitrotoluene	1900 U	380 U	380 U	360 U	1100 U	350 U	420 U
2-Chloronaphthalene	1900 U	380 U	380 U	360 U	1100 U	350 U	420 U
2-Chlorophenol	1900 U	380 U	380 U	360 U	1100 U	350 U	420 U
2-Methylnaphthalene	1900 U	380 U	380 U	360 U	1100 U	350 U	420 U
2-Methylphenol	1900 U	380 U	380 U	360 U	1100 U	350 U	420 U
2-Nitroaniline	9100 U	1800 U	1900 U	1700 U	5400 U	1700 U	840 U
2-Nitrophenol	1900 U	380 U	380 U	360 U	1100 U	350 U	420 U
3,3'-Dichlorobenzidine	9100 U	1800 U	1900 U	1700 U	5400 U	1700 U	840 U
3-Nitroaniline	9100 U	1800 U	1900 U	1700 U	5400 U	1700 U	840 U
4,6-Dinitro-2-methylphenol	9100 U	1800 U	1900 U	1700 U	5400 U	1700 U	840 U
4-Bromophenyl phenyl ether	1900 U	380 U	380 U	360 U	1100 U	350 U	420 U
4-Chloro-3-methylphenol	1900 U	380 U	380 U	360 U	1100 U	350 U	420 U
4-Chloroaniline	1900 U	380 U	380 U	360 U	1100 U	350 U	420 U
4-Chlorophenyl phenyl ether	1900 U	380 U	380 U	360 U	1100 U	350 U	420 U
4-Methylphenol	1900 U	380 U	380 U	360 U	1100 U	350 U	420 U
4-Nitroaniline	9100 U	1800 U	1900 U	1700 U	5400 U	1700 U	840 U
4-Nitrophenol	9100 U	1800 U	1900 U	1700 U	5400 U	1700 U	840 U
Acenaphthene	1900 U	380 U	380 U	360 U	1100 U	350 U	420 U
Acenaphthylene	1900 U	380 U	380 U	360 U	1100 U	350 U	420 U
Acetophenone	NA	NA	NA	NA	NA	NA	420 U
Anthracene	1900 U	380 U	380 U	360 U	1100 U	350 U	420 U
Atrazine	NA	NA	NA	NA	NA	NA	420 U
Benzaldehyde	NA	NA	NA	NA	NA	NA	420 U
Benzo(a)anthracene	1900 U	380 U	380 U	360 U	1100 U	350 U	420 U
Benzo(a)pyrene	1900 U	380 U	380 U	360 U	1100 U	350 U	420 U
Benzo(b)fluoranthene	1900 U	380 U	380 U	360 U	1100 U	350 U	420 U
Benzo(ghi)perylene	1900 U	380 U	380 U	360 U	1100 U	350 U	420 U
Benzo(k)fluoranthene	1900 U	380 U	380 U	360 U	1100 U	350 U	420 U
bis(2-Chloroethoxy)methane	1900 U	380 U	380 U	360 U	1100 U	350 U	420 U
bis(2-Chloroethyl) ether	1900 U	380 U	380 U	360 U	1100 U	350 U	420 U
bis(2-Ethylhexyl) phthalate	1900 U	380 U	380 U	360 U	1100 U	350 U	2200
Butyl benzyl phthalate	1900 U	380 U	380 U	360 U	1100 U	350 U	420 U
Caprolactam	NA	NA	NA	NA	NA	NA	420 U

APPENDIX G
SUBSURFACE SOIL - SWMU 294
ORGANIC COMPOUNDS
SWMU CONFIRMATORY SAMPLING (CTO-0143)
1203 - O/W, BASE MAINTENANCE
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU294-IS01-03	SWMU294-IS02-03	SWMU294-IS03-03	SWMU294-IS04-03	SWMU294-IS05-03	SWMU294-IS06-03	SWMU294-TW01-04
SAMPLE DATE	09-12-1997	09-12-1997	09-12-1997	09-12-1997	09-12-1997	09-12-1997	03-22-2002
DEPTH	6' - 8'	6' - 8'	6' - 8'	6' - 8'	6' - 8'	6' - 8'	7' - 9'
SEMIVOLATILES (ug/kg) (cont)							
Carbazole	1900 U	380 U	380 U	360 U	1100 U	350 U	420 U
Chrysene	1900 U	380 U	380 U	360 U	1100 U	350 U	420 U
Di-n-butyl phthalate	1900 U	380 U	380 U	360 U	1100 U	350 U	420 U
Di-n-octyl phthalate	1900 U	380 U	380 U	360 U	1100 U	350 U	420 U
Dibenz(a,h)anthracene	1900 U	380 U	380 U	360 U	1100 U	350 U	420 U
Dibenzofuran	1900 U	380 U	380 U	360 U	1100 U	350 U	420 U
Diethyl phthalate	1900 U	380 U	380 U	360 U	1100 U	350 U	420 U
Dimethyl phthalate	1900 U	380 U	380 U	360 U	1100 U	350 U	420 U
Fluoranthene	1900 U	380 U	380 U	360 U	1100 U	350 U	420 U
Fluorene	1900 U	380 U	380 U	360 U	1100 U	350 U	420 U
Hexachlorobenzene	1900 U	380 U	380 U	360 U	1100 U	350 U	420 U
Hexachlorobutadiene	1900 U	380 U	380 U	360 U	1100 U	350 U	420 U
Hexachlorocyclopentadiene	9100 U	1800 U	1900 U	1700 U	5400 U	1700 U	420 U
Hexachloroethane	1900 U	380 U	380 U	360 U	1100 U	350 U	420 U
Indeno(1,2,3-cd)pyrene	1900 U	380 U	380 U	360 U	1100 U	350 U	420 U
Isophorone	1900 U	380 U	380 U	360 U	1100 U	350 U	420 U
N-Nitrosodi-n-propylamine	1900 U	380 U	380 U	360 U	1100 U	350 U	420 U
N-Nitrosodiphenylamine	1900 U	380 U	380 U	360 U	1100 U	350 U	420 U
Naphthalene	1900 U	380 U	380 U	360 U	1100 U	350 U	420 U
Nitrobenzene	1900 U	380 U	380 U	360 U	1100 U	350 U	420 U
Pentachlorophenol	9100 U	1800 U	1900 U	1700 U	5400 U	1700 U	840 U
Phenanthrene	1900 U	380 U	380 U	360 U	1100 U	350 U	420 U
Phenol	1900 U	380 U	380 U	360 U	1100 U	350 U	420 U
Pyrene	1900 U	380 U	380 U	360 U	1100 U	350 U	420 U

APPENDIX G
SUBSURFACE SOIL - SWMU 294
ORGANIC COMPOUNDS
SWMU CONFIRMATORY SAMPLING (CTO-0143)
1203 - O/W, BASE MAINTENANCE
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU294-TW02-04	SWMU294-TW03-04	SWMU294-TW04-04	SWMU294-TW05-04	SWMU294-TW06-04
SAMPLE DATE	03-24-2002	03-24-2002	03-22-2002	03-22-2002	03-22-2002
DEPTH	7' - 9'	7' - 9'	7' - 9'	7' - 9'	7' - 9'
SEMIVOLATILES (ug/kg)					
1,1'-Biphenyl	370 U	350 U	370 U	350 U	370 U
2,2'-Oxybis(1-Chloropropane)	370 U	350 U	370 U	350 U	370 U
2,4,5-Trichlorophenol	370 U	350 U	370 U	350 U	370 U
2,4,6-Trichlorophenol	370 U	350 U	370 U	350 U	370 U
2,4-Dichlorophenol	370 U	350 U	370 U	350 U	370 U
2,4-Dimethylphenol	370 U	350 U	370 U	350 U	370 U
2,4-Dinitrophenol	1900 U	1800 U	1900 U	1800 U	1900 U
2,4-Dinitrotoluene	370 U	350 U	370 U	350 U	370 U
2,6-Dinitrotoluene	370 U	350 U	370 U	350 U	370 U
2-Chloronaphthalene	370 U	350 U	370 U	350 U	370 U
2-Chlorophenol	370 U	350 U	370 U	350 U	370 U
2-Methylnaphthalene	370 U	350 U	370 U	350 U	370 U
2-Methylphenol	370 U	350 U	370 U	350 U	370 U
2-Nitroaniline	740 U	710 U	740 U	710 U	730 U
2-Nitrophenol	370 U	350 U	370 U	350 U	370 U
3,3'-Dichlorobenzidine	740 U	710 U	740 U	710 U	730 U
3-Nitroaniline	740 U	710 U	740 U	710 U	730 U
4,6-Dinitro-2-methylphenol	740 U	710 U	740 U	710 U	730 U
4-Bromophenyl phenyl ether	370 U	350 U	370 U	350 U	370 U
4-Chloro-3-methylphenol	370 U	350 U	370 U	350 U	370 U
4-Chloroaniline	370 U	350 U	370 U	350 U	370 U
4-Chlorophenyl phenyl ether	370 U	350 U	370 U	350 U	370 U
4-Methylphenol	370 U	350 U	370 U	350 U	370 U
4-Nitroaniline	740 U	710 U	740 U	710 U	730 U
4-Nitrophenol	740 U	710 U	740 U	710 U	730 U
Acenaphthene	370 U	350 U	370 U	350 U	370 U
Acenaphthylene	370 U	350 U	370 U	350 U	370 U
Acetophenone	370 U	350 U	370 U	350 U	370 U
Anthracene	370 U	350 U	370 U	350 U	370 U
Atrazine	370 U	350 U	370 U	350 U	370 U
Benzaldehyde	370 U	350 U	370 U	350 U	370 U
Benzo(a)anthracene	370 U	350 U	370 U	350 U	370 U
Benzo(a)pyrene	370 U	350 U	370 U	350 U	370 U
Benzo(b)fluoranthene	370 U	350 U	370 U	350 U	370 U
Benzo(ghi)perylene	370 U	350 U	370 U	350 U	370 U
Benzo(k)fluoranthene	370 U	350 U	370 U	350 U	370 U
bis(2-Chloroethoxy)methane	370 U	350 U	370 U	350 U	370 U
bis(2-Chloroethyl) ether	370 U	350 U	370 U	350 U	370 U
bis(2-Ethylhexyl) phthalate	370 U	350 U	370 U	350 U	370 U
Butyl benzyl phthalate	370 U	350 U	370 U	350 U	370 U
Caprolactam	370 U	350 U	370 U	350 U	370 U

APPENDIX G
SUBSURFACE SOIL - SWMU 294
ORGANIC COMPOUNDS
SWMU CONFIRMATORY SAMPLING (CTO-0143)
1203 - O/W, BASE MAINTENANCE
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU294-TW02-04	SWMU294-TW03-04	SWMU294-TW04-04	SWMU294-TW05-04	SWMU294-TW06-04
SAMPLE DATE	03-24-2002	03-24-2002	03-22-2002	03-22-2002	03-22-2002
DEPTH	7' - 9'	7' - 9'	7' - 9'	7' - 9'	7' - 9'
SEMIVOLATILES (ug/kg) (cont)					
Carbazole	370 U	350 U	370 U	350 U	370 U
Chrysene	370 U	350 U	370 U	350 U	370 U
Di-n-butyl phthalate	370 U	350 U	370 U	350 U	370 U
Di-n-octyl phthalate	370 U	350 U	370 U	350 U	370 U
Dibenz(a,h)anthracene	370 U	350 U	370 U	350 U	370 U
Dibenzofuran	370 U	350 U	370 U	350 U	370 U
Diethyl phthalate	370 U	350 U	370 U	350 U	370 U
Dimethyl phthalate	370 U	350 U	370 U	350 U	370 U
Fluoranthene	370 U	350 U	370 U	350 U	370 U
Fluorene	370 U	350 U	370 U	350 U	370 U
Hexachlorobenzene	370 U	350 U	370 U	350 U	370 U
Hexachlorobutadiene	370 U	350 U	370 U	350 U	370 U
Hexachlorocyclopentadiene	370 U	350 U	370 U	350 U	370 U
Hexachloroethane	370 U	350 U	370 U	350 U	370 U
Indeno(1,2,3-cd)pyrene	370 U	350 U	370 U	350 U	370 U
Isophorone	370 U	350 U	370 U	350 U	370 U
N-Nitrosodi-n-propylamine	370 U	350 U	370 U	350 U	370 U
N-Nitrosodiphenylamine	370 U	350 U	370 U	350 U	370 U
Naphthalene	370 U	350 U	370 U	350 U	370 U
Nitrobenzene	370 U	350 U	370 U	350 U	370 U
Pentachlorophenol	740 U	710 U	740 U	710 U	730 U
Phenanthrene	370 U	350 U	370 U	350 U	370 U
Phenol	370 U	350 U	370 U	350 U	370 U
Pyrene	370 U	350 U	370 U	350 U	370 U

APPENDIX G
SUBSURFACE SOIL - SWMU 294
INORGANIC COMPOUNDS
SWMU CONFIRMATORY SAMPLING (CTO-0143)
1203 - O/W, BASE MAINTENANCE
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU294-IS01-03	SWMU294-IS02-03	SWMU294-IS03-03	SWMU294-IS04-03	SWMU294-IS05-03	SWMU294-IS06-03	SWMU294-TW01-04
SAMPLE DATE	09-12-1997	09-12-1997	09-12-1997	09-12-1997	09-12-1997	09-12-1997	03-22-2002
DEPTH	6' - 8'	6' - 8'	6' - 8'	6' - 8'	6' - 8'	6' - 8'	7' - 9'
METALS (mg/kg)							
Arsenic	1.1 U	1.1 U	1.2 U	1.1 U	1.1 U	1.1 U	0.26 U
Barium	22.7 U	22.7 U	23.3 U	21.8 U	22.5 U	21.5 U	2.2
Cadmium	0.57 U	0.57 U	0.58 U	0.55 U	0.56 U	0.54 U	0.03 U
Chromium	4.4	4.3	5	4.1	5.7	5.8	1.5
Lead	2.6	2.4	3.2	2.3	4.1	3.4	1.4 J
Mercury	0.037 U	0.038 U	0.038 U	0.036 U	0.037 U	0.035 U	0.02 U
Selenium	0.57 U	0.57 U	0.58 U	0.55 U	0.56 U	0.54 U	0.49 U
Silver	1.1 U	1.1 U	1.2 U	1.1 U	1.1 U	1.1 U	0.1 U

APPENDIX G
SUBSURFACE SOIL - SWMU 294
INORGANIC COMPOUNDS
SWMU CONFIRMATORY SAMPLING (CTO-0143)
1203 - O/W, BASE MAINTENANCE
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU294-TW02-04	SWMU294-TW03-04	SWMU294-TW04-04	SWMU294-TW05-04	SWMU294-TW06-04
SAMPLE DATE	03-24-2002	03-24-2002	03-22-2002	03-22-2002	03-22-2002
DEPTH	7' - 9'	7' - 9'	7' - 9'	7' - 9'	7' - 9'
METALS (mg/kg)					
Arsenic	0.24 U	0.18 U	1.8	0.24 U	1.7
Barium	4.5 U	5.7 J	3.1	1.1	4.2
Cadmium	0.03 U	0.03 U	0.03 U	0.03 U	0.03 U
Chromium	2.8	6 J	3.2	0.99	4.1
Lead	2.1	3.5 J	2 J	1.3 J	2.2 J
Mercury	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U
Selenium	0.46 U	0.32 J	0.52 U	0.46 U	0.49 U
Silver	0.09 U	0.05 U	0.1 U	0.09 U	0.1 U

APPENDIX G
GROUNDWATER - SWMU 294
ORGANIC COMPOUNDS
SWMU CONFIRMATORY SAMPLING (CTO-0143)
1203 - O/W, BASE MAINTENANCE
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU294-GW01		SWMU294-GW02		SWMU294-GW03		SWMU294-GW04		SWMU294-GW05		SWMU294-GW06	
SAMPLE DATE	04-05-2002		04-05-2002		04-05-2002		04-05-2002		04-05-2002		04-05-2002	
SEMIVOLATILES (ug/L)												
1,1'-Biphenyl	10	U	10	U	10	U	10	U	10	U	10	U
2,2'-oxybis(1-Chloropropane)	10	U	10	U	10	U	10	U	10	U	10	U
2,4,5-Trichlorophenol	10	U	10	U	10	U	10	U	10	U	10	U
2,4,6-Trichlorophenol	10	U	10	U	10	U	10	U	10	U	10	U
2,4-Dichlorophenol	10	U	10	U	10	U	10	U	10	U	10	U
2,4-Dimethylphenol	10	U	10	U	10	U	10	U	10	U	10	U
2,4-Dinitrophenol	50	UJ	50	UJ	50	UJ	50	UJ	50	UJ	50	UJ
2,4-Dinitrotoluene	10	U	10	U	10	U	10	U	10	U	10	U
2,6-Dinitrotoluene	10	U	10	U	10	U	10	U	10	U	10	U
2-Chloronaphthalene	10	U	10	U	10	U	10	U	10	U	10	U
2-Chlorophenol	10	U	10	U	10	U	10	U	10	U	10	U
2-Methylnaphthalene	10	U	10	U	10	U	10	U	10	U	10	U
2-Methylphenol	10	U	10	U	10	U	10	U	10	U	10	U
2-Nitroaniline	20	U	20	U	20	U	20	U	20	U	20	U
2-Nitrophenol	10	U	10	U	10	U	10	U	10	U	10	U
3,3'-Dichlorobenzidine	20	U	20	U	20	U	20	U	20	U	20	U
3-Nitroaniline	20	U	20	U	20	U	20	U	20	U	20	U
4,6-dinitro-2-Methylphenol	20	U	20	U	20	U	20	U	20	U	20	U
4-Bromophenyl phenyl ether	10	U	10	U	10	U	10	U	10	U	10	U
4-Chloro-3-methylphenol	10	U	10	U	10	U	10	U	10	U	10	U
4-Chloroaniline	10	U	10	U	10	U	10	U	10	U	10	U
4-Chlorophenyl phenyl ether	10	U	10	U	10	U	10	U	10	U	10	U
4-Methylphenol	2	J	10	U	2	J	10	U	10	U	10	U
4-Nitroaniline	20	U	20	U	20	U	20	U	20	U	20	U
4-Nitrophenol	20	U	20	U	20	U	20	U	20	U	20	U
Acenaphthene	10	U	10	U	10	U	10	U	10	U	10	U
Acenaphthylene	10	U	10	U	10	U	10	U	10	U	10	U
Acetophenone	10	U	10	U	10	U	10	U	10	U	10	U
Anthracene	10	U	10	U	10	U	10	U	10	U	10	U
Atrazine	10	U	10	U	10	U	10	U	10	U	10	U
Benzaldehyde	10	U	10	U	10	U	10	U	10	U	10	U
Benzo(a)anthracene	10	U	10	U	10	U	10	U	10	U	10	U
Benzo(a)pyrene	10	U	10	U	10	U	10	U	10	U	10	U
Benzo(b)fluoranthene	10	U	10	U	10	U	10	U	10	U	10	U
Benzo(g,h,i)perylene	10	U	10	U	10	U	10	U	10	U	10	U
Benzo(k)fluoranthene	10	U	10	U	10	U	10	U	10	U	10	U
bis(2-Chloroethoxy)methane	10	U	10	U	10	U	10	U	10	U	10	U
bis(2-Chloroethyl)ether	10	U	10	U	10	U	10	U	10	U	10	U

APPENDIX G
GROUNDWATER - SWMU 294
ORGANIC COMPOUNDS
SWMU CONFIRMATORY SAMPLING (CTO-0143)
1203 - O/W, BASE MAINTENANCE
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU294-GW01	SWMU294-GW02	SWMU294-GW03	SWMU294-GW04	SWMU294-GW05	SWMU294-GW06
SAMPLE DATE	04-05-2002	04-05-2002	04-05-2002	04-05-2002	04-05-2002	04-05-2002
SEMIVOLATILES (ug/L) (cont)						
bis(2-Ethylhexyl)phthalate	10 U	10 U	10 U	10 U	10 U	10 U
Butyl benzyl phthalate	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ
Caprolactam	10 U	10 U	10 U	10 U	10 U	10 U
Carbazole	10 U	10 U	10 U	10 U	10 U	10 U
Chrysene	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ
di-N-Butyl phthalate	10 U	10 U	10 U	10 U	10 U	10 U
di-N-Octyl phthalate	10 U	10 U	10 U	10 U	10 U	10 U
Dibenzo(a,h)anthracene	10 U	10 U	10 U	10 U	10 U	10 U
Dibenzofuran	10 U	10 U	10 U	10 U	10 U	10 U
Diethyl phthalate	10 U	10 U	10 U	10 U	10 U	10 U
Dimethyl phthalate	10 U	10 U	10 U	10 U	10 U	10 U
Fluoranthene	10 U	10 U	10 U	10 U	10 U	10 U
Fluorene	10 U	10 U	10 U	10 U	10 U	10 U
Hexachlorobenzene	10 U	10 U	10 U	10 U	10 U	10 U
Hexachlorobutadiene	10 U	10 U	10 U	10 U	10 U	10 U
Hexachlorocyclopentadiene	10 U	10 U	10 U	10 U	10 U	10 U
Hexachloroethane	10 U	10 U	10 U	10 U	10 U	10 U
Indeno(1,2,3-cd)pyrene	10 U	10 U	10 U	10 U	10 U	10 U
Isophorone	10 U	10 U	10 U	10 U	10 U	10 U
N-Nitroso-di-N-propylamine	10 U	10 U	10 U	10 U	10 U	10 U
N-Nitrosodiphenylamine(1)	10 U	10 U	10 U	10 U	10 U	10 U
Naphthalene	10 U	10 U	10 U	10 U	10 U	10 U
Nitrobenzene	10 U	10 U	10 U	10 U	10 U	10 U
Pentachlorophenol	20 U	20 U	20 U	20 U	20 U	20 U
Phenanthrene	10 U	10 U	10 U	10 U	10 U	10 U
Phenol	10 U	10 U	10 U	10 U	10 U	10 U
Pyrene	10 U	10 U	10 U	10 U	10 U	10 U

APPENDIX G
GROUNDWATER - SWMU 294
INORGANIC COMPOUNDS
SWMU CONFIRMATORY SAMPLING (CTO-0143)
1203 - O/W, BASE MAINTENANCE
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU294-GW01		SWMU294-GW02		SWMU294-GW03		SWMU294-GW04		SWMU294-GW05		SWMU294-GW06	
SAMPLE DATE	04-05-2002		04-05-2002		04-05-2002		04-05-2002		04-05-2002		04-05-2002	
METALS (ug/L)												
Arsenic	2.4	U	2.4	U	2.4	U	2.4	U	2.4	U	2.4	U
Barium	15.7	J	44.2	J	24.8	J	66.4	J	20.9	J	25.8	J
Cadmium	0.3	U	0.3	U	0.3	U	0.3	U	0.3	U	0.3	U
Chromium	3.5	J	0.96	J	0.88	J	1.9	J	1.4	J	0.88	J
Lead	2	J	2.3	J	1.8	U	1.8	U	1.8	U	1.8	U
Mercury	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U
Selenium	4.6	U	4.6	U	4.6	U	4.6	U	4.6	U	4.6	U
Silver	0.9	U	0.9	U	0.9	U	0.9	U	0.9	U	0.9	U

APPENDIX G
SURFACE SOIL - SWMU 295
ORGANIC COMPOUNDS
SWMU CONFIRMATORY SAMPLING (CTO-0143)
1601 - AST, 2D FSSG
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU295-IS01-00	SWMU295-IS02-00	SWMU295-IS03-00	SWMU295-SB01-00	SWMU295-SB02-00	SWMU295-TW01-00	SWMU295-TW02-00	SWMU295-TW03-00
SAMPLE DATE	09-12-1997	09-12-1997	09-12-1997	03-22-2002	03-22-2002	03-22-2002	03-24-2002	03-22-2002
DEPTH	0' - 2'	0' - 2'	0' - 2'	0' - 1'	0' - 1'	0' - 1'	0' - 1'	0' - 1'
SEMIVOLATILES (ug/kg)								
1,1'-Biphenyl	NA	NA	NA	370 U	360 U	380 U	350 U	360 U
2,2'-Oxybis(1-Chloropropane)	360 U	360 U	370 U	370 U	360 U	380 U	350 U	360 U
2,4,5-Trichlorophenol	360 U	360 U	370 U	370 U	360 U	380 U	350 U	360 U
2,4,6-Trichlorophenol	360 U	360 U	370 U	370 U	360 U	380 U	350 U	360 U
2,4-Dichlorophenol	360 U	360 U	370 U	370 U	360 U	380 U	350 U	360 U
2,4-Dimethylphenol	360 U	360 U	370 U	370 U	360 U	380 U	350 U	360 U
2,4-Dinitrophenol	1700 U	1800 U	1800 U	1900 U	1900 U	1900 U	1800 U	1900 U
2,4-Dinitrotoluene	360 U	360 U	370 U	370 U	360 U	380 U	350 U	360 U
2,6-Dinitrotoluene	360 U	360 U	370 U	370 U	360 U	380 U	350 U	360 U
2-Chloronaphthalene	360 U	360 U	370 U	370 U	360 U	380 U	350 U	360 U
2-Chlorophenol	360 U	360 U	370 U	370 U	360 U	380 U	350 U	360 U
2-Methylnaphthalene	360 U	360 U	370 U	370 U	360 U	380 U	350 U	360 U
2-Methylphenol	360 U	360 U	370 U	370 U	360 U	380 U	350 U	360 U
2-Nitroaniline	1700 U	1800 U	1800 U	730 U	730 U	750 U	690 U	730 U
2-Nitrophenol	360 U	360 U	370 U	370 U	360 U	380 U	350 U	360 U
3,3'-Dichlorobenzidine	1700 U	1800 U	1800 U	730 U	730 U	750 U	690 U	730 U
3-Nitroaniline	1700 U	1800 U	1800 U	730 U	730 U	750 U	690 U	730 U
4,6-Dinitro-2-methylphenol	1700 U	1800 U	1800 U	730 U	730 U	750 U	690 U	730 U
4-Bromophenyl phenyl ether	360 U	360 U	370 U	370 UJ	360 UJ	380 U	350 U	360 U
4-Chloro-3-methylphenol	360 U	360 U	370 U	370 U	360 U	380 U	350 U	360 U
4-Chloroaniline	360 U	360 U	370 U	370 U	360 U	380 U	350 U	360 U
4-Chlorophenyl phenyl ether	360 U	360 U	370 U	370 U	360 U	380 U	350 U	360 U
4-Methylphenol	360 U	360 U	370 U	370 U	360 U	380 U	350 U	360 U
4-Nitroaniline	1700 U	1800 U	1800 U	730 UJ	730 UJ	750 U	690 U	730 U
4-Nitrophenol	1700 U	1800 U	1800 U	730 U	730 U	750 U	690 U	730 U
Acenaphthene	360 U	360 U	370 U	370 U	360 U	380 U	350 U	360 U
Acenaphthylene	360 U	360 U	370 U	370 U	360 U	380 U	350 U	360 U
Acetophenone	NA	NA	NA	370 U	360 U	380 U	350 U	360 U
Anthracene	360 U	360 U	370 U	370 U	360 U	380 U	350 U	360 U
Atrazine	NA	NA	NA	370 U	360 U	380 U	350 U	360 U
Benzaldehyde	NA	NA	NA	370 U	360 U	380 U	350 U	360 U
Benzo(a)anthracene	360 U	360 U	370 U	370 U	360 U	380 U	350 U	360 U
Benzo(a)pyrene	360 U	360 U	370 U	370 U	360 U	380 U	350 U	360 U
Benzo(b)fluoranthene	360 U	360 U	370 U	370 UJ	360 UJ	380 U	350 U	360 U
Benzo(ghi)perylene	360 U	360 U	370 U	370 U	360 U	380 U	350 U	360 U
Benzo(k)fluoranthene	360 U	360 U	370 U	370 U	360 U	380 U	350 U	360 U
bis(2-Chloroethoxy)methane	360 U	360 U	370 U	370 U	360 U	380 U	350 U	360 U
bis(2-Chloroethyl) ether	360 U	360 U	370 U	370 U	360 U	380 U	350 U	360 U

APPENDIX G
SURFACE SOIL - SWMU 295
ORGANIC COMPOUNDS
SWMU CONFIRMATORY SAMPLING (CTO-0143)
1601 - AST, 2D FSSG
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU295-IS01-00	SWMU295-IS02-00	SWMU295-IS03-00	SWMU295-SB01-00	SWMU295-SB02-00	SWMU295-TW01-00	SWMU295-TW02-00	SWMU295-TW03-00
SAMPLE DATE	09-12-1997	09-12-1997	09-12-1997	03-22-2002	03-22-2002	03-22-2002	03-24-2002	03-22-2002
DEPTH	0' - 2'	0' - 2'	0' - 2'	0' - 1'	0' - 1'	0' - 1'	0' - 1'	0' - 1'
SEMIVOLATILES (ug/kg) (cont)								
bis(2-Ethylhexyl) phthalate	110 J	82 J	57 J	370 U	360 U	380 U	47 J	360 U
Butyl benzyl phthalate	64 J	360 U	370 U	370 UJ	360 UJ	380 U	350 U	360 U
Caprolactam	NA	NA	NA	370 UJ	360 UJ	380 U	350 U	360 U
Carbazole	360 U	360 U	370 U	370 U	360 U	380 U	350 U	360 U
Chrysene	360 U	360 U	370 U	370 U	360 U	380 U	350 U	360 U
Di-n-butyl phthalate	360 U	360 U	370 U	370 U	360 U	380 U	350 U	360 U
Di-n-octyl phthalate	360 U	360 U	370 U	370 U	360 U	380 U	350 U	360 U
Dibenz(a,h)anthracene	360 U	360 U	370 U	370 U	360 U	380 U	350 U	360 U
Dibenzofuran	360 U	360 U	370 U	370 U	360 U	380 U	350 U	360 U
Diethyl phthalate	360 U	360 U	370 U	370 U	360 U	380 U	350 U	360 U
Dimethyl phthalate	360 U	360 U	370 U	370 U	360 U	380 U	350 U	360 U
Fluoranthene	45 J	360 U	370 U	370 U	360 U	380 U	350 U	360 U
Fluorene	360 U	360 U	370 U	370 U	360 U	380 U	350 U	360 U
Hexachlorobenzene	360 U	360 U	370 U	370 UJ	360 UJ	380 U	350 U	360 U
Hexachlorobutadiene	360 U	360 U	370 U	370 U	360 U	380 U	350 U	360 U
Hexachlorocyclopentadiene	1700 U	1800 U	1800 U	370 U	360 U	380 U	350 U	360 U
Hexachloroethane	360 U	360 U	370 U	370 U	360 U	380 U	350 U	360 U
Indeno(1,2,3-cd)pyrene	360 U	360 U	370 U	370 U	360 U	380 U	350 U	360 U
Isophorone	360 U	360 U	370 U	370 U	360 U	380 U	350 U	360 U
N-Nitrosodi-n-propylamine	360 U	360 U	370 U	370 U	360 U	380 U	350 U	360 U
N-Nitrosodiphenylamine	360 U	360 U	370 U	370 U	360 U	380 U	350 U	360 U
Naphthalene	360 U	360 U	370 U	370 U	360 U	380 U	350 U	360 U
Nitrobenzene	360 U	360 U	370 U	370 U	360 U	380 U	350 U	360 U
Pentachlorophenol	1700 U	1800 U	1800 U	730 U	730 U	750 U	690 U	730 U
Phenanthrene	360 U	360 U	370 U	370 U	360 U	380 U	350 U	360 U
Phenol	360 U	360 U	370 U	370 U	360 U	380 U	350 U	360 U
Pyrene	360 U	360 U	370 U	370 U	360 U	380 U	350 U	360 U

APPENDIX G
SURFACE SOIL - SWMU 295
INORGANIC COMPOUNDS
SWMU CONFIRMATORY SAMPLING (CTO-0143)
1601 - AST, 2D FSSG
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU295-IS01-00	SWMU295-IS02-00	SWMU295-IS03-00	SWMU295-SB01-00	SWMU295-SB02-00	SWMU295-TW01-00	SWMU295-TW02-00	SWMU295-TW03-00
SAMPLE DATE	09-12-1997	09-12-1997	09-12-1997	03-22-2002	03-22-2002	03-22-2002	03-24-2002	03-22-2002
DEPTH	0' - 2'	0' - 2'	0' - 2'	0' - 1'	0' - 1'	0' - 1'	0' - 1'	0' - 1'
METALS (mg/kg)								
Arsenic	1.1 U	1.1 U	1.1 U	0.27 U	0.26 U	0.26 U	0.16 U	0.62 J
Barium	21.6 U	22 U	22.7 U	7.9 J	10 J	8.1	8.8 J	8
Cadmium	0.54 U	0.55 U	0.57 U	0.15 U	0.27 U	0.03 U	0.03 U	0.27 J
Chromium	3.3	9.3	4.9	4.2	1.8	3.7	5.5 J	7.2
Lead	7.9	23.2	3.1	11.5	2.6	3 J	3.5 J	8.4 J
Mercury	0.036 U	0.036 U	0.037 U	0.02 U	0.02 U	0.03 J	0.04 J	0.02 U
Selenium	0.54 U	0.55 U	0.57 U	0.51 U	0.5 U	0.5 U	0.29 J	0.46 U
Silver	1.1 U	1.1 U	1.1 U	0.1 U	0.1 U	0.1 U	0.05 U	0.09 U

APPENDIX G
SUBSURFACE SOIL - SWMU 295
ORGANIC COMPOUNDS
SWMU CONFIRMATORY SAMPLING (CTO-0143)
1601 - AST, 2D FSSG
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU295-IS01-05	SWMU295-IS02-05	SWMU295-IS03-05	SWMU295-SB01-04	SWMU295-SB02-04	SWMU295-TW01-04	SWMU295-TW02-05	SWMU295-TW03-04
SAMPLE DATE	09-12-1997	09-12-1997	09-12-1997	03-22-2002	03-22-2002	03-22-2002	03-24-2002	03-22-2002
DEPTH	10' - 12'	10' - 12'	10' - 12'	7' - 9'	7' - 9'	7' - 9'	9' - 11'	7' - 9'
SEMIVOLATILES (ug/kg)								
1,1'-Biphenyl	NA	NA	NA	380 U	380 U	390 U	380 U	390 U
2,2'-Oxybis(1-Chloropropane)	410 U	410 U	380 U	380 U	380 U	390 U	380 U	390 U
2,4,5-Trichlorophenol	410 U	410 U	380 U	380 U	380 U	390 U	380 U	390 U
2,4,6-Trichlorophenol	410 U	410 U	380 U	380 U	380 U	390 U	380 U	390 U
2,4-Dichlorophenol	410 U	410 U	380 U	380 U	380 U	390 U	380 U	390 U
2,4-Dimethylphenol	410 U	410 U	380 U	380 U	380 U	390 U	380 U	390 U
2,4-Dinitrophenol	2000 U	2000 U	1800 U	2000 U	2000 U	2000 U	2000 U	2000 U
2,4-Dinitrotoluene	410 U	410 U	380 U	380 U	380 U	390 U	380 U	390 U
2,6-Dinitrotoluene	410 U	410 U	380 U	380 U	380 U	390 U	380 U	390 U
2-Chloronaphthalene	410 U	410 U	380 U	380 U	380 U	390 U	380 U	390 U
2-Chlorophenol	410 U	410 U	380 U	380 U	380 U	390 U	380 U	390 U
2-Methylnaphthalene	410 U	410 U	2200	380 U	380 U	390 U	380 U	390 U
2-Methylphenol	410 U	410 U	380 U	380 U	380 U	390 U	380 U	390 U
2-Nitroaniline	2000 U	2000 U	1800 U	760 U	770 U	790 U	760 U	790 U
2-Nitrophenol	410 U	410 U	380 U	380 U	380 U	390 U	380 U	390 U
3,3'-Dichlorobenzidine	2000 U	2000 U	1800 U	760 U	770 U	790 U	760 U	790 U
3-Nitroaniline	2000 U	2000 U	1800 U	760 U	770 U	790 U	760 U	790 U
4,6-Dinitro-2-methylphenol	2000 U	2000 U	1800 U	760 U	770 U	790 U	760 U	790 U
4-Bromophenyl phenyl ether	410 U	410 U	380 U	380 UJ	380 UJ	390 U	380 U	390 U
4-Chloro-3-methylphenol	410 U	410 U	380 U	380 U	380 U	390 U	380 U	390 U
4-Chloroaniline	410 U	410 U	380 U	380 U	380 U	390 U	380 U	390 U
4-Chlorophenyl phenyl ether	410 U	410 U	380 U	380 U	380 U	390 U	380 U	390 U
4-Methylphenol	410 U	410 U	380 U	380 U	380 U	390 U	380 U	390 U
4-Nitroaniline	2000 U	2000 U	1800 U	760 UJ	770 UJ	790 U	760 U	790 U
4-Nitrophenol	2000 U	2000 U	1800 U	760 U	770 U	790 U	760 U	790 U
Acenaphthene	410 U	410 U	380 U	380 U	380 U	390 U	380 U	390 U
Acenaphthylene	410 U	410 U	150 J	380 U	380 U	390 U	380 U	390 U
Acetophenone	NA	NA	NA	380 U	380 U	390 U	380 U	390 U
Anthracene	410 U	410 U	59 J	380 U	380 U	390 U	380 U	390 U
Atrazine	NA	NA	NA	380 U	380 U	390 U	380 U	390 U
Benzaldehyde	NA	NA	NA	380 U	380 U	390 U	380 U	390 U
Benzo(a)anthracene	410 U	410 U	380 U	380 U	380 U	390 U	380 U	390 U
Benzo(a)pyrene	410 U	410 U	380 U	380 U	380 U	390 U	380 U	390 U
Benzo(b)fluoranthene	410 U	410 U	380 U	380 UJ	380 UJ	390 U	380 U	390 U
Benzo(ghi)perylene	410 U	410 U	380 U	380 U	380 U	390 U	380 U	390 U
Benzo(k)fluoranthene	410 U	410 U	380 U	380 U	380 U	390 U	380 U	390 U
bis(2-Chloroethoxy)methane	410 U	410 U	380 U	380 U	380 U	390 U	380 U	390 U
bis(2-Chloroethyl) ether	410 U	410 U	380 U	380 U	380 U	390 U	380 U	390 U

APPENDIX G
SUBSURFACE SOIL - SWMU 295
ORGANIC COMPOUNDS
SWMU CONFIRMATORY SAMPLING (CTO-0143)
1601 - AST, 2D FSSG
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU295-IS01-05	SWMU295-IS02-05	SWMU295-IS03-05	SWMU295-SB01-04	SWMU295-SB02-04	SWMU295-TW01-04	SWMU295-TW02-05	SWMU295-TW03-04
SAMPLE DATE	09-12-1997	09-12-1997	09-12-1997	03-22-2002	03-22-2002	03-22-2002	03-24-2002	03-22-2002
DEPTH	10' - 12'	10' - 12'	10' - 12'	7' - 9'	7' - 9'	7' - 9'	9' - 11'	7' - 9'
SEMIVOLATILES (ug/kg) (cont)								
bis(2-Ethylhexyl) phthalate	68 J	160 J	1300 J	380 U	380 U	890	48 J	390 U
Butyl benzyl phthalate	410 U	410 U	380 U	380 UJ	380 UJ	390 U	380 U	390 U
Caprolactam	NA	NA	NA	380 UJ	380 UJ	390 U	380 U	390 U
Carbazole	410 U	410 U	380 U	380 U	380 U	390 U	380 U	390 U
Chrysene	410 U	410 U	380 U	380 U	380 U	390 U	380 U	390 U
Di-n-butyl phthalate	410 U	410 U	86 J	380 U	380 U	390 U	380 U	390 U
Di-n-octyl phthalate	410 U	410 U	380 U	380 U	380 U	44 J	380 U	52 J
Dibenz(a,h)anthracene	410 U	410 U	380 U	380 U	380 U	390 U	380 U	390 U
Dibenzofuran	410 U	410 U	380 U	380 U	380 U	390 U	380 U	390 U
Diethyl phthalate	410 U	410 U	380 U	380 U	380 U	390 U	380 U	390 U
Dimethyl phthalate	410 U	410 U	380 U	380 U	380 U	390 U	380 U	390 U
Fluoranthene	410 U	410 U	380 U	380 U	380 U	390 U	380 U	390 U
Fluorene	410 U	410 U	140 J	380 U	380 U	390 U	380 U	390 U
Hexachlorobenzene	410 U	410 U	380 U	380 UJ	380 UJ	390 U	380 U	390 U
Hexachlorobutadiene	410 U	410 U	380 U	380 U	380 U	390 U	380 U	390 U
Hexachlorocyclopentadiene	2000 U	2000 U	1800 U	380 U	380 U	390 U	380 U	390 U
Hexachloroethane	410 U	410 U	380 U	380 U	380 U	390 U	380 U	390 U
Indeno(1,2,3-cd)pyrene	410 U	410 U	380 U	380 U	380 U	390 U	380 U	390 U
Isophorone	410 U	410 U	60 J	380 U	380 U	390 U	380 U	390 U
N-Nitrosodi-n-propylamine	410 U	410 U	380 U	380 U	380 U	390 U	380 U	390 U
N-Nitrosodiphenylamine	410 U	410 U	380	380 U	380 U	390 U	380 U	390 U
Naphthalene	410 U	410 U	940	380 U	380 U	390 U	380 U	390 U
Nitrobenzene	410 U	410 U	380 U	380 U	380 U	390 U	380 U	390 U
Pentachlorophenol	2000 U	2000 U	1800 U	760 U	770 U	790 U	760 U	790 U
Phenanthrene	410 U	410 U	340 J	380 U	380 U	390 U	380 U	390 U
Phenol	410 U	410 U	380 U	380 U	380 U	390 U	380 U	390 U
Pyrene	410 U	410 U	93 J	380 U	380 U	390 U	380 U	390 U

APPENDIX G
SUBSURFACE SOIL - SWMU 295
INORGANIC COMPOUNDS
SWMU CONFIRMATORY SAMPLING (CTO-0143)
1601 - AST, 2D FSSG
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU295-IS01-05	SWMU295-IS02-05	SWMU295-IS03-05	SWMU295-SB01-04	SWMU295-SB02-04	SWMU295-TW01-04	SWMU295-TW02-05	SWMU295-TW03-04
SAMPLE DATE	09-12-1997	09-12-1997	09-12-1997	03-22-2002	03-22-2002	03-22-2002	03-24-2002	03-22-2002
DEPTH	10' - 12'	10' - 12'	10' - 12'	7' - 9'	7' - 9'	7' - 9'	9' - 11'	7' - 9'
METALS (mg/kg)								
Arsenic	1.2 U	1.7	1.7	2.5	1.4	4.3	4.8 J	0.28 U
Barium	25 U	25.1 U	23 U	8.4 J	5.7 U	6.2	10.6 J	9.4
Cadmium	0.62 U	0.63 U	0.58 U	0.04 U	0.03 U	0.04 U	0.03 U	0.03 U
Chromium	2.6	6	8.8	7.7	5	7.3	11 J	6
Lead	3.1	5.1	6.3	5.9	4.4	3.7 J	5.6 J	4.1 J
Mercury	0.041 U	0.041 U	0.038 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U
Selenium	0.62 U	0.63 U	0.58 U	0.52 U	0.52 U	0.67	0.44 J	0.53 U
Silver	1.2 U	1.3 U	1.2 U	0.1 U	0.1 U	0.11 U	0.05 U	0.1 U

APPENDIX G
GROUNDWATER - SWMU 295
ORGANIC COMPOUNDS
SWMU CONFIRMATORY SAMPLING (CTO-0143)
1601 - AST, 2D FSSG
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU295-78GW09-1		SWMU295-GW01		SWMU295-GW02		SWMU295-GW03	
SAMPLE DATE	04-07-2002		04-05-2002		04-05-2002		04-05-2002	
SEMIVOLATILES (ug/L)								
1,1'-Biphenyl	10	U	10	U	10	U	10	U
2,2'-oxybis(1-Chloropropane)	10	U	10	U	10	UJ	10	UJ
2,4,5-Trichlorophenol	10	U	10	U	10	U	10	U
2,4,6-Trichlorophenol	10	U	10	U	10	U	10	U
2,4-Dichlorophenol	10	U	10	U	10	U	10	U
2,4-Dimethylphenol	10	U	10	U	10	U	10	U
2,4-Dinitrophenol	50	UJ	50	UJ	50	U	50	U
2,4-Dinitrotoluene	10	U	10	U	10	U	10	U
2,6-Dinitrotoluene	10	U	10	U	10	U	10	U
2-Chloronaphthalene	10	U	10	U	10	U	10	U
2-Chlorophenol	10	U	10	U	10	U	10	U
2-Methylnaphthalene	10	U	10	U	10	U	10	U
2-Methylphenol	10	U	10	U	10	U	10	U
2-Nitroaniline	20	U	20	U	20	UJ	20	UJ
2-Nitrophenol	10	U	10	U	10	U	10	U
3,3'-Dichlorobenzidine	20	U	20	U	20	UJ	20	UJ
3-Nitroaniline	20	U	20	U	20	U	20	U
4,6-dinitro-2-Methylphenol	20	U	20	U	20	U	20	U
4-Bromophenyl phenyl ether	10	U	10	U	10	U	10	U
4-Chloro-3-methylphenol	10	U	10	U	10	U	10	U
4-Chloroaniline	10	U	10	U	10	U	10	U
4-Chlorophenyl phenyl ether	10	U	10	U	10	UJ	10	UJ
4-Methylphenol	10	U	10	U	10	U	10	U
4-Nitroaniline	20	U	20	U	20	U	20	U
4-Nitrophenol	20	U	20	U	20	UJ	20	UJ
Acenaphthene	10	U	10	U	10	U	10	U
Acenaphthylene	10	U	10	U	10	U	10	U
Acetophenone	10	U	10	U	10	U	10	U
Anthracene	10	U	10	U	10	U	10	U
Atrazine	10	U	10	U	10	U	10	U
Benzaldehyde	10	U	10	U	10	U	10	U
Benzo(a)anthracene	10	U	10	U	10	U	10	U
Benzo(a)pyrene	10	U	10	U	10	U	10	U
Benzo(b)fluoranthene	10	U	10	U	10	U	10	U
Benzo(g,h,i)perylene	10	U	10	U	10	U	10	U
Benzo(k)fluoranthene	10	U	10	U	10	U	10	U
bis(2-Chloroethoxy)methane	10	U	10	U	10	U	10	U
bis(2-Chloroethyl)ether	10	U	10	U	10	U	10	U

APPENDIX G
GROUNDWATER - SWMU 295
ORGANIC COMPOUNDS
SWMU CONFIRMATORY SAMPLING (CTO-0143)
1601 - AST, 2D FSSG
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU295-78GW09-1		SWMU295-GW01		SWMU295-GW02		SWMU295-GW03	
SAMPLE DATE	04-07-2002		04-05-2002		04-05-2002		04-05-2002	
SEMIVOLATILES (ug/L) (cont)								
bis(2-Ethylhexyl)phthalate	10	U	10	U	10	U	10	U
Butyl benzyl phthalate	10	U	10	UJ	10	UJ	10	UJ
Caprolactam	10	U	10	U	10	U	10	U
Carbazole	10	U	10	U	10	U	10	U
Chrysene	10	U	10	UJ	10	U	10	U
di-N-Butyl phthalate	10	U	10	U	10	U	10	U
di-N-Octyl phthalate	10	U	10	U	10	U	10	U
Dibenzo(a,h)anthracene	10	U	10	U	10	U	10	U
Dibenzofuran	10	U	10	U	10	U	10	U
Diethyl phthalate	10	U	10	U	10	U	10	U
Dimethyl phthalate	10	U	10	U	10	U	10	U
Fluoranthene	10	U	10	U	10	U	10	U
Fluorene	10	U	10	U	10	UJ	10	UJ
Hexachlorobenzene	10	U	10	U	10	U	10	U
Hexachlorobutadiene	10	U	10	U	10	U	10	U
Hexachlorocyclopentadiene	10	U	10	U	10	UJ	10	UJ
Hexachloroethane	10	U	10	U	10	U	10	U
Indeno(1,2,3-cd)pyrene	10	U	10	U	10	U	10	U
Isophorone	10	U	10	U	10	U	10	U
N-Nitroso-di-N-propylamine	10	U	10	U	10	U	10	U
N-Nitrosodiphenylamine(1)	10	U	10	U	10	U	10	U
Naphthalene	10	U	10	U	10	U	10	U
Nitrobenzene	10	U	10	U	10	U	10	U
Pentachlorophenol	20	U	20	U	20	U	20	U
Phenanthrene	10	U	10	U	10	U	10	U
Phenol	10	U	10	U	10	U	10	U
Pyrene	10	U	10	U	10	U	10	U

APPENDIX G
GROUNDWATER - SWMU 295
INORGANIC COMPOUNDS
SWMU CONFIRMATORY SAMPLING (CTO-0143)
1601 - AST, 2D FSSG
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU295-78GW09-1		SWMU295-GW01		SWMU295-GW02		SWMU295-GW03	
SAMPLE DATE	04-07-2002		04-05-2002		04-05-2002		04-05-2002	
METALS (ug/L)								
Arsenic	2.4	U	2.4	U	2.4	U	2.4	U
Barium	44.9		15.5	J	31.7	J	34.2	J
Cadmium	0.3	U	0.3	U	0.3	U	0.3	U
Chromium	0.6	U	1.2	J	4.6	J	0.89	J
Lead	1.8	U	1.8	J	2.9	J	1.8	U
Mercury	0.1	U	0.1	U	0.1	U	0.1	U
Selenium	4.6	U	4.6	U	4.6	U	16.1	J
Silver	0.9	U	0.9	U	0.9	U	0.9	U

APPENDIX G
SURFACE SOIL - SWMU 299
ORGANIC COMPOUDS
SWMU CONFIRMATORY SAMPLING (CTO-0143)
ASS114 - AST, MCAS AUTO HOBBY SHOP
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU299-IS01-00		SWMU299-IS02-00		SWMU299-IS03-00		SWMU299-IS04-00		SWMU299-SB01-00		SWMU299-SB02-00		SWMU299-SB03-00	
SAMPLE DATE	09-14-1997		09-14-1997		09-14-1997		09-14-1997		03-19-2002		03-19-2002		03-19-2002	
DEPTH	0' - 2'		0' - 2'		0' - 2'		0' - 2'		0' - 1'		0' - 1'		0' - 1'	
SEMIVOLATILES (ug/kg)														
1,1'-Biphenyl	NA		NA		NA		NA		380	U	390	U	330	J
2,2'-Oxybis(1-Chloropropane)	4400	U	4300	U	4700	U	4400	U	380	U	390	U	1800	U
2,4,5-Trichlorophenol	4400	U	4300	U	4700	U	4400	U	380	U	390	U	1800	U
2,4,6-Trichlorophenol	4400	U	4300	U	4700	U	4400	U	380	U	390	U	1800	U
2,4-Dichlorophenol	4400	U	4300	U	4700	U	4400	U	380	U	390	U	1800	U
2,4-Dimethylphenol	4400	U	4300	U	4700	U	4400	U	380	U	390	U	1800	U
2,4-Dinitrophenol	21000	U	21000	U	23000	U	21000	U	2000	U	2000	U	9200	U
2,4-Dinitrotoluene	4400	U	4300	U	4700	U	4400	U	380	U	390	U	1800	U
2,6-Dinitrotoluene	4400	U	4300	U	4700	U	4400	U	380	U	390	U	1800	U
2-Chloronaphthalene	4400	U	4300	U	4700	U	4400	U	380	U	390	U	1000	J
2-Chlorophenol	4400	U	4300	U	4700	U	4400	U	380	U	390	U	1800	U
2-Methylnaphthalene	1200	J	3100	J	6600		1900	J	380	U	390	U	16000	
2-Methylphenol	4400	U	4300	U	4700	U	4400	U	380	U	390	U	1800	U
2-Nitroaniline	21000	U	21000	U	23000	U	21000	U	760	U	790	U	3600	U
2-Nitrophenol	4400	U	4300	U	4700	U	4400	U	380	U	390	U	1800	U
3,3'-Dichlorobenzidine	21000	U	21000	U	23000	U	21000	U	760	U	790	U	3600	U
3-Nitroaniline	21000	U	21000	U	23000	U	21000	U	760	U	790	U	3600	U
4,6-Dinitro-2-methylphenol	21000	U	21000	U	23000	U	21000	U	760	U	790	U	3600	U
4-Bromophenyl phenyl ether	4400	U	4300	U	4700	U	4400	U	380	U	390	U	1800	U
4-Chloro-3-methylphenol	4400	U	4300	U	4700	U	4400	U	380	U	390	U	1800	U
4-Chloroaniline	4400	U	4300	U	4700	U	4400	U	380	U	390	U	1800	U
4-Chlorophenyl phenyl ether	4400	U	4300	U	4700	U	4400	U	380	U	390	U	1800	U
4-Methylphenol	4400	U	4300	U	4700	U	4400	U	380	U	390	U	1800	U
4-Nitroaniline	21000	U	21000	U	23000	U	21000	U	760	U	790	U	3600	U
4-Nitrophenol	21000	U	21000	U	23000	U	21000	U	760	U	790	U	3600	U
Acenaphthene	4400	U	830	J	780	J	4400	U	380	U	390	U	330	J
Acenaphthylene	4400	U	4300	U	4700	U	4400	U	380	U	390	U	1800	U
Acetophenone	NA		NA		NA		NA		380	U	390	U	1800	U
Anthracene	490	J	1100	J	4700	U	810	J	380	U	390	U	1800	U
Atrazine	NA		NA		NA		NA		380	U	390	U	1800	U
Benzaldehyde	NA		NA		NA		NA		380	U	390	U	1800	U
Benzo(a)anthracene	2000	J	3400	J	1200	J	3200	J	380	U	99	J	1800	U
Benzo(a)pyrene	2500	J	2400	J	1500	J	4400	U	380	U	120	J	1800	U
Benzo(b)fluoranthene	3300	J	5900		3000	J	6100		380	U	270	J	1800	U
Benzo(ghi)perylene	1000	J	1500	J	810	J	1800	J	380	U	80	J	1800	U
Benzo(k)fluoranthene	3500	J	3600	J	2000	J	6700	J	380	U	300	J	1800	U
bis(2-Chloroethoxy)methane	4400	U	4300	U	4700	U	4400	U	380	U	390	U	1800	U
bis(2-Chloroethyl) ether	4400	U	4300	U	4700	U	4400	U	380	U	390	U	1800	U

APPENDIX G
SURFACE SOIL - SWMU 299
ORGANIC COMPOUDS
SWMU CONFIRMATORY SAMPLING (CTO-0143)
ASS114 - AST, MCAS AUTO HOBBY SHOP
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU299-IS01-00		SWMU299-IS02-00		SWMU299-IS03-00		SWMU299-IS04-00		SWMU299-SB01-00		SWMU299-SB02-00		SWMU299-SB03-00	
SAMPLE DATE	09-14-1997		09-14-1997		09-14-1997		09-14-1997		03-19-2002		03-19-2002		03-19-2002	
DEPTH	0' - 2'		0' - 2'		0' - 2'		0' - 2'		0' - 1'		0' - 1'		0' - 1'	
SEMIVOLATILES (ug/kg) (cont)														
bis(2-Ethylhexyl) phthalate	11000	J	16000	J	7600	J	6600	J	57	J	89	J	1800	U
Butyl benzyl phthalate	7800		2600	J	3800	J	2900	J	380	U	390	U	1800	U
Caprolactam	NA		NA		NA		NA		380	UJ	390	UJ	1800	UJ
Carbazole	4400	U	870	J	4700	U	4400	U	380	U	38	J	1800	U
Chrysene	3500	J	4800		2000	J	4800		380	U	180	J	1800	U
Di-n-butyl phthalate	3700	J	1600	J	4700	U	4400	U	380	U	390	U	1800	U
Di-n-octyl phthalate	4400	U	4300	U	4700	U	4400	U	140	J	390	U	1800	U
Dibenz(a,h)anthracene	590	J	830	J	4700	U	810	J	380	U	390	U	1800	U
Dibenzofuran	4400	U	730	J	4700	U	4400	U	380	U	390	U	1800	U
Diethyl phthalate	4400	U	4300	U	4700	U	4400	U	380	U	390	U	1800	U
Dimethyl phthalate	4400	U	4300	U	4700	U	4400	U	380	U	390	U	1800	U
Fluoranthene	4900		7500		2600	J	6100		380	U	290	J	1800	U
Fluorene	510	J	1700	J	1100	J	560	J	380	U	390	U	1800	U
Hexachlorobenzene	4400	U	4300	U	4700	U	4400	U	380	U	390	U	1800	UJ
Hexachlorobutadiene	4400	U	4300	U	4700	U	4400	U	380	U	390	U	1800	U
Hexachlorocyclopentadiene	21000	U	21000	U	23000	U	21000	U	380	UJ	390	UJ	1800	U
Hexachloroethane	4400	U	4300	U	4700	U	4400	U	380	U	390	U	1800	U
Indeno(1,2,3-cd)pyrene	1200	J	1500	J	860	J	1900	J	380	U	120	J	1800	U
Isophorone	4400	U	4300	U	990	J	4400	U	380	U	390	U	1800	U
N-Nitrosodi-n-propylamine	4400	U	4300	U	4700	U	4400	U	380	U	390	U	1800	U
N-Nitrosodiphenylamine	4400	U	4300	U	4700	U	4400	U	380	U	390	U	1800	U
Naphthalene	970	J	1900	J	640	J	950	J	380	U	390	U	1100	J
Nitrobenzene	4400	U	4300	U	4700	U	4400	U	380	U	390	U	1800	U
Pentachlorophenol	21000	U	21000	U	23000	U	21000	U	760	U	790	U	3600	U
Phenanthrene	2300	J	7000		4200	J	3100	J	380	U	160	J	1800	U
Phenol	4400	U	4300	U	4700	U	4400	U	380	U	390	U	1800	U
Pyrene	4200	J	7100		3000	J	7600		380	U	200	J	1800	U

APPENDIX G
SURFACE SOIL - SWMU 299
ORGANIC COMPOUDS
SWMU CONFIRMATORY SAMPLING (CTO-0143)
ASS114 - AST, MCAS AUTO HOBBY SHOP
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU299-SB04-00		SWMU299-TW01-00		SWMU299-TW02-00		SWMU299-TW03-00		SWMU299-TW04-00	
SAMPLE DATE	03-19-2002		03-19-2002		03-19-2002		03-19-2002		03-19-2002	
DEPTH	0' - 1'		0' - 1'		0' - 1'		0' - 1'		0' - 1'	
SEMIVOLATILES (ug/kg)										
1,1'-Biphenyl	400	U	460	U	380	U	410	U	390	U
2,2'-Oxybis(1-Chloropropane)	400	U	460	U	380	U	410	U	390	U
2,4,5-Trichlorophenol	400	U	460	U	380	U	410	U	390	U
2,4,6-Trichlorophenol	400	U	460	U	380	U	410	U	390	U
2,4-Dichlorophenol	400	U	460	U	380	U	410	U	390	U
2,4-Dimethylphenol	400	U	460	U	380	U	410	U	390	U
2,4-Dinitrophenol	2000	U	2400	U	2000	UJ	2100	U	2000	UJ
2,4-Dinitrotoluene	400	U	460	U	380	U	410	U	390	U
2,6-Dinitrotoluene	400	U	460	U	380	U	410	U	390	U
2-Chloronaphthalene	400	U	460	U	380	U	410	U	390	U
2-Chlorophenol	400	U	460	U	380	U	410	U	390	U
2-Methylnaphthalene	400	U	460	U	380	U	410	U	390	U
2-Methylphenol	400	U	460	U	380	U	410	U	390	U
2-Nitroaniline	800	U	930	U	760	U	810	U	790	U
2-Nitrophenol	400	U	460	U	380	U	410	U	390	U
3,3'-Dichlorobenzidine	800	U	930	U	760	U	810	U	790	U
3-Nitroaniline	800	U	930	U	760	U	810	U	790	U
4,6-Dinitro-2-methylphenol	800	U	930	U	760	U	810	U	790	U
4-Bromophenyl phenyl ether	400	U	460	UJ	380	U	410	UJ	390	U
4-Chloro-3-methylphenol	400	U	460	U	380	U	410	U	390	U
4-Chloroaniline	400	U	460	U	380	U	410	U	390	U
4-Chlorophenyl phenyl ether	400	U	460	U	380	U	410	U	390	U
4-Methylphenol	400	U	460	U	380	U	410	U	390	U
4-Nitroaniline	800	U	930	U	760	U	810	U	790	U
4-Nitrophenol	800	U	930	U	760	U	810	U	790	U
Acenaphthene	400	U	460	U	380	U	410	U	390	U
Acenaphthylene	400	U	43	J	380	U	410	U	390	U
Acetophenone	400	U	460	U	380	U	410	U	390	U
Anthracene	400	U	130	J	380	U	410	U	390	U
Atrazine	400	U	460	U	380	U	410	U	390	U
Benzaldehyde	400	U	36	J	380	U	410	U	390	U
Benzo(a)anthracene	35	J	1000		380	U	44	J	390	U
Benzo(a)pyrene	400	U	1500		380	U	42	J	390	U
Benzo(b)fluoranthene	52	J	3100		380	U	60	J	390	U
Benzo(ghi)perylene	400	U	960		380	U	410	U	390	U
Benzo(k)fluoranthene	58	J	2400		380	U	50	J	390	U
bis(2-Chloroethoxy)methane	400	U	460	U	380	U	410	U	390	U
bis(2-Chloroethyl) ether	400	U	460	U	380	U	410	U	390	U

APPENDIX G
SURFACE SOIL - SWMU 299
ORGANIC COMPOUDS
SWMU CONFIRMATORY SAMPLING (CTO-0143)
ASS114 - AST, MCAS AUTO HOBBY SHOP
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU299-SB04-00		SWMU299-TW01-00		SWMU299-TW02-00		SWMU299-TW03-00		SWMU299-TW04-00	
SAMPLE DATE	03-19-2002		03-19-2002		03-19-2002		03-19-2002		03-19-2002	
DEPTH	0' - 1'		0' - 1'		0' - 1'		0' - 1'		0' - 1'	
SEMIVOLATILES (ug/kg) (cont)										
bis(2-Ethylhexyl) phthalate	250	J	420	J	69	J	180	J	390	U
Butyl benzyl phthalate	400	U	640		380	U	410	U	390	U
Caprolactam	400	UJ	460	U	380	U	410	U	390	U
Carbazole	400	U	580		380	U	410	U	390	U
Chrysene	42	J	2400		380	U	70	J	390	U
Di-n-butyl phthalate	400	U	120	J	380	U	410	U	390	U
Di-n-octyl phthalate	400	U	110	J	380	U	410	U	390	U
Dibenz(a,h)anthracene	400	U	430	J	380	U	410	U	390	U
Dibenzofuran	400	U	63	J	380	U	410	U	390	U
Diethyl phthalate	400	U	460	U	380	U	410	U	390	U
Dimethyl phthalate	400	U	460	U	380	U	410	U	390	U
Fluoranthene	82	J	3400		380	U	110	J	390	U
Fluorene	400	U	42	J	380	U	410	U	390	U
Hexachlorobenzene	400	U	460	UJ	380	U	410	UJ	390	U
Hexachlorobutadiene	400	U	460	U	380	U	410	U	390	U
Hexachlorocyclopentadiene	400	UJ	460	U	380	UJ	410	U	390	UJ
Hexachloroethane	400	U	460	U	380	U	410	U	390	U
Indeno(1,2,3-cd)pyrene	400	U	2000		380	U	46	J	390	U
Isophorone	400	U	460	U	380	U	410	U	390	U
N-Nitrosodi-n-propylamine	400	U	460	U	380	U	410	U	390	U
N-Nitrosodiphenylamine	400	U	460	U	380	U	410	U	390	U
Naphthalene	400	U	460	U	380	U	410	U	390	U
Nitrobenzene	400	U	460	U	380	U	410	U	390	U
Pentachlorophenol	800	U	930	U	760	U	810	U	790	U
Phenanthrene	98	J	1400		380	U	56	J	390	U
Phenol	400	U	460	U	380	U	410	U	390	U
Pyrene	69	J	2600		380	U	90	J	390	U

APPENDIX G
SURFACE SOIL - SWMU 299
INORGANIC COMPOUDS
SWMU CONFIRMATORY SAMPLING (CTO-0143)
ASS114 - AST, MCAS AUTO HOBBY SHOP
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU299-IS01-00		SWMU299-IS02-00		SWMU299-IS03-00		SWMU299-IS04-00		SWMU299-SB01-00		SWMU299-SB02-00		SWMU299-SB03-00	
SAMPLE DATE	09-14-1997		09-14-1997		09-14-1997		09-14-1997		03-19-2002		03-19-2002		03-19-2002	
DEPTH	0' - 2'		0' - 2'		0' - 2'		0' - 2'		0' - 1'		0' - 1'		0' - 1'	
METALS (mg/kg)														
Arsenic	1.3	U	2.1		2.1		1.3	U	0.27	U	0.29	U	0.26	U
Barium	29.7		185		72.2		26.6	U	6.9	U	19.1		6.5	U
Cadmium	1.8		3.6		5		0.67	U	0.034	U	1.1		0.049	J
Chromium	38.9		33.3		44		14		3.6		17.5		4.3	
Lead	193		300		636		56.1		3.7		144		6.2	
Mercury	0.078		0.1		0.069		0.044	U	0.031	J	0.047		0.024	J
Selenium	0.67	U	0.65	U	0.71	U	0.67	U	0.52	U	0.55	U	0.49	U
Silver	1.3	U	1.8		1.4	U	1.3	U	0.1	U	0.11	U	0.096	U

APPENDIX G
SURFACE SOIL - SWMU 299
INORGANIC COMPOUDS
SWMU CONFIRMATORY SAMPLING (CTO-0143)
ASS114 - AST, MCAS AUTO HOBBY SHOP
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU299-SB04-00		SWMU299-TW01-00		SWMU299-TW02-00		SWMU299-TW03-00		SWMU299-TW04-00	
SAMPLE DATE	03-19-2002		03-19-2002		03-19-2002		03-19-2002		03-19-2002	
DEPTH	0' - 1'		0' - 1'		0' - 1'		0' - 1'		0' - 1'	
METALS (mg/kg)										
Arsenic	0.29	U	0.33	U	0.27	U	0.28	U	0.28	U
Barium	10.9		33.2		4.1	U	12.5		8.4	U
Cadmium	0.036	U	1.1		0.034	U	0.13	U	0.36	U
Chromium	7.1		20.7	J	2.4	J	11.5	J	4.1	J
Lead	5.5		119		2.6		16.3		3.5	
Mercury	0.035	J	0.078	U	0.028	U	0.05	U	0.029	U
Selenium	0.74		0.9		0.52	U	0.64		0.55	U
Silver	0.11	U	0.12	U	0.1	U	0.11	U	0.11	U

APPENDIX G
SUBSURFACE SOIL - SWMU 299
ORGANIC COMPOUNDS
SWMU CONFIRMATORY SAMPLING (CTO-0143)
ASS114 - AST, MCAS AUTO HOBBY SHOP
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU299-IS04-01		SWMU299-SB01-01		SWMU299-SB02-02		SWMU299-SB03-02		SWMU299-SB04-02		SWMU299-TW01-02	
SAMPLE DATE	09-14-1997		03-19-2002		03-19-2002		03-19-2002		03-19-2002		03-19-2002	
DEPTH	2' - 4'		1' - 3'		3' - 5'		3' - 5'		3' - 5'		3' - 5'	
SEMIVOLATILES (ug/kg)												
1,1'-Biphenyl	NA		410	U	410	U	420	U	430	U	460	U
2,2'-Oxybis(1-Chloropropane)	420	U	410	U	410	U	420	U	430	U	460	U
2,4,5-Trichlorophenol	420	U	410	U	410	U	420	U	430	U	460	U
2,4,6-Trichlorophenol	420	U	410	U	410	U	420	U	430	U	460	U
2,4-Dichlorophenol	420	U	410	U	410	U	420	U	430	U	460	U
2,4-Dimethylphenol	420	U	410	U	410	U	420	U	430	U	460	U
2,4-Dinitrophenol	2000	U	2100	U	2100	U	2200	U	2200	U	2400	U
2,4-Dinitrotoluene	420	U	410	U	410	U	420	U	430	U	460	U
2,6-Dinitrotoluene	420	U	410	U	410	U	420	U	430	U	460	U
2-Chloronaphthalene	420	U	410	U	410	U	420	U	430	U	460	U
2-Chlorophenol	420	U	410	U	410	U	420	U	430	U	460	U
2-Methylnaphthalene	54	J	410	U	410	U	420	U	430	U	460	U
2-Methylphenol	420	U	410	U	410	U	420	U	430	U	460	U
2-Nitroaniline	2000	U	810	U	810	U	840	U	860	U	920	U
2-Nitrophenol	420	U	410	U	410	U	420	U	430	U	460	U
3,3'-Dichlorobenzidine	2000	U	810	U	810	U	840	U	860	U	920	U
3-Nitroaniline	2000	U	810	U	810	U	840	U	860	U	920	U
4,6-Dinitro-2-methylphenol	2000	U	810	U	810	U	840	U	860	U	920	U
4-Bromophenyl phenyl ether	420	U	410	U	410	U	420	U	430	U	460	UJ
4-Chloro-3-methylphenol	420	U	410	U	410	U	420	U	430	U	460	U
4-Chloroaniline	420	U	410	U	410	U	420	U	430	U	460	U
4-Chlorophenyl phenyl ether	420	U	410	U	410	U	420	U	430	U	460	U
4-Methylphenol	420	U	410	U	410	U	420	U	430	U	460	U
4-Nitroaniline	2000	U	810	U	810	U	840	U	860	U	920	U
4-Nitrophenol	2000	U	810	U	810	U	840	U	860	U	920	U
Acenaphthene	420	U	410	U	410	U	420	U	430	U	460	U
Acenaphthylene	420	U	410	U	410	U	420	U	430	U	460	U
Acetophenone	NA		410	U	410	U	420	U	430	U	460	U
Anthracene	61	J	410	U	410	U	420	U	94	J	460	U
Atrazine	NA		410	U	410	U	420	U	430	U	460	U
Benzaldehyde	NA		410	U	410	U	36	J	430	U	460	U
Benzo(a)anthracene	200	J	410	U	150	J	420	U	140	J	86	J
Benzo(a)pyrene	200	J	410	U	170	J	420	U	87	J	130	J
Benzo(b)fluoranthene	330	J	410	U	190	J	420	U	160	J	200	J
Benzo(ghi)perylene	120	J	410	U	100	J	420	U	430	U	95	J
Benzo(k)fluoranthene	350	J	410	UJ	280	J	420	U	180	J	230	J
bis(2-Chloroethoxy)methane	420	U	410	U	410	U	420	U	430	U	460	U
bis(2-Chloroethyl) ether	420	U	410	U	410	U	420	U	430	U	460	U

APPENDIX G
SUBSURFACE SOIL - SWMU 299
ORGANIC COMPOUNDS
SWMU CONFIRMATORY SAMPLING (CTO-0143)
ASS114 - AST, MCAS AUTO HOBBY SHOP
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU299-IS04-01		SWMU299-SB01-01		SWMU299-SB02-02		SWMU299-SB03-02		SWMU299-SB04-02		SWMU299-TW01-02	
SAMPLE DATE	09-14-1997		03-19-2002		03-19-2002		03-19-2002		03-19-2002		03-19-2002	
DEPTH	2' - 4'		1' - 3'		3' - 5'		3' - 5'		3' - 5'		3' - 5'	
SEMIVOLATILES (ug/kg) (cont)												
bis(2-Ethylhexyl) phthalate	160	J	410	U	150	J	420	U	330	J	240	J
Butyl benzyl phthalate	43	J	410	U	410	U	420	U	430	U	79	J
Caprolactam	NA		410	U	410	UJ	420	UJ	430	UJ	460	U
Carbazole	420	U	410	U	50	J	420	U	81	J	45	J
Chrysene	260	J	410	U	240	J	420	U	140	J	230	J
Di-n-butyl phthalate	420	U	410	U	410	U	420	U	430	U	36	J
Di-n-octyl phthalate	420	U	410	U	410	U	420	U	430	U	460	U
Dibenz(a,h)anthracene	75	J	410	U	50	J	420	U	430	U	46	J
Dibenzofuran	420	U	410	U	410	U	420	U	55	J	460	U
Diethyl phthalate	420	U	410	U	410	U	420	U	430	U	460	U
Dimethyl phthalate	420	U	410	U	410	U	420	U	430	U	460	U
Fluoranthene	640		410	U	370	J	420	U	360	J	280	J
Fluorene	420	U	410	U	26	J	420	U	40	J	460	U
Hexachlorobenzene	420	U	410	U	410	U	420	UJ	430	U	460	UJ
Hexachlorobutadiene	420	U	410	U	410	U	420	U	430	U	460	U
Hexachlorocyclopentadiene	2000	U	410	U	410	UJ	420	U	430	UJ	460	U
Hexachloroethane	420	U	410	U	410	U	420	U	430	U	460	U
Indeno(1,2,3-cd)pyrene	130	J	410	U	170	J	420	U	53	J	170	J
Isophorone	420	U	410	U	410	U	420	U	430	U	460	U
N-Nitrosodi-n-propylamine	420	U	410	U	410	U	420	U	430	U	460	U
N-Nitrosodiphenylamine	420	U	410	U	410	U	420	U	430	U	460	U
Naphthalene	48	J	410	U	410	U	420	U	430	U	460	U
Nitrobenzene	420	U	410	U	410	U	420	U	430	U	460	U
Pentachlorophenol	2000	U	810	U	810	U	840	U	860	U	920	U
Phenanthrene	320	J	410	U	200	J	420	U	470		110	J
Phenol	420	U	410	U	410	U	420	U	430	U	460	U
Pyrene	380	J	410	U	280	J	420	U	330	J	210	J

APPENDIX G
SUBSURFACE SOIL - SWMU 299
ORGANIC COMPOUNDS
SWMU CONFIRMATORY SAMPLING (CTO-0143)
ASS114 - AST, MCAS AUTO HOBBY SHOP
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU299-TW02-02		SWMU299-TW03-02		SWMU299-TW04-02	
SAMPLE DATE	03-19-2002		03-19-2002		03-19-2002	
DEPTH	3' - 5'		3' - 5'		3' - 5'	
SEMIVOLATILES (ug/kg)						
1,1'-Biphenyl	430	U	420	U	410	U
2,2'-Oxybis(1-Chloropropane)	430	U	420	U	410	U
2,4,5-Trichlorophenol	430	U	420	U	410	U
2,4,6-Trichlorophenol	430	U	420	U	410	U
2,4-Dichlorophenol	430	U	420	U	410	U
2,4-Dimethylphenol	430	U	420	U	410	U
2,4-Dinitrophenol	2200	UJ	2200	U	2100	U
2,4-Dinitrotoluene	430	U	420	U	410	U
2,6-Dinitrotoluene	430	U	420	U	410	U
2-Chloronaphthalene	430	U	420	U	410	U
2-Chlorophenol	430	U	420	U	410	U
2-Methylnaphthalene	430	U	420	U	410	U
2-Methylphenol	430	U	420	U	410	U
2-Nitroaniline	870	U	850	U	830	U
2-Nitrophenol	430	U	420	U	410	U
3,3'-Dichlorobenzidine	870	U	850	U	830	U
3-Nitroaniline	870	U	850	U	830	U
4,6-Dinitro-2-methylphenol	870	U	850	U	830	U
4-Bromophenyl phenyl ether	430	U	420	UJ	410	UJ
4-Chloro-3-methylphenol	430	U	420	U	410	U
4-Chloroaniline	430	U	420	U	410	U
4-Chlorophenyl phenyl ether	430	U	420	U	410	U
4-Methylphenol	430	U	420	U	410	U
4-Nitroaniline	870	U	850	U	830	U
4-Nitrophenol	870	U	850	U	830	U
Acenaphthene	430	U	420	U	410	U
Acenaphthylene	430	U	420	U	410	U
Acetophenone	430	U	420	U	410	U
Anthracene	430	U	420	U	410	U
Atrazine	430	U	420	U	410	U
Benzaldehyde	53	J	41	J	410	U
Benzo(a)anthracene	430	U	420	U	410	U
Benzo(a)pyrene	430	U	420	U	410	U
Benzo(b)fluoranthene	430	U	420	U	410	U
Benzo(ghi)perylene	430	U	420	U	410	U
Benzo(k)fluoranthene	430	U	420	U	410	U
bis(2-Chloroethoxy)methane	430	U	420	U	410	U
bis(2-Chloroethyl) ether	430	U	420	U	410	U

APPENDIX G
SUBSURFACE SOIL - SWMU 299
ORGANIC COMPOUNDS
SWMU CONFIRMATORY SAMPLING (CTO-0143)
ASS114 - AST, MCAS AUTO HOBBY SHOP
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU299-TW02-02		SWMU299-TW03-02		SWMU299-TW04-02	
SAMPLE DATE	03-19-2002		03-19-2002		03-19-2002	
DEPTH	3' - 5'		3' - 5'		3' - 5'	
SEMIVOLATILES (ug/kg) (cont)						
bis(2-Ethylhexyl) phthalate	88	J	95	J	370	J
Butyl benzyl phthalate	430	U	420	U	410	U
Caprolactam	430	U	420	U	410	U
Carbazole	430	U	420	U	410	U
Chrysene	430	U	420	U	410	U
Di-n-butyl phthalate	430	U	420	U	410	U
Di-n-octyl phthalate	430	U	210	J	410	U
Dibenz(a,h)anthracene	430	U	420	U	410	U
Dibenzofuran	430	U	420	U	410	U
Diethyl phthalate	430	U	420	U	410	U
Dimethyl phthalate	430	U	420	U	410	U
Fluoranthene	30	J	420	U	410	U
Fluorene	430	U	420	U	410	U
Hexachlorobenzene	430	U	420	UJ	410	UJ
Hexachlorobutadiene	430	U	420	U	410	U
Hexachlorocyclopentadiene	430	UJ	420	U	410	U
Hexachloroethane	430	U	420	U	410	U
Indeno(1,2,3-cd)pyrene	430	U	420	U	410	U
Isophorone	430	U	420	U	410	U
N-Nitrosodi-n-propylamine	430	U	420	U	410	U
N-Nitrosodiphenylamine	430	U	420	U	410	U
Naphthalene	430	U	420	U	410	U
Nitrobenzene	430	U	420	U	410	U
Pentachlorophenol	870	U	850	U	830	U
Phenanthrene	430	U	420	U	410	U
Phenol	430	U	420	U	410	U
Pyrene	430	U	420	U	410	U

APPENDIX G
SUBSURFACE SOIL - SWMU 299
INORGANIC COMPOUNDS
SWMU CONFIRMATORY SAMPLING (CTO-0143)
ASS114 - AST, MCAS AUTO HOBBY SHOP
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU299-IS04-01		SWMU299-SB01-01		SWMU299-SB02-02		SWMU299-SB03-02		SWMU299-SB04-02		SWMU299-TW01-02	
SAMPLE DATE	09-14-1997		03-19-2002		03-19-2002		03-19-2002		03-19-2002		03-19-2002	
DEPTH	2' - 4'		1' - 3'		3' - 5'		3' - 5'		3' - 5'		3' - 5'	
METALS (mg/kg)												
Arsenic	1.3	U	0.3	U	0.29	U	0.29	U	0.31	U	0.33	U
Barium	25.4	U	8.4	U	19.4		8.2	U	14.4		11.5	
Cadmium	0.64	U	0.037	U	0.81		0.12	J	0.074	J	0.17	U
Chromium	4.9		7		21.3		22.6		10.1		8.3	J
Lead	5.7		5.2		114		5.6		8.2		28.6	
Mercury	0.042	U	0.057		0.038	J	0.029	J	0.084		0.041	U
Selenium	0.64	U	0.57	U	0.55	U	0.56	U	0.85		0.64	U
Silver	1.3	U	0.11	U	0.11	U	0.11	U	0.12	U	0.12	U

APPENDIX G
SUBSURFACE SOIL - SWMU 299
INORGANIC COMPOUNDS
SWMU CONFIRMATORY SAMPLING (CTO-0143)
ASS114 - AST, MCAS AUTO HOBBY SHOP
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU299-TW02-02		SWMU299-TW03-02		SWMU299-TW04-02	
SAMPLE DATE	03-19-2002		03-19-2002		03-19-2002	
DEPTH	3' - 5'		3' - 5'		3' - 5'	
METALS (mg/kg)						
Arsenic	0.31	U	0.3	U	0.3	U
Barium	8.3	U	13.7		2.5	U
Cadmium	0.039	U	0.037	U	0.038	U
Chromium	8.6	J	11	J	2.5	J
Lead	4.5		7		3.3	
Mercury	0.038	U	0.041	U	0.021	U
Selenium	0.6	U	0.57	U	0.58	U
Silver	0.12	U	0.11	U	0.11	U

APPENDIX G
GROUNDWATER - SWMU 299
ORGANIC COMPOUNDS
SWMU CONFIRMATORY SAMPLING (CTO-0143)
AS114 - AST, MCAS AUTO HOBBY SHOP
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU299-GW01TW		SWMU299-GW02TW		SWMU299-GW03TW		SWMU299-GW04TW	
SAMPLE DATE	04-02-2002		04-02-2002		04-02-2002		04-02-2002	
SEMIVOLATILES (ug/L)								
1,1'-Biphenyl	10	U	10	U	10	U	10	U
2,2'-oxybis(1-Chloropropane)	10	UJ	10	UJ	10	UJ	10	UJ
2,4,5-Trichlorophenol	10	U	10	U	10	U	10	U
2,4,6-Trichlorophenol	10	U	10	U	10	U	10	U
2,4-Dichlorophenol	10	U	10	U	10	U	10	U
2,4-Dimethylphenol	10	U	10	U	36		10	U
2,4-Dinitrophenol	50	U	50	U	50	U	50	U
2,4-Dinitrotoluene	10	U	10	U	10	U	10	U
2,6-Dinitrotoluene	10	U	10	U	10	U	10	U
2-Chloronaphthalene	10	U	10	U	10	U	10	U
2-Chlorophenol	10	U	10	U	10	U	10	U
2-Methylnaphthalene	10	U	10	U	10	U	10	U
2-Methylphenol	10	U	10	U	10	U	10	U
2-Nitroaniline	20	UJ	20	UJ	20	UJ	20	UJ
2-Nitrophenol	10	U	10	U	10	U	10	U
3,3'-Dichlorobenzidine	20	U	20	U	20	U	20	U
3-Nitroaniline	20	U	20	U	20	U	20	U
4,6-dinitro-2-Methylphenol	20	U	20	U	20	U	20	U
4-Bromophenyl phenyl ether	10	U	10	U	10	U	10	U
4-Chloro-3-methylphenol	10	U	10	U	10	U	10	U
4-Chloroaniline	10	U	10	U	10	U	10	U
4-Chlorophenyl phenyl ether	10	U	10	U	10	U	10	UJ
4-Methylphenol	10	U	10	U	10	U	10	U
4-Nitroaniline	20	U	20	U	20	U	20	U
4-Nitrophenol	20	UJ	20	UJ	20	UJ	20	UJ
Acenaphthene	10	U	10	U	10	U	10	U
Acenaphthylene	10	U	10	U	10	U	10	U
Acetophenone	10	U	10	U	10	U	10	U
Anthracene	10	U	10	U	10	U	10	U
Atrazine	10	U	10	U	10	U	10	U
Benzaldehyde	10	U	10	U	10	U	10	U
Benzo(a)anthracene	10	U	10	U	10	U	10	U
Benzo(a)pyrene	10	U	10	U	10	U	10	U
Benzo(b)fluoranthene	10	U	10	UJ	10	U	10	U
Benzo(g,h,i)perylene	10	U	10	U	10	U	10	U
Benzo(k)fluoranthene	10	U	10	U	10	U	10	U
bis(2-Chloroethoxy)methane	10	U	10	U	10	U	10	U
bis(2-Chloroethyl)ether	10	U	10	U	10	U	10	U

APPENDIX G
GROUNDWATER - SWMU 299
ORGANIC COMPOUNDS
SWMU CONFIRMATORY SAMPLING (CTO-0143)
AS114 - AST, MCAS AUTO HOBBY SHOP
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU299-GW01TW		SWMU299-GW02TW		SWMU299-GW03TW		SWMU299-GW04TW	
SAMPLE DATE	04-02-2002		04-02-2002		04-02-2002		04-02-2002	
SEMIVOLATILES (ug/L) (cont)								
bis(2-Ethylhexyl)phthalate	10	U	10	U	10	U	1	J
Butyl benzyl phthalate	10	U	10	U	10	U	10	U
Caprolactam	10	U	10	U	10	U	10	U
Carbazole	10	U	10	U	10	U	10	U
Chrysene	10	U	10	U	10	U	10	U
di-N-Butyl phthalate	0.8	J	10	U	10	U	10	U
di-N-Octyl phthalate	10	U	10	U	10	U	10	U
Dibenzo(a,h)anthracene	10	U	10	U	10	U	10	U
Dibenzofuran	10	U	10	U	10	U	10	U
Diethyl phthalate	10	U	10	U	10	U	10	U
Dimethyl phthalate	10	U	10	U	10	U	10	U
Fluoranthene	10	U	10	U	10	U	10	U
Fluorene	10	U	10	U	10	U	10	U
Hexachlorobenzene	10	U	10	U	10	U	10	U
Hexachlorobutadiene	10	U	10	U	10	U	10	U
Hexachlorocyclopentadiene	10	UJ	10	U	10	UJ	10	U
Hexachloroethane	10	U	10	U	10	U	10	U
Indeno(1,2,3-cd)pyrene	10	U	10	U	10	U	10	U
Isophorone	10	U	10	U	10	U	10	U
N-Nitroso-di-N-propylamine	10	U	10	U	10	U	10	U
N-Nitrosodiphenylamine(1)	10	U	10	U	10	U	10	U
Naphthalene	10	U	10	U	35		10	U
Nitrobenzene	10	U	10	U	10	U	10	U
Pentachlorophenol	20	U	20	U	20	U	20	U
Phenanthrene	10	U	0.9	J	10	U	10	U
Phenol	10	U	10	U	10	U	10	U
Pyrene	10	U	10	U	10	U	10	U

APPENDIX G
GROUNDWATER - SWMU 299
INORGANIC COMPOUNDS
SWMU CONFIRMATORY SAMPLING (CTO-0143)
AS114 - AST, MCAS AUTO HOBBY SHOP
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU299-GW01TW		SWMU299-GW02TW		SWMU299-GW03TW		SWMU299-GW04TW	
SAMPLE DATE	04-02-2002		04-02-2002		04-02-2002		04-02-2002	
METALS (ug/L)								
Arsenic	2.4	U	9.6	J	7	J	3.3	J
Barium	50.3	J	95.4	J	103	J	74.8	J
Cadmium	0.3	U	0.3	U	0.3	U	0.3	U
Chromium	3.2	J	4.7	J	3.3	J	5.8	J
Lead	1.8	U	1.8	U	1.8	J	1.8	U
Mercury	0.1	U	0.1	U	0.1	U	0.1	U
Selenium	4.6	U	4.6	U	4.6	U	4.6	U
Silver	0.9	U	0.9	U	0.9	U	0.9	U

APPENDIX G
SURFACE SOIL - SWMU 300
ORGANIC COMPOUNDS
SWMU CONFIRMATORY SAMPLING (CTO-0143)
AS118 - AST, MCAS MOTOR TRANSPORTATION
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU300-IS01-00	SWMU300-IS02-00	SWMU300-IS03-00	SWMU300-TW01-00	SWMU300-TW02-00	SWMU300-TW03-00
SAMPLE DATE	09-08-1997	09-08-1997	09-08-1997	03-19-2002	03-20-2002	03-19-2002
DEPTH	0' - 2'	0' - 2'	0' - 2'	0' - 1'	0' - 1'	0' - 1'
SEMIVOLATILES (ug/kg)						
1,1'-Biphenyl	NA	NA	NA	390 U	390 U	390 U
2,2'-Oxybis(1-Chloropropane)	360 U	370 U	340 U	390 U	390 U	390 U
2,4,5-Trichlorophenol	360 U	370 U	340 U	390 U	390 U	390 U
2,4,6-Trichlorophenol	360 U	370 U	340 U	390 U	390 U	390 U
2,4-Dichlorophenol	360 U	370 U	340 U	390 U	390 U	390 U
2,4-Dimethylphenol	360 U	370 U	340 U	390 U	390 U	390 U
2,4-Dinitrophenol	1800 U	1800 U	1600 U	2000 UJ	2000 UJ	2000 U
2,4-Dinitrotoluene	360 U	370 U	340 U	390 U	390 U	390 U
2,6-Dinitrotoluene	360 U	370 U	340 U	390 U	390 U	390 U
2-Chloronaphthalene	360 U	370 U	340 U	390 U	390 U	390 U
2-Chlorophenol	360 U	370 U	340 U	390 U	390 U	390 U
2-Methylnaphthalene	360 U	370 U	340 U	390 U	390 U	390 U
2-Methylphenol	360 U	370 U	340 U	390 U	390 U	390 U
2-Nitroaniline	1800 U	1800 U	1600 U	790 U	780 U	790 U
2-Nitrophenol	360 U	370 U	340 U	390 U	390 U	390 U
3,3'-Dichlorobenzidine	1800 U	1800 U	1600 U	790 U	780 U	790 U
3-Nitroaniline	1800 U	1800 U	1600 U	790 U	780 U	790 U
4,6-Dinitro-2-methylphenol	1800 U	1800 U	1600 U	790 U	780 U	790 U
4-Bromophenyl phenyl ether	360 U	370 U	340 U	390 U	390 U	390 U
4-Chloro-3-methylphenol	360 U	370 U	340 U	390 U	390 U	390 U
4-Chloroaniline	360 U	370 U	340 U	390 U	390 U	390 U
4-Chlorophenyl phenyl ether	360 U	370 U	340 U	390 U	390 U	390 U
4-Methylphenol	360 U	370 U	340 U	390 U	390 U	390 U
4-Nitroaniline	1800 U	1800 U	1600 U	790 U	780 U	790 U
4-Nitrophenol	1800 U	1800 U	1600 U	790 U	780 U	790 U
Acenaphthene	360 U	370 U	340 U	390 U	390 U	390 U
Acenaphthylene	360 U	370 U	340 U	390 U	390 U	390 U
Acetophenone	NA	NA	NA	390 U	390 U	390 U
Anthracene	360 U	370 U	22 J	390 U	390 U	390 U
Atrazine	NA	NA	NA	390 U	390 U	390 U
Benzaldehyde	NA	NA	NA	390 U	390 U	41 J
Benzo(a)anthracene	360 U	370 U	46 J	390 U	390 U	390 U
Benzo(a)pyrene	360 U	370 U	5000	390 U	390 U	390 U
Benzo(b)fluoranthene	360 U	370 U	3000	390 U	390 U	390 U
Benzo(ghi)perylene	360 U	370 U	340 U	390 U	390 U	390 U
Benzo(k)fluoranthene	360 U	370 U	4800	390 U	390 U	390 U
bis(2-Chloroethoxy)methane	360 U	370 U	340 U	390 U	390 U	390 U
bis(2-Chloroethyl) ether	360 U	370 U	340 U	390 U	390 U	390 U
bis(2-Ethylhexyl) phthalate	97 J	57 J	83 J	61 J	57 J	50 J
Butyl benzyl phthalate	360 U	370 U	56 J	390 U	390 U	390 U
Caprolactam	NA	NA	NA	390 U	390 U	390 U

APPENDIX G
SURFACE SOIL - SWMU 300
ORGANIC COMPOUNDS
SWMU CONFIRMATORY SAMPLING (CTO-0143)
AS118 - AST, MCAS MOTOR TRANSPORTATION
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU300-IS01-00	SWMU300-IS02-00	SWMU300-IS03-00	SWMU300-TW01-00	SWMU300-TW02-00	SWMU300-TW03-00
SAMPLE DATE	09-08-1997	09-08-1997	09-08-1997	03-19-2002	03-20-2002	03-19-2002
DEPTH	0' - 2'	0' - 2'	0' - 2'	0' - 1'	0' - 1'	0' - 1'
SEMIVOLATILES (ug/kg) (cont)						
Carbazole	360 U	370 U	110 J	390 U	390 U	390 U
Chrysene	360 U	370 U	71 J	390 U	390 U	390 U
Di-n-butyl phthalate	360 U	370 U	46 J	390 U	390 U	390 U
Di-n-octyl phthalate	360 U	370 U	340 U	390 U	390 U	390 U
Dibenz(a,h)anthracene	360 U	370 U	340 U	390 U	390 U	390 U
Dibenzofuran	360 U	370 U	340 U	390 U	390 U	390 U
Diethyl phthalate	360 U	370 U	340 U	390 U	390 U	390 U
Dimethyl phthalate	360 U	370 U	340 U	390 U	390 U	390 U
Fluoranthene	360 U	41 J	140 J	390 U	390 U	28 J
Fluorene	360 U	370 U	340 U	390 U	390 U	390 U
Hexachlorobenzene	360 U	370 U	340 U	390 U	390 U	390 U
Hexachlorobutadiene	360 U	370 U	340 U	390 U	390 U	390 U
Hexachlorocyclopentadiene	1800 U	1800 U	1600 U	390 U	390 U	390 U
Hexachloroethane	360 U	370 U	340 U	390 U	390 U	390 U
Indeno(1,2,3-cd)pyrene	360 U	370 U	340 U	390 U	390 U	390 U
Isophorone	360 U	370 U	340 U	390 U	390 U	390 U
N-Nitrosodi-n-propylamine	360 U	370 U	340 U	390 U	390 U	390 U
N-Nitrosodiphenylamine	360 U	370 U	340 U	390 U	390 U	390 U
Naphthalene	360 U	370 U	340 U	390 U	390 U	390 U
Nitrobenzene	360 U	370 U	340 U	390 U	390 U	390 U
Pentachlorophenol	1800 U	1800 U	1600 U	790 U	780 U	790 U
Phenanthrene	360 U	370 U	47 J	390 U	390 U	390 U
Phenol	360 U	370 U	340 U	390 U	390 U	390 U
Pyrene	360 U	42 J	110 J	390 U	390 U	390 U

APPENDIX G
SUBSURFACE SOIL - SWMU 300
ORGANIC COMPOUNDS
SWMU CONFIRMATORY SAMPLING (CTO-0143)
AS118 - AST, MCAS MOTOR TRANSPORTATION
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU300-IS01-01		SWMU300-IS02-01		SWMU300-IS03-01		SWMU300-TW01-02		SWMU300-TW02-02		SWMU300-TW03-02	
SAMPLE DATE	09-08-1997		09-08-1997		09-08-1997		03-19-2002		03-20-2002		03-19-2002	
DEPTH	2' - 4'		2' - 4'		2' - 4'		3' - 5'		3' - 5'		3' - 5'	
SEMIVOLATILES (ug/kg)												
1,1'-Biphenyl	NA		NA		NA		420	U	390	U	410	U
2,2'-Oxybis(1-Chloropropane)	370	U	390	U	400	U	420	U	390	U	410	U
2,4,5-Trichlorophenol	370	U	390	U	400	U	420	U	390	U	410	U
2,4,6-Trichlorophenol	370	U	390	U	400	U	420	U	390	U	410	U
2,4-Dichlorophenol	370	U	390	U	400	U	420	U	390	U	410	U
2,4-Dimethylphenol	370	U	390	U	400	U	420	U	390	U	410	U
2,4-Dinitrophenol	1800	U	1900	U	1900	U	2200	UJ	2000	UJ	2100	U
2,4-Dinitrotoluene	370	U	390	U	400	U	420	U	390	U	410	U
2,6-Dinitrotoluene	370	U	390	U	400	U	420	U	390	U	410	U
2-Chloronaphthalene	370	U	390	U	400	U	420	U	390	U	410	U
2-Chlorophenol	370	U	390	U	400	U	420	U	390	U	410	U
2-Methylnaphthalene	370	U	390	U	400	U	420	U	390	U	410	U
2-Methylphenol	370	U	390	U	400	U	420	U	390	U	410	U
2-Nitroaniline	1800	U	1900	U	1900	U	840	U	780	U	810	U
2-Nitrophenol	370	U	390	U	400	U	420	U	390	U	410	U
3,3'-Dichlorobenzidine	1800	U	1900	U	1900	U	840	U	780	U	810	U
3-Nitroaniline	1800	U	1900	U	1900	U	840	U	780	U	810	U
4,6-Dinitro-2-methylphenol	1800	U	1900	U	1900	U	840	U	780	U	810	U
4-Bromophenyl phenyl ether	370	U	390	U	400	U	420	U	390	U	410	U
4-Chloro-3-methylphenol	370	U	390	U	400	U	420	U	390	U	410	U
4-Chloroaniline	370	U	390	U	400	U	420	U	390	U	410	U
4-Chlorophenyl phenyl ether	370	U	390	U	400	U	420	U	390	U	410	U
4-Methylphenol	370	U	390	U	400	U	420	U	390	U	410	U
4-Nitroaniline	1800	U	1900	U	1900	U	840	U	780	U	810	U
4-Nitrophenol	1800	U	1900	U	1900	U	840	U	780	U	810	U
Acenaphthene	370	U	390	U	400	U	420	U	390	U	410	U
Acenaphthylene	370	U	390	U	400	U	420	U	390	U	410	U
Acetophenone	NA		NA		NA		420	U	390	U	410	U
Anthracene	370	U	390	U	400	U	420	U	390	U	410	U
Atrazine	NA		NA		NA		420	U	390	U	410	U
Benzaldehyde	NA		NA		NA		420	U	390	U	410	U
Benzo(a)anthracene	370	U	390	U	400	U	420	U	390	U	410	U
Benzo(a)pyrene	370	U	390	U	400	U	420	U	390	U	410	U
Benzo(b)fluoranthene	370	U	390	U	400	U	420	U	390	U	410	U
Benzo(ghi)perylene	370	U	390	U	400	U	420	U	390	U	410	U
Benzo(k)fluoranthene	370	U	390	U	400	U	420	U	390	U	410	U
bis(2-Chloroethoxy)methane	370	U	390	U	400	U	420	U	390	U	410	U
bis(2-Chloroethyl) ether	370	U	390	U	400	U	420	U	390	U	410	U
bis(2-Ethylhexyl) phthalate	1400		390	U	400	U	310	J	390	U	71	J
Butyl benzyl phthalate	54	J	390	U	400	U	420	U	390	U	410	U
Caprolactam	NA		NA		NA		420	U	390	U	410	U

APPENDIX G
SUBSURFACE SOIL - SWMU 300
ORGANIC COMPOUNDS
SWMU CONFIRMATORY SAMPLING (CTO-0143)
AS118 - AST, MCAS MOTOR TRANSPORTATION
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU300-IS01-01	SWMU300-IS02-01	SWMU300-IS03-01	SWMU300-TW01-02	SWMU300-TW02-02	SWMU300-TW03-02
SAMPLE DATE	09-08-1997	09-08-1997	09-08-1997	03-19-2002	03-20-2002	03-19-2002
DEPTH	2' - 4'	2' - 4'	2' - 4'	3' - 5'	3' - 5'	3' - 5'
SEMIVOLATILES (ug/kg) (cont)						
Carbazole	370 U	390 U	400 U	420 U	390 U	410 U
Chrysene	370 U	390 U	400 U	420 U	390 U	410 U
Di-n-butyl phthalate	370 U	390 U	400 U	420 U	390 U	410 U
Di-n-octyl phthalate	370 U	390 U	400 U	420 U	390 U	410 U
Dibenz(a,h)anthracene	370 U	390 U	400 U	420 U	390 U	410 U
Dibenzofuran	370 U	390 U	400 U	420 U	390 U	410 U
Diethyl phthalate	370 U	390 U	400 U	420 U	390 U	410 U
Dimethyl phthalate	370 U	390 U	400 U	420 U	390 U	410 U
Fluoranthene	67 J	390 U	400 U	420 U	390 U	410 U
Fluorene	370 U	390 U	400 U	420 U	390 U	410 U
Hexachlorobenzene	370 U	390 U	400 U	420 U	390 U	410 U
Hexachlorobutadiene	370 U	390 U	400 U	420 U	390 U	410 U
Hexachlorocyclopentadiene	1800 U	1900 U	1900 U	420 U	390 U	410 U
Hexachloroethane	370 U	390 U	400 U	420 U	390 U	410 U
Indeno(1,2,3-cd)pyrene	370 U	390 U	400 U	420 U	390 U	410 U
Isophorone	370 U	390 U	400 U	420 U	390 U	410 U
N-Nitrosodi-n-propylamine	370 U	390 U	400 U	420 U	390 U	410 U
N-Nitrosodiphenylamine	370 U	390 U	400 U	420 U	390 U	410 U
Naphthalene	370 U	390 U	400 U	420 U	390 U	410 U
Nitrobenzene	370 U	390 U	400 U	420 U	390 U	410 U
Pentachlorophenol	1800 U	1900 U	1900 U	840 U	780 U	810 U
Phenanthrene	370 U	390 U	400 U	420 U	390 U	410 U
Phenol	370 U	390 U	400 U	420 U	390 U	410 U
Pyrene	51 J	390 U	400 U	420 U	390 U	410 U

APPENDIX G
GROUNDWATER - SWMU 300
ORGANIC COMPOUNDS
SWMU CONFIRMATORY SAMPLING (CTO-0143)
AS118 - AST, MCAS MOTOR TRANSPORTATION
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU300-GW01TW		SWMU300-GW02TW		SWMU300-GW03TW	
SAMPLE DATE	04-02-2002		04-02-2002		04-02-2002	
SEMIVOLATILES (ug/L)						
1,1'-Biphenyl	10	U	10	U	10	U
2,2'-oxybis(1-Chloropropane)	10	UJ	10	UJ	10	UJ
2,4,5-Trichlorophenol	10	U	10	U	10	U
2,4,6-Trichlorophenol	10	U	10	U	10	U
2,4-Dichlorophenol	10	U	10	U	10	U
2,4-Dimethylphenol	10	U	10	U	10	U
2,4-Dinitrophenol	50	U	50	U	50	U
2,4-Dinitrotoluene	10	U	10	U	10	U
2,6-Dinitrotoluene	10	U	10	U	10	U
2-Chloronaphthalene	10	U	10	U	10	U
2-Chlorophenol	10	U	10	U	10	U
2-Methylnaphthalene	10	U	10	U	10	U
2-Methylphenol	10	U	10	U	10	U
2-Nitroaniline	20	UJ	20	UJ	20	UJ
2-Nitrophenol	10	U	10	U	10	U
3,3'-Dichlorobenzidine	20	U	20	U	20	U
3-Nitroaniline	20	U	20	U	20	U
4,6-dinitro-2-Methylphenol	20	U	20	U	20	U
4-Bromophenyl phenyl ether	10	U	10	U	10	U
4-Chloro-3-methylphenol	10	U	10	U	10	U
4-Chloroaniline	10	U	10	U	10	U
4-Chlorophenyl phenyl ether	10	U	10	U	10	U
4-Methylphenol	10	U	10	U	10	U
4-Nitroaniline	20	U	20	U	20	U
4-Nitrophenol	20	UJ	20	UJ	20	UJ
Acenaphthene	10	U	10	U	10	U
Acenaphthylene	10	U	10	U	10	U
Acetophenone	10	U	10	U	10	U
Anthracene	10	U	10	U	10	U
Atrazine	10	U	10	U	10	U
Benzaldehyde	10	U	10	U	10	U
Benzo(a)anthracene	10	U	10	U	10	U
Benzo(a)pyrene	10	U	10	U	10	U
Benzo(b)fluoranthene	10	U	10	UJ	10	UJ
Benzo(g,h,i)perylene	10	U	10	U	10	U
Benzo(k)fluoranthene	10	UJ	10	U	10	U
bis(2-Chloroethoxy)methane	10	U	10	U	10	U
bis(2-Chloroethyl)ether	10	U	10	U	10	U

APPENDIX G
GROUNDWATER - SWMU 300
ORGANIC COMPOUNDS
SWMU CONFIRMATORY SAMPLING (CTO-0143)
AS118 - AST, MCAS MOTOR TRANSPORTATION
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU300-GW01TW		SWMU300-GW02TW		SWMU300-GW03TW	
SAMPLE DATE	04-02-2002		04-02-2002		04-02-2002	
SEMIVOLATILES (ug/L) (cont)						
bis(2-Ethylhexyl)phthalate	10	U	10	U	10	U
Butyl benzyl phthalate	10	U	10	U	10	U
Caprolactam	10	U	10	U	10	U
Carbazole	10	U	10	U	10	U
Chrysene	10	U	10	U	10	U
di-N-Butyl phthalate	10	U	10	U	10	U
di-N-Octyl phthalate	10	U	10	U	10	U
Dibenzo(a,h)anthracene	10	U	10	U	10	U
Dibenzofuran	10	U	10	U	10	U
Diethyl phthalate	10	U	10	U	10	U
Dimethyl phthalate	10	U	10	U	10	U
Fluoranthene	10	U	10	U	10	U
Fluorene	10	U	10	U	10	U
Hexachlorobenzene	10	U	10	U	10	U
Hexachlorobutadiene	10	U	10	U	10	U
Hexachlorocyclopentadiene	10	U	10	U	10	U
Hexachloroethane	10	U	10	U	10	U
Indeno(1,2,3-cd)pyrene	10	U	10	U	10	U
Isophorone	10	U	10	U	10	U
N-Nitroso-di-N-propylamine	10	U	10	U	10	U
N-Nitrosodiphenylamine(1)	10	U	10	U	10	U
Naphthalene	10	U	2	J	10	U
Nitrobenzene	10	U	10	U	10	U
Pentachlorophenol	20	U	20	U	20	U
Phenanthrene	10	U	10	U	10	U
Phenol	10	U	10	U	10	U
Pyrene	10	U	10	U	10	U

APPENDIX G
GROUNDWATER - SWMU 300
INORGANIC COMPOUNDS
SWMU CONFIRMATORY SAMPLING (CTO-0143)
AS118 - AST, MCAS MOTOR TRANSPORTATION
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU300-GW01TW		SWMU300-GW02TW		SWMU300-GW03TW	
SAMPLE DATE	04-02-2002		04-02-2002		04-02-2002	
METALS (ug/L)						
Arsenic	2.4	U	2.4	U	2.4	U
Barium	85.8	J	124	J	23	J
Cadmium	0.3	U	0.3	U	0.3	U
Chromium	0.6	U	0.6	U	0.6	U
Lead	1.8	U	1.8	U	1.8	U
Mercury	0.1	U	0.1	U	0.1	U
Selenium	4.6	U	4.6	U	4.6	U
Silver	0.9	U	0.9	U	0.9	U

APPENDIX G
SURFACE SOIL - SWMU 302
ORGANIC COMPOUNDS
SWMU CONFIRMATORY SAMPLING (CTO-0143)
AS504 AST, HMH 362 (AS 566)
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU302-IS01-00	SWMU302-IS02-00	SWMU302-IS03-00	SWMU302-IS04-00	SWMU302-TW01-00	SWMU302-TW02-00	SWMU302-TW03-00
SAMPLE DATE	09-08-1997	09-08-1997	09-08-1997	09-08-1997	03-19-2002	03-19-2002	03-19-2002
DEPTH	0' - 2'	0' - 2'	0' - 2'	0' - 2'	0' - 1'	0' - 1'	0' - 1'
SEMIVOLATILES (ug/kg)							
1,1'-Biphenyl	NA	NA	NA	NA	360 U	380 U	370 U
2,2'-Oxybis(1-Chloropropane)	370 U	360 U	350 U	370 U	360 U	380 U	370 U
2,4,5-Trichlorophenol	370 U	360 U	350 U	370 U	360 U	380 U	370 U
2,4,6-Trichlorophenol	370 U	360 U	350 U	370 U	360 U	380 U	370 U
2,4-Dichlorophenol	370 U	360 U	350 U	370 U	360 U	380 U	370 U
2,4-Dimethylphenol	370 U	360 U	350 U	370 U	360 U	380 U	370 U
2,4-Dinitrophenol	1800 U	1800 U	1700 U	1800 U	1900 U	2000 U	1900 U
2,4-Dinitrotoluene	370 U	360 U	350 U	370 U	360 U	380 U	370 U
2,6-Dinitrotoluene	370 U	360 U	350 U	370 U	360 U	380 U	370 U
2-Chloronaphthalene	370 U	360 U	350 U	370 U	360 U	380 U	370 U
2-Chlorophenol	370 U	360 U	350 U	370 U	360 U	380 U	370 U
2-Methylnaphthalene	370 U	360 U	350 U	370 U	360 U	380 U	370 U
2-Methylphenol	370 U	360 U	350 U	370 U	360 U	380 U	370 U
2-Nitroaniline	1800 U	1800 U	1700 U	1800 U	730 U	770 U	740 U
2-Nitrophenol	370 U	360 U	350 U	370 U	360 U	380 U	370 U
3,3'-Dichlorobenzidine	1800 U	1800 U	1700 U	1800 U	730 U	770 U	740 U
3-Nitroaniline	1800 U	1800 U	1700 U	1800 U	730 U	770 U	740 U
4,6-Dinitro-2-methylphenol	1800 U	1800 U	1700 U	1800 U	730 U	770 U	740 U
4-Bromophenyl phenyl ether	370 U	360 U	350 U	370 U	360 U	380 U	370 U
4-Chloro-3-methylphenol	370 U	360 U	350 U	370 U	360 U	380 U	370 U
4-Chloroaniline	370 U	360 U	350 U	370 U	360 U	380 U	370 U
4-Chlorophenyl phenyl ether	370 U	360 U	350 U	370 U	360 U	380 U	370 U
4-Methylphenol	370 U	360 U	350 U	370 U	360 U	380 U	370 U
4-Nitroaniline	1800 U	1800 U	1700 U	1800 U	730 U	770 U	740 U
4-Nitrophenol	1800 U	1800 U	1700 U	1800 U	730 U	770 U	740 U
Acenaphthene	370 U	360 U	350 U	370 U	360 U	380 U	370 U
Acenaphthylene	370 U	360 U	350 U	370 U	360 U	380 U	370 U
Acetophenone	NA	NA	NA	NA	360 U	380 U	370 U
Anthracene	370 U	360 U	350 U	370 U	360 U	380 U	370 U
Atrazine	NA	NA	NA	NA	360 U	380 U	370 U
Benzaldehyde	NA	NA	NA	NA	360 U	380 U	370 U
Benzo(a)anthracene	370 U	360 U	240 J	170 J	360 U	380 U	370 U
Benzo(a)pyrene	370 U	360 U	420	370 U	360 U	380 U	370 U
Benzo(b)fluoranthene	51 J	360 U	570	370 U	360 UJ	380 U	370 U
Benzo(ghi)perylene	370 U	360 U	270 J	370 U	360 U	380 U	370 U
Benzo(k)fluoranthene	370 U	360 U	210 J	370 U	360 UJ	380 U	370 UJ
bis(2-Chloroethoxy)methane	370 U	360 U	350 U	370 U	360 U	380 U	370 U
bis(2-Chloroethyl) ether	370 U	360 U	350 U	370 U	360 U	380 U	370 U
bis(2-Ethylhexyl) phthalate	89 J	360 U	390	240 J	360 U	67 J	51 J
Butyl benzyl phthalate	370 U	360 U	350 U	370 U	360 U	380 U	370 U
Caprolactam	NA	NA	NA	NA	360 UJ	380 U	370 UJ

APPENDIX G
SURFACE SOIL - SWMU 302
ORGANIC COMPOUNDS
SWMU CONFIRMATORY SAMPLING (CTO-0143)
AS504 AST, HMH 362 (AS 566)
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU302-IS01-00	SWMU302-IS02-00	SWMU302-IS03-00	SWMU302-IS04-00	SWMU302-TW01-00	SWMU302-TW02-00	SWMU302-TW03-00
SAMPLE DATE	09-08-1997	09-08-1997	09-08-1997	09-08-1997	03-19-2002	03-19-2002	03-19-2002
DEPTH	0' - 2'	0' - 2'	0' - 2'	0' - 2'	0' - 1'	0' - 1'	0' - 1'
SEMIVOLATILES (ug/kg) (cont)							
Carbazole	370 U	360 U	350 U	370 U	360 U	380 U	370 U
Chrysene	370 U	360 U	360	140 J	360 U	380 U	370 U
Di-n-butyl phthalate	370 U	360 U	54 J	370 U	360 U	380 U	370 U
Di-n-octyl phthalate	370 U	360 U	350 U	370 U	59 J	380 U	370 U
Dibenz(a,h)anthracene	370 U	360 U	66 J	370 U	360 U	380 U	370 U
Dibenzofuran	370 U	360 U	350 U	370 U	360 U	380 U	370 U
Diethyl phthalate	370 U	360 U	350 U	370 U	360 U	380 U	370 U
Dimethyl phthalate	370 U	360 U	350 U	370 U	360 U	380 U	370 U
Fluoranthene	370 U	360 U	370	200 J	360 U	380 U	370 U
Fluorene	370 U	360 U	350 U	370 U	360 U	380 U	370 U
Hexachlorobenzene	370 U	360 U	350 U	370 U	360 UJ	380 U	370 U
Hexachlorobutadiene	370 U	360 U	350 U	370 U	360 U	380 U	370 U
Hexachlorocyclopentadiene	1800 U	1800 U	1700 U	1800 U	360 U	380 U	370 UJ
Hexachloroethane	370 U	360 U	350 U	370 U	360 U	380 U	370 U
Indeno(1,2,3-cd)pyrene	370 U	360 U	250 J	370 U	360 U	380 U	370 U
Isophorone	370 U	360 U	350 U	370 U	360 U	380 U	370 U
N-Nitrosodi-n-propylamine	370 U	360 U	350 U	370 U	360 U	380 U	370 U
N-Nitrosodiphenylamine	370 U	360 U	350 U	370 U	360 U	380 U	370 U
Naphthalene	370 U	360 U	350 U	370 U	360 U	380 U	370 U
Nitrobenzene	370 U	360 U	350 U	370 U	360 U	380 U	370 U
Pentachlorophenol	1800 U	1800 U	1700 U	1800 U	730 U	770 U	740 U
Phenanthrene	370 U	360 U	47 J	370 U	360 U	380 U	370 U
Phenol	370 U	360 U	350 U	370 U	360 U	380 U	370 U
Pyrene	370 U	360 U	360	340 J	360 U	380 U	370 U

APPENDIX G
SURFACE SOIL - SWMU 302
INORGANIC COMPOUNDS
SWMU CONFIRMATORY SAMPLING (CTO-0143)
AS504 AST, HMH 362 (AS 566)
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU302-IS01-00	SWMU302-IS02-00	SWMU302-IS03-00	SWMU302-IS04-00	SWMU302-TW01-00	SWMU302-TW02-00	SWMU302-TW03-00
SAMPLE DATE	09-08-1997	09-08-1997	09-08-1997	09-08-1997	03-19-2002	03-19-2002	03-19-2002
DEPTH	0' - 2'	0' - 2'	0' - 2'	0' - 2'	0' - 1'	0' - 1'	0' - 1'
METALS (mg/kg)							
Arsenic	1.1 U	1.1 U	1.1 U	1.1 U	0.26 U	0.28 U	0.96 J
Barium	22.2 U	22 U	21 U	22.6 U	9.5	8.5	20.1
Cadmium	0.56 U	2.9	0.53 U	0.64	0.04 J	0.04 U	1.9
Chromium	6	7.1	8.2	11.4	5.2	3.6	21.1
Lead	4.5	18.7	15.5	78.7	4.9 J	2.9 J	80.9 J
Mercury	0.037 U	0.036 U	0.035 U	0.037 U	0.03 J	0.02 J	0.04
Selenium	0.56 U	0.55 U	0.53 U	0.57 U	0.51 J	0.54 U	0.51 U
Silver	1.1 U	1.1 U	1.1 U	1.1 U	0.1 U	0.11 U	0.099 U

APPENDIX G
SUBSURFACE SOIL - SWMU 302
ORGANIC COMPOUNDS
SWMU CONFIRMATORY SAMPLING (CTO-0143)
AS504 AST, HMH 362 (AS 566)
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU302-IS01-01	SWMU302-IS02-01	SWMU302-IS03-01	SWMU302-IS04-01	SWMU302-TW01-05	SWMU302-TW02-04	SWMU302-TW03-05
SAMPLE DATE	09-08-1997	09-08-1997	09-08-1997	09-08-1997	03-19-2002	03-19-2002	03-19-2002
DEPTH	2' - 4'	2' - 4'	2' - 4'	2' - 4'	9' - 11'	7' - 9'	9' - 11'
SEMIVOLATILES (ug/kg)							
1,1'-Biphenyl	NA	NA	NA	NA	400 U	410 U	430 U
2,2'-Oxybis(1-Chloropropane)	380 U	380 U	390 U	390 U	400 U	410 U	430 U
2,4,5-Trichlorophenol	380 U	380 U	390 U	390 U	400 U	410 U	430 U
2,4,6-Trichlorophenol	380 U	380 U	390 U	390 U	400 U	410 U	430 U
2,4-Dichlorophenol	380 U	380 U	390 U	390 U	400 U	410 U	430 U
2,4-Dimethylphenol	380 U	380 U	390 U	390 U	400 U	410 R	430 U
2,4-Dinitrophenol	1900 U	1800 U	1900 U	1900 U	2000 U	2100 R	2200 U
2,4-Dinitrotoluene	380 U	380 U	390 U	390 U	400 U	410 U	430 U
2,6-Dinitrotoluene	380 U	380 U	390 U	390 U	400 U	410 U	430 U
2-Chloronaphthalene	380 U	380 U	390 U	390 U	400 U	410 U	430 U
2-Chlorophenol	380 U	380 U	390 U	390 U	400 U	410 U	430 U
2-Methylnaphthalene	380 U	380 U	390 U	390 U	400 U	410 U	430 U
2-Methylphenol	380 U	380 U	390 U	390 U	400 U	410 U	430 U
2-Nitroaniline	1900 U	1800 U	1900 U	1900 U	800 U	810 U	870 U
2-Nitrophenol	380 U	380 U	390 U	390 U	400 U	410 U	430 U
3,3'-Dichlorobenzidine	1900 U	1800 U	1900 U	1900 U	800 U	810 U	870 U
3-Nitroaniline	1900 U	1800 U	1900 U	1900 U	800 U	810 U	870 U
4,6-Dinitro-2-methylphenol	1900 U	1800 U	1900 U	1900 U	800 U	810 U	870 U
4-Bromophenyl phenyl ether	380 U	380 U	390 U	390 U	400 U	410 U	430 U
4-Chloro-3-methylphenol	380 U	380 U	390 U	390 U	400 U	410 U	430 U
4-Chloroaniline	380 U	380 U	390 U	390 U	400 U	410 U	430 U
4-Chlorophenyl phenyl ether	380 U	380 U	390 U	390 U	400 U	410 U	430 U
4-Methylphenol	380 U	380 U	390 U	390 U	400 U	410 U	430 U
4-Nitroaniline	1900 U	1800 U	1900 U	1900 U	800 U	810 U	870 U
4-Nitrophenol	1900 U	1800 U	1900 U	1900 U	800 U	810 U	870 U
Acenaphthene	380 U	380 U	390 U	390 U	400 U	410 U	430 U
Acenaphthylene	380 U	380 U	390 U	390 U	400 U	410 U	430 U
Acetophenone	NA	NA	NA	NA	400 U	410 U	430 U
Anthracene	380 U	380 U	390 U	390 U	400 U	410 U	430 U
Atrazine	NA	NA	NA	NA	400 U	410 U	430 U
Benzaldehyde	NA	NA	NA	NA	400 U	36 J	430 U
Benzo(a)anthracene	380 U	380 U	150 J	390 U	400 U	410 U	430 U
Benzo(a)pyrene	380 U	380 U	200 J	390 U	400 U	410 U	430 U
Benzo(b)fluoranthene	380 U	380 U	270 J	390 U	400 UJ	410 U	430 UJ
Benzo(ghi)perylene	380 U	380 U	98 J	390 U	400 U	410 U	430 U
Benzo(k)fluoranthene	380 U	380 U	78 J	390 U	400 UJ	410 U	430 UJ
bis(2-Chloroethoxy)methane	380 U	380 U	390 U	390 U	400 U	410 U	430 U
bis(2-Chloroethyl) ether	380 U	380 U	390 U	390 U	400 U	410 U	430 U
bis(2-Ethylhexyl) phthalate	380 U	380 U	420	90 J	400 U	2700	430 U
Butyl benzyl phthalate	380 U	380 U	390 U	390 U	400 U	410 U	430 U
Caprolactam	NA	NA	NA	NA	400 UJ	410 UJ	430 UJ

APPENDIX G
SUBSURFACE SOIL - SWMU 302
ORGANIC COMPOUNDS
SWMU CONFIRMATORY SAMPLING (CTO-0143)
AS504 AST, HMH 362 (AS 566)
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU302-IS01-01	SWMU302-IS02-01	SWMU302-IS03-01	SWMU302-IS04-01	SWMU302-TW01-05	SWMU302-TW02-04	SWMU302-TW03-05
SAMPLE DATE	09-08-1997	09-08-1997	09-08-1997	09-08-1997	03-19-2002	03-19-2002	03-19-2002
DEPTH	2' - 4'	2' - 4'	2' - 4'	2' - 4'	9' - 11'	7' - 9'	9' - 11'
SEMIVOLATILES (ug/kg) (cont)							
Carbazole	380 U	380 U	390 U	390 U	400 U	410 U	430 U
Chrysene	380 U	380 U	260 J	390 U	400 U	410 U	430 U
Di-n-butyl phthalate	380 U	380 U	390 U	390 U	400 U	410 U	430 U
Di-n-octyl phthalate	380 U	380 U	390 U	390 U	400 U	73 J	430 U
Dibenz(a,h)anthracene	380 U	380 U	390 U	390 U	400 U	410 U	430 U
Dibenzofuran	380 U	380 U	390 U	390 U	400 U	410 U	430 U
Diethyl phthalate	380 U	380 U	390 U	390 U	400 U	410 U	430 U
Dimethyl phthalate	380 U	380 U	390 U	390 U	400 U	410 U	430 U
Fluoranthene	380 U	380 U	180 J	390 U	400 U	410 U	430 U
Fluorene	380 U	380 U	390 U	390 U	400 U	410 U	430 U
Hexachlorobenzene	380 U	380 U	390 U	390 U	400 UJ	410 UJ	430 UJ
Hexachlorobutadiene	380 U	380 U	390 U	390 U	400 U	410 U	430 U
Hexachlorocyclopentadiene	1900 U	1800 U	1900 U	1900 U	400 U	410 U	430 U
Hexachloroethane	380 U	380 U	390 U	390 U	400 U	410 U	430 U
Indeno(1,2,3-cd)pyrene	380 U	380 U	100 J	390 U	400 U	410 U	430 U
Isophorone	380 U	380 U	390 U	390 U	400 U	410 U	430 U
N-Nitrosodi-n-propylamine	380 U	380 U	390 U	390 U	400 U	410 U	430 U
N-Nitrosodiphenylamine	380 U	380 U	390 U	390 U	400 U	410 U	430 U
Naphthalene	380 U	380 U	390 U	390 U	400 U	410 U	430 U
Nitrobenzene	380 U	380 U	390 U	390 U	400 U	410 U	430 U
Pentachlorophenol	1900 U	1800 U	1900 U	1900 U	800 U	810 U	870 U
Phenanthrene	380 U	380 U	84 J	390 U	400 U	410 U	430 U
Phenol	380 U	380 U	390 U	390 U	400 U	410 U	430 U
Pyrene	380 U	380 U	330 J	390 U	400 U	410 U	430 U

APPENDIX G
SUBSURFACE SOIL - SWMU 302
INORGANIC COMPOUNDS
SWMU CONFIRMATORY SAMPLING (CTO-0143)
AS504 AST, HMH 362 (AS 566)
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU302-IS01-01	SWMU302-IS02-01	SWMU302-IS03-01	SWMU302-IS04-01	SWMU302-TW01-05	SWMU302-TW02-04	SWMU302-TW03-05
SAMPLE DATE	09-08-1997	09-08-1997	09-08-1997	09-08-1997	03-19-2002	03-19-2002	03-19-2002
DEPTH	2' - 4'	2' - 4'	2' - 4'	2' - 4'	9' - 11'	7' - 9'	9' - 11'
METALS (mg/kg)							
Arsenic	1.2 U	1.2 U	1.2 U	1.2 U	3.3	0.82 J	1 J
Barium	23.3 U	23.1 U	23.9 U	23.3 U	12.9	15.8	16.6
Cadmium	0.58 U	0.58 U	0.6 U	0.58 U	0.04 J	0.05 J	0.05 J
Chromium	3.7	7	7.6	4.5	7.7	16.5	15.4
Lead	2.8	4.6	7.9	4.3	2.7 J	9.7 J	9.4 J
Mercury	0.038 U	0.038 U	0.039 U	0.039 U	0.03 J	0.5	0.03 J
Selenium	0.58 U	0.58 U	0.6 U	0.58 U	0.57 J	0.58 J	0.61 U
Silver	1.2 U	1.2 U	1.2 U	1.2 U	0.11 U	0.11 U	0.12 U

APPENDIX G
GROUNDWATER - SWMU 302
ORGANIC COMPOUNDS
SWMU CONFIRMATORY SAMPLING (CTO-0143)
AS504 AST, HMH 362 (AS 566)
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU302-GW01TW		SWMU302-GW02TW		SWMU302-GW03TW	
SAMPLE DATE	04-02-2002		04-02-2002		04-02-2002	
SEMIVOLATILES (ug/L)						
1,1'-Biphenyl	10	U	10	U	10	U
2,2'-oxybis(1-Chloropropane)	10	UJ	10	UJ	10	UJ
2,4,5-Trichlorophenol	10	U	10	U	10	U
2,4,6-Trichlorophenol	10	U	10	U	10	U
2,4-Dichlorophenol	10	U	10	U	10	U
2,4-Dimethylphenol	10	U	10	U	10	U
2,4-Dinitrophenol	50	U	51	U	50	U
2,4-Dinitrotoluene	10	U	10	U	10	U
2,6-Dinitrotoluene	10	U	10	U	10	U
2-Chloronaphthalene	10	U	10	U	10	U
2-Chlorophenol	10	U	10	U	10	U
2-Methylnaphthalene	10	U	10	U	10	U
2-Methylphenol	10	U	10	U	10	U
2-Nitroaniline	20	UJ	21	UJ	20	UJ
2-Nitrophenol	10	U	10	U	10	U
3,3'-Dichlorobenzidine	20	U	21	U	20	U
3-Nitroaniline	20	U	21	U	20	U
4,6-dinitro-2-Methylphenol	20	U	21	U	20	U
4-Bromophenyl phenyl ether	10	U	10	U	10	U
4-Chloro-3-methylphenol	10	U	10	U	10	U
4-Chloroaniline	10	U	10	U	10	U
4-Chlorophenyl phenyl ether	10	U	10	U	10	U
4-Methylphenol	10	U	10	U	10	U
4-Nitroaniline	20	U	21	U	20	U
4-Nitrophenol	20	UJ	21	UJ	20	UJ
Acenaphthene	10	U	0.7	J	0.8	J
Acenaphthylene	10	U	10	U	10	U
Acetophenone	10	U	10	U	10	U
Anthracene	10	U	10	U	10	U
Atrazine	10	U	10	U	10	U
Benzaldehyde	10	U	10	U	10	U
Benzo(a)anthracene	10	U	10	U	10	U
Benzo(a)pyrene	10	U	10	U	10	U
Benzo(b)fluoranthene	10	U	10	U	10	UJ
Benzo(g,h,i)perylene	10	U	10	U	10	U
Benzo(k)fluoranthene	10	U	10	U	10	U
bis(2-Chloroethoxy)methane	10	U	10	U	10	U
bis(2-Chloroethyl)ether	10	U	10	U	10	U

APPENDIX G
GROUNDWATER - SWMU 302
ORGANIC COMPOUNDS
SWMU CONFIRMATORY SAMPLING (CTO-0143)
AS504 AST, HMH 362 (AS 566)
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU302-GW01TW		SWMU302-GW02TW		SWMU302-GW03TW	
SAMPLE DATE	04-02-2002		04-02-2002		04-02-2002	
SEMIVOLATILES (ug/L) (cont)						
bis(2-Ethylhexyl)phthalate	10	U	1	J	10	U
Butyl benzyl phthalate	10	U	10	U	10	U
Caprolactam	10	U	10	U	10	U
Carbazole	10	U	10	U	10	U
Chrysene	10	U	10	U	10	U
di-N-Butyl phthalate	10	U	10	U	10	U
di-N-Octyl phthalate	10	U	10	U	10	U
Dibenzo(a,h)anthracene	10	U	10	U	10	U
Dibenzofuran	10	U	10	U	10	U
Diethyl phthalate	10	U	10	U	10	U
Dimethyl phthalate	10	U	10	U	10	U
Fluoranthene	10	U	10	U	10	U
Fluorene	10	U	10	U	10	U
Hexachlorobenzene	10	U	10	U	10	U
Hexachlorobutadiene	10	U	10	U	10	U
Hexachlorocyclopentadiene	10	UJ	10	UJ	10	U
Hexachloroethane	10	U	10	U	10	U
Indeno(1,2,3-cd)pyrene	10	U	10	U	10	U
Isophorone	10	U	10	U	10	U
N-Nitroso-di-N-propylamine	10	U	10	U	10	U
N-Nitrosodiphenylamine(1)	10	U	10	U	10	U
Naphthalene	10	U	1	J	1	J
Nitrobenzene	10	U	10	U	10	U
Pentachlorophenol	20	U	21	U	20	U
Phenanthrene	10	U	10	U	10	U
Phenol	10	U	10	U	10	U
Pyrene	10	U	10	U	10	U

APPENDIX G
GROUNDWATER - SWMU 302
INORGANIC COMPOUNDS
SWMU CONFIRMATORY SAMPLING (CTO-0143)
AS504 AST, HMH 362 (AS 566)
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU302-GW01TW		SWMU302-GW02TW		SWMU302-GW03TW	
SAMPLE DATE	04-02-2002		04-02-2002		04-02-2002	
METALS (ug/L)						
Arsenic	12.7	J	7	J	3.6	J
Barium	527	J	287	J	189	J
Cadmium	0.45	U	0.3	U	0.3	U
Chromium	42.4	J	25.1	J	16.1	J
Lead	10.6	J	6.9	J	4.3	J
Mercury	0.1	U	0.1	U	0.1	U
Selenium	5	J	4.6	U	4.6	U
Silver	0.9	U	0.9	U	0.9	U

APPENDIX G
SURFACE SOIL - SWMU 303
ORGANIC COMPOUNDS
SWMU CONFIRMATORY SAMPLING (CTO-0143)
AS515 - AST-E, HMM 266 HMM 261
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU303-IS01-00	SWMU303-IS02-00	SWMU303-IS03-00	SWMU303-IS04-00	SWMU303-IS04-00	SWMU303-SB01-00	SWMU303-SB02-00	SWMU303-TW01-00	SWMU303-TW02-00	SWMU303-TW03-00
SAMPLE DATE	09-09-1997	09-09-1997	09-09-1997	09-09-1997	03-19-2002	03-19-2002	03-19-2002	03-20-2002	03-20-2002	03-20-2002
DEPTH	0' - 2'	0' - 2'	0' - 2'	0' - 2'	0' - 1'	0' - 1'	0' - 1'	0' - 1'	0' - 1'	0' - 1'
VOLATILES (ug/kg)										
1,1,1-Trichloroethane	28 U	5.3 U	27 U	730 U	6 U	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	28 U	5.3 U	27 U	730 U	6 U	NA	NA	NA	NA	NA
1,1,2-Trichloro-1,2,2-trifluoroethane	NA	NA	NA	NA	6 U	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	28 U	5.3 U	27 U	730 U	6 U	NA	NA	NA	NA	NA
1,1-Dichloroethane	28 U	5.3 U	27 U	730 U	6 U	NA	NA	NA	NA	NA
1,1-Dichloroethene	28 U	5.3 U	27 U	730 U	6 U	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	NA	NA	NA	NA	6 U	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	NA	NA	NA	NA	6 U	NA	NA	NA	NA	NA
1,2-Dibromoethane	NA	NA	NA	NA	6 U	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	1.1 U	1.1 U	1.1 U	1.2 U	6 U	NA	NA	NA	NA	NA
1,2-Dichloroethane	28 U	5.3 U	27 U	730 U	6 U	NA	NA	NA	NA	NA
1,2-Dichloropropane	28 U	5.3 U	27 U	730 U	6 U	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	1.1 U	1.1 U	1.1 U	1.2 U	6 U	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	1.6	1.8	1.1 U	3.4	6 U	NA	NA	NA	NA	NA
2-Butanone	110 U	21 U	110 U	2900 U	7 J	NA	NA	NA	NA	NA
2-Hexanone	110 U	21 U	110 U	2900 U	14 U	NA	NA	NA	NA	NA
4-Methyl-2-pentanone	110 U	21 U	110 U	2900 U	14 U	NA	NA	NA	NA	NA
Acetone	1900	30	510	14000	27 J	NA	NA	NA	NA	NA
Benzene	28 U	5.3 U	27 U	730 U	6 U	NA	NA	NA	NA	NA
Bromodichloromethane	28 U	5.3 U	27 U	730 U	6 U	NA	NA	NA	NA	NA
Bromoform	28 U	5.3 U	27 U	730 U	6 U	NA	NA	NA	NA	NA
Bromomethane	56 U	11 U	54 U	1500 U	6 U	NA	NA	NA	NA	NA
Carbon disulfide	28 U	5.3 U	27 U	730 U	2 J	NA	NA	NA	NA	NA
Carbon tetrachloride	28 U	5.3 U	27 U	730 U	6 U	NA	NA	NA	NA	NA
Chlorobenzene	28 U	5.3 U	27 U	730 U	6 U	NA	NA	NA	NA	NA
Chloroethane	56 U	11 U	54 U	1500 U	44 J	NA	NA	NA	NA	NA
Chloroform	28 U	5.3 U	27 U	730 U	6 U	NA	NA	NA	NA	NA
Chloromethane	56 U	11 U	54 U	1500 U	6 U	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	NA	NA	NA	NA	6 U	NA	NA	NA	NA	NA
cis-1,3-Dichloropropene	28 U	5.3 U	27 U	730 U	6 U	NA	NA	NA	NA	NA
Cyclohexane	NA	NA	NA	NA	6 U	NA	NA	NA	NA	NA
Dibromochloromethane	28 U	5.3 U	27 U	730 U	6 U	NA	NA	NA	NA	NA
Dichlorodifluoromethane	NA	NA	NA	NA	6 UJ	NA	NA	NA	NA	NA
Ethylbenzene	28 U	5.3 U	27 U	730 U	6 U	NA	NA	NA	NA	NA
Isopropylbenzene	NA	NA	NA	NA	6 U	NA	NA	NA	NA	NA
Methyl acetate	NA	NA	NA	NA	6 U	NA	NA	NA	NA	NA
Methyl-t-Butyl Ether	NA	NA	NA	NA	6 U	NA	NA	NA	NA	NA
Methylcyclohexane	NA	NA	NA	NA	6 U	NA	NA	NA	NA	NA
Methylene chloride	8	5.3 U	7.1	730 U	2 J	NA	NA	NA	NA	NA
Styrene	28 U	5.3 U	27 U	730 U	6 U	NA	NA	NA	NA	NA
Tetrachloroethene	28 U	5.3 U	27 U	730 U	6 U	NA	NA	NA	NA	NA
Toluene	28 U	5.3 U	27 U	730 U	6 U	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	NA	NA	NA	NA	6 U	NA	NA	NA	NA	NA
trans-1,3-Dichloropropene	28 U	5.3 U	27 U	730 U	6 U	NA	NA	NA	NA	NA
Trichloroethene	28 U	5.3 U	27 U	730 U	6 U	NA	NA	NA	NA	NA
Trichlorofluoromethane	NA	NA	NA	NA	6 U	NA	NA	NA	NA	NA
Vinyl chloride	56 U	11 U	54 U	1500 U	6 U	NA	NA	NA	NA	NA
Xylenes (total)	28 U	5.3 U	27 U	730 U	17 UJ	NA	NA	NA	NA	NA

APPENDIX G
SURFACE SOIL - SWMU 303
ORGANIC COMPOUNDS
SWMU CONFIRMATORY SAMPLING (CTO-0143)
AS515 - AST-E, HMM 266 HMM 261
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU303-IS01-00	SWMU303-IS02-00	SWMU303-IS03-00	SWMU303-IS04-00	SWMU303-IS04-00	SWMU303-SB01-00	SWMU303-SB02-00	SWMU303-TW01-00	SWMU303-TW02-00	SWMU303-TW03-00
SAMPLE DATE	09-09-1997	09-09-1997	09-09-1997	09-09-1997	03-19-2002	03-19-2002	03-19-2002	03-20-2002	03-20-2002	03-20-2002
DEPTH	0' - 2'	0' - 2'	0' - 2'	0' - 2'	0' - 1'	0' - 1'	0' - 1'	0' - 1'	0' - 1'	0' - 1'
SEMIVOLATILES (ug/kg)										
1,1'-Biphenyl	NA	NA	NA	NA	NA	380 U	360 U	370 U	390 U	400 U
2,2'-Oxybis(1-Chloropropane)	370 U	350 U	360 U	390 U	NA	380 U	360 U	370 U	390 U	400 U
2,4,5-Trichlorophenol	370 U	350 U	360 U	390 U	NA	380 U	360 U	370 U	390 U	400 U
2,4,6-Trichlorophenol	370 U	350 U	360 U	390 U	NA	380 U	360 U	370 U	390 U	400 U
2,4-Dichlorophenol	370 U	350 U	360 U	390 U	NA	380 U	360 U	370 U	390 U	400 U
2,4-Dimethylphenol	370 U	350 U	360 U	390 U	NA	380 U	360 U	370 U	390 U	400 U
2,4-Dinitrophenol	1800 U	1700 U	1700 U	1900 U	NA	2000 U	1900 U	1900 U	2000 UJ	2000 U
2,4-Dinitrotoluene	370 U	350 U	360 U	390 U	NA	380 U	360 U	370 U	390 U	400 U
2,6-Dinitrotoluene	370 U	350 U	360 U	390 U	NA	380 U	360 U	370 U	390 U	400 U
2-Chloronaphthalene	370 U	350 U	360 U	390 U	NA	380 U	360 U	370 U	390 U	400 U
2-Chlorophenol	370 U	350 U	360 U	390 U	NA	380 U	360 U	370 U	390 U	400 U
2-Methylnaphthalene	370 U	350 U	360 U	390 U	NA	380 U	360 U	370 U	390 U	400 U
2-Methylphenol	370 U	350 U	360 U	390 U	NA	380 U	360 U	370 U	390 U	400 U
2-Nitroaniline	1800 U	1700 U	1700 U	1900 U	NA	760 U	730 U	740 U	780 U	800 U
2-Nitrophenol	370 U	350 U	360 U	390 U	NA	380 U	360 U	370 U	390 U	400 U
3,3'-Dichlorobenzidine	1800 U	1700 U	1700 U	1900 U	NA	760 U	730 U	740 U	780 U	800 U
3-Nitroaniline	1800 U	1700 U	1700 U	1900 U	NA	760 U	730 U	740 U	780 U	800 U
4,6-Dinitro-2-methylphenol	1800 U	1700 U	1700 U	1900 U	NA	760 U	730 U	740 U	780 U	800 U
4-Bromophenyl phenyl ether	370 U	350 U	360 U	390 U	NA	380 U	360 U	370 UJ	390 U	400 UJ
4-Chloro-3-methylphenol	370 U	350 U	360 U	390 U	NA	380 U	360 U	370 U	390 U	400 U
4-Chloroaniline	370 U	350 U	360 U	390 U	NA	380 U	360 U	370 U	390 U	400 U
4-Chlorophenyl phenyl ether	370 U	350 U	360 U	390 U	NA	380 U	360 U	370 U	390 U	400 U
4-Methylphenol	370 U	350 U	360 U	390 U	NA	380 U	360 U	370 U	390 U	400 U
4-Nitroaniline	1800 U	1700 U	1700 U	1900 U	NA	760 U	730 U	740 U	780 U	800 U
4-Nitrophenol	1800 U	1700 U	1700 U	1900 U	NA	760 U	730 U	740 U	780 U	800 U
Acenaphthene	370 U	350 U	360 U	390 U	NA	380 U	360 U	370 U	390 U	400 U
Acenaphthylene	370 U	350 U	360 U	390 U	NA	380 U	360 U	370 U	390 U	400 U
Acetophenone	NA	NA	NA	NA	NA	380 U	360 U	370 U	390 U	400 U
Anthracene	370 U	350 U	360 U	390 U	NA	380 U	360 U	370 U	390 U	400 U
Atrazine	NA	NA	NA	NA	NA	380 U	360 U	370 U	390 U	400 U
Benzaldehyde	NA	NA	NA	NA	NA	380 U	360 U	370 U	390 U	400 U
Benzo(a)anthracene	370 U	52 J	360 U	1000	NA	380 U	360 U	370 U	390 U	400 U
Benzo(a)pyrene	370 U	59 J	59 J	650	NA	380 U	360 U	370 U	390 U	400 U
Benzo(b)fluoranthene	370 U	98 J	71 J	1100	NA	380 U	360 U	34 J	390 U	400 U
Benzo(ghi)perylene	370 U	350 U	360 U	200 J	NA	380 U	360 U	370 U	390 U	400 U
Benzo(k)fluoranthene	370 U	48 J	37 J	350 J	NA	380 U	360 U	370 U	390 U	400 U
bis(2-Chloroethoxy)methane	370 U	350 U	360 U	390 U	NA	380 U	360 U	370 U	390 U	400 U
bis(2-Chloroethyl) ether	370 U	350 U	360 U	390 U	NA	380 U	360 U	370 U	390 U	400 U
bis(2-Ethylhexyl) phthalate	130 J	75 J	55 J	290 J	NA	110 J	46 J	96 J	390 U	400 U
Butyl benzyl phthalate	370 U	350 U	360 U	86 J	NA	380 U	360 U	370 U	390 U	400 U
Caprolactam	NA	NA	NA	NA	NA	380 UJ	360 U	370 U	390 U	400 U
Carbazole	370 U	350 U	360 U	390 U	NA	380 U	360 U	370 U	390 U	400 U
Chrysene	370 U	82 J	360 U	830	NA	380 U	360 U	370 U	390 U	400 U
Di-n-butyl phthalate	370 U	350 U	360 U	1800	NA	380 U	360 U	31 J	390 U	400 U
Di-n-octyl phthalate	370 U	350 U	360 U	390 U	NA	380 U	30 J	370 U	390 U	400 U
Dibenz(a,h)anthracene	370 U	350 U	360 U	42 J	NA	380 U	360 U	370 U	390 U	400 U
Dibenzofuran	370 U	350 U	360 U	390 U	NA	380 U	360 U	370 U	390 U	400 U
Diethyl phthalate	370 U	350 U	360 U	390 U	NA	380 U	360 U	370 U	390 U	400 U
Dimethyl phthalate	370 U	350 U	360 U	390 U	NA	380 U	360 U	370 U	390 U	400 U
Fluoranthene	370 U	350 U	360 U	1400	NA	380 U	360 U	21 J	390 U	400 U
Fluorene	370 U	350 U	360 U	390 U	NA	380 U	360 U	370 U	390 U	400 U
Hexachlorobenzene	370 U	350 U	360 U	390 U	NA	380 U	360 U	370 UJ	390 U	400 UJ
Hexachlorobutadiene	370 U	350 U	360 U	390 U	NA	380 U	360 U	370 U	390 U	400 U
Hexachlorocyclopentadiene	1800 U	1700 U	1700 U	1900 U	NA	380 UJ	360 U	370 U	390 UJ	400 U
Hexachloroethane	370 U	350 U	360 U	390 U	NA	380 U	360 U	370 U	390 U	400 U
Indeno(1,2,3-cd)pyrene	370 U	350 U	360 U	250 J	NA	380 U	360 U	36 J	390 U	400 U
Isophorone	370 U	350 U	360 U	390 U	NA	380 U	360 U	370 U	390 U	400 U
N-Nitrosodi-n-propylamine	370 U	350 U	360 U	390 U	NA	380 U	360 U	370 U	390 U	400 U
N-Nitrosodiphenylamine	370 U	350 U	360 U	390 U	NA	380 U	360 U	370 U	390 U	400 U
Naphthalene	370 U	350 U	360 U	390 U	NA	380 U	360 U	370 U	390 U	120 J
Nitrobenzene	370 U	350 U	360 U	390 U	NA	380 U	360 U	370 U	390 U	400 U
Pentachlorophenol	1800 U	1700 U	1700 U	1900 U	NA	760 U	730 U	740 U	780 U	800 U
Phenanthrene	370 U	350 U	360 U	390 U	NA	380 U	360 U	370 U	390 U	400 U
Phenol	370 U	350 U	360 U	160 J	NA	380 U	360 U	370 U	390 U	400 U
Pyrene	370 U	88 J	360 U	1300	NA	380 U	360 U	370 U	390 U	400 U

APPENDIX G
SURFACE SOIL - SWMU 303
INORGANIC COMPOUNDS
SWMU CONFIRMATORY SAMPLING (CTO-0143)
AS515 - AST-E, HMM 266 HMM 261
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU303-IS01-00	SWMU303-IS02-00	SWMU303-IS03-00	SWMU303-IS04-00	SWMU303-IS04-00	SWMU303-SB01-00	SWMU303-SB02-00	SWMU303-TW01-00	SWMU303-TW02-00	SWMU303-TW03-00
SAMPLE DATE	09-09-1997	09-09-1997	09-09-1997	09-09-1997	03-19-2002	03-19-2002	03-19-2002	03-20-2002	03-20-2002	03-20-2002
DEPTH	0' - 2'	0' - 2'	0' - 2'	0' - 2'	0' - 1'	0' - 1'	0' - 1'	0' - 1'	0' - 1'	0' - 1'
METALS (mg/kg)										
Arsenic	1.1 U	1.9	1.3	1.2 U	NA	0.48 J	1.1	6.1	1.1 J	0.28 U
Barium	22.6 U	40.3	107	50.9	NA	13.4	47.5	22	15	9.9
Cadmium	0.69	0.53 U	1.1	0.59 U	NA	0.087 J	0.081 J	0.23 U	0.072 U	0.035 U
Chromium	10.3	10.1	16.9	7.9	NA	7.2	6.9	14.4 J	8 J	4.5 J
Lead	12.3	10.1	13.6	16.3	NA	6.3	3.4	7.4	7.1	3.2
Mercury	0.037 U	0.035 U	0.036 U	0.039 U	NA	0.044	0.018 J	0.025 U	0.044 U	0.02 U
Selenium	0.56 U	0.53 U	0.54 U	0.59 U	NA	0.58	0.5 U	0.82	0.76	0.54 U
Silver	1.1 U	1.1 U	1.1 U	1.2 U	NA	0.1 U	0.098 U	0.1 U	0.11 U	0.11 U

APPENDIX G
SUBSURFACE SOIL - SWMU 303
ORGANIC COMPOUNDS
SWMU CONFIRMATORY SAMPLING (CTO-0143)
AS515 - AST-E, HMM 266 HMM 261
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU303-IS01-03	SWMU303-IS02-03	SWMU303-IS03-03	SWMU303-IS04-03	SWMU303-SB01-04	SWMU303-SB02-04	SWMU303-TW01-04	SWMU303-TW02-04	SWMU303-TW03-03
SAMPLE DATE	09-09-1997	09-09-1997	09-09-1997	09-09-1997	03-19-2002	03-19-2002	03-20-2002	03-20-2002	03-20-2002
DEPTH	6' - 8'	6' - 8'	6' - 8'	6' - 8'	7' - 9'	7' - 9'	7' - 9'	7' - 9'	5' - 7'
SEMIVOLATILES (ug/kg)									
1,1'-Biphenyl	NA	NA	NA	NA	430 U	400 U	380 U	410 U	430 U
2,2'-Oxybis(1-Chloropropane)	350 U	390 U	420 U	410 U	430 U	400 U	380 U	410 U	430 U
2,4,5-Trichlorophenol	350 U	390 U	420 U	410 U	430 U	400 U	380 U	410 U	430 U
2,4,6-Trichlorophenol	350 U	390 U	420 U	410 U	430 U	400 U	380 U	410 U	430 U
2,4-Dichlorophenol	350 U	390 U	420 U	410 U	430 U	400 U	380 U	410 U	430 U
2,4-Dimethylphenol	350 U	390 U	420 U	410 U	430 U	400 U	380 U	410 U	430 U
2,4-Dinitrophenol	1700 U	1900 U	2000 U	2000 U	2200 U	2000 U	2000 U	2100 U	2200 U
2,4-Dinitrotoluene	350 U	390 U	420 U	410 U	430 U	400 U	380 U	410 U	430 U
2,6-Dinitrotoluene	350 U	390 U	420 U	410 U	430 U	400 U	380 U	410 U	430 U
2-Chloronaphthalene	350 U	390 U	420 U	410 U	430 U	400 U	380 U	410 U	430 U
2-Chlorophenol	350 U	390 U	420 U	410 U	430 U	400 U	380 U	410 U	430 U
2-Methylnaphthalene	350 U	390 U	420 U	410 U	430 U	400 U	380 U	410 U	430 U
2-Methylphenol	350 U	390 U	420 U	410 U	430 U	400 U	380 U	410 U	430 U
2-Nitroaniline	1700 U	1900 U	2000 U	2000 U	860 U	800 U	760 U	830 U	860 U
2-Nitrophenol	350 U	390 U	420 U	410 U	430 U	400 U	380 U	410 U	430 U
3,3'-Dichlorobenzidine	1700 U	1900 U	2000 U	2000 U	860 U	800 U	760 U	830 U	860 U
3-Nitroaniline	1700 U	1900 U	2000 U	2000 U	860 U	800 U	760 U	830 U	860 U
4,6-Dinitro-2-methylphenol	1700 U	1900 U	2000 U	2000 U	860 U	800 U	760 U	830 U	860 U
4-Bromophenyl phenyl ether	350 U	390 U	420 U	410 U	430 U	400 U	380 UJ	410 UJ	430 UJ
4-Chloro-3-methylphenol	350 U	390 U	420 U	410 U	430 U	400 U	380 U	410 U	430 U
4-Chloroaniline	350 U	390 U	420 U	410 U	430 U	400 U	380 U	410 U	430 U
4-Chlorophenyl phenyl ether	350 U	390 U	420 U	410 U	430 U	400 U	380 U	410 U	430 U
4-Methylphenol	350 U	390 U	420 U	410 U	430 U	400 U	380 U	410 U	430 U
4-Nitroaniline	1700 U	1900 U	2000 U	2000 U	860 U	800 U	760 U	830 U	860 U
4-Nitrophenol	1700 U	1900 U	2000 U	2000 U	860 U	800 U	760 U	830 U	860 U
Acenaphthene	350 U	390 U	420 U	410 U	430 U	400 U	380 U	410 U	430 U
Acenaphthylene	350 U	390 U	420 U	410 U	430 U	400 U	380 U	410 U	430 U
Acetophenone	NA	NA	NA	NA	430 U	400 U	380 U	410 U	430 U
Anthracene	350 U	390 U	420 U	410 U	430 U	400 U	380 U	410 U	430 U
Atrazine	NA	NA	NA	NA	430 U	400 U	380 U	410 U	430 U
Benzaldehyde	NA	NA	NA	NA	430 U	400 U	380 U	410 U	430 U
Benzo(a)anthracene	350 U	390 U	420 U	410 U	430 U	400 U	150 J	410 U	39 J
Benzo(a)pyrene	350 U	390 U	420 U	410 U	430 U	400 U	250 J	410 U	85 J
Benzo(b)fluoranthene	350 U	390 U	420 U	410 U	430 U	400 U	330 J	410 U	92 J
Benzo(ghi)perylene	350 U	390 U	420 U	410 U	430 U	400 U	180 J	410 U	68 J
Benzo(k)fluoranthene	350 U	390 U	420 U	410 U	430 U	400 U	270 J	410 U	110 J
bis(2-Chloroethoxy)methane	350 U	390 U	420 U	410 U	430 U	400 U	380 U	410 U	430 U
bis(2-Chloroethyl) ether	350 U	390 U	420 U	410 U	430 U	400 U	380 U	410 U	430 U
bis(2-Ethylhexyl) phthalate	340 J	110 J	100 J	82 J	90 J	180 J	72 J	410 U	240 J
Butyl benzyl phthalate	350 U	390 U	420 U	410 U	430 U	400 U	380 U	410 U	430 U
Caprolactam	NA	NA	NA	NA	430 UJ	400 U	380 U	410 U	430 U

APPENDIX G
SUBSURFACE SOIL - SWMU 303
ORGANIC COMPOUNDS
SWMU CONFIRMATORY SAMPLING (CTO-0143)
AS515 - AST-E, HMM 266 HMM 261
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU303-IS01-03	SWMU303-IS02-03	SWMU303-IS03-03	SWMU303-IS04-03	SWMU303-SB01-04	SWMU303-SB02-04	SWMU303-TW01-04	SWMU303-TW02-04	SWMU303-TW03-03
SAMPLE DATE	09-09-1997	09-09-1997	09-09-1997	09-09-1997	03-19-2002	03-19-2002	03-20-2002	03-20-2002	03-20-2002
DEPTH	6' - 8'	6' - 8'	6' - 8'	6' - 8'	7' - 9'	7' - 9'	7' - 9'	7' - 9'	5' - 7'
SEMIVOLATILES (ug/kg) (cont)									
Carbazole	350 U	390 U	420 U	410 U	430 U	400 U	380 U	410 U	430 U
Chrysene	350 U	390 U	420 U	410 U	430 U	400 U	200 J	410 U	72 J
Di-n-butyl phthalate	350 U	390 U	420 U	410 U	430 U	400 U	380 U	410 U	430 U
Di-n-octyl phthalate	350 U	390 U	420 U	410 U	430 U	400 U	380 U	410 U	280 J
Dibenz(a,h)anthracene	350 U	390 U	420 U	410 U	430 U	400 U	84 J	410 U	430 U
Dibenzofuran	350 U	390 U	420 U	410 U	430 U	400 U	380 U	410 U	430 U
Diethyl phthalate	350 U	390 U	420 U	410 U	430 U	400 U	380 U	410 U	430 U
Dimethyl phthalate	350 U	390 U	420 U	410 U	430 U	400 U	380 U	410 U	430 U
Fluoranthene	350 U	390 U	420 U	410 U	430 U	400 U	240 J	410 U	39 J
Fluorene	350 U	390 U	420 U	410 U	430 U	400 U	380 U	410 U	430 U
Hexachlorobenzene	350 U	390 U	420 U	410 U	430 U	400 U	380 UJ	410 UJ	430 UJ
Hexachlorobutadiene	350 U	390 U	420 U	410 U	430 U	400 U	380 U	410 U	430 U
Hexachlorocyclopentadiene	1700 U	1900 U	2000 U	2000 U	430 UJ	400 U	380 U	410 U	430 U
Hexachloroethane	350 U	390 U	420 U	410 U	430 U	400 U	380 U	410 U	430 U
Indeno(1,2,3-cd)pyrene	350 U	390 U	420 U	410 U	430 U	400 U	360 J	410 U	130 J
Isophorone	350 U	390 U	420 U	410 U	430 U	400 U	380 U	410 U	430 U
N-Nitrosodi-n-propylamine	350 U	390 U	420 U	410 U	430 U	400 U	380 U	410 U	430 U
N-Nitrosodiphenylamine	350 U	390 U	420 U	410 U	430 U	400 U	380 U	410 U	430 U
Naphthalene	350 U	390 U	420 U	410 U	430 U	400 U	380 U	410 U	430 U
Nitrobenzene	350 U	390 U	420 U	410 U	430 U	400 U	380 U	410 U	430 U
Pentachlorophenol	1700 U	1900 U	2000 U	2000 U	860 U	800 U	760 U	830 U	860 U
Phenanthrene	350 U	390 U	420 U	410 U	430 U	400 U	380 U	410 U	430 U
Phenol	350 U	390 U	420 U	410 U	430 U	400 U	380 U	410 U	430 U
Pyrene	350 U	390 U	420 U	410 U	430 U	400 U	220 J	410 U	55 J

APPENDIX G
SUBSURFACE SOIL - SWMU 303
INORGANIC COMPOUNDS
SWMU CONFIRMATORY SAMPLING (CTO-0143)
AS515 - AST-E, HMM 266 HMM 261
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU303-IS01-03	SWMU303-IS02-03	SWMU303-IS03-03	SWMU303-IS04-03	SWMU303-SB01-04	SWMU303-SB02-04	SWMU303-TW01-04	SWMU303-TW02-04	SWMU303-TW03-03
SAMPLE DATE	09-09-1997	09-09-1997	09-09-1997	09-09-1997	03-19-2002	03-19-2002	03-20-2002	03-20-2002	03-20-2002
DEPTH	6' - 8'	6' - 8'	6' - 8'	6' - 8'	7' - 9'	7' - 9'	7' - 9'	7' - 9'	5' - 7'
METALS (mg/kg)									
Arsenic	5.9	1.5	3.7	3.3	3 J	2.1	1.3	3.6	0.3 U
Barium	21.3 U	47.4	25.5 U	24.8 U	12.9	49.1	41.2	17	11.3
Cadmium	0.53 U	0.59 U	1.5	0.62 U	0.12 J	0.11 J	1	0.037 U	0.037 U
Chromium	13.4	6.7	33.9	15.8	14.2	10.1	10.3 J	7.2 J	7.5 J
Lead	6.9	3.3	21.2	7.8	9.5	4	13.4	3.7	4.2
Mercury	0.035 U	0.039 U	0.042 U	0.041 U	0.034 J	0.027 J	0.023 U	0.02 U	0.023 U
Selenium	0.66	0.59 U	0.64 U	0.79	0.58 U	0.55 U	0.52 U	0.57 U	0.57 U
Silver	1.1 U	1.2 U	1.3 U	1.2 U	0.11 U	0.11 U	0.1 U	0.11 U	0.11 U

APPENDIX G
GROUNDWATER - SWMU 303
ORGANIC COMPOUNDS
SWMU CONFIRMATORY SAMPLING (CTO-0143)
AS515 - AST-E, HMM 266 HMM 261
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU303-GW01TW		SWMU303-GW02TW		SWMU303-GW03TW	
SAMPLE DATE	04-02-2002		04-02-2002		04-02-2002	
SEMIVOLATILES (ug/L)						
1,1'-Biphenyl	10	U	10	U	4	J
2,2'-oxybis(1-Chloropropane)	10	UJ	10	UJ	11	UJ
2,4,5-Trichlorophenol	10	U	10	U	11	U
2,4,6-Trichlorophenol	10	U	10	U	11	U
2,4-Dichlorophenol	10	U	10	U	11	U
2,4-Dimethylphenol	10	U	10	U	29	
2,4-Dinitrophenol	50	U	50	U	54	U
2,4-Dinitrotoluene	10	U	10	U	11	U
2,6-Dinitrotoluene	10	U	10	U	11	U
2-Chloronaphthalene	10	U	10	U	11	U
2-Chlorophenol	10	U	10	U	11	U
2-Methylnaphthalene	1	J	10	U	17	
2-Methylphenol	10	U	10	U	11	U
2-Nitroaniline	20	UJ	20	UJ	22	UJ
2-Nitrophenol	10	U	10	U	11	U
3,3'-Dichlorobenzidine	20	U	20	U	22	U
3-Nitroaniline	20	U	20	U	22	U
4,6-dinitro-2-Methylphenol	20	U	20	U	22	U
4-Bromophenyl phenyl ether	10	U	10	U	11	U
4-Chloro-3-methylphenol	10	U	10	U	11	U
4-Chloroaniline	10	U	10	U	11	U
4-Chlorophenyl phenyl ether	10	UJ	10	UJ	11	UJ
4-Methylphenol	2	J	4	J	9	J
4-Nitroaniline	20	U	20	U	22	U
4-Nitrophenol	20	UJ	20	UJ	22	UJ
Acenaphthene	10	J	3	J	18	J
Acenaphthylene	10	U	10	U	11	U
Acetophenone	10	U	10	U	11	U
Anthracene	10	U	10	U	11	U
Atrazine	10	U	10	U	11	U
Benzaldehyde	10	U	10	U	11	U
Benzo(a)anthracene	10	U	10	U	11	U
Benzo(a)pyrene	10	U	10	U	11	U
Benzo(b)fluoranthene	10	U	10	U	11	U
Benzo(g,h,i)perylene	10	U	10	U	11	U
Benzo(k)fluoranthene	10	U	10	U	11	U
bis(2-Chloroethoxy)methane	10	U	10	U	11	U
bis(2-Chloroethyl)ether	10	U	10	U	11	U

APPENDIX G
GROUNDWATER - SWMU 303
ORGANIC COMPOUNDS
SWMU CONFIRMATORY SAMPLING (CTO-0143)
AS515 - AST-E, HMM 266 HMM 261
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU303-GW01TW		SWMU303-GW02TW		SWMU303-GW03TW	
SAMPLE DATE	04-02-2002		04-02-2002		04-02-2002	
SEMIVOLATILES (ug/L) (cont)						
bis(2-Ethylhexyl)phthalate	2	J	1	J	2	J
Butyl benzyl phthalate	10	U	10	U	11	U
Caprolactam	10	U	10	U	11	U
Carbazole	1	J	1	J	11	U
Chrysene	10	U	10	U	11	U
di-N-Butyl phthalate	10	U	10	U	11	U
di-N-Octyl phthalate	10	U	10	U	11	U
Dibenzo(a,h)anthracene	10	U	10	U	11	U
Dibenzofuran	10	U	1	J	11	U
Diethyl phthalate	10	U	10	U	38	J
Dimethyl phthalate	10	U	10	U	11	U
Fluoranthene	10	U	10	U	11	U
Fluorene	0.8	J	1	J	11	U
Hexachlorobenzene	10	U	10	U	11	U
Hexachlorobutadiene	10	U	10	U	11	U
Hexachlorocyclopentadiene	10	U	10	U	11	U
Hexachloroethane	10	U	10	U	11	U
Indeno(1,2,3-cd)pyrene	10	U	10	U	11	U
Isophorone	10	U	10	U	11	U
N-Nitroso-di-N-propylamine	10	U	10	U	11	U
N-Nitrosodiphenylamine(1)	10	U	10	U	11	U
Naphthalene	6	J	10	U	140	
Nitrobenzene	10	U	10	U	11	U
Pentachlorophenol	20	U	20	U	22	U
Phenanthrene	10	U	10	U	11	U
Phenol	10	U	10	U	11	U
Pyrene	10	U	10	U	11	U

APPENDIX G
GROUNDWATER - SWMU 303
INORGANIC COMPOUNDS
SWMU CONFIRMATORY SAMPLING (CTO-0143)
AS515 - AST-E, HMM 266 HMM 261
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU303-GW01TW		SWMU303-GW02TW		SWMU303-GW03TW	
SAMPLE DATE	04-02-2002		04-02-2002		04-02-2002	
METALS (ug/L)						
Arsenic	2.4	U	19	J	19.6	J
Barium	271	J	837	J	552	J
Cadmium	0.3	U	1.3	U	0.97	U
Chromium	11.6	J	67.2	J	43.8	J
Lead	4.9	J	18.4	J	12.9	J
Mercury	0.1	U	0.1	U	0.1	U
Selenium	4.6	U	4.6	U	4.6	U
Silver	0.9	U	0.9	U	0.9	U

APPENDIX G
SURFACE SOIL - SWMU 305
INORGANIC COMPOUNDS
SWMU CONFIRMATORY SAMPLING (CTO-0143)
BB224 - PILE, MCB
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU305-IS01-00	SWMU305-IS02-00	SWMU305-IS03-00	SWMU305-TW01-00	SWMU305-TW02-00	SWMU305-TW03-00
SAMPLE DATE	09-14-1997	09-14-1997	09-14-1997	03-24-2002	03-24-2002	03-24-2002
DEPTH	0' - 2'	0' - 2'	0' - 2'	0' - 1'	0' - 1'	0' - 1'
METALS (mg/kg)						
Arsenic	1.1 U	1.1 U	1.4	0.27 U	0.3 U	0.3 U
Barium	22.7 U	22.2 U	22.8 U	8.4 J	4.8 J	4.4 J
Cadmium	0.57 U	0.56 U	0.57 U	0.03 U	0.04 U	0.04 U
Chromium	3.9	3.7	5.5	3.3 J	1.6 J	2.3 J
Lead	14.5	20.6	15.1	5.3 J	3.9 J	2.8 J
Mercury	0.037 U	0.037 U	0.038 U	0.02 U	0.02 U	0.02 U
Selenium	0.57 U	0.56 U	0.57 U	0.53 U	0.57 U	0.58 U
Silver	1.1 U	1.1 U	1.1 U	0.1 U	0.11 U	0.11 U

APPENDIX G
SUBSURFACE SOIL - SWMU 305
INORGANIC COMPOUNDS
SWMU CONFIRMATORY SAMPLING (CTO-0143)
BB224 - PILE, MCB
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU305-IS01-01	SWMU305-IS02-01	SWMU305-IS03-01	SWMU305-TW01-02	SWMU305-TW02-02	SWMU305-TW03-02
SAMPLE DATE	09-14-1997	09-14-1997	09-14-1997	03-24-2002	03-24-2002	03-24-2002
DEPTH	2' - 4'	2' - 4'	2' - 4'	3' - 5'	3' - 5'	3' - 5'
METALS (mg/kg)						
Arsenic	2.3	1.1 U	1.2 U	0.31 U	0.26 U	0.27 U
Barium	23.7 U	22.9 U	24.1 U	3.4 J	5.6 J	12.3 J
Cadmium	0.59 U	0.57 U	0.6 U	0.04 U	0.03 U	0.03 U
Chromium	11.4	2.8	2.4	1.7 J	5.7 J	4.8 J
Lead	6.7	6.7	2.1	1.7 J	4.4 J	3 J
Mercury	0.039 U	0.038 U	0.04 U	0.02 U	0.02 U	0.02 U
Selenium	0.94	0.57 U	0.6 U	0.59 U	0.49 U	0.51 U
Silver	1.2 U	1.1 U	1.2 U	0.11 U	0.1 U	0.1 U

APPENDIX G
GROUNDWATER - SWMU 305
INORGANIC COMPOUNDS
SWMU CONFIRMATORY SAMPLING (CTO-0143)
BB224 - PILE, MCB
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU305-GW01		SWMU305-GW02		SWMU305-GW03	
SAMPLE DATE	04-04-2002		04-04-2002		04-04-2002	
METALS (ug/L)						
Arsenic	2.4	UJ	2.4	UJ	2.4	UJ
Barium	55.2		18.6		52.4	
Cadmium	0.3	U	0.3	U	0.3	U
Chromium	0.79	J	0.6	U	10.6	
Lead	1.8	U	1.8	U	3.4	
Mercury	0.11	U	0.1	U	0.1	U
Selenium	4.6	U	4.6	UJ	4.6	UJ
Silver	0.9	U	0.9	U	0.9	U

APPENDIX G
SURFACE SOIL - SWMU 306
INORGANIC COMPOUNDS
SWMU CONFIRMATORY SAMPLING (CTO-0143)
FC230 - O/W-1, 8th COMMUNICATIONS BN, 2D SRIG
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU306-IS01-00	SWMU306-IS02-00	SWMU306-IS03-00	SWMU306-IS04-00	SWMU306-TW01-00	SWMU306-TW02-00	SWMU306-TW03-00
SAMPLE DATE	09-12-1997	09-13-1997	09-13-1997	09-12-1997	03-25-2002	03-25-2002	03-25-2002
DEPTH	0' - 2'	0' - 2'	0' - 2'	0' - 2'	0' - 1'	0' - 1'	0' - 1'
METALS (mg/kg)							
Arsenic	1.1 U	1.2 U	1.2 U	1.2 U	0.25 U	0.27 U	0.27 U
Barium	22.6 U	23.2 U	23.8 U	24.8 U	6 J	9.7 J	13.1 J
Cadmium	0.56 U	0.58 U	0.6 U	1.7	0.03 U	0.03 U	0.03 U
Chromium	6.8	7.9	5	6.7	2.9 J	2.5 J	3.1 J
Lead	7.8	6.8	7.3	10.9	2.9 J	5.9 J	7.7 J
Mercury	0.037 U	0.038 U	0.039 U	0.041 U	0.02 J	0.02 J	0.02 J
Selenium	0.56 U	0.58 U	0.6 U	0.62 U	0.47 U	0.52 U	0.52 U
Silver	1.1 U	1.2 U	1.2 U	1.2 U	0.09 U	0.1 U	0.1 U

APPENDIX G
SUBSURFACE SOIL - SWMU 306
INORGANIC COMPOUNDS
SWMU CONFIRMATORY SAMPLING (CTO-0143)
FC230 - O/W-1, 8th COMMUNICATIONS BN, 2D SRIG
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU306-IS01-02	SWMU306-IS02-02	SWMU306-IS03-02	SWMU306-IS04-02	SWMU306-TW01-06	SWMU306-TW02-03	SWMU306-TW02A-07	SWMU306-TW03-06
SAMPLE DATE	09-12-1997	09-13-1997	09-13-1997	09-13-1997	03-25-2002	03-25-2002	04-09-2002	03-25-2002
DEPTH	4' - 6'	4' - 6'	4' - 6'	4' - 6'	11' - 13'	5' - 7'	13' - 15'	11' - 13'
METALS (mg/kg)								
Arsenic	1.2 U	1.2 U	1.2 U	1.1 U	0.27 U	0.27 U	1.2 J	0.27 U
Barium	23.2 U	37.4	23.3 U	22.2 U	0.64 U	16.9 J	5 J	6.7 J
Cadmium	0.58 U	0.58 U	0.58 U	0.56 U	0.03 U	0.03 U	0.04 U	0.03 U
Chromium	6.4	11	4.6	6.2	0.46 J	5.7 J	3.8 J	2.2 J
Lead	4	5.3	6.6	4.6	1.1 J	5 J	2.4 J	2.9 J
Mercury	0.038 U	0.041	0.039	0.037	0.02 U	0.02 U	0.03 U	0.02 U
Selenium	0.58 U	0.58 U	0.58 U	0.56 U	0.51 U	0.52 U	0.23 UJ	0.52 U
Silver	1.2 U	1.2 U	1.2 U	1.5	0.1 U	0.1 U	0.06 U	0.1 U

APPENDIX G
GROUNDWATER - SWMU 306
INORGANIC COMPOUNDS
SWMU CONFIRMATORY SAMPLING (CTO-0143)
FC230 - O/W-1, 8th COMMUNICATIONS BN, 2D SRIG
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU306-GW01		SWMU306-GW02		SWMU306-GW03	
SAMPLE DATE	04-08-2002		04-09-2002		04-08-2002	
METALS (ug/L)						
Arsenic	2.4	U	2	UJ	2.4	U
Barium	62.1		63.9		50.4	
Cadmium	0.3	U	0.4	U	0.53	U
Chromium	1.6	J	0.5	UJ	0.95	J
Lead	1.8	U	1.8	J	1.8	U
Mercury	0.1	U	0.1	U	0.1	U
Selenium	4.6	U	2.3	J	4.6	U
Silver	0.9	U	0.5	U	0.9	U

APPENDIX G
SURFACE SOIL - SWMU 307
INORGANIC COMPOUNDS
SWMU CONFIRMATORY SAMPLING (CTO-0143)
G649 - RACK, BASE MAINTENANCE
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU307-IS01-00	SWMU307-IS02-00	SWMU307-IS03-00	SWMU307-IS04-00	SWMU307-TW01-00	SWMU307-TW02-00	SWMU307-TW03-00
SAMPLE DATE	09-09-1997	09-09-1997	09-09-1997	09-09-1997	03-21-2002	03-21-2002	03-21-2002
DEPTH	0' - 2'	0' - 2'	0' - 2'	0' - 2'	0' - 1'	0' - 1'	0' - 1'
METALS (mg/kg)							
Arsenic	1.2 U	1.1 U	2.3	1.3 U	0.28 U	0.35 U	0.27 U
Barium	28.9	23 U	21.6 U	25.9 U	20.6	59.8	13.2
Cadmium	0.6 U	0.57 U	0.54 U	0.65 U	0.25 J	0.12 J	0.03 U
Chromium	14.1	22.8	11	1.8	7.2	6.1	4.8
Lead	25.8	86.2	11.9	1.9	31.2 J	68.1 J	4.6 J
Mercury	0.04 U	0.038 U	0.036 U	0.043 U	0.11	1.4	0.04
Selenium	0.6 U	0.57 U	0.54 U	0.65 U	0.54 U	0.67 U	0.51 U
Silver	1.2 U	1.1 U	1.1 U	1.3 U	0.43 J	0.13 U	0.1 U

APPENDIX G
SUBSURFACE SOIL - SWMU 307
INORGANIC COMPOUNDS
SWMU CONFIRMATORY SAMPLING (CTO-0143)
G649 - RACK, BASE MAINTENANCE
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU307-IS01-03	SWMU307-IS02-02	SWMU307-IS03-02	SWMU307-IS04-02	SWMU307-TW01-02	SWMU307-TW02-03	SWMU307-TW03-03
SAMPLE DATE	09-09-1997	09-09-1997	09-09-1997	09-09-1997	03-21-2002	03-21-2002	03-21-2002
DEPTH	6' - 8'	4' - 6'	4' - 6'	4' - 6'	3' - 5'	5' - 7'	5' - 7'
METALS (mg/kg)							
Arsenic	1.2 U	1.2 U	1.1 U	1.2 U	0.3 U	0.29 U	0.29 U
Barium	31.1	23.3 U	22.5 U	23.3 U	23.6	17.2	17.2
Cadmium	0.61 U	0.58 U	0.56 U	0.58 U	0.04 J	0.04 U	0.04 U
Chromium	13.5	6.8	6.4	4.7	8.5	7.3	7.4
Lead	9	12.5	10.5	3.9	12.5 J	6 J	7.2 J
Mercury	0.04 U	0.14	0.037 U	0.038 U	0.09	0.04	0.08
Selenium	0.61 U	0.58 U	0.56 U	0.58 U	0.57 U	0.56 U	0.56 U
Silver	1.2 U	1.2 U	1.1 U	1.2 U	0.11 U	0.11 U	0.11 U

APPENDIX G
GROUNDWATER - SWMU 307
INORGANIC COMPOUNDS
SWMU CONFIRMATORY SAMPLING (CTO-0143)
G649 - RACK, BASE MAINTENANCE
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU307-GW01		SWMU307-GW02		SWMU307-GW03	
SAMPLE DATE	04-03-2002		04-03-2002		04-03-2002	
METALS (ug/L)						
Arsenic	2.4	U	2.4	U	2.4	U
Barium	49	J	72.8	J	106	J
Cadmium	0.3	U	0.3	U	0.3	U
Chromium	2.2	J	7.1	J	42.3	J
Lead	1.8	U	7.7	J	27.7	J
Mercury	0.1	U	0.1	U	0.12	J
Selenium	4.6	U	4.6	U	4.6	U
Silver	0.9	U	0.9	U	0.9	U

APPENDIX G
SURFACE SOIL - SWMU 308
ORGANIC COMPOUNDS
SWMU CONFIRMATORY SAMPLING (CTO-0143)
GP19 - O/W, 8th ENGINEERS 2D FSSG
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU308-IS01-00	SWMU308-IS02-00	SWMU308-IS03-00	SWMU308-IS04-00	SWMU308-TW01-00	SWMU308-TW02-00	SWMU308-TW03-00
SAMPLE DATE	09-13-1997	09-13-1997	09-13-1997	09-13-1997	03-25-2002	03-25-2002	03-25-2002
DEPTH	0' - 2'	0' - 2'	0' - 2'	0' - 2'	0' - 1'	0' - 1'	0' - 1'
SEMIVOLATILES (ug/kg)							
1,1'-Biphenyl	NA	NA	NA	NA	370 U	370 U	360 U
2,2'-Oxybis(1-Chloropropane)	370 U	370 U	350 U	410 U	370 U	370 U	360 U
2,4,5-Trichlorophenol	370 U	370 U	350 U	410 U	370 U	370 U	360 U
2,4,6-Trichlorophenol	370 U	370 U	350 U	410 U	370 U	370 U	360 U
2,4-Dichlorophenol	370 U	370 U	350 U	410 U	370 U	370 U	360 U
2,4-Dimethylphenol	370 U	370 U	350 U	410 U	370 U	370 U	360 U
2,4-Dinitrophenol	1800 U	1800 U	1700 U	2000 U	1900 UJ	1900 UJ	1900 UJ
2,4-Dinitrotoluene	370 U	370 U	350 U	410 U	370 U	370 U	360 U
2,6-Dinitrotoluene	370 U	370 U	350 U	410 U	370 U	370 U	360 U
2-Chloronaphthalene	370 U	370 U	350 U	410 U	370 U	370 U	360 U
2-Chlorophenol	370 U	370 U	350 U	410 U	370 U	370 U	360 U
2-Methylnaphthalene	370 U	370 U	350 U	410 U	370 U	370 U	360 U
2-Methylphenol	370 U	370 U	350 U	410 U	370 U	370 U	360 U
2-Nitroaniline	1800 U	1800 U	1700 U	2000 U	730 U	730 U	730 U
2-Nitrophenol	370 U	370 U	350 U	410 U	370 U	370 U	360 U
3,3'-Dichlorobenzidine	1800 U	1800 U	1700 U	2000 U	730 U	730 U	730 U
3-Nitroaniline	1800 U	1800 U	1700 U	2000 U	730 U	730 U	730 U
4,6-Dinitro-2-methylphenol	1800 U	1800 U	1700 U	2000 U	730 U	730 U	730 UJ
4-Bromophenyl phenyl ether	370 U	370 U	350 U	410 U	370 U	370 U	360 U
4-Chloro-3-methylphenol	370 U	370 U	350 U	410 U	370 U	370 U	360 U
4-Chloroaniline	370 U	370 U	350 U	410 U	370 U	370 U	360 U
4-Chlorophenyl phenyl ether	370 U	370 U	350 U	410 U	370 U	370 U	360 U
4-Methylphenol	370 U	370 U	350 U	410 U	370 U	370 U	360 U
4-Nitroaniline	1800 U	1800 U	1700 U	2000 U	730 U	730 U	730 U
4-Nitrophenol	1800 U	1800 U	1700 U	2000 U	730 U	730 U	730 U
Acenaphthene	370 U	370 U	350 U	410 U	370 U	370 U	360 U
Acenaphthylene	370 U	370 U	350 U	410 U	370 U	370 U	360 U
Aceteophenone	NA	NA	NA	NA	370 U	370 U	360 U
Anthracene	370 U	370 U	350 U	410 U	370 U	370 U	360 U
Atrazine	NA	NA	NA	NA	370 U	370 U	360 U
Benzaldehyde	NA	NA	NA	NA	370 U	370 U	360 U
Benzo(a)anthracene	370 U	370 U	350 U	410 U	370 U	370 U	360 U
Benzo(a)pyrene	370 U	370 U	350 U	410 U	370 U	370 U	360 U
Benzo(b)fluoranthene	370 U	370 U	350 U	410 U	370 U	370 U	360 U
Benzo(ghi)perylene	370 U	370 U	350 U	410 U	370 U	370 U	360 U
Benzo(k)fluoranthene	370 U	370 U	350 U	410 U	370 U	370 U	360 U
bis(2-Chloroethoxy)methane	370 U	370 U	350 U	410 U	370 U	370 U	360 U
bis(2-Chloroethyl) ether	370 U	370 U	350 U	260 J	370 U	370 U	360 U
bis(2-Ethylhexyl) phthalate	120 J	450 J	190 J	310 J	150 J	200 J	120 J
Butyl benzyl phthalate	370 U	370 U	350 U	410 U	370 U	370 U	360 U
Caprolactam	NA	NA	NA	NA	370 U	370 U	360 U

APPENDIX G
SURFACE SOIL - SWMU 308
ORGANIC COMPOUNDS
SWMU CONFIRMATORY SAMPLING (CTO-0143)
GP19 - O/W, 8th ENGINEERS 2D FSSG
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU308-IS01-00	SWMU308-IS02-00	SWMU308-IS03-00	SWMU308-IS04-00	SWMU308-TW01-00	SWMU308-TW02-00	SWMU308-TW03-00
SAMPLE DATE	09-13-1997	09-13-1997	09-13-1997	09-13-1997	03-25-2002	03-25-2002	03-25-2002
DEPTH	0' - 2'	0' - 2'	0' - 2'	0' - 2'	0' - 1'	0' - 1'	0' - 1'
SEMIVOLATILES (ug/kg) (cont)							
Carbazole	370 U	370 U	350 U	410 U	370 U	370 U	360 U
Chrysene	370 U	370 U	350 U	410 U	370 U	370 U	360 U
Di-n-butyl phthalate	370 U	370 U	350 U	27 J	370 U	370 U	360 U
Di-n-octyl phthalate	370 U	170 J	350 U	410 U	370 U	370 U	360 U
Dibenz(a,h)anthracene	370 U	370 U	350 U	410 U	370 U	370 U	360 U
Dibenzofuran	370 U	370 U	350 U	410 U	370 U	370 U	360 U
Diethyl phthalate	370 U	370 U	350 U	410 U	370 U	370 U	360 U
Dimethyl phthalate	370 U	370 U	350 U	410 U	370 U	370 U	360 U
Fluoranthene	370 U	370 U	350 U	410 U	370 U	370 U	360 U
Fluorene	370 U	370 U	350 U	410 U	370 U	370 U	360 U
Hexachlorobenzene	370 U	370 U	350 U	410 U	370 U	370 U	360 U
Hexachlorobutadiene	370 U	370 U	350 U	410 U	370 U	370 U	360 U
Hexachlorocyclopentadiene	1800 U	1800 U	1700 U	2000 U	370 U	370 U	360 U
Hexachloroethane	370 U	370 U	350 U	410 U	370 U	370 U	360 U
Indeno(1,2,3-cd)pyrene	370 U	370 U	350 U	410 U	370 U	370 U	360 U
Isophorone	370 U	370 U	350 U	410 U	370 U	370 U	360 U
N-Nitrosodi-n-propylamine	370 U	370 U	350 U	410 U	370 U	370 U	360 U
N-Nitrosodiphenylamine	370 U	370 U	350 U	410 U	370 U	370 U	360 U
Naphthalene	370 U	370 U	350 U	410 U	370 U	370 U	360 U
Nitrobenzene	370 U	370 U	350 U	410 U	370 U	370 U	360 U
Pentachlorophenol	1800 U	1800 U	1700 U	2000 U	730 U	730 U	730 U
Phenanthrene	370 U	370 U	350 U	410 U	370 U	370 U	360 U
Phenol	370 U	370 U	350 U	410 U	370 U	370 U	360 U
Pyrene	370 U	370 U	350 U	410 U	370 U	370 U	360 U

APPENDIX G
SUBSURFACE SOIL - SWMU 308
ORGANIC COMPOUNDS
SWMU CONFIRMATORY SAMPLING (CTO-0143)
GP19 - O/W, 8th ENGINEERS 2D FSSG
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU308-IS01-06	SWMU308-IS02-06	SWMU308-IS03-06	SWMU308-IS04-06	SWMU308-TW01-07	SWMU308-TW02-07	SWMU308-TW03-07
SAMPLE DATE	09-13-1997	09-13-1997	09-13-1997	09-13-1997	03-25-2002	03-25-2002	03-25-2002
DEPTH	12' - 14'	12' - 14'	12' - 14'	12' - 14'	13' - 15'	13' - 15'	13' - 15'
SEMIVOLATILES (ug/kg)							
1,1'-Biphenyl	NA	NA	NA	NA	380 U	420 U	430 U
2,2'-Oxybis(1-Chloropropane)	360 U	370 U	380 U	400 U	380 U	420 U	430 U
2,4,5-Trichlorophenol	360 U	370 U	380 U	400 U	380 U	420 U	430 U
2,4,6-Trichlorophenol	360 U	370 U	380 U	400 U	380 U	420 U	430 U
2,4-Dichlorophenol	360 U	370 U	380 U	400 U	380 U	420 U	430 U
2,4-Dimethylphenol	360 U	370 U	380 U	400 U	380 U	420 U	430 U
2,4-Dinitrophenol	1800 U	1800 U	1800 U	2000 U	1900 UJ	2200 UJ	2200 UJ
2,4-Dinitrotoluene	360 U	370 U	380 U	400 U	380 U	420 U	430 U
2,6-Dinitrotoluene	360 U	370 U	380 U	400 U	380 U	420 U	430 U
2-Chloronaphthalene	360 U	370 U	380 U	400 U	380 U	420 U	430 U
2-Chlorophenol	360 U	370 U	380 U	400 U	380 U	420 U	430 U
2-Methylnaphthalene	360 U	370 U	380 U	400 U	380 U	420 U	430 U
2-Methylphenol	360 U	370 U	380 U	400 U	380 U	420 U	430 U
2-Nitroaniline	1800 U	1800 U	1800 U	2000 U	750 U	840 U	860 U
2-Nitrophenol	360 U	370 U	380 U	400 U	380 U	420 U	430 U
3,3'-Dichlorobenzidine	1800 U	1800 U	1800 U	2000 U	750 U	840 U	860 U
3-Nitroaniline	1800 U	1800 U	1800 U	2000 U	750 U	840 U	860 U
4,6-Dinitro-2-methylphenol	1800 U	1800 U	1800 U	2000 U	750 U	840 U	860 U
4-Bromophenyl phenyl ether	360 U	370 U	380 U	400 U	380 U	420 U	430 U
4-Chloro-3-methylphenol	360 U	370 U	380 U	400 U	380 U	420 U	430 U
4-Chloroaniline	360 U	370 U	380 U	400 U	380 U	420 U	430 U
4-Chlorophenyl phenyl ether	360 U	370 U	380 U	400 U	380 U	420 U	430 U
4-Methylphenol	360 U	370 U	380 U	400 U	380 U	420 U	430 U
4-Nitroaniline	1800 U	1800 U	1800 U	2000 U	750 U	840 U	860 U
4-Nitrophenol	1800 U	1800 U	1800 U	2000 U	750 U	840 U	860 U
Acenaphthene	360 U	370 U	380 U	400 U	380 U	420 U	430 U
Acenaphthylene	360 U	370 U	380 U	400 U	380 U	420 U	430 U
Aceteophenone	NA	NA	NA	NA	380 U	420 U	430 U
Anthracene	360 U	370 U	380 U	400 U	380 U	420 U	430 U
Atrazine	NA	NA	NA	NA	380 U	420 U	430 U
Benzaldehyde	NA	NA	NA	NA	380 U	420 U	430 U
Benzo(a)anthracene	360 U	370 U	380 U	400 U	380 U	420 U	430 U
Benzo(a)pyrene	360 U	370 U	380 U	400 U	380 U	420 U	430 U
Benzo(b)fluoranthene	360 U	370 U	380 U	400 U	380 U	420 U	430 U
Benzo(ghi)perylene	360 U	370 U	380 U	400 U	380 U	420 U	430 U
Benzo(k)fluoranthene	360 U	370 U	380 U	400 U	380 U	420 U	430 U
bis(2-Chloroethoxy)methane	360 U	370 U	380 U	400 U	380 U	420 U	430 U
bis(2-Chloroethyl) ether	360 U	370 U	380 U	400 U	380 U	420 U	430 U
bis(2-Ethylhexyl) phthalate	130 J	150 J	1600 J	140 J	52 J	57 J	110 J
Butyl benzyl phthalate	360 U	370 U	380 U	400 U	380 U	420 U	430 U
Caprolactam	NA	NA	NA	NA	380 U	420 U	430 U

APPENDIX G
SUBSURFACE SOIL - SWMU 308
ORGANIC COMPOUNDS
SWMU CONFIRMATORY SAMPLING (CTO-0143)
GP19 - O/W, 8th ENGINEERS 2D FSSG
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU308-IS01-06	SWMU308-IS02-06	SWMU308-IS03-06	SWMU308-IS04-06	SWMU308-TW01-07	SWMU308-TW02-07	SWMU308-TW03-07
SAMPLE DATE	09-13-1997	09-13-1997	09-13-1997	09-13-1997	03-25-2002	03-25-2002	03-25-2002
DEPTH	12' - 14'	12' - 14'	12' - 14'	12' - 14'	13' - 15'	13' - 15'	13' - 15'
SEMIVOLATILES (ug/kg) (cont)							
Carbazole	360 U	370 U	380 U	400 U	380 U	420 U	430 U
Chrysene	360 U	370 U	380 U	400 U	380 U	420 U	430 U
Di-n-butyl phthalate	360 U	370 U	380 U	400 U	380 U	420 U	430 U
Di-n-octyl phthalate	360 U	370 U	380 U	400 U	380 U	43 J	430 U
Dibenz(a,h)anthracene	360 U	370 U	380 U	400 U	380 U	420 U	430 U
Dibenzofuran	360 U	370 U	380 U	400 U	380 U	420 U	430 U
Diethyl phthalate	360 U	370 U	380 U	400 U	380 U	420 U	430 U
Dimethyl phthalate	360 U	370 U	380 U	400 U	380 U	420 U	430 U
Fluoranthene	360 U	370 U	380 U	400 U	380 U	420 U	430 U
Fluorene	360 U	370 U	380 U	400 U	380 U	420 U	430 U
Hexachlorobenzene	360 U	370 U	380 U	400 U	380 U	420 U	430 U
Hexachlorobutadiene	360 U	370 U	380 U	400 U	380 U	420 U	430 U
Hexachlorocyclopentadiene	1800 U	1800 U	1800 U	2000 U	380 U	420 U	430 U
Hexachloroethane	360 U	370 U	380 U	400 U	380 U	420 U	430 U
Indeno(1,2,3-cd)pyrene	360 U	370 U	380 U	400 U	380 U	420 U	430 U
Isophorone	360 U	370 U	380 U	400 U	380 U	420 U	430 U
N-Nitrosodi-n-propylamine	360 U	370 U	380 U	400 U	380 U	420 U	430 U
N-Nitrosodiphenylamine	360 U	370 U	380 U	400 U	380 U	420 U	430 U
Naphthalene	360 U	370 U	380 U	400 U	380 U	420 U	430 U
Nitrobenzene	360 U	370 U	380 U	400 U	380 U	420 U	430 U
Pentachlorophenol	1800 U	1800 U	1800 U	2000 U	750 U	840 U	860 U
Phenanthrene	360 U	370 U	380 U	400 U	380 U	420 U	430 U
Phenol	360 U	370 U	380 U	400 U	380 U	420 U	430 U
Pyrene	360 U	370 U	380 U	400 U	380 U	420 U	430 U

APPENDIX G
GROUNDWATER - SWMU 308
ORGANIC COMPOUNDS
SWMU CONFIRMATORY SAMPLING (CTO-0143)
GP19 - O/W, 8th ENGINEERS 2D FSSG
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU308-GW01		SWMU308-GW02		SWMU308-GW03	
SAMPLE DATE	04-07-2002		04-07-2002		04-07-2002	
SEMIVOLATILES (ug/L)						
1,1'-Biphenyl	11	U	11	U	11	U
2,2'-oxybis(1-Chloropropane)	11	U	11	U	11	U
2,4,5-Trichlorophenol	11	U	11	U	11	U
2,4,6-Trichlorophenol	11	U	11	U	11	U
2,4-Dichlorophenol	11	U	11	U	11	U
2,4-Dimethylphenol	11	U	11	U	11	U
2,4-Dinitrophenol	56	UJ	54	UJ	53	UJ
2,4-Dinitrotoluene	11	U	11	U	11	U
2,6-Dinitrotoluene	11	U	11	U	11	U
2-Chloronaphthalene	11	U	11	U	11	U
2-Chlorophenol	11	U	11	U	11	U
2-Methylnaphthalene	11	U	11	U	11	U
2-Methylphenol	11	U	11	U	11	U
2-Nitroaniline	22	U	22	U	21	U
2-Nitrophenol	11	U	11	U	11	U
3,3'-Dichlorobenzidine	22	U	22	U	21	U
3-Nitroaniline	22	U	22	U	21	U
4,6-dinitro-2-Methylphenol	22	U	22	U	21	U
4-Bromophenyl phenyl ether	11	U	11	U	11	U
4-Chloro-3-methylphenol	11	U	11	U	11	U
4-Chloroaniline	11	U	11	U	11	U
4-Chlorophenyl phenyl ether	11	U	11	U	11	U
4-Methylphenol	1.3	J	11	U	11	U
4-Nitroaniline	22	U	22	U	21	U
4-Nitrophenol	22	U	22	U	21	U
Acenaphthene	11	U	11	U	11	U
Acenaphthylene	11	U	11	U	11	U
Acetophenone	11	U	11	U	11	U
Anthracene	11	U	11	U	11	U
Atrazine	11	U	11	U	11	U
Benzaldehyde	11	U	11	U	11	U
Benzo(a)anthracene	11	U	11	U	11	U
Benzo(a)pyrene	11	U	11	U	11	U
Benzo(b)fluoranthene	11	U	11	U	11	U
Benzo(g,h,i)perylene	11	U	11	U	11	U
Benzo(k)fluoranthene	11	U	11	U	11	U
bis(2-Chloroethoxy)methane	11	U	11	U	11	U
bis(2-Chloroethyl)ether	11	U	11	U	11	U

APPENDIX G
GROUNDWATER - SWMU 308
ORGANIC COMPOUNDS
SWMU CONFIRMATORY SAMPLING (CTO-0143)
GP19 - O/W, 8th ENGINEERS 2D FSSG
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU308-GW01		SWMU308-GW02		SWMU308-GW03	
SAMPLE DATE	04-07-2002		04-07-2002		04-07-2002	
SEMIVOLATILES (ug/L) (cont)						
bis(2-Ethylhexyl)phthalate	11	U	11	U	11	U
Butyl benzyl phthalate	11	U	11	U	11	U
Caprolactam	11	U	11	U	11	U
Carbazole	11	U	11	U	11	U
Chrysene	11	U	11	U	11	U
di-N-Butyl phthalate	11	U	11	U	11	U
di-N-Octyl phthalate	11	U	11	U	11	U
Dibenzo(a,h)anthracene	11	U	11	U	11	U
Dibenzofuran	11	U	11	U	11	U
Diethyl phthalate	11	U	11	U	11	U
Dimethyl phthalate	11	U	11	U	11	U
Fluoranthene	11	U	11	U	11	U
Fluorene	11	U	11	U	11	U
Hexachlorobenzene	11	U	11	U	11	U
Hexachlorobutadiene	11	U	11	U	11	U
Hexachlorocyclopentadiene	11	U	11	U	11	U
Hexachloroethane	11	U	11	U	11	U
Indeno(1,2,3-cd)pyrene	11	U	11	U	11	U
Isophorone	11	U	11	U	11	U
N-Nitroso-di-N-propylamine	11	U	11	U	11	U
N-Nitrosodiphenylamine(1)	11	U	11	U	11	U
Naphthalene	11	U	11	U	11	U
Nitrobenzene	11	U	11	U	11	U
Pentachlorophenol	22	U	22	U	21	U
Phenanthrene	11	U	11	U	11	U
Phenol	11	U	11	U	11	U
Pyrene	11	U	11	U	11	U

APPENDIX G
SURFACE SOIL - SWMU 311
ORGANIC COMPOUNDS
SWMU CONFIRMATORY SAMPLING (CTO-0143)
S1735 - O/W, 8th COMMUNICATIONS BN, 2D SRIG
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU311-IS02-00	SWMU311-IS03-00	SWMU311-IS04-00	SWMU311-SB01-00	SWMU311-SB02-00	SWMU311-SB03-00	SWMU311-TW01-00	SWMU311-TW02-00	SWMU311-TW03-00
SAMPLE DATE	09-13-1997	09-13-1997	09-13-1997	03-24-2002	03-25-2002	03-25-2002	03-24-2002	03-24-2002	03-25-2002
DEPTH	0' - 2'	0' - 2'	0' - 2'	0' - 1'	0' - 1'	0' - 1'	0' - 1'	0' - 1'	0' - 1'
VOLATILES (ug/kg)									
1,1,1-Trichloroethane	NA	NA	NA	6 U	5 U	6 U	6 U	5 U	5 U
1,1,2,2-Tetrachloroethane	NA	NA	NA	6 U	5 U	6 U	6 U	5 U	5 U
1,1,2-Trichloro-1,2,2-trifluoroethane	NA	NA	NA	6 U	5 U	6 U	6 U	5 U	5 U
1,1,2-Trichloroethane	NA	NA	NA	6 U	5 U	6 U	6 U	5 U	5 U
1,1-Dichloroethane	NA	NA	NA	6 U	5 U	6 U	6 U	5 U	5 U
1,1-Dichloroethene	NA	NA	NA	6 U	5 U	6 U	6 U	5 U	5 U
1,2,4-Trichlorobenzene	NA	NA	NA	6 U	5 UJ	6 U	6 U	5 UJ	5 U
1,2-Dibromo-3-chloropropane	NA	NA	NA	6 U	5 UJ	6 UJ	6 U	5 UJ	5 U
1,2-Dibromoethane	NA	NA	NA	6 U	5 U	6 U	6 U	5 U	5 U
1,2-Dichlorobenzene	1.2 U	1.2 U	1 U	6 U	5 UJ	6 U	6 U	5 UJ	5 U
1,2-Dichloroethane	NA	NA	NA	6 U	5 U	6 U	6 U	5 U	5 U
1,2-Dichloropropane	NA	NA	NA	6 U	5 U	6 U	6 U	5 U	5 U
1,3-Dichlorobenzene	1.2 U	1.2 U	1 U	6 U	5 UJ	6 U	6 U	5 UJ	5 U
1,4-Dichlorobenzene	1.2 U	1.2 U	1 U	6 U	5 UJ	6 U	6 U	5 UJ	5 U
2-Butanone	NA	NA	NA	15 U	12 U	14 U	6 J	11 J	13 U
2-Hexanone	NA	NA	NA	15 U	12 U	14 U	16 U	14 U	13 U
4-Methyl-2-pentanone	NA	NA	NA	15 U	12 U	2 J	16 U	14 U	13 U
Acetone	NA	NA	NA	14 J	4 J	8 J	17 J	34 J	12 J
Benzene	1.2 U	1.2 U	1 U	6 U	5 U	6 U	6 U	2 J	5 U
Bromodichloromethane	NA	NA	NA	6 U	5 U	6 U	6 U	5 U	5 U
Bromoform	NA	NA	NA	14	5 U	6 U	12	19	11 J
Bromomethane	NA	NA	NA	6 UJ	5 UJ	6 UJ	6 UJ	5 UJ	5 UJ
Carbon disulfide	NA	NA	NA	6 U	5 U	6 U	6 U	2 J	5 U
Carbon tetrachloride	NA	NA	NA	6 U	5 U	6 U	6 U	5 U	5 U
Chlorobenzene	1.2 U	1.2 U	1 U	6 U	5 U	6 U	6 U	5 U	5 U
Chloroethane	NA	NA	NA	6 U	5 U	6 U	6 U	5 U	5 U
Chloroform	NA	NA	NA	6 U	5 U	6 U	2 J	5 U	2 J
Chloromethane	NA	NA	NA	6 U	5 U	6 U	6 U	5 U	5 U
cis-1,2-Dichloroethene	NA	NA	NA	6 U	5 U	6 U	6 U	5 U	5 U
cis-1,3-Dichloropropene	NA	NA	NA	6 U	5 U	6 U	6 U	5 U	5 U
Cyclohexane	NA	NA	NA	6 U	5 U	6 U	6 U	1 J	5 U
Dibromochloromethane	NA	NA	NA	6 U	5 U	6 U	6 U	5 U	5 U
Dichlorodifluoromethane	NA	NA	NA	6 U	5 U	6 U	6 U	5 U	5 U
Ethylbenzene	1.2 U	1.2 U	1 U	6 U	5 U	6 U	6 U	2 J	5 U
Isopropylbenzene	NA	NA	NA	6 U	5 U	6 U	6 U	5 U	5 U
Methyl acetate	NA	NA	NA	6 U	5 U	6 U	6 U	5 U	5 U
Methyl-t-Butyl Ether	NA	NA	NA	6 U	5 U	6 U	6 U	5 U	5 U
Methylcyclohexane	NA	NA	NA	6 U	5 U	6 U	6 U	1 J	5 U
Methylene chloride	NA	NA	NA	21	13	13	30	18	24 J
Styrene	NA	NA	NA	6 U	5 U	6 U	6 U	5 U	5 U
Tetrachloroethene	NA	NA	NA	6 U	5 U	6 U	6 U	5 U	5 U
Toluene	1.2 U	1.2 U	1 U	6 U	5 U	6 U	6 U	5 U	5 U
trans-1,2-Dichloroethene	NA	NA	NA	6 U	5 U	6 U	6 U	5 U	5 U
trans-1,3-Dichloropropene	NA	NA	NA	6 U	5 U	6 U	6 U	5 U	5 U
Trichloroethene	NA	NA	NA	6 U	5 U	6 U	6 U	5 U	5 U
Trichlorofluoromethane	NA	NA	NA	6 U	5 U	6 U	6 U	5 U	5 U
Vinyl chloride	NA	NA	NA	6 U	5 U	6 U	6 U	5 U	5 U
Xylenes (total)	1.2 U	1.2 U	1 U	18 UJ	14 UJ	17 U	19 UJ	16 UJ	16 UJ

APPENDIX G
SURFACE SOIL - SWMU 311
INORGANIC COMPOUNDS
SWMU CONFIRMATORY SAMPLING (CTO-0143)
S1735 - O/W, 8th COMMUNICATIONS BN, 2D SRIG
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU311-IS02-00	SWMU311-IS03-00	SWMU311-IS04-00	SWMU311-SB01-00	SWMU311-SB02-00	SWMU311-SB03-00	SWMU311-TW01-00	SWMU311-TW02-00	SWMU311-TW03-00
SAMPLE DATE	09-13-1997	09-13-1997	09-13-1997	03-24-2002	03-25-2002	03-25-2002	03-24-2002	03-24-2002	03-25-2002
DEPTH	0' - 2'	0' - 2'	0' - 2'	0' - 1'	0' - 1'	0' - 1'	0' - 1'	0' - 1'	0' - 1'
METALS (mg/kg)									
Arsenic	1.2 U	1.2 U	1 U	0.29 U	0.27 U	0.24 U	0.31 J	0.27 U	0.26 U
Barium	24 U	23.2 U	20.8 U	8.5	12.8	9.3	11.6	10	17.8 J
Cadmium	5.2	0.74	0.52 U	0.096 J	0.034 U	0.041 J	0.056 J	0.033 U	0.033 U
Chromium	28.8	6.1	6.4	5.4	4.8	3.3	10.4	4.8	4.5
Lead	211	15.6	1110	5.3 J	4.4 J	17.2 J	5.2 J	6.4 J	8.2 J
Mercury	0.09	0.038 U	0.034 U	0.041	0.02 J	0.021 J	0.053	0.034 J	0.019 J
Selenium	0.6 U	0.58 U	0.52 U	0.55 U	0.56	0.47 U	0.91	0.51 U	0.5 U
Silver	1.2 U	1.2 U	1 U	0.11 U	0.1 U	0.091 U	0.11 U	0.1 U	0.098 U

APPENDIX G
SUBSURFACE SOIL - SWMU 311
ORGANIC COMPOUNDS
SWMU CONFIRMATORY SAMPLING (CTO-0143)
S1735 - O/W, 8th COMMUNICATIONS BN, 2D SRIG
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU311-IS02-03	SWMU311-IS03-03	SWMU311-IS04-06	SWMU311-SB01-03	SWMU311-SB02-03	SWMU311-SB03-03	SWMU311-TW01-03
SAMPLE DATE	09-13-1997	09-13-1997	09-13-1997	03-24-2002	03-25-2002	03-25-2002	03-24-2002
DEPTH	6' - 8'	6' - 8'	12' - 14'	5' - 7'	5' - 7'	5' - 7'	5' - 7'
VOLATILES (ug/kg)							
1,1,1-Trichloroethane	NA	NA	NA	5 U	5 U	5 U	6 U
1,1,2,2-Tetrachloroethane	NA	NA	NA	5 U	5 U	5 U	6 U
1,1,2-Trichloro-1,2,2-trifluoroethane	NA	NA	NA	5 U	5 U	5 U	6 U
1,1,2-Trichloroethane	NA	NA	NA	5 U	5 U	5 U	6 U
1,1-Dichloroethane	NA	NA	NA	5 U	5 U	5 U	6 U
1,1-Dichloroethene	NA	NA	NA	5 U	5 U	5 U	6 U
1,2,4-Trichlorobenzene	NA	NA	NA	5 U	5 U	5 U	6 U
1,2-Dibromo-3-chloropropane	NA	NA	NA	5 U	5 U	5 U	6 U
1,2-Dibromoethane	NA	NA	NA	5 U	5 U	5 U	6 U
1,2-Dichlorobenzene	530	1.1 U	1.2 U	5 U	5 U	5 U	6 U
1,2-Dichloroethane	NA	NA	NA	5 U	5 U	5 U	6 U
1,2-Dichloropropane	NA	NA	NA	5 U	5 U	5 U	6 U
1,3-Dichlorobenzene	140	1.1 U	1.2 U	5 U	5 U	5 U	6 U
1,4-Dichlorobenzene	220	1.1 U	1.2 U	5 U	5 U	5 U	6 U
2-Butanone	NA	NA	NA	13 U	13 U	14 U	15 U
2-Hexanone	NA	NA	NA	13 U	13 U	14 U	15 U
4-Methyl-2-pentanone	NA	NA	NA	13 U	13 U	14 U	15 U
Acetone	NA	NA	NA	3 J	4 J	2 J	2 J
Benzene	120 U	1.1 U	1.2 U	5 U	5 U	5 U	6 U
Bromodichloromethane	NA	NA	NA	5 U	5 U	5 U	6 U
Bromoform	NA	NA	NA	23	5 U	5 U	22
Bromomethane	NA	NA	NA	5 UJ	5 UJ	5 UJ	6 UJ
Carbon disulfide	NA	NA	NA	5 U	5 U	5 U	6 U
Carbon tetrachloride	NA	NA	NA	5 U	5 U	5 U	6 U
Chlorobenzene	530	1.1 U	1.2 U	5 U	5 U	5 U	6 U
Chloroethane	NA	NA	NA	5 U	5 U	5 U	6 U
Chloroform	NA	NA	NA	5 U	5 U	5 U	1 J
Chloromethane	NA	NA	NA	5 U	5 U	5 U	6 U
cis-1,2-Dichloroethene	NA	NA	NA	5 U	5 U	5 U	6 U
cis-1,3-Dichloropropene	NA	NA	NA	5 U	5 U	5 U	6 U
Cyclohexane	NA	NA	NA	5 U	5 U	5 U	6 U
Dibromochloromethane	NA	NA	NA	5 U	5 U	5 U	6 U
Dichlorodifluoromethane	NA	NA	NA	5 U	5 U	5 U	6 U
Ethylbenzene	120 U	1.1 U	1.2 U	5 U	5 U	5 U	6 U
Isopropylbenzene	NA	NA	NA	5 U	5 U	5 U	6 U
Methyl acetate	NA	NA	NA	5 U	5 U	5 U	6 U
Methyl-t-Butyl Ether	NA	NA	NA	5 U	5 U	5 U	6 U
Methylcyclohexane	NA	NA	NA	5 U	5 U	5 U	6 U
Methylene chloride	NA	NA	NA	27	5 U	19	27
Styrene	NA	NA	NA	5 U	5 U	5 U	6 U
Tetrachloroethene	NA	NA	NA	5 U	5 U	5 U	6 U
Toluene	200	1.1 U	1.2 U	5 U	5 U	5 U	6 U
trans-1,2-Dichloroethene	NA	NA	NA	5 U	5 U	5 U	6 U
trans-1,3-Dichloropropene	NA	NA	NA	5 U	5 U	5 U	6 U
Trichloroethene	NA	NA	NA	5 U	5 U	5 U	6 U
Trichlorofluoromethane	NA	NA	NA	5 U	5 U	5 U	6 U
Vinyl chloride	NA	NA	NA	5 U	5 U	5 U	6 U
Xylenes (total)	2000	1.1 U	1.2 U	15 U	16 UJ	16 UJ	18 UJ

APPENDIX G
SUBSURFACE SOIL - SWMU 311
ORGANIC COMPOUNDS
SWMU CONFIRMATORY SAMPLING (CTO-0143)
S1735 - O/W, 8th COMMUNICATIONS BN, 2D SRIG
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU311-TW02-03		SWMU311-TW03-03		SWMU311-TW03A-08	
SAMPLE DATE	03-24-2002		03-25-2002		04-08-2002	
DEPTH	5' - 7'		5' - 7'		15' - 17'	
VOLATILES (ug/kg)						
1,1,1-Trichloroethane	6	U	6	U	7	U
1,1,2,2-Tetrachloroethane	6	U	6	UJ	7	U
1,1,2-Trichloro-1,2,2-trifluoroethane	6	U	6	U	7	U
1,1,2-Trichloroethane	6	U	6	UJ	7	U
1,1-Dichloroethane	6	U	6	U	7	U
1,1-Dichloroethene	6	U	6	U	7	U
1,2,4-Trichlorobenzene	6	U	6	UJ	7	U
1,2-Dibromo-3-chloropropane	6	U	6	UJ	7	U
1,2-Dibromoethane	6	U	6	UJ	7	U
1,2-Dichlorobenzene	6	U	6	UJ	7	U
1,2-Dichloroethane	6	U	6	U	7	U
1,2-Dichloropropane	6	U	6	U	7	U
1,3-Dichlorobenzene	6	U	6	UJ	7	U
1,4-Dichlorobenzene	6	U	6	UJ	7	U
2-Butanone	14	U	14	U	12	J
2-Hexanone	14	U	14	UJ	16	U
4-Methyl-2-pentanone	14	U	14	U	16	U
Acetone	6	J	14	UJ	40	
Benzene	6	U	6	U	10	
Bromodichloromethane	6	U	6	U	7	U
Bromoform	28		6	UJ	25	
Bromomethane	6	UJ	6	UJ	7	UJ
Carbon disulfide	6	U	6	U	11	
Carbon tetrachloride	6	U	6	U	7	U
Chlorobenzene	6	U	6	UJ	7	U
Chloroethane	6	U	6	U	7	U
Chloroform	2	J	6	U	7	U
Chloromethane	6	U	6	U	7	U
cis-1,2-Dichloroethene	6	U	6	U	49	
cis-1,3-Dichloropropene	6	U	6	U	7	U
Cyclohexane	6	U	6	U	7	
Dibromochloromethane	6	U	6	UJ	7	U
Dichlorodifluoromethane	6	U	6	U	7	U
Ethylbenzene	6	U	6	UJ	2	J
Isopropylbenzene	6	U	6	UJ	7	U
Methyl acetate	6	U	6	U	7	UJ
Methyl-t-Butyl Ether	6	U	6	U	7	U
Methylcyclohexane	6	U	6	U	6	J
Methylene chloride	32		34		30	
Styrene	6	U	6	UJ	7	U
Tetrachloroethene	6	U	6	UJ	400	J
Toluene	6	U	6	UJ	5	J
trans-1,2-Dichloroethene	6	U	6	U	7	U
trans-1,3-Dichloropropene	6	U	6	UJ	7	U
Trichloroethene	6	U	6	U	24	
Trichlorofluoromethane	6	U	6	U	7	U
Vinyl chloride	6	U	6	U	7	U
Xylenes (total)	17	UJ	17	UJ	7	UJ

APPENDIX G
SUBSURFACE SOIL - SWMU 311
INORGANIC COMPOUNDS
SWMU CONFIRMATORY SAMPLING (CTO-0143)
S1735 - O/W, 8th COMMUNICATIONS BN, 2D SRIG
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU311-IS02-03		SWMU311-IS03-03		SWMU311-IS04-06		SWMU311-SB01-03		SWMU311-SB02-03		SWMU311-SB03-03	
SAMPLE DATE	09-13-1997		09-13-1997		09-13-1997		03-24-2002		03-25-2002		03-25-2002	
DEPTH	6' - 8'		6' - 8'		12' - 14'		5' - 7'		5' - 7'		5' - 7'	
METALS (mg/kg)												
Arsenic	1.9		1.1	U	2.6		0.55	J	0.97	J	0.27	U
Barium	24.2	U	22.7	U	23.5	U	9		5.4		8.8	
Cadmium	0.61		0.57	U	0.59	U	0.044	J	0.045	J	0.033	U
Chromium	21		4.5		17		8.7		8.5		4.2	
Lead	42.1		2.8		5.1		3.5	J	3.3	J	2.5	J
Mercury	0.057		0.037	U	0.039	U	0.019	U	0.029	J	0.019	U
Selenium	0.6	U	0.57	U	0.59	U	0.51	U	0.67		0.51	U
Silver	1.2	U	1.1	U	1.2	U	0.1	U	0.1	U	0.1	U

APPENDIX G
SUBSURFACE SOIL - SWMU 311
INORGANIC COMPOUNDS
SWMU CONFIRMATORY SAMPLING (CTO-0143)
S1735 - O/W, 8th COMMUNICATIONS BN, 2D SRIG
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU311-TW01-03		SWMU311-TW02-03		SWMU311-TW03-03		SWMU311-TW03A-08	
SAMPLE DATE	03-24-2002		03-24-2002		03-25-2002		04-08-2002	
DEPTH	5' - 7'		5' - 7'		5' - 7'		15' - 17'	
METALS (mg/kg)								
Arsenic	0.3	U	0.69	J	0.27	U	0.78	J
Barium	45		20.1		4		10.2	J
Cadmium	0.27	J	0.052	J	0.033	U	0.05	U
Chromium	12.1		13.9		2.3		16.1	J
Lead	28.5	J	4.7	J	1.7	J	5.6	J
Mercury	0.023	J	0.027	J	0.018	U	0.07	U
Selenium	0.84		0.52	U	0.51	U	0.27	UJ
Silver	0.11	U	0.102	U	0.1	U	0.065	U

APPENDIX G
GROUNDWATER - SWMU 311
ORGANIC COMPOUNDS
SWMU CONFIRMATORY SAMPLING (CTO-0143)
S1735 - O/W, 8th COMMUNICATIONS BN, 2D SRIG
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU311-GW01		SWMU311-GW02		SWMU311-GW03	
SAMPLE DATE	04-04-2002		04-04-2002		04-09-2002	
VOLATILES (ug/L)						
1,1,1-Trichloroethane	5	U	5	U	5	U
1,1,2,2-Tetrachloroethane	5	U	5	U	5	U
1,1,2-Trichloro-1,2,2-trifluoroethane	5	U	5	U	5	U
1,1,2-Trichloroethane	5	U	5	U	5	U
1,1-Dichloroethane	5	U	5	U	5	U
1,1-Dichloroethene	5	U	5	U	5	U
1,2,4-Trichlorobenzene	5	U	5	UJ	5	U
1,2-Dibromo-3-chloropropane	5	U	5	U	5	U
1,2-Dibromoethane	5	U	5	U	5	U
1,2-Dichlorobenzene	5	U	5	U	5	U
1,2-Dichloroethane	5	U	5	U	5	U
1,2-Dichloropropane	5	U	5	U	5	U
1,3-Dichlorobenzene	5	U	5	U	5	U
1,4-Dichlorobenzene	5	U	5	U	5	U
2-Butanone	13	U	13	U	13	U
2-Hexanone	13	U	13	U	13	U
4-Methyl-2-pentanone	13	U	13	U	13	U
Acetone	13	U	5	U	13	U
Benzene	5	U	5	U	5	U
Bromodichloromethane	5	U	5	U	5	U
Bromoform	5	U	5	U	5	U
Bromomethane	5	UJ	5	UJ	5	U
Carbon disulfide	5	U	5	U	5	U
Carbon tetrachloride	5	U	5	U	5	U
Chlorobenzene	5	U	5	U	5	U
Chloroethane	5	U	5	U	5	U
Chloroform	5	U	5	U	5	U
Chloromethane	5	U	5	U	5	U
cis-1,2-Dichloroethene	5	U	5	U	5	U
cis-1,3-Dichloropropene	5	U	5	U	5	U
Cyclohexane	3	J	5	U	5	U
Dibromochloromethane	5	U	5	U	5	U
Dichlorodifluoromethane	5	U	5	U	5	U
Ethylbenzene	2	J	5	U	5	U
Isopropylbenzene	3	J	5	U	5	U
Methyl acetate	5	U	5	U	5	U
Methyl-t-butyl ether	5	U	5	U	5	U
Methylcyclohexane	3	J	5	U	5	U

APPENDIX G
GROUNDWATER - SWMU 311
ORGANIC COMPOUNDS
SWMU CONFIRMATORY SAMPLING (CTO-0143)
S1735 - O/W, 8th COMMUNICATIONS BN, 2D SRIG
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU311-GW01		SWMU311-GW02		SWMU311-GW03	
SAMPLE DATE	04-04-2002		04-04-2002		04-09-2002	
VOLATILES (ug/L) (cont)						
Methylene chloride	5	U	5	U	5	U
Styrene	5	U	5	U	5	U
Tetrachloroethene	5	U	5	U	5	U
Toluene	5	U	5	U	5	U
trans-1,2-Dichloroethene	5	U	5	U	5	U
trans-1,3-Dichloropropene	5	U	5	U	5	U
Trichloroethene	5	U	5	U	5	U
Trichlorofluoromethane	5	U	5	U	5	U
Vinyl chloride	5	U	5	U	5	U
Xylene (Total)	3	J	5	U	5	U

APPENDIX G
GROUNDWATER - SWMU 311
INORGANIC COMPOUNDS
SWMU CONFIRMATORY SAMPLING (CTO-0143)
S1735 - O/W, 8th COMMUNICATIONS BN, 2D SRIG
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU311-GW01		SWMU311-GW02		SWMU311-GW03	
SAMPLE DATE	04-04-2002		04-04-2002		04-09-2002	
METALS (ug/L)						
Arsenic	2.4	UJ	2.4	UJ	3.4	J
Barium	54.5		24.7		33	U
Cadmium	0.3	U	0.3	U	0.4	U
Chromium	11.4		0.6	U	0.5	UJ
Lead	9.4		1.8	U	1.1	U
Mercury	0.1	U	0.1	U	0.1	UJ
Selenium	4.6	UJ	4.6	UJ	2.1	UJ
Silver	0.9	U	0.9	U	0.5	U

APPENDIX G
SURFACE SOIL - SWMU 312
ORGANIC COMPOUNDS
SWMU CONFIRMATORY SAMPLING (CTO-0143)
S1735 - O/W, BASE MAINTENANCE
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU312-IS01-00	SWMU312-IS02-00	SWMU312-IS03-00	SWMU312-IS04-00	SWMU312-SB01-00	SWMU312-SB02-00	SWMU312-TW01-00	SWMU312-TW02-00	SWMU312-TW03-00
SAMPLE DATE	09-12-1997	09-11-1997	09-11-1997	09-11-1997	03-21-2002	03-21-2002	03-21-2002	03-21-2002	03-21-2002
DEPTH	0' - 2'	0' - 2'	0' - 2'	0' - 2'	0' - 1'	0' - 1'	0' - 1'	0' - 1'	0' - 1'
SEMIVOLATILES (ug/kg)									
1,1'-Biphenyl	NA	NA	NA	NA	390 U	360 U	380 U	350 U	380 U
2,2'-Oxybis(1-Chloropropane)	370 U	370 U	390 U	370 U	390 U	360 U	380 U	350 U	380 U
2,4,5-Trichlorophenol	370 U	370 U	390 U	370 U	390 U	360 U	380 U	350 U	380 U
2,4,6-Trichlorophenol	370 U	370 U	390 U	370 U	390 U	360 U	380 U	350 U	380 U
2,4-Dichlorophenol	370 U	370 U	390 U	370 U	390 U	360 U	380 U	350 U	380 U
2,4-Dimethylphenol	370 U	370 U	390 U	370 U	390 U	360 U	380 U	350 U	380 U
2,4-Dinitrophenol	1800 U	1800 U	1900 U	1800 U	2000 U	1900 UJ	2000 U	1800 U	1900 U
2,4-Dinitrotoluene	370 U	370 U	390 U	370 U	390 U	360 U	380 U	350 U	380 U
2,6-Dinitrotoluene	370 U	370 U	390 U	370 U	390 U	360 U	380 U	350 U	380 U
2-Chloronaphthalene	370 U	370 U	390 U	370 U	390 U	360 U	380 U	350 U	380 U
2-Chlorophenol	370 U	370 U	390 U	370 U	390 U	360 U	380 U	350 U	380 U
2-Methylnaphthalene	83 J	370 U	390 U	370 U	390 U	360 U	380 U	350 U	380 U
2-Methylphenol	370 U	370 U	390 U	370 U	390 U	360 U	380 U	350 U	380 U
2-Nitroaniline	1800 U	1800 U	1900 U	1800 U	780 U	730 U	770 U	700 U	750 U
2-Nitrophenol	370 U	370 U	390 U	370 U	390 U	360 U	380 U	350 U	380 U
3,3'-Dichlorobenzidine	1800 U	1800 U	1900 U	1800 U	780 U	730 U	770 U	700 U	750 U
3-Nitroaniline	1800 U	1800 U	1900 U	1800 U	780 U	730 U	770 U	700 U	750 U
4,6-Dinitro-2-methylphenol	1800 U	1800 U	1900 U	1800 U	780 U	730 U	770 U	700 U	750 U
4-Bromophenyl phenyl ether	370 U	370 U	390 U	370 U	390 U	360 U	380 U	350 U	380 U
4-Chloro-3-methylphenol	370 U	370 U	390 U	370 U	390 U	360 U	380 U	350 U	380 U
4-Chloroaniline	370 U	370 U	390 U	370 U	390 U	360 U	380 U	350 U	380 U
4-Chlorophenyl phenyl ether	370 U	370 U	390 U	370 U	390 U	360 U	380 U	350 U	380 U
4-Methylphenol	370 U	370 U	390 U	370 U	390 U	360 U	380 U	350 U	380 U
4-Nitroaniline	1800 U	1800 U	1900 U	1800 U	780 U	730 U	770 U	700 U	750 U
4-Nitrophenol	1800 U	1800 U	1900 U	1800 U	780 U	730 U	770 U	700 U	750 U
Acenaphthene	370 U	370 U	390 U	370 U	390 U	68 J	380 U	350 U	380 U
Acenaphthylene	41 J	370 U	390 U	370 U	390 U	360 U	380 U	350 U	380 U
Acetophenone	NA	NA	NA	NA	390 UJ	360 U	380 U	350 U	380 U
Anthracene	78 J	370 U	390 U	370 U	390 U	96 J	380 U	350 U	380 U
Atrazine	NA	NA	NA	NA	390 U	360 U	380 U	350 U	380 U
Benzaldehyde	NA	NA	NA	NA	390 U	360 U	380 U	350 U	380 U
Benzo(a)anthracene	93 J	370 U	35 J	370 U	390 U	250 J	380 U	350 U	380 U
Benzo(a)pyrene	100 J	370 U	82 J	55 J	390 U	190 J	380 U	350 U	380 U
Benzo(b)fluoranthene	170 J	370 U	390 U	370 U	390 U	180 J	380 U	350 U	380 U
Benzo(ghi)perylene	81 J	370 U	390 U	370 U	390 U	92 J	380 U	350 U	380 U
Benzo(k)fluoranthene	140 J	370 U	390 U	370 U	390 U	220 J	380 U	350 U	380 U
bis(2-Chloroethoxy)methane	370 U	370 U	390 U	370 U	390 U	360 U	380 U	350 U	380 U
bis(2-Chloroethyl) ether	370 U	370 U	390 U	370 U	390 U	360 U	380 U	350 U	380 U
bis(2-Ethylhexyl) phthalate	100 J	110 J	100 J	120 J	390 U	360 U	380 U	390 U	380 U
Butyl benzyl phthalate	370 U	370 U	390 U	370 U	390 U	360 U	380 U	350 U	380 U
Caprolactam	NA	NA	NA	NA	390 U	360 U	380 U	350 U	380 U

APPENDIX G
SURFACE SOIL - SWMU 312
ORGANIC COMPOUNDS
SWMU CONFIRMATORY SAMPLING (CTO-0143)
S1735 - O/W, BASE MAINTENANCE
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU312-IS01-00		SWMU312-IS02-00		SWMU312-IS03-00		SWMU312-IS04-00		SWMU312-SB01-00		SWMU312-SB02-00		SWMU312-TW01-00		SWMU312-TW02-00		SWMU312-TW03-00	
SAMPLE DATE	09-12-1997		09-11-1997		09-11-1997		09-11-1997		03-21-2002		03-21-2002		03-21-2002		03-21-2002		03-21-2002	
DEPTH	0' - 2'		0' - 2'		0' - 2'		0' - 2'		0' - 1'		0' - 1'		0' - 1'		0' - 1'		0' - 1'	
SEMIVOLATILES (ug/kg) (cont)																		
Carbazole	370	U	370	U	390	U	370	U	390	U	65	J	380	U	350	U	380	U
Chrysene	160	J	370	U	43	J	370	U	390	U	230	J	380	U	350	U	380	U
Di-n-butyl phthalate	370	U	370	U	390	U	370	U	390	U	360	U	380	U	350	U	380	U
Di-n-octyl phthalate	370	U	370	U	390	U	370	U	390	U	360	U	380	U	26	J	120	J
Dibenz(a,h)anthracene	45	J	370	U	390	U	370	U	390	U	51	J	380	U	350	U	380	U
Dibenzofuran	370	U	370	U	390	U	370	U	390	U	40	J	380	U	350	U	380	U
Diethyl phthalate	370	U	370	U	390	U	370	U	390	U	360	U	380	U	350	U	380	U
Dimethyl phthalate	370	U	370	U	390	U	370	U	390	U	360	U	380	U	350	U	380	U
Fluoranthene	120	J	370	U	63	J	370	U	390	U	640		380	U	350	U	380	U
Fluorene	370	U	370	U	390	U	370	U	390	U	43	J	380	U	350	U	380	U
Hexachlorobenzene	370	U	370	U	390	U	370	U	390	U	360	U	380	U	350	U	380	U
Hexachlorobutadiene	370	U	370	U	390	U	370	U	390	U	360	U	380	UJ	350	UJ	380	U
Hexachlorocyclopentadiene	1800	U	1800	U	1900	U	1800	U	390	U	360	UJ	380	U	350	U	380	U
Hexachloroethane	370	U	370	U	390	U	370	U	390	U	360	U	380	U	350	U	380	U
Indeno(1,2,3-cd)pyrene	76	J	370	U	390	U	370	U	390	U	180	J	380	U	350	U	380	U
Isophorone	370	U	370	U	390	U	370	U	390	U	360	U	380	U	350	U	380	U
N-Nitrosodi-n-propylamine	370	U	370	U	390	U	370	U	390	U	360	U	380	U	350	U	380	U
N-Nitrosodiphenylamine	370	U	370	U	390	U	370	U	390	U	360	U	380	U	350	U	380	U
Naphthalene	370	U	370	U	390	U	370	U	390	U	360	U	380	U	350	U	380	U
Nitrobenzene	370	U	370	U	390	U	370	U	390	U	360	U	380	U	350	U	380	U
Pentachlorophenol	1800	U	1800	U	1900	U	1800	U	780	U	730	U	770	U	700	U	750	U
Phenanthrene	95	J	370	U	43	J	370	U	390	U	450		380	U	350	U	380	U
Phenol	370	U	370	U	390	U	370	U	390	U	360	U	380	U	350	U	380	U
Pyrene	130	J	370	U	49	J	370	U	390	U	480		380	U	350	U	380	U

APPENDIX G
SURFACE SOIL - SWMU 312
INORGANIC COMPOUNDS
SWMU CONFIRMATORY SAMPLING (CTO-0143)
S1735 - O/W, BASE MAINTENANCE
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU312-IS01-00		SWMU312-IS02-00		SWMU312-IS03-00		SWMU312-IS04-00		SWMU312-SB01-00		SWMU312-SB02-00		SWMU312-TW01-00		SWMU312-TW02-00		SWMU312-TW03-00	
SAMPLE DATE	09-12-1997		09-11-1997		09-11-1997		09-11-1997		03-21-2002		03-21-2002		03-21-2002		03-21-2002		03-21-2002	
DEPTH	0' - 2'		0' - 2'		0' - 2'		0' - 2'		0' - 1'		0' - 1'		0' - 1'		0' - 1'		0' - 1'	
METALS (mg/kg)																		
Arsenic	1.1		1.4		1.2	U	1.1	U	5.2		0.24	U	0.27	U	0.25	U	0.26	U
Barium	760		22.2	U	23.7	U	22.4	U	9.4		3.4	U	8.2		1.7	U	12.3	
Cadmium	0.56	U	0.56	U	0.59	U	0.56	U	0.29	J	0.03	U	0.05	U	0.03	U	0.03	U
Chromium	10.5		10.1		5.4		7.7		33.3		1.9		7.3		1		5.1	
Lead	8.2		18.8		16.8		10.6		7.2		11.7		4.5	J	1.2	J	9.6	J
Mercury	0.037	U	0.04		0.05		0.037	U	0.02	U	0.02	U	0.02	U	0.02	U	0.02	U
Selenium	0.56	U	0.56		0.59	U	0.56	U	2.5		0.46	U	0.51	U	0.48	U	0.68	
Silver	1.1	U	1.1	U	1.2	U	1.1	U	0.1	U	0.09	U	0.1	U	0.09	U	0.1	U

APPENDIX G
SUBSURFACE SOIL - SWMU 312
ORGANIC COMPOUNDS
SWMU CONFIRMATORY SAMPLING (CTO-0143)
S1735 - O/W, BASE MAINTENANCE
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU312-IS01-01	SWMU312-IS02-01	SWMU312-IS03-01	SWMU312-IS04-01	SWMU312-SB01-02	SWMU312-SB02-04	SWMU312-TW01-02	SWMU312-TW02-04	SWMU312-TW03-03
SAMPLE DATE	09-12-1997	09-11-1997	09-11-1997	09-11-1997	03-21-2002	03-21-2002	03-21-2002	03-21-2002	03-21-2002
DEPTH	2' - 4'	2' - 4'	2' - 4'	2' - 4'	3' - 5'	7' - 9'	3' - 5'	7' - 9'	5' - 7'
SEMIVOLATILES (ug/kg)									
1,1'-Biphenyl	NA	NA	NA	NA	410 U	360 U	390 U	360 U	380 U
2,2'-Oxybis(1-Chloropropane)	380 U	410 U	380 U	350 U	410 U	360 U	390 U	360 U	380 U
2,4,5-Trichlorophenol	380 U	410 U	380 U	350 U	410 U	360 U	390 U	360 U	380 U
2,4,6-Trichlorophenol	380 U	410 U	380 U	350 U	410 U	360 U	390 U	360 U	380 U
2,4-Dichlorophenol	380 U	410 U	380 U	350 U	410 U	360 U	390 U	360 U	380 U
2,4-Dimethylphenol	380 U	410 U	380 U	350 U	410 U	360 U	390 U	360 U	380 U
2,4-Dinitrophenol	1800 U	2000 U	1900 U	1700 U	2100 U	1800 UJ	2000 U	1800 U	1900 U
2,4-Dinitrotoluene	380 U	410 U	380 U	350 U	410 U	360 U	390 U	360 U	380 U
2,6-Dinitrotoluene	380 U	410 U	380 U	350 U	410 U	360 U	390 U	360 U	380 U
2-Chloronaphthalene	380 U	410 U	380 U	350 U	410 U	360 U	390 U	360 U	380 U
2-Chlorophenol	380 U	410 U	380 U	350 U	410 U	360 U	390 U	360 U	380 U
2-Methylnaphthalene	94 J	410 U	380 U	350 U	76 J	360 U	390 U	360 U	380 U
2-Methylphenol	380 U	410 U	380 U	350 U	410 U	360 U	390 U	360 U	380 U
2-Nitroaniline	1800 U	2000 U	1900 U	1700 U	810 U	720 U	790 U	720 U	750 U
2-Nitrophenol	380 U	410 U	380 U	350 U	410 U	360 U	390 U	360 U	380 U
3,3'-Dichlorobenzidine	1800 U	2000 U	1900 U	1700 U	810 U	720 U	790 U	720 U	750 U
3-Nitroaniline	1800 U	2000 U	1900 U	1700 U	810 U	720 U	790 U	720 U	750 U
4,6-Dinitro-2-methylphenol	1800 U	2000 U	1900 U	1700 U	810 U	720 U	790 U	720 U	750 U
4-Bromophenyl phenyl ether	380 U	410 U	380 U	350 U	410 U	360 U	390 U	360 U	380 U
4-Chloro-3-methylphenol	380 U	410 U	380 U	350 U	410 U	360 U	390 U	360 U	380 U
4-Chloroaniline	380 U	410 U	380 U	350 U	410 U	360 U	390 U	360 U	380 U
4-Chlorophenyl phenyl ether	380 U	410 U	380 U	350 U	410 U	360 U	390 U	360 U	380 U
4-Methylphenol	380 U	410 U	380 U	350 U	410 U	360 U	390 U	360 U	380 U
4-Nitroaniline	1800 U	2000 U	1900 U	1700 U	810 U	720 U	790 U	720 U	750 U
4-Nitrophenol	1800 U	2000 U	1900 U	1700 U	810 U	720 U	790 U	720 U	750 U
Acenaphthene	380 U	410 U	380 U	350 U	410 U	360 U	390 U	360 U	380 U
Acenaphthylene	45 J	410 U	380 U	350 U	410 U	360 U	390 U	360 U	380 U
Acetophenone	NA	NA	NA	NA	290 J	360 U	390 U	360 U	380 U
Anthracene	83 J	410 U	380 U	350 U	410 U	360 U	390 U	360 U	380 U
Atrazine	NA	NA	NA	NA	410 U	360 U	390 U	360 U	380 U
Benzaldehyde	NA	NA	NA	NA	410 U	360 U	390 U	360 U	380 U
Benzo(a)anthracene	75 J	410 U	380 U	350 U	410 U	360 U	390 U	360 U	380 U
Benzo(a)pyrene	96 J	410 U	380 U	350 U	410 U	360 U	390 U	360 U	380 U
Benzo(b)fluoranthene	180 J	410 U	380 U	350 U	410 U	360 U	390 U	360 U	380 U
Benzo(ghi)perylene	78 J	410 U	380 U	350 U	410 U	360 U	390 U	360 U	380 U
Benzo(k)fluoranthene	100 J	410 U	380 U	350 U	410 U	360 U	390 U	360 U	380 U
bis(2-Chloroethoxy)methane	380 U	410 U	380 U	350 U	410 U	360 U	390 U	360 U	380 U
bis(2-Chloroethyl) ether	380 U	410 U	380 U	350 U	410 U	360 U	390 U	360 U	380 U
bis(2-Ethylhexyl) phthalate	120 J	110 J	1700 J	70 J	410 U	360 U	390 U	360 U	380 U
Butyl benzyl phthalate	380 U	410 U	380 U	350 U	410 U	360 U	390 U	360 U	380 U
Caprolactam	NA	NA	NA	NA	410 U	360 U	390 U	360 U	380 U

APPENDIX G
SUBSURFACE SOIL - SWMU 312
ORGANIC COMPOUNDS
SWMU CONFIRMATORY SAMPLING (CTO-0143)
S1735 - O/W, BASE MAINTENANCE
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU312-IS01-01	SWMU312-IS02-01	SWMU312-IS03-01	SWMU312-IS04-01	SWMU312-SB01-02	SWMU312-SB02-04	SWMU312-TW01-02	SWMU312-TW02-04	SWMU312-TW03-03
SAMPLE DATE	09-12-1997	09-11-1997	09-11-1997	09-11-1997	03-21-2002	03-21-2002	03-21-2002	03-21-2002	03-21-2002
DEPTH	2' - 4'	2' - 4'	2' - 4'	2' - 4'	3' - 5'	7' - 9'	3' - 5'	7' - 9'	5' - 7'
SEMIVOLATILES (ug/kg) (cont)									
Carbazole	380 U	410 U	380 U	350 U	410 U	360 U	390 U	360 U	380 U
Chrysene	150 J	410 U	380 U	350 U	410 U	360 U	390 U	360 U	380 U
Di-n-butyl phthalate	380 U	410 U	380 U	350 U	410 U	360 U	390 U	360 U	380 U
Di-n-octyl phthalate	380 U	410 U	380 U	350 U	410 U	360 U	390 U	360 U	380 U
Dibenz(a,h)anthracene	38 J	410 U	380 U	350 U	410 U	360 U	390 U	360 U	380 U
Dibenzofuran	380 U	410 U	380 U	350 U	410 U	360 U	390 U	360 U	380 U
Diethyl phthalate	380 U	410 U	380 U	350 U	410 U	360 U	390 U	360 U	380 U
Dimethyl phthalate	380 U	410 U	380 U	350 U	410 U	360 U	390 U	360 U	380 U
Fluoranthene	130 J	410 U	380 U	54 J	38 J	360 U	390 U	360 U	29 J
Fluorene	380 U	410 U	380 U	350 U	410 U	360 U	390 U	360 U	380 U
Hexachlorobenzene	380 U	410 U	380 U	350 U	410 U	360 U	390 U	360 U	380 U
Hexachlorobutadiene	380 U	410 U	380 U	350 U	410 U	360 U	390 UJ	360 UJ	380 UJ
Hexachlorocyclopentadiene	1800 U	2000 U	1900 U	1700 U	410 U	360 UJ	390 U	360 U	380 U
Hexachloroethane	380 U	410 U	380 U	350 U	410 U	360 U	390 U	360 U	380 U
Indeno(1,2,3-cd)pyrene	72 J	410 U	380 U	350 U	410 U	360 U	390 U	360 U	380 U
Isophorone	380 U	410 U	380 U	350 U	410 U	360 U	390 U	360 U	380 U
N-Nitrosodi-n-propylamine	380 U	410 U	380 U	350 U	410 U	360 U	390 U	360 U	380 U
N-Nitrosodiphenylamine	380 U	410 U	380 U	350 U	410 U	360 U	390 U	360 U	380 U
Naphthalene	42 J	410 U	380 U	350 U	77 J	360 U	390 U	360 U	380 U
Nitrobenzene	380 U	410 U	380 U	350 U	410 U	360 U	390 U	360 U	380 U
Pentachlorophenol	1800 U	2000 U	1900 U	1700 U	810 U	720 U	790 U	720 U	750 U
Phenanthrene	120 J	410 U	380 U	350 U	63 J	360 U	390 U	360 U	380 U
Phenol	380 U	410 U	380 U	350 U	410 U	360 U	390 U	360 U	380 U
Pyrene	150 J	410 U	380 U	350 U	34 J	360 U	390 U	360 U	380 U

APPENDIX G
SUBSURFACE SOIL - SWMU 312
INORGANIC COMPOUNDS
SWMU CONFIRMATORY SAMPLING (CTO-0143)
S1735 - O/W, BASE MAINTENANCE
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU312-IS01-01	SWMU312-IS02-01	SWMU312-IS03-01	SWMU312-IS04-01	SWMU312-SB01-02	SWMU312-SB02-04	SWMU312-TW01-02	SWMU312-TW02-04	SWMU312-TW03-03
SAMPLE DATE	09-12-1997	09-11-1997	09-11-1997	09-11-1997	03-21-2002	03-21-2002	03-21-2002	03-21-2002	03-21-2002
DEPTH	2' - 4'	2' - 4'	2' - 4'	2' - 4'	3' - 5'	7' - 9'	3' - 5'	7' - 9'	5' - 7'
METALS (mg/kg)									
Arsenic	2.7	1.2	1.2 U	1.1 U	0.27 U	0.24 U	0.29 U	0.26 U	0.27 U
Barium	62.4	24.8 U	23.2 U	21.2 U	12.2	2.7 U	3.8 U	2 U	11.2
Cadmium	0.57 U	0.62 U	0.58 U	0.53 U	0.03 U	0.03 U	0.04 U	0.03 U	0.03 U
Chromium	10.5	10	7.8	6.4	6.9	1.8	3.3	1.4	6
Lead	12.6	15.3	14.7	14.7	5.5	2.4	2.4 J	1.3 J	7.5 J
Mercury	0.038 U	0.041 U	0.038 U	0.035 U	0.04 J	0.02 U	0.02 U	0.02 U	0.02 U
Selenium	0.57 U	0.62 U	0.58 U	0.53 U	0.52 U	0.46 U	0.55 U	0.49 U	0.53 U
Silver	1.1 U	1.2 U	1.2 U	1.1 U	0.1 U	0.09 U	0.11 U	0.1 U	0.1 U

APPENDIX G
GROUNDWATER - SWMU 312
ORGANIC COMPOUNDS
SWMU CONFIRMATORY SAMPLING (CTO-0143)
S1735 - O/W, BASE MAINTENANCE
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU312-GW01		SWMU312-GW02		SWMU312-GW03	
SAMPLE DATE	04-04-2002		04-04-2002		04-04-2002	
SEMIVOLATILES (ug/L)						
1,1'-Biphenyl	10	U	10	U	10	U
2,2'-oxybis(1-Chloropropane)	10	U	10	U	10	U
2,4,5-Trichlorophenol	10	U	10	U	10	U
2,4,6-Trichlorophenol	10	U	10	U	10	U
2,4-Dichlorophenol	10	U	10	U	10	U
2,4-Dimethylphenol	10	U	10	U	10	U
2,4-Dinitrophenol	50	U	50	U	50	U
2,4-Dinitrotoluene	10	U	10	U	10	U
2,6-Dinitrotoluene	10	U	10	U	10	U
2-Chloronaphthalene	10	U	10	U	10	U
2-Chlorophenol	10	U	10	U	10	U
2-Methylnaphthalene	10	U	10	U	10	U
2-Methylphenol	10	U	10	U	10	U
2-Nitroaniline	20	U	20	U	20	U
2-Nitrophenol	10	U	10	U	10	U
3,3'-Dichlorobenzidine	20	U	20	U	20	U
3-Nitroaniline	20	U	20	U	20	U
4,6-dinitro-2-Methylphenol	20	U	20	U	20	U
4-Bromophenyl phenyl ether	10	U	10	U	10	U
4-Chloro-3-methylphenol	10	U	10	U	10	U
4-Chloroaniline	10	U	10	U	10	U
4-Chlorophenyl phenyl ether	10	U	10	U	10	U
4-Methylphenol	10	U	10	U	10	U
4-Nitroaniline	20	U	20	U	20	U
4-Nitrophenol	20	U	20	U	20	U
Acenaphthene	10	U	10	U	10	U
Acenaphthylene	10	U	10	U	10	U
Acetophenone	10	U	10	U	10	U
Anthracene	10	U	10	U	10	U
Atrazine	10	U	10	U	10	U
Benzaldehyde	10	U	10	U	10	U
Benzo(a)anthracene	10	U	10	U	10	U
Benzo(a)pyrene	10	U	10	U	10	U
Benzo(b)fluoranthene	10	U	10	U	10	U
Benzo(g,h,i)perylene	10	U	10	U	10	U
Benzo(k)fluoranthene	10	U	10	U	10	U
bis(2-Chloroethoxy)methane	10	U	10	U	10	U
bis(2-Chloroethyl)ether	10	U	10	U	10	U

APPENDIX G
GROUNDWATER - SWMU 312
ORGANIC COMPOUNDS
SWMU CONFIRMATORY SAMPLING (CTO-0143)
S1735 - O/W, BASE MAINTENANCE
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU312-GW01		SWMU312-GW02		SWMU312-GW03	
SAMPLE DATE	04-04-2002		04-04-2002		04-04-2002	
SEMIVOLATILES (ug/L) (cont)						
bis(2-Ethylhexyl)phthalate	10	U	10	U	10	U
Butyl benzyl phthalate	10	U	10	U	10	U
Caprolactam	10	U	10	U	10	U
Carbazole	10	U	10	U	10	U
Chrysene	10	U	10	U	10	U
di-N-Butyl phthalate	10	U	10	U	10	U
di-N-Octyl phthalate	10	U	10	U	10	U
Dibenzo(a,h)anthracene	10	U	10	U	10	U
Dibenzofuran	10	U	10	U	10	U
Diethyl phthalate	10	U	10	U	10	U
Dimethyl phthalate	10	U	10	U	10	U
Fluoranthene	10	U	10	U	10	U
Fluorene	10	U	10	U	10	U
Hexachlorobenzene	10	U	10	U	10	U
Hexachlorobutadiene	10	U	10	U	10	U
Hexachlorocyclopentadiene	10	UJ	10	UJ	10	U
Hexachloroethane	10	U	10	U	10	U
Indeno(1,2,3-cd)pyrene	10	U	10	U	10	U
Isophorone	10	U	10	U	10	U
N-Nitroso-di-N-propylamine	10	U	10	U	10	U
N-Nitrosodiphenylamine(1)	10	U	10	U	10	U
Naphthalene	10	U	10	U	10	U
Nitrobenzene	10	UJ	10	UJ	10	U
Pentachlorophenol	20	U	20	U	20	U
Phenanthrene	10	U	10	U	10	U
Phenol	10	U	10	U	10	U
Pyrene	10	U	10	U	10	U

APPENDIX G
GROUNDWATER - SWMU 312
INORGANIC COMPOUNDS
SWMU CONFIRMATORY SAMPLING (CTO-0143)
S1735 - O/W, BASE MAINTENANCE
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU312-GW01		SWMU312-GW02		SWMU312-GW03	
SAMPLE DATE	04-04-2002		04-04-2002		04-04-2002	
METALS (ug/L)						
Arsenic	2.4	UJ	2.4	UJ	2.4	UJ
Barium	137		102		93.5	
Cadmium	0.3	U	0.3	U	0.3	U
Chromium	5.4		9.5		1.7	J
Lead	4.3		6.6		4	
Mercury	0.1	U	0.13	U	0.1	U
Selenium	4.6	UJ	4.6	UJ	4.6	UJ
Silver	0.9	U	0.9	U	0.9	U

APPENDIX G
SURFACE SOIL - SWMU 313
INORGANIC COMPOUNDS
SWMU CONFIRMATORY SAMPLING (CTO-0143)
S1753 - O/W-AST, SMALL CRAFT CO HQ, BN, 2D MAR DIV
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU313-IS01-00	SWMU313-IS02-00	SWMU313-IS03-00	SWMU313-IS04-00	SWMU313-SB01-00	SWMU313-SB02-00	SWMU313-TW01-00	SWMU313-TW02-00	SWMU313-TW03-00
SAMPLE DATE	09-13-1997	09-13-1997	09-13-1997	09-13-1997	03-22-2002	03-22-2002	03-22-2002	03-22-2002	03-22-2002
DEPTH	0' - 2'	0' - 2'	0' - 2'	0' - 2'	0' - 1'	0' - 1'	0' - 1'	0' - 1'	0' - 1'
METALS (mg/kg)									
Arsenic	1.1	1.6	1.3	1.6	0.28 U	0.36 J	0.28 U	0.36 J	0.26 U
Barium	22.4 U	21.9 U	22 U	22.1 U	4 U	11.8	5.4 U	7.1 U	4 U
Cadmium	0.56 U	0.55 U	0.55 U	0.55 U	0.03 U	0.24 J	0.03 U	0.03 U	0.03 U
Chromium	10.9	8	6.9	8.4	6.7 J	9.9 J	6.6 J	6.3 J	1.5 J
Lead	15.2	8.3	4	5.5	4.1	29.5	4.1	4	1.7
Mercury	0.037 U	0.036 U	0.036 U	0.039	0.06 J	0.04 J	0.04 J	0.03 J	0.03 J
Selenium	0.56 U	0.55 U	0.55 U	0.62	0.73	0.54 U	0.53 U	0.52 U	0.5 U
Silver	1.1 U	1.8	1.1 U	1.1 U	0.1 U	0.11 U	0.1 U	0.1 U	0.098 U

APPENDIX G
SUBSURFACE SOIL - SWMU 313
INORGANIC COMPOUNDS
SWMU CONFIRMATORY SAMPLING (CTO-0143)
S1753 - O/W-AST, SMALL CRAFT CO HQ, BN, 2D MAR DIV
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU313-IS01-02	SWMU313-IS02-02	SWMU313-IS03-02	SWMU313-IS04-02	SWMU313-SB01-01	SWMU313-SB02-01	SWMU313-TW01-01	SWMU313-TW02-01	SWMU313-TW03-01
SAMPLE DATE	09-13-1997	09-13-1997	09-13-1997	09-13-1997	03-22-2002	03-22-2002	03-22-2002	03-22-2002	03-22-2002
DEPTH	4' - 6'	4' - 6'	4' - 6'	4' - 6'	1' - 3'	1' - 3'	1' - 3'	1' - 3'	1' - 3'
METALS (mg/kg)									
Arsenic	1.2 U	1.1 U	1.2 U	1.2	0.28 U	1.2 J	0.27 U	0.91 J	0.37 J
Barium	23.3 U	22.7 U	24 U	24 U	4.8 U	16.9	4.4 U	10.7	2.7 U
Cadmium	0.58 U	0.57 U	0.6 U	0.6 U	0.04 U	0.2 J	0.03 U	0.04 U	0.03 U
Chromium	7.9	6.3	5.7	8.1	9.2 J	11.1 J	5.8 J	8.3 J	4.1 J
Lead	5.2	4.6	2.5	3.7	4.1	19.6	3.1	3.5	2.1
Mercury	0.039 U	0.037 U	0.04 U	0.04 U	0.03 J	0.03 J	0.04 J	0.03 J	0.02 J
Selenium	0.58 U	0.57 U	0.6 U	0.6 U	0.54 U	0.55 U	0.52 U	0.61	0.51 U
Silver	1.2 U	1.1 U	1.2 U	1.2 U	0.11 U	0.11 U	0.1 U	0.11 U	0.1 U

APPENDIX G
GROUNDWATER - SWMU 313
INORGANIC COMPOUNDS
SWMU CONFIRMATORY SAMPLING (CTO-0143)
S1753 - O/W-AST, SMALL CRAFT CO HQ, BN, 2D MAR DIV
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU313-GW01		SWMU313-GW02		SWMU313-GW03	
SAMPLE DATE	04-04-2002		04-04-2002		04-04-2002	
METALS (ug/L)						
Arsenic	2.4	UJ	2.4	UJ	2.4	UJ
Barium	22		38.2		53.7	
Cadmium	0.3	U	0.3	U	0.3	U
Chromium	2.9	J	13.2		0.82	J
Lead	1.8	U	4.8		1.8	U
Mercury	0.1	U	0.1	U	0.1	U
Selenium	4.6	UJ	4.6	UJ	4.6	UJ
Silver	0.9	U	0.9	U	0.9	U

APPENDIX G
SURFACE SOIL - SWMU 314
ORGANIC COMPOUNDS
SWMU CONFIRMATORY SAMPLING (CTO-0143)
SM187 - O/W, MARINE CORPS SUPPORTED SERVICES SCHOOL GROUP
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU314-IS01-00	SWMU314-IS02-00	SWMU314-IS03-00	SWMU314-IS04-00	SWMU314-TW01-00	SWMU314-TW02-00	SWMU314-TW03-00
SAMPLE DATE	09-09-1997	09-09-1997	09-09-1997	09-09-1997	03-23-2002	03-23-2002	03-23-2002
DEPTH	0' - 2'	0' - 2'	0' - 2'	0' - 2'	0' - 1'	0' - 1'	0' - 1'
SEMIVOLATILES (ug/kg)							
1,1'-Biphenyl	NA	NA	NA	NA	430 U	380 U	450 U
2,2'-Oxybis(1-Chloropropane)	1900 U	350 U	350 U	380 U	430 U	380 U	450 U
2,4,5-Trichlorophenol	1900 U	350 U	350 U	380 U	430 U	380 U	450 U
2,4,6-Trichlorophenol	1900 U	350 U	350 U	380 U	430 U	380 U	450 U
2,4-Dichlorophenol	1900 U	350 U	350 U	380 U	430 U	380 U	450 U
2,4-Dimethylphenol	1900 U	350 U	350 U	380 U	430 U	380 U	450 U
2,4-Dinitrophenol	9100 U	1700 U	1700 U	1800 U	2200 U	2000 U	2300 U
2,4-Dinitrotoluene	1900 U	350 U	350 U	380 U	430 U	380 U	450 U
2,6-Dinitrotoluene	1900 U	350 U	350 U	380 U	430 U	380 U	450 U
2-Chloronaphthalene	1900 U	350 U	350 U	380 U	430 U	380 U	450 U
2-Chlorophenol	1900 U	350 U	350 U	380 U	430 U	380 U	450 U
2-Methylnaphthalene	1900 U	350 U	350 U	380 U	430 U	380 U	450 U
2-Methylphenol	1900 U	350 U	350 U	380 U	430 U	380 U	450 U
2-Nitroaniline	9100 U	1700 U	1700 U	1800 U	870 U	760 U	890 U
2-Nitrophenol	1900 U	350 U	350 U	380 U	430 U	380 U	450 U
3,3'-Dichlorobenzidine	9100 U	1700 U	1700 U	1800 U	870 U	760 U	890 U
3-Nitroaniline	9100 U	1700 U	1700 U	1800 U	870 U	760 U	890 U
4,6-Dinitro-2-methylphenol	9100 U	1700 U	1700 U	1800 U	870 U	760 U	890 U
4-Bromophenyl phenyl ether	1900 U	350 U	350 U	380 U	430 UJ	380 UJ	450 UJ
4-Chloro-3-methylphenol	1900 U	350 U	350 U	380 U	430 U	380 U	450 U
4-Chloroaniline	1900 U	350 U	350 U	380 U	430 U	380 U	450 U
4-Chlorophenyl phenyl ether	1900 U	350 U	350 U	380 U	430 U	380 U	450 U
4-Methylphenol	1900 U	350 U	350 U	380 U	430 U	380 U	450 U
4-Nitroaniline	9100 U	1700 U	1700 U	1800 U	870 UJ	760 UJ	890 UJ
4-Nitrophenol	9100 U	1700 U	1700 U	1800 U	870 U	760 U	890 U
Acenaphthene	1900 U	350 U	350 U	380 U	430 U	380 U	450 U
Acenaphthylene	1900 U	350 U	350 U	380 U	64 J	380 U	450 U
Acetophenone	NA	NA	NA	NA	430 U	380 U	450 U
Anthracene	1900 U	350 U	350 U	380 U	96 J	380 U	450 U
Atrazine	NA	NA	NA	NA	8 J	380 U	450 U
Benzaldehyde	NA	NA	NA	NA	430 U	380 U	450 U
Benzo(a)anthracene	1900 U	350 U	350 U	69 J	320 J	380 U	450 U
Benzo(a)pyrene	1900 U	350 U	350 U	96 J	510	380 U	450 U
Benzo(b)fluoranthene	1900 U	350 U	350 U	130 J	1400 J	380 UJ	450 UJ
Benzo(ghi)perylene	1900 U	350 U	350 U	380 U	220 J	380 U	450 U
Benzo(k)fluoranthene	1900 U	350 U	350 U	380 U	1600	380 U	450 U
bis(2-Chloroethoxy)methane	1900 U	350 U	350 U	380 U	430 U	380 U	450 U
bis(2-Chloroethyl) ether	1900 U	350 U	350 U	380 U	430 U	380 U	450 U
bis(2-Ethylhexyl) phthalate	640 J	170 J	130 J	120 J	430 U	380 U	450 U
Butyl benzyl phthalate	7000	370	350 U	380 U	430 UJ	380 UJ	450 UJ
Caprolactam	NA	NA	NA	NA	20 J	380 UJ	450 UJ

APPENDIX G
SURFACE SOIL - SWMU 314
ORGANIC COMPOUNDS
SWMU CONFIRMATORY SAMPLING (CTO-0143)
SM187 - O/W, MARINE CORPS SUPPORTED SERVICES SCHOOL GROUP
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU314-IS01-00	SWMU314-IS02-00	SWMU314-IS03-00	SWMU314-IS04-00	SWMU314-TW01-00	SWMU314-TW02-00	SWMU314-TW03-00
SAMPLE DATE	09-09-1997	09-09-1997	09-09-1997	09-09-1997	03-23-2002	03-23-2002	03-23-2002
DEPTH	0' - 2'	0' - 2'	0' - 2'	0' - 2'	0' - 1'	0' - 1'	0' - 1'
SEMIVOLATILES (ug/kg) (cont)							
Carbazole	1900 U	350 U	350 U	380 U	430 U	380 U	450 U
Chrysene	1900 U	350 U	350 U	73 J	460	380 U	450 U
Di-n-butyl phthalate	1900 U	350 U	350 U	380 U	430 U	380 U	450 U
Di-n-octyl phthalate	1900 U	350 U	350 U	380 U	430 U	380 U	450 U
Dibenz(a,h)anthracene	1900 U	350 U	350 U	380 U	120 J	380 U	450 U
Dibenzofuran	1900 U	350 U	350 U	380 U	430 U	380 U	450 U
Diethyl phthalate	1900 U	350 U	350 U	380 U	430 U	380 U	450 U
Dimethyl phthalate	1900 U	350 U	350 U	380 U	430 U	380 U	450 U
Fluoranthene	1900 U	350 U	350 U	74 J	150 J	380 U	450 U
Fluorene	1900 U	350 U	350 U	380 U	430 U	380 U	450 U
Hexachlorobenzene	1900 U	350 U	350 U	380 U	430 UJ	380 UJ	450 UJ
Hexachlorobutadiene	1900 U	350 U	350 U	380 U	430 U	380 U	450 U
Hexachlorocyclopentadiene	9100 U	1700 U	1700 U	1800 U	430 U	380 U	450 U
Hexachloroethane	1900 U	350 U	350 U	380 U	430 U	380 U	450 U
Indeno(1,2,3-cd)pyrene	1900 U	350 U	350 U	380 U	370 J	380 U	450 U
Isophorone	1900 U	350 U	350 U	380 U	430 U	380 U	450 U
N-Nitrosodi-n-propylamine	1900 U	350 U	350 U	380 U	430 U	380 U	450 U
N-Nitrosodiphenylamine	1900 U	350 U	350 U	380 U	430 U	380 U	450 U
Naphthalene	1900 U	350 U	350 U	380 U	430 U	380 U	450 U
Nitrobenzene	1900 U	350 U	350 U	380 U	430 U	380 U	450 U
Pentachlorophenol	9100 U	1700 U	1700 U	1800 U	870 U	760 U	890 U
Phenanthrene	1900 U	350 U	350 U	380 U	430 U	380 U	450 U
Phenol	1900 U	350 U	350 U	380 U	430 U	380 U	450 U
Pyrene	1900 U	350 U	350 U	110 J	560	380 U	450 U

APPENDIX G
SURFACE SOIL - SWMU 314
INORGANIC COMPOUNDS
SWMU CONFIRMATORY SAMPLING (CTO-0143)
SM187 - O/W, MARINE CORPS SUPPORTED SERVICES SCHOOL GROUP
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU314-IS01-00		SWMU314-IS02-00		SWMU314-IS03-00		SWMU314-IS04-00		SWMU314-TW01-00		SWMU314-TW02-00		SWMU314-TW03-00	
SAMPLE DATE	09-09-1997		09-09-1997		09-09-1997		09-09-1997		03-23-2002		03-23-2002		03-23-2002	
DEPTH	0' - 2'		0' - 2'		0' - 2'		0' - 2'		0' - 1'		0' - 1'		0' - 1'	
METALS (mg/kg)														
Arsenic	1.1	U	1.1	U	2		1.2	U	0.3	U	0.25	U	0.32	U
Barium	22.7	U	21.5	U	21.4	U	23.1	U	5.5	U	5.4	U	41.1	J
Cadmium	1.3		2.2		0.54	U	0.67		0.54	J	0.09	U	0.49	J
Chromium	3.7		5.6		13.7		6		8.7		2		6.6	
Lead	10.1		12.6		7.8		24.9		51.2		8.5		38.2	
Mercury	0.038	U	0.058		0.035	U	0.038		0.02	U	0.02	U	0.02	U
Selenium	0.57	U	0.54	U	0.54	U	0.58	U	0.57	U	0.49	U	0.61	U
Silver	1.1	U	1.1	U	1.1	U	1.2	U	0.11	U	0.1	U	0.12	U

APPENDIX G
SUBSURFACE SOIL - SWMU 314
ORGANIC COMPOUNDS
SWMU CONFIRMATORY SAMPLING (CTO-0143)
SM187 - O/W, MARINE CORPS SUPPORTED SERVICES SCHOOL GROUP
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU314-IS01-02	SWMU314-IS02-02	SWMU314-IS03-02	SWMU314-IS04-02	SWMU314-TW01-02	SWMU314-TW02-02	SWMU314-TW03-02
SAMPLE DATE	09-09-1997	09-09-1997	09-09-1997	09-09-1997	03-23-2002	03-23-2002	03-23-2002
DEPTH	4' - 6'	4' - 6'	4' - 6'	4' - 6'	3' - 5'	3' - 5'	3' - 5'
SEMIVOLATILES (ug/kg)							
1,1'-Biphenyl	NA	NA	NA	NA	420 U	440 U	410 U
2,2'-Oxybis(1-Chloropropane)	380 U	380 U	400 U	400 U	420 U	440 U	410 U
2,4,5-Trichlorophenol	380 U	380 U	400 U	400 U	420 U	440 U	410 U
2,4,6-Trichlorophenol	380 U	380 U	400 U	400 U	420 U	440 U	410 U
2,4-Dichlorophenol	380 U	380 U	400 U	400 U	420 U	440 U	410 U
2,4-Dimethylphenol	380 U	380 U	400 U	400 U	420 U	440 U	410 U
2,4-Dinitrophenol	1900 U	1800 U	1900 U	1900 U	2200 U	2300 U	2100 U
2,4-Dinitrotoluene	380 U	380 U	400 U	400 U	420 U	440 U	410 U
2,6-Dinitrotoluene	380 U	380 U	400 U	400 U	420 U	440 U	410 U
2-Chloronaphthalene	380 U	380 U	400 U	400 U	420 U	440 U	410 U
2-Chlorophenol	380 U	380 U	400 U	400 U	420 U	440 U	410 U
2-Methylnaphthalene	380 U	380 U	400 U	400 U	420 U	440 U	410 U
2-Methylphenol	380 U	380 U	400 U	400 U	420 U	440 U	410 U
2-Nitroaniline	1900 U	1800 U	1900 U	1900 U	840 U	880 U	810 U
2-Nitrophenol	380 U	380 U	400 U	400 U	420 U	440 U	410 U
3,3'-Dichlorobenzidine	1900 U	1800 U	1900 U	1900 U	840 U	880 U	810 U
3-Nitroaniline	1900 U	1800 U	1900 U	1900 U	840 U	880 U	810 U
4,6-Dinitro-2-methylphenol	1900 U	1800 U	1900 U	1900 U	840 U	880 U	810 U
4-Bromophenyl phenyl ether	380 U	380 U	400 U	400 U	420 UJ	440 UJ	410 UJ
4-Chloro-3-methylphenol	380 U	380 U	400 U	400 U	420 U	440 U	410 U
4-Chloroaniline	380 U	380 U	400 U	400 U	420 U	440 U	410 U
4-Chlorophenyl phenyl ether	380 U	380 U	400 U	400 U	420 U	440 U	410 U
4-Methylphenol	380 U	380 U	400 U	400 U	420 U	440 U	410 U
4-Nitroaniline	1900 U	1800 U	1900 U	1900 U	840 UJ	880 UJ	810 UJ
4-Nitrophenol	1900 U	1800 U	1900 U	1900 U	840 U	880 U	810 U
Acenaphthene	380 U	380 U	400 U	400 U	420 U	440 U	410 U
Acenaphthylene	380 U	380 U	400 U	400 U	420 U	440 U	410 U
Acetophenone	NA	NA	NA	NA	420 U	440 U	410 U
Anthracene	380 U	380 U	400 U	400 U	420 U	440 U	410 U
Atrazine	NA	NA	NA	NA	420 U	440 U	410 U
Benzaldehyde	NA	NA	NA	NA	420 U	440 U	410 U
Benzo(a)anthracene	380 U	380 U	400 U	400 U	420 U	440 U	410 U
Benzo(a)pyrene	380 U	380 U	400 U	400 U	420 U	440 U	410 U
Benzo(b)fluoranthene	380 U	380 U	400 U	400 U	420 UJ	440 UJ	410 UJ
Benzo(ghi)perylene	380 U	380 U	400 U	400 U	420 U	440 U	410 U
Benzo(k)fluoranthene	380 U	380 U	400 U	400 U	420 U	440 U	410 U
bis(2-Chloroethoxy)methane	380 U	380 U	400 U	400 U	420 U	440 U	410 U
bis(2-Chloroethyl) ether	380 U	380 U	400 U	400 U	420 U	440 U	410 U
bis(2-Ethylhexyl) phthalate	1600 J	220 J	74 J	350 J	420 U	440 U	410 U
Butyl benzyl phthalate	380 U	380 U	400 U	400 U	420 UJ	440 UJ	410 UJ
Caprolactam	NA	NA	NA	NA	420 UJ	440 UJ	410 UJ

APPENDIX G
SUBSURFACE SOIL - SWMU 314
ORGANIC COMPOUNDS
SWMU CONFIRMATORY SAMPLING (CTO-0143)
SM187 - O/W, MARINE CORPS SUPPORTED SERVICES SCHOOL GROUP
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU314-IS01-02	SWMU314-IS02-02	SWMU314-IS03-02	SWMU314-IS04-02	SWMU314-TW01-02	SWMU314-TW02-02	SWMU314-TW03-02
SAMPLE DATE	09-09-1997	09-09-1997	09-09-1997	09-09-1997	03-23-2002	03-23-2002	03-23-2002
DEPTH	4' - 6'	4' - 6'	4' - 6'	4' - 6'	3' - 5'	3' - 5'	3' - 5'
SEMIVOLATILES (ug/kg) (cont)							
Carbazole	380 U	380 U	400 U	400 U	420 U	440 U	410 U
Chrysene	380 U	380 U	400 U	400 U	420 U	440 U	410 U
Di-n-butyl phthalate	380 U	380 U	400 U	400 U	420 U	440 U	410 U
Di-n-octyl phthalate	380 U	380 U	400 U	400 U	420 U	440 U	410 U
Dibenz(a,h)anthracene	380 U	380 U	400 U	400 U	420 U	440 U	410 U
Dibenzofuran	380 U	380 U	400 U	400 U	420 U	440 U	410 U
Diethyl phthalate	380 U	380 U	400 U	400 U	420 U	440 U	410 U
Dimethyl phthalate	380 U	380 U	400 U	400 U	420 U	440 U	410 U
Fluoranthene	380 U	380 U	400 U	400 U	420 U	440 U	410 U
Fluorene	380 U	380 U	400 U	400 U	420 U	440 U	410 U
Hexachlorobenzene	380 U	380 U	400 U	400 U	420 UJ	440 UJ	410 UJ
Hexachlorobutadiene	380 U	380 U	400 U	400 U	420 U	440 U	410 U
Hexachlorocyclopentadiene	1900 U	1800 U	1900 U	1900 U	420 U	440 U	410 U
Hexachloroethane	380 U	380 U	400 U	400 U	420 U	440 U	410 U
Indeno(1,2,3-cd)pyrene	380 U	380 U	400 U	400 U	420 U	440 U	410 U
Isophorone	380 U	380 U	400 U	400 U	420 U	440 U	410 U
N-Nitrosodi-n-propylamine	380 U	380 U	400 U	400 U	420 U	440 U	410 U
N-Nitrosodiphenylamine	380 U	380 U	400 U	400 U	420 U	440 U	410 U
Naphthalene	380 U	380 U	400 U	400 U	420 U	440 U	410 U
Nitrobenzene	380 U	380 U	400 U	400 U	420 U	440 U	410 U
Pentachlorophenol	1900 U	1800 U	1900 U	1900 U	840 U	880 U	810 U
Phenanthrene	380 U	380 U	400 U	400 U	420 U	440 U	410 U
Phenol	380 U	380 U	400 U	400 U	420 U	440 U	410 U
Pyrene	380 U	380 U	400 U	400 U	420 U	440 U	410 U

APPENDIX G
SUBSURFACE SOIL - SWMU 314
INORGANIC COMPOUNDS
SWMU CONFIRMATORY SAMPLING (CTO-0143)
SM187 - O/W, MARINE CORPS SUPPORTED SERVICES SCHOOL GROUP
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU314-IS01-02		SWMU314-IS02-02		SWMU314-IS03-02		SWMU314-IS04-02		SWMU314-TW01-02		SWMU314-TW02-02		SWMU314-TW03-02	
SAMPLE DATE	09-09-1997		09-09-1997		09-09-1997		09-09-1997		03-23-2002		03-23-2002		03-23-2002	
DEPTH	4' - 6'		4' - 6'		4' - 6'		4' - 6'		3' - 5'		3' - 5'		3' - 5'	
METALS (mg/kg)														
Arsenic	1.2	U	1.2	U	1.3		1.9		0.29	U	0.29	U	0.29	U
Barium	23.1	U	23.1	U	24.3	U	24.2	U	16.6	J	12.1	J	13.2	J
Cadmium	0.74		0.58	U	0.61	U	1.2		0.04	U	0.28	U	0.08	U
Chromium	5.4		6.8		11.1		9.5		3		3.4		7	
Lead	19.2		80.6		6.4		38.9		3.9		13.2		6.8	
Mercury	0.038	U	0.038	U	0.04	U	0.04	U	0.02	U	0.02	U	0.02	U
Selenium	0.58	U	0.58	U	0.61	U	0.61	U	0.56	U	0.56	U	0.57	U
Silver	1.2	U	1.2	U	1.2	U	1.2	U	0.11	U	0.11	U	0.11	U

APPENDIX G
GROUNDWATER - SWMU 314
ORGANIC COMPOUNDS
SWMU CONFIRMATORY SAMPLING (CTO-0143)
SM187 - O/W, MARINE CORPS SUPPORTED SERVICES SCHOOL GROUP
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU314-GW01		SWMU314-GW02		SWMU314-GW03	
SAMPLE DATE	04-06-2002		04-06-2002		04-06-2002	
SEMIVOLATILES (ug/L)						
1,1'-Biphenyl	10	U	10	U	10	U
2,2'-oxybis(1-Chloropropane)	10	UJ	10	UJ	10	UJ
2,4,5-Trichlorophenol	10	U	10	U	10	U
2,4,6-Trichlorophenol	10	U	10	U	10	U
2,4-Dichlorophenol	10	U	10	U	10	U
2,4-Dimethylphenol	10	U	10	U	10	U
2,4-Dinitrophenol	50	U	50	U	50	U
2,4-Dinitrotoluene	10	U	10	U	10	U
2,6-Dinitrotoluene	10	U	10	U	10	U
2-Chloronaphthalene	10	U	10	U	10	U
2-Chlorophenol	10	U	10	U	10	U
2-Methylnaphthalene	10	U	10	U	10	U
2-Methylphenol	10	U	10	U	10	U
2-Nitroaniline	20	UJ	20	UJ	20	UJ
2-Nitrophenol	10	U	10	U	10	U
3,3'-Dichlorobenzidine	20	UJ	20	UJ	20	UJ
3-Nitroaniline	20	U	20	U	20	U
4,6-dinitro-2-Methylphenol	20	U	20	U	20	U
4-Bromophenyl phenyl ether	10	U	10	U	10	U
4-Chloro-3-methylphenol	10	U	10	U	10	U
4-Chloroaniline	10	U	10	U	10	U
4-Chlorophenyl phenyl ether	10	UJ	10	UJ	10	UJ
4-Methylphenol	10	U	10	U	10	U
4-Nitroaniline	20	U	20	U	20	U
4-Nitrophenol	20	UJ	20	UJ	20	UJ
Acenaphthene	10	U	10	U	10	U
Acenaphthylene	10	U	10	U	10	U
Acetophenone	10	U	10	U	10	U
Anthracene	10	U	10	U	10	U
Atrazine	10	U	10	U	10	U
Benzaldehyde	10	U	10	U	10	U
Benzo(a)anthracene	10	U	10	U	10	U
Benzo(a)pyrene	10	U	10	U	10	U
Benzo(b)fluoranthene	10	U	10	U	10	U
Benzo(g,h,i)perylene	10	U	10	U	10	U
Benzo(k)fluoranthene	10	U	10	U	10	U
bis(2-Chloroethoxy)methane	10	U	10	U	10	U
bis(2-Chloroethyl)ether	10	U	10	U	10	U
bis(2-Ethylhexyl)phthalate	10	U	1	J	10	U
Butyl benzyl phthalate	10	UJ	10	UJ	10	UJ
Caprolactam	10	U	10	U	10	U

APPENDIX G
GROUNDWATER - SWMU 314
ORGANIC COMPOUNDS
SWMU CONFIRMATORY SAMPLING (CTO-0143)
SM187 - O/W, MARINE CORPS SUPPORTED SERVICES SCHOOL GROUP
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU314-GW01		SWMU314-GW02		SWMU314-GW03	
SAMPLE DATE	04-06-2002		04-06-2002		04-06-2002	
SEMIVOLATILES (ug/L) (cont)						
Carbazole	10	U	10	U	10	U
Chrysene	10	U	10	U	10	U
di-N-Butyl phthalate	10	U	10	U	10	U
di-N-Octyl phthalate	10	U	10	U	10	U
Dibenzo(a,h)anthracene	10	U	10	U	10	U
Dibenzofuran	10	U	10	U	10	U
Diethyl phthalate	10	U	10	U	10	U
Dimethyl phthalate	10	U	10	U	10	U
Fluoranthene	10	U	10	U	10	U
Fluorene	10	U	10	U	10	U
Hexachlorobenzene	10	U	10	U	10	U
Hexachlorobutadiene	10	U	10	U	10	U
Hexachlorocyclopentadiene	10	U	10	U	10	U
Hexachloroethane	10	U	10	U	10	U
Indeno(1,2,3-cd)pyrene	10	U	10	U	10	U
Isophorone	10	U	10	U	10	U
N-Nitroso-di-N-propylamine	10	U	10	U	10	U
N-Nitrosodiphenylamine(1)	10	U	10	U	10	U
Naphthalene	10	U	10	U	10	U
Nitrobenzene	10	U	10	U	10	U
Pentachlorophenol	20	U	20	U	20	U
Phenanthrene	10	U	10	U	10	U
Phenol	10	U	10	U	10	U
Pyrene	10	UJ	10	UJ	10	UJ

APPENDIX G
GROUNDWATER - SWMU 314
INORGANIC COMPOUNDS
SWMU CONFIRMATORY SAMPLING (CTO-0143)
SM187 - O/W, MARINE CORPS SUPPORTED SERVICES SCHOOL GROUP
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU314-GW01		SWMU314-GW02		SWMU314-GW03	
SAMPLE DATE	04-06-2002		04-06-2002		04-06-2002	
METALS (ug/L)						
Arsenic	2.4	J	3.7	J	7.6	J
Barium	18.6		49.7		203	
Cadmium	0.3	U	0.3	U	0.63	U
Chromium	0.6	U	4.1	J	44	
Lead	1.8	UJ	2.1	J	31.5	
Mercury	0.1	U	0.1	U	0.1	U
Selenium	4.6	U	4.6	U	4.6	U
Silver	0.9	U	0.9	U	0.9	U

APPENDIX G
SURFACE SOIL - SWMU 315
ORGANIC COMPOUNDS
SWMU CONFIRMATORY SAMPLING (CTO-0143)
SM269 - O/W, NEAR BUILDING M200
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU315-IS01-00	SWMU315-IS02-00	SWMU315-IS03-00	SWMU315-IS04-00	SWMU315-SB01-00	SWMU315-TW01-00	SWMU315-TW02-00	SWMU315-TW03-00
SAMPLE DATE	09-10-1997	09-10-1997	09-10-1997	09-10-1997	03-23-2002	03-23-2002	03-23-2002	03-23-2002
DEPTH	0' - 2'	0' - 2'	0' - 2'	0' - 2'	0' - 1'	0' - 1'	0' - 1'	0' - 1'
SEMIVOLATILES (ug/kg)								
1,1'-Biphenyl	NA	NA	NA	NA	710 U	350 U	380 U	390 U
2,2'-Oxybis(1-Chloropropane)	340 U	340 U	340 U	340 U	710 U	350 U	380 U	390 U
2,4,5-Trichlorophenol	340 U	340 U	340 U	340 U	710 U	350 U	380 U	390 U
2,4,6-Trichlorophenol	340 U	340 U	340 U	340 U	710 U	350 U	380 U	390 U
2,4-Dichlorophenol	340 U	340 U	340 U	340 U	710 U	350 U	380 U	390 U
2,4-Dimethylphenol	340 U	340 U	340 U	340 U	710 U	350 U	380 U	390 U
2,4-Dinitrophenol	1600 U	1700 U	1600 U	1600 U	3700 U	1800 U	1900 U	2000 U
2,4-Dinitrotoluene	340 U	340 U	340 U	340 U	710 U	350 U	380 U	390 U
2,6-Dinitrotoluene	340 U	340 U	340 U	340 U	710 U	350 U	380 U	390 U
2-Chloronaphthalene	340 U	340 U	340 U	340 U	710 U	350 U	380 U	390 U
2-Chlorophenol	340 U	340 U	340 U	340 U	710 U	350 U	380 U	390 U
2-Methylnaphthalene	340 U	340 U	340 U	150 J	710 U	350 U	380 U	390 U
2-Methylphenol	340 U	340 U	340 U	340 U	710 U	350 U	380 U	390 U
2-Nitroaniline	1600 U	1700 U	1600 U	1600 U	1400 U	710 U	750 U	780 U
2-Nitrophenol	340 U	340 U	340 U	340 U	710 U	350 U	380 U	390 U
3,3'-Dichlorobenzidine	1600 U	1700 U	1600 U	1600 U	1400 U	710 U	750 U	780 U
3-Nitroaniline	1600 U	1700 U	1600 U	1600 U	1400 U	710 U	750 U	780 U
4,6-Dinitro-2-methylphenol	1600 U	1700 U	1600 U	1600 U	1400 U	710 U	750 U	780 U
4-Bromophenyl phenyl ether	340 U	340 U	340 U	340 U	710 U	350 U	380 U	390 U
4-Chloro-3-methylphenol	340 U	340 U	340 U	340 U	710 U	350 U	380 U	390 U
4-Chloroaniline	340 U	340 U	340 U	340 U	710 U	350 U	380 U	390 U
4-Chlorophenyl phenyl ether	340 U	340 U	340 U	340 U	710 U	350 U	380 U	390 U
4-Methylphenol	340 U	340 U	340 U	340 U	710 U	350 U	380 U	390 U
4-Nitroaniline	1600 U	1700 U	1600 U	1600 U	1400 U	710 U	750 U	780 U
4-Nitrophenol	1600 U	1700 U	1600 U	1600 U	1400 U	710 U	750 U	780 U
Acenaphthene	340 U	340 U	340 U	340 U	710 U	350 U	380 U	390 U
Acenaphthylene	340 U	340 U	340 U	340 U	710 U	350 U	380 U	390 U
Acetophenone	NA	NA	NA	NA	710 U	350 U	380 U	390 U
Anthracene	340 U	340 U	36 J	340 U	710 U	350 U	380 U	390 U
Atrazine	NA	NA	NA	NA	710 U	350 U	380 U	390 U
Benzaldehyde	NA	NA	NA	NA	710 U	350 U	380 U	390 U
Benzo(a)anthracene	340 U	340 U	44 J	21 J	710 U	350 U	380 U	390 U
Benzo(a)pyrene	340 U	340 U	340 U	340 U	710 U	350 U	380 U	390 U
Benzo(b)fluoranthene	340 U	340 U	42 J	340 U	710 U	350 U	380 U	390 U
Benzo(ghi)perylene	340 U	340 U	340 U	340 U	710 U	350 U	380 U	390 U
Benzo(k)fluoranthene	340 U	340 U	340 U	340 U	710 U	350 U	380 U	390 U
bis(2-Chloroethoxy)methane	340 U	340 U	340 U	340 U	710 U	350 U	380 U	390 U
bis(2-Chloroethyl) ether	340 U	340 U	340 U	340 U	710 U	350 U	380 U	390 U
bis(2-Ethylhexyl) phthalate	64 J	76 J	83 J	130 J	8300	350 U	380 U	390 U
Butyl benzyl phthalate	340 U	340 U	340 U	340 U	710 U	350 U	380 U	390 U
Caprolactam	NA	NA	NA	NA	710 U	350 U	380 U	390 U

APPENDIX G
SURFACE SOIL - SWMU 315
ORGANIC COMPOUNDS
SWMU CONFIRMATORY SAMPLING (CTO-0143)
SM269 - O/W, NEAR BUILDING M200
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU315-IS01-00	SWMU315-IS02-00	SWMU315-IS03-00	SWMU315-IS04-00	SWMU315-SB01-00	SWMU315-TW01-00	SWMU315-TW02-00	SWMU315-TW03-00
SAMPLE DATE	09-10-1997	09-10-1997	09-10-1997	09-10-1997	03-23-2002	03-23-2002	03-23-2002	03-23-2002
DEPTH	0' - 2'	0' - 2'	0' - 2'	0' - 2'	0' - 1'	0' - 1'	0' - 1'	0' - 1'
SEMIVOLATILES (ug/kg) (cont)								
Carbazole	340 U	340 U	340 U	340 U	710 U	350 U	380 U	390 U
Chrysene	37 J	340 U	51 J	46 J	710 U	350 U	380 U	390 U
Di-n-butyl phthalate	340 U	340 U	340 U	340 U	710 U	350 U	380 U	390 U
Di-n-octyl phthalate	340 U	340 U	340 U	340 U	710 U	350 U	380 U	390 U
Dibenz(a,h)anthracene	340 U	340 U	340 U	340 U	710 U	350 U	380 U	390 U
Dibenzofuran	340 U	340 U	340 U	340 U	710 U	350 U	380 U	390 U
Diethyl phthalate	340 U	340 U	340 U	340 U	710 U	350 U	380 U	390 U
Dimethyl phthalate	340 U	340 U	340 U	340 U	710 U	350 U	380 U	390 U
Fluoranthene	52 J	43 J	98 J	53 J	710 U	350 U	380 U	390 U
Fluorene	340 U	340 U	340 U	340 U	710 U	350 U	380 U	390 U
Hexachlorobenzene	340 U	340 U	340 U	340 U	710 U	350 U	380 U	390 U
Hexachlorobutadiene	340 U	340 U	340 U	340 U	710 U	350 U	380 U	390 U
Hexachlorocyclopentadiene	1600 U	1700 U	1600 U	1600 U	710 U	350 U	380 U	390 U
Hexachloroethane	340 U	340 U	340 U	340 U	710 U	350 U	380 U	390 U
Indeno(1,2,3-cd)pyrene	340 U	340 U	340 U	340 U	710 U	350 U	380 U	390 U
Isophorone	340 U	340 U	340 U	340 U	710 U	350 U	380 U	390 U
N-Nitrosodi-n-propylamine	340 U	340 U	340 U	340 U	710 U	350 U	380 U	390 U
N-Nitrosodiphenylamine	340 U	340 U	340 U	340 U	710 U	350 U	380 U	390 U
Naphthalene	340 U	340 U	340 U	61 J	710 U	350 U	380 U	390 U
Nitrobenzene	340 U	340 U	340 U	340 U	710 U	350 U	380 U	390 U
Pentachlorophenol	1600 U	1700 U	120 J	1600 U	1400 U	710 U	750 U	780 U
Phenanthrene	44 J	340 U	59 J	95 J	710 U	350 U	380 U	390 U
Phenol	340 U	340 U	340 U	340 U	710 U	350 U	380 U	390 U
Pyrene	340 U	340 U	59 J	340 U	710 U	350 U	380 U	390 U

APPENDIX G
SURFACE SOIL - SWMU 315
INORGANIC COMPOUNDS
SWMU CONFIRMATORY SAMPLING (CTO-0143)
SM269 - O/W, NEAR BUILDING M200
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU315-IS01-00	SWMU315-IS02-00	SWMU315-IS03-00	SWMU315-IS04-00	SWMU315-SB01-00	SWMU315-TW01-00	SWMU315-TW02-00	SWMU315-TW03-00
SAMPLE DATE	09-10-1997	09-10-1997	09-10-1997	09-10-1997	03-23-2002	03-23-2002	03-23-2002	03-23-2002
DEPTH	0' - 2'	0' - 2'	0' - 2'	0' - 2'	0' - 1'	0' - 1'	0' - 1'	0' - 1'
METALS (mg/kg)								
Arsenic	3.6	1.8	1.3	1 U	0.25 U	3.2	0.64 J	0.69 J
Barium	20.4 U	20.6 U	20.6 U	35	7.2 J	4.4 U	9.9 J	17.2 J
Cadmium	0.51 U	0.52 U	0.51 U	0.51 U	0.03 U	0.03 U	0.05 U	0.07 U
Chromium	5.2	6.3	4.7	6.6	1.2	1.8	22.6	5.5
Lead	14.9	11.8	5.7	13.1	2.8	2.7	78	12.8
Mercury	0.041	0.034 U	0.034 U	0.13	0.02 U	0.02 U	0.02 U	0.04
Selenium	0.51	0.52 U	0.51 U	0.51 U	0.49 U	0.5 U	0.52 U	0.52 U
Silver	1 U	1 U	1 U	1.1	0.1 U	0.1 U	0.1 U	0.79

APPENDIX G
SUBSURFACE SOIL - SWMU 315
ORGANIC COMPOUNDS
SWMU CONFIRMATORY SAMPLING (CTO-0143)
SM269 - O/W, NEAR BUILDING M200
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU315-IS01-07	SWMU315-IS02-07	SWMU315-IS03-08	SWMU315-IS04-07	SWMU315-SB01-11	SWMU315-TW01-11	SWMU315-TW02-11	SWMU315-TW03-11
SAMPLE DATE	09-10-1997	09-10-1997	09-10-1997	09-10-1997	03-23-2002	03-23-2002	03-23-2002	03-23-2002
DEPTH	14' - 16'	14' - 16'	16' - 18'	14' - 16'	21' - 23'	21' - 23'	21' - 23'	21' - 23'
SEMIVOLATILES (ug/kg)								
1,1'-Biphenyl	NA	NA	NA	NA	390 U	380 U	430 U	420 U
2,2'-Oxybis(1-Chloropropane)	350 U	340 U	340 U	350 U	390 U	380 U	430 U	420 U
2,4,5-Trichlorophenol	350 U	340 U	340 U	350 U	390 U	380 U	430 U	420 U
2,4,6-Trichlorophenol	350 U	340 U	340 U	350 U	390 U	380 U	430 U	420 U
2,4-Dichlorophenol	350 U	340 U	340 U	350 U	390 U	380 U	430 U	420 U
2,4-Dimethylphenol	350 U	340 U	340 U	350 U	390 U	380 U	430 U	420 U
2,4-Dinitrophenol	1700 U	1600 U	1700 U	1700 U	2000 U	2000 U	2200 U	2200 U
2,4-Dinitrotoluene	350 U	340 U	340 U	350 U	390 U	380 U	430 U	420 U
2,6-Dinitrotoluene	350 U	340 U	340 U	350 U	390 U	380 U	430 U	420 U
2-Chloronaphthalene	350 U	340 U	340 U	350 U	390 U	380 U	430 U	420 U
2-Chlorophenol	350 U	340 U	340 U	350 U	390 U	380 U	430 U	420 U
2-Methylnaphthalene	350 U	340 U	340 U	350 U	390 U	380 U	430 U	420 U
2-Methylphenol	350 U	340 U	340 U	350 U	390 U	380 U	430 U	420 U
2-Nitroaniline	1700 U	1600 U	1700 U	1700 U	780 U	760 U	870 U	850 U
2-Nitrophenol	350 U	340 U	340 U	350 U	390 U	380 U	430 U	420 U
3,3'-Dichlorobenzidine	1700 U	1600 U	1700 U	1700 U	780 U	760 U	870 U	850 U
3-Nitroaniline	1700 U	1600 U	1700 U	1700 U	780 U	760 U	870 U	850 U
4,6-Dinitro-2-methylphenol	1700 U	1600 U	1700 U	1700 U	780 U	760 U	870 U	850 U
4-Bromophenyl phenyl ether	350 U	340 U	340 U	350 U	390 U	380 U	430 U	420 U
4-Chloro-3-methylphenol	350 U	340 U	340 U	350 U	390 U	380 U	430 U	420 U
4-Chloroaniline	350 U	340 U	340 U	350 U	390 U	380 U	430 U	420 U
4-Chlorophenyl phenyl ether	350 U	340 U	340 U	350 U	390 U	380 U	430 U	420 U
4-Methylphenol	350 U	340 U	340 U	350 U	390 U	380 U	430 U	420 U
4-Nitroaniline	1700 U	1600 U	1700 U	1700 U	780 U	760 U	870 U	850 U
4-Nitrophenol	1700 U	1600 U	1700 U	1700 U	780 U	760 U	870 U	850 U
Acenaphthene	350 U	340 U	340 U	350 U	390 U	380 U	430 U	420 U
Acenaphthylene	350 U	340 U	340 U	350 U	390 U	380 U	430 U	420 U
Acetophenone	NA	NA	NA	NA	390 U	380 U	430 U	420 U
Anthracene	350 U	340 U	340 U	350 U	390 U	380 U	430 U	420 U
Atrazine	NA	NA	NA	NA	390 U	380 U	430 U	420 U
Benzaldehyde	NA	NA	NA	NA	390 U	380 U	430 U	420 U
Benzo(a)anthracene	350 U	340 U	340 U	350 U	390 U	380 U	430 U	420 U
Benzo(a)pyrene	350 U	340 U	340 U	350 U	390 U	380 U	430 U	420 U
Benzo(b)fluoranthene	350 U	340 U	340 U	350 U	390 U	380 U	430 U	420 U
Benzo(ghi)perylene	350 U	340 U	340 U	350 U	390 U	380 U	430 U	420 U
Benzo(k)fluoranthene	350 U	340 U	340 U	350 U	390 U	380 U	430 U	420 U
bis(2-Chloroethoxy)methane	350 U	340 U	340 U	350 U	390 U	380 U	430 U	420 U
bis(2-Chloroethyl) ether	350 U	340 U	340 U	350 U	390 U	380 U	430 U	420 U
bis(2-Ethylhexyl) phthalate	1500 J	83 J	94 J	84 J	390 U	380 U	430 U	1200
Butyl benzyl phthalate	350 U	340 U	340 U	350 U	390 U	380 U	430 U	420 U
Caprolactam	NA	NA	NA	NA	390 U	380 U	430 U	420 U

APPENDIX G
SUBSURFACE SOIL - SWMU 315
ORGANIC COMPOUNDS
SWMU CONFIRMATORY SAMPLING (CTO-0143)
SM269 - O/W, NEAR BUILDING M200
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU315-IS01-07	SWMU315-IS02-07	SWMU315-IS03-08	SWMU315-IS04-07	SWMU315-SB01-11	SWMU315-TW01-11	SWMU315-TW02-11	SWMU315-TW03-11
SAMPLE DATE	09-10-1997	09-10-1997	09-10-1997	09-10-1997	03-23-2002	03-23-2002	03-23-2002	03-23-2002
DEPTH	14' - 16'	14' - 16'	16' - 18'	14' - 16'	21' - 23'	21' - 23'	21' - 23'	21' - 23'
SEMIVOLATILES (ug/kg) (cont)								
Carbazole	350 U	340 U	340 U	350 U	390 U	380 U	430 U	420 U
Chrysene	350 U	340 U	340 U	350 U	390 U	380 U	430 U	420 U
Di-n-butyl phthalate	350 U	340 U	340 U	350 U	390 U	380 U	430 U	420 U
Di-n-octyl phthalate	350 U	340 U	340 U	350 U	390 U	380 U	430 U	420 U
Dibenz(a,h)anthracene	350 U	340 U	340 U	350 U	390 U	380 U	430 U	420 U
Dibenzofuran	350 U	340 U	340 U	350 U	390 U	380 U	430 U	420 U
Diethyl phthalate	350 U	340 U	340 U	350 U	390 U	380 U	430 U	420 U
Dimethyl phthalate	350 U	340 U	340 U	350 U	390 U	380 U	430 U	420 U
Fluoranthene	350 U	340 U	340 U	350 U	390 U	380 U	430 U	420 U
Fluorene	350 U	340 U	340 U	350 U	390 U	380 U	430 U	420 U
Hexachlorobenzene	350 U	340 U	340 U	350 U	390 U	380 U	430 U	420 U
Hexachlorobutadiene	350 U	340 U	340 U	350 U	390 U	380 U	430 U	420 U
Hexachlorocyclopentadiene	1700 U	1600 U	1700 U	1700 U	390 U	380 U	430 U	420 U
Hexachloroethane	350 U	340 U	340 U	350 U	390 U	380 U	430 U	420 U
Indeno(1,2,3-cd)pyrene	350 U	340 U	340 U	350 U	390 U	380 U	430 U	420 U
Isophorone	350 U	340 U	340 U	350 U	390 U	380 U	430 U	420 U
N-Nitrosodi-n-propylamine	350 U	340 U	340 U	350 U	390 U	380 U	430 U	420 U
N-Nitrosodiphenylamine	350 U	340 U	340 U	350 U	390 U	380 U	430 U	420 U
Naphthalene	350 U	340 U	340 U	350 U	390 U	380 U	430 U	420 U
Nitrobenzene	350 U	340 U	340 U	350 U	390 U	380 U	430 U	420 U
Pentachlorophenol	1700 U	1600 U	1700 U	1700 U	780 U	760 U	870 U	850 U
Phenanthrene	350 U	340 U	340 U	350 U	390 U	380 U	430 U	420 U
Phenol	350 U	340 U	340 U	350 U	390 U	380 U	430 U	420 U
Pyrene	350 U	340 U	340 U	350 U	390 U	380 U	430 U	420 U

APPENDIX G
SUBSURFACE SOIL - SWMU 315
INORGANIC COMPOUNDS
SWMU CONFIRMATORY SAMPLING (CTO-0143)
SM269 - O/W, NEAR BUILDING M200
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU315-IS01-07	SWMU315-IS02-07	SWMU315-IS03-08	SWMU315-IS04-07	SWMU315-SB01-11	SWMU315-TW01-11	SWMU315-TW02-11	SWMU315-TW03-11
SAMPLE DATE	09-10-1997	09-10-1997	09-10-1997	09-10-1997	03-23-2002	03-23-2002	03-23-2002	03-23-2002
DEPTH	14' - 16'	14' - 16'	16' - 18'	14' - 16'	21' - 23'	21' - 23'	21' - 23'	21' - 23'
METALS (mg/kg)								
Arsenic	1.1 U	1 U	1 U	1.1 U	0.28 U	0.26 U	0.31 U	1.8
Barium	21.1 U	20.6 U	20.9 U	21.4 U	2.8 U	1.8 U	1.3 U	12.1 J
Cadmium	0.53 U	0.51 U	0.52 U	0.53 U	0.03 U	0.03 U	0.04 U	0.05 U
Chromium	6.2	2.3	1.4	2.2	2.9	5 J	1.5	9.1
Lead	2.4	1.3	1.4	1.7	2.2	1.8	1.7	7.5
Mercury	0.035 U	0.034 U	0.034 U	0.035 U	0.02 U	0.02 U	0.02 U	0.02 U
Selenium	0.53 U	0.51 U	0.52 U	0.53 U	0.54 U	0.5 U	0.59 U	0.54 U
Silver	1.1 U	1 U	1 U	1.1 U	0.1 U	0.1 U	0.12 U	0.11 U

APPENDIX G
GROUNDWATER - SWMU 315
ORGANIC COMPOUNDS
SWMU CONFIRMATORY SAMPLING (CTO-0143)
SM269 - O/W, NEAR BUILDING M200
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU315-GW01		SWMU315-GW02		SWMU315-GW03	
SAMPLE DATE	04-06-2002		04-06-2002		04-06-2002	
SEMIVOLATILES (ug/L)						
1,1'-Biphenyl	10	U	10	U	11	U
2,2'-oxybis(1-Chloropropane)	10	UJ	10	U	11	U
2,4,5-Trichlorophenol	10	U	10	U	11	U
2,4,6-Trichlorophenol	10	U	10	U	11	U
2,4-Dichlorophenol	10	U	10	U	11	U
2,4-Dimethylphenol	10	U	10	U	11	U
2,4-Dinitrophenol	50	U	50	UJ	53	UJ
2,4-Dinitrotoluene	10	U	10	U	11	U
2,6-Dinitrotoluene	10	U	10	U	11	U
2-Chloronaphthalene	10	U	10	U	11	U
2-Chlorophenol	10	U	10	U	11	U
2-Methylnaphthalene	15		10	U	11	U
2-Methylphenol	10	U	10	U	11	U
2-Nitroaniline	20	UJ	20	U	21	U
2-Nitrophenol	10	U	10	U	11	U
3,3'-Dichlorobenzidine	20	UJ	20	U	21	U
3-Nitroaniline	20	U	20	U	21	U
4,6-dinitro-2-Methylphenol	20	U	20	U	21	U
4-Bromophenyl phenyl ether	10	U	10	U	11	U
4-Chloro-3-methylphenol	10	U	10	U	11	U
4-Chloroaniline	10	U	10	U	11	U
4-Chlorophenyl phenyl ether	10	UJ	10	U	11	U
4-Methylphenol	10	U	10	U	11	U
4-Nitroaniline	20	U	20	U	21	U
4-Nitrophenol	20	UJ	20	U	21	U
Acenaphthene	10	U	10	U	11	U
Acenaphthylene	10	U	10	U	11	U
Acetophenone	4	J	10	U	11	U
Anthracene	10	U	10	U	11	U
Atrazine	10	U	10	U	11	U
Benzaldehyde	10	U	10	U	11	U
Benzo(a)anthracene	10	U	10	U	11	U
Benzo(a)pyrene	10	U	10	U	11	U
Benzo(b)fluoranthene	10	U	10	U	11	U
Benzo(g,h,i)perylene	10	U	10	U	11	U
Benzo(k)fluoranthene	10	U	10	U	11	U
bis(2-Chloroethoxy)methane	10	U	10	U	11	U
bis(2-Chloroethyl)ether	10	U	10	U	11	U

APPENDIX G
GROUNDWATER - SWMU 315
ORGANIC COMPOUNDS
SWMU CONFIRMATORY SAMPLING (CTO-0143)
SM269 - O/W, NEAR BUILDING M200
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU315-GW01		SWMU315-GW02		SWMU315-GW03	
SAMPLE DATE	04-06-2002		04-06-2002		04-06-2002	
SEMIVOLATILES (ug/L) (cont)						
bis(2-Ethylhexyl)phthalate	10	U	10	U	11	U
Butyl benzyl phthalate	10	UJ	10	U	11	U
Caprolactam	10	U	10	U	11	U
Carbazole	10	U	10	U	11	U
Chrysene	10	U	10	U	11	U
di-N-Butyl phthalate	10	U	10	U	11	U
di-N-Octyl phthalate	10	U	10	U	11	U
Dibenzo(a,h)anthracene	10	U	10	U	11	U
Dibenzofuran	1	J	10	U	11	U
Diethyl phthalate	10	U	10	U	11	U
Dimethyl phthalate	10	U	10	U	11	U
Fluoranthene	10	U	10	U	11	U
Fluorene	1	J	10	U	11	U
Hexachlorobenzene	10	U	10	U	11	U
Hexachlorobutadiene	10	U	10	U	11	U
Hexachlorocyclopentadiene	10	U	10	U	11	U
Hexachloroethane	10	U	10	U	11	U
Indeno(1,2,3-cd)pyrene	10	U	10	U	11	U
Isophorone	10	U	10	U	11	U
N-Nitroso-di-N-propylamine	10	U	10	U	11	U
N-Nitrosodiphenylamine(1)	10	U	10	U	11	U
Naphthalene	10	U	10	U	11	U
Nitrobenzene	10	U	10	U	11	U
Pentachlorophenol	20	U	20	U	21	U
Phenanthrene	1	J	10	U	11	U
Phenol	10	U	10	U	11	U
Pyrene	10	UJ	10	U	11	U

APPENDIX G
GROUNDWATER - SWMU 315
INORGANIC COMPOUNDS
SWMU CONFIRMATORY SAMPLING (CTO-0143)
SM269 - O/W, NEAR BUILDING M200
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU315-GW01		SWMU315-GW02		SWMU315-GW03	
SAMPLE DATE	04-06-2002		04-06-2002		04-06-2002	
METALS (ug/L)						
Arsenic	2.4	U	2.4	U	2.4	U
Barium	82		68.8		69.3	
Cadmium	0.3	U	0.3	U	0.3	U
Chromium	0.88	J	1.9	J	3.3	J
Lead	1.8	UJ	1.8	U	1.8	U
Mercury	0.1	U	0.1	U	0.1	U
Selenium	4.6	U	4.6	U	4.6	U
Silver	0.9	U	0.9	U	0.9	U

APPENDIX G
SURFACE SOIL - SWMU 316
ORGANIC COMPOUNDS
SWMU CONFIRMATORY SAMPLING (CTO-0143)
TC773 - O/W, SCHOOL OF INFANTRY
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU316-IS01-00	SWMU316-IS02-00	SWMU316-IS03-00	SWMU316-IS04-00	SWMU316-TW01-00	SWMU316-TW02-00	SWMU316-TW03-00
SAMPLE DATE	09-09-1997	09-09-1997	09-09-1997	09-09-1997	03-21-2002	03-21-2002	03-21-2002
DEPTH	0' - 2'	0' - 2'	0' - 2'	0' - 2'	0' - 1'	0' - 1'	0' - 1'
SEMIVOLATILES (ug/kg)							
1,1'-Biphenyl	NA	NA	NA	NA	350 U	360 U	390 U
2,2'-Oxybis(1-Chloropropane)	380 U	390 U	370 U	370 U	350 U	360 U	390 U
2,4,5-Trichlorophenol	380 U	390 U	370 U	370 U	350 U	360 U	390 U
2,4,6-Trichlorophenol	380 U	390 U	370 U	370 U	350 U	360 U	390 U
2,4-Dichlorophenol	380 U	390 U	370 U	370 U	350 U	360 U	390 U
2,4-Dimethylphenol	380 U	390 U	370 U	370 U	350 U	360 U	390 U
2,4-Dinitrophenol	1800 U	1900 U	1800 U	1800 U	1800 UJ	1800 UJ	2000 UJ
2,4-Dinitrotoluene	380 U	390 U	370 U	370 U	350 U	360 U	390 U
2,6-Dinitrotoluene	380 U	390 U	370 U	370 U	350 U	360 U	390 U
2-Chloronaphthalene	380 U	390 U	370 U	370 U	350 U	360 U	390 U
2-Chlorophenol	380 U	390 U	370 U	370 U	350 U	360 U	390 U
2-Methylnaphthalene	380 U	390 U	370 U	370 U	350 U	360 U	390 U
2-Methylphenol	380 U	390 U	370 U	370 U	350 U	360 U	390 U
2-Nitroaniline	1800 U	1900 U	1800 U	1800 U	710 U	720 U	790 U
2-Nitrophenol	380 U	390 U	370 U	370 U	350 U	360 U	390 U
3,3'-Dichlorobenzidine	1800 U	1900 U	1800 U	1800 U	710 U	720 U	790 U
3-Nitroaniline	1800 U	1900 U	1800 U	1800 U	710 U	720 U	790 U
4,6-Dinitro-2-methylphenol	1800 U	1900 U	1800 U	1800 U	710 U	720 U	790 U
4-Bromophenyl phenyl ether	380 U	390 U	370 U	370 U	350 U	360 U	390 U
4-Chloro-3-methylphenol	380 U	390 U	370 U	370 U	350 U	360 U	390 U
4-Chloroaniline	380 U	390 U	370 U	370 U	350 U	360 U	390 U
4-Chlorophenyl phenyl ether	380 U	390 U	370 U	370 U	350 U	360 U	390 U
4-Methylphenol	380 U	390 U	370 U	370 U	350 U	360 U	390 U
4-Nitroaniline	1800 U	1900 U	1800 U	1800 U	710 U	720 U	790 U
4-Nitrophenol	1800 U	1900 U	1800 U	1800 U	710 U	720 U	790 U
Acenaphthene	380 U	390 U	370 U	370 U	350 U	360 U	390 U
Acenaphthylene	380 U	390 U	370 U	370 U	350 U	360 U	390 U
Acetophenone	NA	NA	NA	NA	350 U	360 U	390 U
Anthracene	380 U	390 U	370 U	370 U	350 U	360 U	390 U
Atrazine	NA	NA	NA	NA	350 U	360 U	390 U
Benzaldehyde	NA	NA	NA	NA	350 U	360 U	390 U
Benzo(a)anthracene	250 J	81 J	370 U	370 U	46 J	360 U	390 U
Benzo(a)pyrene	280 J	100 J	370 U	370 U	75 J	360 U	390 U
Benzo(b)fluoranthene	410	140 J	370 U	370 U	100 J	360 U	390 U
Benzo(ghi)perylene	180 J	68 J	370 U	370 U	93 J	360 U	390 U
Benzo(k)fluoranthene	150 J	60 J	370 U	370 U	100 J	360 U	390 U
bis(2-Chloroethoxy)methane	380 U	390 U	370 U	370 U	350 U	360 U	390 U
bis(2-Chloroethyl) ether	380 U	390 U	370 U	370 U	350 U	360 U	390 U
bis(2-Ethylhexyl) phthalate	380 U	390 U	370 U	370 U	46 J	220 J	60 J
Butyl benzyl phthalate	380 U	390 U	370 U	370 U	350 U	360 U	390 U
Caprolactam	NA	NA	NA	NA	350 U	360 U	390 U

APPENDIX G
SURFACE SOIL - SWMU 316
ORGANIC COMPOUNDS
SWMU CONFIRMATORY SAMPLING (CTO-0143)
TC773 - O/W, SCHOOL OF INFANTRY
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU316-IS01-00		SWMU316-IS02-00		SWMU316-IS03-00		SWMU316-IS04-00		SWMU316-TW01-00		SWMU316-TW02-00		SWMU316-TW03-00	
SAMPLE DATE	09-09-1997		09-09-1997		09-09-1997		09-09-1997		03-21-2002		03-21-2002		03-21-2002	
DEPTH	0' - 2'		0' - 2'		0' - 2'		0' - 2'		0' - 1'		0' - 1'		0' - 1'	
SEMIVOLATILES (ug/kg) (cont)														
Carbazole	43	J	390	U	370	U	370	U	350	U	360	U	390	U
Chrysene	370	J	140	J	370	U	370	U	85	J	360	U	390	U
Di-n-butyl phthalate	380	U	390	U	370	U	370	U	350	U	360	U	390	U
Di-n-octyl phthalate	380	U	390	U	370	U	370	U	350	U	360	U	390	U
Dibenz(a,h)anthracene	44	J	390	U	370	U	370	U	31	J	360	U	390	U
Dibenzofuran	380	U	390	U	370	U	370	U	350	U	360	U	390	U
Diethyl phthalate	380	U	390	U	370	U	370	U	350	U	360	U	390	U
Dimethyl phthalate	380	U	390	U	370	U	370	U	350	U	360	U	390	U
Fluoranthene	690		300	J	370	U	62	J	150	J	360	U	390	U
Fluorene	380	U	390	U	370	U	370	U	350	U	360	U	390	U
Hexachlorobenzene	380	U	390	U	370	U	370	U	350	U	360	U	390	U
Hexachlorobutadiene	380	U	390	U	370	U	370	U	350	U	360	U	390	U
Hexachlorocyclopentadiene	1800	U	1900	U	1800	U	1800	U	350	U	360	U	390	U
Hexachloroethane	380	U	390	U	370	U	370	U	350	U	360	U	390	U
Indeno(1,2,3-cd)pyrene	160	J	62	J	370	U	370	U	170	J	360	U	390	U
Isophorone	380	U	390	U	370	U	370	U	350	U	360	U	390	U
N-Nitrosodi-n-propylamine	380	U	390	U	370	U	370	U	350	U	360	U	390	U
N-Nitrosodiphenylamine	380	U	390	U	370	U	370	U	350	U	360	U	390	U
Naphthalene	380	U	390	U	370	U	370	U	350	U	360	U	390	U
Nitrobenzene	380	U	390	U	370	U	370	U	350	U	360	U	390	U
Pentachlorophenol	1800	U	1900	U	1800	U	1800	U	710	U	720	U	790	U
Phenanthrene	230	J	150	J	370	U	370	U	31	J	360	U	390	U
Phenol	380	U	390	U	370	U	370	U	350	U	360	U	390	U
Pyrene	480		200	J	370	U	54	J	100	J	360	U	390	U

APPENDIX G
SURFACE SOIL - SWMU 316
INORGANIC COMPOUNDS
SWMU CONFIRMATORY SAMPLING (CTO-0143)
TC773 - O/W, SCHOOL OF INFANTRY
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU316-IS01-00	SWMU316-IS02-00	SWMU316-IS03-00	SWMU316-IS04-00	SWMU316-TW01-00	SWMU316-TW02-00	SWMU316-TW03-00
SAMPLE DATE	09-09-1997	09-09-1997	09-09-1997	09-09-1997	03-21-2002	03-21-2002	03-21-2002
DEPTH	0' - 2'	0' - 2'	0' - 2'	0' - 2'	0' - 1'	0' - 1'	0' - 1'
METALS (mg/kg)							
Arsenic	1.2 U	1.2 U	1.1 U	1.1 U	0.25 U	0.26 U	0.59 J
Barium	23.1 U	23.5 U	22.6 U	22.5 U	3.7	5.9	11.7 J
Cadmium	0.58 U	0.59 U	0.56 U	0.56 U	0.031 U	0.032 U	0.072 J
Chromium	5.3	7.8	4.7	15.2	1.1	2.6	9.3
Lead	4.4	2.9	5.4	4.5	2.6	11.9	5.5
Mercury	0.038 U	0.039 U	0.037 U	0.037 U	0.025 J	0.026 J	0.026 J
Selenium	0.58 U	0.59 U	0.56 U	0.56 U	0.48 U	0.49 U	0.58 J
Silver	1.2 U	1.2 U	1.1 U	1.1 U	0.093 U	0.096 U	0.11 U

APPENDIX G
SUBSURFACE SOIL - SWMU 316
ORGANIC COMPOUNDS
SWMU CONFIRMATORY SAMPLING (CTO-0143)
TC773 - O/W, SCHOOL OF INFANTRY
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU316-IS01-04	SWMU316-IS02-02	SWMU316-IS03-02	SWMU316-IS04-03	SWMU316-TW01-04	SWMU316-TW02-04	SWMU316-TW03-04
SAMPLE DATE	09-09-1997	09-09-1997	09-09-1997	09-09-1997	03-21-2002	03-21-2002	03-21-2002
DEPTH	8' - 10'	4' - 6'	4' - 6'	6' - 8'	7' - 9'	7' - 9'	7' - 9'
SEMIVOLATILES (ug/kg)							
1,1'-Biphenyl	NA	NA	NA	NA	420 U	410 U	390 U
2,2'-Oxybis(1-Chloropropane)	410 U	410 U	440 U	390 U	420 U	410 U	390 U
2,4,5-Trichlorophenol	410 U	410 U	440 U	390 U	420 U	410 U	390 U
2,4,6-Trichlorophenol	410 U	410 U	440 U	390 U	420 U	410 U	390 U
2,4-Dichlorophenol	410 U	410 U	440 U	390 U	420 U	410 U	390 U
2,4-Dimethylphenol	410 U	410 U	440 U	390 U	420 U	410 U	390 U
2,4-Dinitrophenol	2000 U	2000 U	2100 U	1900 U	2200 UJ	2100 UJ	2000 U
2,4-Dinitrotoluene	410 U	410 U	440 U	390 U	420 U	410 U	390 U
2,6-Dinitrotoluene	410 U	410 U	440 U	390 U	420 U	410 U	390 U
2-Chloronaphthalene	410 U	410 U	440 U	390 U	420 U	410 U	390 U
2-Chlorophenol	410 U	410 U	440 U	390 U	420 U	410 U	390 U
2-Methylnaphthalene	410 U	410 U	440 U	390 U	420 U	410 U	390 U
2-Methylphenol	410 U	410 U	440 U	390 U	420 U	410 U	390 U
2-Nitroaniline	2000 U	2000 U	2100 U	1900 U	840 U	830 U	790 U
2-Nitrophenol	410 U	410 U	440 U	390 U	420 U	410 U	390 U
3,3'-Dichlorobenzidine	2000 U	2000 U	2100 U	1900 U	840 U	830 U	790 U
3-Nitroaniline	2000 U	2000 U	2100 U	1900 U	840 U	830 U	790 U
4,6-Dinitro-2-methylphenol	2000 U	2000 U	2100 U	1900 U	840 U	830 U	790 U
4-Bromophenyl phenyl ether	410 U	410 U	440 U	390 U	420 U	410 U	390 U
4-Chloro-3-methylphenol	410 U	410 U	440 U	390 U	420 U	410 U	390 U
4-Chloroaniline	410 U	410 U	440 U	390 U	420 U	410 U	390 U
4-Chlorophenyl phenyl ether	410 U	410 U	440 U	390 U	420 U	410 U	390 U
4-Methylphenol	410 U	410 U	440 U	390 U	420 U	410 U	390 U
4-Nitroaniline	2000 U	2000 U	2100 U	1900 U	840 U	830 U	790 U
4-Nitrophenol	2000 U	2000 U	2100 U	1900 U	840 U	830 U	790 U
Acenaphthene	410 U	410 U	440 U	390 U	420 U	410 U	390 U
Acenaphthylene	410 U	410 U	440 U	390 U	420 U	410 U	390 U
Acetophenone	NA	NA	NA	NA	420 U	410 U	390 U
Anthracene	410 U	410 U	440 U	390 U	420 U	410 U	390 U
Atrazine	NA	NA	NA	NA	420 U	410 U	390 U
Benzaldehyde	NA	NA	NA	NA	420 U	410 U	390 U
Benzo(a)anthracene	410 U	410 U	94 J	390 U	420 U	410 U	390 U
Benzo(a)pyrene	410 U	410 U	100 J	390 U	420 U	410 U	390 U
Benzo(b)fluoranthene	410 U	410 U	200 J	390 U	420 U	410 U	390 U
Benzo(ghi)perylene	410 U	410 U	71 J	390 U	420 U	410 U	390 U
Benzo(k)fluoranthene	410 U	410 U	70 J	390 U	420 U	410 U	390 U
bis(2-Chloroethoxy)methane	410 U	410 U	440 U	390 U	420 U	410 U	390 U
bis(2-Chloroethyl) ether	410 U	410 U	440 U	390 U	420 U	410 U	390 U
bis(2-Ethylhexyl) phthalate	120 J	46 J	390 J	390 U	72 J	70 J	150 J
Butyl benzyl phthalate	410 U	410 U	440 U	390 U	420 U	410 U	390 U
Caprolactam	NA	NA	NA	NA	420 U	410 U	390 U

APPENDIX G
SUBSURFACE SOIL - SWMU 316
ORGANIC COMPOUNDS
SWMU CONFIRMATORY SAMPLING (CTO-0143)
TC773 - O/W, SCHOOL OF INFANTRY
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU316-IS01-04	SWMU316-IS02-02	SWMU316-IS03-02	SWMU316-IS04-03	SWMU316-TW01-04	SWMU316-TW02-04	SWMU316-TW03-04
SAMPLE DATE	09-09-1997	09-09-1997	09-09-1997	09-09-1997	03-21-2002	03-21-2002	03-21-2002
DEPTH	8' - 10'	4' - 6'	4' - 6'	6' - 8'	7' - 9'	7' - 9'	7' - 9'
SEMIVOLATILES (ug/kg) (cont)							
Carbazole	410 U	410 U	440 U	390 U	420 U	410 U	390 U
Chrysene	410 U	410 U	150 J	390 U	420 U	410 U	390 U
Di-n-butyl phthalate	410 U	410 U	440 U	390 U	420 U	410 U	390 U
Di-n-octyl phthalate	410 U	410 U	440 U	390 U	420 U	410 U	390 U
Dibenz(a,h)anthracene	410 U	410 U	440 U	390 U	420 U	410 U	390 U
Dibenzofuran	410 U	410 U	440 U	390 U	420 U	410 U	390 U
Diethyl phthalate	410 U	410 U	440 U	390 U	420 U	410 U	390 U
Dimethyl phthalate	410 U	410 U	440 U	390 U	420 U	410 U	390 U
Fluoranthene	410 U	410 U	220 J	390 U	420 U	410 U	390 U
Fluorene	410 U	410 U	440 U	390 U	420 U	410 U	390 U
Hexachlorobenzene	410 U	410 U	440 U	390 U	420 U	410 U	390 UJ
Hexachlorobutadiene	410 U	410 U	440 U	390 U	420 U	410 U	390 U
Hexachlorocyclopentadiene	2000 U	2000 U	2100 U	1900 U	420 U	410 U	390 U
Hexachloroethane	410 U	410 U	440 U	390 U	420 U	410 U	390 U
Indeno(1,2,3-cd)pyrene	410 U	410 U	77 J	390 U	420 U	410 U	390 U
Isophorone	410 U	410 U	440 U	390 U	420 U	410 U	390 U
N-Nitrosodi-n-propylamine	410 U	410 U	440 U	390 U	420 U	410 U	390 U
N-Nitrosodiphenylamine	410 U	410 U	440 U	390 U	420 U	410 U	390 U
Naphthalene	410 U	410 U	440 U	390 U	420 U	410 U	390 U
Nitrobenzene	410 U	410 U	440 U	390 U	420 U	410 U	390 U
Pentachlorophenol	2000 U	2000 U	2100 U	1900 U	840 U	830 U	790 U
Phenanthrene	410 U	410 U	46 J	390 U	420 U	410 U	390 U
Phenol	410 U	410 U	440 U	390 U	420 U	410 U	390 U
Pyrene	410 U	410 U	180 J	390 U	420 U	410 U	390 U

APPENDIX G
SUBSURFACE SOIL - SWMU 316
INORGANIC COMPOUNDS
SWMU CONFIRMATORY SAMPLING (CTO-0143)
TC773 - O/W, SCHOOL OF INFANTRY
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU316-IS01-04	SWMU316-IS02-02	SWMU316-IS03-02	SWMU316-IS04-03	SWMU316-TW01-04	SWMU316-TW02-04	SWMU316-TW03-04
SAMPLE DATE	09-09-1997	09-09-1997	09-09-1997	09-09-1997	03-21-2002	03-21-2002	03-21-2002
DEPTH	8' - 10'	4' - 6'	4' - 6'	6' - 8'	7' - 9'	7' - 9'	7' - 9'
METALS (mg/kg)							
Arsenic	1.2 U	1.2 U	1.9	1.2 U	0.29 U	0.29 U	0.27 U
Barium	24.8 U	24.9 U	26.7 U	23.8 U	7	13.8	7.2 U
Cadmium	0.62 U	0.62 U	0.67 U	0.6 U	0.037 U	0.046 J	0.034 U
Chromium	12.4	5.9	8.7	3.3	5.9	15.3	5.6
Lead	4.7	4.8	5	2	6.1	6.5	3.7
Mercury	0.041 U	0.041 U	0.044 U	0.039 U	0.034 J	0.038 J	0.021 J
Selenium	0.62 U	0.62 U	0.67 U	0.6 U	0.57 U	0.56 U	0.53 U
Silver	1.2 U	1.2 U	1.3 U	1.2 U	0.11 U	0.11 U	0.1 U

APPENDIX G
GROUNDWATER - SWMU 316
ORGANIC COMPOUNDS
SWMU CONFIRMATORY SAMPLING (CTO-0143)
TC773 - O/W, SCHOOL OF INFANTRY
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU316-GW01		SWMU316-GW02		SWMU316-GW03	
SAMPLE DATE	04-04-2002		04-04-2002		04-04-2002	
SEMIVOLATILES (ug/L)						
1,1'-Biphenyl	10	U	10	U	10	U
2,2'-oxybis(1-Chloropropane)	10	U	10	U	10	U
2,4,5-Trichlorophenol	10	U	10	U	10	U
2,4,6-Trichlorophenol	10	U	10	U	10	U
2,4-Dichlorophenol	10	U	10	U	10	U
2,4-Dimethylphenol	10	U	10	U	10	U
2,4-Dinitrophenol	50	UJ	50	UJ	50	UJ
2,4-Dinitrotoluene	10	U	10	U	10	U
2,6-Dinitrotoluene	10	U	10	U	10	U
2-Chloronaphthalene	10	U	10	U	10	U
2-Chlorophenol	10	U	10	U	10	U
2-Methylnaphthalene	10	U	10	U	10	U
2-Methylphenol	10	U	10	U	10	U
2-Nitroaniline	20	U	20	U	20	U
2-Nitrophenol	10	U	10	U	10	U
3,3'-Dichlorobenzidine	20	U	20	U	20	U
3-Nitroaniline	20	U	20	U	20	U
4,6-dinitro-2-Methylphenol	20	U	20	U	20	U
4-Bromophenyl phenyl ether	10	U	10	U	10	U
4-Chloro-3-methylphenol	10	U	10	U	10	U
4-Chloroaniline	10	U	10	U	10	U
4-Chlorophenyl phenyl ether	10	U	10	U	10	U
4-Methylphenol	2	J	3	J	1	J
4-Nitroaniline	20	U	20	U	20	U
4-Nitrophenol	20	U	20	U	20	U
Acenaphthene	10	U	10	U	10	U
Acenaphthylene	10	U	10	U	10	U
Acetophenone	10	U	10	U	10	U
Anthracene	10	U	10	U	10	U
Atrazine	10	U	10	U	10	U
Benzaldehyde	10	U	10	U	10	U
Benzo(a)anthracene	10	U	10	U	10	U
Benzo(a)pyrene	10	U	10	U	10	U
Benzo(b)fluoranthene	10	U	10	U	10	U
Benzo(g,h,i)perylene	10	U	10	U	10	U
Benzo(k)fluoranthene	10	U	10	U	10	U
bis(2-Chloroethoxy)methane	10	U	10	U	10	U
bis(2-Chloroethyl)ether	10	U	10	U	10	U

APPENDIX G
GROUNDWATER - SWMU 316
ORGANIC COMPOUNDS
SWMU CONFIRMATORY SAMPLING (CTO-0143)
TC773 - O/W, SCHOOL OF INFANTRY
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU316-GW01		SWMU316-GW02		SWMU316-GW03	
SAMPLE DATE	04-04-2002		04-04-2002		04-04-2002	
SEMIVOLATILES (ug/L) (cont)						
bis(2-Ethylhexyl)phthalate	10	U	10	U	10	U
Butyl benzyl phthalate	10	U	10	U	10	U
Caprolactam	10	U	10	U	10	U
Carbazole	10	U	10	U	10	U
Chrysene	10	U	10	U	10	U
di-N-Butyl phthalate	10	U	10	U	10	U
di-N-Octyl phthalate	10	U	10	U	10	U
Dibenzo(a,h)anthracene	10	U	10	U	10	U
Dibenzofuran	10	U	10	U	10	U
Diethyl phthalate	10	U	10	U	10	U
Dimethyl phthalate	10	U	10	U	10	U
Fluoranthene	10	U	10	U	10	U
Fluorene	10	U	0.6	J	10	U
Hexachlorobenzene	10	U	10	U	10	U
Hexachlorobutadiene	10	U	10	U	10	U
Hexachlorocyclopentadiene	10	U	10	U	10	U
Hexachloroethane	10	U	10	U	10	U
Indeno(1,2,3-cd)pyrene	10	U	10	U	10	U
Isophorone	10	U	10	U	10	U
N-Nitroso-di-N-propylamine	10	U	10	U	10	U
N-Nitrosodiphenylamine(1)	10	U	10	U	10	U
Naphthalene	10	U	10	U	10	U
Nitrobenzene	10	U	10	U	10	U
Pentachlorophenol	20	U	20	U	20	U
Phenanthrene	1	J	2	J	1	J
Phenol	10	U	10	U	10	U
Pyrene	10	U	10	U	10	U

APPENDIX G
GROUNDWATER - SWMU 316
INORGANIC COMPOUNDS
SWMU CONFIRMATORY SAMPLING (CTO-0143)
TC773 - O/W, SCHOOL OF INFANTRY
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU316-GW01		SWMU316-GW02		SWMU316-GW03	
SAMPLE DATE	04-04-2002		04-04-2002		04-04-2002	
METALS (ug/L)						
Arsenic	2.4	U	2.4	U	2.4	U
Barium	37.1	J	130	J	140	J
Cadmium	0.64	U	0.3	U	0.3	U
Chromium	1.1	J	0.75	J	1.1	J
Lead	1.8	U	2	U	1.9	J
Mercury	0.1	U	0.1	U	0.1	U
Selenium	4.6	U	4.6	U	4.6	U
Silver	0.9	U	0.9	U	0.9	U

APPENDIX G
SURFACE SOIL - SWMU 317
INORGANIC COMPOUNDS
SWMU CONFIRMATORY SAMPLING (CTO-0143)
TT2453 - RELEASE, NEAR BUILDING TT2453
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU317-IS01-00	SWMU317-SB01-00	SWMU317-TW01-00	SWMU317-TW02-00
SAMPLE DATE	09-09-1997	03-24-2002	03-24-2002	03-24-2002
DEPTH	0' - 2'	0' - 1'	0' - 1'	0' - 1'
METALS (mg/kg)				
Arsenic	2.3	0.28 U	3.8 J	0.33 J
Barium	59.8	9.7 J	18.6 J	14.3 J
Cadmium	2.1	0.03 U	0.14 J	0.03 U
Chromium	10.2	2.7 J	26.5 J	6.1 J
Lead	348	3.8 J	8.1 J	7.9 J
Mercury	0.039	0.02 U	0.06 J	0.02 U
Selenium	0.58 U	0.53 U	1.3 J	0.52 U
Silver	1.2 U	0.1 U	0.11 U	0.1 U

APPENDIX G
SUBSURFACE SOIL - SWMU 317
INORGANIC COMPOUNDS
SWMU CONFIRMATORY SAMPLING (CTO-0143)
TT2453 - RELEASE, NEAR BUILDING TT2453
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU317-IS01-04	SWMU317-SB01-02	SWMU317-TW01-02	SWMU317-TW01A-10	SWMU317-TW02-02	SWMU317-TW03A-10
SAMPLE DATE	09-09-1997	03-24-2002	03-24-2002	04-09-2002	03-24-2002	04-09-2002
DEPTH	8' - 10'	3' - 5'	3' - 5'	19' - 21'	3' - 5'	19' - 21'
METALS (mg/kg)						
Arsenic	2.6	6.6 J	4.6 J	0.22 U	0.27 U	0.33 J
Barium	24.4 U	18 J	9.7 J	12.5 J	6.5 J	31.5 J
Cadmium	0.61 U	0.3 J	0.04 U	0.04 U	0.03 U	0.05 U
Chromium	13.8	34.8 J	4.2 J	18.6 J	1.4 J	6.8 J
Lead	9	9.3 J	5.2 J	2.9 J	2.7 J	1.2 J
Mercury	0.04 U	0.03 J	0.03 J	0.04 U	0.02 U	0.04 U
Selenium	0.61 U	1.8 J	0.91 J	0.24 UJ	0.52 U	0.24 UJ
Silver	1.2 U	0.12 U	0.11 U	0.06 U	0.1 U	0.06 U

APPENDIX G
GROUNDWATER - SWMU 317
INORGANIC COMPOUNDS
SWMU CONFIRMATORY SAMPLING (CTO-0143)
TT2453 - RELEASE, NEAR BUILDING TT2453
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU317-GW01		SWMU317-GW02		SWMU317-GW03	
SAMPLE DATE	04-09-2002		04-08-2002		04-09-2002	
METALS (ug/L)						
Arsenic	2	UJ	2	UJ	2	UJ
Barium	38.3		23.3		44.6	
Cadmium	0.4	U	0.4	U	0.4	U
Chromium	8.5		0.5	UJ	1.5	J
Lead	1.2	J	1.1	J	1.9	J
Mercury	0.1	U	0.1	U	0.1	U
Selenium	2.1	U	2.1	U	2.3	J
Silver	0.5	U	0.52	J	0.5	U

APPENDIX G
SURFACE SOIL - SWMU 318
ORGANIC COMPOUNDS
SWMU CONFIRMATORY SAMPLING (CTO-0143)
AS515 - O/W, NEAR BUILDING AS515
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU318-IS01-00	SWMU318-IS02-00	SWMU318-IS03-00	SWMU318-SS01-00	SWMU318-SS02-00	SWMU318-SS03-00	SWMU318-TW01-00	SWMU318-TW02-00	SWMU318-TW03-00
SAMPLE DATE	09-14-1997	09-14-1997	09-14-1997	09-17-1997	03-19-2002	03-19-2002	03-20-2002	03-20-2002	03-19-2002
DEPTH	0' - 2'	0' - 2'	0' - 2'	0' - 2'	0' - 1'	0' - 1'	0' - 1'	0' - 1'	0' - 1'
VOLATILES (ug/kg)									
1,1,1-Trichloroethane	NA	NA	NA	NA	11 U	7 U	5 U	7 U	5 U
1,1,2,2-Tetrachloroethane	NA	NA	NA	NA	11 U	7 U	5 U	7 U	5 U
1,1,2-Trichloro-1,2,2-trifluoroethane	NA	NA	NA	NA	11 U	7 U	5 U	7 U	5 U
1,1,2-Trichloroethane	NA	NA	NA	NA	11 U	7 U	5 U	7 U	5 U
1,1-Dichloroethane	NA	NA	NA	NA	11 U	7 U	5 U	7 U	5 U
1,1-Dichloroethene	NA	NA	NA	NA	11 U	7 U	5 U	7 U	5 U
1,2,4-Trichlorobenzene	NA	NA	NA	NA	11 UJ	7 UJ	5 UJ	7 U	5 U
1,2-Dibromo-3-chloropropane	NA	NA	NA	NA	11 UJ	7 UJ	5 UJ	7 U	5 U
1,2-Dibromoethane	NA	NA	NA	NA	11 U	7 U	5 U	7 U	5 U
1,2-Dichlorobenzene	1.2 U	1.4 U	1.2 U	9200	11 UJ	7 UJ	5 UJ	7 U	5 U
1,2-Dichloroethane	NA	NA	NA	NA	11 U	7 U	5 U	7 U	5 U
1,2-Dichloropropane	NA	NA	NA	NA	11 U	7 U	5 U	7 U	5 U
1,3-Dichlorobenzene	1.2 U	1.4 U	1.2 U	670 U	11 UJ	7 UJ	5 UJ	7 U	5 U
1,4-Dichlorobenzene	1.8	1.4 U	1.2 U	4300	11 UJ	7 UJ	5 UJ	7 U	5 U
2-Butanone	NA	NA	NA	NA	11 J	16 J	20	9 J	8 J
2-Hexanone	NA	NA	NA	NA	28 U	16 U	3 J	17 U	13 U
4-Methyl-2-pentanone	NA	NA	NA	NA	28 U	16 U	1 J	17 U	13 U
Acetone	NA	NA	NA	NA	32	40 J	78	37	38 J
Benzene	1.2 U	1.4 U	1.2 U	670 U	2 J	7 U	2 J	7 U	5 U
Bromodichloromethane	NA	NA	NA	NA	11 U	7 U	5 U	7 U	5 U
Bromoform	NA	NA	NA	NA	11 U	7 U	5 U	13	5 U
Bromomethane	NA	NA	NA	NA	11 U	7 U	5 UJ	7 UJ	5 U
Carbon disulfide	NA	NA	NA	NA	11 U	3 J	5 U	7 U	5 U
Carbon tetrachloride	NA	NA	NA	NA	11 U	7 U	5 U	7 U	5 U
Chlorobenzene	1.2 U	1.4 U	1.2 U	670 U	11 U	7 U	5 U	7 U	5 U
Chloroethane	NA	NA	NA	NA	11 U	7 U	5 U	7 U	5 UJ
Chloroform	NA	NA	NA	NA	11 U	7 U	5 U	7 U	5 U
Chloromethane	NA	NA	NA	NA	11 UJ	7 UJ	5 U	7 U	5 U
cis-1,2-Dichloroethene	NA	NA	NA	NA	11 U	7 U	5 U	7 U	5 U
cis-1,3-Dichloropropene	NA	NA	NA	NA	11 U	7 U	5 U	7 U	5 U
Cyclohexane	NA	NA	NA	NA	11 U	7 U	5 U	7 U	5 U
Dibromochloromethane	NA	NA	NA	NA	11 U	7 U	5 U	7 U	5 U
Dichlorodifluoromethane	NA	NA	NA	NA	11 UJ	7 UJ	5 U	7 U	5 UJ
Ethylbenzene	1.2 U	1.4 U	1.2 U	670 U	11 U	7 U	5 U	7 U	5 U
Isopropylbenzene	NA	NA	NA	NA	11 U	7 U	5 U	7 U	5 U
Methyl acetate	NA	NA	NA	NA	11 U	7 U	5 U	7 U	5 U
Methyl-t-Butyl Ether	NA	NA	NA	NA	11 U	7 U	5 U	7 U	5 U
Methylcyclohexane	NA	NA	NA	NA	11 U	7 U	5 U	7 U	5 U
Methylene chloride	NA	NA	NA	NA	4 J	2 J	11	18	1 J
Styrene	NA	NA	NA	NA	11 U	7 U	5 U	7 U	5 U
Tetrachloroethene	NA	NA	NA	NA	11 U	7 U	5 U	7 U	5 U
Toluene	1.2 U	1.4 U	1.2 U	670 U	11 U	7 U	5 U	7 U	5 U
trans-1,2-Dichloroethene	NA	NA	NA	NA	11 U	7 U	5 U	7 U	5 U
trans-1,3-Dichloropropene	NA	NA	NA	NA	11 U	7 U	5 U	7 U	5 U
Trichloroethene	NA	NA	NA	NA	11 U	7 U	5 U	7 U	5 U
Trichlorofluoromethane	NA	NA	NA	NA	11 U	7 U	5 U	7 U	5 U
Vinyl chloride	NA	NA	NA	NA	11 U	7 U	5 U	7 U	5 U
Xylenes (total)	1.2 U	1.4 U	1.2 U	670 U	34 UJ	20 UJ	16 UJ	20 UJ	15 UJ

APPENDIX G
SURFACE SOIL - SWMU 318
ORGANIC COMPOUNDS
SWMU CONFIRMATORY SAMPLING (CTO-0143)
AS515 - O/W, NEAR BUILDING AS515
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU318-IS01-00		SWMU318-IS02-00		SWMU318-IS03-00		SWMU318-SS01-00		SWMU318-SS02-00		SWMU318-SS03-00		SWMU318-TW01-00		SWMU318-TW02-00		SWMU318-TW03-00	
SAMPLE DATE	09-14-1997		09-14-1997		09-14-1997		09-17-1997		03-19-2002		03-19-2002		03-20-2002		03-20-2002		03-19-2002	
DEPTH	0' - 2'		0' - 2'		0' - 2'		0' - 2'		0' - 1'		0' - 1'		0' - 1'		0' - 1'		0' - 1'	
SEMIVOLATILES (ug/kg)																		
1,1'-Biphenyl	NA		NA		NA		NA		650	U	460	U	390	U	390	U	370	U
2,2'-Oxybis(1-Chloropropane)	410	U	470	U	410	U	18000	U	650	U	460	U	390	U	390	U	370	U
2,4,5-Trichlorophenol	410	U	470	U	410	U	18000	U	650	U	460	U	390	U	390	U	370	U
2,4,6-Trichlorophenol	410	U	470	U	410	U	18000	U	650	U	460	U	390	U	390	U	370	U
2,4-Dichlorophenol	410	U	470	U	410	U	18000	U	650	U	460	U	390	U	390	U	370	U
2,4-Dimethylphenol	410	U	470	U	410	U	18000	U	650	U	460	U	390	U	390	U	370	U
2,4-Dinitrophenol	2000	U	2300	U	2000	U	86000	U	3300	U	2400	U	2000	U	2000	U	1900	U
2,4-Dinitrotoluene	410	U	470	U	410	U	18000	U	650	U	460	U	390	U	390	U	370	U
2,6-Dinitrotoluene	410	U	470	U	410	U	18000	U	650	U	460	U	390	U	390	U	370	U
2-Chloronaphthalene	410	U	470	U	410	U	18000	U	650	U	460	U	390	U	390	U	370	U
2-Chlorophenol	410	U	470	U	410	U	18000	U	650	U	460	U	390	U	390	U	370	U
2-Methylnaphthalene	410	U	470	U	410	U	2600	J	650	UJ	120	J	390	UJ	390	UJ	370	UJ
2-Methylphenol	410	U	470	U	410	U	18000	U	650	U	460	U	390	U	390	U	370	U
2-Nitroaniline	2000	U	2300	U	2000	U	86000	U	1300	U	920	U	790	U	790	U	740	U
2-Nitrophenol	410	U	470	U	410	U	18000	U	650	U	460	U	390	U	390	U	370	U
3,3'-Dichlorobenzidine	2000	U	2300	U	2000	U	86000	U	1300	U	920	U	790	U	790	U	740	U
3-Nitroaniline	2000	U	2300	U	2000	U	86000	U	1300	U	920	U	790	U	790	U	740	U
4,6-Dinitro-2-methylphenol	2000	U	2300	U	2000	U	86000	U	1300	U	920	U	790	U	790	U	740	U
4-Bromophenyl phenyl ether	410	U	470	U	410	U	18000	U	650	U	460	U	390	U	390	U	370	U
4-Chloro-3-methylphenol	410	U	470	U	410	U	18000	U	650	U	460	U	390	U	390	U	370	U
4-Chloroaniline	410	U	470	U	410	U	18000	U	650	U	460	U	390	U	390	U	370	U
4-Chlorophenyl phenyl ether	410	U	470	U	410	U	18000	U	650	U	460	U	390	U	390	U	370	U
4-Methylphenol	410	U	470	U	410	U	18000	U	650	U	460	U	390	U	390	U	370	U
4-Nitroaniline	2000	U	2300	U	2000	U	86000	U	1300	U	920	U	790	U	790	U	740	U
4-Nitrophenol	2000	U	2300	U	2000	U	86000	U	1300	U	920	U	790	U	790	U	740	U
Acenaphthene	410	U	470	U	410	U	18000	U	650	U	34	J	390	U	390	U	370	U
Acenaphthylene	410	U	470	U	410	U	18000	U	650	U	460	U	390	U	390	U	370	U
Acetophenone	NA		NA		NA		NA		650	U	120	J	390	U	390	U	370	U
Anthracene	410	U	470	U	410	U	18000	U	650	U	460	U	390	U	390	U	370	U
Atrazine	NA		NA		NA		NA		650	U	460	U	390	U	390	U	370	U
Benzaldehyde	NA		NA		NA		NA		650	U	460	U	390	U	33	J	370	U
Benzo(a)anthracene	56	J	470	U	410	U	4100	J	52	J	220	J	390	U	390	U	370	U
Benzo(a)pyrene	110	J	470	U	410	U	5000	J	82	J	190	J	390	U	390	U	370	U
Benzo(b)fluoranthene	110	J	470	U	410	U	5900	J	140	J	260	J	390	U	29	J	370	U
Benzo(ghi)perylene	99	J	470	U	410	U	5000	J	86	J	120	J	390	U	390	U	370	U
Benzo(k)fluoranthene	410	U	470	U	410	U	6900	J	130	J	300	J	390	U	390	U	370	U
bis(2-Chloroethoxy)methane	410	U	470	U	410	U	18000	U	650	U	460	U	390	U	390	U	370	U
bis(2-Chloroethyl) ether	410	U	470	U	410	U	18000	U	650	U	460	U	390	U	390	U	370	U
bis(2-Ethylhexyl) phthalate	230	J	1400	J	180	J	22000	J	300	J	1100	J	380	J	380	J	1100	
Butyl benzyl phthalate	410	U	470	U	410	U	2000	J	86	J	65	J	390	U	390	U	370	U
Caprolactam	NA		NA		NA		NA		650	U	100	J	390	U	390	U	370	U
Carbazole	410	U	470	U	410	U	18000	U	650	U	44	J	390	U	390	U	370	U
Chrysene	69	J	470	U	410	U	6700	J	99	J	290	J	390	U	390	U	370	U
Di-n-butyl phthalate	410	U	470	U	410	U	2400	J	650	U	460	U	390	U	390	U	370	U
Di-n-octyl phthalate	410	U	470	U	410	U	18000	U	170	J	55	J	390	U	390	U	37	J
Dibenz(a,h)anthracene	45	J	470	U	410	U	2300	J	650	U	68	J	390	U	390	U	370	U
Dibenzofuran	410	U	470	U	410	U	18000	U	650	U	460	U	390	U	390	U	370	U
Diethyl phthalate	410	U	470	U	410	U	18000	U	650	U	460	U	390	U	390	U	370	U
Dimethyl phthalate	410	U	470	U	410	U	18000	U	650	U	48	J	390	U	390	U	370	U
Fluoranthene	69	J	470	U	410	U	7700	J	120	J	440	J	390	U	22	J	370	U
Fluorene	410	U	470	U	410	U	18000	U	650	U	460	U	390	U	390	U	370	U
Hexachlorobenzene	410	U	470	U	410	U	18000	U	650	U	460	U	390	U	390	U	370	U
Hexachlorobutadiene	410	U	470	U	410	U	18000	U	650	U	460	U	390	U	390	U	370	U
Hexachlorocyclopentadiene	2000	U	2300	U	2000	U	86000	U	650	UJ	460	UJ	390	UJ	390	UJ	370	UJ
Hexachloroethane	410	U	470	U	410	U	18000	U	650	U	460	U	390	U	390	U	370	U
Indeno(1,2,3-cd)pyrene	91	J	470	U	410	U	4700	J	160	J	240	J	390	U	47	J	370	U
Isophorone	410	U	470	U	410	U	18000	U	650	U	460	U	390	U	390	U	370	U
N-Nitrosodi-n-propylamine	410	U	470	U	410	U	18000	U	650	U	460	U	390	U	390	U	370	U
N-Nitrosodiphenylamine	410	U	470	U	410	U	18000	U	650	U	460	U	390	U	390	U	370	U
Naphthalene	410	U	470	U	410	U	17000	J	650	U	430	J	390	U	390	U	370	U
Nitrobenzene	410	U	470	U	410	U	18000	U	650	U	460	U	390	U	390	U	370	U
Pentachlorophenol	2000	U	2300	U	2000	U	86000	U	1300	U	920	U	790	U	790	U	740	U
Phenanthrene	410	U	470	U	410	U	18000	U	650	U	110	J	390	U	390	U	370	U
Phenol	410	U	470	U	410	U	18000	U	650	U	460	U	390	U	390	U	370	U
Pyrene	71	J	470	U	410	U	7800	J	90	J	370	J	390	U	390	U	370	U

APPENDIX G
SURFACE SOIL - SWMU 318
INORGANIC COMPOUNDS
SWMU CONFIRMATORY SAMPLING (CTO-0143)
AS515 - O/W, NEAR BUILDING AS515
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU318-IS01-00	SWMU318-IS02-00	SWMU318-IS03-00	SWMU318-SS01-00	SWMU318-SS02-00	SWMU318-SS03-00	SWMU318-TW01-00	SWMU318-TW02-00	SWMU318-TW03-00
SAMPLE DATE	09-14-1997	09-14-1997	09-14-1997	09-17-1997	03-19-2002	03-19-2002	03-20-2002	03-20-2002	03-19-2002
DEPTH	0' - 2'	0' - 2'	0' - 2'	0' - 2'	0' - 1'	0' - 1'	0' - 1'	0' - 1'	0' - 1'
METALS (mg/kg)									
Arsenic	3.1	14.3	3.7	1.3 U	1.4 J	3.3	2	0.26 U	0.67 J
Barium	50.3	44	25 U	396	33.2	47.8 J	36.3	13.4	24.6
Cadmium	1.6	3	0.62 U	57.2	3.5	0.41 J	0.46 J	0.14 J	0.57
Chromium	24.6	48.2	18.2	91.1	20.5	24.9	20.2	6.7	9.2
Lead	30.7	45.8	21.9	110	45.4 J	20.8 J	66.1 J	11.2 J	16.7 J
Mercury	0.067	0.14	0.052	0.045	0.066	0.099	0.059	0.023 J	0.027 J
Selenium	0.81	0.85	0.62 U	0.67 U	1	1.3	0.56 J	0.5 U	0.58
Silver	1.2 U	1.4 U	1.2 U	7.2	0.16 U	0.12 U	0.1 U	0.098 U	0.1 U

APPENDIX G
SUBSURFACE SOIL - SWMU 318
ORGANIC COMPOUNDS
SWMU CONFIRMATORY SAMPLING (CTO-0143)
AS515 - O/W, NEAR BUILDING AS515
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU318-TW01-04		SWMU318-TW02-04		SWMU318-TW03-04	
SAMPLE DATE	03-20-2002		03-20-2002		03-19-2002	
DEPTH	7' - 9'		7' - 9'		7' - 9'	
VOLATILES (ug/kg)						
1,1,1-Trichloroethane	7	U	8	U	6	U
1,1,2,2-Tetrachloroethane	7	U	8	U	6	U
1,1,2-Trichloro-1,2,2-trifluoroethane	7	U	8	U	6	U
1,1,2-Trichloroethane	7	U	93		6	U
1,1-Dichloroethane	7	U	8	U	6	U
1,1-Dichloroethene	7	U	8	U	6	U
1,2,4-Trichlorobenzene	7	U	8	U	6	U
1,2-Dibromo-3-chloropropane	7	U	8	U	6	U
1,2-Dibromoethane	7	U	8	U	6	U
1,2-Dichlorobenzene	7	U	8	U	6	U
1,2-Dichloroethane	7	U	8	U	6	U
1,2-Dichloropropane	7	U	8	U	6	U
1,3-Dichlorobenzene	7	U	8	U	6	U
1,4-Dichlorobenzene	7	U	8	U	6	U
2-Butanone	8	J	9	J	5	J
2-Hexanone	17	U	300		14	U
4-Methyl-2-pentanone	17	U	20	U	14	U
Acetone	28		57		24	J
Benzene	7	U	8	U	6	U
Bromodichloromethane	7	U	2	J	6	U
Bromoform	7	U	8	U	6	U
Bromomethane	7	UJ	8	UJ	6	U
Carbon disulfide	7	U	8	U	3	J
Carbon tetrachloride	7	U	8	U	6	U
Chlorobenzene	7	U	8	U	6	U
Chloroethane	7	U	8	U	6	UJ
Chloroform	7	U	8	U	6	U
Chloromethane	7	U	8	U	6	U
cis-1,2-Dichloroethene	7	U	8	U	6	U
cis-1,3-Dichloropropene	7	U	8	U	6	U
Cyclohexane	7	U	12		6	U
Dibromochloromethane	7	U	8	U	6	U
Dichlorodifluoromethane	7	U	8	U	6	UJ
Ethylbenzene	7	U	8	U	6	U
Isopropylbenzene	7	U	15		6	U
Methyl acetate	7	U	8	U	6	U
Methyl-t-Butyl Ether	7	U	8	U	6	U
Methylcyclohexane	7	U	10		6	U
Methylene chloride	33		32		1	J
Styrene	7	U	8	U	6	U
Tetrachloroethene	7	U	8	U	6	U

APPENDIX G
SUBSURFACE SOIL - SWMU 318
ORGANIC COMPOUNDS
SWMU CONFIRMATORY SAMPLING (CTO-0143)
AS515 - O/W, NEAR BUILDING AS515
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU318-TW01-04		SWMU318-TW02-04		SWMU318-TW03-04	
SAMPLE DATE	03-20-2002		03-20-2002		03-19-2002	
DEPTH	7' - 9'		7' - 9'		7' - 9'	
VOLATILES (ug/kg) (cont)						
Toluene	7	U	8	U	6	U
trans-1,2-Dichloroethene	7	U	8	U	6	U
trans-1,3-Dichloropropene	7	U	8	U	6	U
Trichloroethene	7	U	8	U	6	U
Trichlorofluoromethane	7	U	8	U	6	U
Vinyl chloride	7	U	8	U	6	U
Xylenes (total)	21	UJ	24	UJ	17	UJ
SEMIVOLATILES (ug/kg)						
1,1'-Biphenyl	420	U	500	U	410	U
2,2'-Oxybis(1-Chloropropane)	420	U	500	U	410	U
2,4,5-Trichlorophenol	420	U	500	U	410	U
2,4,6-Trichlorophenol	420	U	500	U	410	U
2,4-Dichlorophenol	420	U	500	U	410	U
2,4-Dimethylphenol	420	U	500	U	410	U
2,4-Dinitrophenol	2200	U	2600	U	2100	U
2,4-Dinitrotoluene	420	U	500	U	410	U
2,6-Dinitrotoluene	420	U	500	U	410	U
2-Chloronaphthalene	420	U	500	U	410	U
2-Chlorophenol	420	U	500	U	410	U
2-Methylnaphthalene	420	UJ	500	UJ	410	UJ
2-Methylphenol	420	U	500	U	410	U
2-Nitroaniline	840	U	1000	U	830	U
2-Nitrophenol	420	U	500	U	410	U
3,3'-Dichlorobenzidine	840	U	1000	U	830	U
3-Nitroaniline	840	U	1000	U	830	U
4,6-Dinitro-2-methylphenol	840	U	1000	U	830	U
4-Bromophenyl phenyl ether	420	U	500	U	410	U
4-Chloro-3-methylphenol	420	U	500	U	410	U
4-Chloroaniline	420	U	500	U	410	U
4-Chlorophenyl phenyl ether	420	U	500	U	410	U
4-Methylphenol	420	U	500	U	410	U
4-Nitroaniline	840	U	1000	U	830	U
4-Nitrophenol	840	U	1000	U	830	U
Acenaphthene	420	U	500	U	410	U
Acenaphthylene	420	U	500	U	410	U
Acetophenone	420	U	500	U	410	U
Anthracene	420	U	500	U	410	U
Atrazine	420	U	500	U	410	U
Benzaldehyde	420	U	500	U	410	U
Benzo(a)anthracene	420	U	500	U	410	U
Benzo(a)pyrene	420	U	500	U	410	U
Benzo(b)fluoranthene	420	U	500	U	410	U

APPENDIX G
SUBSURFACE SOIL - SWMU 318
ORGANIC COMPOUNDS
SWMU CONFIRMATORY SAMPLING (CTO-0143)
AS515 - O/W, NEAR BUILDING AS515
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU318-TW01-04		SWMU318-TW02-04		SWMU318-TW03-04	
SAMPLE DATE	03-20-2002		03-20-2002		03-19-2002	
DEPTH	7' - 9'		7' - 9'		7' - 9'	
SEMIVOLATILES (ug/kg) (cont)						
Benzo(ghi)perylene	420	U	500	U	410	U
Benzo(k)fluoranthene	420	U	500	U	410	U
bis(2-Chloroethoxy)methane	420	U	500	U	410	U
bis(2-Chloroethyl) ether	420	U	500	U	410	U
bis(2-Ethylhexyl) phthalate	380	J	370	J	660	J
Butyl benzyl phthalate	420	U	500	U	410	U
Caprolactam	420	U	500	U	410	U
Carbazole	420	U	500	U	410	U
Chrysene	420	U	500	U	410	U
Di-n-butyl phthalate	420	U	500	U	410	U
Di-n-octyl phthalate	420	U	500	U	25	J
Dibenz(a,h)anthracene	420	U	500	U	410	U
Dibenzofuran	420	U	130	J	410	U
Diethyl phthalate	420	U	500	U	410	U
Dimethyl phthalate	420	U	500	U	410	U
Fluoranthene	420	U	500	U	410	U
Fluorene	420	U	59	J	410	U
Hexachlorobenzene	420	U	500	U	410	U
Hexachlorobutadiene	420	U	500	U	410	U
Hexachlorocyclopentadiene	420	UJ	500	UJ	410	UJ
Hexachloroethane	420	U	500	U	410	U
Indeno(1,2,3-cd)pyrene	420	U	500	U	410	U
Isophorone	420	U	500	U	410	U
N-Nitrosodi-n-propylamine	420	U	500	U	410	U
N-Nitrosodiphenylamine	420	U	500	U	410	U
Naphthalene	420	U	500	U	410	U
Nitrobenzene	420	U	500	U	410	U
Pentachlorophenol	840	U	1000	U	830	U
Phenanthrene	420	U	500	U	410	U
Phenol	420	U	500	U	410	U
Pyrene	420	U	500	U	410	U

APPENDIX G
SUBSURFACE SOIL - SWMU 318
INORGANIC COMPOUNDS
SWMU CONFIRMATORY SAMPLING (CTO-0143)
AS515 - O/W, NEAR BUILDING AS515
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU318-TW01-04		SWMU318-TW02-04		SWMU318-TW03-04	
SAMPLE DATE	03-20-2002		03-20-2002		03-19-2002	
DEPTH	7' - 9'		7' - 9'		7' - 9'	
METALS (mg/kg)						
Arsenic	2		2.4		4.8	J
Barium	22		19.7		30	
Cadmium	0.066	J	0.045	U	0.037	U
Chromium	23.3		24.1		4.1	
Lead	11.7	J	11.6	J	1	J
Mercury	0.027	J	0.024	J	0.02	U
Selenium	0.56	U	0.69	U	0.57	U
Silver	0.11	U	0.14	U	0.11	U

APPENDIX G
GROUNDWATER - SWMU 318
ORGANIC COMPOUNDS
SWMU CONFIRMATORY SAMPLING (CTO-0143)
AS515 - O/W, NEAR BUILDING AS515
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU318-GW01TW		SWMU318-GW02TW		SWMU318-GW03TW	
SAMPLE DATE	04-02-2002		04-02-2002		04-02-2002	
VOLATILES (ug/L)						
1,1,1-Trichloroethane	5	U	5	U	5	U
1,1,2,2-Tetrachloroethane	5	U	5	U	5	U
1,1,2-Trichloro-1,2,2-trifluoroethane	5	U	5	U	5	U
1,1,2-Trichloroethane	5	U	5	U	5	U
1,1-Dichloroethane	1	J	5	U	2	J
1,1-Dichloroethene	0.5	J	5	U	0.7	J
1,2,4-Trichlorobenzene	1	J	5	U	5	U
1,2-Dibromo-3-chloropropane	5	U	5	U	5	U
1,2-Dibromoethane	5	U	5	U	5	U
1,2-Dichlorobenzene	3	J	5	U	5	U
1,2-Dichloroethane	5	U	5	U	5	U
1,2-Dichloropropane	5	U	5	U	5	U
1,3-Dichlorobenzene	5	U	5	U	5	U
1,4-Dichlorobenzene	5	U	5	U	5	U
2-Butanone	13	U	13	U	13	U
2-Hexanone	13	U	13	U	13	U
4-Methyl-2-pentanone	13	U	13	U	13	U
Acetone	6	U	5	U	6	U
Benzene	2	J	4	J	2	J
Bromodichloromethane	5	U	5	U	5	U
Bromoform	5	U	5	U	5	U
Bromomethane	5	UJ	5	UJ	5	UJ
Carbon disulfide	5	U	5	U	5	U
Carbon tetrachloride	5	U	5	U	5	U
Chlorobenzene	5	U	5	U	5	U
Chloroethane	5	U	5	U	5	U
Chloroform	5	U	5	U	5	U
Chloromethane	5	U	5	U	5	U
cis-1,2-Dichloroethene	22		13		0.8	J
cis-1,3-Dichloropropene	5	U	5	U	5	U
Cyclohexane	1	J	5	U	3	J
Dibromochloromethane	5	U	5	U	5	U
Dichlorodifluoromethane	5	U	5	U	5	U
Ethylbenzene	1	J	4	J	5	U
Isopropylbenzene	5	U	1	J	5	U
Methyl acetate	5	U	5	U	5	U
Methyl-t-butyl ether	5	U	5	U	5	U
Methylcyclohexane	5	U	5	U	5	U

APPENDIX G
GROUNDWATER - SWMU 318
ORGANIC COMPOUNDS
SWMU CONFIRMATORY SAMPLING (CTO-0143)
AS515 - O/W, NEAR BUILDING AS515
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU318-GW01TW		SWMU318-GW02TW		SWMU318-GW03TW	
SAMPLE DATE	04-02-2002		04-02-2002		04-02-2002	
VOLATILES (ug/L) (cont)						
Methylene chloride	5	U	5	U	5	U
Styrene	5	U	5	U	5	U
Tetrachloroethene	5	U	5	U	5	U
Toluene	1	J	2	J	5	U
trans-1,2-Dichloroethene	5	U	5	U	5	U
trans-1,3-Dichloropropene	5	U	5	U	5	U
Trichloroethene	15		8		5	U
Trichlorofluoromethane	5	U	5	U	5	U
Vinyl chloride	2	J	0.9	J	5	U
Xylene (Total)	5	U	3	J	5	U
SEMIVOLATILES (ug/L)						
1,1'-Biphenyl	10	U	11	U	10	U
2,2'-oxybis(1-Chloropropane)	10	UJ	11	UJ	10	UJ
2,4,5-Trichlorophenol	10	U	11	U	10	U
2,4,6-Trichlorophenol	10	U	11	U	10	U
2,4-Dichlorophenol	10	U	11	U	10	U
2,4-Dimethylphenol	10	U	2	J	10	U
2,4-Dinitrophenol	50	U	53	U	50	U
2,4-Dinitrotoluene	10	U	11	U	10	U
2,6-Dinitrotoluene	10	U	11	U	10	U
2-Chloronaphthalene	10	U	11	U	10	U
2-Chlorophenol	10	U	11	U	10	U
2-Methylnaphthalene	5	J	12		2	J
2-Methylphenol	10	U	11	U	10	U
2-Nitroaniline	20	UJ	21	UJ	20	UJ
2-Nitrophenol	10	U	11	U	10	U
3,3'-Dichlorobenzidine	20	U	21	U	20	U
3-Nitroaniline	20	U	21	U	20	U
4,6-dinitro-2-Methylphenol	20	U	21	U	20	U
4-Bromophenyl phenyl ether	10	U	11	U	10	U
4-Chloro-3-methylphenol	10	U	11	U	10	U
4-Chloroaniline	10	U	11	U	10	U
4-Chlorophenyl phenyl ether	10	UJ	11	UJ	10	UJ
4-Methylphenol	10	U	11	U	4	J
4-Nitroaniline	20	U	21	U	20	U
4-Nitrophenol	20	UJ	21	UJ	20	UJ
Acenaphthene	10	U	2	J	0.7	J
Acenaphthylene	10	U	11	U	10	U

APPENDIX G
GROUNDWATER - SWMU 318
ORGANIC COMPOUNDS
SWMU CONFIRMATORY SAMPLING (CTO-0143)
AS515 - O/W, NEAR BUILDING AS515
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU318-GW01TW		SWMU318-GW02TW		SWMU318-GW03TW	
SAMPLE DATE	04-02-2002		04-02-2002		04-02-2002	
SEMIVOLATILES (ug/L) (cont)						
Acetophenone	10	U	11	U	10	U
Anthracene	10	U	11	U	10	U
Atrazine	10	U	11	U	10	U
Benzaldehyde	10	U	11	U	10	U
Benzo(a)anthracene	10	U	11	U	10	U
Benzo(a)pyrene	10	U	11	U	10	U
Benzo(b)fluoranthene	10	U	11	U	10	U
Benzo(g,h,i)perylene	10	U	11	U	10	U
Benzo(k)fluoranthene	10	U	11	U	10	U
bis(2-Chloroethoxy)methane	10	U	11	U	10	U
bis(2-Chloroethyl)ether	10	U	11	U	10	U
bis(2-Ethylhexyl)phthalate	10	U	11	U	2	J
Butyl benzyl phthalate	10	U	11	U	10	U
Caprolactam	10	U	11	U	10	U
Carbazole	10	U	11	U	10	U
Chrysene	10	U	11	U	10	U
di-N-Butyl phthalate	10	U	11	U	10	U
di-N-Octyl phthalate	10	U	11	U	10	U
Dibenzo(a,h)anthracene	10	U	11	U	10	U
Dibenzofuran	10	U	11	U	10	U
Diethyl phthalate	10	U	11	U	10	U
Dimethyl phthalate	10	U	11	U	10	U
Fluoranthene	10	U	11	U	10	U
Fluorene	10	U	11	U	10	U
Hexachlorobenzene	10	U	11	U	10	U
Hexachlorobutadiene	10	U	11	U	10	U
Hexachlorocyclopentadiene	10	U	11	U	10	U
Hexachloroethane	10	U	11	U	10	U
Indeno(1,2,3-cd)pyrene	10	U	11	U	10	U
Isophorone	10	U	11	U	10	U
N-Nitroso-di-N-propylamine	10	U	11	U	10	U
N-Nitrosodiphenylamine(1)	10	U	11	U	10	U
Naphthalene	40		97		7	J
Nitrobenzene	10	U	11	U	10	U
Pentachlorophenol	20	U	21	U	20	U
Phenanthrene	10	U	11	U	10	U
Phenol	10	U	11	U	10	U
Pyrene	10	U	11	U	10	U

APPENDIX G
GROUNDWATER - SWMU 318
INORGANIC COMPOUNDS
SWMU CONFIRMATORY SAMPLING (CTO-0143)
AS515 - O/W, NEAR BUILDING AS515
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU318-GW01TW		SWMU318-GW02TW		SWMU318-GW03TW	
SAMPLE DATE	04-02-2002		04-02-2002		04-02-2002	
METALS (ug/L)						
Arsenic	10.9	J	13.2	J	3.5	J
Barium	130	J	260	J	98.2	J
Cadmium	0.32	U	0.69	U	0.3	U
Chromium	17.4	J	41.9	J	12.9	J
Lead	5.1	J	10.2	J	5.3	J
Mercury	0.1	U	0.1	U	0.1	U
Selenium	4.6	U	4.6	U	4.6	U
Silver	0.9	U	0.9	U	0.9	U

APPENDIX G
SURFACE SOIL - SWMU 319
ORGANIC COMPOUNDS
SWMU CONFIRMATORY SAMPLING (CTO-0143)
CAMP GEIGER WASTEWATER TREATMENT PLANT
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU319-IS01-00	SWMU319-IS02-00	SWMU319-IS03-00	SWMU319-IS04-00	SWMU319-IS05-00	SWMU319-IS06-00	SWMU319-SB01-00
SAMPLE DATE	09-09-1997	09-09-1997	09-09-1997	09-09-1997	09-09-1997	09-09-1997	03-21-2002
DEPTH	0' - 2'	0' - 2'	0' - 2'	0' - 2'	0' - 2'	0' - 2'	0' - 1'
SEMIVOLATILES (ug/kg)							
1,1'-Biphenyl	NA	NA	NA	NA	NA	NA	370 U
2,2'-Oxybis(1-Chloropropane)	350 U	350 U	370 U	360 U	360 U	340 U	370 U
2,4,5-Trichlorophenol	350 U	350 U	370 U	360 U	360 U	340 U	370 U
2,4,6-Trichlorophenol	350 U	350 U	370 U	360 U	360 U	340 U	370 U
2,4-Dichlorophenol	350 U	350 U	370 U	360 U	360 U	340 U	370 U
2,4-Dimethylphenol	350 U	350 U	370 U	360 U	360 U	340 U	370 U
2,4-Dinitrophenol	1700 U	1700 U	1800 U	1800 U	1700 U	1700 U	1900 U
2,4-Dinitrotoluene	350 U	350 U	370 U	360 U	360 U	340 U	370 U
2,6-Dinitrotoluene	350 U	350 U	370 U	360 U	360 U	340 U	370 U
2-Chloronaphthalene	350 U	350 U	370 U	360 U	360 U	340 U	370 U
2-Chlorophenol	350 U	350 U	370 U	360 U	360 U	340 U	370 U
2-Methylnaphthalene	350 U	350 U	370 U	360 U	360 U	340 U	370 U
2-Methylphenol	350 U	350 U	370 U	360 U	360 U	340 U	370 U
2-Nitroaniline	1700 U	1700 U	1800 U	1800 U	1700 U	1700 U	740 U
2-Nitrophenol	350 U	350 U	370 U	360 U	360 U	340 U	370 U
3,3'-Dichlorobenzidine	1700 U	1700 U	1800 U	1800 U	1700 U	1700 U	740 U
3-Nitroaniline	1700 U	1700 U	1800 U	1800 U	1700 U	1700 U	740 U
4,6-Dinitro-2-methylphenol	1700 U	1700 U	1800 U	1800 U	1700 U	1700 U	740 U
4-Bromophenyl phenyl ether	350 U	350 U	370 U	360 U	360 U	340 U	370 U
4-Chloro-3-methylphenol	350 U	350 U	370 U	360 U	360 U	340 U	370 U
4-Chloroaniline	350 U	350 U	370 U	360 U	360 U	340 U	370 U
4-Chlorophenyl phenyl ether	350 U	350 U	370 U	360 U	360 U	340 U	370 U
4-Methylphenol	350 U	350 U	370 U	360 U	360 U	340 U	370 U
4-Nitroaniline	1700 U	1700 U	1800 U	1800 U	1700 U	1700 U	740 U
4-Nitrophenol	1700 U	1700 U	1800 U	1800 U	1700 U	1700 U	740 U
Acenaphthene	350 U	350 U	370 U	360 U	360 U	340 U	370 U
Acenaphthylene	350 U	350 U	370 U	360 U	360 U	340 U	370 U
Acetophenone	NA	NA	NA	NA	NA	NA	370 U
Anthracene	350 U	350 U	370 U	360 U	360 U	340 U	370 U
Atrazine	NA	NA	NA	NA	NA	NA	370 U
Benzaldehyde	NA	NA	NA	NA	NA	NA	370 U
Benzo(a)anthracene	360	350 U	370 U	360 U	360 U	340 U	39 J
Benzo(a)pyrene	660	350 U	370 U	360 U	360 U	340 U	51 J
Benzo(b)fluoranthene	740	350 U	370 U	360 U	360 U	340 U	43 J
Benzo(ghi)perylene	510	350 U	370 U	360 U	360 U	340 U	370 U
Benzo(k)fluoranthene	250 J	350 U	370 U	360 U	360 U	340 U	52 J
bis(2-Chloroethoxy)methane	350 U	350 U	370 U	360 U	360 U	340 U	370 U
bis(2-Chloroethyl) ether	350 U	350 U	370 U	360 U	360 U	340 U	370 U
bis(2-Ethylhexyl) phthalate	110 J	350 U	370 U	360 U	360 U	340 U	66 J
Butyl benzyl phthalate	350 U	350 U	370 U	360 U	360 U	340 U	370 U
Caprolactam	NA	NA	NA	NA	NA	NA	370 U

APPENDIX G
SURFACE SOIL - SWMU 319
ORGANIC COMPOUNDS
SWMU CONFIRMATORY SAMPLING (CTO-0143)
CAMP GEIGER WASTEWATER TREATMENT PLANT
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU319-IS01-00	SWMU319-IS02-00	SWMU319-IS03-00	SWMU319-IS04-00	SWMU319-IS05-00	SWMU319-IS06-00	SWMU319-SB01-00
SAMPLE DATE	09-09-1997	09-09-1997	09-09-1997	09-09-1997	09-09-1997	09-09-1997	03-21-2002
DEPTH	0' - 2'	0' - 2'	0' - 2'	0' - 2'	0' - 2'	0' - 2'	0' - 1'
SEMIVOLATILES (ug/kg) (cont)							
Carbazole	350 U	350 U	370 U	360 U	360 U	340 U	370 U
Chrysene	450	350 U	370 U	360 U	360 U	340 U	43 J
Di-n-butyl phthalate	350 U	350 U	370 U	360 U	360 U	340 U	370 U
Di-n-octyl phthalate	350 U	350 U	370 U	360 U	360 U	340 U	370 U
Dibenz(a,h)anthracene	110 J	350 U	370 U	360 U	360 U	340 U	370 U
Dibenzofuran	350 U	350 U	370 U	360 U	360 U	340 U	370 U
Diethyl phthalate	350 U	350 U	370 U	360 U	360 U	340 U	370 U
Dimethyl phthalate	350 U	350 U	370 U	360 U	360 U	340 U	370 U
Fluoranthene	520	350 U	370 U	360 U	360 U	340 U	110 J
Fluorene	350 U	350 U	370 U	360 U	360 U	340 U	20 J
Hexachlorobenzene	350 U	350 U	370 U	360 U	360 U	340 U	370 UJ
Hexachlorobutadiene	350 U	350 U	370 U	360 U	360 U	340 U	370 U
Hexachlorocyclopentadiene	1700 U	1700 U	1800 U	1800 U	1700 U	1700 U	370 U
Hexachloroethane	350 U	350 U	370 U	360 U	360 U	340 U	370 U
Indeno(1,2,3-cd)pyrene	420	350 U	370 U	360 U	360 U	340 U	60 J
Isophorone	350 U	350 U	370 U	360 U	360 U	340 U	370 U
N-Nitrosodi-n-propylamine	350 U	350 U	370 U	360 U	360 U	340 U	370 U
N-Nitrosodiphenylamine	350 U	350 U	370 U	360 U	360 U	340 U	370 U
Naphthalene	350 U	350 U	370 U	360 U	360 U	340 U	370 U
Nitrobenzene	350 U	350 U	370 U	360 U	360 U	340 U	370 U
Pentachlorophenol	1700 U	1700 U	1800 U	1800 U	1700 U	1700 U	740 U
Phenanthrene	190 J	350 U	370 U	360 U	360 U	340 U	130 J
Phenol	350 U	350 U	370 U	360 U	360 U	340 U	370 U
Pyrene	400	350 U	370 U	360 U	360 U	340 U	79 J

APPENDIX G
SURFACE SOIL - SWMU 319
INORGANIC COMPOUNDS
SWMU CONFIRMATORY SAMPLING (CTO-0143)
CAMP GEIGER WASTEWATER TREATMENT PLANT
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU319-IS01-00	SWMU319-IS02-00	SWMU319-IS03-00	SWMU319-IS04-00	SWMU319-IS05-00	SWMU319-IS06-00	SWMU319-SB01-00
SAMPLE DATE	09-09-1997	09-09-1997	09-09-1997	09-09-1997	09-09-1997	09-09-1997	03-21-2002
DEPTH	0' - 2'	0' - 2'	0' - 2'	0' - 2'	0' - 2'	0' - 2'	0' - 1'
METALS (mg/kg)							
Arsenic	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1 U	0.26 U
Barium	21.1 U	21.4 U	22.4 U	21.9 U	21.6 U	20.8 U	9.9
Cadmium	0.53 U	0.53 U	0.56 U	0.55 U	0.54 U	0.52 U	0.03 U
Chromium	5.7	7.7	6.1	5.2	4.2	2.1	4.3
Lead	16.7	13.3	15.1	7.1	3.1	1.6	12.6 J
Mercury	0.071	0.035 U	0.17	0.036 U	0.036 U	0.034 U	0.09
Selenium	0.53 U	0.53 U	0.56 U	0.55 U	0.54 U	0.52 U	0.5 U
Silver	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1 U	0.1 U

APPENDIX G
SUBSURFACE SOIL - SWMU 319
ORGANIC COMPOUNDS
SWMU CONFIRMATORY SAMPLING (CTO-0143)
CAMP GEIGER WASTEWATER TREATMENT PLANT
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU319-IS01-01	SWMU319-IS02-05	SWMU319-IS03-05	SWMU319-IS04-05	SWMU319-IS05-04	SWMU319-IS06-04	SWMU319-SB01-01
SAMPLE DATE	09-09-1997	09-09-1997	09-09-1997	09-09-1997	09-09-1997	09-09-1997	03-21-2002
DEPTH	2' - 4'	10' - 12'	10' - 12'	10' - 12'	8' - 10'	8' - 10'	1' - 3'
SEMIVOLATILES (ug/kg)							
1,1'-Biphenyl	NA	NA	NA	NA	NA	NA	380 U
2,2'-Oxybis(1-Chloropropane)	390 U	380 U	360 U	380 U	410 U	380 U	380 U
2,4,5-Trichlorophenol	390 U	380 U	360 U	380 U	410 U	380 U	380 U
2,4,6-Trichlorophenol	390 U	380 U	360 U	380 U	410 U	380 U	380 U
2,4-Dichlorophenol	390 U	380 U	360 U	380 U	410 U	380 U	380 U
2,4-Dimethylphenol	390 U	380 U	360 U	380 U	410 U	380 U	380 U
2,4-Dinitrophenol	1900 U	1800 U	1800 U	1900 U	2000 U	1900 U	1900 U
2,4-Dinitrotoluene	390 U	380 U	360 U	380 U	410 U	380 U	380 U
2,6-Dinitrotoluene	390 U	380 U	360 U	380 U	410 U	380 U	380 U
2-Chloronaphthalene	390 U	380 U	360 U	380 U	410 U	380 U	380 U
2-Chlorophenol	390 U	380 U	360 U	380 U	410 U	380 U	380 U
2-Methylnaphthalene	390 U	380 U	360 U	380 U	410 U	380 U	380 U
2-Methylphenol	390 U	380 U	360 U	380 U	410 U	380 U	380 U
2-Nitroaniline	1900 U	1800 U	1800 U	1900 U	2000 U	1900 U	750 U
2-Nitrophenol	390 U	380 U	360 U	380 U	410 U	380 U	380 U
3,3'-Dichlorobenzidine	1900 U	1800 U	1800 U	1900 U	2000 U	1900 U	750 U
3-Nitroaniline	1900 U	1800 U	1800 U	1900 U	2000 U	1900 U	750 U
4,6-Dinitro-2-methylphenol	1900 U	1800 U	1800 U	1900 U	2000 U	1900 U	750 U
4-Bromophenyl phenyl ether	390 U	380 U	360 U	380 U	410 U	380 U	380 U
4-Chloro-3-methylphenol	390 U	380 U	360 U	380 U	410 U	380 U	380 U
4-Chloroaniline	390 U	380 U	360 U	380 U	410 U	380 U	380 U
4-Chlorophenyl phenyl ether	390 U	380 U	360 U	380 U	410 U	380 U	380 U
4-Methylphenol	390 U	380 U	360 U	380 U	410 U	380 U	380 U
4-Nitroaniline	1900 U	1800 U	1800 U	1900 U	2000 U	1900 U	750 U
4-Nitrophenol	1900 U	1800 U	1800 U	1900 U	2000 U	1900 U	750 U
Acenaphthene	390 U	380 U	360 U	380 U	410 U	380 U	380 U
Acenaphthylene	390 U	380 U	360 U	380 U	410 U	380 U	380 U
Acetophenone	NA	NA	NA	NA	NA	NA	380 U
Anthracene	390 U	380 U	360 U	380 U	410 U	380 U	380 U
Atrazine	NA	NA	NA	NA	NA	NA	380 U
Benzaldehyde	NA	NA	NA	NA	NA	NA	380 U
Benzo(a)anthracene	220 J	380 U	360 U	380 U	410 U	380 U	380 U
Benzo(a)pyrene	410	380 U	360 U	380 U	410 U	380 U	380 U
Benzo(b)fluoranthene	420	380 U	360 U	380 U	410 U	380 U	380 U
Benzo(ghi)perylene	260 J	380 U	360 U	380 U	410 U	380 U	380 U
Benzo(k)fluoranthene	170 J	380 U	360 U	380 U	410 U	380 U	380 U
bis(2-Chloroethoxy)methane	390 U	380 U	360 U	380 U	410 U	380 U	380 U
bis(2-Chloroethyl) ether	390 U	380 U	360 U	380 U	410 U	380 U	380 U
bis(2-Ethylhexyl) phthalate	470	380 U	570	95 J	410 U	120 J	120 J
Butyl benzyl phthalate	390 U	380 U	360 U	380 U	410 U	380 U	380 U
Caprolactam	NA	NA	NA	NA	NA	NA	380 U

APPENDIX G
SUBSURFACE SOIL - SWMU 319
ORGANIC COMPOUNDS
SWMU CONFIRMATORY SAMPLING (CTO-0143)
CAMP GEIGER WASTEWATER TREATMENT PLANT
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU319-IS01-01	SWMU319-IS02-05	SWMU319-IS03-05	SWMU319-IS04-05	SWMU319-IS05-04	SWMU319-IS06-04	SWMU319-SB01-01
SAMPLE DATE	09-09-1997	09-09-1997	09-09-1997	09-09-1997	09-09-1997	09-09-1997	03-21-2002
DEPTH	2' - 4'	10' - 12'	10' - 12'	10' - 12'	8' - 10'	8' - 10'	1' - 3'
SEMIVOLATILES (ug/kg) (cont)							
Carbazole	390 U	380 U	360 U	380 U	410 U	380 U	380 U
Chrysene	270 J	380 U	360 U	380 U	410 U	380 U	380 U
Di-n-butyl phthalate	390 U	380 U	360 U	380 U	410 U	380 U	380 U
Di-n-octyl phthalate	390 U	380 U	360 U	380 U	410 U	380 U	380 U
Dibenz(a,h)anthracene	88 J	380 U	360 U	380 U	410 U	380 U	380 U
Dibenzofuran	390 U	380 U	360 U	380 U	410 U	380 U	380 U
Diethyl phthalate	390 U	380 U	360 U	380 U	410 U	380 U	380 U
Dimethyl phthalate	390 U	380 U	360 U	380 U	410 U	380 U	380 U
Fluoranthene	280 J	380 U	360 U	380 U	410 U	380 U	380 U
Fluorene	390 U	380 U	360 U	380 U	410 U	380 U	380 U
Hexachlorobenzene	390 U	380 U	360 U	380 U	410 U	380 U	380 UJ
Hexachlorobutadiene	390 U	380 U	360 U	380 U	410 U	380 U	380 U
Hexachlorocyclopentadiene	1900 U	1800 U	1800 U	1900 U	2000 U	1900 U	380 U
Hexachloroethane	390 U	380 U	360 U	380 U	410 U	380 U	380 U
Indeno(1,2,3-cd)pyrene	220 J	380 U	360 U	380 U	410 U	380 U	380 U
Isophorone	390 U	380 U	360 U	380 U	410 U	380 U	380 U
N-Nitrosodi-n-propylamine	390 U	380 U	360 U	380 U	410 U	380 U	380 U
N-Nitrosodiphenylamine	390 U	380 U	360 U	380 U	410 U	380 U	380 U
Naphthalene	390 U	380 U	360 U	380 U	410 U	380 U	380 U
Nitrobenzene	390 U	380 U	360 U	380 U	410 U	380 U	380 U
Pentachlorophenol	1900 U	1800 U	1800 U	1900 U	2000 U	1900 U	750 U
Phenanthrene	130 J	380 U	360 U	380 U	410 U	380 U	380 U
Phenol	390 U	380 U	360 U	380 U	410 U	380 U	380 U
Pyrene	300 J	380 U	360 U	380 U	410 U	380 U	380 U

APPENDIX G
SUBSURFACE SOIL - SWMU 319
INORGANIC COMPOUNDS
SWMU CONFIRMATORY SAMPLING (CTO-0143)
CAMP GEIGER WASTEWATER TREATMENT PLANT
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU319-IS01-01	SWMU319-IS02-05	SWMU319-IS03-05	SWMU319-IS04-05	SWMU319-IS05-04	SWMU319-IS06-04	SWMU319-SB01-01
SAMPLE DATE	09-09-1997	09-09-1997	09-09-1997	09-09-1997	09-09-1997	09-09-1997	03-21-2002
DEPTH	2' - 4'	10' - 12'	10' - 12'	10' - 12'	8' - 10'	8' - 10'	1' - 3'
METALS (mg/kg)							
Arsenic	1.6	1.1 U	1.1 U	1.2 U	1.2 U	1.2 U	0.27 U
Barium	23.9 U	22.8 U	22 U	23.2 U	24.9 U	23.3 U	15.8
Cadmium	0.6 U	0.57 U	0.55 U	0.58 U	0.62 U	0.58 U	0.14 J
Chromium	11.3	5.3	6.4	7.4	6.9	3.5	4.1
Lead	16.4	4	4.6	2.2	8.2	2	21.1 J
Mercury	0.08	0.038 U	0.036 U	0.038 U	0.041 U	0.038 U	0.17
Selenium	0.6 U	0.57 U	0.55 U	0.58 U	0.62 U	0.58 U	0.51 U
Silver	1.2 U	1.1 U	1.1 U	1.2 U	1.2 U	1.2 U	0.41 J

APPENDIX G
SURFACE SOIL - SWMU 336
ORGANIC COMPOUNDS
SWMU CONFIRMATORY SAMPLING (CTO-0143)
AS4106 PAINT STRIPPER
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU336-TW01-00		SWMU336-TW02-00	
SAMPLE DATE	03-20-2002		03-20-2002	
DEPTH	0' - 1'		0' - 1'	
VOLATILES (ug/kg)				
1,1,1-Trichloroethane	6	U	5	U
1,1,2,2-Tetrachloroethane	6	U	5	U
1,1,2-Trichloro-1,2,2-trifluoroethane	6	U	5	U
1,1,2-Trichloroethane	6	U	5	U
1,1-Dichloroethane	6	U	5	U
1,1-Dichloroethene	6	U	5	U
1,2,4-Trichlorobenzene	6	U	5	U
1,2-Dibromo-3-chloropropane	6	U	5	UJ
1,2-Dibromoethane	6	U	5	U
1,2-Dichlorobenzene	6	U	5	U
1,2-Dichloroethane	6	U	5	U
1,2-Dichloropropane	6	U	5	U
1,3-Dichlorobenzene	6	U	5	U
1,4-Dichlorobenzene	6	U	5	U
2-Butanone	14	U	12	U
2-Hexanone	14	U	12	U
4-Methyl-2-pentanone	14	U	12	U
Acetone	33		8	J
Benzene	6	U	5	U
Bromodichloromethane	6	U	5	U
Bromoform	6	U	5	U
Bromomethane	6	UJ	5	UJ
Carbon disulfide	6	U	5	U
Carbon tetrachloride	6	U	5	U
Chlorobenzene	6	U	5	U
Chloroethane	6	U	5	U
Chloroform	6	U	5	U
Chloromethane	6	U	5	U
cis-1,2-Dichloroethene	6	U	5	U
cis-1,3-Dichloropropene	6	U	5	U
Cyclohexane	6	U	5	U
Dibromochloromethane	6	U	5	U
Dichlorodifluoromethane	6	U	5	U
Ethylbenzene	6	U	5	U
Isopropylbenzene	6	U	5	U
Methyl acetate	6	U	5	U
Methyl-t-Butyl Ether	6	U	5	U
Methylcyclohexane	6	U	5	U
Methylene chloride	12		28	
Styrene	6	U	5	U
Tetrachloroethene	6	U	5	U

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ORGANIC COMPOUNDS
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AS4106 PAINT STRIPPER
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU336-TW01-00		SWMU336-TW02-00	
SAMPLE DATE	03-20-2002		03-20-2002	
DEPTH	0' - 1'		0' - 1'	
VOLATILES (ug/kg) (cont)				
Toluene	3	J	5	U
trans-1,2-Dichloroethene	6	U	5	U
trans-1,3-Dichloropropene	6	U	5	U
Trichloroethene	6	U	5	U
Trichlorofluoromethane	6	U	5	U
Vinyl chloride	6	U	5	U
Xylenes (total)	1	J	14	U
SEMIVOLATILES (ug/kg)				
1,1'-Biphenyl	400	U	380	U
2,2'-Oxybis(1-Chloropropane)	400	U	380	U
2,4,5-Trichlorophenol	400	U	380	U
2,4,6-Trichlorophenol	400	U	380	U
2,4-Dichlorophenol	400	U	380	U
2,4-Dimethylphenol	400	U	380	U
2,4-Dinitrophenol	2100	UJ	2000	UJ
2,4-Dinitrotoluene	400	U	380	U
2,6-Dinitrotoluene	400	U	380	U
2-Chloronaphthalene	400	U	380	U
2-Chlorophenol	400	U	380	U
2-Methylnaphthalene	400	U	380	U
2-Methylphenol	400	U	380	U
2-Nitroaniline	800	U	760	U
2-Nitrophenol	400	U	380	U
3,3'-Dichlorobenzidine	800	U	760	U
3-Nitroaniline	800	U	760	U
4,6-Dinitro-2-methylphenol	800	U	760	U
4-Bromophenyl phenyl ether	400	U	380	U
4-Chloro-3-methylphenol	400	U	380	U
4-Chloroaniline	400	U	380	U
4-Chlorophenyl phenyl ether	400	U	380	U
4-Methylphenol	400	U	380	U
4-Nitroaniline	800	U	760	U
4-Nitrophenol	800	U	760	U
Acenaphthene	400	U	380	U
Acenaphthylene	400	U	380	U
Acetophenone	400	U	380	U
Anthracene	400	U	380	U
Atrazine	400	U	380	U
Benzaldehyde	400	U	380	U
Benzo(a)anthracene	400	U	380	U
Benzo(a)pyrene	400	U	380	U
Benzo(b)fluoranthene	400	U	380	U

APPENDIX G
SURFACE SOIL - SWMU 336
ORGANIC COMPOUNDS
SWMU CONFIRMATORY SAMPLING (CTO-0143)
AS4106 PAINT STRIPPER
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU336-TW01-00		SWMU336-TW02-00	
SAMPLE DATE	03-20-2002		03-20-2002	
DEPTH	0' - 1'		0' - 1'	
SEMIVOLATILES (ug/kg) (cont)				
Benzo(ghi)perylene	400	U	380	U
Benzo(k)fluoranthene	400	U	380	U
bis(2-Chloroethoxy)methane	400	U	380	U
bis(2-Chloroethyl) ether	400	U	380	U
bis(2-Ethylhexyl) phthalate	860		100	J
Butyl benzyl phthalate	860		380	U
Caprolactam	400	U	380	U
Carbazole	400	U	380	U
Chrysene	400	U	380	U
Di-n-butyl phthalate	400	U	380	U
Di-n-octyl phthalate	110	J	380	U
Dibenz(a,h)anthracene	400	U	380	U
Dibenzofuran	400	U	380	U
Diethyl phthalate	400	U	380	U
Dimethyl phthalate	400	U	380	U
Fluoranthene	400	U	380	U
Fluorene	400	U	380	U
Hexachlorobenzene	400	U	380	U
Hexachlorobutadiene	400	U	380	U
Hexachlorocyclopentadiene	400	U	380	U
Hexachloroethane	400	U	380	U
Indeno(1,2,3-cd)pyrene	400	U	380	U
Isophorone	400	U	380	U
N-Nitrosodi-n-propylamine	400	U	380	U
N-Nitrosodiphenylamine	400	U	380	U
Naphthalene	400	U	380	U
Nitrobenzene	400	U	380	U
Pentachlorophenol	800	U	760	U
Phenanthrene	400	U	380	U
Phenol	400	U	380	U
Pyrene	400	U	380	U

APPENDIX G
SURFACE SOIL - SWMU 336
INORGANIC COMPOUNDS
SWMU CONFIRMATORY SAMPLING (CTO-0143)
AS4106 PAINT STRIPPER
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU336-TW01-00		SWMU336-TW02-00	
SAMPLE DATE	03-20-2002		03-20-2002	
DEPTH	0' - 1'		0' - 1'	
METALS (mg/kg)				
Arsenic	0.3	J	0.68	J
Barium	17.6		48.2	
Cadmium	1.8		4.4	
Chromium	13.8		15.3	
Lead	18.9	J	17.7	J
Mercury	0.06		0.06	
Selenium	0.55	U	0.62	
Silver	0.11	U	0.1	U

APPENDIX G
SUBSURFACE SOIL - SWMU 336
ORGANIC COMPOUNDS
SWMU CONFIRMATORY SAMPLING (CTO-0143)
AS4106 PAINT STRIPPER
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU336-TW01-04		SWMU336-TW02-04	
SAMPLE DATE	03-20-2002		03-20-2002	
DEPTH	7' - 9'		7' - 9'	
VOLATILES (ug/kg)				
1,1,1-Trichloroethane	5	J	6	U
1,1,2,2-Tetrachloroethane	6	U	6	U
1,1,2-Trichloro-1,2,2-trifluoroethane	6	U	6	U
1,1,2-Trichloroethane	6	U	6	U
1,1-Dichloroethane	6	U	6	U
1,1-Dichloroethene	6	U	6	U
1,2,4-Trichlorobenzene	6	U	6	U
1,2-Dibromo-3-chloropropane	6	U	6	UJ
1,2-Dibromoethane	6	U	6	U
1,2-Dichlorobenzene	6	U	6	U
1,2-Dichloroethane	6	U	6	U
1,2-Dichloropropane	6	U	6	U
1,3-Dichlorobenzene	6	U	6	U
1,4-Dichlorobenzene	6	U	6	U
2-Butanone	16	U	14	U
2-Hexanone	16	U	14	U
4-Methyl-2-pentanone	16	U	14	U
Acetone	16	UJ	6	J
Benzene	6	U	6	U
Bromodichloromethane	6	U	6	U
Bromoform	6	U	6	U
Bromomethane	6	UJ	6	UJ
Carbon disulfide	6	U	6	U
Carbon tetrachloride	6	U	6	U
Chlorobenzene	6	U	6	U
Chloroethane	6	U	6	U
Chloroform	6	U	6	U
Chloromethane	6	U	6	U
cis-1,2-Dichloroethene	6	U	6	U
cis-1,3-Dichloropropene	6	U	6	U
Cyclohexane	6	U	6	U
Dibromochloromethane	6	U	6	U
Dichlorodifluoromethane	6	U	6	U
Ethylbenzene	6	U	6	U
Isopropylbenzene	6	U	6	U
Methyl acetate	6	U	6	U
Methyl-t-Butyl Ether	6	U	6	U
Methylcyclohexane	6	U	6	U
Methylene chloride	41		9	
Styrene	6	U	6	U
Tetrachloroethene	7		6	U

APPENDIX G
SUBSURFACE SOIL - SWMU 336
ORGANIC COMPOUNDS
SWMU CONFIRMATORY SAMPLING (CTO-0143)
AS4106 PAINT STRIPPER
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU336-TW01-04		SWMU336-TW02-04	
SAMPLE DATE	03-20-2002		03-20-2002	
DEPTH	7' - 9'		7' - 9'	
VOLATILES (ug/kg) (cont)				
Toluene	6	U	2	J
trans-1,2-Dichloroethene	6	U	6	U
trans-1,3-Dichloropropene	6	U	6	U
Trichloroethene	6	U	6	U
Trichlorofluoromethane	6	U	2	J
Vinyl chloride	6	U	6	U
Xylenes (total)	19	UJ	17	U
SEMIVOLATILES (ug/kg)				
1,1'-Biphenyl	430	UJ	400	U
2,2'-Oxybis(1-Chloropropane)	430	UJ	400	U
2,4,5-Trichlorophenol	430	U	400	U
2,4,6-Trichlorophenol	430	U	400	U
2,4-Dichlorophenol	430	U	400	U
2,4-Dimethylphenol	430	U	400	U
2,4-Dinitrophenol	2200	UJ	2100	UJ
2,4-Dinitrotoluene	430	UJ	400	U
2,6-Dinitrotoluene	430	UJ	400	U
2-Chloronaphthalene	430	UJ	400	U
2-Chlorophenol	430	U	400	U
2-Methylnaphthalene	430	UJ	400	U
2-Methylphenol	430	U	400	U
2-Nitroaniline	870	UJ	800	U
2-Nitrophenol	430	U	400	U
3,3'-Dichlorobenzidine	870	UJ	800	U
3-Nitroaniline	870	UJ	800	U
4,6-Dinitro-2-methylphenol	870	U	800	U
4-Bromophenyl phenyl ether	430	UJ	400	U
4-Chloro-3-methylphenol	430	U	400	U
4-Chloroaniline	430	UJ	400	U
4-Chlorophenyl phenyl ether	430	UJ	400	U
4-Methylphenol	430	U	400	U
4-Nitroaniline	870	UJ	800	U
4-Nitrophenol	870	U	800	U
Acenaphthene	430	UJ	400	U
Acenaphthylene	430	UJ	400	U
Acetophenone	430	UJ	400	U
Anthracene	430	UJ	400	U
Atrazine	430	UJ	400	U
Benzaldehyde	430	UJ	400	U
Benzo(a)anthracene	430	UJ	400	U
Benzo(a)pyrene	430	UJ	400	U
Benzo(b)fluoranthene	430	UJ	400	U

APPENDIX G
SUBSURFACE SOIL - SWMU 336
ORGANIC COMPOUNDS
SWMU CONFIRMATORY SAMPLING (CTO-0143)
AS4106 PAINT STRIPPER
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU336-TW01-04		SWMU336-TW02-04	
SAMPLE DATE	03-20-2002		03-20-2002	
DEPTH	7' - 9'		7' - 9'	
SEMIVOLATILES (ug/kg) (cont)				
Benzo(ghi)perylene	430	UJ	400	U
Benzo(k)fluoranthene	430	UJ	400	U
bis(2-Chloroethoxy)methane	430	UJ	400	U
bis(2-Chloroethyl) ether	430	UJ	400	U
bis(2-Ethylhexyl) phthalate	430	UJ	95	J
Butyl benzyl phthalate	430	UJ	400	U
Caprolactam	430	UJ	400	U
Carbazole	430	UJ	400	U
Chrysene	430	UJ	400	U
Di-n-butyl phthalate	430	UJ	400	U
Di-n-octyl phthalate	430	UJ	400	U
Dibenz(a,h)anthracene	430	UJ	400	U
Dibenzofuran	430	UJ	400	U
Diethyl phthalate	430	UJ	400	U
Dimethyl phthalate	430	UJ	400	U
Fluoranthene	430	UJ	400	U
Fluorene	430	UJ	400	U
Hexachlorobenzene	430	UJ	400	U
Hexachlorobutadiene	430	UJ	400	U
Hexachlorocyclopentadiene	430	UJ	400	U
Hexachloroethane	430	UJ	400	U
Indeno(1,2,3-cd)pyrene	430	UJ	400	U
Isophorone	430	UJ	400	U
N-Nitrosodi-n-propylamine	430	UJ	400	U
N-Nitrosodiphenylamine	430	UJ	400	U
Naphthalene	430	UJ	400	U
Nitrobenzene	430	UJ	400	U
Pentachlorophenol	870	U	800	U
Phenanthrene	430	UJ	400	U
Phenol	430	U	400	U
Pyrene	430	UJ	400	U

APPENDIX G
SUBSURFACE SOIL - SWMU 336
INORGANIC COMPOUNDS
SWMU CONFIRMATORY SAMPLING (CTO-0143)
AS4106 PAINT STRIPPER
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU336-TW01-04		SWMU336-TW02-04	
SAMPLE DATE	03-20-2002		03-20-2002	
DEPTH	7' - 9'		7' - 9'	
METALS (mg/kg)				
Arsenic	0.32	U	0.28	U
Barium	11.5		7.1	
Cadmium	0.04	U	0.04	U
Chromium	11.6		9.5	
Lead	5.5	J	4.5	J
Mercury	0.03	J	0.03	J
Selenium	0.61	U	0.54	U
Silver	0.12	U	0.11	U

APPENDIX G
GROUNDWATER - SWMU 336
ORGANIC COMPOUNDS
SWMU CONFIRMATORY SAMPLING (CTO-0143)
AS4106 PAINT STRIPPER
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU336-GW01		SWMU336-GW02	
SAMPLE DATE	04-03-2002		04-03-2002	
VOLATILES (ug/L)				
1,1,1-Trichloroethane	19		5	U
1,1,2,2-Tetrachloroethane	5	U	5	U
1,1,2-Trichloro-1,2,2-trifluoroethane	5	U	1	J
1,1,2-Trichloroethane	5	U	5	U
1,1-Dichloroethane	21		5	U
1,1-Dichloroethene	2	J	5	U
1,2,4-Trichlorobenzene	5	U	5	U
1,2-Dibromo-3-chloropropane	5	U	5	U
1,2-Dibromoethane	5	U	5	U
1,2-Dichlorobenzene	5	U	5	U
1,2-Dichloroethane	5	U	5	U
1,2-Dichloropropane	5	U	5	U
1,3-Dichlorobenzene	5	U	5	U
1,4-Dichlorobenzene	5	U	5	U
2-Butanone	13	U	13	U
2-Hexanone	13	U	13	U
4-Methyl-2-pentanone	13	U	13	U
Acetone	6	U	6	U
Benzene	5	U	5	U
Bromodichloromethane	5	U	5	U
Bromoform	5	U	5	U
Bromomethane	5	UJ	5	UJ
Carbon disulfide	5	U	5	U
Carbon tetrachloride	5	U	5	U
Chlorobenzene	5	U	5	U
Chloroethane	5	U	5	U
Chloroform	5	U	5	U
Chloromethane	5	U	5	U
cis-1,2-Dichloroethene	0.8	J	5	U
cis-1,3-Dichloropropene	5	U	5	U
Cyclohexane	5	U	5	U
Dibromochloromethane	5	U	5	U
Dichlorodifluoromethane	5	U	5	U
Ethylbenzene	5	U	5	U
Isopropylbenzene	5	U	5	U
Methyl acetate	5	U	5	U
Methyl-t-butyl ether	5	U	5	U
Methylcyclohexane	5	U	5	U

APPENDIX G
GROUNDWATER - SWMU 336
ORGANIC COMPOUNDS
SWMU CONFIRMATORY SAMPLING (CTO-0143)
AS4106 PAINT STRIPPER
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU336-GW01		SWMU336-GW02	
SAMPLE DATE	04-03-2002		04-03-2002	
VOLATILES (ug/L) (cont)				
Methylene chloride	5	U	5	U
Styrene	5	U	5	U
Tetrachloroethene	27		5	U
Toluene	5	U	5	U
trans-1,2-Dichloroethene	5	U	5	U
trans-1,3-Dichloropropene	5	U	5	U
Trichloroethene	5	U	5	U
Trichlorofluoromethane	5	U	5	U
Vinyl chloride	5	U	5	U
Xylene (Total)	5	U	5	U
SEMIVOLATILES (ug/L)				
1,1'-Biphenyl	10	U	10	U
2,2'-oxybis(1-Chloropropane)	10	U	10	U
2,4,5-Trichlorophenol	10	U	10	U
2,4,6-Trichlorophenol	10	U	10	U
2,4-Dichlorophenol	10	U	10	U
2,4-Dimethylphenol	10	U	10	U
2,4-Dinitrophenol	50	UJ	50	UJ
2,4-Dinitrotoluene	10	U	10	U
2,6-Dinitrotoluene	10	U	10	U
2-Chloronaphthalene	10	U	10	U
2-Chlorophenol	10	U	10	U
2-Methylnaphthalene	10	U	10	U
2-Methylphenol	10	U	10	U
2-Nitroaniline	20	U	20	U
2-Nitrophenol	10	U	10	U
3,3'-Dichlorobenzidine	20	U	20	U
3-Nitroaniline	20	U	20	U
4,6-dinitro-2-Methylphenol	20	U	20	U
4-Bromophenyl phenyl ether	10	U	10	U
4-Chloro-3-methylphenol	10	U	10	U
4-Chloroaniline	10	U	10	U
4-Chlorophenyl phenyl ether	10	U	10	U
4-Methylphenol	10	U	10	U
4-Nitroaniline	20	U	20	U
4-Nitrophenol	20	U	20	U
Acenaphthene	10	U	10	U
Acenaphthylene	10	U	10	U

APPENDIX G
GROUNDWATER - SWMU 336
ORGANIC COMPOUNDS
SWMU CONFIRMATORY SAMPLING (CTO-0143)
AS4106 PAINT STRIPPER
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU336-GW01		SWMU336-GW02	
SAMPLE DATE	04-03-2002		04-03-2002	
SEMIVOLATILES (ug/L) (cont)				
Acetophenone	10	U	10	U
Anthracene	10	U	10	U
Atrazine	10	U	10	U
Benzaldehyde	10	U	10	U
Benzo(a)anthracene	10	U	10	U
Benzo(a)pyrene	10	U	10	U
Benzo(b)fluoranthene	10	U	10	U
Benzo(g,h,i)perylene	10	U	10	U
Benzo(k)fluoranthene	10	U	10	U
bis(2-Chloroethoxy)methane	10	U	10	U
bis(2-Chloroethyl)ether	10	U	10	U
bis(2-Ethylhexyl)phthalate	10	U	10	U
Butyl benzyl phthalate	10	U	10	U
Caprolactam	10	U	10	U
Carbazole	10	U	10	U
Chrysene	10	U	10	U
di-N-Butyl phthalate	10	U	10	U
di-N-Octyl phthalate	10	U	10	U
Dibenzo(a,h)anthracene	10	U	10	U
Dibenzofuran	10	U	10	U
Diethyl phthalate	10	U	10	U
Dimethyl phthalate	10	U	10	U
Fluoranthene	10	U	10	U
Fluorene	10	U	10	U
Hexachlorobenzene	10	U	10	U
Hexachlorobutadiene	10	U	10	U
Hexachlorocyclopentadiene	10	U	10	U
Hexachloroethane	10	U	10	U
Indeno(1,2,3-cd)pyrene	10	U	10	U
Isophorone	10	U	10	U
N-Nitroso-di-N-propylamine	10	U	10	U
N-Nitrosodiphenylamine(1)	10	U	10	U
Naphthalene	10	U	10	U
Nitrobenzene	10	U	10	U
Pentachlorophenol	20	U	20	U
Phenanthrene	10	U	10	U
Phenol	10	U	10	U
Pyrene	10	U	10	U

APPENDIX G
GROUNDWATER - SWMU 336
INORGANIC COMPOUNDS
SWMU CONFIRMATORY SAMPLING (CTO-0143)
AS4106 PAINT STRIPPER
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU336-GW01		SWMU336-GW02	
SAMPLE DATE	04-03-2002		04-03-2002	
METALS (ug/L)				
Arsenic	2.4	U	2.4	U
Barium	29.3	J	55.2	J
Cadmium	1	U	1.3	U
Chromium	0.84	J	2	J
Lead	1.8	U	2.6	J
Mercury	0.1	U	0.1	U
Selenium	4.6	U	4.6	U
Silver	0.9	U	0.9	U

APPENDIX G
SURFACE SOIL - SWMU 339
ORGANIC COMPOUNDS
SWMU CONFIRMATORY SAMPLING (CTO-0143)
AS4146 - SANDBLASTER, MALS 26
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU339-IS01-00		SWMU339-TW01-00		SWMU339-TW02-00		SWMU339-TW03-00	
SAMPLE DATE	09-09-1997		03-20-2002		03-20-2002		03-20-2002	
DEPTH	0' - 2'		0' - 1'		0' - 1'		0' - 1'	
VOLATILES (ug/kg)								
1,1,1-Trichloroethane	6.2	U	6	U	5	U	6	U
1,1,2,2-Tetrachloroethane	6.2	U	6	U	5	U	6	U
1,1,2-Trichloro-1,2,2-trifluoroethane	NA		6	U	5	U	6	U
1,1,2-Trichloroethane	6.2	U	6	U	5	U	6	U
1,1-Dichloroethane	6.2	U	6	U	5	U	6	U
1,1-Dichloroethene	6.2	U	6	U	5	U	6	U
1,2,4-Trichlorobenzene	NA		6	U	5	U	6	UJ
1,2-Dibromo-3-chloropropane	NA		6	U	5	U	6	UJ
1,2-Dibromoethane	NA		6	U	5	U	6	U
1,2-Dichlorobenzene	NA		6	U	5	U	6	UJ
1,2-Dichloroethane	6.2	U	6	U	5	U	6	U
1,2-Dichloropropane	6.2	U	6	U	5	U	6	U
1,3-Dichlorobenzene	NA		6	U	5	U	6	UJ
1,4-Dichlorobenzene	NA		6	U	5	U	6	UJ
2-Butanone	17	J	14	UJ	13	UJ	38	J
2-Hexanone	25	U	14	U	13	U	16	U
4-Methyl-2-pentanone	25	U	14	U	13	U	16	U
Acetone	300		16	J	70	J	220	J
Benzene	6.2	U	6	U	5	U	6	U
Bromodichloromethane	6.2	U	6	U	5	U	6	U
Bromoform	6.2	U	6	U	5	U	6	U
Bromomethane	12	U	6	U	5	U	6	UJ
Carbon disulfide	6.2	U	6	U	5	U	2	J
Carbon tetrachloride	6.2	U	6	U	5	U	6	U
Chlorobenzene	6.2	U	6	U	5	U	6	U
Chloroethane	12	U	6	UJ	5	U	6	U
Chloroform	6.2	U	6	U	5	U	6	U
Chloromethane	12	U	6	U	5	U	6	U
cis-1,2-Dichloroethene	NA		6	U	5	U	6	U
cis-1,3-Dichloropropene	6.2	U	6	U	5	U	6	U
Cyclohexane	NA		6	U	5	U	6	U
Dibromochloromethane	6.2	U	6	U	5	U	6	U
Dichlorodifluoromethane	NA		6	UJ	5	U	6	U
Ethylbenzene	4.7	J	6	U	5	U	6	U
Isopropylbenzene	NA		6	U	5	U	6	U
Methyl acetate	NA		6	U	5	U	6	U
Methyl-t-Butyl Ether	NA		6	U	5	U	6	U
Methylcyclohexane	NA		6	U	5	U	6	U
Methylene chloride	6.2	U	2	J	18		29	
Styrene	6.2	U	6	U	5	U	6	U
Tetrachloroethene	6.2	U	6	U	5	U	6	U

APPENDIX G
SURFACE SOIL - SWMU 339
ORGANIC COMPOUNDS
SWMU CONFIRMATORY SAMPLING (CTO-0143)
AS4146 - SANDBLASTER, MALS 26
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU339-IS01-00		SWMU339-TW01-00		SWMU339-TW02-00		SWMU339-TW03-00	
SAMPLE DATE	09-09-1997		03-20-2002		03-20-2002		03-20-2002	
DEPTH	0' - 2'		0' - 1'		0' - 1'		0' - 1'	
VOLATILES (ug/kg) (cont)								
Toluene	9.7		6	U	5	U	6	U
trans-1,2-Dichloroethene	NA		6	U	5	U	6	U
trans-1,3-Dichloropropene	6.2	U	6	U	5	U	6	U
Trichloroethene	6.2	U	6	U	5	U	6	U
Trichlorofluoromethane	NA		6	U	5	UJ	6	U
Vinyl chloride	12	U	6	U	5	U	6	U
Xylenes (total)	6.2	U	17	UJ	16	U	19	UJ
SEMIVOLATILES (ug/kg)								
1,1'-Biphenyl	NA		390	U	380	U	420	U
2,2'-Oxybis(1-Chloropropane)	410	U	390	U	380	U	420	U
2,4,5-Trichlorophenol	410	U	390	U	380	U	420	U
2,4,6-Trichlorophenol	410	U	390	U	380	U	420	U
2,4-Dichlorophenol	410	U	390	U	380	U	420	U
2,4-Dimethylphenol	410	U	390	U	380	U	420	U
2,4-Dinitrophenol	2000	U	2000	U	2000	U	2200	U
2,4-Dinitrotoluene	410	U	390	U	380	U	420	U
2,6-Dinitrotoluene	410	U	390	U	380	U	420	U
2-Chloronaphthalene	410	U	390	U	380	U	420	U
2-Chlorophenol	410	U	390	U	380	U	420	U
2-Methylnaphthalene	410	U	390	UJ	380	U	420	U
2-Methylphenol	410	U	390	U	380	U	420	U
2-Nitroaniline	2000	U	780	U	760	U	840	U
2-Nitrophenol	410	U	390	U	380	U	420	U
3,3'-Dichlorobenzidine	2000	U	780	U	760	U	840	U
3-Nitroaniline	2000	U	780	U	760	U	840	U
4,6-Dinitro-2-methylphenol	2000	U	780	U	760	U	840	U
4-Bromophenyl phenyl ether	410	U	390	U	380	U	420	U
4-Chloro-3-methylphenol	410	U	390	U	380	U	420	U
4-Chloroaniline	410	U	390	U	380	U	420	U
4-Chlorophenyl phenyl ether	410	U	390	U	380	U	420	U
4-Methylphenol	410	U	390	U	380	U	420	U
4-Nitroaniline	2000	U	780	U	760	U	840	U
4-Nitrophenol	2000	U	780	U	760	U	840	U
Acenaphthene	410	U	390	U	380	U	420	U
Acenaphthylene	410	U	390	U	380	U	420	U
Acetophenone	NA		390	U	380	U	420	UJ
Anthracene	410	U	390	U	380	U	420	U
Atrazine	NA		390	U	380	U	420	U
Benzaldehyde	NA		390	U	380	U	420	U
Benzo(a)anthracene	410	U	390	U	380	U	420	U
Benzo(a)pyrene	410	U	390	U	380	U	420	U
Benzo(b)fluoranthene	410	U	390	U	380	U	420	U

APPENDIX G
SURFACE SOIL - SWMU 339
ORGANIC COMPOUNDS
SWMU CONFIRMATORY SAMPLING (CTO-0143)
AS4146 - SANDBLASTER, MALS 26
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU339-IS01-00		SWMU339-TW01-00		SWMU339-TW02-00		SWMU339-TW03-00	
SAMPLE DATE	09-09-1997		03-20-2002		03-20-2002		03-20-2002	
DEPTH	0' - 2'		0' - 1'		0' - 1'		0' - 1'	
SEMIVOLATILES (ug/kg) (cont)								
Benzo(ghi)perylene	410	U	390	U	380	U	420	U
Benzo(k)fluoranthene	410	U	390	U	380	U	420	U
bis(2-Chloroethoxy)methane	410	U	390	U	380	U	420	U
bis(2-Chloroethyl) ether	410	U	390	U	380	U	420	U
bis(2-Ethylhexyl) phthalate	410	U	62	J	380	U	240	J
Butyl benzyl phthalate	410	U	390	U	380	U	420	U
Caprolactam	NA		390	U	380	U	420	U
Carbazole	410	U	390	U	380	U	420	U
Chrysene	410	U	390	U	380	U	420	U
Di-n-butyl phthalate	410	U	390	U	380	U	420	U
Di-n-octyl phthalate	410	U	38	J	380	U	420	U
Dibenz(a,h)anthracene	410	U	390	U	380	U	420	U
Dibenzofuran	410	U	390	U	380	U	420	U
Diethyl phthalate	410	U	390	U	380	U	420	U
Dimethyl phthalate	410	U	390	U	380	U	420	U
Fluoranthene	410	U	390	U	380	U	420	U
Fluorene	410	U	390	U	380	U	420	U
Hexachlorobenzene	410	U	390	U	380	U	420	U
Hexachlorobutadiene	410	U	390	U	380	U	420	U
Hexachlorocyclopentadiene	2000	U	390	UJ	380	U	420	U
Hexachloroethane	410	U	390	U	380	U	420	U
Indeno(1,2,3-cd)pyrene	410	U	390	U	380	U	420	U
Isophorone	410	U	390	U	380	U	420	U
N-Nitrosodi-n-propylamine	410	U	390	U	380	U	420	U
N-Nitrosodiphenylamine	410	U	390	U	380	U	420	U
Naphthalene	410	U	390	U	380	U	420	U
Nitrobenzene	410	U	390	U	380	U	420	U
Pentachlorophenol	2000	U	780	U	760	U	840	U
Phenanthrene	410	U	390	U	380	U	420	U
Phenol	410	U	390	U	380	U	420	U
Pyrene	410	U	390	U	380	U	420	U

APPENDIX G
SUBSURFACE SOIL - SWMU 339
ORGANIC COMPOUNDS
SWMU CONFIRMATORY SAMPLING (CTO-0143)
AS4146 - SANDBLASTER, MALS 26
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU339-IS01-01		SWMU339-IS01-01		SWMU339-TW01-03		SWMU339-TW02-06		SWMU339-TW03-02	
SAMPLE DATE	09-09-1997		03-20-2002		03-20-2002		03-20-2002		03-20-2002	
DEPTH	2' - 4'		1' - 3'		5' - 7'		11' - 13'		3' - 5'	
VOLATILES (ug/kg)										
1,1,1-Trichloroethane	59	U	8	U	6	U	39	U	14	U
1,1,2,2-Tetrachloroethane	59	U	8	U	6	U	39	U	14	U
1,1,2-Trichloro-1,2,2-trifluoroethane	NA		8	U	6	U	39	U	14	U
1,1,2-Trichloroethane	59	U	8	U	6	U	39	U	14	U
1,1-Dichloroethane	59	U	8	U	6	U	39	U	14	U
1,1-Dichloroethene	59	U	8	U	6	U	39	U	14	U
1,2,4-Trichlorobenzene	NA		8	U	6	U	39	U	14	U
1,2-Dibromo-3-chloropropane	NA		8	U	6	U	39	U	14	U
1,2-Dibromoethane	NA		8	U	6	U	39	U	14	U
1,2-Dichlorobenzene	NA		8	U	6	U	39	U	14	U
1,2-Dichloroethane	59	U	8	U	6	U	39	U	14	U
1,2-Dichloropropane	59	U	8	U	6	U	39	U	14	U
1,3-Dichlorobenzene	NA		8	U	6	U	39	U	14	U
1,4-Dichlorobenzene	NA		8	U	6	U	39	U	14	U
2-Butanone	240	U	12	J	16	UJ	98	U	35	U
2-Hexanone	240	U	21	U	16	U	98	U	35	U
4-Methyl-2-pentanone	240	U	21	U	16	U	98	U	35	U
Acetone	3200		40		9	J	66	J	18	J
Benzene	59	U	8	U	6	U	39	U	14	U
Bromodichloromethane	59	U	8	U	6	U	39	U	14	U
Bromoform	59	U	8	U	6	U	39	U	59	
Bromomethane	120	U	8	UJ	6	U	39	UJ	14	UJ
Carbon disulfide	59	U	8	U	6	U	39	U	14	U
Carbon tetrachloride	59	U	8	U	6	U	39	U	14	U
Chlorobenzene	59	U	8	U	6	U	39	U	14	U
Chloroethane	120	U	8	U	18	J	39	U	14	U
Chloroform	59	U	8	U	6	U	10	J	14	U
Chloromethane	120	U	8	U	6	U	39	U	14	U
cis-1,2-Dichloroethene	NA		8	U	6	U	39	U	14	U
cis-1,3-Dichloropropene	59	U	8	U	6	U	39	U	14	U
Cyclohexane	NA		8	U	6	U	39	U	14	U
Dibromochloromethane	59	U	8	U	6	U	39	U	14	U
Dichlorodifluoromethane	NA		8	U	6	UJ	39	U	14	U
Ethylbenzene	59	U	23		6	U	39	U	14	U
Isopropylbenzene	NA		8	U	6	U	39	U	14	U
Methyl acetate	NA		8	U	6	U	39	U	14	U
Methyl-t-Butyl Ether	NA		8	U	6	U	39	U	14	U
Methylcyclohexane	NA		8	U	6	U	39	U	14	U
Methylene chloride	59	U	38		3	J	120		73	
Styrene	59	U	8	U	6	U	39	U	14	U
Tetrachloroethene	59	U	8	U	6	U	39	U	14	U

APPENDIX G
SUBSURFACE SOIL - SWMU 339
ORGANIC COMPOUNDS
SWMU CONFIRMATORY SAMPLING (CTO-0143)
AS4146 - SANDBLASTER, MALS 26
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU339-IS01-01		SWMU339-IS01-01		SWMU339-TW01-03		SWMU339-TW02-06		SWMU339-TW03-02	
SAMPLE DATE	09-09-1997		03-20-2002		03-20-2002		03-20-2002		03-20-2002	
DEPTH	2' - 4'		1' - 3'		5' - 7'		11' - 13'		3' - 5'	
VOLATILES (ug/kg) (cont)										
Toluene	59	U	11		6	U	39	U	14	U
trans-1,2-Dichloroethene	NA		8	U	6	U	39	U	14	U
trans-1,3-Dichloropropene	59	U	8	U	6	U	39	U	14	U
Trichloroethene	59	U	8	U	6	U	39	U	14	U
Trichlorofluoromethane	NA		8	U	6	U	39	U	14	U
Vinyl chloride	120	U	8	U	6	U	39	U	14	U
Xylenes (total)	59	U	25	UJ	19	UJ	9	J	42	UJ
SEMIVOLATILES (ug/kg)										
1,1'-Biphenyl	NA		400	U	450	U	420	U	440	U
2,2'-Oxybis(1-Chloropropane)	390	U	400	U	450	U	420	U	440	U
2,4,5-Trichlorophenol	390	U	400	U	450	U	420	U	440	U
2,4,6-Trichlorophenol	390	U	400	U	450	U	420	U	440	U
2,4-Dichlorophenol	390	U	400	U	450	U	420	U	440	U
2,4-Dimethylphenol	390	U	400	U	450	U	420	U	440	U
2,4-Dinitrophenol	1900	U	2100	U	2300	U	2200	U	2300	U
2,4-Dinitrotoluene	390	U	400	U	450	U	420	U	440	U
2,6-Dinitrotoluene	390	U	400	U	450	U	420	U	440	U
2-Chloronaphthalene	390	U	400	U	450	U	420	U	440	U
2-Chlorophenol	390	U	400	U	450	U	420	U	440	U
2-Methylnaphthalene	390	U	400	UJ	450	UJ	420	U	440	U
2-Methylphenol	390	U	400	U	450	U	420	U	440	U
2-Nitroaniline	1900	U	800	U	900	U	850	U	880	U
2-Nitrophenol	390	U	400	U	450	U	420	U	440	U
3,3'-Dichlorobenzidine	1900	U	800	U	900	U	850	U	880	U
3-Nitroaniline	1900	U	800	U	900	U	850	U	880	U
4,6-Dinitro-2-methylphenol	1900	U	800	U	900	U	850	U	880	U
4-Bromophenyl phenyl ether	390	U	400	U	450	U	420	U	440	U
4-Chloro-3-methylphenol	390	U	400	U	450	U	420	U	440	U
4-Chloroaniline	390	U	400	U	450	U	420	U	440	U
4-Chlorophenyl phenyl ether	390	U	400	U	450	U	420	U	440	U
4-Methylphenol	2600		400	U	450	U	420	U	440	U
4-Nitroaniline	1900	U	800	U	900	U	850	U	880	U
4-Nitrophenol	1900	U	800	U	900	U	850	U	880	U
Acenaphthene	390	U	400	U	450	U	420	U	440	U
Acenaphthylene	390	U	400	U	450	U	420	U	440	U
Acetophenone	NA		400	U	450	U	420	U	440	UJ
Anthracene	390	U	400	U	450	U	420	U	440	U
Atrazine	NA		400	U	450	U	420	U	440	U
Benzaldehyde	NA		35	J	450	U	420	U	440	U
Benzo(a)anthracene	390	U	400	U	450	U	420	U	440	U
Benzo(a)pyrene	390	U	400	U	450	U	420	U	440	U
Benzo(b)fluoranthene	390	U	400	U	450	U	420	U	440	U

APPENDIX G
SUBSURFACE SOIL - SWMU 339
ORGANIC COMPOUNDS
SWMU CONFIRMATORY SAMPLING (CTO-0143)
AS4146 - SANDBLASTER, MALS 26
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU339-IS01-01		SWMU339-IS01-01		SWMU339-TW01-03		SWMU339-TW02-06		SWMU339-TW03-02	
SAMPLE DATE	09-09-1997		03-20-2002		03-20-2002		03-20-2002		03-20-2002	
DEPTH	2' - 4'		1' - 3'		5' - 7'		11' - 13'		3' - 5'	
SEMIVOLATILES (ug/kg) (cont)										
Benzo(ghi)perylene	390	U	400	U	450	U	420	U	440	U
Benzo(k)fluoranthene	390	U	400	U	450	U	420	U	440	U
bis(2-Chloroethoxy)methane	390	U	400	U	450	U	420	U	440	U
bis(2-Chloroethyl) ether	390	U	400	U	450	U	420	U	440	U
bis(2-Ethylhexyl) phthalate	390	U	290	J	89	J	820		160	J
Butyl benzyl phthalate	390	U	400	U	450	U	420	U	440	U
Caprolactam	NA		400	U	450	U	420	U	440	U
Carbazole	390	U	400	U	450	U	420	U	440	U
Chrysene	390	U	400	U	450	U	420	U	440	U
Di-n-butyl phthalate	390	U	400	U	450	U	420	U	440	U
Di-n-octyl phthalate	390	U	95	J	43	J	26	J	440	U
Dibenz(a,h)anthracene	390	U	400	U	450	U	420	U	440	U
Dibenzofuran	390	U	400	U	450	U	420	U	440	U
Diethyl phthalate	390	U	400	U	450	U	420	U	440	U
Dimethyl phthalate	390	U	400	U	450	U	420	U	440	U
Fluoranthene	390	U	400	U	450	U	420	U	440	U
Fluorene	390	U	400	U	450	U	420	U	440	U
Hexachlorobenzene	390	U	400	U	450	U	420	U	440	U
Hexachlorobutadiene	390	U	400	U	450	U	420	U	440	U
Hexachlorocyclopentadiene	1900	U	400	UJ	450	UJ	420	U	440	U
Hexachloroethane	390	U	400	U	450	U	420	U	440	U
Indeno(1,2,3-cd)pyrene	390	U	400	U	450	U	420	U	440	U
Isophorone	390	U	400	U	450	U	420	U	440	U
N-Nitrosodi-n-propylamine	390	U	400	U	450	U	420	U	440	U
N-Nitrosodiphenylamine	390	U	400	U	450	U	420	U	440	U
Naphthalene	390	U	400	U	450	U	420	U	440	U
Nitrobenzene	390	U	400	U	450	U	420	U	440	U
Pentachlorophenol	1900	U	800	U	900	U	850	U	880	U
Phenanthrene	390	U	400	U	450	U	420	U	440	U
Phenol	390	U	400	U	450	U	420	U	440	U
Pyrene	390	U	400	U	450	U	420	U	440	U

APPENDIX G
GROUNDWATER - SWMU 339
ORGANIC COMPOUNDS
SWMU CONFIRMATORY SAMPLING (CTO-0143)
AS4146 - SANBLASTER, MALS 26
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU339-GW01		SWMU339-GW02		SWMU339-GW03	
SAMPLE DATE	04-03-2002		04-03-2002		04-03-2002	
VOLATILES (ug/L)						
1,1,1-Trichloroethane	5	U	5	U	5	U
1,1,2,2-Tetrachloroethane	5	U	5	U	5	U
1,1,2-Trichloro-1,2,2-trifluoroethane	5	U	5	U	5	U
1,1,2-Trichloroethane	5	U	5	U	5	U
1,1-Dichloroethane	5	U	5	U	5	U
1,1-Dichloroethene	5	U	5	U	5	U
1,2,4-Trichlorobenzene	5	U	5	U	5	U
1,2-Dibromo-3-chloropropane	5	U	5	U	5	U
1,2-Dibromoethane	5	U	5	U	5	U
1,2-Dichlorobenzene	5	U	5	U	5	U
1,2-Dichloroethane	5	U	5	U	5	U
1,2-Dichloropropane	5	U	5	U	5	U
1,3-Dichlorobenzene	5	U	5	U	5	U
1,4-Dichlorobenzene	5	U	5	U	5	U
2-Butanone	13	U	13	U	13	U
2-Hexanone	13	U	13	U	13	U
4-Methyl-2-pentanone	13	U	13	U	13	U
Acetone	8	U	12	U	7	U
Benzene	5	U	5	U	5	U
Bromodichloromethane	5	U	5	U	5	U
Bromoform	5	U	5	U	5	U
Bromomethane	5	UJ	5	UJ	5	UJ
Carbon disulfide	5	U	5	U	5	U
Carbon tetrachloride	5	U	5	U	5	U
Chlorobenzene	5	U	5	U	5	U
Chloroethane	5	U	5	U	5	U
Chloroform	5	U	5	U	5	U
Chloromethane	5	U	5	U	5	U
cis-1,2-Dichloroethene	5	U	5	U	5	U
cis-1,3-Dichloropropene	5	U	5	U	5	U
Cyclohexane	5	U	5	U	5	U
Dibromochloromethane	5	U	5	U	5	U
Dichlorodifluoromethane	5	U	5	U	5	U
Ethylbenzene	5	U	5	U	5	U
Isopropylbenzene	5	U	5	U	5	U
Methyl acetate	5	U	5	U	5	U
Methyl-t-butyl ether	5	U	5	U	5	U
Methylcyclohexane	5	U	5	U	5	U
Methylene chloride	5	U	5	U	5	U

APPENDIX G
GROUNDWATER - SWMU 339
ORGANIC COMPOUNDS
SWMU CONFIRMATORY SAMPLING (CTO-0143)
AS4146 - SANBLASTER, MALS 26
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU339-GW01		SWMU339-GW02		SWMU339-GW03	
SAMPLE DATE	04-03-2002		04-03-2002		04-03-2002	
SEMIVOLATILES (ug/L)						
Styrene	5	U	5	U	5	U
Tetrachloroethene	5	U	5	U	5	U
Toluene	5	U	5	U	5	U
trans-1,2-Dichloroethene	5	U	5	U	5	U
trans-1,3-Dichloropropene	5	U	5	U	5	U
Trichloroethene	5	U	5	U	5	U
Trichlorofluoromethane	5	U	5	U	5	U
Vinyl chloride	5	U	5	U	5	U
Xylene (Total)	5	U	5	U	5	U
1,1'-Biphenyl	10	U	10	U	10	U
2,2'-oxybis(1-Chloropropane)	10	U	10	U	10	U
2,4,5-Trichlorophenol	10	U	10	U	10	U
2,4,6-Trichlorophenol	10	U	10	U	10	U
2,4-Dichlorophenol	10	U	10	U	10	U
2,4-Dimethylphenol	10	U	10	U	10	U
2,4-Dinitrophenol	50	UJ	50	UJ	50	UJ
2,4-Dinitrotoluene	10	U	10	U	10	U
2,6-Dinitrotoluene	10	U	10	U	10	U
2-Chloronaphthalene	10	U	10	U	10	U
2-Chlorophenol	10	U	10	U	10	U
2-Methylnaphthalene	10	U	10	U	10	U
2-Methylphenol	10	U	10	U	10	U
2-Nitroaniline	20	U	20	U	20	U
2-Nitrophenol	10	U	10	U	10	U
3,3'-Dichlorobenzidine	20	U	20	U	20	U
3-Nitroaniline	20	U	20	U	20	U
4,6-dinitro-2-Methylphenol	20	U	20	U	20	U
4-Bromophenyl phenyl ether	10	U	10	U	10	U
4-Chloro-3-methylphenol	10	U	10	U	10	U
4-Chloroaniline	10	U	10	U	10	U
4-Chlorophenyl phenyl ether	10	U	10	U	10	U
4-Methylphenol	10	U	10	U	10	U
4-Nitroaniline	20	U	20	U	20	U
4-Nitrophenol	20	U	20	U	20	U
Acenaphthene	10	U	10	U	10	U
Acenaphthylene	10	U	10	U	10	U
Acetophenone	10	U	10	U	10	U
Anthracene	10	U	10	U	10	U
Atrazine	10	U	10	U	10	U

APPENDIX G
GROUNDWATER - SWMU 339
ORGANIC COMPOUNDS
SWMU CONFIRMATORY SAMPLING (CTO-0143)
AS4146 - SANBLASTER, MALS 26
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU339-GW01		SWMU339-GW02		SWMU339-GW03	
SAMPLE DATE	04-03-2002		04-03-2002		04-03-2002	
SEMIVOLATILES (ug/L) (cont.)						
Benzaldehyde	10	U	10	U	10	U
Benzo(a)anthracene	10	U	10	U	10	U
Benzo(a)pyrene	10	U	10	U	10	U
Benzo(b)fluoranthene	10	U	10	U	10	U
Benzo(g,h,i)perylene	10	U	10	U	10	U
Benzo(k)fluoranthene	10	U	10	U	10	U
bis(2-Chloroethoxy)methane	10	U	10	U	10	U
bis(2-Chloroethyl)ether	10	U	10	U	10	U
bis(2-Ethylhexyl)phthalate	10	U	10	U	10	U
Butyl benzyl phthalate	10	U	10	U	10	U
Caprolactam	10	U	10	U	10	U
Carbazole	10	U	10	U	10	U
Chrysene	10	U	10	U	10	U
di-N-Butyl phthalate	10	U	10	U	10	U
di-N-Octyl phthalate	10	U	10	U	10	U
Dibenzo(a,h)anthracene	10	U	10	U	10	U
Dibenzofuran	10	U	10	U	10	U
Diethyl phthalate	10	U	10	U	10	U
Dimethyl phthalate	10	U	10	U	10	U
Fluoranthene	10	U	10	U	10	U
Fluorene	10	U	10	U	10	U
Hexachlorobenzene	10	U	10	U	10	U
Hexachlorobutadiene	10	U	10	U	10	U
Hexachlorocyclopentadiene	10	U	10	U	10	U
Hexachloroethane	10	U	10	U	10	U
Indeno(1,2,3-cd)pyrene	10	U	10	U	10	U
Isophorone	10	U	10	U	10	U
N-Nitroso-di-N-propylamine	10	U	10	U	10	U
N-Nitrosodiphenylamine(1)	10	U	10	U	10	U
Naphthalene	10	U	10	U	10	U
Nitrobenzene	10	U	10	U	10	U
Pentachlorophenol	20	U	20	U	20	U
Phenanthrene	10	U	10	U	10	U
Phenol	10	U	10	U	10	U
Pyrene	10	U	10	U	10	U

APPENDIX G
SUBSURFACE SOIL - SWMU 359
ORGANIC COMPOUNDS
SWMU CONFIRMATORY SAMPLING (CTO-0143)
LOT 201 BATTERY DUMP
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU359-TW01-02	SWMU359-TW02-02	
SAMPLE DATE	03-26-2002	03-26-2002	
DEPTH	3' - 5'	3' - 5'	
VOLATILES (ug/kg)			
1,1,1-Trichloroethane	NA	5	U
1,1,2,2-Tetrachloroethane	NA	5	U
1,1,2-Trichloro-1,2,2-trifluoroethane	NA	5	U
1,1,2-Trichloroethane	NA	5	U
1,1-Dichloroethane	NA	5	UJ
1,1-Dichloroethene	NA	5	U
1,2,4-Trichlorobenzene	NA	5	U
1,2-Dibromo-3-chloropropane	NA	5	U
1,2-Dibromoethane	NA	5	U
1,2-Dichlorobenzene	NA	5	U
1,2-Dichloroethane	NA	5	U
1,2-Dichloropropane	NA	5	U
1,3-Dichlorobenzene	NA	5	U
1,4-Dichlorobenzene	NA	5	U
2-Butanone	NA	14	UJ
2-Hexanone	NA	14	U
4-Methyl-2-pentanone	NA	14	U
Acetone	NA	14	UJ
Benzene	NA	5	U
Bromodichloromethane	NA	5	U
Bromoform	NA	5	U
Bromomethane	NA	5	UJ
Carbon disulfide	NA	5	UJ
Carbon tetrachloride	NA	5	U
Chlorobenzene	NA	5	U
Chloroethane	NA	5	U
Chloroform	NA	5	U
Chloromethane	NA	5	U
cis-1,2-Dichloroethene	NA	5	U
cis-1,3-Dichloropropene	NA	5	U
Cyclohexane	NA	5	U
Dichlorodifluoromethane	NA	5	U
Dibromochloromethane	NA	5	U
Ethylbenzene	NA	5	U
Isopropylbenzene	NA	5	U
Methyl acetate	NA	5	UJ
Methyl-t-Butyl Ether	NA	5	U
Methylcyclohexane	NA	5	U
Methylene chloride	NA	30	
Styrene	NA	5	U
Tetrachloroethene	NA	5	U
Toluene	NA	5	U
trans-1,2-Dichloroethene	NA	5	U
trans-1,3-Dichloropropene	NA	5	U
Trichloroethene	NA	5	U
Trichlorofluoromethane	NA	5	U
Vinyl chloride	NA	5	U
Xylenes (total)	NA	16	U

APPENDIX G
SUBSURFACE SOIL - SWMU 359
INORGANIC COMPOUNDS
SWMU CONFIRMATORY SAMPLING (CTO-0143)
LOT 201 BATTERY DUMP
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU359-TW01-02		SWMU359-TW02-02	
SAMPLE DATE	03-26-2002		03-26-2002	
DEPTH	3' - 5'		3' - 5'	
METALS (mg/kg)				
Arsenic	0.27	U	0.27	UJ
Barium	5.8	U	1.9	U
Cadmium	1.9		0.03	U
Chromium	3.9		1.9	
Lead	29.6		1.2	U
Mercury	0.02	J	0.02	U
Selenium	0.51	U	0.52	U
Silver	0.24	J	0.1	UJ

APPENDIX G
GROUNDWATER - SWMU 359
ORGANIC COMPOUNDS
SWMU CONFIRMATORY SAMPLING (CTO-0143)
LOT 201 BATTERY DUMP
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU359-GW01		SWMU359-GW02	
SAMPLE DATE	04-09-2002		04-09-2002	
VOLATILES (ug/L)				
1,1,1-Trichloroethane	5	U	5	U
1,1,2,2-Tetrachloroethane	5	U	5	U
1,1,2-Trichloro-1,2,2-trifluoroethane	5	U	5	U
1,1,2-Trichloroethane	5	U	5	U
1,1-Dichloroethane	5	U	5	U
1,1-Dichloroethene	5	U	5	U
1,2,4-Trichlorobenzene	5	U	5	U
1,2-Dibromo-3-chloropropane	5	U	5	U
1,2-Dibromoethane	5	U	5	U
1,2-Dichlorobenzene	5	U	5	U
1,2-Dichloroethane	5	U	5	U
1,2-Dichloropropane	5	U	5	U
1,3-Dichlorobenzene	5	U	5	U
1,4-Dichlorobenzene	5	U	5	U
2-Butanone	13	U	13	U
2-Hexanone	13	U	13	U
4-Methyl-2-pentanone	13	U	13	U
Acetone	13	U	13	U
Benzene	5	U	5	U
Bromodichloromethane	5	U	5	U
Bromoform	5	U	5	U
Bromomethane	5	U	5	U
Carbon disulfide	5	U	5	U
Carbon tetrachloride	5	U	5	U
Chlorobenzene	5	U	5	U
Chloroethane	5	U	5	U
Chloroform	5	U	5	U
Chloromethane	5	U	5	U
cis-1,2-Dichloroethene	5	U	5	U
cis-1,3-Dichloropropene	5	U	5	U
Cyclohexane	5	U	5	U
Dibromochloromethane	5	U	5	U
Dichlorodifluoromethane	5	U	5	U
Ethylbenzene	5	U	5	U
Isopropylbenzene	5	U	5	U
Methyl acetate	5	U	5	U
Methyl-t-butyl ether	5	U	5	U
Methylcyclohexane	5	U	5	U

APPENDIX G
GROUNDWATER - SWMU 359
ORGANIC COMPOUNDS
SWMU CONFIRMATORY SAMPLING (CTO-0143)
LOT 201 BATTERY DUMP
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU359-GW01		SWMU359-GW02	
SAMPLE DATE	04-09-2002		04-09-2002	
VOLATILES (ug/L) (cont)				
Methylene chloride	5	U	5	U
Styrene	5	U	5	U
Tetrachloroethene	5	U	5	U
Toluene	5	U	5	U
trans-1,2-Dichloroethene	5	U	5	U
trans-1,3-Dichloropropene	5	U	5	U
Trichloroethene	5	U	5	U
Trichlorofluoromethane	5	U	5	U
Vinyl chloride	5	U	5	U
Xylene (Total)	5	U	5	U
SEMIVOLATILES (ug/L)				
1,1'-Biphenyl	10	U	10	U
2,2'-oxybis(1-Chloropropane)	10	U	10	U
2,4,5-Trichlorophenol	10	U	10	U
2,4,6-Trichlorophenol	10	U	10	U
2,4-Dichlorophenol	10	U	10	U
2,4-Dimethylphenol	10	U	10	U
2,4-Dinitrophenol	51	U	51	U
2,4-Dinitrotoluene	10	U	10	U
2,6-Dinitrotoluene	10	U	10	U
2-Chloronaphthalene	10	U	10	U
2-Chlorophenol	10	U	10	U
2-Methylnaphthalene	10	U	10	U
2-Methylphenol	10	U	10	U
2-Nitroaniline	21	U	21	U
2-Nitrophenol	10	U	10	U
3,3'-Dichlorobenzidine	21	U	21	U
3-Nitroaniline	21	U	21	U
4,6-dinitro-2-Methylphenol	21	U	21	U
4-Bromophenyl phenyl ether	10	U	10	U
4-Chloro-3-methylphenol	10	U	10	U
4-Chloroaniline	10	U	10	U
4-Chlorophenyl phenyl ether	10	U	10	U
4-Methylphenol	10	U	10	U
4-Nitroaniline	21	U	21	U
4-Nitrophenol	21	U	21	U
Acenaphthene	10	U	10	U
Acenaphthylene	10	U	10	U

APPENDIX G
GROUNDWATER - SWMU 359
ORGANIC COMPOUNDS
SWMU CONFIRMATORY SAMPLING (CTO-0143)
LOT 201 BATTERY DUMP
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU359-GW01		SWMU359-GW02	
SAMPLE DATE	04-09-2002		04-09-2002	
SEMIVOLATILES (ug/L) (cont)				
Acetophenone	10	U	10	U
Anthracene	10	U	10	U
Atrazine	10	U	10	U
Benzaldehyde	10	U	10	U
Benzo(a)anthracene	10	U	10	U
Benzo(a)pyrene	10	U	10	U
Benzo(b)fluoranthene	10	U	10	U
Benzo(g,h,i)perylene	10	U	10	U
Benzo(k)fluoranthene	10	U	10	U
bis(2-Chloroethoxy)methane	10	U	10	U
bis(2-Chloroethyl)ether	10	U	10	U
bis(2-Ethylhexyl)phthalate	2	J	10	U
Butyl benzyl phthalate	10	U	10	U
Caprolactam	10	U	10	U
Carbazole	10	U	10	U
Chrysene	10	U	10	U
di-N-Butyl phthalate	10	U	10	U
di-N-Octyl phthalate	10	U	10	U
Dibenzo(a,h)anthracene	10	U	10	U
Dibenzofuran	10	U	10	U
Diethyl phthalate	10	U	10	U
Dimethyl phthalate	10	U	10	U
Fluoranthene	10	U	10	U
Fluorene	10	U	10	U
Hexachlorobenzene	10	U	10	U
Hexachlorobutadiene	10	U	10	U
Hexachlorocyclopentadiene	10	U	10	U
Hexachloroethane	10	U	10	U
Indeno(1,2,3-cd)pyrene	10	U	10	U
Isophorone	10	U	10	U
N-Nitroso-di-N-propylamine	10	U	10	U
N-Nitrosodiphenylamine(1)	10	U	10	U
Naphthalene	10	U	10	U
Nitrobenzene	10	U	10	U
Pentachlorophenol	21	U	21	U
Phenanthrene	10	U	10	U
Phenol	10	U	10	U
Pyrene	10	U	10	U

APPENDIX G
GROUNDWATER - SWMU 359
ORGANIC COMPOUNDS
SWMU CONFIRMATORY SAMPLING (CTO-0143)
LOT 201 BATTERY DUMP
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU359-GW01		SWMU359-GW02	
SAMPLE DATE	04-09-2002		04-09-2002	
PESTICIDES (ug/L)				
4,4'-DDD	0.2	UJ	0.2	UJ
4,4'-DDE	0.088	J	0.093	J
4,4'-DDT	0.063	J	0.073	J
Aldrin	0.05	U	0.05	U
alpha-BHC	0.05	UJ	0.05	UJ
alpha-Chlordane	0.1	U	0.1	U
beta-BHC	0.38	J	0.2	J
delta-BHC	0.19	J	0.071	J
Dieldrin	0.1	UJ	0.1	U
Endosulfan I	0.1	U	0.1	U
Endosulfan II	0.2	U	0.2	U
Endosulfan sulfate	0.2	U	0.2	U
Endrin	0.2	U	0.2	U
Endrin aldehyde	0.2	UJ	0.2	UJ
Endrin ketone	0.5	U	0.5	U
gamma-BHC (Lindane)	0.061	J	0.042	J
gamma-chlordane	0.05	U	0.05	U
Heptachlor	0.05	U	0.05	U
Heptachlor epoxide	0.051	J	0.059	J
Methoxychlor	0.5	U	0.5	U
Toxaphene	5	U	5	U

APPENDIX G
GROUNDWATER - SWMU 359
INORGANIC COMPOUNDS
SWMU CONFIRMATORY SAMPLING (CTO-0143)
LOT 201 BATTERY DUMP
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU359-GW01		SWMU359-GW02	
SAMPLE DATE	04-09-2002		04-09-2002	
METALS (ug/L)				
Arsenic	2	U	2	U
Barium	53.4		25.5	U
Cadmium	8		0.4	U
Chromium	7.8		1.9	J
Lead	19.4		2.5	U
Mercury	0.1	UJ	0.1	UJ
Selenium	2.1	UJ	2.1	UJ
Silver	0.5	U	0.62	J

APPENDIX G
SURFACE SOIL - SWMU 360
ORGANIC COMPOUNDS
SWMU CONFIRMATORY SAMPLING (CTO-0143)
BUILDING 1817 UST
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU360-TW01-00		SWMU360-TW02-00		SWMU360-TW03-00		SWMU360-TW04-00	
SAMPLE DATE	03-25-2002		03-25-2002		03-25-2002		03-25-2002	
DEPTH	0' - 1'		0' - 1'		0' - 1'		0' - 1'	
VOLATILES (ug/kg)								
1,1,1-Trichloroethane	10	U	6	U	7	U	7	U
1,1,2,2-Tetrachloroethane	10	U	6	U	7	U	7	U
1,1,2-Trichloro-1,2,2-trifluoroethane	10	U	6	U	7	U	7	U
1,1,2-Trichloroethane	10	U	6	U	7	U	7	U
1,1-Dichloroethane	10	U	6	U	7	U	7	U
1,1-Dichloroethene	10	U	6	U	7	U	7	U
1,2,4-Trichlorobenzene	3	J	6	U	7	U	7	U
1,2-Dibromo-3-chloropropane	10	U	6	U	7	U	7	U
1,2-Dibromoethane	10	U	6	U	7	U	7	U
1,2-Dichlorobenzene	10	U	6	U	7	U	7	U
1,2-Dichloroethane	10	U	6	U	7	U	7	U
1,2-Dichloropropane	10	U	6	U	7	U	7	U
1,3-Dichlorobenzene	10	U	6	U	7	U	7	U
1,4-Dichlorobenzene	10	U	6	U	7	U	7	U
2-Butanone	24	UJ	16	UJ	17	U	16	UJ
2-Hexanone	24	U	16	U	17	U	16	U
4-Methyl-2-pentanone	24	U	16	U	17	U	16	U
Acetone	24	UJ	37	UJ	220	UJ	29	UJ
Benzene	10	U	1	J	7	U	7	U
Bromodichloromethane	10	U	6	U	7	U	7	U
Bromoform	10	U	6	U	7	U	7	U
Bromomethane	10	U	6	U	7	U	7	U
Carbon disulfide	10	UJ	6	U	6	J	7	U
Carbon tetrachloride	10	U	6	U	7	U	7	U
Chlorobenzene	10	U	6	U	7	U	7	U
Chloroethane	10	U	6	U	7	U	7	U
Chloroform	10	U	6	U	7	U	7	U
Chloromethane	10	UJ	6	U	7	U	7	U
cis-1,2-Dichloroethene	10	U	6	U	22	J	7	U
cis-1,3-Dichloropropene	10	U	6	U	7	U	7	U
Cyclohexane	10	U	6	U	7	U	7	U
Dibromochloromethane	10	U	6	U	7	U	7	U
Dichlorodifluoromethane	10	U	6	U	7	U	7	U
Ethylbenzene	10	U	3	J	7	U	7	U
Isopropylbenzene	10	U	6	U	7	U	7	U
Methyl acetate	10	U	6	U	7	U	7	U
Methyl-t-Butyl Ether	10	U	6	U	7	U	7	U
Methylcyclohexane	10	U	6	U	7	U	7	U
Methylene chloride	10	U	6	J	1	J	7	U
Styrene	10	U	6	U	7	U	7	U
Tetrachloroethene	10	U	6	U	7	U	7	U

APPENDIX G
SURFACE SOIL - SWMU 360
ORGANIC COMPOUNDS
SWMU CONFIRMATORY SAMPLING (CTO-0143)
BUILDING 1817 UST
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU360-TW01-00		SWMU360-TW02-00		SWMU360-TW03-00		SWMU360-TW04-00	
SAMPLE DATE	03-25-2002		03-25-2002		03-25-2002		03-25-2002	
DEPTH	0' - 1'		0' - 1'		0' - 1'		0' - 1'	
VOLATILES (ug/kg) (cont)								
Toluene	10	U	6	U	7	U	7	U
trans-1,2-Dichloroethene	10	U	6	U	7	U	7	U
trans-1,3-Dichloropropene	10	U	6	U	7	U	7	U
Trichloroethene	10	U	6	U	2	J	7	U
Trichlorofluoromethane	10	UJ	6	UJ	7	UJ	7	UJ
Vinyl chloride	10	U	6	U	7	U	7	U
Xylenes (total)	29	U	19	U	20	U	20	U
SEMIVOLATILES (ug/kg)								
1,1'-Biphenyl	410	U	360	U	360	U	390	U
2,2'-Oxybis(1-Chloropropane)	410	U	360	U	360	U	390	U
2,4,5-Trichlorophenol	410	U	360	U	360	U	390	U
2,4,6-Trichlorophenol	410	U	360	U	360	U	390	U
2,4-Dichlorophenol	410	U	360	U	360	U	390	U
2,4-Dimethylphenol	410	U	360	U	360	U	390	U
2,4-Dinitrophenol	2100	U	1900	U	1800	U	2000	U
2,4-Dinitrotoluene	410	U	360	U	360	U	390	U
2,6-Dinitrotoluene	410	U	360	U	360	U	390	U
2-Chloronaphthalene	410	U	360	U	360	U	390	U
2-Chlorophenol	410	U	360	U	360	U	390	U
2-Methylnaphthalene	410	U	360	U	360	U	390	U
2-Methylphenol	410	U	360	U	360	U	390	U
2-Nitroaniline	40	J	730	U	720	U	780	U
2-Nitrophenol	410	U	360	U	360	U	390	U
3,3'-Dichlorobenzidine	810	U	730	U	720	U	780	U
3-Nitroaniline	810	U	730	U	720	U	780	U
4,6-Dinitro-2-methylphenol	810	U	730	U	720	U	780	U
4-Bromophenyl phenyl ether	410	U	360	U	360	U	390	U
4-Chloro-3-methylphenol	410	U	360	U	360	U	390	U
4-Chloroaniline	410	U	360	U	360	U	390	U
4-Chlorophenyl phenyl ether	410	U	360	U	360	U	390	U
4-Methylphenol	410	U	360	U	360	U	390	U
4-Nitroaniline	810	U	730	U	720	U	780	U
4-Nitrophenol	810	U	730	U	720	U	780	U
Acenaphthene	410	U	360	U	360	U	390	U
Acenaphthylene	410	U	360	U	360	U	390	U
Acetophenone	410	U	360	U	360	U	390	U
Anthracene	410	U	360	U	360	U	390	U
Atrazine	410	U	360	U	360	U	390	U
Benzaldehyde	410	U	360	U	360	U	390	U
Benzo(a)anthracene	410	U	360	U	360	U	390	U
Benzo(a)pyrene	410	U	360	U	360	U	390	U
Benzo(b)fluoranthene	410	U	360	U	360	U	390	U

APPENDIX G
SURFACE SOIL - SWMU 360
ORGANIC COMPOUNDS
SWMU CONFIRMATORY SAMPLING (CTO-0143)
BUILDING 1817 UST
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU360-TW01-00		SWMU360-TW02-00		SWMU360-TW03-00		SWMU360-TW04-00	
SAMPLE DATE	03-25-2002		03-25-2002		03-25-2002		03-25-2002	
DEPTH	0' - 1'		0' - 1'		0' - 1'		0' - 1'	
SEMIVOLATILES (ug/kg) (cont)								
Benzo(ghi)perylene	410	U	360	U	360	U	390	U
Benzo(k)fluoranthene	410	U	360	U	360	U	390	U
bis(2-Chloroethoxy)methane	410	U	360	U	360	U	390	U
bis(2-Chloroethyl) ether	410	U	360	U	360	U	390	U
bis(2-Ethylhexyl) phthalate	90	J	99	J	410		160	J
Butyl benzyl phthalate	410	U	360	U	360	U	390	U
Caprolactam	410	U	360	U	360	U	390	U
Carbazole	410	U	360	U	360	U	390	U
Chrysene	410	U	360	U	360	U	390	U
Di-n-butyl phthalate	410	U	360	U	360	U	390	U
Di-n-octyl phthalate	69	J	360	U	360	U	390	U
Dibenz(a,h)anthracene	410	U	360	U	360	U	390	U
Dibenzofuran	410	U	360	U	360	U	390	U
Diethyl phthalate	410	U	360	U	360	U	390	U
Dimethyl phthalate	410	U	360	U	360	U	390	U
Fluoranthene	410	U	360	U	360	U	390	U
Fluorene	410	U	360	U	360	U	390	U
Hexachlorobenzene	410	U	360	U	360	U	390	U
Hexachlorobutadiene	410	U	360	U	360	U	390	U
Hexachlorocyclopentadiene	410	UJ	360	UJ	360	UJ	390	UJ
Hexachloroethane	410	U	360	U	360	U	390	U
Indeno(1,2,3-cd)pyrene	410	U	360	U	360	U	390	U
Isophorone	410	U	360	U	360	U	390	U
N-Nitrosodi-n-propylamine	410	U	360	U	360	U	390	U
N-Nitrosodiphenylamine	410	U	360	U	360	U	390	U
Naphthalene	410	U	360	U	360	U	390	U
Nitrobenzene	410	U	360	U	360	U	390	U
Pentachlorophenol	810	U	730	U	720	U	780	U
Phenanthrene	410	U	360	U	360	U	390	U
Phenol	410	U	360	U	360	U	390	U
Pyrene	410	U	360	U	360	U	390	U
PESTICIDES (ug/kg)								
4,4'-DDD	1.2	J	3.6	UJ	3.3	J	3.9	U
4,4'-DDE	2.3		1.9	U	0.58	J	2	U
4,4'-DDT	6.1	J	1.2	J	1.7	J	1	J
alpha-BHC	1	U	0.91	U	6.7	J	0.98	U
alpha-Chlordane	2.1	U	1.9	U	0.42	J	2	U
Aldrin	1	U	0.29	U	0.91	U	0.43	U
beta-BHC	2.1	U	1.9	U	6.4	J	2	U
delta-BHC	1	U	0.91	U	0.31	J	0.98	U
Dieldrin	2.1	U	1.9	U	1.9	U	2	U
Endosulfan I	2.1	U	1.9	U	1.9	U	2	U

APPENDIX G
SURFACE SOIL - SWMU 360
ORGANIC COMPOUNDS
SWMU CONFIRMATORY SAMPLING (CTO-0143)
BUILDING 1817 UST
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU360-TW01-00		SWMU360-TW02-00		SWMU360-TW03-00		SWMU360-TW04-00	
SAMPLE DATE	03-25-2002		03-25-2002		03-25-2002		03-25-2002	
DEPTH	0' - 1'		0' - 1'		0' - 1'		0' - 1'	
PESTICIDES (ug/kg) (cont)								
Endosulfan II	4.1	UJ	3.6	UJ	3.6	U	3.9	J
Endosulfan sulfate	4.2	J	3.6	U	3.6	U	3.9	U
Endrin	4.1	U	3.6	U	3.6	UJ	3.9	U
Endrin aldehyde	1.2	J	3.6	U	3.6	UJ	3.9	U
Endrin keytone	10	U	9.1	U	9.1	U	9.8	U
gamma-BHC (Lindane)	1	U	0.86	U	0.62	J	0.34	U
gamma-Chlordane	1	U	0.91	U	0.63	J	0.98	U
Heptachlor	1	U	0.91	U	0.91	U	0.98	U
Heptachlor epoxide	1	U	0.91	U	0.91	U	0.98	U
Methoxychlor	10	U	9.1	U	9.1	UJ	9.8	UJ
Toxaphene	100	U	91	U	91	U	98	U

APPENDIX G
SURFACE SOIL - SWMU 360
INORGANIC COMPOUNDS
SWMU CONFIRMATORY SAMPLING (CTO-0143)
BUILDING 1817 UST
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU360-TW01-00		SWMU360-TW02-00		SWMU360-TW03-00		SWMU360-TW04-00	
SAMPLE DATE	03-25-2002		03-25-2002		03-25-2002		03-25-2002	
DEPTH	0' - 1'		0' - 1'		0' - 1'		0' - 1'	
METALS (mg/kg)								
Arsenic	0.35	J	0.26	U	0.49	J	0.54	J
Barium	10.1		5.4	U	12		13.1	
Cadmium	0.56	J	0.03	U	0.54		0.04	U
Chromium	10.2		2.1		9		7.4	
Lead	14.8		2.8		28		4	
Mercury	0.02	UJ	0.02	UJ	0.02	UJ	0.02	J
Selenium	0.53	U	0.5	U	0.48	U	0.52	J
Silver	0.1	U	0.1	U	0.09	U	0.1	U

APPENDIX G
SUBSURFACE SOIL - SWMU 360
ORGANIC COMPOUNDS
SWMU CONFIRMATORY SAMPLING (CTO-0143)
BUILDING 1817 UST
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU360-TW01-01		SWMU360-TW01A-10		SWMU360-TW02-02		SWMU360-TW02A-10		SWMU360-TW03-02		SWMU360-TW03A-10		SWMU360-TW04-06		SWMU360-TW04A-11	
SAMPLE DATE	03-25-2002		04-08-2002		03-25-2002		04-08-2002		03-25-2002		04-08-2002		03-25-2002		04-08-2002	
DEPTH	1' - 3'		19' - 21'		3' - 5'		19' - 21'		3' - 5'		19' - 21'		11' - 13'		21' - 23'	
VOLATILES (ug/kg)																
1,1,1-Trichloroethane	6	U	5	U	11	U	6	U	8	U	6	U	7	U	6	U
1,1,2,2-Tetrachloroethane	6	U	5	U	11	U	6	U	8	U	6	U	7	U	6	U
1,1,2-Trichloro-1,2,2-trifluoroethane	6	U	5	U	11	U	6	U	8	U	6	U	7	U	6	U
1,1,2-Trichloroethane	6	U	5	U	11	U	6	U	8	U	6	U	7	U	6	U
1,1-Dichloroethane	6	U	5	U	11	U	6	U	8	U	6	U	7	U	6	U
1,1-Dichloroethene	6	U	5	U	11	U	6	U	8	U	6	U	7	U	6	U
1,2,4-Trichlorobenzene	6	U	5	U	11	U	6	U	8	U	6	U	7	U	6	U
1,2-Dibromo-3-chloropropane	6	U	5	U	11	U	6	U	8	U	6	U	7	U	6	U
1,2-Dibromoethane	6	U	5	U	11	U	6	U	8	U	6	U	7	U	6	U
1,2-Dichlorobenzene	6	U	5	U	11	U	6	U	8	U	6	U	7	U	6	U
1,2-Dichloroethane	6	U	5	U	11	U	6	U	8	U	6	U	7	U	6	U
1,2-Dichloropropane	6	U	5	U	11	U	6	U	8	U	6	U	7	U	6	U
1,3-Dichlorobenzene	6	U	5	U	11	U	6	U	8	U	6	U	7	U	6	U
1,4-Dichlorobenzene	6	U	5	U	11	U	6	U	8	U	6	U	7	U	6	U
2-Butanone	15	UJ	14	U	28	UJ	15	U	21	U	14	U	19	UJ	15	U
2-Hexanone	15	U	14	U	28	U	15	U	21	U	14	U	19	U	15	U
4-Methyl-2-pentanone	15	U	14	U	28	U	15	U	21	U	14	U	19	U	15	U
Acetone	26	UJ	7	U	110	UJ	6	U	84	UJ	6	U	19	UJ	6	U
Benzene	6	U	5	U	11	U	6	U	8	U	6	U	7	U	6	U
Bromodichloromethane	6	U	5	U	11	U	6	U	8	U	6	U	7	U	6	U
Bromoform	6	U	28		11	U	29		8	U	31		7	U	6	U
Bromomethane	6	U	5	UJ	11	U	6	UJ	8	U	6	UJ	7	U	6	UJ
Carbon disulfide	3	J	5	U	5	J	6	U	8	U	6	U	7	U	6	U
Carbon tetrachloride	6	U	5	U	11	U	6	U	8	U	6	U	7	U	6	U
Chlorobenzene	6	U	5	U	11	U	6	U	8	U	6	U	7	U	6	U
Chloroethane	6	U	5	U	11	U	6	U	8	U	6	U	7	U	6	U
Chloroform	6	U	5	U	11	U	6	U	8	U	6	U	7	U	6	U
Chloromethane	6	U	5	U	11	U	6	U	8	U	6	U	7	U	6	U
cis-1,2-Dichloroethene	6	U	8		3	J	2	J	20	J	6	U	7	U	11	
cis-1,3-Dichloropropene	6	U	5	U	11	U	6	U	8	U	6	U	7	U	6	U
Cyclohexane	6	U	5	U	11	U	6	U	8	U	6	U	7	U	6	U
Dibromochloromethane	6	U	5	U	11	U	6	U	8	U	6	U	7	U	6	U
Dichlorodifluoromethane	6	U	5	U	11	U	6	U	8	U	6	U	7	U	6	U
Ethylbenzene	6	U	5	U	11	U	6	U	8	U	6	U	7	U	6	U
Isopropylbenzene	6	U	5	U	11	U	6	U	8	U	6	U	7	U	6	U
Methyl acetate	6	U	5	UJ	11	U	6	UJ	8	U	6	UJ	7	U	6	UJ
Methyl-t-Butyl Ether	6	U	5	U	11	U	6	U	8	U	6	U	7	U	2	J
Methylcyclohexane	6	U	5	U	11	U	6	U	8	U	6	U	7	U	6	U
Methylene chloride	6	J	20		2	J	18		2	J	27		7	U	32	
Styrene	6	U	5	U	11	U	6	U	8	U	6	U	7	U	6	U
Tetrachloroethene	6	U	60		11	U	6	U	5	J	6	U	10		25	
Toluene	6	U	5	U	11	U	6	U	8	U	6	U	7	U	6	U
trans-1,2-Dichloroethene	6	U	5	U	11	U	6	U	8	U	6	U	7	U	6	U
trans-1,3-Dichloropropene	6	U	5	U	11	U	6	U	8	U	6	U	7	U	6	U
Trichloroethene	6	U	7		11	U	6	U	2	J	6	U	7	U	2	J
Trichlorofluoromethane	6	UJ	5	U	11	UJ	6	U	8	UJ	6	U	7	UJ	6	U
Vinyl chloride	6	U	5	U	11	U	6	U	8	U	6	U	7	U	6	U
Xylenes (total)	17	U	5	UJ	34	U	6	UJ	25	U	6	UJ	22	U	6	UJ

APPENDIX G
SUBSURFACE SOIL - SWMU 360
ORGANIC COMPOUNDS
SWMU CONFIRMATORY SAMPLING (CTO-0143)
BUILDING 1817 UST
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU360-TW01-01		SWMU360-TW01A-10		SWMU360-TW02-02		SWMU360-TW02A-10		SWMU360-TW03-02		SWMU360-TW03A-10		SWMU360-TW04-06		SWMU360-TW04A-11	
SAMPLE DATE	03-25-2002		04-08-2002		03-25-2002		04-08-2002		03-25-2002		04-08-2002		03-25-2002		04-08-2002	
DEPTH	1' - 3'		19' - 21'		3' - 5'		19' - 21'		3' - 5'		19' - 21'		11' - 13'		21' - 23'	
SEMIVOLATILES (ug/kg)																
1,1'-Biphenyl	360	U	360	U	370	U	390	U	380	U	390	U	370	U	400	U
2,2'-Oxybis(1-Chloropropane)	360	U	360	U	370	U	390	U	380	U	390	U	370	U	400	U
2,4,5-Trichlorophenol	360	U	360	U	370	U	390	U	380	U	390	U	370	U	400	U
2,4,6-Trichlorophenol	360	U	360	U	370	U	390	U	380	U	390	U	370	U	400	U
2,4-Dichlorophenol	360	U	360	U	370	U	390	U	380	U	390	U	370	U	400	U
2,4-Dimethylphenol	360	U	360	U	370	U	390	U	380	U	390	U	370	U	400	U
2,4-Dinitrophenol	1800	U	1900	UJ	1900	U	2000	UJ	1900	U	2000	UJ	1900	U	2100	UJ
2,4-Dinitrotoluene	360	U	360	U	370	U	390	U	380	U	390	U	370	U	400	U
2,6-Dinitrotoluene	360	U	360	U	370	U	390	U	380	U	390	U	370	U	400	U
2-Chloronaphthalene	360	U	360	U	370	U	390	U	380	U	390	U	370	U	400	U
2-Chlorophenol	360	U	360	U	370	U	390	U	380	U	390	U	370	U	400	U
2-Methylnaphthalene	360	U	360	U	370	U	390	U	380	U	390	U	370	U	400	U
2-Methylphenol	360	U	360	U	370	U	390	U	380	U	390	U	370	U	400	U
2-Nitroaniline	720	U	730	U	730	U	790	U	750	U	790	U	730	U	800	U
2-Nitrophenol	360	U	360	U	370	U	390	U	380	U	390	U	370	U	400	U
3,3'-Dichlorobenzidine	720	U	730	U	730	U	790	U	750	U	790	U	730	U	800	U
3-Nitroaniline	720	U	730	U	730	U	790	U	750	U	790	U	730	U	800	U
4,6-Dinitro-2-methylphenol	720	U	730	U	730	U	790	U	750	U	790	U	730	U	800	U
4-Bromophenyl phenyl ether	360	U	360	U	370	U	390	U	380	U	390	U	370	U	400	U
4-Chloro-3-methylphenol	360	U	360	U	370	U	390	U	380	U	390	U	370	U	400	U
4-Chloroaniline	360	U	360	U	370	U	390	U	380	U	390	U	370	U	400	U
4-Chlorophenyl phenyl ether	360	U	360	U	370	U	390	U	380	U	390	U	370	U	400	U
4-Methylphenol	360	U	360	U	370	U	390	U	380	U	390	U	370	U	400	U
4-Nitroaniline	720	U	730	U	730	U	790	U	750	U	790	U	730	U	800	U
4-Nitrophenol	720	U	730	U	730	U	790	U	750	U	790	U	730	U	800	U
Acenaphthene	360	U	360	U	370	U	390	U	380	U	390	U	370	U	400	U
Acenaphthylene	360	U	360	U	370	U	390	U	380	U	390	U	370	U	400	U
Acetophenone	360	U	360	U	370	U	390	U	380	U	390	U	370	U	400	U
Anthracene	360	U	360	U	370	U	390	U	380	U	390	U	370	U	400	U
Atrazine	360	U	360	U	11	J	390	U	380	U	390	U	370	U	400	U
Benzaldehyde	360	U	360	U	370	U	390	U	380	U	390	U	370	U	400	U
Benzo(a)anthracene	360	U	360	U	370	U	390	U	380	U	390	U	370	U	400	U
Benzo(a)pyrene	360	U	360	U	370	U	390	U	380	U	390	U	370	U	400	U
Benzo(b)fluoranthene	360	U	360	U	370	U	390	U	380	U	390	U	370	U	400	U
Benzo(ghi)perylene	360	U	360	U	370	U	390	U	380	U	390	U	370	U	400	U
Benzo(k)fluoranthene	360	U	360	U	370	U	390	U	380	U	390	U	370	U	400	U
bis(2-Chloroethoxy)methane	360	U	360	U	370	U	390	U	380	U	390	U	370	U	400	U
bis(2-Chloroethyl) ether	360	U	360	U	370	U	390	U	380	U	390	U	370	U	400	U
bis(2-Ethylhexyl) phthalate	180	J	360	U	82	J	74	J	66	J	51	J	110	J	400	U
Butyl benzyl phthalate	360	U	360	U	370	U	390	U	380	U	390	U	370	U	400	U
Caprolactam	360	U	360	U	370	U	390	U	380	U	390	U	370	U	400	U
Carbazole	360	U	360	U	370	U	390	U	380	U	390	U	370	U	400	U
Chrysene	360	U	360	U	370	U	390	U	380	U	390	U	370	U	400	U
Di-n-butyl phthalate	360	U	360	U	370	U	390	U	380	U	390	U	370	U	400	U
Di-n-octyl phthalate	27	J	360	U	23	J	390	U	380	U	28	J	370	U	400	U
Dibenz(a,h)anthracene	360	U	360	U	370	U	390	U	380	U	390	U	370	U	400	U
Dibenzofuran	360	U	360	U	370	U	390	U	380	U	390	U	370	U	400	U
Diethyl phthalate	360	U	360	U	370	U	390	U	380	U	390	U	370	U	400	U
Dimethyl phthalate	360	U	360	U	370	U	390	U	380	U	390	U	370	U	400	U
Fluoranthene	25	J	360	U	370	U	390	U	380	U	390	U	370	U	400	U
Fluorene	360	U	360	U	370	U	390	U	380	U	390	U	370	U	400	U
Hexachlorobenzene	360	U	360	U	370	U	390	U	380	U	390	U	370	U	400	U
Hexachlorobutadiene	360	U	360	U	370	U	390	U	380	U	390	U	370	U	400	U
Hexachlorocyclopentadiene	360	UJ	360	U	370	UJ	390	U	380	UJ	390	U	370	UJ	400	U
Hexachloroethane	360	U	360	U	370	U	390	U	380	U	390	U	370	U	400	U
Indeno(1,2,3-cd)pyrene	360	U	360	U	370	U	390	U	380	U	390	U	370	U	400	U
Isophorone	360	U	360	U	370	U	390	U	380	U	390	U	370	U	400	U
N-Nitrosodi-n-propylamine	360	U	360	U	370	U	390	U	380	U	390	U	370	U	400	U
N-Nitrosodiphenylamine	360	U	360	U	370	U	390	U	380	U	390	U	370	U	400	U
Naphthalene	360	U	360	U	370	U	390	U	380	U	390	U	370	U	400	U

APPENDIX G
SUBSURFACE SOIL - SWMU 360
ORGANIC COMPOUNDS
SWMU CONFIRMATORY SAMPLING (CTO-0143)
BUILDING 1817 UST
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU360-TW01-01	SWMU360-TW01A-10	SWMU360-TW02-02	SWMU360-TW02A-10	SWMU360-TW03-02	SWMU360-TW03A-10	SWMU360-TW04-06	SWMU360-TW04A-11
SAMPLE DATE	03-25-2002	04-08-2002	03-25-2002	04-08-2002	03-25-2002	04-08-2002	03-25-2002	04-08-2002
DEPTH	1' - 3'	19' - 21'	3' - 5'	19' - 21'	3' - 5'	19' - 21'	11' - 13'	21' - 23'
SEMIVOLATILES (ug/kg) (cont)								
Nitrobenzene	360 U	360 U	370 U	390 U	380 U	390 U	370 U	400 U
Pentachlorophenol	720 U	730 U	730 U	790 U	750 U	790 U	730 U	800 U
Phenanthrene	360 U	360 U	370 U	390 U	380 U	390 U	370 U	400 U
Phenol	360 U	360 U	370 U	390 U	380 U	390 U	370 U	400 U
Pyrene	360 U	360 U	370 U	390 U	380 U	390 U	370 U	400 U
PESTICIDES (ug/kg)								
4,4'-DDD	49 J	3.6 U	0.76 J	3.9 U	3.8 UJ	3.9 U	3.7 UJ	4 U
4,4'-DDE	6.4 J	1.9 U	0.5 J	2 U	1.9 U	2 U	1.9 U	2.1 U
4,4'-DDT	3.3 J	5.5 U	1.6 J	6 U	5.7 UJ	6 U	5.6 UJ	6.1 U
alpha-BHC	4.5 UJ	0.92 U	0.92 UJ	0.99 U	0.94 U	0.99 U	0.92 U	1 U
alpha-Chlordane	9.2 U	1.9 U	0.29 J	2 U	1.9 U	2 U	1.9 U	2.1 U
Aldrin	4.5 U	0.92 U	0.2 U	0.99 U	0.94 U	0.99 U	0.92 U	1 U
beta-BHC	9.2 U	1.9 U	1.9 U	2 U	1.9 U	2 U	1.4 J	2.1 U
delta-BHC	4.5 U	0.92 U	0.17 UJ	0.99 U	0.94 U	0.99 U	0.92 U	1 U
Dieldrin	4.1 J	1.9 U	1.9 U	2 U	1.9 U	2 U	1.9 U	2.1 U
Endosulfan I	9.2 U	1.9 U	1.9 U	2 U	1.9 U	2 U	1.9 U	2.1 U
Endosulfan II	18 U	3.6 U	3.7 UJ	3.9 U	3.8 UJ	3.9 U	3.7 UJ	4 U
Endosulfan sulfate	18 U	3.6 U	3.7 U	3.9 U	3.8 U	3.9 U	3.7 U	4 U
Endrin	18 UJ	3.6 U	3.7 U	3.9 U	3.8 U	3.9 U	3.7 U	4 U
Endrin aldehyde	18 UJ	3.6 U	3.7 U	3.9 U	3.8 U	3.9 U	3.7 U	4 U
Endrin keytone	45 U	9.2 U	9.2 U	9.9 U	9.4 U	9.9 U	9.2 U	10 U
gamma-BHC (Lindane)	4.5 U	0.92 U	0.92 U	0.99 U	0.38 U	0.99 U	0.92 U	1 U
gamma-Chlordane	4.5 U	0.92 U	0.92 U	0.99 U	0.94 U	0.99 U	0.92 U	1 U
Heptachlor	4.5 U	0.92 U	0.92 U	0.99 U	0.94 U	0.99 U	0.92 U	1 U
Heptachlor epoxide	4.5 U	0.92 U	0.92 U	0.99 U	0.94 U	0.99 U	0.92 U	1 U
Methoxychlor	45 UJ	9.2 U	9.2 U	9.9 U	9.4 U	9.9 U	9.2 U	10 U
Toxaphene	450 U	92 U	92 U	99 U	94 U	99 U	92 U	100 U

APPENDIX G
SUBSURFACE SOIL - SWMU 360
INORGANIC COMPOUNDS
SWMU CONFIRMATORY SAMPLING (CTO-0143)
BUILDING 1817 UST
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU360-TW01-01	SWMU360-TW01A-10	SWMU360-TW02-02	SWMU360-TW02A-10	SWMU360-TW03-02	SWMU360-TW03A-10	SWMU360-TW04-06	SWMU360-TW04A-11
SAMPLE DATE	03-25-2002	04-08-2002	03-25-2002	04-08-2002	03-25-2002	04-08-2002	03-25-2002	04-08-2002
DEPTH	1' - 3'	19' - 21'	3' - 5'	19' - 21'	3' - 5'	19' - 21'	11' - 13'	21' - 23'
METALS (mg/kg)								
Arsenic	0.25 U	0.22 U	0.25 U	0.23 U	0.39 J	0.23 U	0.93 J	7.3 J
Barium	8.8	9.9 J	10.6	3.7 J	9	5.4 J	4.7 U	50.4 J
Cadmium	0.28 U	0.04 U	0.031 U	0.05 U	0.04 U	0.05 U	0.03 U	0.5 J
Chromium	12.3	7 J	5.2	2.3 J	6.4	3.8 J	4.5	11 J
Lead	30.9	1.8 J	6.3	1.5 J	4.5	1.7 J	2.7 U	3.6 J
Mercury	0.07 J	0.02 U	0.02 UJ	0.03 U	0.03 J	0.03 U	0.02 UJ	0.03 U
Selenium	0.48 U	0.23 UJ	0.47 U	0.24 UJ	0.5 U	0.24 UJ	0.5 U	0.91 J
Silver	0.09 U	0.06 J	0.09 U	0.06 U	0.1 U	0.06 J	0.1 U	0.06 U

APPENDIX G
GROUNDWATER - SWMU 360
ORGANIC COMPOUNDS
SWMU CONFIRMATORY SAMPLING (CTO-0143)
BUILDING 1817 UST
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU360-GW01		SWMU360-GW02		SWMU360-GW03		SWMU360-GW04	
SAMPLE DATE	04-09-2002		04-09-2002		04-09-2002		04-09-2002	
VOLATILES (ug/L)								
1,1,1-Trichloroethane	5	U	5	U	5	U	5	U
1,1,2,2-Tetrachloroethane	5	U	5	U	5	U	5	U
1,1,2-Trichloro-1,2,2-trifluoroethane	5	U	5	U	5	U	5	U
1,1,2-Trichloroethane	5	U	5	U	5	U	5	U
1,1-Dichloroethane	5	U	5	U	5	U	5	U
1,1-Dichloroethene	5	U	5	U	5	U	5	U
1,2,4-Trichlorobenzene	5	U	5	U	2	J	5	U
1,2-Dibromo-3-chloropropane	5	U	5	U	5	U	5	U
1,2-Dibromoethane	5	U	5	U	5	U	5	U
1,2-Dichlorobenzene	5	U	5	U	5	U	5	U
1,2-Dichloroethane	5	U	5	U	5	U	5	U
1,2-Dichloropropane	5	U	5	U	5	U	5	U
1,3-Dichlorobenzene	5	U	5	U	5	U	5	U
1,4-Dichlorobenzene	5	U	5	U	5	U	5	U
2-Butanone	13	U	13	U	13	U	13	U
2-Hexanone	13	U	13	U	13	U	13	U
4-Methyl-2-pentanone	13	U	13	U	13	U	13	U
Acetone	13	U	13	U	13	U	13	U
Benzene	5	U	5	U	5	U	5	U
Bromodichloromethane	5	U	5	U	5	U	5	U
Bromoform	5	U	5	U	5	U	5	U
Bromomethane	5	U	5	U	5	U	5	U
Carbon disulfide	5	U	5	U	5	U	5	U
Carbon tetrachloride	5	U	5	U	5	U	5	U
Chlorobenzene	5	U	5	U	5	U	5	U
Chloroethane	5	U	5	U	5	U	5	U
Chloroform	5	U	5	U	5	U	5	U
Chloromethane	5	U	5	U	5	U	5	U
cis-1,2-Dichloroethene	48		23		29		120	
cis-1,3-Dichloropropene	5	U	5	U	5	U	5	U
Cyclohexane	5	U	5	U	5	U	5	U
Dibromochloromethane	5	U	5	U	5	U	5	U
Dichlorodifluoromethane	5	U	5	U	5	U	5	U
Ethylbenzene	5	U	5	U	5	U	5	U
Isopropylbenzene	5	U	5	U	5	U	5	U
Methyl acetate	5	U	5	U	5	U	5	U
Methyl-t-butyl ether	5	U	5	U	5	U	5	U
Methylcyclohexane	5	U	5	U	5	U	5	U

APPENDIX G
GROUNDWATER - SWMU 360
ORGANIC COMPOUNDS
SWMU CONFIRMATORY SAMPLING (CTO-0143)
BUILDING 1817 UST
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU360-GW01		SWMU360-GW02		SWMU360-GW03		SWMU360-GW04	
SAMPLE DATE	04-09-2002		04-09-2002		04-09-2002		04-09-2002	
VOLATILES (ug/L) (cont)								
Methylene chloride	5	U	5	U	5	U	5	U
Styrene	5	U	5	U	5	U	5	U
Tetrachloroethene	89		5	U	27		900	R
Toluene	5	U	5	U	5	U	5	U
trans-1,2-Dichloroethene	5	U	5	U	5	U	5	U
trans-1,3-Dichloropropene	5	U	5	U	5	U	5	U
Trichloroethene	24		5		6		75	
Trichlorofluoromethane	5	U	5	U	5	U	5	U
Vinyl chloride	5	U	5	U	5	U	5	U
Xylene (Total)	5	U	5	U	5	U	5	U
SEMIVOLATILES (ug/L)								
1,1'-Biphenyl	10	U	11	U	10	U	10	U
2,2'-oxybis(1-Chloropropane)	10	U	11	U	10	U	10	U
2,4,5-Trichlorophenol	10	U	11	U	10	U	10	U
2,4,6-Trichlorophenol	10	U	11	U	10	U	10	U
2,4-Dichlorophenol	10	U	11	U	10	U	10	U
2,4-Dimethylphenol	10	U	11	U	10	U	10	U
2,4-Dinitrophenol	51	U	56	U	50	U	50	U
2,4-Dinitrotoluene	10	U	11	U	10	U	10	U
2,6-Dinitrotoluene	10	U	11	U	10	U	10	U
2-Chloronaphthalene	10	U	11	U	10	U	10	U
2-Chlorophenol	10	U	11	U	10	U	10	U
2-Methylnaphthalene	10	U	11	U	10	U	10	U
2-Methylphenol	10	U	11	U	10	U	1	J
2-Nitroaniline	21	U	22	U	20	U	20	U
2-Nitrophenol	10	U	11	U	10	U	10	U
3,3'-Dichlorobenzidine	21	U	22	U	20	U	20	U
3-Nitroaniline	21	U	22	U	20	U	20	U
4,6-dinitro-2-Methylphenol	21	U	22	U	20	U	20	U
4-Bromophenyl phenyl ether	10	U	11	U	10	U	10	U
4-Chloro-3-methylphenol	10	U	11	U	10	U	10	U
4-Chloroaniline	10	U	11	U	10	U	10	U
4-Chlorophenyl phenyl ether	10	U	11	U	10	U	10	U
4-Methylphenol	2	J	11	U	10	U	4	J
4-Nitroaniline	21	U	22	U	20	U	20	U
4-Nitrophenol	21	U	22	U	20	U	20	U
Acenaphthene	10	U	11	U	10	U	10	U
Acenaphthylene	10	U	11	U	10	U	10	U

APPENDIX G
GROUNDWATER - SWMU 360
ORGANIC COMPOUNDS
SWMU CONFIRMATORY SAMPLING (CTO-0143)
BUILDING 1817 UST
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU360-GW01		SWMU360-GW02		SWMU360-GW03		SWMU360-GW04	
SAMPLE DATE	04-09-2002		04-09-2002		04-09-2002		04-09-2002	
SEMIVOLATILES (ug/L) (cont)								
Acetophenone	10	U	11	U	10	U	1	J
Anthracene	10	U	11	U	10	U	10	U
Atrazine	10	U	11	U	10	U	10	U
Benzaldehyde	10	U	11	U	10	U	10	U
Benzo(a)anthracene	10	U	11	U	10	U	10	U
Benzo(a)pyrene	10	U	11	U	10	U	10	U
Benzo(b)fluoranthene	10	U	11	U	10	U	10	U
Benzo(g,h,i)perylene	10	U	11	U	10	U	10	U
Benzo(k)fluoranthene	10	U	11	U	10	U	10	U
bis(2-Chloroethoxy)methane	10	U	11	U	10	U	10	U
bis(2-Chloroethyl)ether	10	U	11	U	10	U	10	U
bis(2-Ethylhexyl)phthalate	10	U	11	U	10	U	10	U
Butyl benzyl phthalate	10	U	11	U	10	U	10	U
Caprolactam	10	U	11	U	10	U	10	U
Carbazole	10	U	11	U	10	U	10	U
Chrysene	10	U	11	U	10	U	10	U
di-N-Butyl phthalate	10	U	11	U	10	U	10	U
di-N-Octyl phthalate	10	U	11	U	10	U	10	U
Dibenzo(a,h)anthracene	10	U	11	U	10	U	10	U
Dibenzofuran	10	U	11	U	10	U	10	U
Diethyl phthalate	10	U	11	U	10	U	10	U
Dimethyl phthalate	10	U	11	U	10	U	10	U
Fluoranthene	10	U	11	U	10	U	10	U
Fluorene	10	U	11	U	10	U	0.9	J
Hexachlorobenzene	10	U	11	U	10	U	10	U
Hexachlorobutadiene	10	U	11	U	10	U	10	U
Hexachlorocyclopentadiene	10	U	11	U	10	U	10	U
Hexachloroethane	10	U	11	U	10	U	10	U
Indeno(1,2,3-cd)pyrene	10	U	11	U	10	U	10	U
Isophorone	10	U	11	U	10	U	10	U
N-Nitroso-di-N-propylamine	10	U	11	U	10	U	10	U
N-Nitrosodiphenylamine(1)	10	U	11	U	10	U	10	U
Naphthalene	10	U	11	U	10	U	10	U
Nitrobenzene	10	U	11	U	10	U	10	U
Pentachlorophenol	21	U	22	U	20	U	20	U
Phenanthrene	0.9	J	11	U	10	U	4	J
Phenol	10	U	11	U	10	U	10	U
Pyrene	10	U	11	U	10	U	10	U

APPENDIX G
GROUNDWATER - SWMU 360
ORGANIC COMPOUNDS
SWMU CONFIRMATORY SAMPLING (CTO-0143)
BUILDING 1817 UST
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU360-GW01		SWMU360-GW02		SWMU360-GW03		SWMU360-GW04	
SAMPLE DATE	04-09-2002		04-09-2002		04-09-2002		04-09-2002	
PESTICIDES (ug/L)								
4,4'-DDD	0.2	UJ	0.2	UJ	0.2	UJ	1	UJ
4,4'-DDE	0.24	J	0.1	U	0.1	U	0.5	UJ
4,4'-DDT	0.11	J	0.3	U	0.3	U	1.5	U
Aldrin	0.14	J	0.05	U	0.05	U	0.25	U
alpha-BHC	0.05	UJ	0.015	J	0.05	UJ	0.25	U
alpha-Chlordane	0.088	J	0.1	U	0.1	U	0.5	U
beta-BHC	0.1	UJ	0.1	UJ	0.1	UJ	1.6	J
delta-BHC	0.19	J	0.05	UJ	0.05	UJ	0.18	J
Dieldrin	0.1	UJ	0.1	UJ	0.1	UJ	0.5	U
Endosulfan I	0.1	U	0.1	U	0.1	U	0.5	U
Endosulfan II	0.2	U	0.2	U	0.2	U	1	U
Endosulfan sulfate	0.2	U	0.2	U	0.2	U	1	U
Endrin	0.2	U	0.2	U	0.2	U	1	U
Endrin aldehyde	0.2	UJ	0.2	UJ	0.2	UJ	1	U
Endrin ketone	0.5	U	0.5	U	0.5	U	2.5	UJ
gamma-BHC (Lindane)	0.1	J	0.05	U	0.05	U	0.25	U
gamma-chlordane	0.1	J	0.05	U	0.05	U	0.25	U
Heptachlor	0.088	J	0.05	U	0.05	U	0.25	U
Heptachlor epoxide	0.13	J	0.05	U	0.05	U	0.45	J
Methoxychlor	0.5	U	0.5	U	0.5	U	2.5	U
Toxaphene	5	U	5	U	5	U	25	U

APPENDIX G
GROUNDWATER - SWMU 360
INORGANIC COMPOUNDS
SWMU CONFIRMATORY SAMPLING (CTO-0143)
BUILDING 1817 UST
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU360-GW01		SWMU360-GW02		SWMU360-GW03		SWMU360-GW04	
SAMPLE DATE	04-09-2002		04-09-2002		04-09-2002		04-09-2002	
METALS (ug/L)								
Arsenic	2	U	2.6	J	2	U	2	U
Barium	60.8		42.1		48.9		53.3	
Cadmium	0.4	U	0.4	U	0.4	U	0.4	U
Chromium	1.3	J	7.6		0.5	UJ	0.5	UJ
Lead	1.1	U	2.9	U	1.1	U	1.4	U
Mercury	0.1	UJ	0.1	UJ	0.1	UJ	0.1	UJ
Selenium	2.1	UJ	2.1	UJ	2.1	UJ	2.1	UJ
Silver	0.5	U	0.5	U	0.5	U	0.5	U

APPENDIX G
SURFACE SOIL - SWMU 361
ORGANIC COMPOUNDS
SWMU CONFIRMATORY SAMPLING (CTO-0143)
UST SITE 333-C
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU361-SB02-00		SWMU361-SB03-00		SWMU361-SB04-00		SWMU361-SB05-00		SWMU361-SB06-00		SWMU361-TW01-00	
SAMPLE DATE	03-24-2002		03-24-2002		03-24-2002		03-24-2002		03-24-2002		03-24-2002	
DEPTH	0' - 1'		0' - 1'		0' - 1'		0' - 1'		0' - 1'		0' - 1'	
VOLATILES (ug/kg)												
1,1,1-Trichloroethane	9	U	6	U	6	U	6	U	5	U	6	U
1,1,2,2-Tetrachloroethane	9	U	6	U	6	U	6	U	5	U	6	U
1,1,2-Trichloro-1,2,2-trifluoroethane	9	U	6	U	6	U	6	UJ	5	U	6	U
1,1,2-Trichloroethane	9	U	6	U	6	U	6	U	5	U	6	U
1,1-Dichloroethane	9	U	6	U	6	U	6	U	5	U	6	U
1,1-Dichloroethene	9	U	6	U	6	U	6	U	5	U	6	U
1,2,4-Trichlorobenzene	9	U	6	U	6	U	6	U	5	U	6	U
1,2-Dibromo-3-chloropropane	9	U	6	U	6	U	6	U	5	U	6	U
1,2-Dibromoethane	9	U	6	U	6	U	6	U	5	U	6	U
1,2-Dichlorobenzene	9	U	6	U	6	U	6	U	5	U	6	U
1,2-Dichloroethane	9	U	6	U	6	U	6	U	5	U	6	U
1,2-Dichloropropane	9	U	6	U	6	U	6	U	5	U	6	U
1,3-Dichlorobenzene	9	U	6	U	6	U	6	U	5	U	6	U
1,4-Dichlorobenzene	9	U	6	U	6	U	6	U	5	U	6	U
2-Butanone	23	U	15	U	15	UJ	15	UJ	12	UJ	15	UJ
2-Hexanone	23	U	15	U	15	U	15	U	12	U	15	U
4-Methyl-2-pentanone	3	J	15	U	15	U	15	U	12	U	15	U
Acetone	6	J	6	J	15	UJ	35		30	J	15	UJ
Benzene	9	U	6	U	6	U	6	U	5	U	6	U
Bromodichloromethane	9	U	6	U	6	U	6	U	5	U	6	U
Bromoform	9	U	6	U	6	U	6	U	5	U	6	U
Bromomethane	9	UJ	6	UJ	6	U	6	U	5	U	6	U
Carbon disulfide	9	U	6	U	6	U	6	U	5	U	6	U
Carbon tetrachloride	9	U	6	U	6	U	6	U	5	U	6	U
Chlorobenzene	9	U	6	U	6	U	6	U	5	U	6	U
Chloroethane	9	U	6	U	6	U	6	U	5	U	6	U
Chloroform	9	U	6	U	6	U	6	U	5	U	6	U
Chloromethane	9	U	6	U	6	U	6	U	5	U	6	U
cis-1,2-Dichloroethene	9	U	6	U	6	U	6	U	5	U	6	U
cis-1,3-Dichloropropene	9	U	6	U	6	U	6	U	5	U	6	U
Cyclohexane	9	U	6	U	6	U	6	U	5	U	6	U
Dibromochloromethane	9	U	6	U	6	U	6	U	5	U	6	U
Dichlorodifluoromethane	9	U	6	U	6	U	6	U	5	U	6	U
Ethylbenzene	9	U	6	U	6	U	6	U	5	U	6	U
Isopropylbenzene	9	U	6	U	6	U	6	U	5	U	6	U
Methyl acetate	9	U	6	U	6	U	6	U	5	U	6	U
Methyl-t-Butyl Ether	9	U	6	U	6	U	6	U	5	U	6	U
Methylcyclohexane	9	U	6	U	6	U	6	U	5	U	6	U
Methylene chloride	32	J	6	U	1	J	1	J	1	J	12	
Styrene	9	U	6	U	6	U	6	U	5	U	6	U
Tetrachloroethene	9	U	6	U	6	U	6	U	5	U	6	U

APPENDIX G
SURFACE SOIL - SWMU 361
ORGANIC COMPOUNDS
SWMU CONFIRMATORY SAMPLING (CTO-0143)
UST SITE 333-C
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU361-SB02-00	SWMU361-SB03-00	SWMU361-SB04-00	SWMU361-SB05-00	SWMU361-SB06-00	SWMU361-TW01-00
SAMPLE DATE	03-24-2002	03-24-2002	03-24-2002	03-24-2002	03-24-2002	03-24-2002
DEPTH	0' - 1'	0' - 1'	0' - 1'	0' - 1'	0' - 1'	0' - 1'
VOLATILES (ug/kg) (cont)						
Toluene	9 U	6 U	6 U	6 U	5 U	6 U
trans-1,2-Dichloroethene	9 U	6 U	6 U	6 U	5 U	6 U
trans-1,3-Dichloropropene	9 U	6 U	6 U	6 U	5 U	6 U
Trichloroethene	9 U	6 U	6 U	6 U	5 U	6 U
Trichlorofluoromethane	9 U	6 U	6 UJ	6 UJ	5 UJ	6 UJ
Vinyl chloride	9 U	6 U	6 U	6 U	5 U	6 U
Xylenes (total)	27 UJ	18 UJ	18 U	17 U	15 U	17 U
SEMIVOLATILES (ug/kg)						
1,1'-Biphenyl	380 U	380 U	790 U	370 U	380 U	380 U
2,2'-Oxybis(1-Chloropropane)	380 U	380 U	790 U	370 U	380 U	380 U
2,4,5-Trichlorophenol	380 U	380 U	790 U	370 U	380 U	380 U
2,4,6-Trichlorophenol	380 U	380 U	790 U	370 U	380 U	380 U
2,4-Dichlorophenol	380 U	380 U	790 U	370 U	380 U	380 U
2,4-Dimethylphenol	380 U	380 U	790 U	370 U	380 U	380 U
2,4-Dinitrophenol	2000 UJ	2000 UJ	4000 UJ	1900 UJ	2000 UJ	2000 UJ
2,4-Dinitrotoluene	380 U	380 U	790 U	370 U	380 U	380 U
2,6-Dinitrotoluene	380 UJ	380 UJ	790 U	370 UJ	380 UJ	380 U
2-Chloronaphthalene	380 U	380 U	790 U	370 U	380 U	380 U
2-Chlorophenol	380 U	380 U	790 U	370 U	380 U	380 U
2-Methylnaphthalene	380 U	380 U	790 U	370 U	380 U	380 U
2-Methylphenol	380 U	380 U	790 U	370 U	380 U	380 U
2-Nitroaniline	760 U	760 U	1600 U	740 U	770 U	760 U
2-Nitrophenol	380 U	380 U	790 U	370 U	380 U	380 U
3,3'-Dichlorobenzidine	760 U	760 U	1600 U	740 U	770 U	760 U
3-Nitroaniline	760 U	760 U	1600 U	740 U	770 U	760 U
4,6-Dinitro-2-methylphenol	760 U	760 U	1600 U	740 U	770 U	760 U
4-Bromophenyl phenyl ether	380 U	380 U	790 U	370 U	380 U	380 U
4-Chloro-3-methylphenol	380 U	380 U	790 U	370 U	380 U	380 U
4-Chloroaniline	380 U	380 U	790 U	370 U	380 U	380 U
4-Chlorophenyl phenyl ether	380 U	380 U	790 U	370 U	380 U	380 U
4-Methylphenol	380 U	380 U	790 U	370 U	380 U	380 U
4-Nitroaniline	760 U	760 U	1600 U	740 U	770 U	760 U
4-Nitrophenol	760 U	760 U	1600 U	740 U	770 U	760 U
Acenaphthene	380 U	380 U	790 U	370 U	380 U	380 U
Acenaphthylene	380 U	380 U	790 U	370 U	380 U	380 U
Acetophenone	380 U	380 U	790 U	370 U	380 U	380 U
Anthracene	380 U	380 U	790 U	370 U	380 U	380 U
Atrazine	380 U	380 U	790 U	370 U	380 U	380 U
Benzaldehyde	380 U	380 U	790 U	370 U	380 U	380 U
Benzo(a)anthracene	380 U	380 U	790 U	370 U	380 U	380 U
Benzo(a)pyrene	380 U	380 U	790 U	370 U	380 U	380 U
Benzo(b)fluoranthene	380 U	380 U	790 U	370 U	380 U	380 U

APPENDIX G
SURFACE SOIL - SWMU 361
ORGANIC COMPOUNDS
SWMU CONFIRMATORY SAMPLING (CTO-0143)
UST SITE 333-C
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU361-SB02-00		SWMU361-SB03-00		SWMU361-SB04-00		SWMU361-SB05-00		SWMU361-SB06-00		SWMU361-TW01-00		
SAMPLE DATE	03-24-2002		03-24-2002		03-24-2002		03-24-2002		03-24-2002		03-24-2002		
DEPTH	0' - 1'		0' - 1'		0' - 1'		0' - 1'		0' - 1'		0' - 1'		
SEMIVOLATILES (ug/kg) (cont)													
Benzo(ghi)perylene	380	U	380	U	790	U	370	U	380	U	380	U	
Benzo(k)fluoranthene	380	U	380	U	790	U	370	U	380	U	380	U	
bis(2-Chloroethoxy)methane	380	U	380	U	790	U	370	U	380	U	380	U	
bis(2-Chloroethyl) ether	380	U	380	U	790	U	370	U	380	U	380	U	
bis(2-Ethylhexyl) phthalate	380	U	380	U	7600		370	U	380	U	380	U	
Butyl benzyl phthalate	380	U	380	U	790	U	370	U	380	U	380	U	
Caprolactam	380	U	380	U	790	U	370	U	380	U	380	U	
Carbazole	380	U	380	U	790	U	370	U	380	U	380	U	
Chrysene	380	U	380	U	790	U	370	U	380	U	380	U	
Di-n-butyl phthalate	380	U	380	U	790	U	370	U	380	U	380	U	
Di-n-octyl phthalate	91	J	98	J	790	U	41	J	380	U	380	U	
Dibenz(a,h)anthracene	380	U	380	U	790	U	370	U	380	U	380	U	
Dibenzofuran	380	U	380	U	790	U	370	U	380	U	380	U	
Diethyl phthalate	380	U	380	U	790	U	370	U	380	U	380	U	
Dimethyl phthalate	380	U	380	U	790	U	370	U	380	U	380	U	
Fluoranthene	380	U	380	U	790	U	370	U	380	U	380	U	
Fluorene	380	U	380	U	790	U	370	U	380	U	380	U	
Hexachlorobenzene	380	U	380	U	790	U	370	U	380	U	380	U	
Hexachlorobutadiene	380	U	380	U	790	U	370	U	380	U	380	U	
Hexachlorocyclopentadiene	380	U	380	U	790	U	370	U	380	U	380	U	
Hexachloroethane	380	U	380	U	790	U	370	U	380	U	380	U	
Indeno(1,2,3-cd)pyrene	380	U	380	U	790	U	370	U	380	U	380	U	
Isophorone	380	U	380	U	790	U	370	U	380	U	380	U	
N-Nitrosodi-n-propylamine	380	U	380	U	790	U	370	U	380	U	380	U	
N-Nitrosodiphenylamine	380	U	380	U	790	U	370	U	380	U	380	U	
Naphthalene	380	U	380	U	790	U	370	U	380	U	380	U	
Nitrobenzene	380	U	380	U	790	U	370	U	380	U	380	U	
Pentachlorophenol	760	U	760	U	1600	U	740	U	770	U	760	U	
Phenanthrene	380	U	380	U	790	U	370	U	380	U	380	U	
Phenol	380	U	380	U	790	U	370	U	380	U	380	U	
Pyrene	380	U	380	U	790	U	370	U	380	U	380	U	
PESTICIDES (ug/kg)													
4,4'-DDD	3.8	U	3.8	U	3.9	U	4.4		3.8	UJ	1.9	J	
4,4'-DDE	2	U	2	U	2	U	1.9	U	2	U	2.2	J	
4,4'-DDT	5.7	U	5.7	U	6	U	5.6	U	5.8	U	3.2	J	
alpha-BHC	0.95	U	0.95	U	0.99	U	0.93	U	0.97	U	0.95	U	
alpha-Chlordane	2	U	2	U	2	U	1.9	U	2	U	2	U	5.95
Aldrin	0.95	U	0.95	U	0.99	U	0.93	U	0.97	U	0.95	U	
beta-BHC	2.1	U	2.2	U	4.3	J	4.1	J	2	U	2	U	
delta-BHC	0.95	U	0.95	U	0.64	J	0.93	U	0.97	U	0.95	U	
Dieldrin	2	UJ	2	U	2	U	1.9	U	2	U	2	U	
Endosulfan I	2	U	2	U	2	U	1.9	U	2	U	2	U	

APPENDIX G
SURFACE SOIL - SWMU 361
ORGANIC COMPOUNDS
SWMU CONFIRMATORY SAMPLING (CTO-0143)
UST SITE 333-C
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU361-SB02-00		SWMU361-SB03-00		SWMU361-SB04-00		SWMU361-SB05-00		SWMU361-SB06-00		SWMU361-TW01-00	
SAMPLE DATE	03-24-2002		03-24-2002		03-24-2002		03-24-2002		03-24-2002		03-24-2002	
DEPTH	0' - 1'		0' - 1'		0' - 1'		0' - 1'		0' - 1'		0' - 1'	
PESTICIDES (ug/kg) (cont)												
Endosulfan II	3.8	UJ	3.8	UJ	3.9	UJ	3.7	UJ	3.8	UJ	3.8	UJ
Endosulfan sulfate	3.8	U	3.8	U	3.9	U	3.7	U	3.8	U	3.8	U
Endrin	3.8	U	3.8	U	3.9	U	3.7	U	3.8	U	3.8	U
Endrin aldehyde	3.8	U	3.8	U	3.9	U	3.7	U	3.8	U	3.8	U
Endrin keytone	9.5	U	9.5	U	9.9	U	9.3	U	9.7	U	9.5	U
gamma-BHC (Lindane)	0.95	U	0.95	U	0.99	U	0.93	U	0.97	U	0.87	J
gamma-Chlordane	0.95	U	0.95	U	0.99	U	0.93	U	0.97	U	0.95	U
Heptachlor	0.95	U	0.95	U	0.99	U	0.93	U	0.97	U	0.95	U
Heptachlor epoxide	0.95	U	0.95	U	0.99	U	0.93	U	0.97	U	0.95	U
Methoxychlor	9.5	U	9.5	U	9.9	U	9.3	U	9.7	U	9.5	U
Toxaphene	95	U	95	U	99	U	93	U	97	U	95	U

APPENDIX G
SURFACE SOIL - SWMU 361
INORGANIC COMPOUNDS
SWMU CONFIRMATORY SAMPLING (CTO-0143)
UST SITE 333-C
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU361-SB02-00		SWMU361-SB03-00		SWMU361-SB04-00		SWMU361-SB05-00		SWMU361-SB06-00		SWMU361-TW01-00	
SAMPLE DATE	03-24-2002		03-24-2002		03-24-2002		03-24-2002		03-24-2002		03-24-2002	
DEPTH	0' - 1'		0' - 1'		0' - 1'		0' - 1'		0' - 1'		0' - 1'	
METALS (mg/kg)												
Arsenic	0.19	U	0.81	J	0.25	J	0.19	U	1.8		0.64	J
Barium	7		16.6		15.7		12.2		26.6		10.1	
Cadmium	0.03	U	0.03	U	0.03	U	0.03	U	0.03	U	0.03	U
Chromium	6.1		13.8		5.5		4.7		15.9		8	
Lead	3.5		6.3		4.5		11.4		6.4		7.1	
Mercury	0.02	U	0.03	U	0.04		0.03	U	0.05	U	0.03	U
Selenium	0.21	UJ	0.26	J	0.39	J	0.33	J	0.55	J	0.31	J
Silver	0.05	U	0.06	U	0.06	U	0.05	U	0.06	U	0.06	U

APPENDIX G
SUBSURFACE SOIL - SWMU 361
ORGANIC COMPOUNDS
SWMU CONFIRMATORY SAMPLING (CTO-0143)
UST SITE 333-C
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU361-SB02-06		SWMU361-SB03-05		SWMU361-SB04-06		SWMU361-SB05-06		SWMU361-SB06-05		SWMU361-TW01-02	
SAMPLE DATE	03-24-2002		03-24-2002		03-24-2002		03-24-2002		03-24-2002		03-24-2002	
DEPTH	11' - 13'		9' - 11'		11' - 13'		11' - 13'		9' - 11'		3' - 5'	
VOLATILES (ug/kg)												
1,1,1-Trichloroethane	6	U	6	U	6	U	8	U	5	U	6	U
1,1,2,2-Tetrachloroethane	6	U	6	U	6	U	8	U	5	U	6	U
1,1,2-Trichloro-1,2,2-trifluoroethane	6	U	6	U	6	U	8	U	5	U	6	U
1,1,2-Trichloroethane	6	U	6	U	6	U	8	U	5	U	6	U
1,1-Dichloroethane	6	U	6	U	6	U	8	U	5	U	6	U
1,1-Dichloroethene	6	U	6	U	6	U	8	U	5	U	6	U
1,2,4-Trichlorobenzene	6	U	6	U	6	U	8	U	5	U	6	U
1,2-Dibromo-3-chloropropane	6	U	6	U	6	U	8	U	5	U	6	U
1,2-Dibromoethane	6	U	6	U	6	U	8	U	5	U	6	U
1,2-Dichlorobenzene	6	U	6	U	6	U	8	U	5	U	6	U
1,2-Dichloroethane	6	U	6	U	6	U	8	U	5	U	6	U
1,2-Dichloropropane	6	U	6	U	6	U	8	U	5	U	6	U
1,3-Dichlorobenzene	6	U	6	U	6	U	8	U	5	U	6	U
1,4-Dichlorobenzene	6	U	6	U	6	U	8	U	5	U	6	U
2-Butanone	15	U	15	U	16	U	21	UJ	12	UJ	14	UJ
2-Hexanone	15	U	15	U	16	U	21	U	12	U	14	U
4-Methyl-2-pentanone	15	U	15	U	16	U	21	U	12	U	14	U
Acetone	6	J	4	J	3	J	21	UJ	12	UJ	14	UJ
Benzene	6	U	6	U	6	U	8	U	5	U	6	U
Bromodichloromethane	6	U	6	U	6	U	8	U	5	U	6	U
Bromoform	6	U	6	U	6	U	8	U	5	U	6	U
Bromomethane	6	UJ	6	UJ	6	UJ	8	U	5	U	6	U
Carbon disulfide	6	U	6	U	6	U	8	U	5	U	6	U
Carbon tetrachloride	6	U	6	U	6	U	8	U	5	U	6	U
Chlorobenzene	6	U	6	U	6	U	8	U	5	U	6	U
Chloroethane	6	U	6	U	6	U	8	U	5	U	6	U
Chloroform	6	U	6	U	6	U	8	U	5	U	6	U
Chloromethane	6	U	6	U	6	U	8	U	5	U	6	U
cis-1,2-Dichloroethene	6	U	6	U	6	U	8	U	5	U	1	J
cis-1,3-Dichloropropene	6	U	6	U	6	U	8	U	5	U	6	U
Cyclohexane	6	U	6	U	6	U	8	U	5	U	6	U
Dibromochloromethane	6	U	6	U	6	U	8	U	5	U	6	U
Dichlorodifluoromethane	6	U	6	U	6	U	8	U	5	U	6	U
Ethylbenzene	6	U	6	U	6	U	8	U	5	U	6	U
Isopropylbenzene	6	U	6	U	6	U	8	U	5	U	6	U
Methyl acetate	6	U	6	U	6	U	8	U	5	U	6	U
Methyl-t-Butyl Ether	6	U	6	U	6	U	8	U	5	U	6	U
Methylcyclohexane	6	U	6	U	6	U	8	U	5	U	6	U
Methylene chloride	18		16		6	U	19		1	J	8	
Styrene	6	U	6	U	6	U	8	U	5	U	6	U
Tetrachloroethene	6	U	6	U	6	U	8	U	5	U	6	U

APPENDIX G
SUBSURFACE SOIL - SWMU 361
ORGANIC COMPOUNDS
SWMU CONFIRMATORY SAMPLING (CTO-0143)
UST SITE 333-C
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU361-SB02-06		SWMU361-SB03-05		SWMU361-SB04-06		SWMU361-SB05-06		SWMU361-SB06-05		SWMU361-TW01-02	
SAMPLE DATE	03-24-2002		03-24-2002		03-24-2002		03-24-2002		03-24-2002		03-24-2002	
DEPTH	11' - 13'		9' - 11'		11' - 13'		11' - 13'		9' - 11'		3' - 5'	
VOLATILES (ug/kg) (cont)												
Toluene	6	U	6	U	6	U	8	U	5	U	6	U
trans-1,2-Dichloroethene	6	U	6	U	6	U	8	U	5	U	6	U
trans-1,3-Dichloropropene	6	U	6	U	6	U	8	U	5	U	6	U
Trichloroethene	6	U	6	U	6	U	8	U	5	U	10	
Trichlorofluoromethane	6	U	6	U	6	U	8	UJ	5	UJ	6	UJ
Vinyl chloride	6	U	6	U	6	U	8	U	5	U	6	U
Xylenes (total)	18	UJ	18	UJ	19	UJ	25	U	15	U	17	U
SEMIVOLATILES (ug/kg)												
1,1'-Biphenyl	390	U	350	U	420	U	390	U	380	U	400	U
2,2'-Oxybis(1-Chloropropane)	390	U	350	U	420	U	390	U	380	U	400	U
2,4,5-Trichlorophenol	390	U	350	U	420	U	390	U	380	U	400	U
2,4,6-Trichlorophenol	390	U	350	U	420	U	390	U	380	U	400	U
2,4-Dichlorophenol	390	U	350	U	420	U	390	U	380	U	400	U
2,4-Dimethylphenol	390	U	350	U	420	U	390	U	380	U	400	U
2,4-Dinitrophenol	2000	UJ	1800	UJ	2200	UJ	2000	UJ	1900	UJ	2000	UJ
2,4-Dinitrotoluene	390	U	350	U	420	U	390	U	380	U	400	U
2,6-Dinitrotoluene	390	U	350	UJ	420	UJ	390	UJ	380	UJ	400	U
2-Chloronaphthalene	390	U	350	U	420	U	390	U	380	U	400	U
2-Chlorophenol	390	U	350	U	420	U	390	U	380	U	400	U
2-Methylnaphthalene	390	U	350	U	420	U	390	U	380	U	400	U
2-Methylphenol	390	U	350	U	420	U	390	U	380	U	400	U
2-Nitroaniline	790	U	710	U	850	U	780	U	750	U	800	U
2-Nitrophenol	390	U	350	U	420	U	390	U	380	U	400	U
3,3'-Dichlorobenzidine	790	U	710	U	850	U	780	U	750	U	800	U
3-Nitroaniline	790	U	710	U	850	U	780	U	750	U	800	U
4,6-Dinitro-2-methylphenol	790	U	710	U	850	U	780	U	750	U	800	U
4-Bromophenyl phenyl ether	390	U	350	U	420	U	390	U	380	U	400	U
4-Chloro-3-methylphenol	390	U	350	U	420	U	390	U	380	U	400	U
4-Chloroaniline	390	U	350	U	420	U	390	U	380	U	400	U
4-Chlorophenyl phenyl ether	390	U	350	U	420	U	390	U	380	U	400	U
4-Methylphenol	390	U	350	U	420	U	390	U	380	U	400	U
4-Nitroaniline	790	U	710	U	850	U	780	U	750	U	800	U
4-Nitrophenol	790	U	710	U	850	U	780	U	750	U	800	U
Acenaphthene	390	U	350	U	420	U	390	U	380	U	400	U
Acenaphthylene	390	U	350	U	420	U	390	U	380	U	400	U
Acetophenone	390	U	350	U	420	U	390	U	380	U	400	U
Anthracene	390	U	350	U	420	U	390	U	380	U	400	U
Atrazine	390	U	350	U	420	U	390	U	380	U	400	U
Benzaldehyde	390	U	350	U	420	U	390	U	380	U	400	U
Benzo(a)anthracene	390	U	350	U	420	U	390	U	380	U	400	U
Benzo(a)pyrene	390	U	350	U	420	U	390	U	380	U	400	U
Benzo(b)fluoranthene	390	U	350	U	420	U	390	U	380	U	400	U

APPENDIX G
SUBSURFACE SOIL - SWMU 361
ORGANIC COMPOUNDS
SWMU CONFIRMATORY SAMPLING (CTO-0143)
UST SITE 333-C
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU361-SB02-06		SWMU361-SB03-05		SWMU361-SB04-06		SWMU361-SB05-06		SWMU361-SB06-05		SWMU361-TW01-02	
SAMPLE DATE	03-24-2002		03-24-2002		03-24-2002		03-24-2002		03-24-2002		03-24-2002	
DEPTH	11' - 13'		9' - 11'		11' - 13'		11' - 13'		9' - 11'		3' - 5'	
SEMIVOLATILES (ug/kg) (cont)												
Benzo(ghi)perylene	390	U	350	U	420	U	390	U	380	U	400	U
Benzo(k)fluoranthene	390	U	350	U	420	U	390	U	380	U	400	U
bis(2-Chloroethoxy)methane	390	U	350	U	420	U	390	U	380	U	400	U
bis(2-Chloroethyl) ether	390	U	350	U	420	U	390	U	380	U	400	U
bis(2-Ethylhexyl) phthalate	390	U	350	U	420	U	390	U	1800		940	U
Butyl benzyl phthalate	390	U	350	U	420	U	390	U	380	U	400	U
Caprolactam	390	U	350	U	420	U	390	U	380	U	400	U
Carbazole	390	U	350	U	420	U	390	U	380	U	400	U
Chrysene	390	U	350	U	420	U	390	U	380	U	400	U
Di-n-butyl phthalate	390	U	350	U	420	U	390	U	380	U	400	U
Di-n-octyl phthalate	390	U	350	U	420	U	37	J	380	U	400	U
Dibenz(a,h)anthracene	390	U	350	U	420	U	390	U	380	U	400	U
Dibenzofuran	390	U	350	U	420	U	390	U	380	U	400	U
Diethyl phthalate	390	U	350	U	420	U	390	U	380	U	400	U
Dimethyl phthalate	390	U	350	U	420	U	390	U	380	U	400	U
Fluoranthene	390	U	350	U	420	U	390	U	380	U	400	U
Fluorene	390	U	350	U	420	U	390	U	380	U	400	U
Hexachlorobenzene	390	U	350	U	420	U	390	U	380	U	400	U
Hexachlorobutadiene	390	U	350	U	420	U	390	U	380	U	400	U
Hexachlorocyclopentadiene	390	U	350	U	420	U	390	U	380	U	400	U
Hexachloroethane	390	U	350	U	420	U	390	U	380	U	400	U
Indeno(1,2,3-cd)pyrene	390	U	350	U	420	U	390	U	380	U	400	U
Isophorone	390	U	350	U	420	U	390	U	380	U	400	U
N-Nitrosodi-n-propylamine	390	U	350	U	420	U	390	U	380	U	400	U
N-Nitrosodiphenylamine	390	U	350	U	420	U	390	U	380	U	400	U
Naphthalene	390	U	350	U	420	U	390	U	380	U	400	U
Nitrobenzene	390	U	350	U	420	U	390	U	380	U	400	U
Pentachlorophenol	790	U	710	U	850	U	780	U	750	U	800	U
Phenanthrene	390	U	350	U	420	U	390	U	380	U	400	U
Phenol	390	U	350	U	420	U	390	U	380	U	400	U
Pyrene	390	U	350	U	420	U	390	U	380	U	400	U
PESTICIDES (ug/kg)												
4,4'-DDD	3.9	U	3.6	U	4.2	U	3.1	J	20	J	2.2	J
4,4'-DDE	2	U	1.8	U	2.2	U	2	U	39	U	10	J
4,4'-DDT	6	U	0.53	J	6.4	U	5.9	U	110	U	12	J
alpha-BHC	0.99	U	0.9	U	1.1	U	1.1	U	19	U	1	U
alpha-Chlordane	2	U	1.8	U	2.2	U	2	U	140	J	9.9	J
Aldrin	0.99	U	0.9	U	1.1	U	0.98	U	19	U	1.5	J
beta-BHC	3.6	J	1.8	U	3.2	U	2.9	U	39	U	5.6	
delta-BHC	0.99	U	0.27	J	1.1	U	0.98	U	19	U	1	U
Dieldrin	2	UJ	1.8	U	2.2	U	2	U	39	U	2	U
Endosulfan I	2	U	1.8	U	2.2	U	2	U	39	U	2	U

APPENDIX G
SUBSURFACE SOIL - SWMU 361
ORGANIC COMPOUNDS
SWMU CONFIRMATORY SAMPLING (CTO-0143)
UST SITE 333-C
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU361-SB02-06		SWMU361-SB03-05		SWMU361-SB04-06		SWMU361-SB05-06		SWMU361-SB06-05		SWMU361-TW01-02	
SAMPLE DATE	03-24-2002		03-24-2002		03-24-2002		03-24-2002		03-24-2002		03-24-2002	
DEPTH	11' - 13'		9' - 11'		11' - 13'		11' - 13'		9' - 11'		3' - 5'	
PESTICIDES (ug/kg) (cont)												
Endosulfan II	3.9	UJ	3.6	UJ	4.2	UJ	3.9	UJ	75	UJ	4	UJ
Endosulfan sulfate	3.9	U	3.6	U	4.2	U	3.9	U	75	U	2	J
Endrin	3.9	U	3.6	U	4.2	U	3.9	U	75	U	4	U
Endrin aldehyde	3.9	U	3.6	U	4.2	U	3.9	U	75	U	4	U
Endrin keytone	9.9	U	9	U	11	U	9.8	U	190	U	10	U
gamma-BHC (Lindane)	0.99	U	0.9	U	0.77	J	1.4	J	19	U	0.9	J
gamma-Chlordane	0.99	U	0.9	U	1.1	U	0.98	U	37		3.2	J
Heptachlor	0.99	U	0.9	U	1.1	U	0.98	U	19	U	1	U
Heptachlor epoxide	0.99	U	0.9	U	1.1	U	0.98	U	19	U	1.4	
Methoxychlor	9.9	U	9	U	11	U	9.8	U	190	U	10	U
Toxaphene	99	U	90	U	110	U	98	U	1900	U	100	U

APPENDIX G
SUBSURFACE SOIL - SWMU 361
INORGANIC COMPOUNDS
SWMU CONFIRMATORY SAMPLING (CTO-0143)
UST SITE 333-C
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU361-SB02-06		SWMU361-SB03-05		SWMU361-SB04-06		SWMU361-SB05-06		SWMU361-SB06-05		SWMU361-TW01-02	
SAMPLE DATE	03-24-2002		03-24-2002		03-24-2002		03-24-2002		03-24-2002		03-24-2002	
DEPTH	11' - 13'		9' - 11'		11' - 13'		11' - 13'		9' - 11'		3' - 5'	
METALS (mg/kg)												
Arsenic	0.39	J	0.18	U	0.21	U	0.38	J	0.19	U	1	J
Barium	29		12.4		12.3		14.9		14.6		4.9	
Cadmium	0.04	U	0.03	U	0.04	U	0.04	U	0.03	U	0.03	U
Chromium	22.3		8.5		17.5		4.9		3.8		4.5	
Lead	9.2		5.7		9.5		3.8		4.8		2.9	
Mercury	0.04	U	0.02	U	0.02	U	0.04	U	0.02	U	0.05	U
Selenium	0.23	UJ	0.2	UJ	0.41	J	0.22	UJ	0.22	UJ	0.25	J
Silver	0.06	U	0.05	U	0.06	U	0.06	U	0.06	U	0.057	U

APPENDIX G
GROUNDWATER - SWMU 361
ORGANIC COMPOUNDS
SWMU CONFIRMATORY SAMPLING (CTO-0143)
UST SITE 333-C
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU361-GW01		SWMU361-MW02		SWMU361-MW03		SWMU361-MW04		SWMU361-MW05		SWMU361-MW06	
SAMPLE DATE	04-07-2002		04-07-2002		04-07-2002		04-07-2002		04-07-2002		04-07-2002	
VOLATILES (ug/L)												
1,1,1-Trichloroethane	5	U	5	U	5	U	5	U	5	U	5	U
1,1,2,2-Tetrachloroethane	5	U	5	U	5	U	5	U	5	U	5	U
1,1,2-Trichloro-1,2,2-trifluoroethane	5	U	5	U	5	U	5	U	5	U	5	U
1,1,2-Trichloroethane	5	U	5	U	5	U	5	U	5	U	5	U
1,1-Dichloroethane	5	U	5	U	5	U	5	U	5	U	5	U
1,1-Dichloroethene	5	U	5	U	5	U	5	U	5	U	5	U
1,2,4-Trichlorobenzene	5	U	5	U	5	U	5	U	5	U	5	U
1,2-Dibromo-3-chloropropane	5	U	5	U	5	U	5	U	5	U	5	U
1,2-Dibromoethane	5	U	5	U	5	U	5	U	5	U	5	U
1,2-Dichlorobenzene	5	U	5	U	5	U	5	U	5	U	5	U
1,2-Dichloroethane	5	U	5	U	5	U	5	U	5	U	5	U
1,2-Dichloropropane	5	U	5	U	5	U	5	U	5	U	5	U
1,3-Dichlorobenzene	5	U	5	U	5	U	5	U	5	U	5	U
1,4-Dichlorobenzene	5	U	5	U	5	U	5	U	5	U	5	U
2-Butanone	13	U	13	U	13	U	13	U	13	U	13	U
2-Hexanone	13	U	13	U	13	U	13	U	13	U	13	U
4-Methyl-2-pentanone	13	U	13	U	13	U	13	U	13	U	13	U
Acetone	6	J	13	U	13	U	4	J	4	J	13	U
Benzene	5	U	5	U	5	U	5	U	5	U	5	U
Bromodichloromethane	5	U	5	U	5	U	5	U	5	U	5	U
Bromoform	5	U	5	U	5	U	5	U	5	U	5	U
Bromomethane	5	UJ	5	UJ	5	UJ	5	UJ	5	UJ	5	UJ
Carbon disulfide	5	U	5	U	5	U	5	U	5	U	5	U
Carbon tetrachloride	5	U	5	U	5	U	5	U	5	U	5	U
Chlorobenzene	5	U	5	U	5	U	5	U	5	U	5	U
Chloroethane	5	U	5	U	5	U	5	U	5	U	5	U
Chloroform	5	U	5	U	5	U	5	U	5	U	5	U
Chloromethane	5	U	5	U	5	U	5	U	5	U	5	U
cis-1,2-Dichloroethene	5	U	5	U	5	U	5	U	5	U	5	U
cis-1,3-Dichloropropene	5	U	5	U	5	U	5	U	5	U	5	U
Cyclohexane	5	U	5	U	5	U	5	U	5	U	5	U
Dibromochloromethane	5	U	5	U	5	U	5	U	5	U	5	U
Dichlorodifluoromethane	5	U	5	U	5	U	5	U	5	U	5	U
Ethylbenzene	5	U	5	U	5	U	1	J	5	U	5	U
Isopropylbenzene	5	U	5	U	5	U	3	J	5	U	5	U
Methyl acetate	5	U	5	U	5	U	5	U	5	U	5	U
Methyl-t-butyl ether	5	U	5	U	5	U	5	U	5	U	5	U
Methylcyclohexane	5	U	5	U	5	U	1	J	5	U	5	U

APPENDIX G
GROUNDWATER - SWMU 361
ORGANIC COMPOUNDS
SWMU CONFIRMATORY SAMPLING (CTO-0143)
UST SITE 333-C
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU361-GW01		SWMU361-MW02		SWMU361-MW03		SWMU361-MW04		SWMU361-MW05		SWMU361-MW06	
SAMPLE DATE	04-07-2002		04-07-2002		04-07-2002		04-07-2002		04-07-2002		04-07-2002	
VOLATILES (ug/L) (cont)												
Methylene chloride	5	U	5	U	5	U	5	U	5	U	5	U
Styrene	5	U	5	U	5	U	5	U	5	U	5	U
Tetrachloroethene	5	U	5	U	5	U	5	U	5	U	5	U
Toluene	5	U	5	U	5	U	5	U	5	U	5	U
trans-1,2-Dichloroethene	5	U	5	U	5	U	5	U	5	U	5	U
trans-1,3-Dichloropropene	5	U	5	U	5	U	5	U	5	U	5	U
Trichloroethene	5	U	5	U	5	U	5	U	5	U	5	U
Trichlorofluoromethane	5	U	5	U	5	U	5	U	5	U	5	U
Vinyl chloride	5	U	5	U	5	U	5	U	5	U	5	U
Xylene (Total)	5	U	5	U	5	U	52		5	U	5	U
SEMIVOLATILES (ug/L)												
1,1'-Biphenyl	10	U	10	U	1	J	5	J	10	U	11	U
2,2'-oxybis(1-Chloropropane)	10	U	10	U	10	U	10	U	10	U	11	U
2,4,5-Trichlorophenol	10	U	10	U	10	U	10	U	10	U	11	U
2,4,6-Trichlorophenol	10	U	10	U	10	U	10	U	10	U	11	U
2,4-Dichlorophenol	10	U	10	U	10	U	10	U	10	U	11	U
2,4-Dimethylphenol	10	U	10	U	10	U	10	U	10	U	11	U
2,4-Dinitrophenol	50	U	50	U	50	U	50	U	50	U	53	U
2,4-Dinitrotoluene	10	U	10	U	10	U	10	U	10	U	11	U
2,6-Dinitrotoluene	10	U	10	U	10	U	10	U	10	U	11	U
2-Chloronaphthalene	10	U	10	U	10	U	10	U	10	U	11	U
2-Chlorophenol	10	U	10	U	10	U	10	U	10	U	11	U
2-Methylnaphthalene	10	U	10	U	2	J	27		10	U	11	U
2-Methylphenol	10	U	10	U	10	U	10	U	10	U	11	U
2-Nitroaniline	20	U	20	U	20	U	20	U	20	U	21	U
2-Nitrophenol	10	U	10	U	10	U	10	U	10	U	11	U
3,3'-Dichlorobenzidine	20	U	20	U	20	U	20	U	20	U	21	U
3-Nitroaniline	20	U	20	U	20	U	20	U	20	U	21	U
4,6-dinitro-2-Methylphenol	20	U	20	U	20	U	20	U	20	U	21	U
4-Bromophenyl phenyl ether	10	U	10	U	10	U	10	U	10	U	11	U
4-Chloro-3-methylphenol	10	U	10	U	10	U	10	U	10	U	11	U
4-Chloroaniline	10	U	10	U	10	U	10	U	10	U	11	U
4-Chlorophenyl phenyl ether	10	U	10	U	10	U	10	U	10	U	11	U
4-Methylphenol	10	U	10	U	10	U	10	U	10	U	11	U
4-Nitroaniline	20	U	20	U	20	U	20	U	20	U	21	U
4-Nitrophenol	20	U	20	U	20	U	20	U	20	U	21	U
Acenaphthene	10	U	10	U	10	U	10	U	10	U	11	U
Acenaphthylene	10	U	10	U	10	U	10	U	10	U	11	U

APPENDIX G
GROUNDWATER - SWMU 361
ORGANIC COMPOUNDS
SWMU CONFIRMATORY SAMPLING (CTO-0143)
UST SITE 333-C
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU361-GW01		SWMU361-MW02		SWMU361-MW03		SWMU361-MW04		SWMU361-MW05		SWMU361-MW06	
SAMPLE DATE	04-07-2002		04-07-2002		04-07-2002		04-07-2002		04-07-2002		04-07-2002	
SEMIVOLATILES (ug/L) (cont)												
Acetophenone	10	U	10	U	10	U	10	U	10	U	11	U
Anthracene	10	U	10	U	10	U	10	U	10	U	11	U
Atrazine	10	U	10	U	10	U	10	U	10	U	11	U
Benzaldehyde	10	U	10	U	10	U	10	U	10	U	11	U
Benzo(a)anthracene	10	U	10	U	10	U	10	U	10	U	11	U
Benzo(a)pyrene	10	U	10	U	10	U	10	U	10	U	11	U
Benzo(b)fluoranthene	10	U	10	U	10	U	10	U	10	U	11	U
Benzo(g,h,i)perylene	10	U	10	U	10	U	10	U	10	U	11	U
Benzo(k)fluoranthene	10	U	10	U	10	U	10	U	10	U	11	U
bis(2-Chloroethoxy)methane	10	U	10	U	10	U	10	U	10	UJ	11	UJ
bis(2-Chloroethyl)ether	10	U	10	U	10	U	10	U	10	UJ	11	UJ
bis(2-Ethylhexyl)phthalate	1	J	10	U	10	U	10	U	1	J	11	U
Butyl benzyl phthalate	10	U	10	U	10	U	10	U	10	U	11	U
Caprolactam	10	U	10	U	10	U	10	U	10	U	11	U
Carbazole	10	U	10	U	10	U	10	U	10	U	11	U
Chrysene	10	U	10	U	10	U	10	U	10	U	11	U
di-N-Butyl phthalate	10	U	10	U	10	U	10	U	10	U	11	U
di-N-Octyl phthalate	10	U	10	U	10	U	10	U	10	U	11	U
Dibenzo(a,h)anthracene	10	U	10	U	10	U	10	U	10	U	11	U
Dibenzofuran	10	U	10	U	10	U	10	U	10	U	11	U
Diethyl phthalate	10	U	10	U	10	U	10	U	10	U	11	U
Dimethyl phthalate	10	U	10	U	10	U	10	U	10	U	11	U
Fluoranthene	10	U	10	U	10	U	10	U	10	U	11	U
Fluorene	10	U	10	U	10	U	10	U	10	U	11	U
Hexachlorobenzene	10	U	10	U	10	U	10	U	10	U	11	U
Hexachlorobutadiene	10	U	10	U	10	U	10	U	10	U	11	U
Hexachlorocyclopentadiene	10	UJ	10	UJ	10	UJ	10	UJ	10	U	11	U
Hexachloroethane	10	U	10	U	10	U	10	U	10	U	11	U
Indeno(1,2,3-cd)pyrene	10	U	10	U	10	U	10	U	10	U	11	U
Isophorone	10	U	10	U	10	U	10	U	10	U	11	U
N-Nitroso-di-N-propylamine	10	U	10	U	10	U	10	U	10	U	11	U
N-Nitrosodiphenylamine(1)	10	U	10	U	10	U	10	U	10	U	11	U
Naphthalene	10	U	10	U	4	J	16		10	UJ	11	UJ
Nitrobenzene	10	U	10	U	10	U	10	U	10	U	11	U
Pentachlorophenol	20	U	20	U	20	U	20	U	20	U	21	U
Phenanthrene	10	U	10	U	10	U	10	U	10	U	11	U
Phenol	10	U	10	U	10	U	10	U	10	U	11	U
Pyrene	10	U	10	U	10	U	10	U	10	U	11	U

APPENDIX G
GROUNDWATER - SWMU 361
ORGANIC COMPOUNDS
SWMU CONFIRMATORY SAMPLING (CTO-0143)
UST SITE 333-C
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU361-GW01		SWMU361-MW02		SWMU361-MW03		SWMU361-MW04		SWMU361-MW05		SWMU361-MW06	
SAMPLE DATE	04-07-2002		04-07-2002		04-07-2002		04-07-2002		04-07-2002		04-07-2002	
PESTICIDES (ug/L)												
4,4'-DDD	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	5	UJ
4,4'-DDE	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.84	J
4,4'-DDT	0.3	U	0.3	U	0.3	U	0.3	U	0.3	U	7.5	U
Aldrin	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	1.3	U
alpha-BHC	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	1.3	U
alpha-Chlordane	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	5.8	J
beta-BHC	0.1	UJ	0.1	UJ	0.1	UJ	0.1	UJ	0.1	UJ	2.5	U
delta-BHC	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	1.3	U
Dieldrin	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	2.5	U
Endosulfan I	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	2.5	U
Endosulfan II	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	5	U
Endosulfan sulfate	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	5	U
Endrin	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	5	U
Endrin aldehyde	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	5	U
Endrin ketone	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	13	UJ
gamma-BHC (Lindane)	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	1.3	U
gamma-chlordane	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	1.9	J
Heptachlor	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	1.3	U
Heptachlor epoxide	0.05	U	0.023	J	0.05	U	0.05	U	0.05	U	3.3	J
Methoxychlor	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	13	U
Toxaphene	5	U	5	U	5	U	5	U	5	U	130	U

APPENDIX G
GROUNDWATER - SWMU 361
INORGANIC COMPOUNDS
SWMU CONFIRMATORY SAMPLING (CTO-0143)
UST SITE 333-C
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU361-GW01		SWMU361-MW02		SWMU361-MW03		SWMU361-MW04		SWMU361-MW05		SWMU361-MW06	
SAMPLE DATE	04-07-2002		04-07-2002		04-07-2002		04-07-2002		04-07-2002		04-07-2002	
METALS (ug/L)												
Arsenic	2	U	2	U	2	U	2	U	2	U	2	U
Barium	31	U	105		60.3		89.3		69.8		84.8	
Cadmium	0.4	U	0.4	U	0.4	U	0.4	U	0.4	U	0.4	U
Chromium	1.8	J	0.5	UJ	0.5	UJ	0.5	UJ	0.5	UJ	0.5	UJ
Lead	10.4		1.6	U	1.1	U	2.3	U	1.1	U	1.8	U
Mercury	0.1	UJ	0.1	UJ	0.1	UJ	0.1	UJ	0.1	UJ	0.1	UJ
Selenium	2.5	J	2.1	UJ	2.1	UJ	2.1	UJ	2.1	UJ	4.6	J
Silver	0.5	U	0.5	U	0.5	U	0.52	J	0.5	U	0.5	U

APPENDIX G
SURFACE SOIL - SWMU 362
ORGANIC COMPOUNDS
SWMU CONFIRMATORY SAMPLING (CTO-0143)
DOG 11 AREA
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU362-SB01-00		SWMU362-SS01-00		SWMU362-SS02-00		SWMU362-SS03-00	
SAMPLE DATE	03-26-2002		03-26-2002		03-26-2002		03-26-2002	
DEPTH	0' - 1'		0' - 1'		0' - 1'		0' - 1'	
VOLATILES (ug/kg)								
1,1,1-Trichloroethane	9	U	7	U	7	U	7	U
1,1,2,2-Tetrachloroethane	9	U	7	U	7	U	7	U
1,1,2-Trichloro-1,2,2-trifluoroethane	9	U	7	U	7	U	7	U
1,1,2-Trichloroethane	9	U	7	U	7	U	7	U
1,1-Dichloroethane	9	UJ	7	UJ	7	UJ	7	UJ
1,1-Dichloroethene	9	U	7	U	7	U	7	U
1,2,4-Trichlorobenzene	9	U	7	U	7	U	7	U
1,2-Dibromo-3-chloropropane	9	U	7	U	7	U	7	U
1,2-Dibromoethane	9	U	7	U	7	U	7	U
1,2-Dichlorobenzene	9	U	7	U	7	U	7	U
1,2-Dichloroethane	9	U	7	U	7	U	7	U
1,2-Dichloropropane	9	U	7	U	7	U	7	U
1,3-Dichlorobenzene	9	U	7	U	7	U	7	U
1,4-Dichlorobenzene	9	U	7	U	7	U	7	U
2-Butanone	23	UJ	17	UJ	17	UJ	16	UJ
2-Hexanone	23	U	17	U	17	U	16	U
4-Methyl-2-pentanone	23	U	17	U	17	U	16	U
Acetone	17	UJ	44	UJ	68	UJ	99	UJ
Benzene	9	U	7	U	7	U	7	U
Bromodichloromethane	9	U	7	U	7	U	7	U
Bromoform	9	U	7	U	7	U	7	U
Bromomethane	9	UJ	7	UJ	7	UJ	7	UJ
Carbon disulfide	9	UJ	7	UJ	7	UJ	7	UJ
Carbon tetrachloride	9	U	7	U	7	U	7	U
Chlorobenzene	9	U	7	U	7	U	7	U
Chloroethane	9	U	7	U	7	U	7	U
Chloroform	9	U	7	U	7	U	7	U
Chloromethane	9	U	7	U	7	U	7	U
cis-1,2-Dichloroethene	9	U	7	U	7	U	7	U
cis-1,3-Dichloropropene	9	U	7	U	7	U	7	U
Cyclohexane	9	U	7	U	7	U	7	U
Dibromochloromethane	9	U	7	U	7	U	7	U
Dichlorodifluoromethane	9	U	7	U	7	U	7	U
Ethylbenzene	9	U	7	U	7	U	7	U
Isopropylbenzene	9	U	7	U	7	U	6	J
Methyl acetate	9	UJ	7	UJ	7	UJ	7	UJ
Methyl-t-Butyl Ether	9	U	7	U	7	U	7	U
Methylcyclohexane	9	U	7	U	7	U	7	U
Methylene chloride	34		31		36		27	
Styrene	9	U	7	U	7	U	7	U
Tetrachloroethene	9	U	7	U	7	U	7	U

APPENDIX G
SURFACE SOIL - SWMU 362
ORGANIC COMPOUNDS
SWMU CONFIRMATORY SAMPLING (CTO-0143)
DOG 11 AREA
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU362-SB01-00		SWMU362-SS01-00		SWMU362-SS02-00		SWMU362-SS03-00	
SAMPLE DATE	03-26-2002		03-26-2002		03-26-2002		03-26-2002	
DEPTH	0' - 1'		0' - 1'		0' - 1'		0' - 1'	
VOLATILES (ug/kg) (cont)								
Toluene	9	U	7	U	7	U	7	U
trans-1,2-Dichloroethene	9	U	7	U	7	U	7	U
trans-1,3-Dichloropropene	9	U	7	U	7	U	7	U
Trichloroethene	9	U	7	U	7	U	7	U
Trichlorofluoromethane	9	U	7	U	7	U	7	U
Vinyl chloride	9	U	7	U	7	U	7	U
Xylenes (total)	27	U	20	U	20	U	20	U
SEMIVOLATILES (ug/kg)								
1,1'-Biphenyl	380	U	360	U	360	U	400	U
2,2'-Oxybis(1-Chloropropane)	380	U	360	U	360	U	400	U
2,4,5-Trichlorophenol	380	U	360	U	360	U	400	U
2,4,6-Trichlorophenol	380	U	360	U	360	U	400	U
2,4-Dichlorophenol	380	U	360	U	360	U	400	U
2,4-Dimethylphenol	380	U	360	U	360	U	400	U
2,4-Dinitrophenol	1900	U	1900	U	1900	U	2100	U
2,4-Dinitrotoluene	380	U	360	U	360	U	400	U
2,6-Dinitrotoluene	380	U	360	U	360	U	400	U
2-Chloronaphthalene	380	U	360	U	360	U	400	U
2-Chlorophenol	380	U	360	U	360	U	400	U
2-Methylnaphthalene	380	U	360	U	360	U	400	U
2-Methylphenol	380	U	360	U	360	U	400	U
2-Nitroaniline	750	U	730	U	730	U	800	U
2-Nitrophenol	380	U	360	U	360	U	400	U
3,3'-Dichlorobenzidine	750	U	730	U	730	U	800	U
3-Nitroaniline	750	U	730	U	730	U	800	U
4,6-Dinitro-2-methylphenol	750	U	730	U	730	U	800	U
4-Bromophenyl phenyl ether	380	U	360	U	360	U	400	U
4-Chloro-3-methylphenol	380	U	360	U	360	U	400	U
4-Chloroaniline	380	U	360	U	360	U	400	U
4-Chlorophenyl phenyl ether	380	U	360	U	360	U	400	U
4-Methylphenol	380	U	360	U	360	U	400	U
4-Nitroaniline	750	U	730	U	730	U	800	U
4-Nitrophenol	750	U	730	U	730	U	800	U
Acenaphthene	380	U	360	U	360	U	400	U
Acenaphthylene	380	U	360	U	360	U	400	U
Acetophenone	380	U	360	U	360	U	400	U
Anthracene	380	U	360	U	360	U	400	U
Atrazine	380	U	360	U	360	U	400	U
Benzaldehyde	380	U	41	J	360	U	76	J
Benzo(a)anthracene	380	U	360	U	360	U	400	U
Benzo(a)pyrene	380	U	360	U	360	U	400	U
Benzo(b)fluoranthene	380	U	360	U	360	U	400	U

APPENDIX G
SURFACE SOIL - SWMU 362
ORGANIC COMPOUNDS
SWMU CONFIRMATORY SAMPLING (CTO-0143)
DOG 11 AREA
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU362-SB01-00		SWMU362-SS01-00		SWMU362-SS02-00		SWMU362-SS03-00	
SAMPLE DATE	03-26-2002		03-26-2002		03-26-2002		03-26-2002	
DEPTH	0' - 1'		0' - 1'		0' - 1'		0' - 1'	
SEMIVOLATILES (ug/kg) (cont)								
Benzo(ghi)perylene	380	U	360	U	360	U	400	U
Benzo(k)fluoranthene	380	U	360	U	360	U	400	U
bis(2-Chloroethoxy)methane	380	U	360	U	360	U	400	U
bis(2-Chloroethyl) ether	380	U	360	U	360	U	400	U
bis(2-Ethylhexyl) phthalate	190	J	170	J	360	U	400	U
Butyl benzyl phthalate	380	U	360	U	360	U	400	U
Caprolactam	380	U	360	U	360	U	29	J
Carbazole	380	U	360	U	360	U	400	U
Chrysene	380	U	360	U	360	U	400	U
Di-n-butyl phthalate	380	U	360	U	360	U	400	U
Di-n-octyl phthalate	380	U	360	U	360	U	400	U
Dibenz(a,h)anthracene	380	U	360	U	360	U	400	U
Dibenzofuran	380	U	360	U	360	U	400	U
Diethyl phthalate	380	U	360	U	360	U	400	U
Dimethyl phthalate	380	U	360	U	360	U	400	U
Fluoranthene	380	U	360	U	360	U	400	U
Fluorene	380	U	360	U	360	U	400	U
Hexachlorobenzene	380	U	360	U	360	U	400	U
Hexachlorobutadiene	380	U	360	U	360	U	400	U
Hexachlorocyclopentadiene	380	UJ	360	UJ	360	UJ	400	UJ
Hexachloroethane	380	U	360	U	360	U	400	U
Indeno(1,2,3-cd)pyrene	380	U	360	U	360	U	400	U
Isophorone	380	U	360	U	360	U	400	U
N-Nitrosodi-n-propylamine	380	U	360	U	360	U	400	U
N-Nitrosodiphenylamine	380	U	360	U	360	U	400	U
Naphthalene	380	U	360	U	360	U	400	U
Nitrobenzene	380	U	360	U	360	U	400	U
Pentachlorophenol	750	U	730	U	730	U	800	U
Phenanthrene	380	U	360	U	360	U	400	U
Phenol	380	U	360	U	360	U	400	U
Pyrene	380	U	360	U	360	U	400	U
PESTICIDES (ug/kg)								
4,4'-DDD	0.89	J	3.6	UJ	3.6	U	20	U
4,4'-DDE	0.86	J	0.46	J	1.9	U	10	U
4,4'-DDT	4.4	J	1.5	J	3	J	16	J
alpha-BHC	0.94	UJ	0.91	UJ	0.92	U	5.1	UJ
alpha-Chlordane	1.9	U	0.54	J	1.9	U	10	U
Aldrin	0.25	U	0.91	U	0.92	U	5.1	U
beta-BHC	0.75	J	0.93	J	1.7	J	2	J
delta-BHC	0.94	UJ	0.91	UJ	0.92	U	5.1	U
Dieldrin	1.9	U	1.9	U	0.61	J	10	U
Endosulfan I	1.9	U	1.9	U	1.9	U	10	U

APPENDIX G
SURFACE SOIL - SWMU 362
ORGANIC COMPOUNDS
SWMU CONFIRMATORY SAMPLING (CTO-0143)
DOG 11 AREA
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU362-SB01-00		SWMU362-SS01-00		SWMU362-SS02-00		SWMU362-SS03-00	
SAMPLE DATE	03-26-2002		03-26-2002		03-26-2002		03-26-2002	
DEPTH	0' - 1'		0' - 1'		0' - 1'		0' - 1'	
PESTICIDES (ug/kg) (cont)								
Endosulfan II	3.8	UJ	0.72	J	3.6	UJ	18	J
Endosulfan sulfate	3.8	U	0.47	J	3	J	20	U
Endrin	3.8	U	3.6	U	3.6	U	20	UJ
Endrin aldehyde	3.8	U	3.6	U	3.6	U	4.1	J
Endrin keytone	9.4	U	9.1	U	9.2	U	28	J
gamma-BHC (Lindane)	0.94	U	0.91	U	0.92	U	5.1	U
gamma-Chlordane	0.94	U	0.91	U	0.92	U	5.1	U
Heptachlor	0.94	U	0.91	U	0.92	U	2.2	J
Heptachlor epoxide	0.94	U	0.91	U	0.92	U	5.1	U
Methoxychlor	9.4	U	9	J	9.2	UJ	58	J
Toxaphene	94	U	91	U	92	U	510	U

APPENDIX G
SURFACE SOIL - SWMU 362
INORGANIC COMPOUNDS
SWMU CONFIRMATORY SAMPLING (CTO-0143)
DOG 11 AREA
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU362-SB01-00		SWMU362-SS01-00		SWMU362-SS02-00		SWMU362-SS03-00	
SAMPLE DATE	03-26-2002		03-26-2002		03-26-2002		03-26-2002	
DEPTH	0' - 1'		0' - 1'		0' - 1'		0' - 1'	
METALS (mg/kg)								
Arsenic	0.27	U	0.26	U	0.25	U	0.27	U
Barium	9.3		10.4		5.1	U	6.2	U
Cadmium	0.62		1.2		0.03	U	0.03	U
Chromium	6.2		7.7		2.5		4	
Lead	8.6		14.5		4.1		8.8	
Mercury	0.04	J	0.02	UJ	0.02	UJ	0.02	J
Selenium	0.52	U	0.5	U	0.47	U	0.52	U
Silver	0.1	U	0.1	U	0.09	U	0.1	U

APPENDIX G
SUBSURFACE SOIL - SWMU 362
ORGANIC COMPOUNDS
SWMU CONFIRMATORY SAMPLING (CTO-0143)
DOG 11 AREA
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU362-SB01-01	
SAMPLE DATE	03-26-2002	
DEPTH	1' - 3'	
VOLATILES (ug/kg)		
1,1,1-Trichloroethane	650	U
1,1,2,2-Tetrachloroethane	650	U
1,1,2-Trichloro-1,2,2-trifluoroethane	650	U
1,1,2-Trichloroethane	650	U
1,1-Dichloroethane	650	UJ
1,1-Dichloroethene	650	U
1,2,4-Trichlorobenzene	650	U
1,2-Dibromo-3-chloropropane	650	U
1,2-Dibromoethane	650	U
1,2-Dichlorobenzene	650	U
1,2-Dichloroethane	650	U
1,2-Dichloropropane	650	U
1,3-Dichlorobenzene	650	U
1,4-Dichlorobenzene	650	U
2-Butanone	1600	UJ
2-Hexanone	1600	U
4-Methyl-2-pentanone	1600	U
Acetone	1600	UJ
Benzene	650	U
Bromodichloromethane	650	U
Bromoform	650	U
Bromomethane	650	UJ
Carbon disulfide	650	UJ
Carbon tetrachloride	650	U
Chlorobenzene	650	U
Chloroethane	650	U
Chloroform	650	U
Chloromethane	650	UJ
cis-1,2-Dichloroethene	650	U
cis-1,3-Dichloropropene	650	U
Cyclohexane	650	U
Dibromochloromethane	650	U
Dichlorodifluoromethane	650	UJ
Ethylbenzene	650	U
Isopropylbenzene	650	U
Methyl acetate	650	UJ
Methyl-t-Butyl Ether	650	U
Methylcyclohexane	650	U
Methylene chloride	650	U
Styrene	650	U
Tetrachloroethene	650	U

APPENDIX G
SUBSURFACE SOIL - SWMU 362
ORGANIC COMPOUNDS
SWMU CONFIRMATORY SAMPLING (CTO-0143)
DOG 11 AREA
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU362-SB01-01	
SAMPLE DATE	03-26-2002	
DEPTH	1' - 3'	
VOLATILES (ug/kg) (cont)		
Toluene	650	U
trans-1,2-Dichloroethene	650	U
trans-1,3-Dichloropropene	650	U
Trichloroethene	650	U
Trichlorofluoromethane	650	U
Vinyl chloride	650	U
Xylenes (total)	650	U
SEMIVOLATILES (ug/kg)		
1,1'-Biphenyl	1100	U
2,2'-Oxybis(1-Chloropropane)	1100	U
2,4,5-Trichlorophenol	1100	U
2,4,6-Trichlorophenol	1100	U
2,4-Dichlorophenol	1100	U
2,4-Dimethylphenol	1100	U
2,4-Dinitrophenol	5700	U
2,4-Dinitrotoluene	1100	U
2,6-Dinitrotoluene	1100	U
2-Chloronaphthalene	1100	U
2-Chlorophenol	1100	U
2-Methylnaphthalene	1100	U
2-Methylphenol	1100	U
2-Nitroaniline	2200	U
2-Nitrophenol	1100	U
3,3'-Dichlorobenzidine	2200	U
3-Nitroaniline	2200	U
4,6-Dinitro-2-methylphenol	2200	U
4-Bromophenyl phenyl ether	1100	U
4-Chloro-3-methylphenol	1100	U
4-Chloroaniline	1100	U
4-Chlorophenyl phenyl ether	1100	U
4-Methylphenol	1100	U
4-Nitroaniline	2200	U
4-Nitrophenol	2200	U
Acenaphthene	540	J
Acenaphthylene	1100	U
Acetophenone	1100	U
Anthracene	1100	U
Atrazine	1100	U
Benzaldehyde	1100	U
Benzo(a)anthracene	1100	U
Benzo(a)pyrene	1100	U
Benzo(b)fluoranthene	1100	U

APPENDIX G
SUBSURFACE SOIL - SWMU 362
ORGANIC COMPOUNDS
SWMU CONFIRMATORY SAMPLING (CTO-0143)
DOG 11 AREA
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU362-SB01-01	
SAMPLE DATE	03-26-2002	
DEPTH	1' - 3'	
SEMIVOLATILES (ug/kg) (cont)		
Benzo(ghi)perylene	1100	U
Benzo(k)fluoranthene	1100	U
bis(2-Chloroethoxy)methane	1100	U
bis(2-Chloroethyl) ether	1100	U
bis(2-Ethylhexyl) phthalate	310	J
Butyl benzyl phthalate	1100	U
Caprolactam	1100	U
Carbazole	1100	U
Chrysene	1100	U
Di-n-butyl phthalate	1100	U
Di-n-octyl phthalate	1100	U
Dibenz(a,h)anthracene	1100	U
Dibenzofuran	1100	J
Diethyl phthalate	1100	U
Dimethyl phthalate	1100	U
Fluoranthene	1100	U
Fluorene	1400	
Hexachlorobenzene	1100	U
Hexachlorobutadiene	1100	U
Hexachlorocyclopentadiene	1100	UJ
Hexachloroethane	1100	U
Indeno(1,2,3-cd)pyrene	1100	U
Isophorone	1100	U
N-Nitrosodi-n-propylamine	1100	U
N-Nitrosodiphenylamine	1100	U
Naphthalene	1100	U
Nitrobenzene	1100	U
Pentachlorophenol	2200	U
Phenanthrene	1800	
Phenol	1100	U
Pyrene	1100	U
PESTICIDES (ug/kg)		
4,4'-DDD	1.3	J
4,4'-DDE	1.9	U
4,4'-DDT	1.5	J
alpha-BHC	0.93	UJ
alpha-Chlordane	1.9	U
Aldrin	0.37	U
beta-BHC	1.2	J
delta-BHC	0.93	UJ
Dieldrin	1.9	U
Endosulfan I	1.9	U

APPENDIX G
SUBSURFACE SOIL - SWMU 362
ORGANIC COMPOUNDS
SWMU CONFIRMATORY SAMPLING (CTO-0143)
DOG 11 AREA
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU362-SB01-01	
SAMPLE DATE	03-26-2002	
DEPTH	1' - 3'	
PESTICIDES (ug/kg) (cont)		
Endosulfan II	3.7	UJ
Endosulfan sulfate	3.7	U
Endrin	3.7	U
Endrin aldehyde	3.7	U
Endrin keytone	9.3	U
gamma-BHC (Lindane)	1.1	U
gamma-Chlordane	0.93	U
Heptachlor	0.93	U
Heptachlor epoxide	0.93	U
Methoxychlor	9.3	U
Toxaphene	93	U

APPENDIX G
SUBSURFACE SOIL - SWMU 362
INORGANIC COMPOUNDS
SWMU CONFIRMATORY SAMPLING (CTO-0143)
DOG 11 AREA
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU362-SB01-01	
SAMPLE DATE	03-26-2002	
DEPTH	1' - 3'	
METALS (mg/kg)		
Arsenic	0.25	U
Barium	3.8	U
Cadmium	0.11	U
Chromium	3.3	
Lead	8.3	
Mercury	0.02	UJ
Selenium	0.47	U
Silver	0.09	U

APPENDIX G
SURFACE WATER - SWMU 362
ORGANIC COMPOUNDS
SWMU CONFIRMATORY SAMPLING (CTO-0143)
DOG 11 AREA
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU362-SW01		SWMU362-SW02		SWMU362-SW03	
SAMPLE DATE	04-10-2002		04-10-2002		04-10-2002	
VOLATILES (ug/L)						
1,1,1-Trichloroethane	5	U	5	U	5	U
1,1,2,2-Tetrachloroethane	5	U	5	U	5	U
1,1,2-Trichloro-1,2,2-trifluoroethane	5	U	5	U	5	U
1,1,2-Trichloroethane	5	U	5	U	5	U
1,1-Dichloroethane	5	U	5	U	5	U
1,1-Dichloroethene	5	U	5	U	5	U
1,2,4-Trichlorobenzene	5	U	5	U	5	U
1,2-Dibromo-3-chloropropane	5	U	5	U	5	U
1,2-Dibromoethane	5	U	5	U	5	U
1,2-Dichlorobenzene	5	U	5	U	5	U
1,2-Dichloroethane	5	U	5	U	5	U
1,2-Dichloropropane	5	U	5	U	5	U
1,3-Dichlorobenzene	5	U	5	U	5	U
1,4-Dichlorobenzene	5	U	5	U	5	U
2-Butanone	13	U	13	U	13	U
2-Hexanone	13	U	13	U	13	U
4-Methyl-2-pentanone	13	U	13	U	13	U
Acetone	13	U	13	U	13	U
Benzene	5	U	5	U	5	U
Bromodichloromethane	5	U	5	U	5	U
Bromoform	5	U	5	U	5	U
Bromomethane	5	U	5	U	5	U
Carbon disulfide	5	U	5	U	5	U
Carbon tetrachloride	5	U	5	U	5	U
Chlorobenzene	5	U	5	U	5	U
Chloroethane	5	U	5	U	5	U
Chloroform	5	U	5	U	5	U
Chloromethane	5	U	5	U	5	U
cis-1,2-Dichloroethene	5	U	5	U	5	U
cis-1,3-Dichloropropene	5	U	5	U	5	U
Cyclohexane	5	U	5	U	5	U
Dibromochloromethane	5	U	5	U	5	U
Dichlorodifluoromethane	5	U	5	U	5	U
Ethylbenzene	5	U	5	U	5	U
Isopropylbenzene	5	U	5	U	5	U
Methyl acetate	5	U	5	U	5	U
Methyl-t-butyl ether	5	U	5	U	5	U
Methylcyclohexane	5	U	5	U	5	U
Methylene chloride	5	U	5	U	5	U
Styrene	5	U	5	U	5	U

APPENDIX G
SURFACE WATER - SWMU 362
ORGANIC COMPOUNDS
SWMU CONFIRMATORY SAMPLING (CTO-0143)
DOG 11 AREA
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU362-SW01		SWMU362-SW02		SWMU362-SW03	
SAMPLE DATE	04-10-2002		04-10-2002		04-10-2002	
VOLATILES (ug/L) (cont)						
Tetrachloroethene	5	U	5	U	5	U
Toluene	5	U	5	U	5	U
Trans-1,2-Dichloroethene	5	U	5	U	5	U
Trans-1,3-Dichloropropene	5	U	5	U	5	U
Trichloroethene	5	U	5	U	5	U
Trichlorofluoromethane	5	U	5	U	5	U
Vinyl chloride	5	U	5	U	5	U
Xylene (Total)	5	U	5	U	5	U
SEMIVOLATILES (ug/L)						
1,1'-Biphenyl	10	U	10	U	10	U
2,2'-oxybis(1-Chloropropane)	10	U	10	U	10	U
2,4,5-Trichlorophenol	10	U	10	U	10	U
2,4,6-Trichlorophenol	10	U	10	U	10	U
2,4-Dichlorophenol	10	U	10	U	10	U
2,4-Dimethylphenol	10	U	10	U	10	U
2,4-Dinitrophenol	50	U	50	U	50	U
2,4-Dinitrotoluene	10	U	10	U	10	U
2,6-Dinitrotoluene	10	U	10	U	10	U
2-Chloronaphthalene	10	U	10	U	10	U
2-Chlorophenol	10	U	10	U	10	U
2-Methylnaphthalene	10	U	10	U	10	U
2-Methylphenol	10	U	10	U	10	U
2-Nitroaniline	20	U	20	U	20	U
2-Nitrophenol	10	U	10	U	10	U
3,3'-Dichlorobenzidine	20	U	20	U	20	U
3-Nitroaniline	20	U	20	U	20	U
4,6-dinitro-2-Methylphenol	20	U	20	U	20	U
4-Bromophenyl phenyl ether	10	U	10	U	10	U
4-Chloro-3-methylphenol	10	U	10	U	10	U
4-Chloroaniline	10	U	10	U	10	U
4-Chlorophenyl phenyl ether	10	U	10	U	10	U
4-Methylphenol	10	U	10	U	10	U
4-Nitroaniline	20	U	20	U	20	U
4-Nitrophenol	20	U	20	U	20	U
Acenaphthene	10	U	10	U	10	U
Acenaphthylene	10	U	10	U	10	U
Acetophenone	10	U	10	U	10	U
Anthracene	10	U	10	U	10	U
Atrazine	10	U	10	UJ	10	UJ
Benzaldehyde	10	U	10	U	10	U
Benzo(a)anthracene	10	U	10	U	10	U

APPENDIX G
SURFACE WATER - SWMU 362
ORGANIC COMPOUNDS
SWMU CONFIRMATORY SAMPLING (CTO-0143)
DOG 11 AREA
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU362-SW01		SWMU362-SW02		SWMU362-SW03	
SAMPLE DATE	04-10-2002		04-10-2002		04-10-2002	
SEMIVOLATILES (ug/L) (cont)						
Benzo(a)pyrene	10	U	10	U	10	U
Benzo(b)fluoranthene	10	U	10	U	10	U
Benzo(g,h,i)perylene	10	U	10	U	10	U
Benzo(k)fluoranthene	10	U	10	U	10	U
bis(2-Chloroethoxy)methane	10	U	10	UJ	10	UJ
bis(2-Chloroethyl)ether	10	U	10	U	10	U
bis(2-Ethylhexyl)phthalate	10	U	10	U	10	U
Butyl benzyl phthalate	10	U	10	U	10	U
Caprolactam	10	U	10	U	10	U
Carbazole	10	U	10	U	10	U
Chrysene	10	U	10	U	10	U
di-N-Butyl phthalate	10	U	10	U	10	U
di-N-Octyl phthalate	10	U	10	U	10	U
Dibenzo(a,h)anthracene	10	U	10	U	10	U
Dibenzofuran	10	U	10	U	10	U
Diethyl phthalate	10	U	10	U	10	U
Dimethyl phthalate	10	U	10	U	10	U
Fluoranthene	10	U	10	U	10	U
Fluorene	10	U	10	U	10	U
Hexachlorobenzene	10	U	10	U	10	U
Hexachlorobutadiene	10	U	10	U	10	U
Hexachlorocyclopentadiene	10	U	10	U	10	U
Hexachloroethane	10	U	10	U	10	U
Indeno(1,2,3-cd)pyrene	10	U	10	U	10	U
Isophorone	10	U	10	U	10	U
N-Nitroso-di-N-propylamine	10	U	10	U	10	U
N-Nitrosodiphenylamine(1)	10	U	10	U	10	U
Naphthalene	10	U	10	U	10	U
Nitrobenzene	10	U	10	UJ	10	UJ
Pentachlorophenol	20	U	20	U	20	U
Phenanthrene	10	U	10	U	10	U
Phenol	10	U	10	U	10	U
Pyrene	10	U	10	U	10	U
PESTICIDES (ug/L)						
4,4'-DDD	0.2	UJ	0.2	UJ	0.2	UJ
4,4'-DDE	0.1	U	0.1	U	0.1	U
4,4'-DDT	0.3	U	0.3	U	0.3	U
Aldrin	0.05	U	0.05	U	0.05	U
alpha-BHC	0.024	J	0.05	UJ	0.05	UJ
alpha-Chlordane	0.1	U	0.1	U	0.1	U
beta-BHC	0.1	UJ	0.1	UJ	0.1	UJ

APPENDIX G
SURFACE WATER - SWMU 362
ORGANIC COMPOUNDS
SWMU CONFIRMATORY SAMPLING (CTO-0143)
DOG 11 AREA
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU362-SW01		SWMU362-SW02		SWMU362-SW03	
SAMPLE DATE	04-10-2002		04-10-2002		04-10-2002	
PESTICIDES (ug/L) (cont)						
delta-BHC	0.05	UJ	0.05	UJ	0.05	UJ
Dieldrin	0.1	U	0.1	UJ	0.1	UJ
Endosulfan I	0.1	U	0.1	U	0.1	U
Endosulfan II	0.2	U	0.2	U	0.2	U
Endosulfan sulfate	0.2	U	0.2	U	0.2	UJ
Endrin	0.2	U	0.2	U	0.2	U
Endrin aldehyde	0.2	UJ	0.2	UJ	0.2	UJ
Endrin ketone	0.5	U	0.5	U	0.5	U
gamma-BHC (Lindane)	0.05	U	0.05	U	0.05	U
gamma-Chlordane	0.05	U	0.05	U	0.05	U
Heptachlor	0.05	U	0.05	U	0.05	U
Heptachlor epoxide	0.05	U	0.05	U	0.05	U
Methoxychlor	0.5	U	0.5	U	0.5	U
Toxaphene	5	U	5	U	5	U

APPENDIX G
SURFACE WATER - SWMU 362
INORGANIC COMPOUNDS
SWMU CONFIRMATORY SAMPLING (CTO-0143)
DOG 11 AREA
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU362-SW01		SWMU362-SW02		SWMU362-SW03	
SAMPLE DATE	04-10-2002		04-10-2002		04-10-2002	
METALS (ug/L)						
Arsenic	2	U	2	U	2	U
Barium	22.9	U	22.2	U	23.6	U
Cadmium	0.4	U	0.4	U	0.4	U
Chromium	0.5	UJ	0.5	UJ	0.5	UJ
Lead	1.1	U	1.7	U	1.5	U
Mercury	0.1	UJ	0.1	UJ	0.1	UJ
Selenium	2.1	UJ	2.1	UJ	2.1	UJ
Silver	0.5	U	0.5	U	0.5	U

APPENDIX G
SEDIMENT SOIL - SWMU 362
ORGANIC COMPOUNDS
SWMU CONFIRMATORY SAMPLING (CTO-0143)
DOG 11 AREA
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU362-SD01		SWMU362-SD02		SWMU362-SD03	
SAMPLE DATE	04-09-2002		04-09-2002		04-09-2002	
VOLATILES (ug/kg)						
1,1,1-Trichloroethane	6	U	7	U	6	U
1,1,2,2-Tetrachloroethane	6	U	7	U	6	U
1,1,2-Trichloro-1,2,2-trifluoroethane	6	U	7	U	6	U
1,1,2-Trichloroethane	6	U	7	U	6	U
1,1-Dichloroethane	6	U	7	U	6	U
1,1-Dichloroethene	6	U	7	U	6	U
1,2,4-Trichlorobenzene	6	U	7	U	6	U
1,2-Dibromo-3-chloropropane	6	U	7	U	6	U
1,2-Dibromoethane	6	U	7	U	6	U
1,2-Dichlorobenzene	6	U	7	U	6	U
1,2-Dichloroethane	6	U	7	U	6	U
1,2-Dichloropropane	6	U	7	U	6	U
1,3-Dichlorobenzene	6	U	7	U	6	U
1,4-Dichlorobenzene	6	U	7	U	6	U
2-Butanone	15	U	16	U	14	U
2-Hexanone	15	U	16	U	14	U
4-Methyl-2-Pentanone	15	U	16	U	14	U
Acetone	12	U	8	U	6	U
Benzene	2	J	7	U	6	U
Bromodichloromethane	6	U	7	U	6	U
Bromoform	28		27		37	
Bromomethane	6	UJ	7	UJ	6	UJ
Carbon disulfide	2	J	2	J	6	U
Carbon tetrachloride	6	U	7	U	6	U
Chlorobenzene	6	U	7	U	6	U
Chloroethane	6	U	7	U	6	U
Chloroform	6	U	7	U	6	U
Chloromethane	6	U	7	U	6	U
Cis-1,2-Dichloroethene	6	U	7	U	6	U
Cis-1,3-Dichloropropene	6	U	7	U	6	U
Cyclohexane	3	J	2	J	6	U
Dibromochloromethane	6	U	7	U	6	U
Dichlorodifluoromethane	6	U	7	U	6	U
Ethylbenzene	2	J	7	U	6	U
Isopropylbenzene	6	U	7	U	6	U
Methyl acetate	6	UJ	7	UJ	6	UJ
Methyl-t-butyl ether	6	U	7	U	6	U
Methylcyclohexane	6	U	7	U	6	U
Methylene chloride	22		30		38	
Styrene	6	U	7	U	6	U

APPENDIX G
SEDIMENT SOIL - SWMU 362
ORGANIC COMPOUNDS
SWMU CONFIRMATORY SAMPLING (CTO-0143)
DOG 11 AREA
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU362-SD01		SWMU362-SD02		SWMU362-SD03	
SAMPLE DATE	04-09-2002		04-09-2002		04-09-2002	
VOLATILES (ug/kg) (cont)						
Tetrachloroethene	6	U	7	U	6	U
Toluene	3	J	7	U	6	U
trans-1,2-Dichloroethene	6	U	7	U	6	U
trans-1,3-Dichloropropene	6	U	7	U	6	U
Trichloroethene	6	U	7	U	6	U
Trichlorofluoromethane	6	U	7	U	6	U
Vinyl chloride	6	U	7	U	6	U
Xylene (total)	6	UJ	7	UJ	6	UJ
SEMIVOLATILES (ug/kg)						
1,1'-Biphenyl	440	U	410	U	420	U
2,2'-oxybis(1-Chloropropane)	440	U	410	U	420	U
2,4,5-Trichlorophenol	440	U	410	U	420	U
2,4,6-Trichlorophenol	440	U	410	U	420	U
2,4-Dichlorophenol	440	U	410	U	420	U
2,4-Dimethylphenol	440	U	410	U	420	U
2,4-Dinitrophenol	2300	UJ	2100	UJ	2200	UJ
2,4-Dinitrotoluene	440	U	410	U	420	U
2,6-Dinitrotoluene	440	U	410	U	420	U
2-Chloronaphthalene	440	U	410	U	420	U
2-Chlorophenol	440	U	410	U	420	U
2-Methylnaphthalene	440	U	410	U	420	U
2-Methylphenol	440	U	410	U	420	U
2-Nitroaniline	880	U	830	U	850	U
2-Nitrophenol	440	U	410	U	420	U
3,3'-Dichlorobenzidine	880	U	830	U	850	U
3-Nitroaniline	880	U	830	U	850	U
4,6-Dinitro-2-methylphenol	880	U	830	U	850	U
4-Bromophenyl phenyl ether	440	U	410	U	420	U
4-Chloro-3-methylphenol	440	U	410	U	420	U
4-Chloroaniline	440	U	410	U	420	U
4-Chlorophenyl phenyl ether	440	U	410	U	420	U
4-Methylphenol	440	U	410	U	420	U
4-Nitroaniline	880	U	830	U	850	U
4-Nitrophenol	880	U	830	U	850	U
Acenaphthene	440	U	410	U	420	U
Acenaphthylene	440	U	410	U	420	U
Acetophenone	440	U	410	U	420	U
Anthracene	440	U	410	U	420	U
Atrazine	440	U	410	U	420	U
Benzaldehyde	440	U	410	U	420	U
Benzo(a)anthracene	440	U	410	U	420	U
Benzo(a)pyrene	440	U	410	U	420	U

APPENDIX G
SEDIMENT SOIL - SWMU 362
ORGANIC COMPOUNDS
SWMU CONFIRMATORY SAMPLING (CTO-0143)
DOG 11 AREA
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU362-SD01		SWMU362-SD02		SWMU362-SD03	
SAMPLE DATE	04-09-2002		04-09-2002		04-09-2002	
SEMIVOLATILES (ug/kg) (cont)						
Benzo(b)fluoranthene	440	U	410	U	420	U
Benzo(g,h,i)perylene	440	U	410	U	420	U
Benzo(k)fluoranthene	440	U	410	U	420	U
bis(2-Chloroethoxy)methane	440	U	410	U	420	U
bis(2-Chloroethyl)ether	440	U	410	U	420	U
bis(2-Ethylhexyl)phthalate	180	J	410	U	75	J
Butyl benzyl phthalate	92	J	410	U	420	U
Caprolactam	440	U	410	U	420	U
Carbazole	440	U	410	U	420	U
Chrysene	440	U	410	U	420	U
di-N-Butyl phthalate	440	U	410	U	420	U
di-N-Octyl phthalate	440	U	410	U	420	U
Dibenzo(a,h)anthracene	440	U	410	U	420	U
Dibenzofuran	440	U	410	U	420	U
Diethyl phthalate	440	U	410	U	420	U
Dimethyl phthalate	440	U	410	U	420	U
Fluoranthene	440	U	410	U	420	U
Fluorene	440	U	410	U	420	U
Hexachlorobenzene	440	U	410	U	420	U
Hexachlorobutadiene	440	U	410	U	420	U
Hexachlorocyclopentadiene	440	U	410	U	420	U
Hexachloroethane	440	U	410	U	420	U
Indeno(1,2,3-cd)pyrene	440	U	410	U	420	U
Isophorone	440	U	410	U	420	U
N-Nitroso-di-N-propylamine	440	U	410	U	420	U
N-Nitrosodiphenylamine(1)	440	U	410	U	420	U
Naphthalene	440	U	410	U	420	U
Nitrobenzene	440	U	410	U	420	U
Pentachlorophenol	880	U	830	U	850	U
Phenanthrene	440	U	410	U	420	U
Phenol	440	U	410	U	420	U
Pyrene	440	U	410	U	420	U
PESTICIDES (ug/kg)						
4,4'-DDD	35	J	3.9	J	4.2	U
4,4'-DDE	3	J	0.8	J	1.3	J
4,4'-DDT	6.7	U	6.3	U	6.4	U
Aldrin	1.1	U	1	U	1.1	U
alpha-BHC	1.1	U	1	U	1.1	U
alpha-Chlordane	1.5	J	2.1	U	2.2	U
beta-BHC	2.3	U	2.1	U	2.2	U
delta-BHC	1.1	U	1	U	1.1	U
Dieldrin	2.3	U	2.1	U	2.2	U

APPENDIX G
SEDIMENT SOIL - SWMU 362
INORGANIC COMPOUNDS
SWMU CONFIRMATORY SAMPLING (CTO-0143)
DOG 11 AREA
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU362-SD01		SWMU362-SD02		SWMU362-SD03	
SAMPLE DATE	04-09-2002		04-09-2002		04-09-2002	
METALS (mg/kg)						
Arsenic	0.26	U	0.25	U	0.24	U
Barium	3.9	J	5.1	J	3.9	J
Cadmium	0.23	J	0.31	J	0.43	J
Chromium	2.9	J	17.4	J	2.5	J
Lead	6.6	J	6.9	J	4.3	J
Mercury	0.04	U	0.03	U	0.03	U
Selenium	0.27	UJ	0.26	UJ	0.26	UJ
Silver	0.06	U	0.06	U	0.06	U

APPENDIX G
SEDIMENT SOIL - SWMU 362
ORGANIC COMPOUNDS
SWMU CONFIRMATORY SAMPLING (CTO-0143)
DOG 11 AREA
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU362-SD01		SWMU362-SD02		SWMU362-SD03	
SAMPLE DATE	04-09-2002		04-09-2002		04-09-2002	
PESTICIDES (ug/kg) (cont)						
Endosulfan I	2.3	U	2.1	U	2.2	U
Endosulfan II	4.4	U	4.1	U	4.2	U
Endosulfan sulfate	4.4	U	4.1	U	4.2	U
Endrin	4.4	U	4.1	U	4.2	U
Endrin aldehyde	4.4	U	4.1	U	4.2	U
Endrin ketone	11	U	10	U	11	U
gamma-BHC (Lindane)	1.1	U	1	U	1.1	U
gamma-Chlordane	1.1	U	1	U	1.1	U
Heptachlor	1.1	U	1	U	1.1	U
Heptachlor epoxide	1.1	U	1	U	1.1	U
Methoxychlor	11	U	10	U	11	U
Toxaphene	110	U	100	U	110	U

APPENDIX G
SURFACE SOIL - SWMU 363
ORGANIC COMPOUNDS
SWMU CONFIRMATORY SAMPLING (CTO-0143)
M-21 ARRESTING GEAR
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU363-TW01-00		SWMU363-TW02-00	
SAMPLE DATE	03-23-2002		03-23-2002	
DEPTH	0' - 1'		0' - 1'	
VOLATILES (ug/kg)				
1,1,1-Trichloroethane	5	U	5	U
1,1,2,2-Tetrachloroethane	5	U	5	U
1,1,2-Trichloro-1,2,2-trifluoroethane	5	U	5	U
1,1,2-Trichloroethane	5	U	5	U
1,1-Dichloroethane	5	U	5	U
1,1-Dichloroethene	5	U	5	U
1,2,4-Trichlorobenzene	5	U	5	U
1,2-Dibromo-3-chloropropane	5	U	5	U
1,2-Dibromoethane	5	U	5	U
1,2-Dichlorobenzene	5	U	5	U
1,2-Dichloroethane	5	U	5	U
1,2-Dichloropropane	5	U	5	U
1,3-Dichlorobenzene	5	U	5	U
1,4-Dichlorobenzene	5	U	5	U
2-Butanone	7	J	60	
2-Hexanone	12	U	13	U
4-Methyl-2-pentanone	12	U	1	J
Acetone	20		1000	J
Benzene	5	U	5	U
Bromodichloromethane	5	U	5	U
Bromoform	19		27	
Bromomethane	5	UJ	5	UJ
Carbon disulfide	1	J	2	J
Carbon tetrachloride	5	U	5	U
Chlorobenzene	5	U	5	U
Chloroethane	5	U	5	U
Chloroform	5	U	5	U
Chloromethane	5	U	5	U
cis-1,2-Dichloroethene	5	U	5	U
cis-1,3-Dichloropropene	5	U	5	U
Cyclohexane	5	U	5	U
Dibromochloromethane	5	U	5	U
Dichlorodifluoromethane	5	U	5	U
Ethylbenzene	5	U	5	U
Isopropylbenzene	5	U	5	U
Methyl acetate	5	U	12	
Methyl-t-Butyl Ether	5	U	5	U
Methylcyclohexane	5	U	5	U
Methylene chloride	30		25	
Styrene	5	U	5	U
Tetrachloroethene	5	U	5	U
Toluene	5	U	5	U

APPENDIX G
SURFACE SOIL - SWMU 363
ORGANIC COMPOUNDS
SWMU CONFIRMATORY SAMPLING (CTO-0143)
M-21 ARRESTING GEAR
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU363-TW01-00		SWMU363-TW02-00	
SAMPLE DATE	03-23-2002		03-23-2002	
DEPTH	0' - 1'		0' - 1'	
VOLATILES (ug/kg) (cont)				
trans-1,2-Dichloroethene	5	U	5	U
trans-1,3-Dichloropropene	5	U	5	U
Trichloroethene	5	U	5	U
Trichlorofluoromethane	5	U	5	U
Vinyl chloride	5	U	5	U
Xylenes (total)	14	UJ	16	UJ
SEMIVOLATILES (ug/kg)				
1,1'-Biphenyl	380	U	390	U
2,2'-Oxybis(1-Chloropropane)	380	U	390	U
2,4,5-Trichlorophenol	380	U	390	U
2,4,6-Trichlorophenol	380	U	390	U
2,4-Dichlorophenol	380	U	390	U
2,4-Dimethylphenol	380	U	390	U
2,4-Dinitrophenol	2000	UJ	2000	UJ
2,4-Dinitrotoluene	380	U	390	U
2,6-Dinitrotoluene	380	UJ	390	UJ
2-Chloronaphthalene	380	U	390	U
2-Chlorophenol	380	U	390	U
2-Methylnaphthalene	380	U	390	U
2-Methylphenol	380	U	390	U
2-Nitroaniline	770	U	780	U
2-Nitrophenol	380	U	390	U
3,3'-Dichlorobenzidine	770	U	780	U
3-Nitroaniline	770	U	780	U
4,6-Dinitro-2-methylphenol	770	U	780	U
4-Bromophenyl phenyl ether	380	U	390	U
4-Chloro-3-methylphenol	380	U	390	U
4-Chloroaniline	380	U	390	U
4-Chlorophenyl phenyl ether	380	U	390	U
4-Methylphenol	380	U	390	U
4-Nitroaniline	770	U	780	U
4-Nitrophenol	770	U	780	U
Acenaphthene	380	U	390	U
Acenaphthylene	380	U	390	U
Acetophenone	380	U	390	U
Anthracene	380	U	390	U
Atrazine	380	U	390	U
Benzaldehyde	380	U	390	U
Benzo(a)anthracene	380	U	390	U
Benzo(a)pyrene	380	U	390	U
Benzo(b)fluoranthene	380	U	390	U
Benzo(ghi)perylene	380	U	390	U

APPENDIX G
SURFACE SOIL - SWMU 363
ORGANIC COMPOUNDS
SWMU CONFIRMATORY SAMPLING (CTO-0143)
M-21 ARRESTING GEAR
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU363-TW01-00		SWMU363-TW02-00	
SAMPLE DATE	03-23-2002		03-23-2002	
DEPTH	0' - 1'		0' - 1'	
SEMIVOLATILES (ug/kg) (cont)				
Benzo(k)fluoranthene	380	U	390	U
bis(2-Chloroethoxy)methane	380	U	390	U
bis(2-Chloroethyl) ether	380	U	390	U
bis(2-Ethylhexyl) phthalate	380	U	390	U
Butyl benzyl phthalate	380	U	390	U
Caprolactam	380	U	390	U
Carbazole	380	U	390	U
Chrysene	380	U	390	U
Di-n-butyl phthalate	380	U	390	U
Di-n-octyl phthalate	380	U	390	U
Dibenz(a,h)anthracene	380	U	390	U
Dibenzofuran	380	U	390	U
Diethyl phthalate	380	U	390	U
Dimethyl phthalate	380	U	390	U
Fluoranthene	380	U	390	U
Fluorene	380	U	390	U
Hexachlorobenzene	380	U	390	U
Hexachlorobutadiene	380	U	390	U
Hexachlorocyclopentadiene	380	U	390	U
Hexachloroethane	380	U	390	U
Indeno(1,2,3-cd)pyrene	380	U	390	U
Isophorone	380	U	390	U
N-Nitrosodi-n-propylamine	380	U	390	U
N-Nitrosodiphenylamine	380	U	390	U
Naphthalene	380	U	390	U
Nitrobenzene	380	U	390	U
Pentachlorophenol	770	U	780	U
Phenanthrene	380	U	390	U
Phenol	380	U	390	U
Pyrene	380	U	390	U
PESTICIDES (ug/kg)				
4,4'-DDD	3.8	U	3.9	U
4,4'-DDE	2	U	2	U
4,4'-DDT	5.8	U	5.9	U
alpha-BHC	1.2	U	0.98	U
alpha-Chlordane	2	U	2	U
Aldrin	0.97	U	0.98	U
beta-BHC	2	U	0.98	U
delta-BHC	0.97	U	0.98	U
Dieldrin	2	UJ	2	U
Endosulfan I	2	U	2	U
Endosulfan II	3.8	UJ	3.9	U

APPENDIX G
SURFACE SOIL - SWMU 363
ORGANIC COMPOUNDS
SWMU CONFIRMATORY SAMPLING (CTO-0143)
M-21 ARRESTING GEAR
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU363-TW01-00		SWMU363-TW02-00	
SAMPLE DATE	03-23-2002		03-23-2002	
DEPTH	0' - 1'		0' - 1'	
PESTICIDES (ug/kg) (cont)				
Endosulfan sulfate	3.8	U	3.9	U
Endrin	3.8	U	3.9	U
Endrin aldehyde	3.8	U	3.9	U
Endrin keytone	9.7	U	9.8	U
gamma-BHC (Lindane)	0.97	U	0.98	U
gamma-Chlordane	0.97	U	0.98	U
Heptachlor	0.97	U	0.98	U
Heptachlor epoxide	0.97	U	0.98	U
Methoxychlor	9.7	U	9.8	U
Toxaphene	97	U	98	U

APPENDIX G
SURFACE SOIL - SWMU 363
INORGANIC COMPOUNDS
SWMU CONFIRMATORY SAMPLING (CTO-0143)
M-21 ARRESTING GEAR
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU363-TW01-00		SWMU363-TW02-00	
SAMPLE DATE	03-23-2002		03-23-2002	
DEPTH	0' - 1'		0' - 1'	
METALS (mg/kg)				
Arsenic	0.19	U	0.53	J
Barium	9.9		23.5	
Cadmium	0.03	U	0.03	U
Chromium	4.1		6.6	
Lead	3.5		7.1	
Mercury	0.06	U	0.04	U
Selenium	0.21	UJ	0.29	J
Silver	0.06	U	0.06	U

APPENDIX G
SUBSURFACE SOIL - SWMU 363
ORGANIC COMPOUNDS
SWMU CONFIRMATORY SAMPLING (CTO-0143)
M-21 ARRESTING GEAR
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU363-TW01-05		SWMU363-TW02-05	
SAMPLE DATE	03-23-2002		03-23-2002	
DEPTH	9' - 11'		9' - 11'	
VOLATILES (ug/kg)				
1,1,1-Trichloroethane	5	U	6	U
1,1,2,2-Tetrachloroethane	5	U	6	U
1,1,2-Trichloro-1,2,2-trifluoroethane	5	U	6	U
1,1,2-Trichloroethane	5	U	6	U
1,1-Dichloroethane	5	U	6	U
1,1-Dichloroethene	5	U	6	U
1,2,4-Trichlorobenzene	5	U	6	U
1,2-Dibromo-3-chloropropane	5	U	6	U
1,2-Dibromoethane	5	U	6	U
1,2-Dichlorobenzene	5	U	6	U
1,2-Dichloroethane	5	U	6	U
1,2-Dichloropropane	5	U	6	U
1,3-Dichlorobenzene	5	U	6	U
1,4-Dichlorobenzene	5	U	6	U
2-Butanone	14	U	5	J
2-Hexanone	14	U	14	U
4-Methyl-2-pentanone	14	U	14	U
Acetone	320		2	J
Benzene	5	U	6	U
Bromodichloromethane	5	U	6	U
Bromoform	22		22	
Bromomethane	5	UJ	6	UJ
Carbon disulfide	5	U	4	J
Carbon tetrachloride	5	U	6	U
Chlorobenzene	5	U	6	U
Chloroethane	5	U	6	U
Chloroform	5	U	6	U
Chloromethane	5	U	6	U
cis-1,2-Dichloroethene	5	U	6	U
cis-1,3-Dichloropropene	5	U	6	U
Cyclohexane	5	U	6	U
Dibromochloromethane	5	U	6	U
Dichlorodifluoromethane	5	U	6	U
Ethylbenzene	5	U	6	U
Isopropylbenzene	5	U	6	U
Methyl acetate	15		6	U
Methyl-t-Butyl Ether	5	U	6	U
Methylcyclohexane	5	U	6	U
Methylene chloride	27		27	
Styrene	5	U	6	U
Tetrachloroethene	5	U	6	U

APPENDIX G
SUBSURFACE SOIL - SWMU 363
ORGANIC COMPOUNDS
SWMU CONFIRMATORY SAMPLING (CTO-0143)
M-21 ARRESTING GEAR
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU363-TW01-05		SWMU363-TW02-05	
SAMPLE DATE	03-23-2002		03-23-2002	
DEPTH	9' - 11'		9' - 11'	
VOLATILES (ug/kg) (cont)				
Toluene	5	U	6	U
trans-1,2-Dichloroethene	5	U	6	U
trans-1,3-Dichloropropene	5	U	6	U
Trichloroethene	5	U	6	U
Trichlorofluoromethane	5	U	6	U
Vinyl chloride	5	U	6	U
Xylenes (total)	16	UJ	17	UJ
SEMIVOLATILES (ug/kg)				
1,1'-Biphenyl	400	U	420	U
2,2'-Oxybis(1-Chloropropane)	400	U	420	U
2,4,5-Trichlorophenol	400	U	420	U
2,4,6-Trichlorophenol	400	U	420	U
2,4-Dichlorophenol	400	U	420	U
2,4-Dimethylphenol	400	U	420	U
2,4-Dinitrophenol	2000	UJ	2200	UJ
2,4-Dinitrotoluene	400	U	420	U
2,6-Dinitrotoluene	400	UJ	420	UJ
2-Chloronaphthalene	400	U	420	U
2-Chlorophenol	400	U	420	U
2-Methylnaphthalene	400	U	420	U
2-Methylphenol	400	U	420	U
2-Nitroaniline	800	U	840	U
2-Nitrophenol	400	U	420	U
3,3'-Dichlorobenzidine	800	U	840	U
3-Nitroaniline	800	U	840	U
4,6-Dinitro-2-methylphenol	800	U	840	U
4-Bromophenyl phenyl ether	400	U	420	U
4-Chloro-3-methylphenol	400	U	420	U
4-Chloroaniline	400	U	420	U
4-Chlorophenyl phenyl ether	400	U	420	U
4-Methylphenol	400	U	420	U
4-Nitroaniline	800	U	840	U
4-Nitrophenol	800	U	840	U
Acenaphthene	400	U	420	U
Acenaphthylene	400	U	420	U
Acetophenone	400	U	420	U
Anthracene	400	U	420	U
Atrazine	400	U	420	U
Benzaldehyde	400	U	420	U
Benzo(a)anthracene	400	U	420	U
Benzo(a)pyrene	400	U	420	U
Benzo(b)fluoranthene	400	U	420	U

APPENDIX G
SUBSURFACE SOIL - SWMU 363
ORGANIC COMPOUNDS
SWMU CONFIRMATORY SAMPLING (CTO-0143)
M-21 ARRESTING GEAR
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU363-TW01-05		SWMU363-TW02-05	
SAMPLE DATE	03-23-2002		03-23-2002	
DEPTH	9' - 11'		9' - 11'	
SEMIVOLATILES (ug/kg) (cont)				
Benzo(ghi)perylene	400	U	420	U
Benzo(k)fluoranthene	400	U	420	U
bis(2-Chloroethoxy)methane	400	U	420	U
bis(2-Chloroethyl) ether	400	U	420	U
bis(2-Ethylhexyl) phthalate	400	U	420	U
Butyl benzyl phthalate	400	U	420	U
Caprolactam	400	U	420	U
Carbazole	400	U	420	U
Chrysene	400	U	420	U
Di-n-butyl phthalate	400	U	420	U
Di-n-octyl phthalate	400	U	420	U
Dibenz(a,h)anthracene	400	U	420	U
Dibenzofuran	400	U	420	U
Diethyl phthalate	400	U	420	U
Dimethyl phthalate	400	U	420	U
Fluoranthene	400	U	420	U
Fluorene	400	U	420	U
Hexachlorobenzene	400	U	420	U
Hexachlorobutadiene	400	U	420	U
Hexachlorocyclopentadiene	400	U	420	U
Hexachloroethane	400	U	420	U
Indeno(1,2,3-cd)pyrene	400	U	420	U
Isophorone	400	U	420	U
N-Nitrosodi-n-propylamine	400	U	420	U
N-Nitrosodiphenylamine	400	U	420	U
Naphthalene	400	U	420	U
Nitrobenzene	400	U	420	U
Pentachlorophenol	800	U	840	U
Phenanthrene	400	U	420	U
Phenol	400	U	420	U
Pyrene	400	U	420	U
PESTICIDES (ug/kg)				
4,4'-DDD	8	U	4.2	U
4,4'-DDE	4.1	U	2.2	U
4,4'-DDT	12	U	6.3	U
alpha-BHC	5.2	J	1.1	U
alpha-Chlordane	4.1	U	2.2	U
Aldrin	11		1.1	U
beta-BHC	4.1	U	2.2	U
delta-BHC	2	U	1.1	U
Dieldrin	4.1	UJ	2.2	UJ
Endosulfan I	4.1	U	2.2	U

APPENDIX G
SUBSURFACE SOIL - SWMU 363
ORGANIC COMPOUNDS
SWMU CONFIRMATORY SAMPLING (CTO-0143)
M-21 ARRESTING GEAR
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU363-TW01-05		SWMU363-TW02-05	
SAMPLE DATE	03-23-2002		03-23-2002	
DEPTH	9' - 11'		9' - 11'	
PESTICIDES (ug/kg) (cont)				
Endosulfan II	8	UJ	4.2	UJ
Endosulfan sulfate	8	U	4.2	U
Endrin	8	U	4.2	U
Endrin aldehyde	8	U	4.2	U
Endrin keytone	20	U	11	U
gamma-BHC (Lindane)	2	U	1.1	U
gamma-Chlordane	2	U	1.1	U
Heptachlor	2	U	1.1	U
Heptachlor epoxide	2	U	1.1	U
Methoxychlor	20	U	11	U
Toxaphene	200	U	110	U

APPENDIX G
SUBSURFACE SOIL - SWMU 363
INORGANIC COMPOUNDS
SWMU CONFIRMATORY SAMPLING (CTO-0143)
M-21 ARRESTING GEAR
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU363-TW01-05		SWMU363-TW02-05	
SAMPLE DATE	03-23-2002		03-23-2002	
DEPTH	9' - 11'		9' - 11'	
METALS (mg/kg)				
Arsenic	0.2	U	1	J
Barium	20.4		6.3	U
Cadmium	0.04	U	0.04	U
Chromium	12.1		7.1	
Lead	5.1		4.6	
Mercury	0.02	U	0.02	U
Selenium	0.22	UJ	0.23	UJ
Silver	0.06	U	0.06	U

APPENDIX G
GROUNDWATER - SWMU 363
ORGANIC COMPOUNDS
SWMU CONFIRMATORY SAMPLING (CTO-0143)
M-21 ARRESTING GEAR
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU363-GW01		SWMU363-GW02	
SAMPLE DATE	04-03-2002		04-03-2002	
VOLATILES (ug/L)				
1,1,1-Trichloroethane	5	U	5	U
1,1,2,2-Tetrachloroethane	5	U	5	U
1,1,2-Trichloro-1,2,2-trifluoroethane	5	U	5	U
1,1,2-Trichloroethane	5	U	5	U
1,1-Dichloroethane	5	U	5	U
1,1-Dichloroethene	5	U	5	U
1,2,4-Trichlorobenzene	5	U	5	U
1,2-Dibromo-3-chloropropane	5	U	5	U
1,2-Dibromoethane	5	U	5	U
1,2-Dichlorobenzene	5	U	5	U
1,2-Dichloroethane	5	U	5	U
1,2-Dichloropropane	5	U	5	U
1,3-Dichlorobenzene	5	U	5	U
1,4-Dichlorobenzene	5	U	5	U
2-Butanone	100		13	U
2-Hexanone	13	U	13	U
4-Methyl-2-pentanone	13	U	13	U
Acetone	17	U	6	U
Benzene	5	U	5	U
Bromodichloromethane	5	U	5	U
Bromoform	5	U	5	U
Bromomethane	5	UJ	5	UJ
Carbon disulfide	5	U	5	U
Carbon tetrachloride	5	U	5	U
Chlorobenzene	5	U	5	U
Chloroethane	5	U	5	U
Chloroform	5	U	5	U
Chloromethane	5	U	5	U
cis-1,2-Dichloroethene	5	U	5	U
cis-1,3-Dichloropropene	5	U	5	U
Cyclohexane	5	U	5	U
Dibromochloromethane	5	U	5	U
Dichlorodifluoromethane	5	U	5	U
Ethylbenzene	5	U	5	U
Isopropylbenzene	5	U	5	U
Methyl acetate	5	U	5	U
Methyl-t-butyl ether	5	U	5	U
Methylcyclohexane	5	U	5	U

APPENDIX G
GROUNDWATER - SWMU 363
ORGANIC COMPOUNDS
SWMU CONFIRMATORY SAMPLING (CTO-0143)
M-21 ARRESTING GEAR
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU363-GW01		SWMU363-GW02	
SAMPLE DATE	04-03-2002		04-03-2002	
VOLATILES (ug/L) (cont)				
Methylene chloride	5	U	5	U
Styrene	5	U	5	U
Tetrachloroethene	5	U	5	U
Toluene	5	U	5	U
trans-1,2-Dichloroethene	5	U	5	U
trans-1,3-Dichloropropene	5	U	5	U
Trichloroethene	5	U	5	U
Trichlorofluoromethane	5	U	5	U
Vinyl chloride	5	U	5	U
Xylene (Total)	5	U	5	U
SEMIVOLATILES (ug/L)				
1,1'-Biphenyl	10	U	10	U
2,2'-oxybis(1-Chloropropane)	10	U	10	U
2,4,5-Trichlorophenol	10	U	10	U
2,4,6-Trichlorophenol	10	U	10	U
2,4-Dichlorophenol	10	U	10	U
2,4-Dimethylphenol	10	U	10	U
2,4-Dinitrophenol	50	UJ	50	UJ
2,4-Dinitrotoluene	10	U	10	U
2,6-Dinitrotoluene	10	U	10	U
2-Chloronaphthalene	10	U	10	U
2-Chlorophenol	10	U	10	U
2-Methylnaphthalene	10	U	10	U
2-Methylphenol	10	U	10	U
2-Nitroaniline	20	U	20	U
2-Nitrophenol	10	U	10	U
3,3'-Dichlorobenzidine	20	U	20	U
3-Nitroaniline	20	U	20	U
4,6-dinitro-2-Methylphenol	20	U	20	U
4-Bromophenyl phenyl ether	10	U	10	U
4-Chloro-3-methylphenol	10	U	10	U
4-Chloroaniline	10	U	10	U
4-Chlorophenyl phenyl ether	10	U	10	U
4-Methylphenol	3	J	10	U
4-Nitroaniline	20	U	20	U
4-Nitrophenol	20	U	20	U
Acenaphthene	10	U	10	U
Acenaphthylene	10	U	10	U

APPENDIX G
GROUNDWATER - SWMU 363
ORGANIC COMPOUNDS
SWMU CONFIRMATORY SAMPLING (CTO-0143)
M-21 ARRESTING GEAR
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU363-GW01		SWMU363-GW02	
SAMPLE DATE	04-03-2002		04-03-2002	
SEMIVOLATILES (ug/L) (cont)				
Acetophenone	10	U	10	U
Anthracene	10	U	10	U
Atrazine	10	U	10	U
Benzaldehyde	10	U	10	U
Benzo(a)anthracene	10	U	10	U
Benzo(a)pyrene	10	U	10	U
Benzo(b)fluoranthene	10	U	10	U
Benzo(g,h,i)perylene	10	U	10	U
Benzo(k)fluoranthene	10	U	10	U
bis(2-Chloroethoxy)methane	10	U	10	U
bis(2-Chloroethyl)ether	10	U	10	U
bis(2-Ethylhexyl)phthalate	10	U	10	U
Butyl benzyl phthalate	10	U	10	U
Caprolactam	10	U	10	U
Carbazole	10	U	10	U
Chrysene	10	U	10	U
di-N-Butyl phthalate	10	U	10	U
di-N-Octyl phthalate	10	U	10	U
Dibenzo(a,h)anthracene	10	U	10	U
Dibenzofuran	10	U	10	U
Diethyl phthalate	10	U	10	U
Dimethyl phthalate	10	U	10	U
Fluoranthene	10	U	10	U
Fluorene	10	U	10	U
Hexachlorobenzene	10	U	10	U
Hexachlorobutadiene	10	U	10	U
Hexachlorocyclopentadiene	10	U	10	U
Hexachloroethane	10	U	10	U
Indeno(1,2,3-cd)pyrene	10	U	10	U
Isophorone	10	U	10	U
N-Nitroso-di-N-propylamine	10	U	10	U
N-Nitrosodiphenylamine(1)	10	U	10	U
Naphthalene	10	U	10	U
Nitrobenzene	10	U	10	U
Pentachlorophenol	20	U	20	U
Phenanthrene	10	U	10	U
Phenol	10	U	10	U
Pyrene	10	U	10	U

APPENDIX G
GROUNDWATER - SWMU 363
ORGANIC COMPOUNDS
SWMU CONFIRMATORY SAMPLING (CTO-0143)
M-21 ARRESTING GEAR
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU363-GW01		SWMU363-GW02	
SAMPLE DATE	04-03-2002		04-03-2002	
PESTICIDES (ug/L)				
4,4'-DDD	0.052	J	5	U
4,4'-DDE	0.1	U	2.5	U
4,4'-DDT	0.029	J	7.5	UJ
Aldrin	0.05	U	1.3	U
alpha-BHC	0.05	U	1.3	U
alpha-Chlordane	0.1	U	2.5	U
beta-BHC	0.1	U	2.5	U
delta-BHC	0.05	U	1.3	U
Dieldrin	0.1	U	2.5	U
Endosulfan I	0.1	U	2.5	U
Endosulfan II	0.2	UJ	5	UJ
Endosulfan sulfate	0.2	U	5	UJ
Endrin	0.2	U	5	UJ
Endrin aldehyde	0.025	J	5	UJ
Endrin ketone	0.5	UJ	13	UJ
gamma-BHC (Lindane)	0.0097	J	1.3	U
gamma-chlordane	0.05	U	1.3	U
Heptachlor	0.05	J	1.3	U
Heptachlor epoxide	0.05	U	3.6	J
Methoxychlor	0.5	UJ	13	UJ
Toxaphene	5	U	130	U

APPENDIX G
GROUNDWATER - SWMU 363
INORGANIC COMPOUNDS
SWMU CONFIRMATORY SAMPLING (CTO-0143)
M-21 ARRESTING GEAR
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU363-GW01		SWMU363-GW02	
SAMPLE DATE	04-03-2002		04-03-2002	
METALS (ug/L)				
Arsenic	2.4	U	2.4	U
Barium	108	J	46.8	J
Cadmium	0.3	U	0.3	U
Chromium	9	J	3.5	J
Lead	2.5	J	2.3	J
Mercury	0.1	U	0.1	U
Selenium	4.6	U	4.6	U
Silver	0.9	U	0.9	U

Additional Phase II Sampling Analytical Data Sheets

APPENDIX G
GROUNDWATER ANALYTICAL RESULTS
SWMU 269
RCRA INVESTIGATION - CTO-0143
MCB, CAMP LEJEUNE, NORTH CAROLINA

Site Sample I.D.	SWMU269-TW04	SWMU269-TW05	SWMU269-TW06	SWMU269-TW07	SWMU269-TW08
Lab Sample I.D.	R3085-01	R3085-02	R3085-03	R3085-05	R3085-10
Sample Date	06-25-2003	06-25-2003	06-25-2003	06-25-2003	06-26-2003
Volatiles (ug/L)					
1,1,1-Trichloroethane	10 U	4.1 J	3.9 J	10 U	10 U
1,1,2,2-Tetrachloroethane	10 U	10 U	10 U	10 U	10 U
1,1,2-Trichloroethane	10 U	10 U	10 U	10 U	10 U
1,1,2-Trichlorotrifluoroethane	10 U	10 U	10 U	10 U	10 U
1,1-Dichloroethane	2.9 J	81	90	10 U	10 U
1,1-Dichloroethene	10 U	3.7 J	6.3 J	10 U	10 U
1,2,4-Trichlorobenzene	10 U	10 U	10 U	10 U	10 U
1,2-Dibromo-3-Chloropropane	10 R	10 R	10 R	10 R	10 R
1,2-Dibromoethane	10 U	10 U	10 U	10 U	10 U
1,2-Dichlorobenzene	10 U	10 U	10 U	10 U	10 U
1,2-Dichloroethane	10 U	10 U	10 U	10 U	10 U
1,2-Dichloropropane	10 U	10 U	10 U	10 U	10 U
1,3-Dichlorobenzene	10 U	10 U	10 U	10 U	10 U
1,4-Dichlorobenzene	10 U	10 U	10 U	10 U	10 U
2-Butanone	10 U	10 U	10 U	10 U	10 U
2-Hexanone	10 U	10 U	10 U	10 U	10 U
4-Methyl-2-Pentanone	10 U	10 U	10 U	10 U	10 U
Acetone	10 U	10 U	10 U	10 U	10 U
Benzene	10 U	8.5 J	50	10 U	10 U
Bromodichloromethane	10 U	10 U	10 U	10 U	10 U
Bromoform	10 U	10 U	10 U	10 U	10 U
Bromomethane	10 U	10 U	10 U	10 U	10 U
Carbon Disulfide	10 U	10 U	10 U	10 U	10 U
Carbon Tetrachloride	10 U	10 U	10 U	10 U	10 U
Chlorobenzene	10 U	10 U	10 U	10 U	10 U
Chloroethane	10 U	10 U	10 U	10 U	10 U
Chloroform	10 U	10 U	10 U	10 U	10 U
Chloromethane	10 U	10 U	10 U	10 U	10 U
cis-1,2-Dichloroethene	4.4 J	35	180	10 U	10 U
cis-1,3-Dichloropropene	10 U	10 U	10 U	10 U	10 U
Cyclohexane	10 U	10 U	1.6 J	10 U	10 U
Dibromochloromethane	10 U	10 U	10 U	10 U	10 U
Dichlorodifluoromethane	10 U	10 U	10 U	10 U	10 U
Ethyl Benzene	10 U	6.3 J	4.7 J	10 U	10 U
Isopropylbenzene	10 U	3.5 J	6 J	10 U	10 U
m/p-Xylenes	20 U	5.6 J	11 J	20 U	20 U

APPENDIX G
GROUNDWATER ANALYTICAL RESULTS
SWMU 269
RCRA INVESTIGATION - CTO-0143
MCB, CAMP LEJEUNE, NORTH CAROLINA

Site Sample I.D.	SWMU269-TW04	SWMU269-TW05	SWMU269-TW06	SWMU269-TW07	SWMU269-TW08
Lab Sample I.D.	R3085-01	R3085-02	R3085-03	R3085-05	R3085-10
Sample Date	06-25-2003	06-25-2003	06-25-2003	06-25-2003	06-26-2003
Methyl Acetate	10 U	10 U	10 U	10 U	10 U
Methyl tert-butyl Ether	10 U	10 U	10 U	10 U	10 U
Methylcyclohexane	10 U	10 U	2 J	10 U	10 U
Methylene Chloride	10 U	10 U	10 U	10 U	10 U
o-Xylene	10 U	2.2 J	13	10 U	10 U
Styrene	10 U	10 U	10 U	10 U	10 U
t-1,3-Dichloropropene	10 U	10 U	10 U	10 U	10 U
Tetrachloroethene	10 U	10 U	10 U	10 U	10 U
Toluene	10 U	10 U	10 U	10 U	10 U
trans-1,2-Dichloroethene	10 U	10 U	1.3 J	10 U	10 U
Trichloroethene	10 U	3.2 J	14	10 U	10 U
Trichlorofluoromethane	10 U	10 U	10 U	10 U	10 U
Vinyl Chloride	10 U	1.8 J	3.6 J	10 U	10 U
Semivolatiles (ug/L)					
1,1-Biphenyl	10 U	2.2 J	4 J	10 U	10 U
2,2-oxybis(1-Chloropropane)	10 U	10 U	10 U	10 U	10 U
2,4,5-Trichlorophenol	10 U	10 U	10 U	10 U	10 U
2,4,6-Trichlorophenol	10 U	10 U	10 U	10 U	10 U
2,4-Dichlorophenol	10 U	10 U	10 U	10 U	10 U
2,4-Dimethylphenol	10 U	10 U	10 U	10 U	10 U
2,4-Dinitrophenol	20 U	20 U	20 U	20 U	20 U
2,4-Dinitrotoluene	10 U	10 U	10 U	10 U	10 U
2,6-Dinitrotoluene	10 U	10 U	10 U	10 U	10 U
2-Chloronaphthalene	10 U	10 U	10 U	10 U	10 U
2-Chlorophenol	10 U	10 U	10 U	10 U	10 U
2-Methylnaphthalene	3.7 J	13	35	10 U	10 U
2-Methylphenol	10 U	10 U	10 U	10 U	10 U
2-Nitroaniline	10 U	10 U	10 U	10 U	10 U
2-Nitrophenol	10 U	10 U	10 U	10 U	10 U
3,3-Dichlorobenzidine	20 U	20 U	20 U	20 U	20 U
3+4-Methylphenols	10 U	10 U	10 U	10 U	10 U
3-Nitroaniline	10 U	10 U	10 U	10 U	10 U
4,6-Dinitro-2-methylphenol	20 U	20 U	20 U	20 U	20 U
4-Bromophenyl-phenylether	10 U	10 U	10 U	10 U	10 U
4-Chloro-3-methylphenol	10 U	10 U	10 U	10 U	10 U
4-Chloroaniline	10 U	10 U	10 U	10 U	10 U
4-Chlorophenyl-phenylether	10 U	10 U	10 U	10 U	10 U

APPENDIX G
GROUNDWATER ANALYTICAL RESULTS
SWMU 269
RCRA INVESTIGATION - CTO-0143
MCB, CAMP LEJEUNE, NORTH CAROLINA

Site Sample I.D.	SWMU269-TW04	SWMU269-TW05	SWMU269-TW06	SWMU269-TW07	SWMU269-TW08
Lab Sample I.D.	R3085-01	R3085-02	R3085-03	R3085-05	R3085-10
Sample Date	06-25-2003	06-25-2003	06-25-2003	06-25-2003	06-26-2003
4-Nitroaniline	10 U	10 U	10 U	10 U	10 U
4-Nitrophenol	20 U	20 U	20 U	20 U	20 U
Acenaphthene	10 U	10 U	10 U	10 U	10 U
Acenaphthylene	10 U	10 U	10 U	10 U	10 U
Acetophenone	10 U	10 U	10 U	10 U	10 U
Anthracene	10 U	10 U	10 U	10 U	10 U
Atrazine	10 U	10 U	10 U	10 U	10 U
Benzaldehyde	10 UJ	10 UJ	10 UJ	10 UJ	10 U
Benzo(a)anthracene	10 U	10 U	10 U	10 U	10 U
Benzo(a)pyrene	10 U	10 U	10 U	10 U	10 U
Benzo(b)fluoranthene	10 U	10 U	10 U	10 U	10 U
Benzo(g,h,i)perylene	10 U	10 U	10 U	10 U	10 U
Benzo(k)fluoranthene	10 U	10 U	10 U	10 U	10 U
bis(2-Chloroethoxy)methane	10 U	10 U	10 U	10 U	10 U
bis(2-Chloroethyl)ether	10 U	10 U	10 U	10 U	10 U
bis(2-Ethylhexyl)phthalate	10 U	10 U	10 U	10 U	10 U
Butylbenzylphthalate	10 U	10 U	10 U	10 U	10 U
Caprolactam	10 U	10 U	10 U	10 U	10 U
Carbazole	10 U	1.4 J	10 U	10 U	10 U
Chrysene	10 U	10 U	10 U	10 U	10 U
Dibenz(a,h)anthracene	10 U	10 U	10 U	10 U	10 U
Dibenzofuran	10 U	10 U	10 U	10 U	10 U
Diethylphthalate	10 U	10 U	10 U	10 U	10 U
Dimethylphthalate	10 U	10 U	10 U	10 U	10 U
Di-n-butylphthalate	10 U	10 U	10 U	10 U	10 U
Di-n-octyl phthalate	10 U	10 U	10 U	10 U	10 U
Fluoranthene	10 U	10 U	10 U	10 U	10 U
Fluorene	10 U	10 U	10 U	10 U	10 U
Hexachlorobenzene	10 U	10 U	10 U	10 U	10 U
Hexachlorobutadiene	10 U	10 U	10 U	10 U	10 U
Hexachlorocyclopentadiene	10 U	10 U	10 U	10 U	10 U
Hexachloroethane	10 U	10 U	10 U	10 U	10 U
Indeno(1,2,3-cd)pyrene	10 U	10 U	10 U	10 U	10 U
Isophorone	10 U	10 U	10 U	10 U	10 U
Naphthalene	1.9 J	64	26	10 U	10 U
Nitrobenzene	10 U	10 U	10 U	10 U	10 U
N-Nitroso-di-n-propylamine	10 U	10 U	10 U	10 U	10 U

APPENDIX G
GROUNDWATER ANALYTICAL RESULTS
SWMU 269
RCRA INVESTIGATION - CTO-0143
MCB, CAMP LEJEUNE, NORTH CAROLINA

Site Sample I.D.	SWMU269-TW04	SWMU269-TW05	SWMU269-TW06	SWMU269-TW07	SWMU269-TW08
Lab Sample I.D.	R3085-01	R3085-02	R3085-03	R3085-05	R3085-10
Sample Date	06-25-2003	06-25-2003	06-25-2003	06-25-2003	06-26-2003
N-Nitrosodiphenylamine	10 U	10 U	10 U	10 U	10 U
Pentachlorophenol	20 U	20 U	20 U	20 U	20 U
Phenanthrene	10 U	10 U	1.1 J	10 U	10 U
Phenol	10 U	10 U	10 U	10 U	10 U
Pyrene	10 U	10 U	10 U	10 U	10 U
Metals (ug/L)					
Arsenic	3.2 J	2.8 U	2.8 U	2.8 U	2.8 U
Barium	95.5 J	58.5 J	34.4 J	77.2 J	38.8 J
Cadmium	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U
Chromium	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U
Lead	2.1 U	2.1 U	2.1 U	2.1 U	2.1 U
Mercury	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Selenium	5.3 J	4 J	3.6 J	3 UJ	3 UJ
Silver	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ

APPENDIX G
SUBSURFACE SOILS ANALYTICAL RESULTS
SWMU 269
RCRA INVESTIGATION - CTO-0143
MCB, CAMP LEJEUNE, NORTH CAROLINA

Site Sample I.D.	SWMU269-SB09-06	SWMU269-SB10-02	SWMU269-SB10-06	SWMU269-SB10-08	SWMU269-SB11-02	SWMU269-SB11-08
Lab Sample I.D.	R3030-16	R3030-17	R3030-18	R3030-19	R3030-20	R3030-21
Sample Date	06-23-2003	06-23-2003	06-23-2003	06-23-2003	06-23-2003	06-23-2003
Depth Range	11-13	3-5	11-13	15-17	3-5	15-17
Volatiles (ug/kg)						
1,1,1-Trichloroethane	11 U	11 U	11 U		11 U	
1,1,2,2-Tetrachloroethane	11 U	11 U	11 U		11 U	
1,1,2-Trichloroethane	11 U	11 U	11 U		11 U	
1,1,2-Trichlorotrifluoroethane	11 U	11 U	11 U		11 U	
1,1-Dichloroethane	11 U	11 U	11 U		11 U	
1,1-Dichloroethene	11 U	11 U	11 U		11 U	
1,2,4-Trichlorobenzene	11 U	11 U	11 U		11 U	
1,2-Dibromo-3-Chloropropane	11 U	11 U	11 U		11 U	
1,2-Dibromoethane	11 U	11 U	11 U		11 U	
1,2-Dichlorobenzene	11 U	11 U	11 U		11 U	
1,2-Dichloroethane	11 U	11 U	11 U		11 U	
1,2-Dichloropropane	11 U	11 U	11 U		11 U	
1,3-Dichlorobenzene	11 U	11 U	11 U		11 U	
1,4-Dichlorobenzene	11 U	11 U	11 U		11 U	
2-Butanone	11 U	11 U	11 U		11 U	
2-Hexanone	11 U	11 U	11 U		11 U	
4-Methyl-2-Pentanone	11 U	11 U	11 U		11 U	
Acetone	11 U	9.9 J	27		40	
Benzene	11 U	11 U	11 U		11 U	
Bromodichloromethane	11 U	11 U	11 U		11 U	
Bromoform	11 U	11 U	11 U		11 U	
Bromomethane	11 U	11 U	11 U		11 U	
Carbon Disulfide	11 U	11 U	11 U		11 U	
Carbon Tetrachloride	11 U	11 U	11 U		11 U	
Chlorobenzene	11 U	11 U	11 U		11 U	
Chloroethane	11 U	11 U	11 U		11 U	
Chloroform	11 U	11 U	11 U		11 U	
Chloromethane	11 U	11 U	11 U		11 U	
cis-1,2-Dichloroethene	11 U	11 U	11 U		11 U	
cis-1,3-Dichloropropene	11 U	11 U	11 U		11 U	
Cyclohexane	11 U	11 U	11 U		11 U	
Dibromochloromethane	11 U	11 U	11 U		11 U	
Dichlorodifluoromethane	11 U	11 U	11 U		11 U	
Ethyl Benzene	11 U	11 U	11 U		11 U	
Isopropylbenzene	11 U	11 U	11 U		11 U	
m/p-Xylenes	11 U	11 U	11 U		11 U	

APPENDIX G
SUBSURFACE SOILS ANALYTICAL RESULTS
SWMU 269
RCRA INVESTIGATION - CTO-0143
MCB, CAMP LEJEUNE, NORTH CAROLINA

Site Sample I.D.	SWMU269-SB09-06	SWMU269-SB10-02	SWMU269-SB10-06	SWMU269-SB10-08	SWMU269-SB11-02	SWMU269-SB11-08
Lab Sample I.D.	R3030-16	R3030-17	R3030-18	R3030-19	R3030-20	R3030-21
Sample Date	06-23-2003	06-23-2003	06-23-2003	06-23-2003	06-23-2003	06-23-2003
Depth Range	11-13	3-5	11-13	15-17	3-5	15-17
Methyl Acetate	11 U	11 U	11 U		11 U	
Methyl tert-butyl Ether	11 U	11 U	11 U		11 U	
Methylcyclohexane	11 U	11 U	11 U		11 U	
Methylene Chloride	11 U	11 U	11 U		11 U	
o-Xylene	11 U	11 U	11 U		11 U	
Styrene	11 U	11 U	11 U		11 U	
Tetrachloroethene	11 U	11 U	11 U		11 U	
Toluene	11 U	11 U	7.5 J		11 U	
trans-1,2-Dichloroethene	11 U	11 U	11 U		11 U	
trans-1,3-Dichloropropene	11 U	11 U	11 U		11 U	
Trichloroethene	11 U	11 U	11 U		11 U	
Trichlorofluoromethane	11 U	11 U	11 U		11 U	
Vinyl Chloride	11 U	11 U	11 U		11 U	
Xylenes (Total)						
Semivolatiles (ug/kg)						
1,1-Biphenyl	360 U	360 U	350 U	370 U	350 U	400 U
2,2-oxybis(1-Chloropropane)	360 U	360 U	350 U	370 U	350 U	400 U
2,4,5-Trichlorophenol	900 U	890 U	870 U	940 U	880 U	1000 U
2,4,6-Trichlorophenol	360 U	360 U	350 U	370 U	350 U	400 U
2,4-Dichlorophenol	360 U	360 U	350 U	370 U	350 U	400 U
2,4-Dimethylphenol	360 U	360 U	350 U	370 U	350 U	400 U
2,4-Dinitrophenol	900 U	890 U	870 U	940 U	880 U	1000 U
2,4-Dinitrotoluene	360 U	360 U	350 U	370 U	350 U	400 U
2,6-Dinitrotoluene	360 U	360 U	350 U	370 U	350 U	400 U
2-Chloronaphthalene	360 U	360 U	350 U	370 U	350 U	400 U
2-Chlorophenol	360 U	360 U	350 U	370 U	350 U	400 U
2-Methylnaphthalene	360 U	360 U	350 U	370 U	350 U	400 U
2-Methylphenol	360 U	360 U	350 U	370 U	350 U	400 U
2-Nitroaniline	900 U	890 U	870 U	940 U	880 U	1000 U
2-Nitrophenol	360 U	360 U	350 U	370 U	350 U	400 U
3,3-Dichlorobenzidine	360 U	360 U	350 U	370 U	350 U	400 U
3+4-Methylphenols	360 U	360 U	350 U	370 U	350 U	400 U
3-Nitroaniline	900 U	890 U	870 U	940 U	880 U	1000 U
4,6-Dinitro-2-methylphenol	900 U	890 U	870 U	940 U	880 U	1000 U
4-Bromophenyl-phenylether	360 U	360 U	350 U	370 U	350 U	400 U
4-Chloro-3-methylphenol	360 U	360 U	350 U	370 U	350 U	400 U
4-Chloroaniline	360 U	360 U	350 U	370 U	350 U	400 U

APPENDIX G
SUBSURFACE SOILS ANALYTICAL RESULTS
SWMU 269
RCRA INVESTIGATION - CTO-0143
MCB, CAMP LEJEUNE, NORTH CAROLINA

Site Sample I.D.	SWMU269-SB09-06	SWMU269-SB10-02	SWMU269-SB10-06	SWMU269-SB10-08	SWMU269-SB11-02	SWMU269-SB11-08
Lab Sample I.D.	R3030-16	R3030-17	R3030-18	R3030-19	R3030-20	R3030-21
Sample Date	06-23-2003	06-23-2003	06-23-2003	06-23-2003	06-23-2003	06-23-2003
Depth Range	11-13	3-5	11-13	15-17	3-5	15-17
4-Chlorophenyl-phenylether	360 U	360 U	350 U	370 U	350 U	400 U
4-Methylphenol						
4-Nitroaniline	900 U	890 U	870 U	940 U	880 U	1000 U
4-Nitrophenol	900 U	890 U	870 U	940 U	880 U	1000 U
Acenaphthene	360 U	360 U	350 U	370 U	350 U	400 U
Acenaphthylene	360 U	360 U	350 U	370 U	350 U	400 U
Acetophenone	360 U	360 U	350 U	370 U	350 U	400 U
Anthracene	360 U	360 U	350 U	370 U	350 U	400 U
Atrazine	360 U	360 U	350 U	370 U	350 U	400 U
Benzaldehyde	360 U	360 U	350 U	370 U	350 U	400 U
Benzo(a)anthracene	360 U	360 U	350 U	370 U	350 U	400 U
Benzo(a)pyrene	360 U	360 U	350 U	370 U	350 U	400 U
Benzo(b)fluoranthene	360 U	360 U	350 U	370 U	350 U	400 U
Benzo(g,h,i)perylene	360 U	360 U	350 U	370 U	350 U	400 U
Benzo(k)fluoranthene	360 U	360 U	350 U	370 U	350 U	400 U
bis(2-Chloroethoxy)methane	360 U	360 U	350 U	370 U	350 U	400 U
bis(2-Chloroethyl)ether	360 U	360 U	350 U	370 U	350 U	400 U
bis(2-Ethylhexyl)phthalate	360 U	920	95 J	9800000 DL	2300	430
Butylbenzylphthalate	360 U	360 U	350 U	630	350 U	400 U
Caprolactam	360 U	360 U	350 U	370 U	350 U	400 U
Carbazole	360 U	360 U	350 U	370 U	350 U	400 U
Chrysene	360 U	360 U	350 U	370 U	350 U	400 U
Dibenz(a,h)anthracene	360 U	360 U	350 U	370 U	350 U	400 U
Dibenzofuran	360 U	360 U	350 U	370 U	350 U	400 U
Diethyl phthalate	360 U	360 U	350 U	110 J	350 U	400 U
Dimethyl phthalate	360 U	360 U	350 U	370 U	350 U	400 U
Di-n-butyl phthalate	360 U	360 U	350 U	940	350 U	46 J
Di-n-octyl phthalate	360 U	360 U	350 U	130 J	350 U	400 U
Fluoranthene	360 U	360 U	350 U	370 U	350 U	400 U
Fluorene	360 U	360 U	350 U	370 U	350 U	400 U
Hexachlorobenzene	360 U	360 U	350 U	370 U	350 U	400 U
Hexachlorobutadiene	360 U	360 U	350 U	370 U	350 U	400 U
Hexachlorocyclopentadiene	360 U	360 U	350 U	370 U	350 U	400 U
Hexachloroethane	360 U	360 U	350 U	370 U	350 U	400 U
Indeno(1,2,3-cd)pyrene	360 U	360 U	350 U	370 U	350 U	400 U
Isophorone	360 U	360 U	350 U	370 U	350 U	400 U
Naphthalene	360 U	360 U	350 U	370 U	350 U	400 U

APPENDIX G
SUBSURFACE SOILS ANALYTICAL RESULTS
SWMU 269
RCRA INVESTIGATION - CTO-0143
MCB, CAMP LEJEUNE, NORTH CAROLINA

Site Sample I.D.	SWMU269-SB09-06	SWMU269-SB10-02	SWMU269-SB10-06	SWMU269-SB10-08	SWMU269-SB11-02	SWMU269-SB11-08
Lab Sample I.D.	R3030-16	R3030-17	R3030-18	R3030-19	R3030-20	R3030-21
Sample Date	06-23-2003	06-23-2003	06-23-2003	06-23-2003	06-23-2003	06-23-2003
Depth Range	11-13	3-5	11-13	15-17	3-5	15-17
Nitrobenzene	360 U	360 U	350 U	370 U	350 U	400 U
N-Nitroso-di-n-propylamine	360 U	360 U	350 U	370 U	350 U	400 U
N-Nitrosodiphenylamine	360 U	360 U	350 U	370 U	350 U	400 U
Pentachlorophenol	900 U	890 U	870 U	940 U	880 U	1000 U
Phenanthrene	360 U	360 U	350 U	370 U	350 U	400 U
Phenol	360 U	360 U	350 U	370 U	350 U	400 U
Pyrene	360 U	360 U	350 U	370 U	350 U	400 U
Metals (mg/kg)						
Arsenic	0.6 U	0.61 U	0.59 U	1.5 J	0.81 J	2.6
Barium	9.8 J	9 J	13.2 J	14 J	20.7 J	17.1 J
Cadmium	0.09 U	0.09 U	0.08 U	0.09 U	0.09 U	0.1 U
Chromium	0.13 U	0.13 U	0.13 U	0.14 U	0.13 U	0.15 U
Lead	1.3	3.1	2	1.8	3.2	2.7
Mercury	0.11 U	0.1 U	0.11 U	0.11 U	0.11 U	0.12 U
Selenium	0.64 U	0.65 U	0.63 U	0.68 U	0.78 J	0.74 U
Silver	0.26 J	0.22 UJ	0.21 UJ	0.23 UJ	0.21 UJ	0.25 UJ
Petroleum Hydrocarbons						
DRO	1800			1900 U	1800 U	

APPENDIX G
SUBSURFACE SOILS ANALYTICAL RESULTS
SWMU 269
RCRA INVESTIGATION - CTO-0143
MCB, CAMP LEJEUNE, NORTH CAROLINA

Site Sample I.D.	SWMU269-SB12-02	SWMU269-TW04-07	SWMU269-TW05-08	SWMU269-TW06-08	SWMU269-TW07-08	SWMU269-TW08-07
Lab Sample I.D.	R3030-22	R2936-02	R2936-04	R2936-06	R2936-10	R2936-12
Sample Date	06-23-2003	06-17-2003	06-17-2003	06-18-2003	06-18-2003	06-18-2003
Depth Range	3-5	13-15	15-17	15-17	15-17	13-15
Volatiles (ug/kg)						
1,1,1-Trichloroethane	11 U	11 U	12 U	11 J	12 U	12 U
1,1,2,2-Tetrachloroethane	11 U	11 U	12 U	12 U	12 U	12 U
1,1,2-Trichloroethane	11 U	11 U	12 U	12 U	12 U	12 U
1,1,2-Trichlorotrifluoroethane	11 U	11 U	12 U	12 U	12 U	12 U
1,1-Dichloroethane	11 U	11 U	12 U	4.8 J	12 U	12 U
1,1-Dichloroethene	11 U	11 U	12 U	12 U	12 U	12 U
1,2,4-Trichlorobenzene	11 U	11 U	12 U	12 U	12 U	12 U
1,2-Dibromo-3-Chloropropane	11 U	11 U	12 U	12 U	12 U	12 U
1,2-Dibromoethane	11 U	11 U	12 U	12 U	12 U	12 U
1,2-Dichlorobenzene	11 U	11 U	12 U	12 U	12 U	12 U
1,2-Dichloroethane	11 U	11 U	12 U	12 U	12 U	12 U
1,2-Dichloropropane	11 U	11 U	12 U	12 U	12 U	12 U
1,3-Dichlorobenzene	11 U	11 U	12 U	12 U	12 U	12 U
1,4-Dichlorobenzene	11 U	11 U	12 U	12 U	12 U	12 U
2-Butanone	7.9 J	7.2 J	12 U	12 U	12 U	12 U
2-Hexanone	11 U	11 U	12 U	12 U	12 U	12 U
4-Methyl-2-Pentanone	11 U	11 U	12 U	12 U	12 U	12 U
Acetone	47	89	30	40	12 U	12 U
Benzene	11 U	11 U	12 U	3.4 J	12 U	12 U
Bromodichloromethane	11 U	11 U	12 U	12 U	12 U	12 U
Bromoform	11 U	11 U	12 U	12 U	12 U	12 U
Bromomethane	11 U	11 U	12 U	12 U	12 U	12 U
Carbon Disulfide	11 U	11 U	12 U	4 J	12 U	12 U
Carbon Tetrachloride	11 U	11 U	12 U	12 U	12 U	12 U
Chlorobenzene	11 U	11 U	12 U	12 U	12 U	12 U
Chloroethane	11 U	11 U	12 U	12 U	12 U	12 U
Chloroform	11 U	11 U	12 U	12 U	12 U	12 U
Chloromethane	11 U	11 U	12 U	12 U	12 U	12 U
cis-1,2-Dichloroethene	11 U	11 U	12 U	3 J	12 U	12 U
cis-1,3-Dichloropropene	11 U	11 U	12 U	12 U	12 U	12 U
Cyclohexane	11 U	11 U	12 U	12 U	12 U	12 U
Dibromochloromethane	11 U	11 U	12 U	12 U	12 U	12 U
Dichlorodifluoromethane	11 U	11 U	12 U	12 U	12 U	12 U
Ethyl Benzene	2.5 J	11 U	12 U	12 J	12 U	12 U
Isopropylbenzene	1.5 J	11 U	12 U	4 J	12 U	12 U
m/p-Xylenes	17	11 U	12 U	43	12 U	12 U

APPENDIX G
SUBSURFACE SOILS ANALYTICAL RESULTS
SWMU 269
RCRA INVESTIGATION - CTO-0143
MCB, CAMP LEJEUNE, NORTH CAROLINA

Site Sample I.D.	SWMU269-SB12-02	SWMU269-TW04-07	SWMU269-TW05-08	SWMU269-TW06-08	SWMU269-TW07-08	SWMU269-TW08-07
Lab Sample I.D.	R3030-22	R2936-02	R2936-04	R2936-06	R2936-10	R2936-12
Sample Date	06-23-2003	06-17-2003	06-17-2003	06-18-2003	06-18-2003	06-18-2003
Depth Range	3-5	13-15	15-17	15-17	15-17	13-15
Methyl Acetate	11 U	11 U	12 U	12 U	12 U	12 U
Methyl tert-butyl Ether	11 U	11 U	12 U	12 U	12 U	12 U
Methylcyclohexane	11 U	11 U	12 U	12	12 U	12 U
Methylene Chloride	11 U	11 U	12 U	12 U	12 U	12 U
o-Xylene	9.8 J	11 U	12 U	26	12 U	12 U
Styrene	11 U	11 U	12 U	12 U	12 U	12 U
Tetrachloroethene	11 U	11 U	12 U	12 U	12 U	12 U
Toluene	11 U	11 U	12 U	58	12 U	12 U
trans-1,2-Dichloroethene	11 U	11 U	12 U	12 U	12 U	12 U
trans-1,3-Dichloropropene	11 U	11 U	12 U	12 U	12 U	12 U
Trichloroethene	11 U	11 U	12 U	1.2 J	12 U	12 U
Trichlorofluoromethane	11 U	11 U	12 U	12 U	12 U	12 U
Vinyl Chloride	11 U	11 U	12 U	12 U	12 U	12 U
Xylenes (Total)						
Semivolatiles (ug/kg)						
1,1-Biphenyl	350 U	260 J	790 U	790 U	780 U	790 U
2,2-oxybis(1-Chloropropane)	350 U	750 U	790 U	790 U	780 U	790 U
2,4,5-Trichlorophenol	870 U	1900 U	2000 U	2000 U	2000 U	2000 U
2,4,6-Trichlorophenol	350 U	750 U	790 U	790 U	780 U	790 U
2,4-Dichlorophenol	350 U	750 U	790 U	790 U	780 U	790 U
2,4-Dimethylphenol	350 U	750 U	790 U	790 U	780 U	790 U
2,4-Dinitrophenol	870 U	1900 U	2000 U	2000 U	2000 U	2000 U
2,4-Dinitrotoluene	350 U	750 U	790 U	790 U	780 U	790 U
2,6-Dinitrotoluene	350 U	750 U	790 U	790 U	780 U	790 U
2-Chloronaphthalene	350 U	750 U	790 U	790 U	780 U	790 U
2-Chlorophenol	350 U	750 U	790 U	790 U	780 U	790 U
2-Methylnaphthalene	350 U	2600	790 U	790 U	780 U	790 U
2-Methylphenol	350 U	750 U	790 U	790 U	780 U	790 U
2-Nitroaniline	870 U	1900 U	2000 U	2000 U	2000 U	2000 U
2-Nitrophenol	350 U	750 U	790 U	790 U	780 U	790 U
3,3-Dichlorobenzidine	350 U	750 U	790 U	790 U	780 U	790 U
3+4-Methylphenols	350 U	750 U	790 U	790 U	780 U	790 U
3-Nitroaniline	870 U	1900 U	2000 U	2000 U	2000 U	2000 U
4,6-Dinitro-2-methylphenol	870 U	1900 U	2000 U	2000 U	2000 U	2000 U
4-Bromophenyl-phenylether	350 U	750 U	790 U	790 U	780 U	790 U
4-Chloro-3-methylphenol	350 U	750 U	790 U	790 U	780 U	790 U
4-Chloroaniline	350 U	750 U	790 U	790 U	780 U	790 U

APPENDIX G
SUBSURFACE SOILS ANALYTICAL RESULTS
SWMU 269
RCRA INVESTIGATION - CTO-0143
MCB, CAMP LEJEUNE, NORTH CAROLINA

Site Sample I.D.	SWMU269-SB12-02	SWMU269-TW04-07	SWMU269-TW05-08	SWMU269-TW06-08	SWMU269-TW07-08	SWMU269-TW08-07
Lab Sample I.D.	R3030-22	R2936-02	R2936-04	R2936-06	R2936-10	R2936-12
Sample Date	06-23-2003	06-17-2003	06-17-2003	06-18-2003	06-18-2003	06-18-2003
Depth Range	3-5	13-15	15-17	15-17	15-17	13-15
4-Chlorophenyl-phenylether	350 U	750 U	790 U	790 U	780 U	790 U
4-Methylphenol						
4-Nitroaniline	870 U	1900 U	2000 U	2000 U	2000 U	2000 U
4-Nitrophenol	870 U	1900 U	2000 U	2000 U	2000 U	2000 U
Acenaphthene	350 U	130 J	790 U	790 U	780 U	790 U
Acenaphthylene	350 U	750 U	790 U	790 U	780 U	790 U
Acetophenone	350 U	750 U	790 U	790 U	780 U	790 U
Anthracene	350 U	750 U	790 U	790 U	780 U	790 U
Atrazine	350 U	750 U	790 U	790 U	780 U	790 U
Benzaldehyde	350 U	750 U	790 U	790 U	780 U	790 U
Benzo(a)anthracene	350 U	750 U	790 U	790 U	780 U	790 U
Benzo(a)pyrene	350 U	750 U	790 U	790 U	780 U	790 U
Benzo(b)fluoranthene	350 U	750 U	790 U	790 U	780 U	790 U
Benzo(g,h,i)perylene	350 U	750 U	790 U	790 U	780 U	790 U
Benzo(k)fluoranthene	350 U	750 U	790 U	790 U	780 U	790 U
bis(2-Chloroethoxy)methane	350 U	750 U	790 U	790 U	780 U	790 U
bis(2-Chloroethyl)ether	350 U	750 U	790 U	790 U	780 U	790 U
bis(2-Ethylhexyl)phthalate	38 J	160 J	790 U	790 U	780 U	790 U
Butylbenzylphthalate	350 U	750 U	790 U	790 U	780 U	790 U
Caprolactam	350 U	750 U	790 U	790 U	780 U	790 U
Carbazole	350 U	750 U	790 U	790 U	780 U	790 U
Chrysene	350 U	750 U	790 U	790 U	780 U	790 U
Dibenz(a,h)anthracene	350 U	750 U	790 U	790 U	780 U	790 U
Dibenzofuran	350 U	750 U	790 U	790 U	780 U	790 U
Diethyl phthalate	350 U	750 U	790 U	790 U	780 U	790 U
Dimethyl phthalate	350 U	750 U	790 U	790 U	780 U	790 U
Di-n-butyl phthalate	350 U	750 U	790 U	790 U	780 U	790 U
Di-n-octyl phthalate	350 U	750 U	790 U	790 U	780 U	790 U
Fluoranthene	350 U	750 U	790 U	790 U	780 U	790 U
Fluorene	350 U	750 U	790 U	790 U	780 U	790 U
Hexachlorobenzene	350 U	750 U	790 U	790 U	780 U	790 U
Hexachlorobutadiene	350 U	750 U	790 U	790 U	780 U	790 U
Hexachlorocyclopentadiene	350 U	750 U	790 U	790 U	780 U	790 U
Hexachloroethane	350 U	750 U	790 U	790 U	780 U	790 U
Indeno(1,2,3-cd)pyrene	350 U	750 U	790 U	790 U	780 U	790 U
Isophorone	350 U	750 U	790 U	790 U	780 U	790 U
Naphthalene	350 U	350 J	790 U	790 U	780 U	790 U

APPENDIX G
SUBSURFACE SOILS ANALYTICAL RESULTS
SWMU 269
RCRA INVESTIGATION - CTO-0143
MCB, CAMP LEJEUNE, NORTH CAROLINA

Site Sample I.D.	SWMU269-SB12-02	SWMU269-TW04-07	SWMU269-TW05-08	SWMU269-TW06-08	SWMU269-TW07-08	SWMU269-TW08-07
Lab Sample I.D.	R3030-22	R2936-02	R2936-04	R2936-06	R2936-10	R2936-12
Sample Date	06-23-2003	06-17-2003	06-17-2003	06-18-2003	06-18-2003	06-18-2003
Depth Range	3-5	13-15	15-17	15-17	15-17	13-15
Nitrobenzene	350 U	750 U	790 U	790 U	780 U	790 U
N-Nitroso-di-n-propylamine	350 U	750 U	790 U	790 U	780 U	790 U
N-Nitrosodiphenylamine	350 U	750 U	790 U	790 U	780 U	790 U
Pentachlorophenol	870 U	1900 U	2000 U	2000 U	2000 U	2000 U
Phenanthrene	350 U	580 J	790 U	790 U	780 U	790 U
Phenol	350 U	750 U	790 U	790 U	780 U	790 U
Pyrene	350 U	750 U	790 U	790 U	780 U	790 U
Metals (mg/kg)						
Arsenic	0.59 U	1 J	0.68 U	0.67 U	0.66 U	1.7 J
Barium	4.6 J	11.2 J	7.9 J	4.3 J	4.8 J	4.4 J
Cadmium	0.11 J	0.09 U	0.1 U	0.1 U	0.09 U	0.09 U
Chromium	0.13 U	3.9	5.9	1.9 J	3	3.8
Lead	14.9	4.2 J	5 J	2.2 J	2.4 J	3 J
Mercury	0.11 U	0.1 U	0.11 U	0.11 U	0.11 U	0.11 U
Selenium	0.63 U	0.67 UJ	0.72 UJ	0.72 UJ	0.71 UJ	0.71 UJ
Silver	0.21 UJ	0.22 UJ	0.24 UJ	0.24 UJ	0.24 UJ	0.24 UJ
Petroleum Hydrocarbons						
DRO	1700					

APPENDIX G
SURFACE SOILS ANALYTICAL RESULTS
SWMU 269
RCRA INVESTIGATION - CTO-0143
MCB, CAMP LEJEUNE, NORTH CAROLINA

Site Sample I.D.	SWMU269-TW04-00	SWMU269-TW05-00	SWMU269-TW06-00	SWMU269-TW07-00	SWMU269-TW08-00
Lab Sample I.D.	R2936-01	R2936-03	R2936-05	R2936-07	R2936-11
Sample Date	06-17-2003	06-17-2003	06-18-2003	06-18-2003	06-18-2003
Depth Range	0-1	0-1	0-1	0-1	0-1
Volatiles (ug/kg)					
1,1,1-Trichloroethane	11 U	12 U	11 U	11 U	11 U
1,1,2,2-Tetrachloroethane	11 U	12 U	11 U	11 U	11 U
1,1,2-Trichloroethane	11 U	12 U	11 U	11 U	11 U
1,1,2-Trichlorotrifluoroethane	11 U	12 U	11 U	11 U	11 U
1,1-Dichloroethane	11 U	12 U	11 U	11 U	11 U
1,1-Dichloroethene	11 U	12 U	11 U	11 U	11 U
1,2,4-Trichlorobenzene	11 U	12 U	11 U	11 U	11 U
1,2-Dibromo-3-Chloropropane	11 U	12 U	11 U	11 U	11 U
1,2-Dibromoethane	11 U	12 U	11 U	11 U	11 U
1,2-Dichlorobenzene	11 U	12 U	11 U	11 U	11 U
1,2-Dichloroethane	11 U	12 U	11 U	11 U	11 U
1,2-Dichloropropane	11 U	12 U	11 U	11 U	11 U
1,3-Dichlorobenzene	11 U	12 U	11 U	11 U	11 U
1,4-Dichlorobenzene	11 U	12 U	11 U	11 U	11 U
2-Butanone	11 U	12 U	11 U	11 U	11 U
2-Hexanone	11 U	12 U	11 U	11 U	11 U
4-Methyl-2-Pentanone	11 U	12 U	11 U	11 U	11 U
Acetone	11 U	12 U	11 U	11 U	11 U
Benzene	11 U	12 U	11 U	11 U	11 U
Bromodichloromethane	11 U	12 U	11 U	11 U	11 U
Bromoform	11 U	12 U	11 U	11 U	11 U
Bromomethane	11 U	12 U	11 U	11 U	11 U
Carbon Disulfide	11 U	12 U	11 U	11 U	11 U
Carbon Tetrachloride	11 U	12 U	11 U	11 U	11 U
Chlorobenzene	11 U	12 U	11 U	11 U	11 U
Chloroethane	11 U	12 U	11 U	11 U	11 U
Chloroform	11 U	12 U	11 U	11 U	11 U
Chloromethane	11 U	12 U	11 U	11 U	11 U
cis-1,2-Dichloroethene	11 U	12 U	11 U	11 U	11 U
cis-1,3-Dichloropropene	11 U	12 U	11 U	11 U	11 U
Cyclohexane	11 U	12 U	11 U	11 U	11 U
Dibromochloromethane	11 U	12 U	11 U	11 U	11 U

APPENDIX G
SURFACE SOILS ANALYTICAL RESULTS
SWMU 269
RCRA INVESTIGATION - CTO-0143
MCB, CAMP LEJEUNE, NORTH CAROLINA

Site Sample I.D.	SWMU269-TW04-00	SWMU269-TW05-00	SWMU269-TW06-00	SWMU269-TW07-00	SWMU269-TW08-00
Lab Sample I.D.	R2936-01	R2936-03	R2936-05	R2936-07	R2936-11
Sample Date	06-17-2003	06-17-2003	06-18-2003	06-18-2003	06-18-2003
Depth Range	0-1	0-1	0-1	0-1	0-1
Volatiles (ug/kg) (cont.)					
Dichlorodifluoromethane	11 U	12 U	11 U	11 U	11 U
Ethyl Benzene	11 U	12 U	11 U	11 U	11 U
Isopropylbenzene	11 U	12 U	11 U	11 U	11 U
m/p-Xylenes	11 U	12 U	11 U	11 U	11 U
Methyl Acetate	11 U	12 U	11 U	11 U	11 U
Methyl tert-butyl Ether	11 U	12 U	11 U	11 U	11 U
Methylcyclohexane	11 U	12 U	11 U	11 U	11 U
Methylene Chloride	11 U	12 U	11 U	11 U	11 U
o-Xylene	11 U	12 U	11 U	11 U	11 U
Styrene	11 U	12 U	11 U	11 U	11 U
trans-1,3-Dichloropropene	11 U	12 U	11 U	11 U	11 U
Tetrachloroethene	11 U	12 U	11 U	11 U	11 U
Toluene	11 U	12 U	11 U	11 U	11 U
trans-1,2-Dichloroethene	11 U	12 U	11 U	11 U	11 U
Trichloroethene	11 U	12 U	11 U	11 U	11 U
Trichlorofluoromethane	11 U	12 U	11 U	11 U	11 U
Vinyl Chloride	11 U	12 U	11 U	11 U	11 U
Semivolatiles (ug/kg)					
1,1-Biphenyl	720 U	770 U	750 U	720 U	740 U
2,2-oxybis(1-Chloropropane)	720 U	770 U	750 U	720 U	740 U
2,4,5-Trichlorophenol	1800 U	1900 U	1900 U	1800 U	1900 U
2,4,6-Trichlorophenol	720 U	770 U	750 U	720 U	740 U
2,4-Dichlorophenol	720 U	770 U	750 U	720 U	740 U
2,4-Dimethylphenol	720 U	770 U	750 U	720 U	740 U
2,4-Dinitrophenol	1800 U	1900 U	1900 U	1800 U	1900 U
2,4-Dinitrotoluene	720 U	770 U	750 U	720 U	740 U
2,6-Dinitrotoluene	720 U	770 U	750 U	720 U	740 U
2-Chloronaphthalene	720 U	770 U	750 U	720 U	740 U
2-Chlorophenol	720 U	770 U	750 U	720 U	740 U
2-Methylnaphthalene	720 U	770 U	750 U	720 U	740 U
2-Methylphenol	720 U	770 U	750 U	720 U	740 U
2-Nitroaniline	1800 U	1900 U	1900 U	1800 U	1900 U

APPENDIX G
SURFACE SOILS ANALYTICAL RESULTS
SWMU 269
RCRA INVESTIGATION - CTO-0143
MCB, CAMP LEJEUNE, NORTH CAROLINA

Site Sample I.D.	SWMU269-TW04-00	SWMU269-TW05-00	SWMU269-TW06-00	SWMU269-TW07-00	SWMU269-TW08-00
Lab Sample I.D.	R2936-01	R2936-03	R2936-05	R2936-07	R2936-11
Sample Date	06-17-2003	06-17-2003	06-18-2003	06-18-2003	06-18-2003
Depth Range	0-1	0-1	0-1	0-1	0-1
Semivolatiles (ug/kg) (cont.)					
2-Nitrophenol	720 U	770 U	750 U	720 U	740 U
3,3-Dichlorobenzidine	720 U	770 U	750 U	720 U	740 U
3+4-Methylphenols	720 U	770 U	750 U	720 U	740 U
3-Nitroaniline	1800 U	1900 U	1900 U	1800 U	1900 U
4,6-Dinitro-2-methylphenol	1800 U	1900 U	1900 U	1800 U	1900 U
4-Bromophenyl-phenylether	720 U	770 U	750 U	720 U	740 U
4-Chloro-3-methylphenol	720 U	770 U	750 U	720 U	740 U
4-Chloroaniline	720 U	770 U	750 U	720 U	740 U
4-Chlorophenyl-phenylether	720 U	770 U	750 U	720 U	740 U
4-Nitroaniline	1800 U	1900 U	1900 U	1800 U	1900 U
4-Nitrophenol	1800 U	1900 U	1900 U	1800 U	1900 U
Acenaphthene	720 U	770 U	750 U	720 U	740 U
Acenaphthylene	720 U	770 U	750 U	720 U	740 U
Acetophenone	720 U	770 U	750 U	720 U	740 U
Anthracene	720 U	770 U	750 U	720 U	740 U
Atrazine	720 U	770 U	750 U	720 U	740 U
Benzaldehyde	720 U	770 U	750 U	720 U	740 U
Benzo(a)anthracene	720 U	770 U	750 U	720 U	740 U
Benzo(a)pyrene	720 U	770 U	750 U	720 U	740 U
Benzo(b)fluoranthene	720 U	770 U	750 U	720 U	740 U
Benzo(g,h,i)perylene	720 U	770 U	750 U	720 U	740 U
Benzo(k)fluoranthene	720 U	770 U	750 U	720 U	740 U
bis(2-Chloroethoxy)methane	720 U	770 U	750 U	720 U	740 U
bis(2-Chloroethyl)ether	720 U	770 U	750 U	720 U	740 U
bis(2-Ethylhexyl)phthalate	720 U	770 U	750 U	720 U	740 U
Butylbenzylphthalate	720 U	770 U	750 U	720 U	740 U
Caprolactam	720 U	770 U	750 U	720 U	740 U
Carbazole	720 U	770 U	750 U	720 U	740 U
Chrysene	720 U	770 U	750 U	720 U	740 U
Dibenz(a,h)anthracene	720 U	770 U	750 U	720 U	740 U
Dibenzofuran	720 U	770 U	750 U	720 U	740 U
Diethyl phthalate	720 U	770 U	750 U	720 U	740 U

APPENDIX G
SURFACE SOILS ANALYTICAL RESULTS
SWMU 269
RCRA INVESTIGATION - CTO-0143
MCB, CAMP LEJEUNE, NORTH CAROLINA

Site Sample I.D.	SWMU269-TW04-00	SWMU269-TW05-00	SWMU269-TW06-00	SWMU269-TW07-00	SWMU269-TW08-00
Lab Sample I.D.	R2936-01	R2936-03	R2936-05	R2936-07	R2936-11
Sample Date	06-17-2003	06-17-2003	06-18-2003	06-18-2003	06-18-2003
Depth Range	0-1	0-1	0-1	0-1	0-1
Semivolatiles (ug/kg) (cont.)					
Dimethyl phthalate	720 U	770 U	750 U	720 U	740 U
Di-n-butyl phthalate	720 U	770 U	750 U	720 U	740 U
Di-n-octyl phthalate	720 U	770 U	750 U	720 U	740 U
Fluoranthene	720 U	770 U	750 U	720 U	740 U
Fluorene	720 U	770 U	750 U	720 U	740 U
Hexachlorobenzene	720 U	770 U	750 U	720 U	740 U
Hexachlorobutadiene	720 U	770 U	750 U	720 U	740 U
Hexachlorocyclopentadiene	720 U	770 U	750 U	720 U	740 U
Hexachloroethane	720 U	770 U	750 U	720 U	740 U
Indeno(1,2,3-cd)pyrene	720 U	770 U	750 U	720 U	740 U
Isophorone	720 U	770 U	750 U	720 U	740 U
Naphthalene	720 U	770 U	750 U	720 U	740 U
Nitrobenzene	720 U	770 U	750 U	720 U	740 U
N-Nitroso-di-n-propylamine	720 U	770 U	750 U	720 U	740 U
N-Nitrosodiphenylamine	720 U	770 U	750 U	720 U	740 U
Pentachlorophenol	1800 U	1900 U	1900 U	1800 U	1900 U
Phenanthrene	720 U	770 U	750 U	720 U	740 U
Phenol	720 U	770 U	750 U	720 U	740 U
Pyrene	720 U	770 U	750 U	720 U	740 U
Metals (mg/kg)					
Arsenic	0.97 J	0.95 J	0.77 J	0.62 U	0.62 U
Barium	15 J	8.3 J	9.7 J	7.4 J	7.5 J
Cadmium	0.55 J	0.09 U	0.1 J	0.15 J	0.15 J
Chromium	4.3	3.1	4.6	2.5	2.8
Lead	13.3 J	4 J	7.3 J	5.9 J	9.9 J
Mercury	0.1 U	0.11 U	0.11 U	0.11 U	0.1 U
Selenium	0.64 UJ	0.69 UJ	0.68 UJ	0.66 UJ	0.67 UJ
Silver	0.21 UJ	0.23 UJ	0.23 UJ	0.22 UJ	0.22 UJ

APPENDIX G
SUBSURFACE SOILS ANALYTICAL RESULTS
SWMU 299
RCRA INVESTIGATION - CTO-0143
MCB, CAMP LEJEUNE, NORTH CAROLINA

Site Sample I.D.	SWMU299-SB05-02	SWMU299-SB06-01	SWMU299-SB07-02	SWMU299-SB08-02	SWMU299-SB09-01	SWMU299-SB10-01
Lab Sample I.D.	R3028-03	R3028-05	R3028-07	R3028-09	R3028-11	R3028-13
Sample Date	06-21-2003	06-21-2003	06-21-2003	06-21-2003	06-21-2003	06-21-2003
Depth Range	3-5	1-3	3-5	3-5	1-3	1-3
Semivolatiles (ug/kg)						
1,1-Biphenyl	410 U	390 U	450 U	520 U	380 U	400 U
2,2-oxybis(1-Chloropropane)	410 U	390 U	450 U	520 U	380 U	400 U
2,4,5-Trichlorophenol	1000 U	980 U	1100 U	1300 U	960 U	1000 U
2,4,6-Trichlorophenol	410 U	390 U	450 U	520 U	380 U	400 U
2,4-Dichlorophenol	410 U	390 U	450 U	520 U	380 U	400 U
2,4-Dimethylphenol	410 U	390 U	450 U	520 U	380 U	400 U
2,4-Dinitrophenol	1000 U	980 U	1100 U	1300 U	960 U	1000 U
2,4-Dinitrotoluene	410 U	390 U	450 U	520 U	380 U	400 U
2,6-Dinitrotoluene	410 U	390 U	450 U	520 U	380 U	400 U
2-Chloronaphthalene	410 U	390 U	450 U	520 U	380 U	400 U
2-Chlorophenol	410 U	390 U	450 U	520 U	380 U	400 U
2-Methylnaphthalene	410 U	390 U	450 U	520 U	380 U	400 U
2-Methylphenol	410 U	390 U	450 U	520 U	380 U	400 U
2-Nitroaniline	1000 U	980 U	1100 U	1300 U	960 U	1000 U
2-Nitrophenol	410 U	390 U	450 U	520 U	380 U	400 U
3,3-Dichlorobenzidine	410 U	390 U	450 U	520 U	380 U	400 U
3+4-Methylphenols	410 U	390 U	450 U	520 U	380 U	400 U
3-Nitroaniline	1000 U	980 U	1100 U	1300 U	960 U	1000 U
4,6-Dinitro-2-methylphenol	1000 U	980 U	1100 U	1300 U	960 U	1000 U
4-Bromophenyl-phenylether	410 U	390 U	450 U	520 U	380 U	400 U
4-Chloro-3-methylphenol	410 U	390 U	450 U	520 U	380 U	400 U
4-Chloroaniline	410 U	390 U	450 U	520 U	380 U	400 U
4-Chlorophenyl-phenylether	410 U	390 U	450 U	520 U	380 U	400 U
4-Methylphenol						
4-Nitroaniline	1000 U	980 U	1100 U	1300 U	960 U	1000 U
4-Nitrophenol	1000 U	980 U	1100 U	1300 U	960 U	1000 U
Acenaphthene	410 U	390 U	450 U	520 U	380 U	400 U
Acenaphthylene	410 U	390 U	450 U	520 U	380 U	400 U
Acetophenone	410 U	390 U	450 U	520 U	380 U	400 U
Anthracene	410 U	390 U	450 U	520 U	380 U	400 U
Atrazine	410 U	390 U	450 U	520 U	380 U	400 U
Benzaldehyde	410 U	390 U	450 U	520 U	380 U	400 U
Benzo(a)anthracene	410 U	390 U	450 U	520 U	380 U	400 U

APPENDIX G
SUBSURFACE SOILS ANALYTICAL RESULTS
SWMU 299
RCRA INVESTIGATION - CTO-0143
MCB, CAMP LEJEUNE, NORTH CAROLINA

Site Sample I.D.	SWMU299-SB05-02	SWMU299-SB06-01	SWMU299-SB07-02	SWMU299-SB08-02	SWMU299-SB09-01	SWMU299-SB10-01
Lab Sample I.D.	R3028-03	R3028-05	R3028-07	R3028-09	R3028-11	R3028-13
Sample Date	06-21-2003	06-21-2003	06-21-2003	06-21-2003	06-21-2003	06-21-2003
Depth Range	3-5	1-3	3-5	3-5	1-3	1-3
Semivolatiles (ug/kg) (cont.)						
Benzo(a)pyrene	410 U	390 U	450 U	520 U	380 U	400 U
Benzo(b)fluoranthene	410 U	390 U	450 U	520 U	380 U	400 U
Benzo(g,h,i)perylene	410 U	390 U	450 U	520 U	380 U	400 U
Benzo(k)fluoranthene	410 U	390 U	450 U	520 U	380 U	400 U
bis(2-Chloroethoxy)methane	410 U	390 U	450 U	520 U	380 U	400 U
bis(2-Chloroethyl)ether	410 U	390 U	450 U	520 U	380 U	400 U
bis(2-Ethylhexyl)phthalate	410 U	390 U	450 U	520 U	380 U	400 U
Butylbenzylphthalate	410 U	390 U	450 U	520 U	380 U	400 U
Caprolactam	410 U	390 U	450 U	520 U	380 U	400 U
Carbazole	410 U	390 U	450 U	520 U	380 U	400 U
Chrysene	410 U	390 U	450 U	520 U	380 U	400 U
Dibenz(a,h)anthracene	410 U	390 U	450 U	520 U	380 U	400 U
Dibenzofuran	410 U	390 U	450 U	520 U	380 U	400 U
Diethyl phthalate	410 U	390 U	450 U	520 U	380 U	400 U
Dimethyl phthalate	410 U	390 U	450 U	520 U	380 U	400 U
Di-n-butyl phthalate	410 U	390 U	450 U	520 U	380 U	400 U
Di-n-octyl phthalate	410 U	390 U	450 U	520 U	380 U	400 U
Fluoranthene	410 U	390 U	450 U	520 U	380 U	400 U
Fluorene	410 U	390 U	450 U	520 U	380 U	400 U
Hexachlorobenzene	410 U	390 U	450 U	520 U	380 U	400 U
Hexachlorobutadiene	410 U	390 U	450 U	520 U	380 U	400 U
Hexachlorocyclopentadiene	410 U	390 U	450 U	520 U	380 U	400 U
Hexachloroethane	410 U	390 U	450 U	520 U	380 U	400 U
Indeno(1,2,3-cd)pyrene	410 U	390 U	450 U	520 U	380 U	400 U
Isophorone	410 U	390 U	450 U	520 U	380 U	400 U
Naphthalene	410 U	390 U	450 U	520 U	380 U	400 U
Nitrobenzene	410 U	390 U	450 U	520 U	380 U	400 U
N-Nitroso-di-n-propylamine	410 U	390 U	450 U	520 U	380 U	400 U
N-Nitrosodiphenylamine	410 U	390 U	450 U	520 U	380 U	400 U
Pentachlorophenol	1000 U	980 U	1100 U	1300 U	960 U	1000 U
Phenanthrene	410 U	390 U	450 U	520 U	380 U	400 U
Phenol	410 U	390 U	450 U	520 U	380 U	400 U
Pyrene	410 U	390 U	450 U	520 U	380 U	400 U

APPENDIX G
SUBSURFACE SOILS ANALYTICAL RESULTS
SWMU 299
RCRA INVESTIGATION - CTO-0143
MCB, CAMP LEJEUNE, NORTH CAROLINA

Site Sample I.D.	SWMU299-SB05-02	SWMU299-SB06-01	SWMU299-SB07-02	SWMU299-SB08-02	SWMU299-SB09-01	SWMU299-SB10-01
Lab Sample I.D.	R3028-03	R3028-05	R3028-07	R3028-09	R3028-11	R3028-13
Sample Date	06-21-2003	06-21-2003	06-21-2003	06-21-2003	06-21-2003	06-21-2003
Depth Range	3-5	1-3	3-5	3-5	1-3	1-3
Metals (mg/kg)						
Arsenic	0.69 U	0.67 U	0.77 U	0.88 U	0.65 U	0.67 U
Barium	6.6 J	6.8 J	15.5 J	7.5 J	3.5 J	5.1 J
Cadmium	0.1 U	0.1 U	0.11 U	0.13 U	0.09 U	0.1 U
Chromium	0.15 U	0.14 U	0.17 U	0.19 U	0.14 U	0.14 U
Lead	4.6	3.9	4.9	4.7	3.1	4.1
Mercury	0.12 U	0.12 U	0.13 U	0.16 U	0.12 U	0.12 U
Selenium	1.3 J	0.72 J	0.83 R	0.94 R	0.95 J	0.72 R
Silver	0.33 J	0.24 UJ	0.28 UJ	0.31 UJ	0.5 J	0.24 UJ

APPENDIX G
SURFACE SOILS ANALYTICAL RESULTS
SWMU 299
RCRA INVESTIGATION - CTO-0143
MCB, CAMP LEJEUNE, NORTH CAROLINA

Site Sample I.D.	SWMU299-SB05-00	SWMU299-SB06-00	SWMU299-SB07-00	SWMU299-SB08-00	SWMU299-SB09-00	SWMU299-SB10-00	SWMU299-SB11-00
Lab Sample I.D.	R3028-01	R3028-04	R3028-06	R3028-08	R3028-10	R3028-12	R3028-14
Sample Date	06-21-2003	06-21-2003	06-21-2003	06-21-2003	06-21-2003	06-21-2003	06-21-2003
Depth Range	0-1	0-1	0-1	0-1	0-1	0-1	0-1
Semivolatiles (ug/kg)							
1,1-Biphenyl	350 U	390 U	360 U	410 U	420 U	400 U	400
2,2-oxybis(1-Chloropropane)	350 U	390 U	360 U	410 U	420 U	400 U	400
2,4,5-Trichlorophenol	890 U	980 U	910 U	1000 U	1100 U	1000 U	1000
2,4,6-Trichlorophenol	350 U	390 U	360 U	410 U	420 U	400 U	400
2,4-Dichlorophenol	350 U	390 U	360 U	410 U	420 U	400 U	400
2,4-Dimethylphenol	350 U	390 U	360 U	410 U	420 U	400 U	400
2,4-Dinitrophenol	890 U	980 U	910 U	1000 U	1100 U	1000 U	1000
2,4-Dinitrotoluene	350 U	390 U	360 U	410 U	420 U	400 U	400
2,6-Dinitrotoluene	350 U	390 U	360 U	410 U	420 U	400 U	400
2-Chloronaphthalene	350 U	390 U	360 U	410 U	420 U	400 U	400
2-Chlorophenol	350 U	390 U	360 U	410 U	420 U	400 U	400
2-Methylnaphthalene	350 U	390 U	370	410 U	420 U	400 U	400
2-Methylphenol	350 U	390 U	360 U	410 U	420 U	400 U	400
2-Nitroaniline	890 U	980 U	910 U	1000 U	1100 U	1000 U	1000
2-Nitrophenol	350 U	390 U	360 U	410 U	420 U	400 U	400
3,3-Dichlorobenzidine	350 U	390 U	360 U	410 U	420 U	400 U	400
3+4-Methylphenols	350 U	390 U	360 U	410 U	420 U	400 U	400
3-Nitroaniline	890 U	980 U	910 U	1000 U	1100 U	1000 U	1000
4,6-Dinitro-2-methylphenol	890 U	980 U	910 U	1000 U	1100 U	1000 U	1000
4-Bromophenyl-phenylether	350 U	390 U	360 U	410 U	420 U	400 U	400
4-Chloro-3-methylphenol	350 U	390 U	360 U	410 U	420 U	400 U	400
4-Chloroaniline	350 U	390 U	360 U	410 U	420 U	400 U	400
4-Chlorophenyl-phenylether	350 U	390 U	360 U	410 U	420 U	400 U	400
4-Methylphenol							
4-Nitroaniline	890 U	980 U	910 U	1000 U	1100 U	1000 U	1000
4-Nitrophenol	890 U	980 U	910 U	1000 U	1100 U	1000 U	1000
Acenaphthene	350 U	390 U	360 U	410 U	420 U	400 U	400
Acenaphthylene	350 U	390 U	360 U	410 U	420 U	400 U	400
Acetophenone	350 U	390 U	360 U	410 U	420 U	400 U	400
Anthracene	350 U	390 U	360 U	410 U	420 U	400 U	400
Atrazine	350 U	390 U	360 U	410 U	420 U	400 U	400
Benzaldehyde	350 U	390 U	360 U	410 U	420 U	400 U	400
Benzo(a)anthracene	49 J	390 U	360 U	410 U	420 U	400 U	400
Benzo(a)pyrene	41 J	390 U	360 U	410 U	420 U	400 U	400

APPENDIX G
SURFACE SOILS ANALYTICAL RESULTS
SWMU 299
RCRA INVESTIGATION - CTO-0143
MCB, CAMP LEJEUNE, NORTH CAROLINA

Site Sample I.D.	SWMU299-SB05-00	SWMU299-SB06-00	SWMU299-SB07-00	SWMU299-SB08-00	SWMU299-SB09-00	SWMU299-SB10-00	SWMU299-SB11-00
Lab Sample I.D.	R3028-01	R3028-04	R3028-06	R3028-08	R3028-10	R3028-12	R3028-14
Sample Date	06-21-2003	06-21-2003	06-21-2003	06-21-2003	06-21-2003	06-21-2003	06-21-2003
Depth Range	0-1	0-1	0-1	0-1	0-1	0-1	0-1
Semivolatiles (ug/kg) (cont.)							
Benzo(b)fluoranthene	64 J	390 U	360 U	410 U	420 U	400 U	400
Benzo(g,h,i)perylene	350 U	390 U	360 U	410 U	420 U	400 U	400
Benzo(k)fluoranthene	350 U	390 U	360 U	410 U	420 U	400 U	400
bis(2-Chloroethoxy)methane	350 U	390 U	360 U	410 U	420 U	400 U	400
bis(2-Chloroethyl)ether	350 U	390 U	360 U	410 U	420 U	400 U	400
bis(2-Ethylhexyl)phthalate	350 U	390 U	360 U	410 U	420 U	400 U	400
Butylbenzylphthalate	350 U	390 U	360 U	410 U	420 U	400 U	400
Caprolactam	350 U	390 U	360 U	410 U	420 U	400 U	400
Carbazole	350 U	390 U	360 U	410 U	420 U	400 U	400
Chrysene	53 J	390 U	360 U	410 U	420 U	400 U	400
Dibenz(a,h)anthracene	350 U	390 U	360 U	410 U	420 U	400 U	400
Dibenzofuran	350 U	390 U	360 U	410 U	420 U	400 U	400
Diethylphthalate	350 U	390 U	360 U	410 U	420 U	400 U	400
Dimethylphthalate	350 U	390 U	360 U	410 U	420 U	400 U	400
Di-n-butylphthalate	350 U	390 U	360 U	410 U	420 U	400 U	400
Di-n-octyl phthalate	350 U	390 U	360 U	410 U	420 U	400 U	400
Fluoranthene	93 J	390 U	360 U	410 U	420 U	400 U	400
Fluorene	350 U	390 U	360 U	410 U	420 U	400 U	400
Hexachlorobenzene	350 U	390 U	360 U	410 U	420 U	400 U	400
Hexachlorobutadiene	350 U	390 U	360 U	410 U	420 U	400 U	400
Hexachlorocyclopentadiene	350 U	390 U	360 U	410 U	420 U	400 U	400
Hexachloroethane	350 U	390 U	360 U	410 U	420 U	400 U	400
Indeno(1,2,3-cd)pyrene	350 U	390 U	360 U	410 U	420 U	400 U	400
Isophorone	350 U	390 U	360 U	410 U	420 U	400 U	400
Naphthalene	350 U	390 U	320 J	410 U	420 U	400 U	400
Nitrobenzene	350 U	390 U	360 U	410 U	420 U	400 U	400
N-Nitroso-di-n-propylamine	350 U	390 U	360 U	410 U	420 U	400 U	400
N-Nitrosodiphenylamine	350 U	390 U	360 U	410 U	420 U	400 U	400
Pentachlorophenol	890 U	980 U	910 U	1000 U	1100 U	1000 U	1000
Phenanthrene	56 J	390 U	410	410 U	420 U	400 U	400
Phenol	350 U	390 U	360 U	410 U	420 U	400 U	400
Pyrene	350 U	390 U	360 U	410 U	420 U	400 U	400

APPENDIX G
SURFACE SOILS ANALYTICAL RESULTS
SWMU 299
RCRA INVESTIGATION - CTO-0143
MCB, CAMP LEJEUNE, NORTH CAROLINA

Site Sample I.D.	SWMU299-SB05-00	SWMU299-SB06-00	SWMU299-SB07-00	SWMU299-SB08-00	SWMU299-SB09-00	SWMU299-SB10-00	SWMU299-SB11-00
Lab Sample I.D.	R3028-01	R3028-04	R3028-06	R3028-08	R3028-10	R3028-12	R3028-14
Sample Date	06-21-2003	06-21-2003	06-21-2003	06-21-2003	06-21-2003	06-21-2003	06-21-2003
Depth Range	0-1	0-1	0-1	0-1	0-1	0-1	0-1
Metals (mg/kg)							
Arsenic	1 J	0.65 U	0.62 U	0.69 U	0.71 U	0.68 U	0.67
Barium	5 J	4.6 J	47.7	7.9 J	15.3 J	18.9 J	8.8
Cadmium	0.15 J	0.09 U	0.36 J	0.1 U	0.42 J	0.55 J	0.1
Chromium	0.13 U	0.14 U	5.6	0.15 U	0.15 U	0.15 U	0.14
Lead	3	4.1	203	3.9	40.8	82	9.4
Mercury	0.11 U	0.12 U	0.1 U	0.12 U	0.13 U	0.12 U	0.12
Selenium	0.75 J	1 J	0.9 J	1.4 J	0.76 R	0.73 R	0.72
Silver	0.21 UJ	0.23 UJ	0.22 UJ	0.25 UJ	0.25 UJ	0.29 J	0.24

APPENDIX G
SURFACE SOILS ANALYTICAL RESULTS
SWMU 299
RCRA INVESTIGATION - CTO-0143
MCB, CAMP LEJEUNE, NORTH CAROLINA

Site Sample I.D.	
Lab Sample I.D.	
Sample Date	
Depth Range	
Semivolatiles (ug/kg)	
1,1-Biphenyl	U
2,2-oxybis(1-Chloropropane)	U
2,4,5-Trichlorophenol	U
2,4,6-Trichlorophenol	U
2,4-Dichlorophenol	U
2,4-Dimethylphenol	U
2,4-Dinitrophenol	U
2,4-Dinitrotoluene	U
2,6-Dinitrotoluene	U
2-Chloronaphthalene	U
2-Chlorophenol	U
2-Methylnaphthalene	U
2-Methylphenol	U
2-Nitroaniline	U
2-Nitrophenol	U
3,3-Dichlorobenzidine	U
3+4-Methylphenols	U
3-Nitroaniline	U
4,6-Dinitro-2-methylphenol	U
4-Bromophenyl-phenylether	U
4-Chloro-3-methylphenol	U
4-Chloroaniline	U
4-Chlorophenyl-phenylether	U
4-Methylphenol	
4-Nitroaniline	U
4-Nitrophenol	U
Acenaphthene	U
Acenaphthylene	U
Acetophenone	U
Anthracene	U
Atrazine	U
Benzaldehyde	U
Benzo(a)anthracene	U
Benzo(a)pyrene	U

APPENDIX G
SURFACE SOILS ANALYTICAL RESULTS
SWMU 299
RCRA INVESTIGATION - CTO-0143
MCB, CAMP LEJEUNE, NORTH CAROLINA

Site Sample I.D.	
Lab Sample I.D.	
Sample Date	
Depth Range	
Semivolatiles (ug/kg) (cont.)	
Benzo(b)fluoranthene	U
Benzo(g,h,i)perylene	U
Benzo(k)fluoranthene	U
bis(2-Chloroethoxy)methane	U
bis(2-Chloroethyl)ether	U
bis(2-Ethylhexyl)phthalate	U
Butylbenzylphthalate	U
Caprolactam	U
Carbazole	U
Chrysene	U
Dibenz(a,h)anthracene	U
Dibenzofuran	U
Diethylphthalate	U
Dimethylphthalate	U
Di-n-butylphthalate	U
Di-n-octyl phthalate	U
Fluoranthene	U
Fluorene	U
Hexachlorobenzene	U
Hexachlorobutadiene	U
Hexachlorocyclopentadiene	U
Hexachloroethane	U
Indeno(1,2,3-cd)pyrene	U
Isophorone	U
Naphthalene	U
Nitrobenzene	U
N-Nitroso-di-n-propylamine	U
N-Nitrosodiphenylamine	U
Pentachlorophenol	U
Phenanthrene	U
Phenol	U
Pyrene	U

APPENDIX G
SURFACE SOILS ANALYTICAL RESULTS
SWMU 299
RCRA INVESTIGATION - CTO-0143
MCB, CAMP LEJEUNE, NORTH CAROLINA

Site Sample I.D.	
Lab Sample I.D.	
Sample Date	
Depth Range	
Metals (mg/kg)	
Arsenic	U
Barium	J
Cadmium	U
Chromium	U
Lead	
Mercury	U
Selenium	R
Silver	UJ

APPENDIX G
GROUNDWATER ANALYTICAL RESULTS
OPERABLE UNIT NO. 6 - SITE 35
MONITORING AND O&M SUPPORT, CTO-0252
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU307-TW04		SWMU307-TW04D		SWMU307-TW05		SWMU307-TW06		SWMU307-TW07	
SAMPLE DATE	07-13-2003		07-13-2003		07-13-2003		07-13-2003		07-13-2003	
METALS (ug/L)										
Arsenic	3.6	U	3.6	U	3.6	U	3.6	U	5.6	J
Barium	71.8	J	74.9	J	145	J	31.2	J	107	J
Cadmium	1	U	1	U	1	U	1	U	1	U
Chromium	1	J	1.2	J	3.7	J	0.8	U	5.4	J
Lead	2.5	J	1.7	J	2.4	J	1.6	U	24.4	
Mercury	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U
Selenium	2.6	U	2.6	U	2.6	U	2.5	U	2.6	U
Silver	1.7	UJ	1.7	UJ	1.7	UJ	1.7	UJ	1.7	UJ

APPENDIX G
MONITORING WELL ANALYTICAL RESULTS
SWMU 314
RCRA INVESTIGATION - CTO-0143
MCB, CAMP LEJEUNE, NORTH CAROLINA

Site Sample I.D.	SWMU314-MW04	
Lab Sample I.D.	R3486-15	
Sample Date	07-21-2003	
Metals (ug/L)		
Arsenic	4.2	J
Barium	31.2	J
Cadmium	1	U
Chromium	0.95	J
Lead	1.6	U
Mercury	0.2	U
Selenium	4.8	J
Silver	1.7	UJ

APPENDIX G
SURFACE SOILS ANALYTICAL RESULTS
SWMU 314
RCRA INVESTIGATION - CTO-0143
MCB, CAMP LEJEUNE, NORTH CAROLINA

Site Sample I.D.	SWMU314-SS01	SWMU314-SS02	SWMU314-SS03	SWMU314-SS04	SWMU314-SS05
Lab Sample I.D.	R3030-08	R3030-12	R3030-13	R3030-14	R3030-15
Sample Date	06-23-2003	06-23-2003	06-23-2003	06-23-2003	06-23-2003
Depth Range					
Semivolatiles (ug/kg)					
1,1-Biphenyl	430 U	410 U	380 U	400 U	360 U
2,2-oxybis(1-Chloropropane)	430 U	410 U	380 U	400 U	360 U
2,4,5-Trichlorophenol	1100 U	1000 U	960 U	1000 U	910 U
2,4,6-Trichlorophenol	430 U	410 U	380 U	400 U	360 U
2,4-Dichlorophenol	430 U	410 U	380 U	400 U	360 U
2,4-Dimethylphenol	430 U	410 U	380 U	400 U	360 U
2,4-Dinitrophenol	1100 U	1000 U	960 U	1000 U	910 U
2,4-Dinitrotoluene	430 U	410 U	380 U	400 U	360 U
2,6-Dinitrotoluene	430 U	410 U	380 U	400 U	360 U
2-Chloronaphthalene	430 U	410 U	380 U	400 U	360 U
2-Chlorophenol	430 U	410 U	380 U	400 U	360 U
2-Methylnaphthalene	430 U	410 U	380 U	400 U	360 U
2-Methylphenol	430 U	410 U	380 U	400 U	360 U
2-Nitroaniline	1100 U	1000 U	960 U	1000 U	910 U
2-Nitrophenol	430 U	410 U	380 U	400 U	360 U
3,3-Dichlorobenzidine	430 U	410 U	380 U	400 U	360 U
3+4-Methylphenols	430 U	410 U	380 U	400 U	360 U
3-Nitroaniline	1100 U	1000 U	960 U	1000 U	910 U
4,6-Dinitro-2-methylphenol	1100 U	1000 U	960 U	1000 U	910 U
4-Bromophenyl-phenylether	430 U	410 U	380 U	400 U	360 U
4-Chloro-3-methylphenol	430 U	410 U	380 U	400 U	360 U
4-Chloroaniline	430 U	410 U	380 U	400 U	360 U
4-Chlorophenyl-phenylether	430 U	410 U	380 U	400 U	360 U
4-Methylphenol					
4-Nitroaniline	1100 U	1000 U	960 U	1000 U	910 U
4-Nitrophenol	1100 U	1000 U	960 U	1000 U	910 U
Acenaphthene	51 J	410 U	380 U	400 U	360 U
Acenaphthylene	430 U	410 U	380 U	400 U	360 U
Acetophenone	430 U	410 U	380 U	400 U	82 J
Anthracene	430 U	410 U	380 U	400 U	360 U
Atrazine	430 U	410 U	380 U	400 U	360 U
Benzaldehyde	430 U	410 U	380 U	400 U	360 U
Benzo(a)anthracene	430 U	410 U	380 U	400 U	360 U
Benzo(a)pyrene	430 U	410 U	380 U	400 U	360 U

APPENDIX G
SURFACE SOILS ANALYTICAL RESULTS
SWMU 314
RCRA INVESTIGATION - CTO-0143
MCB, CAMP LEJEUNE, NORTH CAROLINA

Site Sample I.D.	SWMU314-SS01	SWMU314-SS02	SWMU314-SS03	SWMU314-SS04	SWMU314-SS05
Lab Sample I.D.	R3030-08	R3030-12	R3030-13	R3030-14	R3030-15
Sample Date	06-23-2003	06-23-2003	06-23-2003	06-23-2003	06-23-2003
Depth Range					
Semivolatiles (ug/kg) (cont.)					
Benzo(b)fluoranthene	430 U	410 U	380 U	400 U	360 U
Benzo(g,h,i)perylene	430 U	410 U	380 U	400 U	360 U
Benzo(k)fluoranthene	430 U	410 U	380 U	400 U	360 U
bis(2-Chloroethoxy)methane	430 U	410 U	380 U	400 U	360 U
bis(2-Chloroethyl)ether	430 U	410 U	380 U	400 U	360 U
bis(2-Ethylhexyl)phthalate	82 J	67 J	1700	41 J	51 J
Butylbenzylphthalate	430 U	410 U	380 U	200 J	360 U
Caprolactam	430 U	410 U	380 U	400 U	360 U
Carbazole	430 U	410 U	380 U	400 U	360 U
Chrysene	430 U	410 U	380 U	400 U	360 U
Dibenz(a,h)anthracene	430 U	410 U	380 U	400 U	360 U
Dibenzofuran	430 U	410 U	380 U	400 U	360 U
Diethylphthalate	430 U	410 U	380 U	400 U	360 U
Dimethylphthalate	430 U	410 U	380 U	400 U	360 U
Di-n-butyl phthalate	430 U	410 U	380 U	400 U	360 U
Di-n-octyl phthalate	430 U	410 U	380 U	400 U	360 U
Fluoranthene	430 U	410 U	380 U	400 U	360 U
Fluorene	430 U	410 U	380 U	400 U	360 U
Hexachlorobenzene	430 U	410 U	380 U	400 U	360 U
Hexachlorobutadiene	430 U	410 U	380 U	400 U	360 U
Hexachlorocyclopentadiene	430 U	410 U	380 U	400 U	360 U
Hexachloroethane	430 U	410 U	380 U	400 U	360 U
Indeno(1,2,3-cd)pyrene	430 U	410 U	380 U	400 U	360 U
Isophorone	430 U	410 U	380 U	400 U	360 U
Naphthalene	430 U	410 U	380 U	400 U	360 U
Nitrobenzene	430 U	410 U	380 U	400 U	360 U
N-Nitroso-di-n-propylamine	430 U	410 U	380 U	400 U	360 U
N-Nitrosodiphenylamine	430 U	410 U	380 U	400 U	360 U
Pentachlorophenol	1100 U	1000 U	960 U	1000 U	910 U
Phenanthrene	430 U	410 U	380 U	400 U	360 U
Phenol	430 U	410 U	380 U	400 U	360 U
Pyrene	430 U	410 U	380 U	400 U	360 U

APPENDIX G
SURFACE SOILS ANALYTICAL RESULTS
SWMU 314
RCRA INVESTIGATION - CTO-0143
MCB, CAMP LEJEUNE, NORTH CAROLINA

Site Sample I.D.	SWMU314-SS01	SWMU314-SS02	SWMU314-SS03	SWMU314-SS04	SWMU314-SS05
Lab Sample I.D.	R3030-08	R3030-12	R3030-13	R3030-14	R3030-15
Sample Date	06-23-2003	06-23-2003	06-23-2003	06-23-2003	06-23-2003
Depth Range					
Metals (mg/kg)					
Arsenic	0.74 U	1.5 J	1.2 J	0.68 U	0.62 U
Barium	15.3 J	14.5 J	11.7 J	13.3 J	7.2 J
Cadmium	3.5	2.4	2.1	2.3	1.7
Chromium	0.16 U	0.15 U	0.14 U	0.15 U	0.13 U
Lead	24.5	23.4	17.2	29.9	7.4
Mercury	0.13 U	0.12 U	0.11 U	0.12 U	0.1 U
Selenium	0.79 U	0.75 U	0.71 U	0.73 U	0.66 U
Silver	0.26 UJ	0.25 UJ	0.24 UJ	0.24 UJ	0.22 UJ

APPENDIX G
SURFACE SOILS ANALYTICAL RESULTS
SWMU 336
RCRA INVESTIGATION - CTO-0143
MCB, CAMP LEJEUNE, NORTH CAROLINA

Site Sample I.D.	SWMU336-TW03-00	SWMU336-TW04-00	SWMU336-TW05-00	SWMU336-TW06-00
Lab Sample I.D.	R3029-01	R3029-04	R3029-06	R3029-08
Sample Date	06-23-2003	06-23-2003	06-23-2003	06-23-2003
Depth Range	0-1	0-1	0-1	0-1
Volatiles (ug/kg)				
1,1,1-Trichloroethane	12 U	12 U	12 U	12 U
1,1,2,2-Tetrachloroethane	12 U	12 U	12 U	12 U
1,1,2-Trichloroethane	12 U	12 U	12 U	12 U
1,1,2-Trichlorotrifluoroethane	12 U	12 U	12 U	12 U
1,1-Dichloroethane	12 U	12 U	12 U	12 U
1,1-Dichloroethene	12 U	12 U	12 U	12 U
1,2,4-Trichlorobenzene	12 U	12 U	12 U	12 U
1,2-Dibromo-3-Chloropropane	12 R	12 R	12 R	12 R
1,2-Dibromoethane	12 U	12 U	12 U	12 U
1,2-Dichlorobenzene	12 U	12 U	12 U	12 U
1,2-Dichloroethane	12 U	12 U	12 U	12 U
1,2-Dichloropropane	12 U	12 U	12 U	12 U
1,3-Dichlorobenzene	12 U	12 U	12 U	12 U
1,4-Dichlorobenzene	12 U	12 U	12 U	12 U
2-Butanone	12 U	12 U	12 U	12 U
2-Hexanone	12 U	12 U	12 U	12 U
4-Methyl-2-Pentanone	12 U	12 U	12 U	12 U
Acetone	12 U	12 U	12 U	12 UJ
Benzene	12 U	12 U	12 U	12 U
Bromodichloromethane	12 U	12 U	12 U	12 U
Bromoform	12 U	12 U	12 U	12 U
Bromomethane	12 U	12 U	12 U	12 U
Carbon Disulfide	12 U	12 U	12 U	12 U
Carbon Tetrachloride	12 U	12 U	12 U	12 U
Chlorobenzene	12 U	12 U	12 U	12 U
Chloroethane	12 U	12 U	12 U	12 U
Chloroform	12 U	12 U	12 U	12 U
Chloromethane	12 U	12 U	12 U	12 U
cis-1,2-Dichloroethene	12 U	12 U	12 U	12 U
cis-1,3-Dichloropropene	12 U	12 U	12 U	12 U
Cyclohexane	12 U	12 U	12 U	12 U
Dibromochloromethane	12 U	12 U	12 U	12 U
Dichlorodifluoromethane	12 U	12 U	12 U	12 U
Ethyl Benzene	12 U	12 U	12 U	12 U

APPENDIX G
SURFACE SOILS ANALYTICAL RESULTS
SWMU 336
RCRA INVESTIGATION - CTO-0143
MCB, CAMP LEJEUNE, NORTH CAROLINA

Site Sample I.D.	SWMU336-TW03-00	SWMU336-TW04-00	SWMU336-TW05-00	SWMU336-TW06-00
Lab Sample I.D.	R3029-01	R3029-04	R3029-06	R3029-08
Sample Date	06-23-2003	06-23-2003	06-23-2003	06-23-2003
Depth Range	0-1	0-1	0-1	0-1
Volatiles (ug/kg) (cont.)				
Isopropylbenzene	12 U	12 U	12 U	12 U
m/p-Xylenes	12 U	12 U	12 U	12 U
Methyl Acetate	12 U	12 U	12 U	12 U
Methyl tert-butyl Ether	12 U	12 U	12 U	12 U
Methylcyclohexane	12 U	12 U	12 U	12 U
Methylene Chloride	12 U	12 U	12 U	12 U
o-Xylene	12 U	12 U	12 U	12 U
Styrene	12 U	12 U	12 U	12 U
Tetrachloroethene	12 U	12 U	12 U	12 U
Toluene	12 U	12 U	12 U	12 U
trans-1,2-Dichloroethene	12 U	12 U	12 U	12 U
trans-1,3-Dichloropropene	12 U	12 U	12 U	12 U
Trichloroethene	12 U	12 U	12 U	12 U
Trichlorofluoromethane	12 U	12 U	12 U	12 U
Vinyl Chloride	12 U	12 U	12 U	12 U
Xylenes (Total)				
SEMIVOLATILES (ug/kg)				
1,1'-Biphenyl				
2,2'-Oxybis(1-Chloropropane)				
2,4,5-Trichlorophenol				
2,4,6-Trichlorophenol				
2,4-Dichlorophenol				
2,4-Dimethylphenol				
2,4-Dinitrophenol				
2,4-Dinitrotoluene				
2,6-Dinitrotoluene				
2-Chloronaphthalene				
2-Chlorophenol				
2-Methylnaphthalene				
2-Methylphenol				
2-Nitroaniline				
2-Nitrophenol				
3,3-Dichlorobenzidine				
3+4-Methylphenols				

APPENDIX G
SURFACE SOILS ANALYTICAL RESULTS
SWMU 336
RCRA INVESTIGATION - CTO-0143
MCB, CAMP LEJEUNE, NORTH CAROLINA

Site Sample I.D.	SWMU336-TW03-00	SWMU336-TW04-00	SWMU336-TW05-00	SWMU336-TW06-00
Lab Sample I.D.	R3029-01	R3029-04	R3029-06	R3029-08
Sample Date	06-23-2003	06-23-2003	06-23-2003	06-23-2003
Depth Range	0-1	0-1	0-1	0-1
SEMIVOLATILES (ug/kg) (cont.)				
3-Nitroaniline				
4,6-Dinitro-2-methylphenol				
4-Bromophenyl phenyl ether				
4-Chloro-3-methylphenol				
4-Chloroaniline				
4-Chlorophenyl phenyl ether				
4-Methylphenol				
4-Nitroaniline				
4-Nitrophenol				
Acenaphthene				
Acenaphthylene				
Acetophenone				
Anthracene				
Atrazine				
Benzaldehyde				
Benzo(a)anthracene				
Benzo(a)pyrene				
Benzo(b)fluoranthene				
Benzo(ghi)perylene				
Benzo(k)fluoranthene				
bis(2-Chloroethoxy)methane				
bis(2-Chloroethyl) ether				
bis(2-Ethylhexyl) phthalate				
Butylbenzylphthalate				
Caprolactam				
Carbazole				
Chrysene				
Dibenz(a,h)anthracene				
Dibenzofuran				
Diethyl phthalate				
Dimethyl phthalate				
Di-n-butyl phthalate				
Di-n-octyl phthalate				
Fluoranthene				

APPENDIX G
SURFACE SOILS ANALYTICAL RESULTS
SWMU 336
RCRA INVESTIGATION - CTO-0143
MCB, CAMP LEJEUNE, NORTH CAROLINA

Site Sample I.D.	SWMU336-TW03-00	SWMU336-TW04-00	SWMU336-TW05-00	SWMU336-TW06-00
Lab Sample I.D.	R3029-01	R3029-04	R3029-06	R3029-08
Sample Date	06-23-2003	06-23-2003	06-23-2003	06-23-2003
Depth Range	0-1	0-1	0-1	0-1
SEMIVOLATILES (ug/kg) (cont.)				
Fluorene				
Hexachlorobenzene				
Hexachlorobutadiene				
Hexachlorocyclopentadiene				
Hexachloroethane				
Indeno(1,2,3-cd)pyrene				
Isophorone				
Naphthalene				
Nitrobenzene				
N-Nitrosodi-n-propylamine				
N-Nitrosodiphenylamine				
Pentachlorophenol				
Phenanthrene				
Phenol				
Pyrene				
Metals (mg/kg)				
Arsenic	0.64 U	0.66 U	0.81 J	0.63 U
Barium	13.6 J	12 J	10.8 J	11.1 J
Cadmium	0.49 J	0.09 U	0.15 J	0.27 J
Chromium	0.14 U	0.14 U	0.14 U	0.14 U
Lead	7.7	6.5	8.2	6.1
Mercury	0.11 U	0.11 U	0.11 U	0.12 U
Selenium	0.69 UJ	0.71 UJ	0.71 UJ	0.68 UJ
Silver	0.23 UJ	0.24 UJ	0.24 UJ	0.23 UJ

APPENDIX G
GROUNDWATER ANALYTICAL RESULTS
SWMU 361
RCRA INVESTIGATION - CTO-0143
MCB, CAMP LEJEUNE, NORTH CAROLINA

Site Sample I.D.	SWMU361-MW02	SWMU361-MW06	SWMU361-MW06D	SWMU361-TW02	SWMU361-TW03	SWMU361-TW04	SWMU361-TW05
Lab Sample I.D.	R3085-13	R3085-20	R3085-21	R3085-17	R3085-16	R3085-18	R3085-19
Sample Date	06-26-2003	06-26-2003	06-26-2003	06-26-2003	06-26-2003	06-26-2003	06-26-2003
Pesticides (ug/L)							
4,4-DDD	0.11 UJ	0.11 U	0.1 UJ	0.1 U	0.1 UJ	0.11 U	0.11 UJ
4,4-DDE	0.11 UJ	0.11 U	0.1 UJ	0.1 U	0.1 UJ	0.11 U	0.11 UJ
4,4-DDT	0.11 UJ	0.11 U	0.1 UJ	0.1 U	0.1 UJ	0.11 U	0.11 UJ
Aldrin	0.053 UJ	0.053 U	0.052 UJ	0.052 U	0.052 UJ	0.053 U	0.053 UJ
alpha-BHC	0.053 UJ	0.053 U	0.052 UJ	0.052 U	0.052 UJ	0.053 U	0.053 UJ
alpha-Chlordane	0.053 UJ	1.1 J	1.2 J	0.052 U	0.052 UJ	0.053 U	0.053 UJ
beta-BHC	0.053 UJ	0.053 U	0.052 UJ	0.052 U	0.052 UJ	0.053 U	0.053 UJ
delta-BHC	0.053 UJ	0.053 U	0.052 UJ	0.052 U	0.052 UJ	0.053 U	0.053 UJ
Dieldrin	0.11 UJ	0.11 U	0.1 UJ	0.1 U	0.1 UJ	0.11 U	0.11 UJ
Endosulfan I	0.053 UJ	0.053 U	0.052 UJ	0.052 U	0.052 UJ	0.053 U	0.053 UJ
Endosulfan II	0.11 UJ	0.11 U	0.1 UJ	0.1 U	0.1 UJ	0.11 U	0.11 UJ
Endosulfan Sulfate	0.11 UJ	0.11 U	0.1 UJ	0.1 U	0.1 UJ	0.11 U	0.11 UJ
Endrin	0.11 UJ	0.11 U	0.1 UJ	0.1 U	0.1 UJ	0.11 U	0.11 UJ
Endrin aldehyde	0.11 UJ	0.11 U	0.1 UJ	0.1 U	0.1 UJ	0.11 U	0.11 UJ
Endrin ketone	0.11 UJ	0.11 U	0.1 UJ	0.1 U	0.1 UJ	0.11 U	0.11 UJ
gamma-BHC	0.053 UJ	0.053 U	0.052 UJ	0.052 U	0.052 UJ	0.053 U	0.053 UJ
gamma-Chlordane	0.053 UJ	1.5 J	1.2 J	0.052 U	0.052 UJ	0.053 U	0.053 UJ
Heptachlor	0.053 UJ	0.053 U	0.052 UJ	0.052 U	0.052 UJ	0.053 U	0.053 UJ
Heptachlor epoxide	0.053 UJ	0.053 U	0.052 UJ	0.052 U	0.052 UJ	0.053 U	0.053 UJ
Methoxychlor	0.53 UJ	0.53 U	0.52 UJ	0.52 U	0.52 UJ	0.53 U	0.53 UJ
Toxaphene	5.3 UJ	5.3 U	5.2 UJ	5.2 U	5.2 UJ	5.3 U	5.3 UJ
Metals (ug/L)							
Arsenic	2.8 U	2.8 U	2.8 U	2.8 U	2.8 U	2.8 U	2.8 U
Barium	138 J	84.9 J	91.8 J	52.8 J	44.3 J	18.5 J	57.4 J
Cadmium	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U
Chromium	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U
Lead	2.1 U	2.1 U	2.1 U	2.1 U	2.1 U	2.1 U	2.1 U
Mercury	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Selenium	3 UJ	3.5 J	4 J	3 UJ	3 UJ	3 UJ	3 UJ
Silver	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ

APPENDIX G
SUBSURFACE SOILS ANALYTICAL RESULTS
SWMU 361
RCRA INVESTIGATION - CTO-0143
MCB, CAMP LEJEUNE, NORTH CAROLINA

Site Sample I.D.	SWMU361-TW02-05	SWMU361-TW03-06	SWMU361-TW04-06	SWMU361-TW05-08
Lab Sample I.D.	R3028-16	R3028-20	R2936-15	R2936-17
Sample Date	06-22-2003	06-22-2003	06-18-2003	06-18-2003
Depth Range	9-11	5-7	7-9	15-17
Pesticides (ug/kg)				
4,4-DDD	4.1 U	3.8 U		
4,4-DDE	4.1 U	3.8 U		
4,4-DDT	4.1 U	3.8 U		
Aldrin	2.1 U	1.9 U		
alpha-BHC	2.1 U	1.9 U		
alpha-Chlordane	2.1 U	1.9 U		
beta-BHC	2.1 U	1.9 U		
delta-BHC	2.1 U	1.9 U		
Dieldrin	4.1 U	3.8 U		
Endosulfan I	2.1 U	1.9 U		
Pesticides (ug/kg) (cont.)				
Endosulfan II	4.1 U	3.8 U		
Endosulfan Sulfate	4.1 U	3.8 U		
Endrin	4.1 U	3.8 U		
Endrin aldehyde	4.1 U	3.8 U		
Endrin ketone	4.1 U	3.8 U		
gamma-BHC	2.1 U	1.9 U		
gamma-Chlordane	2.1 U	1.9 U		
Heptachlor	2.1 U	1.9 U		
Heptachlor epoxide	2.1 U	1.9 U		
Methoxychlor	21 U	19 U		
Toxaphene	210 U	190 U		
Metals (mg/kg)				
Arsenic	0.69 U	0.65 U	0.71 U	0.69 U
Barium	8.2 J	10 J	7.6 J	7.4 J
Cadmium	0.1 U	0.09 U	0.1 U	0.1 U
Chromium	0.15 U	0.14 U	4	5.5
Lead	1.2	3.8	3.9 J	4.6 J
Mercury	0.12 U	0.11 U	0.12 U	0.12 U
Selenium	0.82 J	0.69 R	0.76 UJ	0.74 UJ
Silver	0.25 UJ	0.23 UJ	0.25 UJ	0.25 UJ

APPENDIX G
SURFACE SOILS ANALYTICAL RESULTS
SWMU 361
RCRA INVESTIGATION - CTO-0143
MCB, CAMP LEJEUNE, NORTH CAROLINA

Site Sample I.D.	SWMU361-TW02-00	SWMU361-TW03-00	SWMU361-TW04-00	SWMU361-TW05-00
Lab Sample I.D.	R3028-15	R3028-19	R2936-14	R2936-16
Sample Date	06-22-2003	06-22-2003	06-18-2003	06-18-2003
Depth Range	0-1	0-1	0-1	0-1
Pesticides (ug/kg)				
4,4-DDD	3.6 U	3.8 U		
4,4-DDE	3.6 U	3.8 U		
4,4-DDT	3.6 U	3.8 U		
Aldrin	1.8 U	2 U		
alpha-BHC	1.8 U	2 U		
alpha-Chlordane	1.8 U	2 U		
beta-BHC	1.8 U	2 U		
delta-BHC	1.8 U	2 U		
Dieldrin	3.6 U	3.8 U		
Endosulfan I	1.8 U	2 U		
Endosulfan II	3.6 U	3.8 U		
Pesticides (ug/kg) (cont.)				
Endosulfan Sulfate	3.6 U	3.8 U		
Endrin	3.6 U	3.8 U		
Endrin aldehyde	3.6 U	3.8 U		
Endrin ketone	3.6 U	3.8 U		
gamma-BHC	1.8 U	2 U		
gamma-Chlordane	1.8 U	2 U		
Heptachlor	1.8 U	2 U		
Heptachlor epoxide	1.8 U	2 U		
Methoxychlor	18 U	20 U		
Toxaphene	180 U	200 U		
Metals (mg/kg)				
Arsenic	0.61 U	0.65 U	0.92 J	0.85 J
Barium	4.6 J	10.1 J	17.2 J	19.8 J
Cadmium	0.09 U	0.09 U	0.1 U	0.09 U
Chromium	0.13 U	0.14 U	4.9	7.2
Lead	1.9	4	15.5 J	3.7 J
Mercury	0.11 U	0.11 U	0.11 U	0.11 U
Selenium	0.66 R	0.7 R	0.72 UJ	0.69 UJ
Silver	0.22 UJ	0.23 UJ	0.24 UJ	0.23 UJ

APPENDIX G
SEDIMENT SOIL - SWMU 362
ORGANIC COMPOUNDS
SWMU CONFIRMATORY SAMPLING (CTO-0143)
DOG 11 AREA
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU362-SD04		SWMU362-SD05	
SAMPLE DATE	07-15-2003		07-15-2003	
PESTICIDES (ug/kg)				
4,4'-DDD	4.4	U	4.9	U
4,4'-DDE	4.4	U	4.9	U
4,4'-DDT	4.4	U	4.9	U
Aldrin	2.3	U	2.5	U
Dieldrin	4.4	U	4.9	U
Endosulfan I	2.3	U	2.5	U
Endosulfan II	4.4	U	4.9	U
Endosulfan sulfate	4.4	U	4.9	U
Endrin	4.4	U	4.9	U
Endrin aldehyde	4.4	U	4.9	U
Endrin ketone	4.4	U	4.9	U
Heptachlor	2.3	U	2.5	U
Heptachlor epoxide	2.3	U	2.5	U
Methoxychlor	23	U	25	U
Toxaphene	230	U	250	U
alpha-BHC	2.3	U	2.5	U
alpha-Chlordane	23	U	25	U
beta-BHC	2.3	U	2.5	U
delta-BHC	2.3	U	2.5	U
gamma-BHC (Lindane)	2.3	U	2.5	U
gamma-Chlordane	23	U	25	U

APPENDIX G
SURFACE WATER - SWMU 362
ORGANIC COMPOUNDS
SWMU CONFIRMATORY SAMPLING (CTO-0143)
DOG 11 AREA
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	SWMU362-SW04		SWMU362-SW05	
SAMPLE DATE	07-15-2003		07-15-2003	
PESTICIDES (ug/L)				
4,4'-DDD	0.1	UJ	0.1	UJ
4,4'-DDE	0.1	UJ	0.1	UJ
4,4'-DDT	0.1	UJ	0.1	UJ
Aldrin	0.051	UJ	0.052	UJ
Dieldrin	0.1	UJ	0.1	UJ
Endosulfan I	0.051	UJ	0.052	UJ
Endosulfan II	0.1	UJ	0.1	UJ
Endosulfan sulfate	0.1	UJ	0.1	UJ
Endrin	0.1	UJ	0.1	UJ
Endrin aldehyde	0.1	UJ	0.1	UJ
Endrin ketone	0.1	UJ	0.1	UJ
Heptachlor	0.051	UJ	0.052	UJ
Heptachlor epoxide	0.051	UJ	0.052	UJ
Methoxychlor	0.51	UJ	0.52	UJ
Toxaphene	5.1	UJ	5.2	UJ
alpha-BHC	0.051	UJ	0.052	UJ
alpha-Chlordane	0.051	UJ	0.052	UJ
beta-BHC	0.051	UJ	0.052	UJ
delta-BHC	0.051	UJ	0.052	UJ
gamma-BHC (Lindane)	0.051	UJ	0.052	UJ
gamma-Chlordane	0.051	UJ	0.052	UJ

APPENDIX H
GEOPHYSICAL SURVEY RESULTS

NAEVA GEOPHYSICS INC.
THE LEADER IN SUBSURFACE DETECTION
Subsurface Geophysical Surveys

GPR
MAGNETICS
ELECTROMAGNETICS
SEISMICS
RESISTIVITY
UTILITY LOCATION
UXO DETECTION
BOREHOLE CAMERA
STAFF SUPPORT

Results of Geophysical Investigation

Camp Johnson – Camp Lejeune
Jacksonville, North Carolina

Prepared for: **CH2MHILL**
Herndon, VA

Dates of Investigation: **April 2-3, 2002**

Prepared by:

Preston Hawkins
Project Manager

Introduction
Survey Design
Methods
Results
Conclusions

Plate 1: EM-31 Quadrature Phase (terrain conductivity) contour map
Plate 2: EM-31 In-Phase contour map
Plate 3: Analytic signal from Total field magnetics contour map

Appendix: Ground Penetrating Radar profiles (Lines 1-4)

NEW YORK
50 N. Harrison Street
Suite 11
Congers
New York 10920
(845) 268-1800
(845) 268-1802 Fax

VIRGINIA
P.O. Box 7325
Charlottesville
Virginia 22906
(434) 978-3187
(434) 973-9791 Fax

Results of Geophysical Investigation
SWMU 46 Camp Johnson
Camp Lejeune, NC

Introduction

On April 2 and 3, 2002, NAEVA Geophysics, Inc. conducted a geophysical investigation at a site identified as SWMU 46 of Camp Johnson located within Camp Lejeune in Jacksonville, North Carolina. The area of investigation (AOI) was approximately 1.5 acres in size. The purpose of the investigation was to attempt to locate and characterize a potential landfill area suspected to exist in the AOI.

Survey Design

An approximate 600-foot baseline was established through the center of the survey area prior to NAEVA's arrival on-site. As directed by Baker Environmental during the site orientation on the morning of April 2, 2002, the AOI was centered in an open grassy field bounded by a road to the north and surrounded by woods to the east, west, and south. Using a transit, NAEVA personnel established a grid of parallel survey lines spaced 25 feet apart, along which 25-foot stations were marked using temporary plastic pin flags. Additional lines were later cut in the woods to the east and west of the original area surveyed.

Methods

The equipment selected for this investigation included a Geonics EM-31 DL terrain conductivity meter and a Scintrex Smartmag cesium-vapor magnetometer in conjunction with an Envi-Mag proton-precession magnetometer. A Sensors and Software Pulse Ekko Ground Penetrating Radar (GPR) system equipped with 200mhz antennae was also used to further characterize any potential anomalous features.

The Geonics EM-31 is an electromagnetic (EM) frequency-domain instrument primarily used to measure ground conductivity. The EM-31 provides an output of both the quadrature-phase (terrain conductivity) and in-phase (response to metal) components of an induced electromagnetic field, which are recorded simultaneously.

The quadrature-phase is a measurement of the conductivity in milliSiemens per meter (mS/m). Terrain conductivity is a function of porosity, degree of

saturation, and the conductivity of the subsurface materials. The absolute values of terrain conductivity are not usually diagnostic, but their spatial variations are important. The ability to identify lateral variations in the conductivity of the shallow subsurface makes quadrature-phase EM-31 data very useful in the delineation of boundaries between different fill types.

The in-phase data from the EM-31 is primarily used in searching for buried metal, and is measured in units of relative parts per thousand (ppt) of the electromagnetic field. A negative instrument response is usually expected over areas containing shallow, buried metal (both ferrous and nonferrous).

Total field magnetic surveys are useful in identifying buried ferrous materials. Ferrous material typically manifests a remnant magnetic field that varies in orientation from that of the Earth's magnetic field. The summation of the two fields results in distortions (anomalies) in the overall (total) field. These local, high frequency (short wavelength) anomalies in the Earth's magnetic field can therefore be interpreted as subsurface ferrous material. Field data collected in the survey area with the cesium-vapor "Smartmag" is diurnally corrected for daily fluctuations in the earth's field by matching the time stamps of each reading with the base station proton-precession magnetometer.

GPR utilizes the propagation and reflection of high frequency electromagnetic energy to image subsurface structures. A pulse emitted by the transmitter travels through the ground and is partially reflected between the boundaries of two mediums having different electrical properties. In this type of investigation, GPR is typically used to further characterize the depth of fill material identified in the EM-31 and/or magnetic data as anomalies.

EM-31 and Smartmag data were collected continuously (5 readings per second) along the traverses spaced 25 feet apart. The EM-31 data were stored in a data logger and then downloaded into a laptop computer for processing using Geonics' DAT-31. The magnetics data were stored in the operating consoles and downloaded into a laptop computer immediately after collection for diurnal correction and processing using Scintrex's Envimag software. Once the data were preliminarily processed, it was contoured in the field using Golden's Surfer software. Final presentation quality geophysical maps were produced using Oasis Montaj's Geosoft software.

GPR data is directly stored onto a hard drive of the hand-held/ portable computer for real-time image review, editing and processing. Based on soils information provided by Baker Environmental from the temporary well borings conducted on-site, the individual profile data were post-processed using a velocity that matched specific subsurface flat-lying reflective events with logged changes in the soil composition. Since wave velocity (and the subsequent depth estimate) differs locally between clay, silt, and sand, the most accurate estimate is determined using the drill logs of the on-site borings.

Results

An area of anomalous response that is consistent with a small landfill is observed with both EM and total field geophysical methods. The feature is located in the central portion of the area, and extends southwest and northeast beyond the limits of the area investigated. After the first data collection session and subsequent processing, the anomalous area was recognized as extending beyond the grid limits. In an attempt to further encompass the anomalous footprint, an additional session of data acquisition was conducted after brush removal was accomplished to the northeast and southwest.

In the quadrature (conductivity) phase component of the EM-31 data (Figures 1), the highest-amplitudes are within the central portion of the anomalous feature. Elevated conductivity readings are observed to decrease away from the peak response in a relatively circular shape. To the immediate southeast of the peak however, elevated conductivity is observed to extend beyond the "TW01" temporary well. A smaller anomaly immediately north of the circular feature appears as a "low" or negative value in the quadrature phase data, and appears to be separate from the larger anomalous area.

The In-phase (metal-detection) component of the EM-31 (Figure 2) exhibits a series of discrete anomalies concentrated within the elevated conductivity defined by the quadrature phase. The small, high and low-amplitude anomalies serve to confirm the presence of metal existing in the subsurface that corresponds to the elevated conductivity readings.
Total field magnetics data (Figure 3) exhibits a large anomalous feature located in the central portion of the survey area consistent with the other data sets. Multiple magnetic peaks within the anomalous area correlate well with the anomalous conductivity data response. Two additional

anomalies are observed in the northern portion of the survey area that are slightly exhibited in the In-phase data. The isolated ferrous metal sources of these anomalies are not necessarily associated with the potential landfill feature.

The ground penetrating radar (GPR) data exhibits a significant subsurface disturbance consistent with the horizontal anomalous limits defined by the EM-31 and magnetometer (Appendix). Specifically regarding the two long profiles (Line 1 and Line 2), flat-lying reflectors (from approximately 5 to 7 feet deep) abruptly truncate (blue highlight) as the GPR system passes within the suspected landfill. A series of pronounced hyperbolic events are observed in the shallow subsurface (red highlight) at approximately 3 feet within the suspected landfill. Signal penetration beneath the fill material is suspect. A faint, relatively undisturbed, flat-lying reflector better observed on GPR line 2 (yellow highlight) than Line 1 exists at approximately 10 feet through the entire length of the record. The depth corresponds in the drill records with a soil change from "moist" to "wet" and "brown/orange" to "gray". If this reflective event in the GPR data is resultant of changes in the soil lithology, then it may be determined that the depth of the fill material terminates shallower than this depth (~10feet). If this reflector is representative of the interface with groundwater and not a change in soil property, then the maximum depth determination of the fill material cannot be determined. The east/west radar records centered within the anomalous area (Lines 3&4) exhibit the same hyperbolic features in the shallow subsurface as is observed on Lines 1 and 2, but do not reveal deeper reflectors.

Conclusions

The large anomalous area identified with the geophysical methods has a lateral surface expression of approximately 250 feet (grid) north/south. However, to fully characterize the entire anomalous footprint, additional brush removal to the (grid) east and west will be necessary to transport the geophysical equipment in a straight-line profile. The extreme amplitude of the anomalous area suggests a significant concentration of metal exists in the subsurface. The multiple peak responses within the overall circular anomalous area are likely associated with the series of hyperbolic events exhibited in the GPR data, suggesting varying concentrations of metallic debris exist within the fill area.

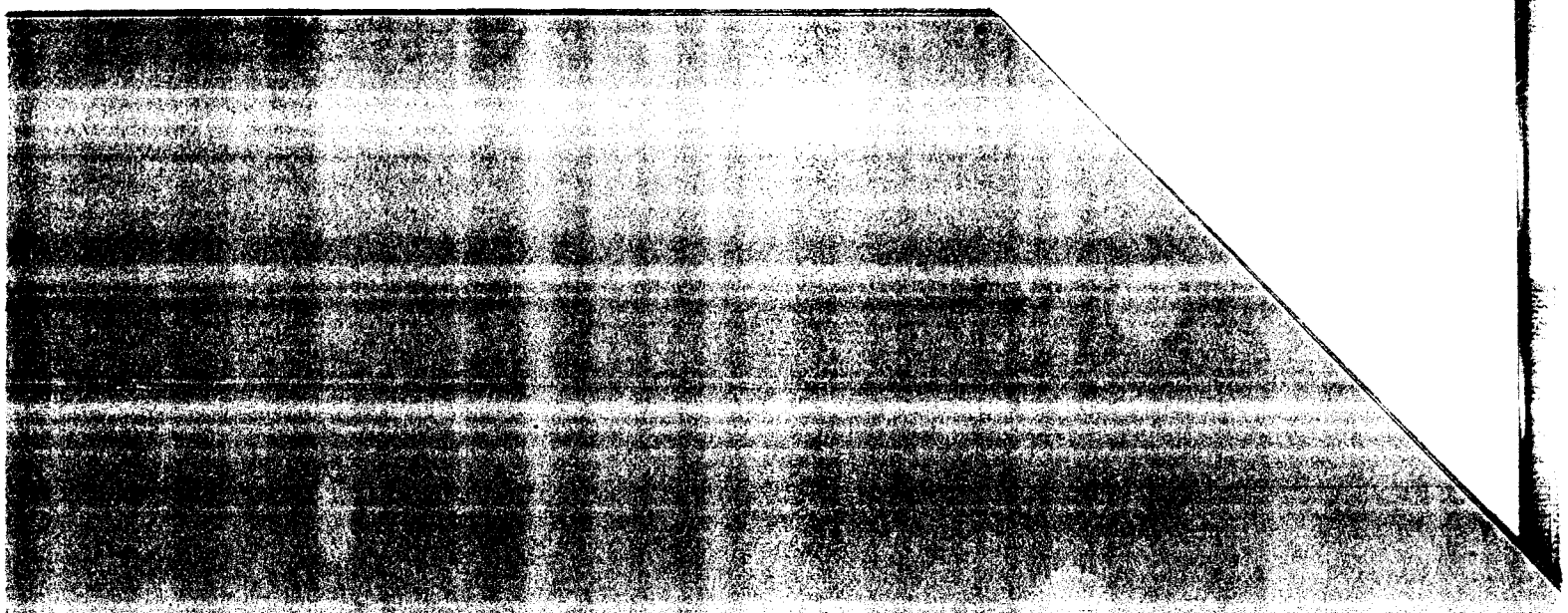
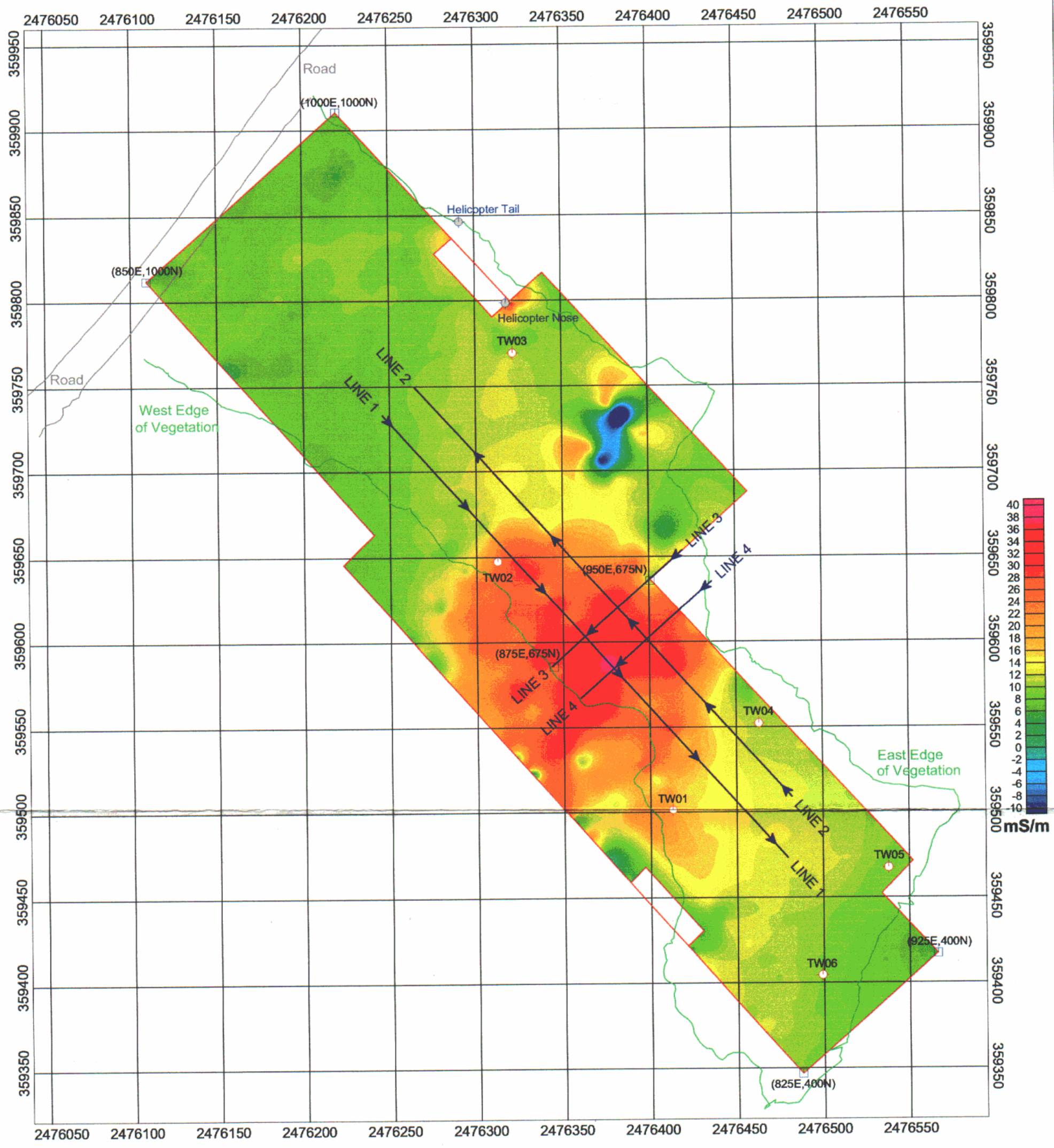


Plate 1

EM-31 Conductivity



Legend

- Area of Geophysical Investigation
- Tree Line
- Radar (GPR) Survey Line
  (Label Indicates Line Name and Direction)
- Temporary Well
- GPS Control Point
  (Wooden Stake Labeled with Local Grid Coordinates)
- Road

Scale 1:720

25 0 25 50 75

feet

Plate 1

NAEVA GEOPHYSICS INC.
THE LEADER IN SUBSURFACE DETECTION
Subsurface Geophysical Surveys

CH2M Hill

EM-31 Conductivity
Camp Johnson - Camp Lejeune
Jacksonville, North Carolina

Dates of Survey: April 2-3, 2002

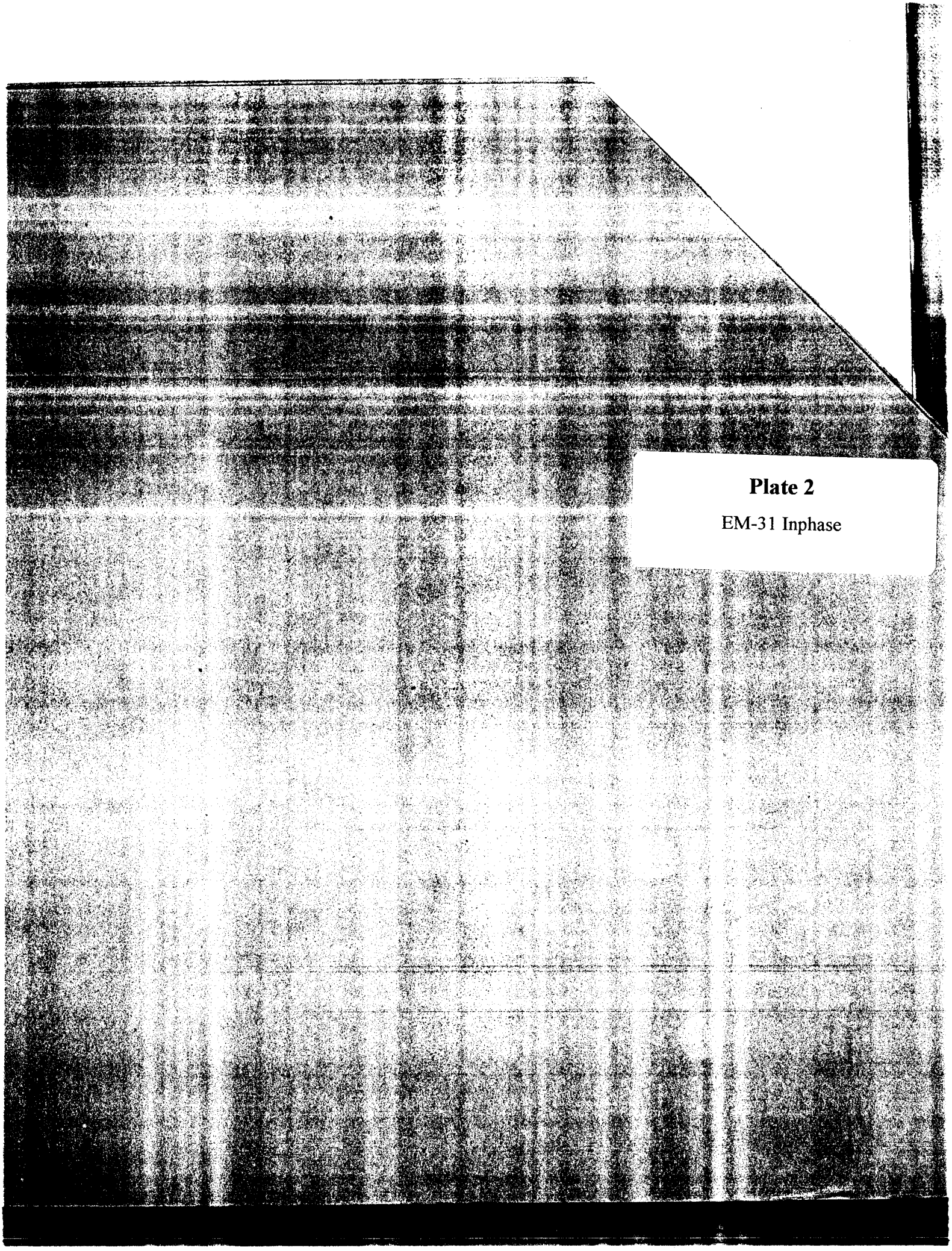
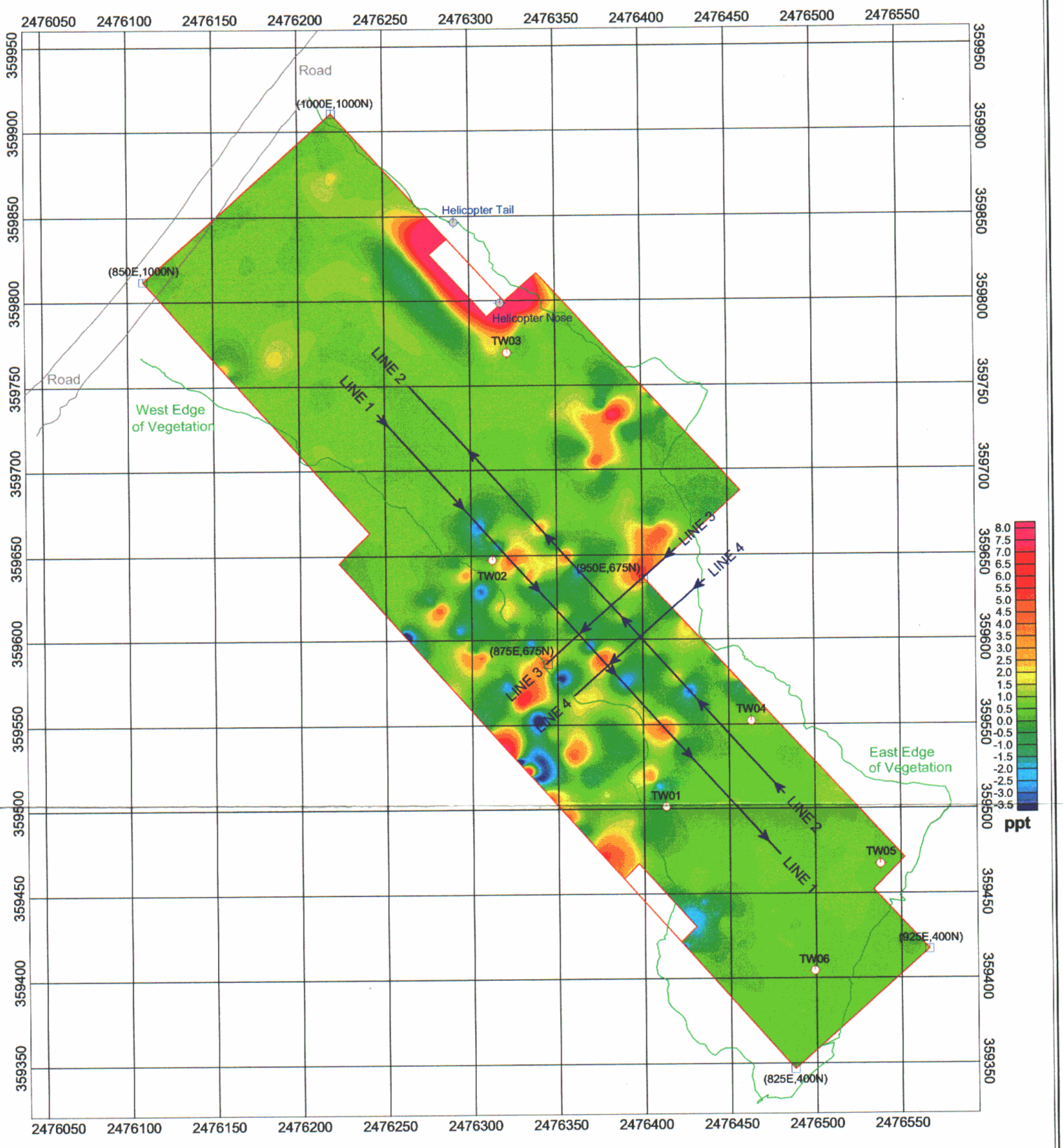


Plate 2

EM-31 Inphase



Legend

- Area of Geophysical Investigation
- Tree Line
- Radar (GPR) Survey Line
  (Label Indicates Line Name and Direction)
- Temporary Well
- GPS Control Point
  (Wooden Stake Labeled with Local Grid Coordinates)
- Road

Scale 1:720

25 0 25 50 75

feet

Plate 2

NAEVA GEOPHYSICS INC.

THE LEADER IN SUBSURFACE DETECTION

Subsurface Geophysical Surveys

CH2M Hill

EM-31 Inphase
Camp Johnson - Camp Lejeune
Jacksonville, North Carolina

Dates of Survey: April 2-3, 2002

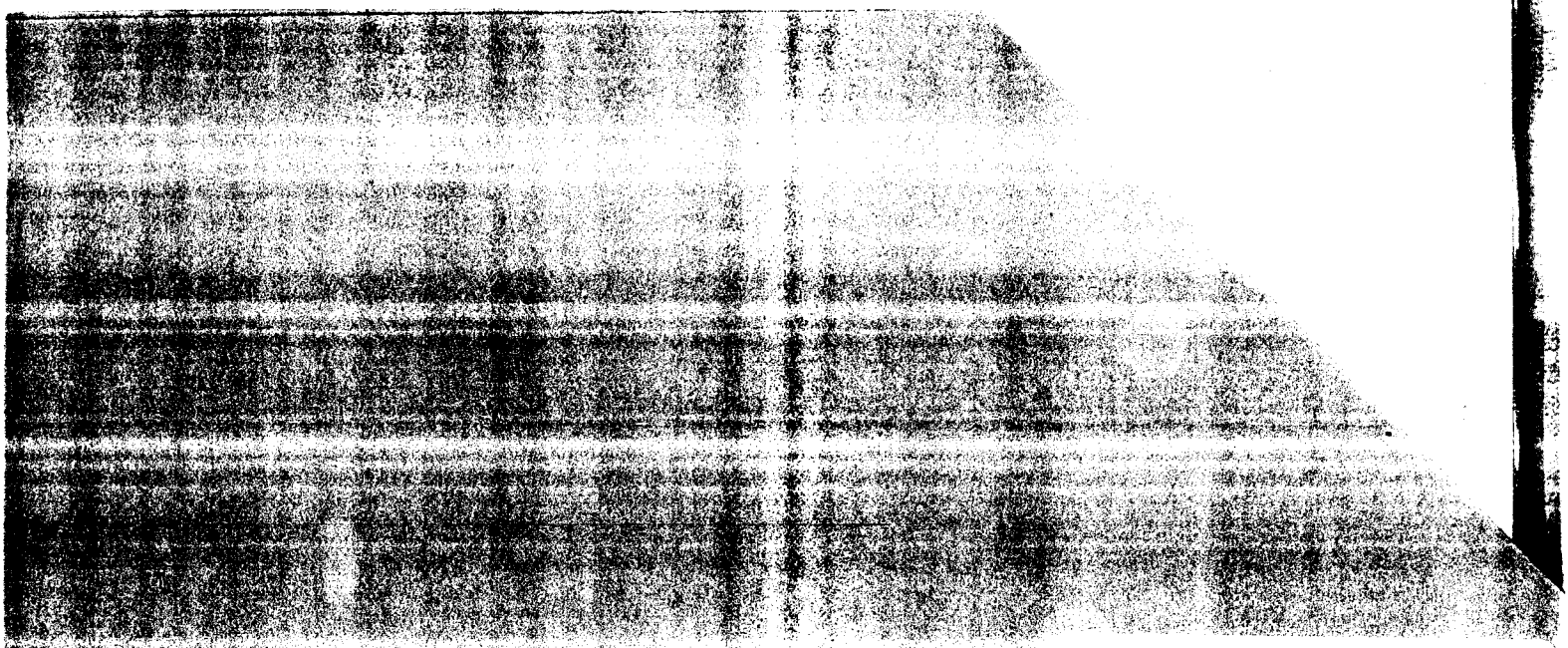
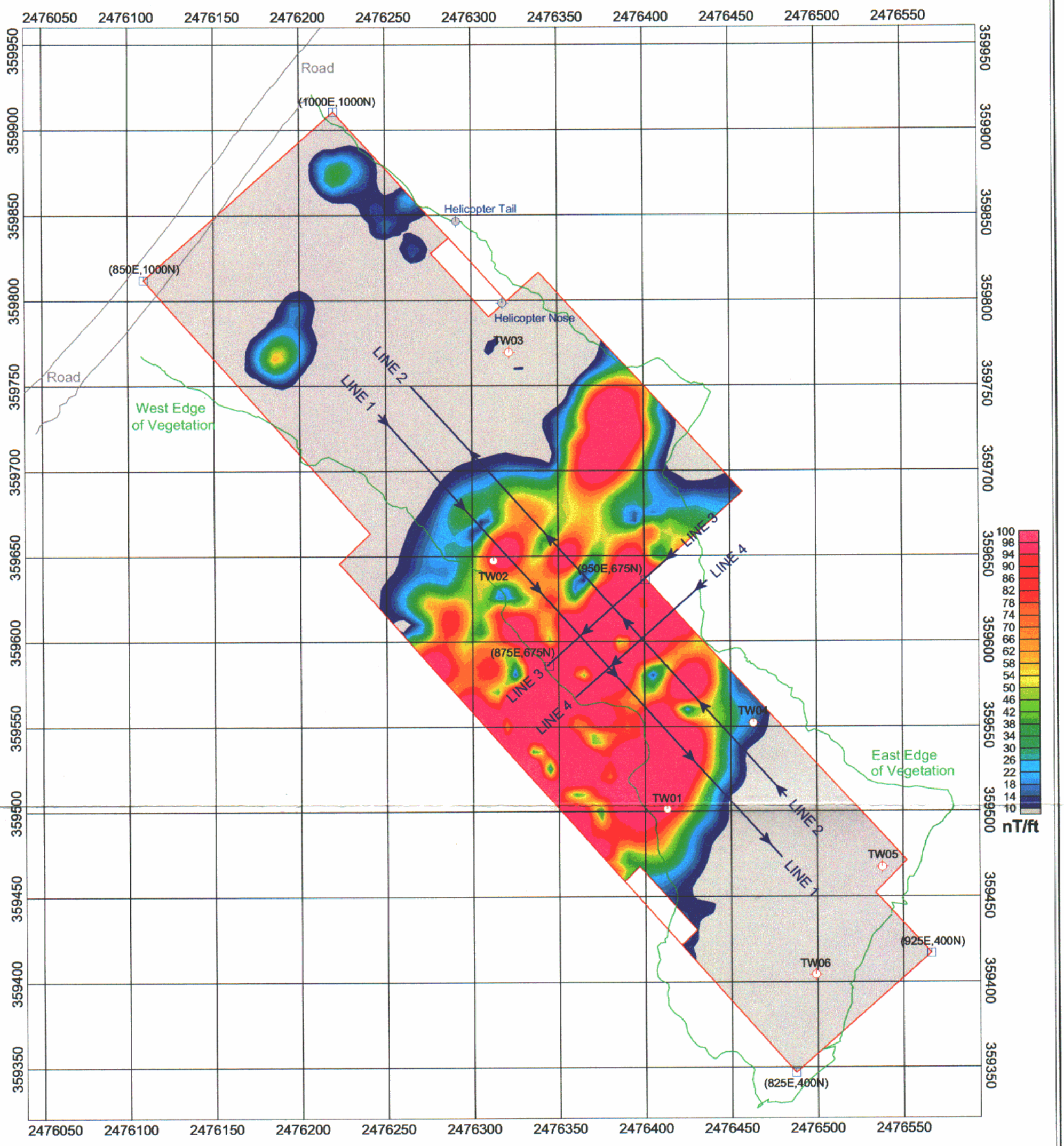


Plate 3

Analytic Signal from Corrected Total Field Magnetics



Legend

- Area of Geophysical Investigation
- Tree Line
- Radar (GPR) Survey Line (Label Indicates Line Name and Direction)
- Temporary Well
- GPS Control Point (Wooden Stake Labeled with Local Grid Coordinates)
- Road

Scale 1:720

25 0 25 50 75

feet

Plate 3

NAEVA GEOPHYSICS INC.

THE LEADER IN SUBSURFACE DETECTION

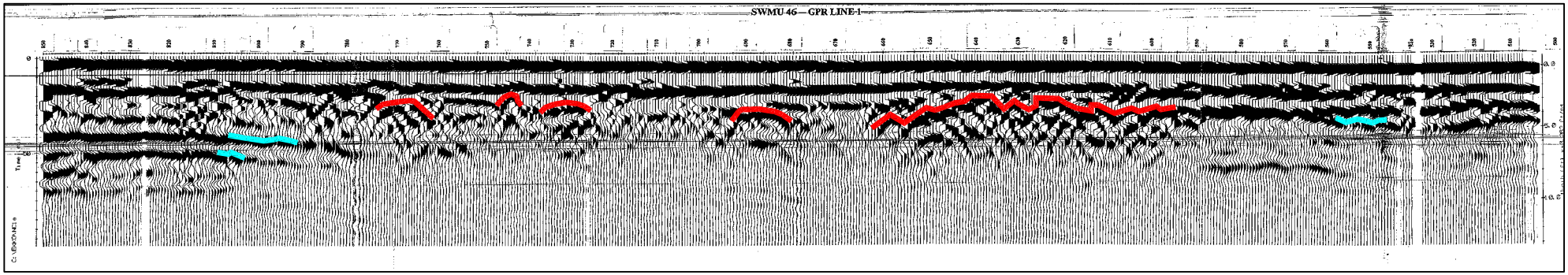
Subsurface Geophysical Surveys

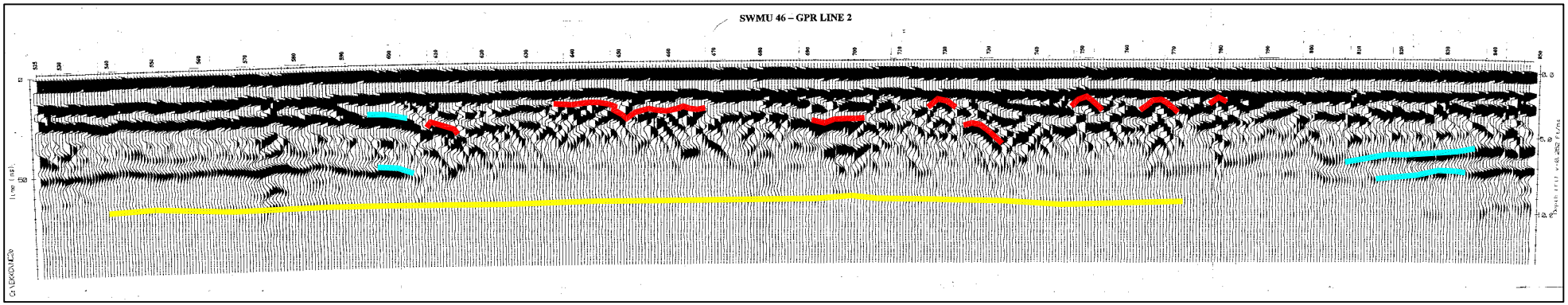
CH2M Hill

Analytic Signal from Corrected Total Field Magnetics
Camp Johnson - Camp Lejeune
Jacksonville, North Carolina

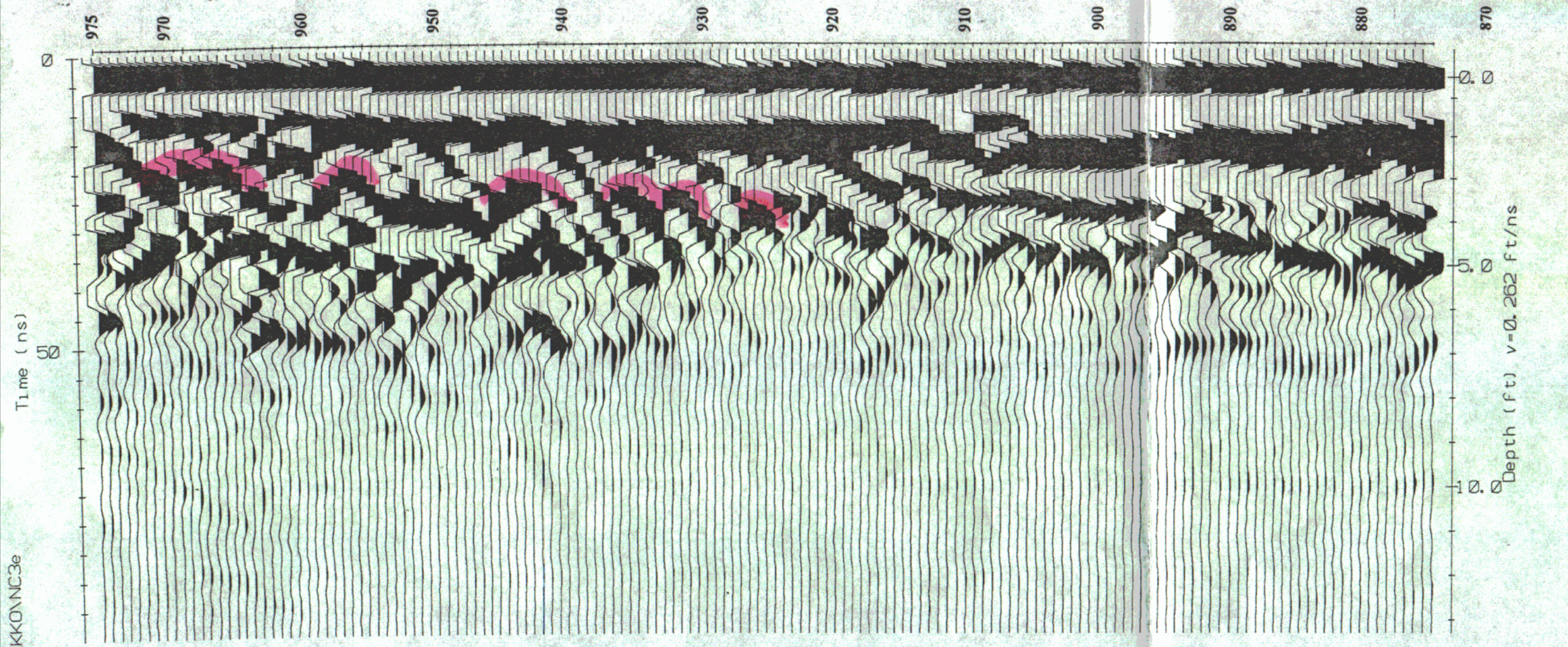
Dates of Survey: April 2-3, 2002

APPENDIX

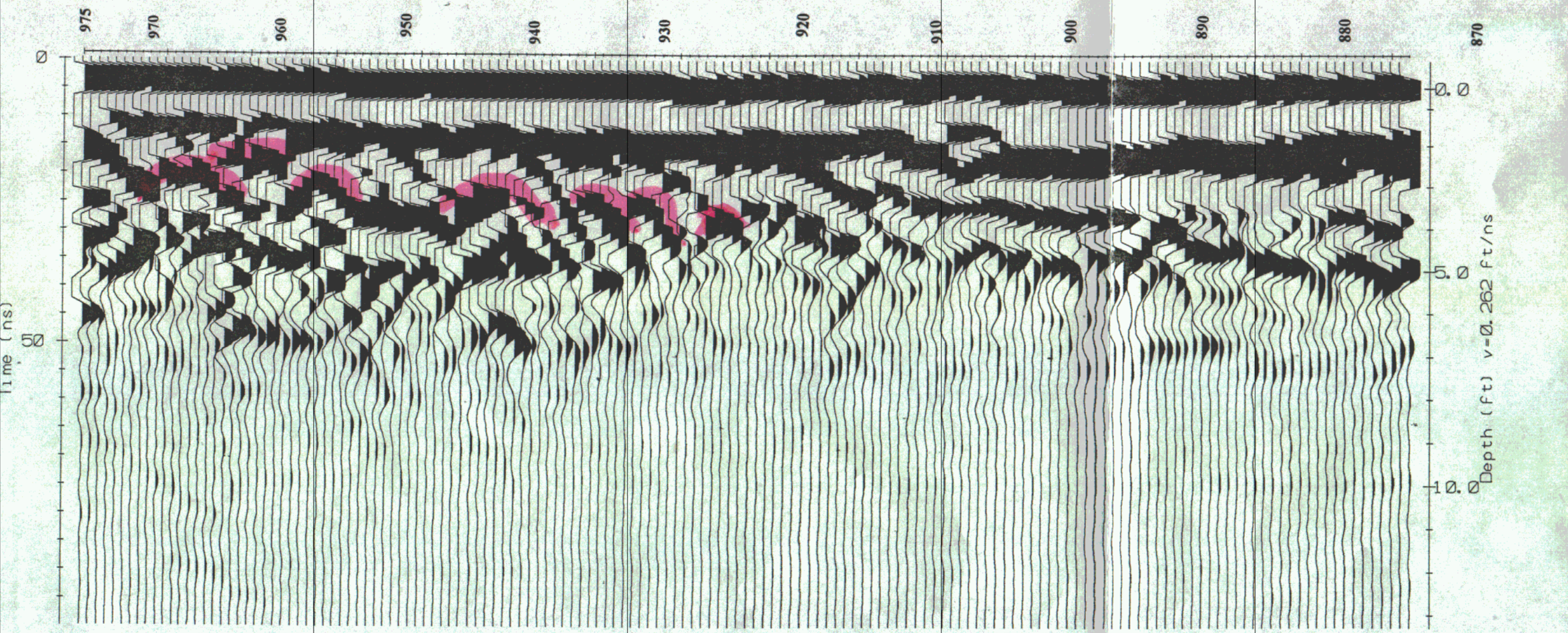

SWMU 46 — GPR LINE-1


SWMU 46 – GPR LINE 2

SWMU 46 – GPR LINE 3



SWMU 46 – GPR LINE 4



APPENDIX I
DATA VALIDATION REPORTS

VALIDATA

Chemical Services, Inc.

4070 Balleycastle Lane, Duluth, GA 30097

(770) 232-0130
(770) 232-5082 (Fax)
www.datavalidator.com

DATA VALIDATION SUMMARY
REPORT

COMPANY:	CH2M HILL
SITE NAME:	Baker, CTO-143
CONTRACTED LAB:	CompuChem, Inc.
PROJECT NUMBER:	155022
QA/QC LEVEL:	EPA Level III
EPA SOW/METHOD:	EPA 1990 SOW
VALIDATION GUIDELINES:	*USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review,* 1994
SAMPLE MATRIX:	Soils
TYPES OF ANALYSES:	Total Organic Carbon (TOC)
SDG NUMBER:	A2488

OVERVIEW

SAMPLES:

Client Sample #	Lab Sample #	Matrix	TOC
299-SB03-02	A2488-1	Soil	X
300-TW01-02	A2488-2	Soil	X
302-TW03-05	A2488-3	Soil	X
318-TW03-04	A2488-4	Soil	X
303-TW01-04	A2488-5	Soil	X
339-TW01-03	A2488-6	Soil	X
336-TW02-04	A2488-7	Soil	X
272-TW03-03	A2488-8	Soil	X
316-TW02-04	A2488-9	Soil	X
319-SB01-01	A2488-10	Soil	X
312-TW01-02	A2488-11	Soil	X
53-TW01-03	A2488-12	Soil	X
258-TW01-02	A2488-13	Soil	X
255-TW01-04	A2488-14	Soil	X
254-TW02-04	A2488-15	Soil	X
294-TW01-04	A2488-16	Soil	X
252-TW02-05	A2844-17	Soil	X
295-TW01-04	A2488-18	Soil	X
363-TW02-05	A2488-19	Soil	X
361-TW01-02	A2488-20	Soil	X

DATA REVIEWERS: Amy L. Hogan, Jean M. Delashmit

RELEASE SIGNATURE:

Data Qualifier Definitions

J	-	The associated numerical value is an estimated quantity.
R	-	The data are unusable (the compound/analyte may or may not be present). Resampling and reanalysis are necessary for verification.
U	-	The compound/analyte was analyzed for, but not detected. The associated numerical value is the sample quantitation limit.
UJ	-	The compound/analyte was analyzed for, but not detected. The sample quantitation limit is an estimated quantity.

DATA QUALIFICATION SUMMARY

CompuChem, Inc. - A2488 - Inorganics

SAMPLES: 299-SB03-02, 300-TW01-02, 302-TW03-05, 318-TW03-04, 303-TW01-04, 339-TW01-03, 336-TW02-04, 272-TW03-03, 316-TW02-04, 319-SB01-01, 312-TW01-02, 53-TW01-03, 258-TW01-02, 255-TW01-04, 254-TW02-04, 294-TW01-04, 252-TW02-05, 295-TW01-04, 363-TW02-05, 361-TW01-02

TOTAL ORGANIC CARBON (TOC)

SUMMARY

I.) General:

The analyses for TOC were made using SW846 method 9060.

II.) Overall Assessment of Data:

All laboratory data were acceptable without qualification.

MAJOR ISSUES

No major problems were observed in this fraction of the SDG.

MINOR ISSUES

I.) Holding Times:

All Holding Time criteria were met. No action was required.

II.) Calibration:

All Calibration criteria were met. No action was required.

III.) Blanks:

There were no detections in the blanks associated with this SDG. No action was required.

IV.) Laboratory Control Samples (LCS):

All LCS criteria were met. No action was required.

V.) Matrix Duplicate (MD):

MD data was not submitted for this SDG. No action was required.

VI.) Matrix Spike (MS):

MS data was not submitted for this SDG. No action was required.

VII.) Field Duplicates:

There were no field duplicate samples identified for this fraction of the SDG. No action was required.

VALIDATA

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(770) 232-0130
(770) 232-5082 (Fax)
www.datavalidator.com

DATA VALIDATION SUMMARY
REPORT

COMPANY:	CH2M HILL
SITE NAME:	Baker, CTO-143
CONTRACTED LAB:	CompuChem, Inc.
PROJECT NUMBER:	155022
QA/QC LEVEL:	EPA Level III
EPA SOW/METHOD:	EPA 1990 SOW
VALIDATION GUIDELINES:	*USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review*, 1994, *USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review*, 1994
SAMPLE MATRIX:	Soil
TYPES OF ANALYSES:	Semivolatile Organics (SVOA), RECRA Metals
SDG NUMBER:	B2488

OVERVIEW

SAMPLES:

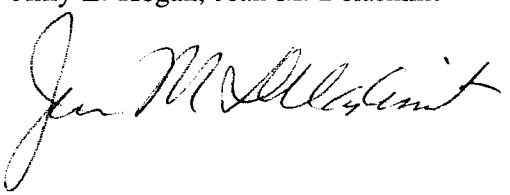
Client Sample #	Lab Sample #	Matrix	SVOA	RECRA Metals
294-SS01	B2488-1	Soil	X	X
294-SS02	B2488-2	Soil	X	X
294-SS03	B2488-3	Soil	X	X
294-TW01-04	B2488-4	Soil	X	X
294-TW01-00	B2488-5	Soil	X	X
294-TW05-04	B2488-6	Soil	X	X
294-TW05-00	B2488-7	Soil	X	X
294-TW04-04	B2488-8	Soil	X	X
294-TW04-00	B2488-9	Soil	X	X
294-TW06-04	B2488-10	Soil	X	X
294-TW06-00	B2488-11	Soil	X	X
294-TW06-00DL	B2488-11DL	Soil	X	
294-TW06-00D	B2488-12	Soil	X	X
295-TW01-04	B2488-13	Soil	X	X
295-TW01-00	B2488-14	Soil	X	X
295-TW03-04	B2488-15	Soil	X	X
295-TW03-00	B2488-16	Soil	X	X
293-TW02-04	B2488-17	Soil		X

Client Sample #	Lab Sample #	Matrix	SVOA	RECRA Metals
293-TW02-00	B2488-18	Soil		X
293-TW03-03	B2488-19	Soil		X
293-TW03-00	B2488-20	Soil		X
294-TW04-04MS	B2488-8MS	Soil	X	X
294-TW04-04MSD	B2488-8MSD	Soil	X	X

missing

Sample ID Suffix Codes: D = FIELD DUPLICATE, DL = DILUTION, MS = MATRIX SPIKE, MSD = MATRIX SPIKE DUPLICATE

DATA REVIEWERS: Amy L. Hogan, Jean M. Delashmit

RELEASE SIGNATURE: 

Data Qualifier Definitions

J	-	The associated numerical value is an estimated quantity.
R	-	The data are unusable (the compound/analyte may or may not be present). Resampling and reanalysis are necessary for verification.
U	-	The compound/analyte was analyzed for, but not detected. The associated numerical value is the sample quantitation limit.
UJ	-	The compound/analyte was analyzed for, but not detected. The sample quantitation limit is an estimated quantity.

DATA QUALIFICATION SUMMARY

CompuChem, Inc. - B2488 - Organics

SAMPLES: 294-SS01, 294-SS02, 294-SS03, 294-TW01-04, 294-TW01-00, 294-TW05-04, 294-TW05-00, 294-TW04-04, 294-TW04-00, 294-TW06-04, 294-TW06-00, 294-TW06-00D, 295-TW01-04, 295-TW01-00, 295-TW03-04, 295-TW03-00, 293-TW02-04, 293-TW02-00, 293-TW03-03, 293-TW03-00

SEMIVOLATILE ORGANICS

SUMMARY

I.) General:

The analyses for Semivolatile Organics were performed by gas chromatography / mass spectroscopy (GC / MS) using SW-846 Method 8270.

II.) Overall Assessment of Data:

The result for bis(2-ethylhexyl)phthalate in the initial analysis of SDG sample 294-TW06-00 was rejected (R) in favor of the dilution result, while the results for all compounds in the dilution analysis of this sample except bis(2-ethylhexyl)phthalate were rejected (R) as redundant.

All other laboratory data were acceptable with qualification.

MAJOR ISSUES

There were no major problems in this fraction of the SDG.

MINOR ISSUES

I.) Holding Times:

All Holding Time criteria were met. No action was required.

II.) GC / MS Tuning:

All GC / MS Tuning criteria were met. No action was required.

III.) Calibration:

Initial Calibration:

The Percent Relative Standard Deviation (%RSD) for the standards analyzed on 3/27/02 on instrument

HP66 was 32.3% for 2,4-dinitrophenol, which exceeded the 30% QC limit. Since there were no positive results for this compound in the SDG samples, no action was required.

Continuing Calibration:

The Percent Differences (%D's) for the standards run on 3/29/02 at 15:23 on instrument HP66 exceeded the 25% QC limit for the following compounds:

hexachlorocylcopentadiene	30.5%
2,4-dinitrophenol	39.3%

The results for these compounds in associated samples 294-SS01, 294-SS02 and 294-SS03, which consisted entirely of non-detects, were flagged as estimated (UJ).

IV.) Blanks:

Method Blanks:

Bis(2-ethylhexyl)phthalate was detected at 43 ug/kg in Method Blank SBLKLY. All positive results for this compound in the SDG samples less than 10X the blank amount were flagged as undetected (U) with the results less than the CRQL being raised to the CRQL.

Field Blanks:

There were no detections in the Field Blanks associated with this SDG, which were analyzed as part of SDG V2488. No action was required.

Tentatively Identified Compounds (TIC):

There were no TIC detections in the method or field blanks associated with this SDG. No action was required.

V.) Surrogate Recoveries:

All Surrogate Recovery criteria were met. No action was required.

VI.) Laboratory Control Samples (LCS):

One LCS was analyzed for this SDG. All LCS criteria were met. No action was required.

VII.) Matrix Spike / Matrix Spike Duplicate (MS / MSD):

MS / MSD analyses were run on SDG sample 294-TW04-04. All MS / MSD criteria were met. No action was required.

VIII.) Field Duplicates:

One set of Field Duplicate samples (294-TW06-00 / 294-TW06-00D) was identified for this fraction of

the SDG. There were no calculable Relative Percent Differences (RPDs). No action was required.

IX.) Internal Standards Performance (ISTD):

All ISTD criteria were met. No action was required.

X.) TCL Compound Identification:

All TCL Compound Identification criteria were met. No action was required.

XI.) Compound Quantitation and Reported Contract Required Quantitation Limits (CRQL):

The result for bis(2-ethylhexyl)phthalate in the initial analysis of sample 294-TW06-00 exceeded the linear calibration range. A dilution analysis was performed for this sample with all calibration criteria met. The result for this compound in the initial analysis of the sample was rejected (R), while the results for all compounds except bis(2-ethylhexyl)phthalate were rejected (R) as redundant in the dilution analysis.

XII.) Tentatively Identified Compounds (TIC):

All TIC criteria were met. No action was required.

XIII.) System Performance:

All System Performance criteria were met. No action was required.

RECRA METALS

SUMMARY

I.) General:

The analyses for RECRA Metals were performed using SW-846 Methods 6010B.

II.) Overall Assessment of Data:

All laboratory data were acceptable with qualifications.

MAJOR ISSUES

There were no major problems in this fraction of the SDG.

MINOR ISSUES

I.) Holding Times:

All Holding Time criteria were met. No action was required.

II.) Calibration:

All Initial and Continuing Calibration criteria were met. No action was required.

III.) CRDL Standards for ICP:

All CRDL criteria were met. No action was required.

IV.) Blanks:

The following Continuing Calibration Blank (CCB) result represents the highest detection associated with the samples and was used for data qualification:

Blank ID	Analyte	Max. Conc.	Action Level
CCB3	barium	0.7 ug/L	0.7 mg/kg

All results for barium in the SDG samples were greater than the Action Level. No action was required.

V.) ICP Interference Check Sample Results:

All Interference Percent Recovery criteria were met. No action was required.

The following analytes were detected in the ICS Solution A with results greater than the IDL:

arsenic	2 ug/L
barium	2 ug/L
cadmium	6 ug/L
chromium	21 ug/L
lead	1 ug/L

These analytes should not be present. Since neither aluminum, calcium, iron nor magnesium was detected in any sample at a concentration comparable to or greater than the respective concentration in ICS solution A, data qualification was not required.

Silver had a negative result of -1 ug/L in the ICS Solution A with an absolute value greater than the IDL. Since neither aluminum, calcium, iron nor magnesium was detected in any sample at a concentration comparable to or greater than the respective concentration in ICS solution A, data qualification was not required.

VI.) ICP Serial Dilution Analysis:

All Serial Dilution Analysis criteria were met. No action was required.

VII.) Laboratory Control Samples (LCS):

All LCS criteria were met. No action was required.

VIII.) Duplicate Sample Analysis:

Duplicate Sample Analysis was run on SDG sample 291-TW04-04. All Duplicate Sample Analysis criteria were met. No action was required.

IX.) Matrix Spike (MS):

Matrix Spike / Matrix Spike Duplicate Analyses were run on SDG sample 294-TW04-04. The Percent Recovery (%R) of lead was 137% for the Matrix Spike sample, which exceeded the 75-125% QC limits. All positive results for lead in the SDG samples were flagged as estimated (J).

X.) Field Duplicates:

One set of Field Duplicate samples (294-TW06-00 / 294-TW06-00D) was identified for this fraction of the SDG. The calculable Relative Percent Differences (RPDs) were:

Analyte	294-TW06-00	294-TW06-00D	RPD
arsenic	0.97 mg/kg	1.4 mg/kg	36%
barium	13.8 mg/kg	15.3 mg/kg	10%
chromium	11.4 mg/kg	12.3 mg/kg	7.6%
lead	5.3 mg/kg	5.6 mg/kg	5.5%
mercury	0.03 mg/kg	0.05 mg/kg	50%
selenium	0.52 mg/kg	.89 mg/kg	52%

All RPDs were within the 60% QC limit for soil samples. No action was required.

XI.) Sample Result, Calculation/Transcription Verification:

All criteria were met. No action was taken.

XII.) Quarterly Verification of Instrumental Parameters:

All criteria were met. No action was taken.

VALIDATA

Chemical Services, Inc.

4070 Balleycastle Lane, Duluth, GA 30097

(770) 232-0130
(770) 232-5082 (Fax)
www.datavalidator.com

DATA VALIDATION SUMMARY
REPORT

COMPANY:	CH2M HILL
SITE NAME:	Baker, CTO-143
CONTRACTED LAB:	CompuChem, Inc.
PROJECT NUMBER:	155022
QA/QC LEVEL:	EPA Level III
EPA SOW/METHOD:	EPA 1990 SOW
VALIDATION GUIDELINES:	*USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review,* 1994; *USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review,* 1994
SAMPLE MATRIX:	Soil
TYPES OF ANALYSES:	Semivolatile Organics (SVOA), RECRA Metals
SDG NUMBER:	C2488

OVERVIEW

SAMPLES:

Client Sample #	Lab Sample #	Matrix	SVOA	RECRA Metals
295-SB01-04	C2488-1	Soil	X	X
295-SB01-00	C2488-2	Soil	X	X
295-SB02-04	C2488-3	Soil	X	X
295-SB02-00	C2488-4	Soil	X	X
314-TW01-02	C2488-5	Soil	X	X
314-TW01-00	C2488-6	Soil	X	X
314-TW02-02	C2488-7	Soil	X	X
314-TW02-00	C2488-8	Soil	X	X
314-TW03-02	C2488-9	Soil	X	X
314-TW03-00	C2488-10	Soil	X	X
315-SB01-11	C2488-11	Soil	X	X
315-SB01-00	C2488-12	Soil	X	X
315-TW01-11	C2488-13	Soil	X	X
315-TW01-11D	C2488-14	Soil	X	X
315-TW01-00	C2488-15	Soil	X	X
315-TW02-11	C2488-16	Soil	X	X
315-TW02-00	C2488-17	Soil	X	X
315-TW03-10	C2488-18	Soil	X	X

Client Sample #	Lab Sample #	Matrix	SVOA	RECRA Metals
315-TW03-00	C2488-19	Soil	X	X
294-TW02-04	C2488-20	Soil	X	X
295-SB02-00MS	C2488-3MS	Soil	X	X
295-SB02-00MSD	C2488-3MSD	Soil	X	X missing

Sample ID Suffix Codes: D = FIELD DUPLICATE, MS = MATRIX SPIKE, MSD = MATRIX SPIKE DUPLICATE

DATA REVIEWERS: Amy L. Hogan, Kevin C. Harmon, Jean M. Delashmit

RELEASE SIGNATURE:

Data Qualifier Definitions

J	-	The associated numerical value is an estimated quantity.
R	-	The data are unusable (the compound/analyte may or may not be present). Resampling and reanalysis are necessary for verification.
U	-	The compound/analyte was analyzed for, but not detected. The associated numerical value is the sample quantitation limit.
UJ	-	The compound/analyte was analyzed for, but not detected. The sample quantitation limit is an estimated quantity.

DATA QUALIFICATION SUMMARY

CompuChem, Inc. - C2488 - Organics

SAMPLES: 295-SB01-04, 295-SB01-00, 295-SB02-00, 295-SB02-00, 314-TW01-02, 314-TW01-00, 314-TW02-02, 314-TW02-00, 314-TW03-02, 314-TW03-00, 315-SB01-11, 315-SB01-00, 315-TW01-11, 315-TW01-11D, 315-TW01-00, 315-TW02-11, 315-TW02-00, 315-TW03-10, 315-TW03-00, 294-TW02-04

SEMIVOLATILE ORGANICS

SUMMARY

I.) General:

The analyses for Semivolatile Organics were performed by gas chromatography / mass spectroscopy (GC / MS) using SW-846 Method 8270.

II.) Overall Assessment of Data:

All laboratory data were acceptable with qualifications.

MAJOR ISSUES

There were no major problems observed in this fraction of the SDG.

MINOR ISSUES

I.) Holding Times:

All Holding Time criteria were met. No action was required.

II.) GC / MS Tuning:

All GC / MS Tuning criteria were met. No action was required.

III.) Calibration:

Initial Calibration:

The Percent Relative Standard Deviation (%RSD) for the standards analyzed on 3/31/02 on instrument HP64 was 30.8% for 2,4-dinitrophenol, which exceeded the 30% QC limit. There were no positive results for this compound in the associated samples. No action was required.

Continuing Calibration:

The Percent Differences (%D's) for the standard run on 3/29/02 at 09:44 on instrument HP64 exceeded the 25% QC limit for the following compounds:

caprolactam	43.7%
4-nitroaniline	38.5%
4-bromophenyl phenylether	50.7%
hexachlorobenzene	64.1%
butylbenzylphthalate	26.8%
benzo(b)fluoranthene	32.6%

All positive and non-detect results for these compounds in the associated samples were flagged as estimated (J) and (UJ). The associated samples were 295-SB01-04, 295-SB01-00, 295-SB02-04, 295-SB02-00, 314-TW01-02, 314-TW01-00, 314-TW02-02, 314-TW02-00, 314-TW03-02 and 314-TW03-00.

IV.) Blanks:

Method Blanks:

Bis(2-ethylhexyl)phthalate was detected at 200 ug/kg in method blank SBLKLZ. All positive results for this compound in the SDG samples less than 10X the blank amount were flagged as undetected (U) with the results less than the CRQL being raised to the CRQL.

Field Blanks:

There were no detections in the field blanks associated with this SDG, which were analyzed as part of SDG V2488. No action was required.

Tentatively Identified Compounds (TIC):

There were no TIC detections in the blanks associated with this SDG. No action was required.

V.) Surrogate Recoveries:

All Surrogate Recovery criteria were met. No action was required.

VI.) Laboratory Control Samples (LCS):

One LCS was analyzed for this SDG. All LCS criteria were met. No action was required.

VII.) Matrix Spike / Matrix Spike Duplicate (MS / MSD):

MS / MSD analyses were run on SDG sample 295-SB02-00. All MS / MSD criteria were met. No action was required.

VIII.) Field Duplicates:

One set of Field Duplicate samples (315-TW01-11 / 315-TW01-11D) was identified for this fraction of the SDG. There were no calculable Relative Percent Differences (RPDs). No action was required.

IX.) Internal Standards Performance (ISTD):

All ISTD criteria were met. No action was required.

X.) TCL Compound Identification:

All TCL Compound Identification criteria were met. No action was required.

XI.) Compound Quantitation and Reported Contract Required Quantitation Limits (CRQL):

All CRQL criteria were met. No action was required.

XII.) Tentatively Identified Compounds (TIC):

All TIC criteria were met. No action was required.

XIII.) System Performance:

All System Performance criteria were met. No action was required.

RECRA METALS

SUMMARY

I.) General:

The analyses for RECRA Metals were performed using SW-846 Methods 6010B.

II.) Overall Assessment of Data:

All laboratory data were acceptable with qualification.

MAJOR ISSUES

There were no major problems in this fraction of the SDG.

MINOR ISSUES

I.) Holding Times:

All Holding Time criteria were met. No action was required.

II.) Calibration:

All Initial and Continuing Calibration criteria were met. No action was required.

III.) CRDL Standards for ICP:

All CRDL criteria were met. No action was required.

IV.) Blanks:

The following blank results represent the highest detections associated with the samples and were used for data qualification:

Blank ID	Analyte	Max. Conc.	Action Level
ER04	barium	6.5 ug/L	6.5 mg/kg
CCB1	cadmium	0.3 ug/L	0.3 mg/kg
ER04	mercury	0.15 ug/L	0.15 mg/kg

CCB = Continuing Calibration Blank, ER04 = Equipment Rinsate Blank (analyzed in SDG V2488)

All results for these analytes in the SDG samples less than the Action Levels were flagged as undetected (U).

V.) ICP Interference Check Sample Results:

All Interference Percent Recovery criteria were met. No action was required.

The following analytes were detected in the ICS Solution A with results greater than the IDL:

arsenic	2 ug/L
barium	2 ug/L
cadmium	7 ug/L
chromium	21 ug/L

These analytes should not be present. Since neither aluminum, calcium, iron nor magnesium was detected in any sample at a concentration comparable to or greater than the respective concentration in ICS Solution A, data qualification was not required.

VI.) ICP Serial Dilution Analysis:

The Percent Difference (%D) for barium in Serial Dilution Analysis sample 295-SB02-00 was 10.8%, which exceeded the 10% QC limit. All positive results for barium in the SDG samples, not previously flagged based on blank contamination, were flagged as estimated (J).

VII.) Laboratory Control Samples (LCS):

All LCS criteria were met. No action was required.

VIII.) Duplicate Sample Analysis:

Duplicate Sample Analysis was run on SDG sample 295-SB02-00. All Duplicate Sample Analysis criteria were met. No action was required.

IX.) Matrix Spike (MS):

Matrix Spike / Matrix Spike Duplicate Analyses were run on SDG sample 295-SB02-00. All MS / MSD criteria were met. No action was required.

X.) Field Duplicates:

One set of Field Duplicate samples (315-TW01-11 / 315-TW01-11D) was identified for this fraction of the SDG. The calculable Relative Percent Differences (RPDs) were:

Analyte	315-TW01-11	315-TW01-11D	RPD
barium	1.8 mg/kg	2.1 mg/kg	15%
chromium	5.0 mg/kg	2.3 mg/kg	74%

The RPD for chromium exceeded the 60% QC limit for soil samples. The results for chromium in the two duplicate samples were flagged as estimated (J).

XI.) Sample Result, Calculation/Transcription Verification:

All criteria were met. No action was taken.

XII.) Quarterly Verification of Instrumental Parameters:

All criteria were met. No action was taken.

VALIDATA

Chemical Services, Inc.

4070 Balleycastle Lane, Duluth, GA 30097

(770) 232-0130
(770) 232-5082 (Fax)
www.datavalidator.com

DATA VALIDATION SUMMARY
REPORT

COMPANY:	CH2M HILL
SITE NAME:	Baker, CTO-143
CONTRACTED LAB:	CompuChem, Inc.
PROJECT NUMBER:	155022
QA/QC LEVEL:	EPA Level III
EPA SOW/METHOD:	EPA 1990 SOW
VALIDATION GUIDELINES:	*USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review,* 1994, *USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review,* 1994
SAMPLE MATRIX:	Soil
TYPES OF ANALYSES:	Volatile Organics (VOA), Semivolatile Organics (SVOA), Pesticides, RECRA Metals
SDG NUMBER:	D2488

OVERVIEW

SAMPLES:

Client Sample #	Lab Sample #	Matrix	VOA	SVOA
363-TW01-05	D2488-1	Soil	X	X
363-TW01-00	D2488-2	Soil	X	X
363-TW02-05	D2488-3	Soil	X	X
363-TW02-00	D2488-4	Soil	X	X
363-TW02-00DL	D2488-4DL	Soil	X	
361-SB02-06	D2488-5	Soil	X	X
361-SB02-00	D2488-6	Soil	X	X
361-SB02-00D	D2488-7	Soil	X	X
361-SB03-05	D2488-8	Soil	X	X
361-SB03-00	D2488-9	Soil	X	X
361-SB04-06	D2488-10	Soil	X	X
361-SB04-00	D2488-11	Soil	X	X
361-SB05-06	D2488-12	Soil	X	X
361-SB05-06D	D2488-13	Soil	X	X
361-SB05-00	D2488-14	Soil	X	X
361-SB06-05	D2488-15	Soil	X	X
361-SB06-00	D2488-16	Soil	X	X
361-TW01-02	D2488-17	Soil	X	X

Client Sample #	Lab Sample #	Matrix	VOA	SVOA
361-TW01-00	D2488-18	Soil	X	X
339-TW02-00	D2488-19	Soil	X	
43-SB02-06	D2488-20	Soil		X
363-TW02-00DLMS	D2488-4DLMS	Soil	X	
363-TW02-00DLMSD	D2488-4DLMSD	Soil	X	
43-SB02-06MS	D2488-20MS	Soil		X
43-SB02-06MSD	D2488-20MSD	Soil		X

Client Sample #	Lab Sample #	Matrix	Pesticides	Total Metals
363-TW01-05	D2488-1	Soil	X	X
363-TW01-00	D2488-2	Soil	X	X
363-TW02-05	D2488-3	Soil	X	X
363-TW02-00	D2488-4	Soil	X	X
361-SB02-06	D2488-5	Soil	X	X
361-SB02-00	D2488-6	Soil	X	X
361-SB02-00D	D2488-7	Soil	X	X
361-SB03-05	D2488-8	Soil	X	X
361-SB03-00	D2488-9	Soil	X	X
361-SB04-06	D2488-10	Soil	X	X
361-SB04-00	D2488-11	Soil	X	X
361-SB05-06	D2488-12	Soil	X	X
361-SB05-06D	D2488-13	Soil	X	X
361-SB05-00	D2488-14	Soil	X	X
361-SB06-05	D2488-15	Soil	X	X
361-SB06-00	D2488-16	Soil	X	X
361-TW01-02	D2488-17	Soil	X	X
361-TW01-00	D2488-18	Soil	X	X
43-SB02-06	D2488-20	Soil	X	X
43-SB02-06MS	D2488-20MS	Soil	X	X
43-SB02-06MSD	D2488-20MSD	Soil	X	X

Sample ID Suffix Codes: D = FIELD DUPLICATE, DL = DILUTION, MS = MATRIX SPIKE, MSD = MATRIX SPIKE DUPLICATE

DATA REVIEWERS: Amy L. Hogan, Jean M. Delashmit

RELEASE SIGNATURE: Jean M. Delashmit

Data Qualifier Definitions

J	-	The associated numerical value is an estimated quantity.
R	-	The data are unusable (the compound/analyte may or may not be present). Resampling and reanalysis are necessary for verification.
U	-	The compound/analyte was analyzed for, but not detected. The associated numerical value is the sample quantitation limit.
UJ	-	The compound/analyte was analyzed for, but not detected. The sample quantitation limit is an estimated quantity.

DATA QUALIFICATION SUMMARY

CompuChem, Inc. - D2488 - Organics

SAMPLES: 363-TW01-05, 363-TW01-00, 363-TW02-05, 363-TW02-00, 361-SB02-06, 361-SB02-00, 361-SB02-00D, 361-SB03-05, 361-SB03-00, 361-SB04-06, 361-SB04-00, 361-SB05-06, 361-SB05-06D, 361-SB05-00, 361-SB06-05, 361-SB06-00, 361-TW01-02, 361-TW01-00, 339-TW02-00, 43-SB02-06

VOLATILE ORGANICS

SUMMARY

I.) General:

The analyses for Volatile Organics were performed by gas chromatography / mass spectroscopy (GC / MS) using SW-846 Method 8260.

II.) Overall Assessment of Data:

All laboratory data were acceptable with qualifications.

MAJOR ISSUES

There were no major problems in this SDG fraction.

MINOR ISSUES

I.) Holding Times:

All Holding Time criteria were met. No action was required.

II.) GC / MS Tuning:

All GC / MS Tuning criteria were met. No action was required.

III.) Calibration:

Initial Calibration:

All Initial Calibration criteria were met. No action was required.

Continuing Calibration:

The Percent Differences (%D's) for the standards run on 3/29/02 at 10:17 on instrument F50052 exceeded

the 25% QC limit for the following compounds:

trichlorofluoromethane	45.0%
acetone	29.1%
2-butanone	43.5%

All positive and non-detect results for these compounds in the associated samples were flagged as estimated (J) and (UJ). The associated samples were 361-SB04-00, 361-SB05-06, 361-SB05-06D, 361-SB05-00, 361-SB06-05, 361-SB06-00, 361-TW01-02, 339-TW02-00 and 361-TW01-00.

The Percent Differences (%D's) for the standards run on 4/02/02 at 09:57 on instrument F50052 exceeded the 25% QC limit for the following compounds:

bromomethane	32.2%
carbon disulfide	47.1%
acetone	31.9%
1,1-dichloroethane	27.1%
2-butanone	41.7%
methyl acetate	33.1%

All positive and non-detect results for these compounds in associated sample 363-TW02-00DL were flagged as estimated (J) and (UJ).

The Percent Differences (%D's) for the standards run on 3/27/02 at 23:14 on instrument HP59 exceeded the 25% QC limit for the following compounds:

bromomethane	53.6%
xylene	208%

All results for these compounds in the associated samples, which consisted entirely of non-detects, were flagged as estimated (UJ). The associated samples were 363-TW01-05, 363-TW01-00, 363-TW02-05, 363-TW02-00, 361-SB02-06, 361-SB02-00, 361-SB02-00D, 361-SB03-05, 361-SB03-00 and 361-SB04-06.

The Percent Difference (%D) for the standards run on 3/28/02 at 18:49 on instrument HP59 exceeded the 25% QC limit for bromomethane at 25.2%. The non-detect result for this compound in associated sample 361-SB05-06D was flagged as estimated (UJ).

IV.) Blanks:

Method Blanks:

1,2,4-Trichlorobenzene was detected at 1 ug/kg in method blank VBLKJB. There were no positive results for this compound in the associated samples. No action was required.

2-Hexanone was detected at 5.2 ug/kg in method blank VBLKID. There were no positive results for this compound in the associated samples. No action was required.

Chloroform was detected at 1 ug/kg in method blank VBLKHC. The positive result for this compound in associated sample 361-SB05-06D, which was less than 5X the blank amount, was flagged as undetected (U) with the result being raised to the CRQL.

Field Blanks:

Toluene was detected at 1 ug/L in field blank ER04. There were no positive results for toluene in the associated samples. No action was required.

Trip Blanks:

Toluene was detected at 1 ug/L in trip blank TB05. There were no positive results for toluene in the associated samples. No action was required.

Tentatively Identified Compounds (TIC):

Butylated hydroxytoluene was detected at 5.2 ug/kg in method blank VBLKJB. There were no positive results for this compound in the associated samples. No action was required.

Butylated hydroxytoluene was detected at 39.8 ug/kg in method blank VBLKID. There were no positive results for this compound in the associated samples. No action was required.

Octamethyl cyclotetrasiloxane was detected at 29.55 ug/kg in method blank VBLKHC. There were no positive results for this compound in the associated samples. No action was required.

Octamethylcyclotetrasiloxane was detected at 31.4 ug/L in field blank ER04. The positive result for this compound in associated sample 361-SB02-00, which was less than 10X the blank amount, was flagged as undetected (U).

V.) Surrogate Recoveries:

All Surrogate Recovery criteria were met. No action was required.

VI.) Laboratory Control Samples (LCS):

Four LCSs were analyzed for this SDG. All LCS criteria were met. No action was required.

VII.) Matrix Spike / Matrix Spike Duplicate (MS / MSD):

MS / MSD analyses were run on SDG sample 362-TW02-00DL. All MS / MSD criteria were met. No action was required.

VIII.) Field Duplicates:

Two sets of Field Duplicate samples (361-SB02-00 / 361-SB02-00D and 361-SB05-06 / 361-SB05-06D) were identified in this fraction of the SDG. The calculable Relative Percent Differences (RPDs) were:

Compound	361-SB02-00	361-SB02-00D	RPD
acetone	6 ug/kg	2 ug/kg	100%
methylene chloride	32 ug/kg	12 ug/kg	91%

Compound	361-SB05-06	361-SB05-06D	RPD
methylene chloride	19 ug/kg	30 ug/kg	45%
2-butanone	5 ug/kg	7 ug/kg	33%

The RPDs for acetone and methylene chloride in field duplicate samples 361-SB02-00 and 361-SB02-00D exceeded the 60% QC limit for soil samples. The results for these compounds in the two samples were flagged as estimated (J).

IX.) Internal Standards Performance (ISTD):

All ISTD criteria were met. No action was required.

X.) TCL Compound Identification:

All TCL Compound Identification criteria were met. No action was required.

XI.) Compound Quantitation and Reported Contract Required Quantitation Limits (CRQL):

The result for acetone in the initial analysis of sample 363-TW02-00 exceeded the linear calibration range. A dilution analysis was performed for this sample, with no detection reported for acetone. The result for acetone in the initial analysis was flagged as estimated (J), and all results for the reanalysis were rejected (R) as redundant.

XII.) Tentatively Identified Compounds (TIC):

All TIC criteria were met. No action was required.

XIII.) System Performance:

All System Performance criteria were met. No action was required.

SEMIVOLATILE ORGANICS

SUMMARY

I.) General:

The analyses for Semivolatile Organics were performed by gas chromatography / mass spectroscopy (GC / MS) using SW-846 Method 8270.

II.) Overall Assessment of Data:

All laboratory data were acceptable with qualifications.

MAJOR ISSUES

There were no major problems in this fraction of the SDG.

MINOR ISSUES

I.) Holding Times:

All Holding Time criteria were met. No action was required.

II.) GC / MS Tuning:

All GC / MS Tuning criteria were met. No action was required.

III.) Calibration:

Initial Calibration:

The Percent Relative Standard Deviation (%RSD) for the standards analyzed on 3/27/02 on instrument HP66 was 32.3% for 2,4-dinitrophenol, which exceeded the 30% QC limit. Since there were no positive results for this compound in the associated samples, no action was required.

Continuing Calibration:

The Percent Differences (%D's) for the standards run on 4/01/02 at 21:36 on instrument HP66 exceeded the 25% QC limit for the following compounds:

2,6-dinitrotoluene	28.1%
2,4-dinitrophenol	34.1%

All positive and non-detect results for these compounds in the associated samples were flagged as estimated (J) and (UJ). The associated samples were 363-TW01-05, 363-TW01-00, 363-TW02-05, 363-TW02-00, 361-SB02-00, 361-SB02-00D, 361-SB03-05, 361-SB03-00, 361-SB04-06, 361-SB05-06, 361-SB05-06D, 361-SB05-00, 361-SB06-05 and 361-SB06-00.

The Percent Difference (%D) for the standard run on 4/02/02 at 09:42 on instrument HP66 was 40.0% for 2,4-dinitrophenol, which exceeded the 25% QC limit. The results for this compound in the associated samples, which consisted entirely of non-detects, were flagged as estimated (UJ). The associated samples were 361-SB02-06, 361-SB04-00, 361-TW01-02, 361-TW01-00 and 361-SB02-06.

IV.) Blanks:

Method Blanks:

Bis(2-ethylhexyl)phthalate was detected at 110 ug/kg in method blank SBLKME. All positive results for this compound in the SDG samples less than 10X the blank amount were flagged as undetected (U) with the results less than the CRQL raised to the CRQL.

Field Blanks:

There were no detections in the field blanks associated with this SDG, which were analyzed as part of SDG V2488. No action was required.

Tentatively Identified Compounds (TIC):

There were no TIC detections in the method and field blanks associated with this SDG. No action was required.

V.) Surrogate Recoveries:

All Surrogate Recovery criteria were met. No action was required.

VI.) Laboratory Control Samples (LCS):

One LCS was analyzed for this SDG. All LCS criteria were met. No action was required.

VII.) Matrix Spike / Matrix Spike Duplicate (MS / MSD):

All MS / MSD criteria were met with SDG sample 43-SB02-06. No action was required.

VIII.) Field Duplicates:

Two sets of Field Duplicate samples (361-SB02-00 / 361-SB02-00D and 361-SB05-06 / 361-SB05-06D) were identified for this fraction of the SDG. The calculable Relative Percent Difference (RPD) was:

Compound	361-SB02-00	361-SB02-00	RPD
di-n-octylphthalate	91 ug/kg	25 ug/kg	114%

The RPD exceeded the 60% QC limit for soil samples. The results for this compound in the associated samples were flagged as estimated (J).

IX.) Internal Standards Performance (ISTD):

All ISTD criteria were met. No action was required.

X.) TCL Compound Identification:

All TCL Compound Identification criteria were met. No action was required.

XI.) Compound Quantitation and Reported Contract Required Quantitation Limits (CRQL):

All CRQL criteria were met. No action was required.

XII.) Tentatively Identified Compounds (TIC):

All TIC criteria were met. No action was required.

XIII.) System Performance:

All System Performance criteria were met. No action was required.

PESTICIDES

SUMMARY

I.) General:

The analyses for Pesticides were performed by gas chromatography (GC) using SW846 Method 8081.

II.) Overall Assessment of Data:

All laboratory data were acceptable with qualifications.

MAJOR ISSUES

There were no major problems for this fraction of the SDG.

MINOR ISSUES

I.) Holding Times:

All Holding Time criteria were met. No action was required.

II.) Instrument Performance:

All Instrument Performance criteria were met. No action was required.

III.) Calibration:

Initial Calibration:

All Initial Calibration criteria were met. No action was required.

Continuing Calibration:

The Percent Difference (%D) was 17.3% for dieldrin in the standard run on 3/30/02 at 02:50 on the secondary column, which exceeded the 15% QC limit. All positive and non-detect results for dieldrin in the associated samples were flagged as estimated (J) and (UJ). The associated samples were 363-TW01-05, 363-TW01-00, 363-TW02-05, 361-SB02-06, 361-SB02-00 and 361-SB02-00D.

The Percent Difference (%D) was 19.0% for endosulfan II in the standard run on 3/30/02 at 08:50 on the secondary column, which exceeded the 15% QC limit. All positive and non-detect results for endosulfan II in the associated samples were flagged as estimated (J) and (UJ). The associated samples were 363-TW01-05, 363-TW01-00, 363-TW02-05, 361-SB02-06, 361-SB02-00, 361-SB02-00D,

361-SB03-05, 361-SB03-00, 361-SB04-06, 361-SB04-00, 361-SB05-06, 361-SB05-06D, 361-SB05-00 and 361-TW01-02.

The Percent Difference (%D) was 16.4% for endosulfan II in the standard run on 3/30/02 at 18:50 on the primary column, which exceeded the 15% QC limit. The positive result for endosulfan II in associated sample 361-TW01-00 was flagged as estimated (J).

The Percent Difference (%D) was 17.8% for 4,4'-DDD in the standard run on 3/30/02 at 19:14 on the primary column, which exceeded the 15% QC limit. The positive result for 4,4'-DDD in associated sample 361-TW01-00 was flagged as estimated (J).

The Percent Difference (%D) was 15.5% for endosulfan II in the standard run on 4/01/02 at 12:22 on the primary column, which exceeded the 15% QC limit. The positive results for endosulfan II in associated samples 361-SB06-05 and 361-SB06-00 were flagged as estimated (J).

The Percent Difference (%D) was 19.1% for endosulfan II in the standard run on 4/01/02 at 12:22 on the secondary column, which exceeded the 15% QC limit. The positive results for endosulfan II in associated samples 361-SB06-05 and 361-SB06-00 were previously flagged as estimated, so no further action was required.

The Percent Difference (%D) was 16.0% for 4,4'-DDD in the standards run on 4/01/02 at 17:53 on the primary column, which exceeded the 15% QC limit. The positive results for 4,4'-DDD in associated samples 361-SB06-05 and 361-SB06-00 were flagged as estimated (J).

IV.) Blanks:

There were detections in method blank PBLKMF for the following compounds:

aldrin	0.24 ug/kg
alpha-BHC	0.38 ug/kg
beta-BHC	0.71 ug/kg

All positive results for these compounds in the SDG samples less than 5X the blank amount were flagged as undetected (U) with the results less than the CRQL being raised to the CRQL.

Beta-BHC was detected at 0.0037 ug/L in instrument blank PIBLKWD. All positive results for this compound in the associated samples were greater than 5X the blank amount, so no action was required.

Delta-BHC and gamma-BHC were detected at 0.0014 ug/L and 0.0027 ug/L, respectively, in instrument blank PIBLKWF. All positive results for these compounds in the associated samples were greater than 5X the blank amount, so no action was required.

Beta-BHC was detected at 0.0029 ug/L in instrument blank PIBLKWJ. All positive results for this compound in the associated samples were greater than 5X the blank amount, so no action was required.

Endrin ketone was detected at 0.0042 ug/L in instrument blank PIBLKWL. All positive results for this compound in the associated samples were greater than 5X the blank amount, so no action was required.

Gamma-BHC was detected at 0.0020 ug/L in instrument blank PIBLKWP. All positive results for this compound in the associated samples were greater than 5X the blank amount, so no action was required.

There were detections in instrument blank PIBLKWR for the following compounds:

aldrin	0.0012 ug/L
gamma-BHC	0.0011 ug/L
heptachlor epoxide	0.00099 ug/L

All positive results for these compounds in the associated samples were greater than 5X the blank amount, so no action was required.

V.) Surrogate Recoveries:

All Surrogate Recovery criteria were met. No action was required.

VI.) Laboratory Control Samples (LCS):

One LCS was analyzed by the laboratory for this SDG. All LCS criteria were met. No action was required.

VII.) Matrix Spike / Matrix Spike Duplicate (MS / MSD):

MS / MSD analyses were run on SDG sample 43-SB02-06. All MS / MSD criteria were met. No action was required.

VIII.) Field Duplicates:

Two sets of field duplicate samples (361-SB02-00 / 361-SB02-00 and 361-SB05-06 / 361-SB05-06D) were identified for this fraction of the SDG. The calculable Relative Percent Differences were:

Compound	361-SB05-06	361-SB05-06D	RPD
beta-BHC	2.9 ug/kg	4.0 ug/kg	32%
4,4'-DDD	3.1 ug/kg	1.8 ug/kg	53%

Both RPDs were within the 60% QC limit for soil samples. No action was required.

IX.) Florisil Cleanup:

Florisil Cleanup data was not provided for this SDG. No action was taken.

X.) GPC Cleanup:

GPC data was not provided for this SDG. No action was taken.

XI.) Pesticide / PCB Identification Summary (PIS):

The Column Percent Difference (%D) exceeded the 25% QC limit for the following samples:

361-SB02-00	beta-BHC	40.0%
361-SB02-00D	beta-BHC	61.5%
	delta-BHC	195%
	gamma-BHC	177%
361-SB02-06	beta-BHC	125%
361-SB03-00	aldrin	46.2%
	beta-BHC	529%
361-SB03-05	delta-BHC	50.0%
361-SB04-00	beta-BHC	38.7%
	delta-BHC	121%
361-SB04-06	beta-BHC	33.3%
	gamma-BHC	37.5%
361-SB05-00	beta-BHC	41.4%
361-SB05-06	aldrin	105%
	alpha-BHC	120%
	beta-BHC	38.1%
	gamma-BHC	59.1%
	4,4'-DDD	182%
361-SB05-06D	beta-BHC	150%
	4,4'-DDD	80.0%
361-SB06-00	beta-BHC	440%
361-SB06-05	4,4'-DDD	100%
	alpha chlordane	133%
361-TW01-00	alpha-BHC	44.7%
	gamma-BHC	64.2%
	4,4'-DDD	168%
	4,4-DDE	46.7%
361-TW01-02	aldrin	94.8%
	4,4'-DDD	100%
	4,4'-DDE	26.6%
	4,4'-DDT	30.4%
	gamma chlordane	146%
	alpha chlordane	142%

363-TW01-00	aldrin	55.6%
	alpha-BHC	34.8%
363-TW01-05	alpha-BHC	189%
363-TW02-00	beta-BHC	103%

All results for these compounds were flagged as estimated (J), unless previously flagged based on blank criteria.

XII.) Compound Quantitation and Reported Contract Required Quantitation Limits (CRQL):

All CRQL criteria were met. No action was required.

XIII.) System Performance:

All System Performance criteria were met. No action was required.

RECRA METALS

SUMMARY

I.) General:

The analyses for RECRA Metals were performed using SW-846 Methods 6010B.

II.) Overall Assessment of Data:

All laboratory data were acceptable with qualifications.

MAJOR ISSUES

There were no major problems in this fraction of the SDG.

MINOR ISSUES

I.) Holding Times:

All Holding Time criteria were met. No action was required.

II.) Calibration:

All Initial and Continuing Calibration criteria were met. No action was required.

III.) CRDL Standards for ICP:

All CRDL criteria were met. No action was required.

IV.) Blanks:

The following blank results represent the highest detections associated with the samples and were used for data qualification:

Blank ID	Analyte	Max. Conc.	Action Level
ER04	barium	6.5 ug/L	6.5 mg/kg
CCB1	cadmium	0.7 ug/L	0.7 mg/kg
ER04	mercury	0.15 ug/L	0.15 mg/kg

CCB = Continuing Calibration Blank,
ER04 = Equipment Rinsate Blank (analyzed as part of SDG V2488)

All results for these analytes in the SDG samples less than the Action Level were flagged as undetected (U).

V.) ICP Interference Check Sample Results:

All Interference Percent Recovery criteria were met. No action was required.

The following analytes were detected in the ICS Solution A with results greater than the IDL:

barium	2 ug/L
cadmium	1 ug/L
chromium	23 ug/L
lead	1 ug/L

These analytes should not be present. Since neither aluminum, calcium, iron nor magnesium was detected in any sample at a concentration comparable to or greater than the respective concentration in ICS solution A, data qualification was not required.

The following analytes had negative results in the ICS Solution A with the absolute value greater than the IDL:

arsenic	-1 ug/L
selenium	-4 ug/L

Since neither aluminum, calcium, iron nor magnesium was detected in any sample at a concentration comparable to or greater than the respective concentration in ICS solution A, data qualification was not required.

VI.) ICP Serial Dilution Analysis:

All Serial Dilution Analysis criteria were met. No action was required.

VII.) Laboratory Control Samples (LCS):

The Percent Recovery (%R) of selenium was 77% in the soil LCS, which was below the 80-120% QC

limits. All positive and non-detect results for this analyte in the SDG samples were flagged as estimated (J) and (UJ).

VIII.) Duplicate Sample Analysis:

All Duplicate Sample Analysis criteria were met. No action was required.

IX.) Matrix Spike (MS):

Matrix Spike / Matrix Spike Duplicate Analyses were run on SDG sample 43-SB02-06. All MS / MSD criteria were met. No action was required.

X.) Field Duplicates:

Two sets of Field Duplicate samples (361-SB02-00 / 361-SB02-00D and 361-SB05-06 / 361-SB05-06D were identified for this fraction of the SDG. The calculable Relative Percent Differences (RPDs) were:

Analyte	361-SB02-00	361-SB02-00D	RPD
barium	7.0 mg/kg	10.3 mg/kg	38%
chromium	6.1 mg/kg	10.2 mg/kg	50%
lead	3.5 mg/kg	4.9 mg/kg	33%

Analyte	361-SB05-06	361-SB05-06D	RPD
arsenic	0.38 mg/kg	1.5 mg/kg	120%
barium	14.9 mg/kg	17.3 mg/kg	15%
chromium	4.9 mg/kg	8.9 mg/kg	58%
lead	3.8 mg/kg	4.7 mg/kg	20%

The RPD for arsenic in the second set exceeded the 60% QC limit for soil samples. The results for arsenic in the second set were flagged as estimated (J).

XI.) Sample Result, Calculation/Transcription Verification:

All criteria were met. No action was taken.

XII.) Quarterly Verification of Instrumental Parameters:

All criteria were met. No action was taken.

VALIDATA

Chemical Services, Inc.

4070 Balleycastle Lane, Duluth, GA 30097

(770) 232-0130
(770) 232-5082 (Fax)
www.datavalidator.com

DATA VALIDATION SUMMARY
REPORT

COMPANY:	CH2M HILL
SITE NAME:	Baker, CTO-143
CONTRACTED LAB:	CompuChem, Inc.
PROJECT NUMBER:	155022
QA/QC LEVEL:	EPA Level III
EPA SOW/METHOD:	EPA 1990 SOW
VALIDATION GUIDELINES:	*USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review*, 1994, *USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review*, 1994
SAMPLE MATRIX:	Soil
TYPES OF ANALYSES:	Volatile Organics (VOA), RECRA Metals
SDG NUMBER:	E2488

OVERVIEW

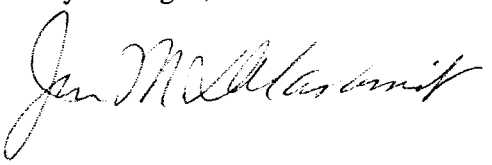
SAMPLES:

Client Sample #	Lab Sample #	Matrix	VOA	RECRA Metals
311-SB01-03	E2488-1	Soil	X	X
311-SB01-00	E2488-2	Soil	X	X
311-TW01-03	E2488-3	Soil	X	X
311-TW01-00	E2488-4	Soil	X	X
311-TW02-03	E2488-5	Soil	X	X
311-TW02-00	E2488-6	Soil	X	X
311-TW02-00RE	E2488-6RE	Soil	X	
311-TW03-03	E2488-7	Soil	X	X
311-TW03-00	E2488-8	Soil	X	X
311-TW03-00RE	E2488-8RE	Soil	X	
311-TW03-00D	E2488-9	Soil	X	X
311-SB02-00	E2488-10	Soil	X	X
311-SB02-00RE	E2488-10RE	Soil	X	
311-SB02-03	E2488-11	Soil	X	X
311-SB02-03D	E2488-12	Soil	X	X
311-SB03-03	E2488-13	Soil	X	X
311-SB03-00	E2488-14	Soil	X	X
336-TW01-04	E2488-15	Soil	X	

Client Sample #	Lab Sample #	Matrix	VOA	RECRA Metals
336-TW01-04D	E2488-16	Soil	X	
336-TW01-00	E2488-17	Soil	X	
336-TW02-04	E2488-18	Soil	X	
336-TW02-00	E2488-19	Soil	X	
339-TW02-06	E2488-20	Soil	X	
311-SB01-00MS	E2488-2MS	Soil	X	X
311-SB01-00MSD	E2488-2MSD	Soil	X	X

Sample ID Suffix Codes: D = FIELD DUPLICATE, MS = MATRIX SPIKE,
MSD = MATRIX SPIKE DUPLICATE, RE = REANALYSIS

DATA REVIEWERS: Amy L. Hogan, Jean M. Delashmit

RELEASE SIGNATURE: 

Data Qualifier Definitions

J	-	The associated numerical value is an estimated quantity.
R	-	The data are unusable (the compound/analyte may or may not be present). Resampling and reanalysis are necessary for verification.
U	-	The compound/analyte was analyzed for, but not detected. The associated numerical value is the sample quantitation limit.
UJ	-	The compound/analyte was analyzed for, but not detected. The sample quantitation limit is an estimated quantity.

DATA QUALIFICATION SUMMARY

CompuChem, Inc. - E2488 - Organics

SAMPLES: 311-SB01-03, 311-SB01-00, 311-TW01-03, 311-TW01-00, 311-TW02-03, 311-TW02-00, 311-TW03-03, 311-TW03-00, 311-TW03-00D, 311-SB02-00, 311-SB02-03, 311-SB02-03D, 311-SB03-03, 311-SB03-00, 336-TW01-04, 336-TW01-04D, 336-TW01-00, 336-TW02-04, 336-TW02-00, 339-TW02-06

VOLATILE ORGANICS

SUMMARY

I.) General:

The analyses for Volatile Organics were performed by gas chromatography / mass spectroscopy (GC / MS) using SW-846 Method 8260.

II.) Overall Assessment of Data:

The initial analyses of SDG samples 311-TW02-00, 311-TW03-00 and 311-SB02-00 were considered by the validator to be of preferable data quality based on ISTD and Holding Time criteria. All results for the reanalyses of these samples were rejected (R) as redundant.

All other laboratory data were acceptable with qualifications.

MAJOR ISSUES

There were no major problems in this fraction of the SDG.

MINOR ISSUES

I.) Holding Times:

All Holding Time criteria were met. No action was required.

II.) GC / MS Tuning:

All GC / MS Tuning criteria were met. No action was required.

III.) Calibration:

Initial Calibration:

All Initial Calibration criteria were met. No action was required.

Continuing Calibration:

The Percent Difference (%D) for the standards run on 3/29/02 at 10:17 exceeded the 25% QC limit for the following compounds:

trichlorofluoromethane	45.0%
acetone	29.1%
2-butanone	43.5%

Since the associated samples were QC samples, no action was required.

The Percent Difference (%D) for the standards run on 3/26/02 at 21:29 on instrument HP59 exceeded the 25% QC limit for bromomethane at 65.9%. The non-detect result for bromomethane in associated sample 311-SB01-03 was flagged as estimated (UJ).

The Percent Differences (%D's) for the standards run on 3/27/02 at 08:47 on instrument HP59 exceeded the 25% QC limit for the following compounds:

bromomethane	75.4%
acetone	25.4%
xylene	29.9%

All positive and non-detect results for these compounds in the associated samples were flagged as estimated (J) and (UJ). The associated samples were 311-SB01-00, 311-TW01-03, 311-TW01-00, 311-TW02-03, 311-TW02-00, 311-TW03-03, 311-TW03-00, 311-TW03-00D, 311-SB02-00, 311-SB02-03, 311-SB02-03D, 311-SB03-03, 336-TW01-04 and 336-TW01-04D.

The Percent Differences (%D's) for the standards run on 3/27/02 at 23:14 on instrument HP59 exceeded the 25% QC limit for the following compounds:

bromomethane	53.6%
1,2-dibromo-3-chloropropane	30.2%

All results for these compounds in the associated samples, which consisted entirely of non-detects, were flagged as estimated (UJ). The associated samples were 311-SB03-00, 336-TW02-04 and 336-TW02-00.

The Percent Difference (%D) for the standards run on 3/28/02 at 18:49 on instrument HP59 exceeded the 25% QC limit for bromomethane at 25.2%. The results for bromomethane in associated samples 336-TW01-00 and 339-TW02-06, which consisted entirely of non-detects, were flagged as estimated (UJ).

IV.) Blanks:

Method Blanks:

Toluene was detected at 1 ug/kg in method blank VBLKIM. Since there were no positive results for this compound in the associated samples, no action was required.

Toluene was detected at 1 ug/kg in method blank VBLKIN. The positive result for this compound in

associated sample 311-TW02-00, which was less than 5X the blank amount, was flagged as undetected (U) with the result being raised to the CRQL.

2-Hexanone was detected at 1 ug/kg in method blank VBLKID. The positive result for this compound in associated sample 311-TW02-00RE, which was less than 5X the blank amount, was flagged as undetected (U) with the result being raised to the CRQL.

Chloroform was detected at 1 ug/kg in method blank VBLKHC. The positive result for this compound in associated sample 336-TW01-00, which was less than 5X the blank amount, was flagged as undetected (U) with the result being raised to the CRQL.

1,2,4-Trichlorobenzene was detected at 1 ug/kg in method blank VBLKJB. Since the associated samples were QC samples, no action was required.

Trip Blank:

The Trip Blank (TB06) associated with the samples for this SDG was part of another SDG (G2488) not submitted for data validation. No action was taken.

Tentatively Identified Compounds (TIC):

Butylated hydroxytoluene was detected at 40 ug/kg in method blank VBLKID. There were no detections for this compound in the associated samples, so no action was required.

Octamethyl cyclotetrasiloxane was detected at 30 ug/kg in method blank VBLKHC. The positive result for this compound in associated sample 339-TW02-06, which was less than 10X the blank amount, was flagged as undetected (U).

Butylated hydroxytoluene was detected at 5.2 ug/kg in method blank VBLKJB. Since the associated samples were QC samples, no action was required.

V.) Surrogate Recoveries:

The Percent Recovery (%R) of 1,2-dichloroethane-d4 was 140% for sample 311-TW03-00, which exceeded the 70-139% QC limits. All positive results for this sample were flagged as estimated (J).

VI.) Laboratory Control Samples (LCS):

Five LCSs were analyzed for this SDG. All LCS criteria were met. No action was required.

VII.) Matrix Spike / Matrix Spike Duplicate (MS / MSD):

MS / MSD analyses were run on SDG sample 311-SB01-00. All MS / MSD criteria were met. No action was required.

VIII.) Field Duplicates:

Three sets of Field Duplicate samples (311-SB02-03 / 311-SB02-03D, 311-TW03-00 / 311-TW03-00D

and 336-TW01-04 / 336-TW01-04D) were identified for this fraction of the SDG. The calculable Relative Percent Differences (RPDs) were:

Compound	311-SB02-03	311-SB02-03D	RPD
acetone	4 ug/kg	7 ug/kg	54%

Compound	311-TW03-00	311-TW03-00D	RPD
acetone	12 ug/kg	3 ug/kg	120%
methylene chloride	24 ug/kg	11 ug/kg	74%
chloroform	2 ug/kg	1 ug/kg	67%

Compound	336-TW01-04	336-TW01-04D	RPD
methylene chloride	41 ug/kg	37 ug/kg	10%
tetrachloroethane	7 ug/kg	3 ug/kg	33%

All RPDs for samples 311-TW03-00 / 311-TW03-00D exceeded the 60% QC limit for soil samples. The results for these compounds in the two samples were flagged as estimated (J).

IX.) Internal Standards Performance (ISTD):

The Percent Recovery (%R) of 1,4-dichlorobenzene-d4 was 46% for sample 311-TW02-00, which was below the 50-200% QC limit. All results for the compounds quantitated against this ISTD, which consisted entirely of non-detects, were flagged as estimated (UJ).

The Percent Recoveries (%R's) of chlorobenzene-d5 at 43% and 1,4-dichlorobenzene-d4 at 22% for sample 311-TW03-00, which were below the 50-200% QC limit. All results for the compounds quantitated against these ISTDs, which consisted entirely of non-detects, were flagged as estimated (UJ). The Percent Recovery (%R) of 1,4-dichlorobenzene-d4 was 49% for sample 311-SB02-00, which was below the 50-200% QC limit. All results for the compounds quantitated against this ISTD, which consisted entirely of non-detects, were flagged as estimated (UJ).

The Percent Recovery (%R) of 1,4-dichlorobenzene-d4 was 47% for sample 311-TW02-00RE, which was below the 50-200% QC limit. All results for this sample were previously rejected. No further action was required.

The Percent Recovery (%R) of 1,4-dichlorobenzene-d4 was 31% for sample 311-TW03-00RE, which was below the 50-200% QC limit. All results for this sample were previously rejected. No further action was required.

The Percent Recovery (%R) of 1,4-dichlorobenzene-d4 was 43% for sample 311-SB02-00RE, which was below the 50-200% QC limit. All results for this sample were previously rejected. No further action was required.

X.) TCL Compound Identification:

All TCL Compound Identification criteria were met. No action was required.

XI.) Compound Quantitation and Reported Contract Required Quantitation Limits (CRQL):

All CRQL criteria were met. No action was required.

XII.) Tentatively Identified Compounds (TIC):

All TIC criteria were met. No action was required.

XIII.) System Performance:

All System Performance criteria were met. No action was required.

RECRA METALS

SUMMARY

I.) General:

The analyses for RECRA Metals were performed using SW-846 Methods 6010B.

II.) Overall Assessment of Data:

All laboratory data were acceptable with qualification.

MAJOR ISSUES

There were no major issues for this fraction of the SDG.

MINOR ISSUES

I.) Holding Times:

All Holding Time criteria were met. No action was required.

II.) Calibration:

All Initial and Continuing Calibration criteria were met. No action was required.

III.) CRDL Standards for ICP:

All CRDL criteria were met. No action was required.

IV.) Blanks:

The following Continuing Calibration Blank (CCB) result represents the highest detection associated with the samples:

Blank ID	Analyte	Max. Conc.	Action Level
CCB2	barium	0.8 ug/L	0.8 mg/kg

All results for barium in the SDG samples were greater than the Action Level. No action was required.

V.) ICP Interference Check Sample Results:

All Interference Percent Recovery criteria were met. No action was required.

The following analytes were detected in the ICS Solution A with results greater than the IDL:

arsenic	2 ug/L
barium	2 ug/L
cadmium	7 ug/L
chromium	21 ug/L

These analytes should not be present. Since neither aluminum, calcium, iron nor magnesium was detected in any sample at a concentration comparable to or greater than the respective concentration in ICS solution A, data qualification was not required.

VI.) ICP Serial Dilution Analysis:

All Serial Dilution Analysis criteria were met. No action was required.

VII.) Laboratory Control Samples (LCS):

All LCS criteria were met. No action was required.

VIII.) Duplicate Sample Analysis:

All Duplicate Sample Analysis criteria were met. No action was required.

IX.) Matrix Spike (MS):

Matrix Spike / Matrix Spike Duplicate Analyses were run on SDG sample 311-SB01-00. The Percent Recoveries (%R's) for lead were 195% and 135%, respectively,which exceeded the 75-125% QC limits. All positive results for lead in the SDG samples were flagged as estimated (J).

X.) Field Duplicates:

Two sets of Field Duplicate samples (311-SB02-03 / 311-SB02-03D and 311-TW03-00 / 311-TW03-00D) were identified in this SDG. The calculable Relative Percent Differences (RPDs) were:

Analyte	311-SB02-03	311-SB02-03D	RPD
barium	5.4 mg/kg	4.9 mg/kg	9.7%
chromium	8.5 mg/kg	6.6 mg/kg	25%
lead	3.3 mg/kg	3.2 mg/kg	3.1%

Analyte	311-TW03-00	311-TW03-00D	RPD
barium	17.8 mg/kg	9.5 mg/kg	61%
chromium	4.5 mg/kg	5.9 mg/kg	26%
lead	8.2 mg/kg	11.6 mg/kg	34%

The RPD of barium for field duplicate pair 311-TW03-00 / 311-TW03-00D exceeded the 60% QC limit for soil samples. The results for barium in these two samples were flagged as estimated (J).

XI.) Sample Result, Calculation/Transcription Verification:

All criteria were met. No action was taken.

XII.) Quarterly Verification of Instrumental Parameters:

All criteria were met. No action was taken.

VALIDATA

Chemical Services, Inc.

4070 Balleycastle Lane, Duluth, GA 30097

(770) 232-0130
(770) 232-5082 (Fax)
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DATA VALIDATION SUMMARY
REPORT

COMPANY:	CH2M HILL
SITE NAME:	Baker, CTO-143
CONTRACTED LAB:	CompuChem, Inc.
PROJECT NUMBER:	155022
QA/QC LEVEL:	EPA Level III
EPA SOW/METHOD:	EPA 1990 SOW
VALIDATION GUIDELINES:	*USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review*, 1994; *USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review*, 1994.
SAMPLE MATRIX:	Soils
TYPES OF ANALYSES:	RECRA Metals
SDG NUMBER:	F2488

OVERVIEW

SAMPLES:

Client Sample #	Lab Sample #	Matrix	RECRA Metals
46-TW01-05	F2488-1	Soil	X
46-TW01-00	F2488-2	Soil	X
46-TW02-04	F2488-3	Soil	X
46-TW02-04D	F2488-4	Soil	X
46-TW02-00	F2488-5	Soil	X
46-TW03-04	F2488-6	Soil	X
46-TW03-00	F2488-7	Soil	X
46-TW04-04	F2488-8	Soil	X
46-TW04-00	F2488-9	Soil	X
46-TW05-05	F2488-10	Soil	X
46-TW05-00	F2488-11	Soil	X
46-TW06-04	F2488-12	Soil	X
46-TW06-00	F2488-13	Soil	X
291-TW01-04	F2488-14	Soil	X
291-TW01-00	F2488-15	Soil	X
291-TW02-04	F2488-16	Soil	X
291-TW02-00	F2488-17	Soil	X
291-TW03-04	F2488-18	Soil	X
291-TW03-04D	F2488-19	Soil	X

Client Sample #	Lab Sample #	Matrix	RECRA Metals
291-TW03-00	F2488-20	Soil	X
291-TW02-00MS	F2488-17MS	Soil	X
291-TW02-00MSD	F2488-17MSD	Soil	X

SAMPLE ID SUFFIX CODES: D = FIELD DUPLICATE, MS = MATRIX SPIKE, MSD = MATRIX SPIKE DUPLICATE

DATA REVIEWERS: Amy L. Hogan, Jean M. Delashmit

RELEASE SIGNATURE: Jean M. Delashmit

Data Qualifier Definitions

J	-	The associated numerical value is an estimated quantity.
R	-	The data are unusable (the compound/analyte may or may not be present). Resampling and reanalysis are necessary for verification.
U	-	The compound/analyte was analyzed for, but not detected. The associated numerical value is the sample quantitation limit.
UJ	-	The compound/analyte was analyzed for, but not detected. The sample quantitation limit is an estimated quantity.

DATA QUALIFICATION SUMMARY

CompuChem, Inc. - F2488 - Inorganics

SAMPLES: 46-TW01-05, 46-TW01-00, 46-TW02-04, 46-TW02-04D, 46-TW02-00, 46-TW03-04, 46-TW03-00, 46-TW04-04, 46-TW04-00, 46-TW05-05, 46-TW05-00, 46-TW06-04, 46-TW06-00, 291-TW01-04, 291-TW01-00, 291-TW02-04, 291-TW02-00, 291-TW03-04, 291-TW03-04D, 291-TW03-00

RECRA METALS

SUMMARY

I.) General:

The analyses for RECRA Metals were performed using SW-846 Methods 6010B.

II.) Overall Assessment of Data:

All laboratory data were acceptable with qualifications.

MAJOR ISSUES

There were no major issues for this fraction of the SDG.

MINOR ISSUES

I.) Holding Times:

All Holding Time criteria were met. No action was required.

II.) Calibration:

All Initial and Continuing Calibration criteria were met. No action was required.

III.) CRDL Standards for ICP:

All CRDL criteria were met. No action was required.

IV.) Blanks:

The following blank results represent the highest detections associated with the samples and were used for data qualification:

Blank ID	Analyte	Max. Conc.	Action Level
CCB3	barium	0.7 ug/L	0.7 mg/kg

CCB = Continuing Calibration Blank

The positive result for barium in associated sample 46-TW05-05, which was less than the action level, was flagged as undetected (U).

IV.) ICP Interference Check Sample Results:

All Interference Percent Recovery criteria were met. No action was required.

The following analytes were detected in the ICS Solution A with results greater than the IDL:

barium	2 ug/L
cadmium	7 ug/L
chromium	21 ug/L

These analytes should not be present. Since neither aluminum, calcium, iron nor magnesium was detected in any sample at a concentration comparable to or greater than the respective concentration in ICS solution A, data qualification was not required.

Selenium had a negative result of 1 ug/L in the ICS Solution A with an absolute value greater than the IDL. Since neither aluminum, calcium, iron nor magnesium was detected in any sample at a concentration comparable to or greater than the respective concentration in ICS solution A, data qualification was not required.

V.) ICP Serial Dilution Analysis:

All Serial Dilution Analysis criteria were met. No action was required.

VI.) Laboratory Control Samples (LCS):

The Percent Recovery (%R) of mercury in the soil LCS sample was 129.8%, which exceeded the 80-120% QC Limits. All positive results for mercury in the SDG samples were flagged as estimated (J).

VII.) Duplicate Sample Analysis:

Duplicate Sample Analysis was run on SDG sample 291-TW02-00. All Duplicate Sample Analysis criteria were met. No action was required.

VIII.) Matrix Spike (MS):

Matrix Spike / Matrix Spike Duplicate Analyses were run on SDG sample 291-TW02-00. The Percent Recoveries (%R's) of mercury were 125.5% and 127.3%, respectively, for the two samples which exceeded the 75-125% QC limits. All positive results for this analyte were previously flagged based on the LCS criteria, so no further action was required.

IX.) Field Duplicates:

There were two sets of Field Duplicate samples (46-TW02-04 / 46-TW02-04D and 291-TW03-04 / 291-TW03-04D) identified in this SDG. There were no calculable Relative Percent Differences (RPDs) for the first pair. The calculable RPDs for the second pair were:

Analyte	291-TW03-04	291-TW03-04D	RPD
barium	12.7 mg/kg	19.2 mg/kg	41%
chromium	4.8 mg/kg	8.2 mg/kg	52%
lead	8.0 mg/kg	16.3 mg/kg	68%

The RPD for lead exceeded the 60% QC limit for soil samples, so the results for lead in these two samples were flagged as estimated (J).

X.) Sample Result, Calculation/Transcription Verification:

All criteria were met. No action was taken.

XI.) Quarterly Verification of Instrumental Parameters:

All criteria were met. No action was taken.

VALIDATA

Chemical Services, Inc.

4070 Balleycastle Lane, Duluth, GA 30097

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(770) 232-5082 (Fax)
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DATA VALIDATION SUMMARY
REPORT

COMPANY:	CH2M HILL
SITE NAME:	Baker, CTO-143
CONTRACTED LAB:	CompuChem, Inc.
PROJECT NUMBER:	155022
QA/QC LEVEL:	EPA Level III
EPA SOW/METHOD:	EPA 1990 SOW
VALIDATION GUIDELINES:	*USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review,* 1994; *USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review,* 1994
SAMPLE MATRIX:	Water
TYPES OF ANALYSES:	Volatile Organics (VOA), Semivolatile Organics (SVOA), Pesticides, RECRA Metals
SDG NUMBER:	G2488

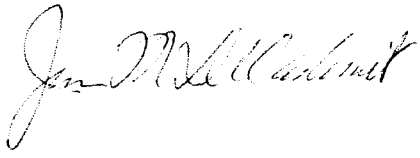
OVERVIEW

SAMPLES:

Client Sample #	Lab Sample #	Matrix	VOA	SVOA
TB06	G2488-1	Water	X	
TB07	G2488-2	Water	X	
TB08	G2488-3	Water	X	
ER05	G2488-4	Water	X	X
ER06	G2488-5	Water	X	X
ER07	G2488-6	Water	X	X
ER08	G2488-7	Water	X	X
ER08RE	G2488-7RE	Water		X

Client Sample #	Lab Sample #	Matrix	Pesticides	RECRA Metals
ER05	G2488-4	Water	X	X
ER06	G2488-5	Water	X	X
ER07	G2488-6	Water	X	X
ER08	G2488-7	Water	X	X

DATA REVIEWERS: Amy L. Hogan, Kevin C. Harmon, Jean M. Delashmit

RELEASE SIGNATURE: 

Data Qualifier Definitions

J	-	The associated numerical value is an estimated quantity.
R	-	The data are unusable (the compound/analyte may or may not be present). Resampling and reanalysis are necessary for verification.
U	-	The compound/analyte was analyzed for, but not detected. The associated numerical value is the sample quantitation limit.
UJ	-	The compound/analyte was analyzed for, but not detected. The sample quantitation limit is an estimated quantity.

DATA QUALIFICATION SUMMARY

CompuChem, Inc. - G2488 - Organics & Inorganics

SAMPLES: TB06, TB07, TB08, ER05, ER06, ER07, ER08

VOLATILE ORGANICS

SUMMARY

I.) General:

The analyses for Volatile Organics were performed by gas chromatography / mass spectroscopy (GC / MS) using SW-846 Method 8260.

II.) Overall Assessment of Data:

All laboratory data were acceptable without qualification.

MAJOR ISSUES

There were no major problems in this SDG.

MINOR ISSUES

I.) Holding Times:

All Holding Time criteria were met. No action was required.

II.) GC / MS Tuning:

All GC / MS Tuning criteria were met. No action was required.

III.) Calibration:

Initial Calibration:

All Initial Calibration criteria were met. No action was required.

Continuing Calibration:

The Percent Difference (%D) for the standards run on 4/03/02 at 08:37 on instrument HP59 was 36.6% for carbon disulfide, which exceeded the 25% QC limit. Since the associated samples were field and trip blanks, no action was required.

IV.) Blanks:

Method Blanks:

Chloromethane and 1,2,4-trichlorobenzene were detected at 0.8 ug/L and 0.9 ug/L, respectively, in method blank VBLKJK. Since the associated samples were field and trip blanks, no action was required.

Field Blanks:

Chloroform was detected at 4 ug/L each in field blank ER05. Since the samples in this SDG were field and trip blanks, no action was required.

Chloroform and bromodichloromethane were detected at 4 ug/L and 1 ug/L, respectively, in field blank ER06. Since the samples in this SDG were field and trip blanks, no action was required.

Acetone, chloroform and toluene were detected at 22 ug/L, 2 ug/L and 1 ug/L, respectively, in field blank ER07. Since the samples in this SDG were field and trip blanks, no action was required.

Chloroform was detected at 1 ug/L each in field blank ER08. Since the samples in this SDG were field and trip blanks, no action was required.

Trip Blanks:

Chloroform was detected at 2 ug/L in both trip blanks TB06 and TB07. Since the samples in this SDG were field and trip blanks, no action was required.

Tentatively Identified Compounds (TIC):

Octamethylcyclotetrasiloxane was detected at 29.7 ug/L in method blank VBLKJK. Since the samples in this SDG were field and trip blanks, no action was required.

V.) Surrogate Recoveries:

All Surrogate Recovery criteria were met. No action was required.

VI.) Laboratory Control Samples (LCS):

Two LCSs were analyzed for this SDG. All LCS criteria were met. No action was required.

VII.) Matrix Spike / Matrix Spike Duplicate (MS / MSD):

MS / MSD analyses were not run for this SDG. Data qualification based on MS / MSD criteria was not required. No action was taken.

VIII.) Field Duplicates:

There were no Field Duplicate samples identified for this fraction of the SDG. No action was required.

IX.) Internal Standards Performance (ISTD):

All ISTD criteria were met. No action was required.

X.) TCL Compound Identification:

All TCL Compound Identification criteria were met. No action was required.

XI.) Compound Quantitation and Reported Contract Required Quantitation Limits (CRQL):

All CRQL criteria were met. No action was required.

XII.) Tentatively Identified Compounds (TIC):

All TIC criteria were met. No action was required.

XIII.) System Performance:

All System Performance criteria were met. No action was required.

SEMIVOLATILE ORGANICS

SUMMARY

I.) General:

The analyses for Semivolatile Organics were performed by gas chromatography / mass spectroscopy (GC / MS) using SW-846 Method 8270.

II.) Overall Assessment of Data:

Based on Surrogate Recovery criteria, the reanalysis of sample ER08 was considered by the validator to be of preferable data quality to the initial analysis. The results for the initial analysis of sample ER08 were flagged as rejected due to redundancy.

All other laboratory data were acceptable without qualification.

MAJOR ISSUES

There were no major problems in this SDG.

MINOR ISSUES

I.) Holding Times:

The eight days between sample date and extraction date for sample ER08RE exceeded the seven day QC limit. Since the sample was a field blank, no action was required.

II.) GC / MS Tuning:

All GC / MS Tuning criteria were met. No action was required.

III.) Calibration:

Initial Calibration:

The Percent Relative Standard Deviation (%RSD) for the standards analyzed on 3/31/02 on instrument HP64 was 30.8% for 2,4-dinitrophenol, which exceeded the 30% QC limit. Since there were no positive results for this compound in the associated samples, no action was required.

Continuing Calibration:

The Percent Differences (%D's) for the standards run on 4/03/02 at 08:15 on instrument HP60 exceeded the 25% QC limit for the following compounds:

2,2'-oxybis(2-chloropropane)	39.1%
2-nitroaniline	36.4%
4-nitrophenol	33.9%
benzo(k)fluoranthene	28.0%

Since the associated sample was a field blank, no action was required.

IV.) Blanks:

Method Blanks:

Bis(2-ethylhexyl)phthalate was detected at 2 ug/L in method blank SBLKNS. Since the associated samples were field blanks, no action was required.

Field Blanks:

There were no detections in the field blanks associated with this SDG. No action was required.

Tentatively Identified Compounds (TIC):

There were no TIC detections in the method or field blanks in this SDG. No action was required.

V.) Surrogate Recoveries:

The Percent Recoveries (%R's) were below the QC limits in sample ER08 for the following surrogates:

Surrogate	%R	QC Limits
nitrobenzene-d5	28%	35-110%
2-fluorobiphenyl	34%	41-110%

Since the sample was a field blank, no action was taken.

VI.) Laboratory Control Samples (LCS):

Two LCSs were analyzed for this SDG. The Percent Recovery (%R) of pentachlorophenol in sample SMRLCS was 186%, which exceeded the 10-150% QC limits. Data qualification based on LCS criteria was not required. No action was taken.

VII.) Matrix Spike / Matrix Spike Duplicate (MS / MSD):

MS / MSD analyses were not run for this SDG. Data qualification based on MS / MSD criteria was not required. No action was taken.

VIII.) Field Duplicates:

There were no Field Duplicate samples identified for this fraction of the SDG. No action was required.

IX.) Internal Standards Performance (ISTD):

All ISTD criteria were met. No action was required.

X.) TCL Compound Identification:

All TCL Compound Identification criteria were met. No action was required.

XI.) Compound Quantitation and Reported Contract Required Quantitation Limits (CRQL):

All CRQL criteria were met. No action was required.

XII.) Tentatively Identified Compounds (TIC):

All TIC criteria were met. No action was required.

XIII.) System Performance:

All System Performance criteria were met. No action was required.

PESTICIDES

SUMMARY

I.) General:

The analyses for Pesticides were performed by gas chromatography (GC) using SW846 Method 8081.

II.) Overall Assessment of Data:

All laboratory data were acceptable without qualification.

MAJOR ISSUES

There were no major problems for this fraction of the SDG.

MINOR ISSUES

I.) Holding Times:

All Holding Time criteria were met. No action was required.

II.) Instrument Performance:

All Instrument Performance criteria were met. No action was required.

III.) Calibration:

Initial Calibration:

The Percent Relative Standard Deviation (%RSD) for the standards analyzed on 3/29/02 on the secondary column was 51.9% for dieldrin, which exceeded the 20% QC limit. Since there were no positive results for this compound in the associated samples, no action was required.

Continuing Calibration:

The Percent Differences (%D's) for the standards run on 3/29/02 at 20:25 on the primary column exceeded the 15% QC limit for the following compounds:

endosulfan I	20.7%
endosulfan II	26.0%
4,4'-DDE	15.9%
alpha chlordane	17.9%

Since the SDG samples were field blanks, no action was required.

The Percent Differences (%D's) for the standards run on 3/29/02 at 20:25 on the secondary column exceeded the 15% QC limit for the following compounds:

endosulfan II	23.2%
dieldrin	31.0%

Since the SDG samples were field blanks, no action was required.

The Percent Differences (%D's) for the standards run on 3/30/02 at 05:11 on the primary column exceeded the 15% QC limit for the following compounds:

aldrin	16.5%
endosulfan I	20.4%
endosulfan II	28.4%

4,4'-DDE	15.8%
alpha chlordane	20.2%

Since the SDG samples were field blanks, no action was required.

The Percent Differences (%D's) for the standards run on 3/30/02 at 05:11 on the secondary column exceeded the 15% QC limit for the following compounds:

endosulfan II	26.9%
4,4'-DDE	16.0%
alpha chlordane	16.4%
dieldrin	30.8%
heptachlor	15.3%
gamma chlordane	15.5%
delta BHC	16.1%
4,4'-DDD	15.5%

Since the SDG samples were field blanks, no action was required.

IV.) Blanks:

There were detections in instrument blank PIBLKWS for the following compounds:

alpha BHC	0.00087 ug/L
4,4'-DDD	0.0063 ug/L
methoxychlor	0.0074 ug/L

All positive results for these compounds in the associated samples were greater than 5X the blank amounts, so no action was required.

Methoxychlor was detected at 0.0029 ug/L in instrument blank PIBLKWT. All positive results for this compound in the associated samples were greater than 5X the blank amount, so no action was required.

4,4'-DDD was detected at 0.0054 ug/L in instrument blank PIBLKWU. All positive results for this compound in the associated samples were greater than 5X the blank amount, so no action was required.

Dieldrin and endrin were detected at 0.0013 ug/L and 0.0010 ug/L, respectively, in instrument blank PIBLKWV. All positive results for these compounds in the associated samples were greater than 5X the blank amount, so no action was required.

V.) Surrogate Recoveries:

All Surrogate Recovery criteria were met. No action was required.

VI.) Laboratory Control Samples (LCS):

One LCS was analyzed by the laboratory for this SDG. All LCS criteria were met. No action was required.

VII.) Matrix Spike / Matrix Spike Duplicate (MS / MSD):

MS / MSD analyses data were not submitted for this SDG. Data qualification based on MS / MSD criteria were not required. No action was taken.

VIII.) Field Duplicates:

There were no Field Duplicate samples identified for this SDG. No action was required.

IX.) Florisil Cleanup:

Florisil Cleanup data was not provided for this SDG. No action was taken.

X.) GPC Cleanup:

GPC data was not provided for this SDG. No action was taken.

XI.) Pesticide / PCB Identification Summary (PIS):

All PIS criteria were met. No action was required.

XII.) Compound Quantitation and Reported Contract Required Quantitation Limits (CRQL):

All CRQL criteria were met. No action was required.

XIII.) System Performance:

All System Performance criteria were met. No action was required.

RECRA METALS

SUMMARY

I.) General:

The analyses for RECRA Metals were performed using SW-846 Methods 6010B.

II.) Overall Assessment of Data:

All laboratory data were acceptable without qualification.

MAJOR ISSUES

There were no major problems for this fraction of the SDG.

MINOR ISSUES

I.) Holding Times:

All Holding Time criteria were met. No action was required.

II.) Calibration:

All Initial and Continuing Calibration criteria were met. No action was required.

III.) CRDL Standards for ICP:

All CRDL criteria were met. No action was required.

IV.) Blanks:

The following blank result represents the highest detections associated with the samples:

Blank ID	Analyte	Max. Conc.	Action Level
CCB1	cadmium	0.6 ug/L	3.0 ug/L

CCB = Continuing Calibration Blank

Since the associated samples were field blanks, no action was required.

V.) ICP Interference Check Sample Results:

All Interference Percent Recovery criteria were met. No action was required.

The following analytes were detected in the ICS Solution A with results greater than the IDL:

barium	2 ug/L
cadmium	1 ug/L
chromium	23 ug/L
lead	1 ug/L

These analytes should not be present. Since neither aluminum, calcium, iron nor magnesium was detected in any sample at a concentration comparable to or greater than the respective concentration in ICS solution A, data qualification was not required.

The following analytes had negative results in the ICS Solution A with the absolute value greater than the IDL:

arsenic	-1 ug/L
selenium	-2 ug/L

Since neither aluminum, calcium, iron nor magnesium was detected in any sample at a concentration comparable to or greater than the respective concentration in ICS solution A, data qualification was

not required.

VI.) ICP Serial Dilution Analysis:

Serial Dilution Analysis was not run for this SDG. No action was taken.

VII.) Laboratory Control Samples (LCS):

All LCS criteria were met. No action was required.

IX.) Duplicate Sample Analysis:

Duplicate Sample Analysis was not run for this SDG. No action was taken.

VIII.) Matrix Spike (MS):

Matrix Spike / Matrix Spike Duplicate Analyses were not run for this SDG. No action was taken.

X.) Field Duplicates:

There were no Field Duplicate samples identified for this SDG. No action was required.

XI.) Sample Result, Calculation/Transcription Verification:

All criteria were met. No action was taken.

XII.) Quarterly Verification of Instrumental Parameters:

All criteria were met. No action was taken.

VALIDATA

Chemical Services, Inc.

4070 Balleycastle Lane, Duluth, GA 30097

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DATA VALIDATION SUMMARY
REPORT

COMPANY:	CH2M HILL
SITE NAME:	Baker, CTO-143
CONTRACTED LAB:	CompuChem, Inc.
PROJECT NUMBER:	155022
QA/QC LEVEL:	EPA Level III
EPA SOW/METHOD:	EPA 1990 SOW
VALIDATION GUIDELINES:	*USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review*, 1994, *USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review*, 1994
SAMPLE MATRIX:	Soils
TYPES OF ANALYSES:	RECRA Metals
SDG NUMBER:	H2488

OVERVIEW

SAMPLES:

Client Sample #	Lab Sample #	Matrix	RECRA Metals
305-TW01-02	H2488-1	Soil	X
305-TW01-00	H2488-2	Soil	X
305-TW02-02	H2488-3	Soil	X
305-TW02-00	H2488-4	Soil	X
305-TW03-02	H2488-5	Soil	X
305-TW03-00	H2488-6	Soil	X
317-SB01-00	H2488-7	Soil	X
317-SB01-02	H2488-8	Soil	X
317-TW01-02	H2488-9	Soil	X
317-TW01-00	H2488-10	Soil	X
317-TW02-02	H2488-11	Soil	X
317-TW02-00	H2488-12	Soil	X
317-TW02-00D	H2488-13	Soil	X
306-TW01-06	H2488-14	Soil	X
306-TW01-00	H2488-15	Soil	X
306-TW01-00D	H2488-16	Soil	X
306-TW02-03	H2488-17	Soil	X
306-TW02-00	H2488-18	Soil	X

Client Sample #	Lab Sample #	Matrix	RECRA Metals
306-TW03-06	H2488-19	Soil	X
306-TW03-00	H2488-20	Soil	X

Sample ID Suffix Code: D = FIELD DUPLICATE

DATA REVIEWERS: Amy L. Hogan, Jean M. Delashmit

RELEASE SIGNATURE:

Data Qualifier Definitions

J	-	The associated numerical value is an estimated quantity.
R	-	The data are unusable (the compound/analyte may or may not be present). Resampling and reanalysis are necessary for verification.
U	-	The compound/analyte was analyzed for, but not detected. The associated numerical value is the sample quantitation limit.
UJ	-	The compound/analyte was analyzed for, but not detected. The sample quantitation limit is an estimated quantity.

DATA QUALIFICATION SUMMARY

CompuChem, Inc. - H2488 - Inorganics

SAMPLES: 305-TW01-02, 305-TW01-00, 305-TW02-02, 305-TW02-00, 305-TW03-02, 305-TW03-00, 317-SB01-00, 317-SB01-02, 317-TW01-02, 317-TW01-00, 317-TW02-02, 317-TW02-00, 317-TW02-00D, 306-TW01-06, 306-TW01-00, 306-TW01-00D, 306-TW02-03, 306-TW02-00, 306-TW03-06, 306-TW03-00

RECRA METALS

SUMMARY

I.) General:

The analyses for RECRA Metals were performed using SW-846 Methods 6010B.

II.) Overall Assessment of Data:

All laboratory data were acceptable with qualifications.

MAJOR ISSUES

There were no major problems for this fraction of the SDG.

MINOR ISSUES

I.) Holding Times:

All Holding Time criteria were met. No action was required.

II.) Calibration:

All Initial and Continuing Calibration criteria were met. No action was required.

III.) CRDL Standards for ICP:

All CRDL criteria were met. No action was required.

IV.) Blanks:

The following blank result represents the highest detection associated with the samples and was used for data qualification:

Blank Type	Analyte	Max. Conc.	Action Level
CCB2	barium	0.7 ug/L	0.7 mg/kg

CCB = Continuing Calibration Blank

The positive result for barium in SDG sample 306-TW01-06, which was less than the Action Level, was flagged as undetected (U).

IV.) ICP Interference Check Sample Results:

All Interference Percent Recovery criteria were met. No action was required.

The following analytes were detected in the ICS Solution A with results greater than the IDL:

barium	2 ug/L
cadmium	7 ug/L
chromium	21 ug/L

These analytes should not be present. Since neither aluminum, calcium, iron nor magnesium was detected in any sample at a concentration comparable to or greater than the respective concentration in ICS solution A, data qualification was not required.

Selenium had a negative result of -1 ug/L in the ICS Solution A with an absolute value greater than the IDL. Since neither aluminum, calcium, iron nor magnesium was detected in any sample at a concentration comparable to or greater than the respective concentration in ICS solution A, data qualification was not required.

V.) ICP Serial Dilution Analysis:

Serial Dilution Analysis data were not submitted for this SDG. All positive results for the SDG samples were flagged as estimated (J).

VI.) Laboratory Control Samples (LCS):

The Percent Recovery (%R) of mercury was 123% for the soil LCS, which exceeded the 80-120% QC limits. All positive results for mercury in the SDG samples were flagged as estimated (J).

VII.) Duplicate Sample Analysis:

Duplicate Sample Analysis data were not submitted for this SDG. All positive results for the SDG samples were previously flagged as estimated, so no further action was taken.

VIII.) Matrix Spike (MS):

Matrix Spike Analyses data were not submitted for this SDG. All positive results for the SDG samples were previously flagged as estimated, so no further action was taken.

IX.) Field Duplicates:

There were two sets of Field Duplicate samples (306-TW01-00 / 306-TW01-00D and 317-TW02-00 / 317-TW02-00D) identified for this SDG. The calculable Relative Percent Differences (RPDs) were:

Analyte	306-TW01-00	306-TW01-00D	RPD
barium	6.0 mg/kg	5.4 mg/kg	11%
mercury	0.02 mg/kg	0.03 mg/kg	40%

Analyte	317-TW02-00	317-TW02-00D	RPD
barium	14.3 mg/kg	14.7 mg/kg	2.8%
chromium	6.1 mg/kg	7.4 mg/kg	19%
lead	7.9 mg/kg	8.2 mg/kg	3.7%

All RPDs were within the 60% QC limit for soil samples, so no action was required.

X.) Sample Result, Calculation/Transcription Verification:

All criteria were met. No action was taken.

XI.) Quarterly Verification of Instrumental Parameters:

All criteria were met. No action was taken.

VALIDATA

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DATA VALIDATION SUMMARY
REPORT

COMPANY:	CH2M HILL
SITE NAME:	Baker, CTO-143
CONTRACTED LAB:	CompuChem, Inc.
PROJECT NUMBER:	155022
QA/QC LEVEL:	EPA Level III
EPA SOW/METHOD:	EPA 1990 SOW
VALIDATION GUIDELINES:	*USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review,* 1994; *USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review,* 1994
SAMPLE MATRIX:	Soil
TYPES OF ANALYSES:	Semivolatile Organics (SVOA), RECRA Metals
SDG NUMBER:	I2488

OVERVIEW

SAMPLES:

Client Sample #	Lab Sample #	Matrix	SVOA	RECRA Metals
294-TW02-00	I2488-1	Soil	X	X
294-TW03-04	I2488-2	Soil	X	X
294-TW03-04D	I2488-3	Soil	X	X
294-TW03-00	I2488-4	Soil	X	X
295-TW02-05	I2488-5	Soil	X	X
295-TW02-00	I2488-6	Soil	X	X
264-TW01-04	I2488-7	Soil	X	X
264-TW01-00	I2488-8	Soil	X	X
265-TW01-05	I2488-9	Soil	X	
265-TW01-05D	I2488-10	Soil	X	
265-TW01-00	I2488-11	Soil	X	
265-TW02-05	I2488-12	Soil	X	
265-TW02-00	I2488-13	Soil	X	
265-TW03-05	I2488-14	Soil	X	
265-TW03-00	I2488-15	Soil	X	
308-TW01-07	I2488-16	Soil	X	
308-TW01-00	I2488-17	Soil	X	

Client Sample #	Lab Sample #	Matrix	SVOA	RECRA Metals
264-TW02-04	I2488-18	Soil	X	X
264-TW02-04D	I2488-19	Soil	X	X
264-TW02-00	I2488-20	Soil	X	X

SUFFIX CODES: D = FIELD DUPLICATE

DATA REVIEWERS: Amy L. Hogan, Kevin C. Harmon, Jean M. Delashmit

RELEASE SIGNATURE:

Data Qualifier Definitions

J	-	The associated numerical value is an estimated quantity.
R	-	The data are unusable (the compound/analyte may or may not be present). Resampling and reanalysis are necessary for verification.
U	-	The compound/analyte was analyzed for, but not detected. The associated numerical value is the sample quantitation limit.
UJ	-	The compound/analyte was analyzed for, but not detected. The sample quantitation limit is an estimated quantity.

DATA QUALIFICATION SUMMARY

CompuChem, Inc. - I2488 - Organics

SAMPLES: 294-TW02-00, 294-TW03-04, 294-TW03-04D, 294-TW03-00, 295-TW02-05, 295-TW02-00, 264-TW01-04, 264-TW01-00, 265-TW01-05, 265-TW01-05D, 265-TW01-00, 265-TW02-05, 265-TW02-00, 265-TW03-05, 265-TW03-00, 308-TW01-07, 308-TW01-00, 264-TW02-04, 264-TW02-04D, 264-TW02-00

SEMIVOLATILE ORGANICS

SUMMARY

I.) General:

The analyses for Semivolatile Organics were performed by gas chromatography / mass spectroscopy (GC / MS) using SW-846 Method 8270.

II.) Overall Assessment of Data:

All laboratory data were acceptable with qualifications.

MAJOR ISSUES

There were no major problems in this fraction of the SDG.

MINOR ISSUES

I.) Holding Times:

All Holding Time criteria were met. No action was required.

II.) GC / MS Tuning:

All GC / MS Tuning criteria were met. No action was required.

III.) Calibration:

Initial Calibration:

The Percent Relative Standard Deviations (%RSDs) for the standards analyzed on 3/31/02 on instrument HP64 was 30.8% for 2,4-dinitrophenol, which exceeded the 30% QC limit. There were no positive results for 2,4-dinitrophenol in the SDG samples, so no action was required.

Continuing Calibration:

The Percent Difference (%D) for the standards run on 4/02/02 at 12:45 on instrument HP64 exceeded the 25% QC limit for 2,4-dinitrophenol at 35.5%. All results for this compound in the associated samples, which consisted entirely of non-detects, were flagged as estimated (UJ). The associated samples were 294-TW03-00, 264-TW01-04, 264-TW01-00, 265-TW01-05, 265-TW01-05D, 265-TW01-00, 265-TW02-05, 265-TW02-00, 265-TW03-05, 265-TW03-00, 308-TW01-07, 308-TW01-00, 264-TW02-04, 264-TW02-04D and 264-TW02-00.

IV.) Blanks:

There were no detections in the method blanks associated with this SDG. No action was required.

Tentatively Identified Compounds (TIC):

There were no TIC detections in the method blanks associated with this SDG. No action was required.

V.) Surrogate Recoveries:

All Surrogate Recovery criteria were met. No action was required.

VI.) Laboratory Control Samples (LCS):

Two LCSs were analyzed for this SDG. Four Percent Recoveries (%R's) exceeded the QC limits. Data qualification based on LCS criteria was not required. No action was taken.

VII.) Matrix Spike / Matrix Spike Duplicate (MS / MSD):

MS / MSD analyses were not run for this SDG. Data qualification based on MS / MSD criteria was not required. No action was taken.

VIII.) Field Duplicates:

Three sets of Field Duplicate samples (265-TW01-05 / 264-TW01-05D, 264-TW02-04 / 264-TW02-04D and 294-TW03-04 / 294-TW03-04D) were identified for this fraction of the SDG. The only calculable Relative Percent Differences (RPDs) were:

Compound	265-TW01-05	265-TW01-05D	RPD
bis(2-ethylhexyl)phthalate	170 ug/kg	88 ug/kg	64%

Compound	264-TW02-04	264-TW02-04D	RPD
bis(2-ethylhexyl)phthalate	100 ug/kg	75 ug/kg	28%

The RPD for bis(2-ethylhexyl)phthalate in Field Duplicate samples 265-TW01-05 and 265-TW01-05D exceeded the 60% QC limit for soil samples. The results for this compound in the two samples were flagged as estimated (J).

IX.) Internal Standards Performance (ISTD):

All ISTD criteria were met. No action was required.

X.) TCL Compound Identification:

All TCL Compound Identification criteria were met. No action was required.

XI.) Compound Quantitation and Reported Contract Required Quantitation Limits (CRQL):

All CRQL criteria were met. No action was required.

XII.) Tentatively Identified Compounds (TIC):

All TIC criteria were met. No action was required.

XIII.) System Performance:

All System Performance criteria were met. No action was required.

RECRA METALS

SUMMARY

I.) General:

The analyses for RECRA Metals were performed using SW-846 Methods 6010B.

II.) Overall Assessment of Data:

All laboratory data were acceptable with qualifications.

MAJOR ISSUES

There were no major problems for this fraction of the SDG.

MINOR ISSUES

I.) Holding Times:

All Holding Time criteria were met. No action was required.

II.) Calibration:

All Initial and Continuing Calibration criteria were met. No action was required.

III.) CRDL Standards for ICP:

All CRDL criteria were met. No action was required.

IV.) Blanks:

The following blank results represent the highest detections associated with the samples:

Blank ID	Analyte	Max. Conc.	Action Level
CCB1	cadmium	0.6 ug/L	0.6 mg/kg
CCB9	chromium	1.0 ug/L	1.0 mg/kg

CCB = Continuing Calibration Blank

All results for cadmium and chromium in the SDG samples were greater than 5X the blank amount. No action was required.

V.) ICP Interference Check Sample Results:

All Interference Percent Recovery criteria were met. No action was required.

The following analytes were detected in the ICS Solution A with results greater than the IDL:

barium	2 ug/L
cadmium	1 ug/L
chromium	23 ug/L
lead	1 ug/L

These analytes should not be present. Since neither aluminum, calcium, iron nor magnesium was detected in any sample at a concentration comparable to or greater than the respective concentration in ICS Solution A, data qualification was not required.

The following analytes had negative results in the ICS Solution A with the absolute value greater than the IDL:

arsenic	-1 ug/L
selenium	-4 ug/L

Since neither aluminum, calcium, iron nor magnesium was detected in any sample at a concentration comparable to or greater than the respective concentration in ICS Solution A, data qualification was not required.

VI.) ICP Serial Dilution Analysis:

Serial Dilution Analysis data were not submitted for this SDG. All positive results for the SDG samples were flagged as estimated (J).

VII.) Laboratory Control Samples (LCS):

The Percent Recoveries (%R's) of mercury at 127% and selenium at 76.8% were outside the 80-120% QC limits. All non-detect results for selenium in the SDG samples were flagged as estimated (UJ). All positive results for both analytes were previously flagged based on Serial Dilution Analysis criteria. No further action was required.

VIII.) Duplicate Sample Analysis:

Duplicate Sample Analysis data were not submitted for this SDG. All positive results for the SDG samples were previously flagged based on Serial Dilution Analysis criteria. No further action was required.

IX.) Matrix Spike (MS):

Matrix Spike / Matrix Spike Duplicate Analyses data were not submitted for this SDG. All positive results for the SDG samples were previously flagged based on Serial Dilution Analysis criteria. No further action was required.

X.) Field Duplicates:

Two sets of Field Duplicate samples (294-TW03-04 / 294-TW03-04D and 264-TW02-04 / 164-TW02-04D) were identified for this fraction of the SDG. The calculable Relative Percent Differences (RPDs) were:

Analyte	294-TW03-04	294-TW03-04D	RPD
barium	5.7 mg/kg	7.4 mg/kg	20%
chromium	6.0 mg/kg	7.7 mg/kg	25%
lead	3.5 mg/kg	4.2 mg/kg	18%
selenium	0.32 mg/kg	0.49 mg/kg	42%

Analyte	264-TW02-04	264-TW02-04D	RPD
arsenic	2.6 mg/kg	3.8 mg/kg	37%
barium	3.9 mg/kg	3.7 mg/kg	5.3%
chromium	5.9 mg/kg	6.7 mg/kg	13%
lead	3.4 mg/kg	3.3 mg/kg	3.0%

All RPDs were within the 60% QC limit for soil samples. No action was required.

X.) Sample Result, Calculation/Transcription Verification:

All criteria were met. No action was taken.

XI.) Quarterly Verification of Instrumental Parameters:

All criteria were met. No action was taken.

VALIDATA
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4070 Balleycastle Lane, Duluth, GA 30097
(770) 232-0130
(770) 232-5082 (Fax)
www.datavalidator.com

DATA VALIDATION SUMMARY REPORT

COMPANY:	CH2M HILL
SITE NAME:	Baker, CTO-143
CONTRACTED LAB:	CompuChem, Inc.
PROJECT NUMBER:	155022
QA/QC LEVEL:	EPA Level III
EPA SOW/METHOD:	EPA 1990 SOW
VALIDATION GUIDELINES:	*USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review*, 1994, *USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review*, 1994
SAMPLE MATRIX:	Soil
TYPES OF ANALYSES:	Volative Organics (VOA), Semivolatile Organics (SVOA), Pesticides, RECRA Metals

SDG NUMBER: J2488

OVERVIEW

SAMPLES:

Client Sample #	Lab Sample #	Matrix	VOA	SVOA
360-TW01-01	J2488-1	Soil	X	X
360-TW01-00	J2488-2	Soil	X	X
360-TW02-02	J2488-3	Soil	X	X
360-TW02-00	J2488-4	Soil	X	X
360-TW03-02	J2488-5	Soil	X	X
360-TW03-00	J2488-6	Soil	X	X
360-TW04-06	J2488-7	Soil	X	X
360-TW04-00	J2488-8	Soil	X	X
269-TW01-06	J2488-9	Soil	X	X
269-TW01-06DL	J2488-9DL	Soil		X
269-TW03-06	J2488-10	Soil	X	X
362-SB01-01	J2488-12	Soil	X	X
362-SB01-00	J2488-13	Soil	X	X
362-SS01	J2488-14	Soil	X	X
362-SS02	J2488-15	Soil	X	X
362-SS03	J2488-16	Soil	X	X
359-TW02-02	J2488-17	Soil	X	
285-TW02-02	J2488-18	Soil	X	X

Client Sample #	Lab Sample #	Matrix	VOA	SVOA
285-TW02-02MS	J2488-18MS	Soil	X	X
285-TW02-02MSD	J2488-18MSD	Soil	X	X
269-TW01-06MS	J2488-9MS	Soil	X	
269-TW01-06MSD	J2488-9MSD	Soil	X	

Client Sample #	Lab Sample #	Matrix	Pesticides	RECRA Metals
360-TW01-01	J2488-1	Soil	X	X
360-TW01-00	J2488-2	Soil	X	X
360-TW02-02	J2488-3	Soil	X	X
360-TW02-00	J2488-4	Soil	X	X
360-TW03-02	J2488-5	Soil	X	X OK
360-TW03-00	J2488-6	Soil	X	X
360-TW03-00RE	J2488-6RE	Soil	X	
360-TW04-06	J2488-7	Soil	X	X
360-TW04-00	J2488-8	Soil	X	X
269-TW01-06	J2488-9	Soil		X
269-TW03-06	J2488-10	Soil		X
359-TW01-02	J2488-11	Soil		X
362-SB01-01	J2488-12	Soil	X	X
362-SB01-00	J2488-13	Soil	X	X
362-SS01	J2488-14	Soil	X	X
362-SS02	J2488-15	Soil	X	X
362-SS03	J2488-16	Soil	X	X
362-SS01MD	J2488-14MD	Soil		X
362-SS01MS	J2488-14MS	Soil	X	X
362-SS01MSD	J2488-14MSD	Soil	X	X
285-TW02-02MS	J2488-18MS	Soil		X
285-TW02-02MSD	J2488-18MSD	Soil		X

SUFFIX CODES DL = DILUTION, MD = MATRIX DUPLICATE, MS = MATRIX SPIKE, MSD = MATRIX SPIKE DUPLICATE, RE = REANALYSIS

DATA REVIEWERS: Amy L. Hogan, Kevin C. Harmon, Jean M. Delashmit

RELEASE SIGNATURE: Jean M Delashmit

CMT 12/3/02

Data Qualifier Definitions

J	-	The associated numerical value is an estimated quantity.
R	-	The data are unusable (the compound/analyte may or may not be present). Resampling and reanalysis are necessary for verification.
U	-	The compound/analyte was analyzed for, but not detected. The associated numerical value is the sample quantitation limit.
UJ	-	The compound/analyte was analyzed for, but not detected. The sample quantitation limit is an estimated quantity.

DATA QUALIFICATION SUMMARY

CompuChem, Inc. - J2488 - Organics

SAMPLES: 360-TW01-01, 360-TW01-00, 360-TW02-02, 360-TW02-00, 360-TW03-02, 360-TW03-00, 360-TW04-06, 360-TW04-00, 269-TW01-06, 269-TW03-06, 359-TW01-02, 362-SB01-01, 362-SB01-00, 362-SS01, 362-SS02, 362-SS03, 359-TW02-02, 285-TW02-02

VOLATILE ORGANICS

SUMMARY

I.) General:

The analyses for Volatile Organics were performed by gas chromatography / mass spectroscopy (GC / MS) using SW-846 Method 8260.

II.) Overall Assessment of Data:

All laboratory data were acceptable with qualifications.

MAJOR ISSUES

There were no major problems for this SDG.

MINOR ISSUES

I.) Holding Times:

All Holding Time criteria were met. No action was required.

II.) GC / MS Tuning:

All GC / MS Tuning criteria were met. No action was required.

III.) Calibration:

Initial Calibration:

All Initial Calibration criteria were met. No action was required.

Continuing Calibration:

The Percent Differences (%D's) for the standards run on 3/29/02 at 10:17 on instrument F50052 exceeded the 25% QC limit for the following compounds:

trichlorofluoromethane	45.0%
acetone	29.1%
2-butanone	43.5%

All positive and non-detect results for these compounds in the associated samples were flagged as estimated (J) and (UJ). The associated samples were 360-TW01-01, 360-TW02-02, 360-TW02-00, 360-TW03-02, 360-TW03-00, 360-TW04-06 and 360-TW04-00.

The Percent Differences (%D's) for the standards run on 4/01/02 at 10:17 on instrument F50052 exceeded the 25% QC limit for the following compounds:

chloromethane	90.0%
trichlorofluoromethane	58.0%
carbon disulfide	31.3%
acetone	30.2%
2-butanone	34.8%

All results for these compounds in associated sample 360-TW01-00, which consisted entirely of non-detects, were flagged as estimated (UJ).

The Percent Differences (%D's) for the standards run on 4/02/02 at 09:57 on instrument F50052 exceeded the 25% QC limit for the following compounds:

bromomethane	33.0%
carbon disulfide	26.2%
acetone	31.9%
1,1-dichloroethane	27.1%
2-butanone	41.7%
methyl acetate	33.1%

All results for these compounds in the associated samples, which consisted entirely of non-detects after blank qualifications, were flagged as estimated (UJ). The associated samples were 269-TW03-06, 359-TW01-02, 362-SB01-00, 362-SS01, 362-SS02, 362-SS03, 359-TW02-02 and 285-TW02-02.

The Percent Differences (%D's) for the standards run on 4/03/02 at 09:32 on instrument F50052 exceeded the 25% QC limit for the following compounds:

dichlorodifluoromethane	25.9%
chloromethane	28.7%
bromomethane	30.7%
carbon disulfide	31.7%
acetone	28.4%
1,1-dichloroethane	25.4%
2-butanone	46.9%
methyl acetate	27.1%

All results for these compounds in associated samples 269-TW01-06 and 362-SB01-01, which consisted entirely of non-detects, were flagged as estimated (UJ).

IV.) Blanks:

Method Blanks:

1,2,4-Trichlorobenzene was detected at 1 ug/kg in method blank VBLKJB. There were no positive results for this compound in the associated samples, so no action was required.

1,2,4-Trichlorobenzene was detected at 1 ug/kg in method blank VBLKJD. The positive result for this compound in associated sample 269-TW03-06, which was less than 5X the blank amount, was flagged as undetected (U) with the result less than the CRQL being raised to the CRQL.

Field Blanks:

Acetone, chloroform and toluene were detected at 22 ug/L, 3 ug/L and 1 ug/L, respectively, in field blank ER07, which was analyzed as part of SDG G2488. All positive results for these compounds in the SDG samples less than 10X the blank amount for acetone and 5X the blank amount for the other compounds were flagged as undetected (U) with the results less than the CRQL being raised to the CRQL.

Trip Blanks:

Chloroform was detected at 2 ug/L in trip blank G2488, which was analyzed as part of SDG G2488. All positive results for this compound in the SDG samples were previously flagged based on field blank criteria. No further action was required.

Tentatively Identified Compounds (TIC):

Butylated hydroxytoluene was detected at 9.3 ug/kg in method blank VBLKJD. The positive result for this compound in associated sample 269-TW03-06, which was less than 5X the blank amount, was flagged as undetected (U).

Octamethylcyclotetrasiloxane was detected at 1150 ug/kg in method blank VBLKKU. There were no positive results for this compound in the SDG samples. No action was required.

V.) Surrogate Recoveries:

All Surrogate Recovery criteria were met. No action was required.

VI.) Laboratory Control Samples (LCS):

Five LCSs were analyzed for this SDG. All LCS criteria were met. No action was required.

VII.) Matrix Spike / Matrix Spike Duplicate (MS / MSD):

MS / MSD analyses were run on SDG samples 269-TW01-06 and 285-TW02-02. Three Relative Percent Differences (RPDs) exceeded the QC limits. Data qualification based on MS / MSD criteria was not required. No action was taken.

VIII.) Field Duplicates:

There were no Field Duplicate samples identified for this fraction of the SDG. No action was required.

IX.) Internal Standards Performance (ISTD):

All ISTD criteria were met. No action was required.

X.) TCL Compound Identification:

All TCL Compound Identification criteria were met. No action was required.

XI.) Compound Quantitation and Reported Contract Required Quantitation Limits (CRQL):

All CRQL criteria were met. No action was required.

XII.) Tentatively Identified Compounds (TIC):

All TIC criteria were met. No action was required.

XIII.) System Performance:

All System Performance criteria were met. No action was required.

SEMIVOLATILE ORGANICS

SUMMARY

I.) General:

The analyses for Semivolatile Organics were performed by gas chromatography / mass spectroscopy (GC / MS) using SW-846 Method 8270.

II.) Overall Assessment of Data:

All laboratory data were acceptable with qualifications.

MAJOR ISSUES

There were no major problems for this fraction of the SDG.

MINOR ISSUES

I.) Holding Times:

All Holding Time criteria were met. No action was required.

II.) GC / MS Tuning:

All GC / MS Tuning criteria were met. No action was required.

III.) Calibration:

Initial Calibration:

The Percent Relative Standard Deviation (%RSD) for the standards analyzed on 3/31/02 on instrument HP64 was 30.8% for 2,4-dinitrophenol, which exceeded the 30% QC limit. Since there were no positive results for this compound in the associated samples, no action was required.

Continuing Calibration:

The Percent Differences (%D's) for the standards run on 4/05/02 at 12:06 on instrument HP60 exceeded the 25% QC limit for the following compounds:

2,2'-oxybis(1-chloropropane)	55.0%
hexachlorocyclopentadiene	26.0%
2-nitroaniline	51.6%
4-nitrophenol	35.8%

The results for these compound in associated sample 285-TW02-02, which consisted entirely of non-detects, were flagged as estimated (UJ).

The Percent Difference (%D) for the standards run on 4/03/02 at 23:08 on instrument HP64 was 25.9% for hexachlorocyclopentadiene, which exceeded the 25% QC limit. All results for this compound in the associated samples, which consisted entirely of non-detects, were flagged as estimated (UJ). The associated samples were 360-TW01-01, 360-TW01-00, 360-TW02-02, 360-TW02-00, 360-TW03-02 360-TW03-00, 360-TW04-06, 360-TW04-00, 269-TW01-06, 269-TW03-06, 362-SB01-01, 362-SB01-00, 362-SS01, 362-SS02, 362-SS03.

IV.) Blanks:

Method Blanks:

Bis(2-ethylhexyl)phthalate was detected at 67 ug/kg in method blank SBLKNY. The positive result for this compound in associated sample 285-TW02-02, which was less than 10X the blank amount, was flagged as undetected (U) with the result being raised to the CRQL.

Field Blanks:

There were no detections in associated field blank ER07, which was analyzed as part of SDG G2488. No action was required.

Tentatively Identified Compounds (TIC):

There were no TIC detections in the method or field blanks for this SDG. No action was required.

V.) Surrogate Recoveries:

The Percent Recoveries (%R's) of terphenyl-d14 were 36% for sample 285-TW02-02MS and 34% for sample 285-TW02-02MSD, which were below the 43-114% QC limits. Since the samples were QC samples, no action was required.

VI.) Laboratory Control Samples (LCS):

Two LCSs were analyzed for this SDG. All LCS criteria were met. No action was required.

VII.) Matrix Spike / Matrix Spike Duplicate (MS / MSD):

MS / MSD analyses were run on SDG sample 285-TW02-02. Two Percent Recoveries (%R's) were below the QC limits. Data qualification based on MS / MSD criteria was not required. No action was taken.

VIII.) Field Duplicates:

There were no Field Duplicate samples identified for this fraction of the SDG. There were no calculable Relative Percent Differences (RPDs). No action was required.

IX.) Internal Standards Performance (ISTD):

All ISTD criteria were met. No action was required.

X.) TCL Compound Identification:

All TCL Compound Identification criteria were met. No action was required.

XI.) Compound Quantitation and Reported Contract Required Quantitation Limits (CRQL):

The result for 2-methylnaphthalene in the initial analysis of sample 269-TW01-06 exceeded the linear calibration range. A dilution analysis was performed for this sample with all calibration criteria met. The result for 2-methylnaphthalene in the initial analysis of the sample and the results for all compounds except 2-methylnaphthalene in the dilution analysis were rejected (R) due to redundancy.

XII.) Tentatively Identified Compounds (TIC):

All TIC criteria were met. No action was required.

XIII.) System Performance:

All System Performance criteria were met. No action was required.

PESTICIDES

SUMMARY

I.) General:

The analyses for Pesticides were performed by gas chromatography (GC) using SW846 Method 8081.

II.) Overall Assessment of Data:

The reanalysis of sample 360-TW03-00 was considered by the validator to be of preferable data quality to the original analysis based on surrogate recovery criteria. All positive and non-detect results for the initial analysis of sample 360-TW03-00 were rejected (R) as redundant.

All other laboratory data were acceptable with qualification.

MAJOR ISSUES

There were no major problems for this fraction of the SDG.

MINOR ISSUES

I.) Holding Times:

All Holding Time criteria were met. No action was required.

II.) Instrument Performance:

All Instrument Performance criteria were met. No action was required.

III.) Calibration:

Initial Calibration:

All Initial Calibration criteria were met. No action was required.

Continuing Calibration:

The Percent Difference (%D) for the standards run on 4/04/02 at 18:35 on the primary column was 16.3% for 4,4'-DDT, which exceeded the 15% QC limit. The positive results for this compound in associated samples 362-SS02 and 360-TW04-00 were flagged as estimated (J).

The Percent Difference (%D) for the standards run on 4/04/02 at 18:35 on the secondary column was 21.1% for methoxychlor, which exceeded the 15% QC limit. All results for methoxychlor in associated samples 362-SS02 and 360-TW04-00, which consisted entirely of non-detects, were flagged as estimated (UJ).

The Percent Difference (%D) for the standards run on 4/05/02 at 01:14 on the secondary column was

25.5% for endosulfan II. All results for this compound in the associated samples, which consisted entirely of non-detects, were flagged as estimated (UJ). The associated samples were 362-SS02, 360-TW04-00, 360-TW04-06, 360-TW03-00, 360-TW03-02, 360-TW02-00 and 360-TW01-00.

The Percent Differences (%D's) for the standards run on 4/05/02 at 06:25 on the secondary column were 16.5% for 4,4'-DDT and 15.7% for endosulfan II, which exceeded the 15% QC limit. All positive and non-detect results for these compounds in the associated samples were flagged as estimated (J) and (UJ). The associated samples were 360-TW04-06, 360-TW03-00, 360-TW03-02, 360-TW02-00, 360-TW01-00, 362-SS01, 362-SB01-00, 362-SB01-01 and 360-TW02-02.

The Percent Difference (%D) for the standards run on 4/05/02 at 06:49 on the primary column was 23.9% for 4,4'-DDD, which exceeded the 15% QC limit. All positive and non-detect results for these compounds in the associated samples were flagged as estimated (J) and (UJ). The associated samples were 360-TW04-06, 360-TW03-00, 360-TW03-02, 360-TW02-00, 360-TW01-00, 362-SS01, 362-SB01-00, 362-SB01-01 and 360-TW02-02.

The Percent Difference (%D) for the standards run on 4/05/02 at 15:14 on the primary column was 15.4% for endosulfan II, which exceeded the 15% QC limit. All results for this compound in the associated samples were previously flagged, so no further action was required.

The Percent Differences (%D's) for the standards run on 4/05/02 at 15:14 on the secondary column were 16.2% for endosulfan II and 29.0% for 4,4'-DDT, which exceeded the 15% QC limit. All positive and non-detect results for these compounds in the associated samples were flagged as estimated (J) and (UJ). The associated samples were 362-SS01, 362-SB01-00, 362-SB01-01 and 360-TW02-02.

The Percent Differences (%D's) for the standards run on 4/05/02 at 12:24 on the secondary column were 15.9% for alpha BHC, 16.7% for delta BHC and 24.4% for 4,4'-DDD, which exceeded the 15% QC limit. All positive and non-detect results for these compounds, not previously flagged based on other calibrations, were flagged as estimated (J) and (UJ). The associated samples were 362-SS01, 362-SB01-00, 362-SB01-01 and 360-TW02-02.

The Percent Difference (%D) for the standards run on 4/08/02 at 19:38 on the primary column was 18.2% for 4,4'-DDT, which exceeded the 15% QC limit. The positive results for this compound in associated samples 360-TW03-00RE, 360-TW01-01 and 362-SS03 were flagged as estimated (J) and (UJ).

The Percent Differences (%D's) for the standards run on 4/09/02 at 04:51 on the primary column were 28.7% for 4,4'-DDT and 16.7% for methoxychlor, which exceeded the 15% QC limit. All positive and non-detect results for these compounds in associated samples 360-TW03-00RE, 360-TW01-01 and 362-SS03 were flagged as estimated (J) and (UJ), unless previously flagged based on other calibrations.

The Percent Difference (%D) for the standards run on 4/09/02 at 04:51 on the secondary column was 26.8% for methoxychlor, which exceeded the 15% QC limit. The results for this compound in the associated samples were previously flagged, so no further action was required.

The Percent Differences (%D's) for the standards run on 4/09/02 at 05:15 on the secondary column were 15.3% for alpha BHC, 16.9% for endrin and 20.0% for endrin aldehyde, which exceeded the 15% QC limit. All positive and non-detect results for these compounds in associated samples 360-TW03-00RE,

360-TW01-01 and 362-SS03 were flagged as estimated (J) and (UJ).

IV.) Blanks:

There were detections in method blank PBLKNB of the following compounds:

aldrin	0.33 ug/kg
delta BHC	0.28 ug/kg
gamma BHC	0.52 ug/kg

All positive results for these compounds in all initial analyses of the SDG samples less than 5X the blank amounts were flagged as undetected (U) with the results less than the CRQL being raised to the CRQL.

4,4'-DDT was detected at 0.74 ug/kg in method blank PBLKOK. The positive result for this compound in associated sample 360-TW03-00RE, which was less than 5X the blank amount, was flagged as undetected (U).

V.) Surrogate Recoveries:

The Percent Recoveries (%R's) of decachlorocyclobenzene on the primary column at 27% and tetrachloro-m-xylene on the secondary column at 28% were below the 30-150% QC limits for sample 360-TW03-00. All surrogates were within the QC limits for the reanalysis. All positive and non-detect results for the original sample analysis were rejected as redundant.

VI.) Laboratory Control Samples (LCS):

Two LCSs were analyzed by the laboratory for this SDG. Two Percent Recoveries (%R's) exceeded the QC limits. Data qualification based on LCS criteria was not required. No action was taken.

VII.) Matrix Spike / Matrix Spike Duplicate (MS / MSD):

MS / MSD analyses were run on 362-SS01. All MS / MSD criteria were met. No action was required.

VIII.) Field Duplicates:

There were no Field Duplicate samples identified for this fraction of the SDG. No action was required.

IX.) Florisil Cleanup:

Florisil Cleanup data was not provided for this SDG. No action was taken.

X.) GPC Cleanup:

GPC data was not provided for this SDG. No action was taken.

XI.) Pesticide / PCB Identification Summary (PIS):

The Column Percent Difference (%D) exceeded the 25% QC limit for the following samples:

360-TW01-00	4,4'-DDD	142%
	4,4'-DDT	146%
	endosulfan sulfate	124%
	endrin aldehyde	458%
360-TW01-01	4,4'-DDD	42.8%
	4,4'-DDE	37.5%
	4,4'-DDT	385%
	dieldrin	29.3%
360-TW02-00	gamma BHC	272%
	4,4'-DDT	242%
360-TW02-02	delta BHC	41.2%
	4,4'-DDE	38.0%
	4,4'-DDT	100%
	alpha chlordane	121%
360-TW03-00	alpha BHC	27.8%
	delta BHC	114%
	4,4'-DDD	43.5%
	4,4'-DDE	37.3%
	4,4'-DDT	100%
360-TW03-00RE	beta BHC	71.9%
	delta BHC	139%
	gamma BHC	77.4%
	4,4'-DDE	67.2%
	4,4'-DDT	64.7%
	gamma chlordane	90.5%
	alpha chlordane	999%
360-TW03-02	gamma BHC	637%
360-TW04-00	aldrin	48.8%
	gamma BHC	141%
	4,4'-DDT	200%
360-TW04-06	beta BHC	350%
362-SB01-00	aldrin	603%
	beta BHC	83.3%
	gamma BHC	63.6%
	4,4'-DDD	69.2%
	4,4'-DDT	113%

362-SB01-01	aldrin	603%
	beta BHC	83.3%
	gamma BHC	63.6%
	4,4'-DDD	69.2%
	4,4'-DDT	113%
362-SS01	beta BHC	39.8%
	4,4'-DDE	226%
	4,4'-DDT	220%
	endosulfan II	136%
	endosulfan sulfate	113%
	methoxychlor	211%
	alpha chlordane	178%
362-SS02	beta BHC	171%
	dieldrin	113%
	endosuldan sulfate	76.7%
362-SS03	beta BHC	45.0%
	4,4'-DDT	313%
	endrin aledehyde	117%
	heptachlor	400%
	methoxychlor	124%

The results for these compounds were flagged as estimated (J), unless previously flagged as rejected based on other criteria.

XII.) Compound Quantitation and Reported Contract Required Quantitation Limits (CRQL):

All CRQL criteria were met. No action was required.

XIII.) System Performance:

All System Performance criteria were met. No action was required.

RECRA METALS

SUMMARY

I.) General:

The analyses for RECRA Metals were performed using SW-846 Methods 6010B.

II.) Overall Assessment of Data:

All laboratory data were acceptable with qualifications.

MAJOR ISSUES

There were no major problems for this fraction of the SDG.

MINOR ISSUES

I.) Holding Times:

All Holding Time criteria were met. No action was required.

II.) Calibration:

All Initial and Continuing Calibration criteria were met. No action was required.

III.) CRDL Standards for ICP:

All CRDL criteria were met. No action was required.

IV.) Blanks:

The following blank results represent the highest detections associated with the samples and were used for data qualification:

Blank ID	Analyte	Max. Conc.	Action Level
ER07	barium	7.3 ug/L	7.3 mg/kg
CCB6	cadmium	0.4 ug/L	0.4 mg/kg
ER07	lead	2.5 ug/L	2.5 mg/kg

CCB = Continuing Calibration Blank
ER07 = Equipment Rinsate Blank, analyzed as part of SDG G2488

All results for these analytes in the SDG samples less than the Action Level (after correction for percent solids) were flagged as undetected (U).

V.) ICP Interference Check Sample Results:

All Interference Percent Recovery criteria were met. No action was required.

The following analytes were detected in the ICS Solution A with results greater than the IDL:

arsenic	2 ug/L
barium	2 ug/L
cadmium	7 ug/L
chromium	21 ug/L

These analytes should not be present. Since neither aluminum, calcium, iron nor magnesium was detected in any sample at a concentration comparable to or greater than the respective concentration in ICS Solution A, data qualification was not required.

The following analytes had negative results in the ICS Solution A with the absolute value greater than the IDL:

lead	-2 ug/L
selenium	-1 ug/L
silver	-1 ug/L

Since neither aluminum, calcium, iron nor magnesium was detected in any sample at a concentration comparable to or greater than the respective concentration in ICS Solution A, data qualification was not required.

VI.) ICP Serial Dilution Analysis:

All Serial Dilution Analysis criteria were met. No action was required.

VII.) Laboratory Control Samples (LCS):

The Percent Recovery (%R) of mercury was 78.1%, which was below the 80-120% QC limits. All positive and non-detect results for mercury in the SDG samples were flagged as estimated (J) and (UJ).

VIII.) Duplicate Sample Analysis:

All Duplicate Sample Analysis criteria were met. No action was required.

IX.) Matrix Spike (MS):

The Percent Recovery (%R) of selenium was 131% for Matrix Spike sample 362-SS01MS, which exceeded the 75-125% QC limits. All positive results for this analyte in the SDG samples were flagged as estimated (J).

X.) Field Duplicates:

There were no Field Duplicate samples identified for this fraction of the SDG. No action was required.

XI.) Sample Result, Calculation/Transcription Verification:

All criteria were met. No action was taken.

XII.) Quarterly Verification of Instrumental Parameters:

All criteria were met. No action was taken.

VALIDATA

Chemical Services, Inc.

4070 Balleycastle Lane, Duluth, GA 30097

(770) 232-0130
(770) 232-5082 (Fax)
www.datavalidator.com

DATA VALIDATION SUMMARY
REPORT

COMPANY:	CH2M HILL
SITE NAME:	Baker, CTO-143
CONTRACTED LAB:	CompuChem, Inc.
PROJECT NUMBER:	155022
QA/QC LEVEL:	EPA Level III
EPA SOW/METHOD:	EPA 1990 SOW
VALIDATION GUIDELINES:	*USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review*, 1994, *USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review*, 1994
SAMPLE MATRIX:	Soil
TYPES OF ANALYSES:	Semivolatile Organics (SVOA), Pesticides, RECRA Metals
SDG NUMBER:	K2488

OVERVIEW

SAMPLES:

Client Sample #	Lab Sample #	Matrix	SVOA	Pesticides	RECRA Metals
308-TW02-07	K2488-1	Soil	X		
308-TW02-00	K2488-2	Soil	X		
308-TW03-07	K2488-3	Soil	X		
308-TW03-00	K2488-4	Soil	X		
269-TW01-00	K2488-5	Soil			X
269-TW02-06	K2488-6	Soil			X
269-TW02-00	K2488-7	Soil			X
269-TW03-00	K2488-8	Soil			X
43-SB01-06	K2488-9	Soil	X	X	X
43-SB01-00	K2488-10	Soil	X	X	X
43-SB01-00D	K2488-11	Soil	X	X	X
43-SB02-00	K2488-12	Soil	X	X	X
43-SB03-06	K2488-13	Soil	X	X	X
43-SB03-00	K2488-14	Soil	X	X	X
43-SS04	K2488-15	Soil	X	X	X
43-SS04D	K2488-16	Soil	X	X	X
43-TW01-06	K2488-17	Soil	X	X	X
43-TW01-00	K2488-18	Soil	X	X	X

Client Sample #	Lab Sample #	Matrix	RECRA SVOA	Pesticides	Metals
43-TW02-06	K2488-19	Soil	X	X	X
43-TW02-06D	K2488-20	Soil	X	X	X

Sample ID
Suffix Code: D = FIELD DUPLICATE

DATA REVIEWERS: Amy L. Hogan, Jean M. Delashmit

RELEASE SIGNATURE:

Data Qualifier Definitions

J	-	The associated numerical value is an estimated quantity.
R	-	The data are unusable (the compound/analyte may or may not be present). Resampling and reanalysis are necessary for verification.
U	-	The compound/analyte was analyzed for, but not detected. The associated numerical value is the sample quantitation limit.
UJ	-	The compound/analyte was analyzed for, but not detected. The sample quantitation limit is an estimated quantity.

DATA QUALIFICATION SUMMARY

CompuChem, Inc. - K2488 - Organics

SAMPLES: 308-TW02-07, 308-TW02-00, 308-TW03-07, 308-TW03-00, 269-TW01-00, 269-TW02-06, 269-TW02-00, 269-TW03-00, 43-SB01-06, 43-SB01-00, 43-SB01-00D, 43-SB02-00, 43-SB03-06, 43-SB03-00, 43-SS04, 43-SS04D, 43-TW01-06, 43-TW01-00, 43-TW02-06, 43-TW02-06D

SEMIVOLATILE ORGANICS

SUMMARY

I.) General:

The analyses for Semivolatile Organics were performed by gas chromatography / mass spectroscopy (GC / MS) using SW-846 Method 8270.

II.) Overall Assessment of Data:

All laboratory data were acceptable with qualifications.

MAJOR ISSUES

There were no Major Issues for this fraction of the SDG.

MINOR ISSUES

I.) Holding Times:

All Holding Time criteria were met. No action was required.

II.) GC / MS Tuning:

All GC / MS Tuning criteria were met. No action was required.

III.) Calibration:

Initial Calibration:

The Percent Relative Standard Deviation (%RSD) for the standards analyzed on 3/27/02 on instrument HP66 was 32.3% for 2,4-dinitrophenol, which exceeded the 30% QC limit. Since there were no positive results for this compound in the associated samples, no action was required.

Continuing Calibration:

The Percent Differences (%D's) for the standards run on 4/03/02 at 08:15 on instrument HP60 exceeded the 25% QC limit for the following compounds:

2,2'-oxybis(1-chloropropane)	39.1%
2-nitroaniline	36.4%
4-nitrophenol	33.9%
benzo(k)fluoranthene	28.0%

All results for these compounds in associated sample 43-SB03-06, which consisted entirely of non-detects, were flagged as estimated (UJ).

The Percent Difference (%D) for the standards run on 4/02/02 at 21:58 on instrument HP66 was 47.1% for 2,4-dinitrophenol, which exceeded the 25% QC limit. The results for this compound in the associated samples, which consisted entirely of non-detects, were flagged as estimated (UJ). The associated samples were 43-SB02-00, 43-SB03-00, 43-SS04, 43-SS04D, 43-TW01-06, 43-TW01-00, 43-TW02-06D and 308-TW03-07.

The Percent Differences (%D's) for the standards run on 4/03/02 at 11:13 on instrument HP66 were 43.2% for 2,4-dinitrophenol and 25.9% for 4,6-dinitro-2-methylphenol, which exceeded the 25% QC limit. The results for this compound in the associated samples, which consisted entirely of non-detects, were flagged as estimated (UJ). The associated samples were 308-TW03-00 and 43-TW02-06.

The Percent Difference (%D) for the standards run on 4/04/02 at 09:42 on instrument HP66 was 40.0% for 2,4-dinitrophenol, which exceeded the 25% QC limit. The results for this compound in the associated samples, which consisted entirely of non-detects, were flagged as estimated (UJ). The associated samples were 308-TW02-07, 308-TW02-00, 43-SB01-00, 43-SB01-00D and 43-SB01-06.

IV.) Blanks:

Method Blanks:

Bis(2-ethylhexyl)phthalate was detected at 54 ug/kg in method blank SBLKNT. The positive result for this compound in associated sample 43-SB03-06, which was less than 10X the blank amount, was flagged as undetected (U) with the analytical result raised to the CRQL.

Tentatively Identified Compounds (TIC):

There were no TIC detections in the method blanks associated with this SDG. No action was required.

V.) Surrogate Recoveries:

All Surrogate Recovery criteria were met. No action was required.

VI.) Laboratory Control Samples (LCS):

Four LCSs were analyzed for this SDG. The Percent Recovery (%R) of 4-nitrophenol in one of the

LCSs was 151%, which exceeded the 10-145% QC limit. Data qualification based on LCS criteria was not required. No action was taken.

VII.) Matrix Spike / Matrix Spike Duplicate (MS / MSD):

MS / MSD analyses data were not submitted for this SDG. Data qualification based on MS / MSD criteria was not required. No action was taken.

VIII.) Field Duplicates:

Three sets of Field Duplicate samples (43-SB01-00 / 43-SB01-00D, 43-SS04 / 43-SS04D and 43-TW02-06 / 43-TW02-06D) were identified in this fraction of the SDG. The only calculable Relative Percent Difference (RPD) was:

Compound	43-SS04	43-SS04D	RPD
butylbenzylphthalate	46 ug/kg	34 ug/kg	30%

The RPD was within the 60% QC limit for soil samples. No action was required.

IX.) Internal Standards Performance (ISTD):

All ISTD criteria were met. No action was required.

X.) TCL Compound Identification:

All TCL Compound Identification criteria were met. No action was required.

XI.) Compound Quantitation and Reported Contract Required Quantitation Limits (CRQL):

All CRQL criteria were met. No action was required.

XII.) Tentatively Identified Compounds (TIC):

All TIC criteria were met. No action was required.

XIII.) System Performance:

All System Performance criteria were met. No action was required.

PESTICIDES

SUMMARY

I.) General:

The analyses for Pesticides were performed by gas chromatography (GC) using SW846 Method 8081.

II.) Overall Assessment of Data:

All laboratory data were acceptable with qualifications.

MAJOR ISSUES

There were no major problems in this fraction of the SDG.

MINOR ISSUES

I.) Holding Times:

All Holding Time criteria were met. No action was required.

II.) Instrument Performance:

All Instrument Performance criteria were met. No action was required.

III.) Calibration:

Initial Calibration:

The Percent Relative Standard Deviation (%RSD) was 51.9% for dieldrin in the standards analyzed on 3/29/02 on the secondary column, which exceeded the 20% QC limit. Since there were no positive results for this compound in the associated samples, no action was required.

Continuing Calibration:

The Percent Differences (%D's) for the standards run on 3/30/02 at 05:11 on the primary column exceeded the 15% QC limit for the following compounds:

aldrin	16.5%
endosulfan I	20.4%
endosulfan II	28.4%

All positive and non-detect results for these compounds in the associated samples were flagged as estimated (J) and (UJ). The associated samples were 43-SB01-06, 43-SB02-00, 43-SB03-06 and 43-SB03-00.

The Percent Differences (%D's) for the standards run on 3/30/02 at 05:11 on the secondary column exceeded the 15% QC limit for the following compounds:

endosulfan II	26.9%
dieldrin	30.8%
heptachlor	15.3%
gamma chlordane	15.5%

All positive and non-detect results for these compounds in the associated samples were flagged as

estimated (J) and (UJ). The associated samples were 43-SB01-06, 43-SB02-00, 43-SB03-06 and 43-SB03-00.

The Percent Differences (%D's) for the standards run on 3/30/02 at 05:43 on the primary column exceeded the 15% QC limit for the following compounds:

4,4'-DDE	15.8%
alpha chlordane	20.2%

All positive and non-detect results for these compounds in the associated samples were flagged as estimated (J) and (UJ). The associated samples were 43-SB01-06, 43-SB02-00, 43-SB03-06 and 43-SB03-00.

The Percent Differences (%D's) for the standards run on 3/30/02 at 05:43 on the secondary column exceeded the 15% QC limit for the following compounds:

4,4'-DDE	16.0%
4,4'-DDD	15.5%
delta BHC	16.1%
alpha chlordane	16.4%

All positive and non-detect results for these compounds in the associated samples were flagged as estimated (J) and (UJ). The associated samples were 43-SB01-06, 43-SB02-00, 43-SB03-06 and 43-SB03-00.

The Percent Differences (%D's) for the standards run on 3/30/02 at 13:09 on the primary column exceeded the 15% QC limit for the following compounds:

aldrin	17.8%
4,4'-DDT	15.1%
dieldrin	15.2%
endosulfan I	22.9%
endosulfan II	28.0%

All positive and non-detect results for these compounds in the associated samples were flagged as estimated (J) and (UJ). The associated samples were 43-SB01-06, 43-SB02-00, 43-SB03-06, 43-SB03-00, 43-TW01-06, 43-TW02-06 and 43-TW02-06D.

The Percent Differences (%D's) for the standards run on 3/30/02 at 13:09 on the secondary column exceeded the 15% QC limit for the following compounds:

dieldrin	34.8%
endosulfan II	27.0%
heptachlor	16.7%
gamma chlordane	16.0%

All positive and non-detect results for these compounds in the associated samples were flagged as estimated (J) and (UJ). The associated samples were 43-SB01-06, 43-SB02-00, 43-SB03-06,

43-SB03-00, 43-TW01-06, 43-TW02-06 and 43-TW02-06D.

The Percent Differences (%D's) for the standards run on 3/30/02 at 13:40 on the primary column exceeded the 15% QC limit for the following compounds:

alpha BHC	15.1%
4,4'-DDE	19.8%
heptachlor epoxide	17.7%
alpha chlordane	23.1%

All positive and non-detect results for these compounds in the associated samples were flagged as estimated (J) and (UJ). The associated samples were 43-SB01-06, 43-SB02-00, 43-SB03-06, 43-SB03-00, 43-TW01-06, 43-TW02-06 and 43-TW02-06D.

The Percent Differences (%D's) for the standards run on 3/30/02 at 13:40 on the secondary column exceeded the 15% QC limit for the following compounds:

4,4'-DDD	15.1%
alpha chlordane	15.2%

All positive and non-detect results for these compounds in the associated samples were flagged as estimated (J) and (UJ). The associated samples were 43-SB01-06, 43-SB02-00, 43-SB03-06, 43-SB03-00, 43-TW01-06, 43-TW02-06 and 43-TW02-06D.

The Percent Differences (%D's) for the standards run on 3/30/02 at 18:59 on the primary column exceeded the 15% QC limit for the following compounds:

aldrin	17.8%
4,4'-DDT	16.4%
dieldrin	15.8%
endosulfan I	20.1%
endosulfan II	25.3%

All positive and non-detect results for these compounds in the associated samples were flagged as estimated (J) and (UJ). The associated samples were 43-TW01-06, 43-TW02-06 and 43-TW02-06D.

The Percent Differences (%D's) for the standards run on 3/30/02 at 18:59 on the secondary column exceeded the 15% QC limit for the following compounds:

dieldrin	31.6%
endosulfan I	15.2%
endosulfan II	25.9%
heptachlor	18.3%
gamma chlordane	17.2%

All positive and non-detect results for these compounds in the associated samples were flagged as estimated (J) and (UJ). The associated samples were 43-TW01-06, 43-TW02-06 and 43-TW02-06D.

The Percent Differences (%D's) for the standards run on 3/30/02 at 19:31 on the primary column exceeded the 15% QC limit for the following compounds:

alpha BHC	17.6%
4,4'-DDE	21.2%
endrin	16.9%
endrin aldehyde	15.1%
heptachlor epoxide	19.1%
endrin ketone	15.4%
alpha chlordane	24.3%

All positive and non-detect results for these compounds in the associated samples were flagged as estimated (J) and (UJ). The associated samples were 43-TW01-06, 43-TW02-06 and 43-TW02-06D.

The Percent Differences (%D's) for the standards run on 3/30/02 at 19:31 on the secondary column exceeded the 15% QC limit for the following compounds:

4,4'-DDE	16.1%
alpha chlordane	17.8%
delta BHC	16.3%
4,4'-DDD	15.8%
endosulfan sulfate	16.0%

All positive and non-detect results for these compounds in the associated samples were flagged as estimated (J) and (UJ). The associated samples were 43-TW01-06, 43-TW02-06 and 43-TW02-06D.

The Percent Difference (%D's) for the standards run on 4/03/02 at 20:36 on the secondary column exceeded the 15% QC limit for beta BHC at 15.2%. All results for this compound in the associated samples, which consisted entirely of non-detects, were flagged as estimated (UJ). The associated samples were 43-SB01-00, 43-SB01-00D, 43-SS04, 43-SS04D and 43-TW01-00.

IV.) Blanks:

There were detections in Instrument Blank PIBLKWS for the following compounds:

alpha BHC	0.00087 ug/L
4,4'-DDD	0.0063 ug/L
methoxychlor	0.0074 ug/L

All positive results for these compounds in the associated samples were greater than 5X the blank amount, so no action was required.

Methoxychlor was detected at 0.0029 ug/L in Instrument Blank PIBLKWT. All positive results for this compound in the associated samples were greater than 5X the blank amount, so no action was required.

4,4'-DDD was detected at 0.0054 ug/L in Instrument Blank PIBLKWU. All detections of 4,4'-DDT in the associated samples were greater than 5X the blank amount, so no action was required.

Dieldrin and endrin were detected at 0.0013 ug/L and 0.0010 ug/L, respectively, in Instrument Blank PIBLKWV. All positive results for these compounds in the associated samples were greater than 5X the blank amount, so no action was required.

Alpha BHC was detected at 0.0084 ug/L in Instrument Blank PIBLKWW. All positive results for this compound in the associated samples were greater than 5X the blank amount, so no action was required.

Dieldrin and endosulfan sulfate were detected at 0.0018 ug/L and 0.0012 ug/L, respectively, in Instrument Blank PIBLKWX. All positive results for these compounds in the associated samples were greater than 5X the blank amount, so no action was required.

4,4'-DDD was detected at 0.0025 ug/L in Instrument Blank PIBLKWY. All positive results for this compound in the associated samples were greater than 5X the blank amount, so no action was required.

Endosulfan sulfate was detected at 0.0020 ug/L in Instrument Blank PIBLKWZ. All positive results for this compound in the associated samples were greater than 5X the blank amount, so no action was required.

Alpha BHC was detected at 0.00073 ug/L in Instrument Blank PIBLKXA. All positive results for this compound in the associated samples were greater than 5X the blank amount, so no action was required.

There were detections in Instrument Blank PIBLKXB for the following compounds:

aldrin	0.0011 ug/L
gamma BHC	0.0014 ug/L
dieldrin	0.0012 ug/L

All positive results for these compounds in the associated samples were greater than 5X the blank amount, so no action was required.

There were detections in Instrument Blank PIBLKXD for the following compounds:

aldrin	0.00097 ug/L
beta BHC	0.003 ug/L
dieldrin	0.0011 ug/L
heptachlor	0.0011 ug/L

All positive results for these compounds in the associated samples were greater than 5X the blank amount, so no action was required.

V.) Surrogate Recoveries:

All Surrogate Recovery criteria were met. No action was required.

VI.) Laboratory Control Samples (LCS):

Two LCSs were analyzed by the laboratory for this SDG. All LCS criteria were met. No action was required.

VII.) Matrix Spike / Matrix Spike Duplicate (MS / MSD):

MS / MSD analyses data were not submitted for this SDG. Data qualification based on MS / MSD criteria were not required. No action was taken.

VIII.) Field Duplicates:

Three sets of field duplicate samples (43-SB01-00 / 43-SB01-00D, 43-SS04 / 43-SS04D and 43-TW02-06 / 43-TW02-06D) were identified for this fraction of the SDG. The calculable Relative Percent Differences were:

Compound	43-SB01-00	43-SB01-00D	RPD
4,4'-DDE	100 ug/kg	140 ug/kg	33%
4,4'-DDT	420 ug/kg	550 ug/kg	27%
dieldrin	130 ug/kg	46 ug/kg	95%
gamma chlordane	160 ug/kg	83 ug/kg	63%
alpha chlordane	270 ug/kg	160 ug/kg	51%

Compound	43-SS04	43-SS04D	RPD
4,4'-DDE	310 ug/kg	320 ug/kg	3.2%
4,4'-DDT	210 ug/kg	220 ug/kg	4.6%
gamma chlordane	14 ug/kg	17 ug/kg	19%
alpha chlordane	110 ug/kg	120 ug/kg	8.7%

The RPD for dieldrin in the first set exceeded the 60% QC limit for soil samples. The results for this compound in samples 43-SB01-00 and 43-SB01-00D were flagged as estimated (J).

IX.) Florisil Cleanup:

Florisil Cleanup data was not provided for this SDG. No action was taken.

X.) GPC Cleanup:

GPC data was not provided for this SDG. No action was taken.

XI.) Pesticide / PCB Identification Summary (PIS):

The Column Percent Difference (%D) exceeded the 25% QC limit for the following samples:

43-SB01-00	heptachlor epoxide	45.8%
	alpha chlordane	68.8%
43-SB01-00D	alpha chlordane	77.8%

43-SB01-06	aldrin	55.0%
	4,4'-DDT	46.7%
	alpha chlordane	80.3%
43-SB02-00	4,4'-DDD	33.3%
43-SB03-00	4,4'-DDD	74.6%
	gamma chlordane	36.4%
	alpha chlordane	188%
43-SS04	alpha chlordane	162%
43-SS04D	alpha chlordane	179%
43-TW01-00	alpha chlordane	106%
43-TW01-06	alpha chlordane	160%

All results for these compounds were flagged as estimated (J), unless previously flagged based on other criteria.

XII.) Compound Quantitation and Reported Contract Required Quantitation Limits (CRQL):

All CRQL criteria were met. No action was required.

XIII.) System Performance:

All System Performance criteria were met. No action was required.

RECRA METALS

SUMMARY

I.) General:

The analyses for RECRA Metals were performed using SW-846 Methods 6010B.

II.) Overall Assessment of Data:

All laboratory data were acceptable with qualifications.

MAJOR ISSUES

There were no major problems in this fraction of the SDG.

MINOR ISSUES

I.) Holding Times:

All Holding Time criteria were met. No action was required.

II.) Calibration:

All Initial and Continuing Calibration criteria were met. No action was required.

III.) CRDL Standards for ICP:

All CRDL criteria were met. No action was required.

IV.) Blanks:

The following blank results represent the highest detections associated with the samples and were used for data qualification:

Blank ID	Analyte	Max. Conc.	Action Level
CCB1	cadmium	0.6 ug/L	0.6 mg/kg
CCB8	chromium	0.9 ug/L	0.9 mg/kg

CCB = Continuing Calibration Blank

All results for these analytes in the SDG samples less than the Action Level were flagged as undetected (U).

V.) ICP Interference Check Sample Results:

All Interference Percent Recovery criteria were met. No action was required.

The following analytes were detected in the ICS Solution A with results greater than the IDL:

barium	2 ug/L
chromium	23 ug/L
lead	1 ug/L

These analytes should not be present. Since neither aluminum, calcium, iron nor magnesium was detected in any sample at a concentration comparable to or greater than the respective concentration in ICS solution A, data qualification was not required.

The following analytes had negative results in the ICS Solution A with the absolute value greater than the IDL:

arsenic	-1 ug/L
selenium	-2 ug/L

Since neither aluminum, calcium, iron nor magnesium was detected in any sample at a concentration comparable to or greater than the respective concentration in ICS solution A, data qualification was not required.

VI.) ICP Serial Dilution Analysis:

Serial Dilution Analysis data were not submitted for this SDG. All positive results for the SDG samples were flagged as estimated (J).

VII.) Laboratory Control Samples (LCS):

The Percent Recoveries (%R's) of arsenic at 78.3% and selenium at 75.3% and 78.4% were below the 80-120% QC limits. All positive and non-detect results for these analytes in the SDG samples were flagged as estimated (J) and (UJ).

VIII.) Duplicate Sample Analysis:

Duplicate Sample Analysis data were not submitted for this SDG. All positive results were previously flagged as estimated, so no further action was required.

IX.) Matrix Spike (MS):

Matrix Spike / Matrix Spike Duplicate Analyses data were not submitted for this SDG. No action was taken.

X.) Field Duplicates:

Three sets of Field Duplicate samples (43-SB01-00 / 43-SB01-00D, 43-SS04 / 43-SS04D and 43-TW02-06 / 43-TW02-06D) were identified for this fraction of the SDG. The calculable Relative Percent Differences (RPDs) were:

Analyte	43-SB01-00	43-SB01-00D	RPD
arsenic	2.1 mg/kg	2.7 mg/kg	25%
barium	12.9 mg/kg	11.1 mg/kg	15%
chromium	4.1 mg/kg	7.0 mg/kg	52%
lead	17.7 mg/kg	23.7 mg/kg	29%
mercury	0.05 mg/kg	0.07 mg/kg	33%

Analyte	43-SS04	43-SS04D	RPD
arsenic	2.7 mg/kg	2.8 mg/kg	3.6%
barium	24.9 mg/kg	25.6 mg/kg	2.8%
chromium	7.8 mg/kg	8.0 mg/kg	2.5%
lead	22.4 mg/kg	23.2 mg/kg	3.5%
mercury	0.09 mg/kg	0.11 mg/kg	20%
selenium	0.46 mg/kg	0.59 mg/kg	25%

Analyte	43-TW02-06	43-TW02-06D	RPD
barium	1.5 mg/kg	2.2 mg/kg	38%
chromium	1.5 mg/kg	3.6 mg/kg	82%
lead	2.7 mg/kg	2.9 mg/kg	7.1%

The RPD for chromium in set 43-TW02-06 / 43-TW02-06D exceeded the 60% QC limit for soil samples. The results for chromium in these two samples were flagged as estimated (J).

XI.) Sample Result, Calculation/Transcription Verification:

All criteria were met. No action was taken.

XII.) Quarterly Verification of Instrumental Parameters:

All criteria were met. No action was taken.

VALIDATA

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(770) 232-5082 (Fax)
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DATA VALIDATION SUMMARY
REPORT

COMPANY:	CH2M HILL
SITE NAME:	Baker, CTO-143
CONTRACTED LAB:	CompuChem, Inc.
PROJECT NUMBER:	155022
QA/QC LEVEL:	EPA Level III
EPA SOW/METHOD:	EPA 1990 SOW
VALIDATION GUIDELINES:	*USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review,* 1994, *USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review,* 1994
SAMPLE MATRIX:	Soil
TYPES OF ANALYSES:	Semivolatile Organics (SVOA), Pesticides, RECRA Metals
SDG NUMBER:	L2488

OVERVIEW

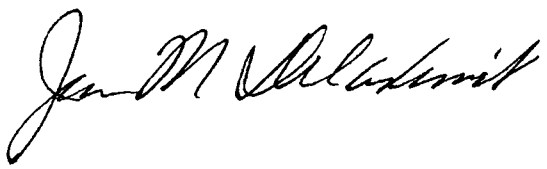
SAMPLES:

Client Sample #	Lab Sample #	Matrix	SVOA	Pesticides	RECRA Metals
43-TW02-00	L2488-1	Soil	X	X	X
43-TW03-06	L2488-2	Soil	X	X	X
43-TW03-00	L2488-3	Soil	X	X	X
359-TW01-02D	L2488-4	Soil			X
359-TW02-02	L2488-5	Soil			X
264-TW03-03	L2488-6	Soil	X		X
264-TW03-00	L2488-7	Soil	X		X
285-TW01-02	L2488-8	Soil	X		
285-TW01-00	L2488-9	Soil	X		
285-TW01-00D	L2488-10	Soil	X		
285-TW03-03	L2488-11	Soil	X		
285-TW03-00	L2488-12	Soil	X		
285-TW02-00	L2488-13	Soil	X		
279-TW01-04	L2488-14	Soil	X		
279-TW02-04	L2488-15	Soil	X		
279-TW03-04	L2488-16	Soil	X		

Client Sample #	Lab Sample #	Matrix	SVOA	Pesticides	RECRA Metals
359-TW02-02MD	L2488-5MD	Soil			X
359-TW02-02MS	L2488-5MS	Soil		✓X	X
359-TW02-02MSD	L2488-5MSD	Soil		✓X	X

SUFFIX CODES: D = FIELD DUPLICATE, MD = MATRIX DUPLICATE,
MS = MATRIX SPIKE, MSD = MATRIX SPIKE DUPLICATE

DATA REVIEWERS: Amy L. Hogan, Kevin C. Harmon, Jean M. Delashmit

RELEASE SIGNATURE: 

Data Qualifier Definitions

J	-	The associated numerical value is an estimated quantity.
R	-	The data are unusable (the compound/analyte may or may not be present). Resampling and reanalysis are necessary for verification.
U	-	The compound/analyte was analyzed for, but not detected. The associated numerical value is the sample quantitation limit.
UJ	-	The compound/analyte was analyzed for, but not detected. The sample quantitation limit is an estimated quantity.

DATA QUALIFICATION SUMMARY

CompuChem, Inc. - L2488 - Organics

SAMPLES: 43-TW02-00, 43-TW03-06, 43-TW03-00, 359-TW01-02D, 359-TW02-02, 264-TW03-03, 264-TW03-00, 285-TW01-02, 285-TW01-00, 285-TW01-00D, 285-TW03-03, 285-TW03-00, 285-TW02-00, 279-TW01-04, 279-TW02-04, 279-TW03-04

SEMIVOLATILE ORGANICS

SUMMARY

I.) General:

The analyses for Semivolatile Organics were performed by gas chromatography / mass spectroscopy (GC / MS) using SW-846 Method 8270.

II.) Overall Assessment of Data:

All laboratory data were acceptable with qualifications.

MAJOR ISSUES

There were no major problems for this fraction of the SDG.

MINOR ISSUES

I.) Holding Times:

All Holding Time criteria were met. No action was required.

II.) GC / MS Tuning:

All GC / MS Tuning criteria were met. No action was required.

III.) Calibration:

Initial Calibration:

The Percent Relative Standard Deviation (%RSD) for the standards analyzed on 3/27/02 on instrument HP66 was 32.3% for 2,4-dinitrophenol, which exceeded the 30% QC limit. Since there were no positive results for this compound in the associated samples, no action was required.

Continuing Calibration:

The Percent Differences (%D's) for the standards run on 4/05/02 at 12:06 on instrument HP60 exceeded the 25% QC limit for the following compounds:

2,2'-oxybis(1-chloropropane)	55.0%
hexachlorocyclopentadiene	26.0%
2-nitroaniline	51.6%
4-nitrophenol	35.8%

All results for these compounds in associated sample 285-TW01-00, which consisted entirely of non-detects, were flagged as estimated (UJ).

The Percent Differences (%D's) for the standards run on 4/02/02 at 21:50 on instrument HP66 exceeded the 25% QC limit for the following compounds:

2,6-dinitrotoluene	29.5%
2,4-dinitrophenol	47.1%

All results for these compounds in the associated samples, which consisted entirely of non-detects, were flagged as estimated (UJ). The associated samples were 43-TW02-00, 43-TW03-06, 43-TW03-00,264-TW03-03, 264-TW03-00 and 285-TW01-02.

The Percent Differences (%D's) for the standards run on 4/03/02 at 11:13 on instrument HP66 exceeded the 25% QC limit for the following compounds:

2,4-dinitrophenol	43.2%
4,6-dinitro-2-methylphenol	25.9%

All results for these compounds in the associated samples, which consisted entirely of non-detects, were flagged as estimated (UJ). The associated samples were 285-TW01-00D, 285-TW03-03, 285-TW03-00, 285-TW02-00, 279-TW01-04, 279-TW02-04 and 279-TW03-04.

IV.) Blanks:

Method Blanks:

Bis(2-ethylhexyl)phthalate was detected at 67 ug/kg in method blank SBLKNY. The detection of this compound in the associated SDG sample was greater than 10X the blank amount, so no action was taken.

Field Blanks:

There were no detections in associated field blank ER08, which was analyzed as part of SDG G2488. No action was required.

Tentatively Identified Compounds (TIC):

There were no TIC detections in the method or field blanks for this SDG. No action was required.

V.) Surrogate Recoveries:

All Surrogate Recovery criteria were met. No action was required.

VI.) Laboratory Control Samples (LCS):

Two LCSs were analyzed for this SDG. The Percent Recovery (%R) of 4-nitrophenol exceeded the QC limits for LCS sample SNYLCS. Data qualification based on LCS criteria was not required. No action was taken.

VII.) Matrix Spike / Matrix Spike Duplicate (MS / MSD):

MS / MSD analyses data were not submitted for this fraction of the SDG. Data qualification based on MS / MSD criteria was not required. No action was taken.

VIII.) Field Duplicates:

One set of Field Duplicate samples (285-TW01-00 / 285-TW01-00D) was identified for this fraction of the SDG. The calculable Relative Percent Differences (RPDs) were:

Compound	285-TW01-00	285-TW01-00D	RPD
benzaldehyde	75 ug/kg	110 ug/kg	38%
bis(2-ethylhexyl)phthalate	1500 ug/kg	130 ug/kg	168%

The RPD for bis(2-ethylhexyl)phthalate exceeded the 60% QC limit for soil samples. The positive results for this compound in the two samples were flagged as estimated (J).

IX.) Internal Standards Performance (ISTD):

All ISTD criteria were met. No action was required.

X.) TCL Compound Identification:

All TCL Compound Identification criteria were met. No action was required.

XI.) Compound Quantitation and Reported Contract Required Quantitation Limits (CRQL):

All CRQL criteria were met. No action was required.

XII.) Tentatively Identified Compounds (TIC):

All TIC criteria were met. No action was required.

XIII.) System Performance:

All System Performance criteria were met. No action was required.

PESTICIDES

SUMMARY

I.) General:

The analyses for Pesticides were performed by gas chromatography (GC) using SW846 Method 8081.

II.) Overall Assessment of Data:

All laboratory data were acceptable with qualifications.

MAJOR ISSUES

There were no major problems for this fraction of the SDG.

MINOR ISSUES

I.) Holding Times:

All Holding Time criteria were met. No action was required.

II.) Instrument Performance:

All Instrument Performance criteria were met. No action was required.

III.) Calibration:

Initial Calibration:

All Initial Calibration criteria were met. No action was required.

Continuing Calibration:

The Percent Differences (%D's) for 4,4'-DDD in the standard run on 4/02/02 at 20:40 on the primary column was 20.3% and on the secondary column was 16.7%, which exceeded the 15% QC limit. The positive and non-detect results for this compound in associated samples 43-TW03-06 and 43-TW03-00 were flagged as estimated (J) and (UJ).

The Percent Difference (%D) for the standards run on 4/02/02 at 20:16 on the secondary column was 17.4% for endosulfan II, which exceeded the 15% QC limit. The non-detect results for endosulfan II in associated samples 43-TW03-06 and 43-TW03-00 were flagged as estimated (UJ).

The Percent Difference (%D) for endosulfan II in the standard run on 4/03/02 at 00:40 on the primary column was 22.0% and on the secondary column was 23.0%, which exceeded the 15% QC limit. The results for endosulfan II in the associated samples were previously flagged, so no further action was required.
The Percent Difference (%D) for 4,4'-DDD in the standards run on 4/03/02 at 01:04 on the primary

column was 23.5% and on the secondary column was 20.9%, which exceeded the 15% QC limit. The results for this compound in the associated samples were previously flagged, so no further action was required.

The Percent Difference (%D) for the standards run on 4/04/02 at 12:42 on the primary column was 15.4% for 4,4'-DDD, which exceeded the 15% QC limit. The positive result for this compound in associated sample 43-TW02-00 was flagged as estimated (J).

The Percent Difference (%D) for the standards run on 4/04/02 at 14:24 on the primary column was 17.8% for methoxychlor, which exceeded the 15% QC limit. The non-detect result for this compound in associated sample 43-TW02-00 was flagged as estimated (UJ).

The Percent Differences (%D's) for the standards run on 4/04/02 at 17:41 on the primary column were 15.6% for gamma-BHC and 16.1% for methoxychlor, which exceeded the 15% QC limit. The results for these compounds in associated sample 43-TW02-00 were flagged as estimated (UJ).

IV.) Blanks:

Method Blanks:

Delta-BHC and gamm-BHC were detected at 0.53 ug/kg and 0.52 ug/kg, respectively, in method blank PBLKNB. The positive result for delta-BHC in associated sample 43-TW03-06, which was less than 5X the blank amount, was flagged as undetected (U) with the analytical result being raised to the CRQL.

Field Blanks:

There were no detections in associated field blank ER08, which was analyzed as part of SDG G2488. No action was required.

V.) Surrogate Recoveries:

All Surrogate Recovery criteria were met. No action was required.

VI.) Laboratory Control Samples (LCS):

One LCS was analyzed by the laboratory for this SDG. One Percent Recovery (%R) exceeded the QC limits. Data qualification based on LCS criteria was not required. No action was taken.

VII.) Matrix Spike / Matrix Spike Duplicate (MS / MSD):

MS / MSD analyses were run on sample 359-TW02-02. One Relative Percent Difference (RPD) and one Percent Recovery (%R) exceeded the QC limits. Data qualification based on MS / MSD criteria was not required. No action was taken.

VIII.) Field Duplicates:

There were no Field Duplicate samples identified for this fraction of the SDG. No action was required.

IX.) Florisil Cleanup:

Florisil Cleanup data was not provided for this SDG. No action was taken.

X.) GPC Cleanup:

GPC data was not provided for this SDG. No action was taken.

XI.) Pesticide / PCB Identification Summary (PIS):

The Column Percent Difference (%D) exceeded the 25% QC limit for the following samples:

Sample ID	Compound	%D
43-TW02-00	alpha chlordane	58.2%
43-TW03-00	alpha-BHC	105%
	delta-BHC	153%
	4,4'-DDD	48.9%
	gamma chlordane	31.6%
	alpha chlordane	36.4%
43-TW03-06	aldrin	41.5%
	methoxychlor	113%

The positive results for these compounds were flagged as estimated (J).

XII.) Compound Quantitation and Reported Contract Required Quantitation Limits (CRQL):

All CRQL criteria were met. No action was required.

XIII.) System Performance:

All System Performance criteria were met. No action was required.

RECRA METALS

SUMMARY

I.) General:

The analyses for RECRA Metals were performed using SW-846 Method 6010B.

II.) Overall Assessment of Data:

All laboratory data were acceptable with qualifications.

MAJOR ISSUES

There were no major problems for this fraction of the SDG.

MINOR ISSUES

I.) Holding Times:

All Holding Time criteria were met. No action was required.

II.) Calibration:

All Initial and Continuing Calibration criteria were met. No action was required.

III.) CRDL Standards for ICP:

All CRDL criteria were met. No action was required.

IV.) Blanks:

The following blank results represent the highest detections associated with the samples and were used for data qualification:

Blank ID	Analyte	Max. Conc.	Action Level
ER08	barium	5.8 ug/L	5.8 mg/kg
ER08	lead	1.8 ug/L	1.8 mg/kg
ER08	selenium	1.9 ug/L	1.9 mg/kg

ER08 = Equipment Rinsate Blank, analyzed as part of SDG G2488

All results for these analytes in the SDG samples, which were less than the Action Level, were flagged as undetected (U).

A negative result of 2.9 ug/L was reported in a Continuing Calibration Blank (CCB2) for arsenic. All positive and non-detect results for arsenic in the SDG samples, which were less than 5X the blank amount, were flagged as estimated (J) and (UJ).

V.) ICP Interference Check Sample Results:

All Interference Percent Recovery criteria were met. No action was required.

The following analytes were detected in the ICS Solution A with results greater than the IDL:

barium	2 ug/L
cadmium	7 ug/L
chromium	21 ug/L

These analytes should not be present. Since neither aluminum, calcium, iron nor magnesium was

detected in any sample at a concentration comparable to or greater than the respective concentration in ICS Solution A, data qualification was not required.

The following analytes had negative results in the ICS Solution A with the absolute value greater than the IDL:

arsenic	-1 ug/L
lead	-1 ug/L
selenium	-2 ug/L
silver	-1 ug/L

Since neither aluminum, calcium, iron nor magnesium was detected in any sample at a concentration comparable to or greater than the respective concentration in ICS Solution A, data qualification was not required.

VI.) ICP Serial Dilution Analysis:

The Percent Difference (%D) for barium was 12.9% for the Serial Dilution Analysis, which exceeded the 10% QC limit. All positive results for barium in the SDG samples were flagged as estimated (J).

VII.) Laboratory Control Samples (LCS):

All LCS criteria were met. No action was required.

VIII.) Duplicate Sample Analysis:

All Duplicate Sample Analysis criteria were met. No action was required.

IX.) Matrix Spike / Matrix Spike Duplicate (MS / MSD):

Matrix Spike / Matrix Spike Duplicate Analyses were run on SDG sample 359-TW02-02. The Percent Recoveries (%R's) were 73% and 69.1% for arsenic, and 60.8% and 60.4% for silver, which were below the 75-125% QC limits. All positive and non-detect results for arsenic and silver were flagged as estimated (J) and (UJ).

X.) Field Duplicates:

There were no Field Duplicate samples identified for this fraction of the SDG. No action was required.

XI.) Sample Result, Calculation/Transcription Verification:

All criteria were met. No action was taken.

XII.) Quarterly Verification of Instrumental Parameters:

All criteria were met. No action was taken.

VALIDATA

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(770) 232-5082 (Fax)
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DATA VALIDATION SUMMARY
REPORT

COMPANY:	CH2M HILL
SITE NAME:	Baker, CTO-143
CONTRACTED LAB:	CompuChem, Inc.
PROJECT NUMBER:	155022
QA/QC LEVEL:	EPA Level III
EPA SOW/METHOD:	EPA 1990 SOW
VALIDATION GUIDELINES:	*USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review,* 1994; *USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review,* 1994
SAMPLE MATRIX:	Soils
TYPES OF ANALYSES:	RECRA Metals
SDG NUMBER:	M2488

OVERVIEW

SAMPLES:

Client Sample #	Lab Sample #	Matrix	RECRA Metals
261-SS03	M2488-1	Soil	X
261-SS02	M2488-2	Soil	X
261-SS02D	M2488-3	Soil	X
261-TW01-00	M2488-4	Soil	X
261-TW02-00	M2488-5	Soil	X
261-TW03-00	M2488-6	Soil	X
261-TW04-00	M2488-7	Soil	X

Sample ID Suffix Code: D = FIELD DUPLICATE

DATA REVIEWERS: Amy L. Hogan, Kevin C. Harmon, Jean M. Delashmit

RELEASE SIGNATURE:

Data Qualifier Definitions

J	-	The associated numerical value is an estimated quantity.
R	-	The data are unusable (the compound/analyte may or may not be present). Resampling and reanalysis are necessary for verification.
U	-	The compound/analyte was analyzed for, but not detected. The associated numerical value is the sample quantitation limit.
UJ	-	The compound/analyte was analyzed for, but not detected. The sample quantitation limit is an estimated quantity.

DATA QUALIFICATION SUMMARY

CompuChem, Inc. -M2488 - Inorganics

SAMPLES: 261-SS03, 261-SS02, 261-SS02D, 261-TW01-00, 261-TW02-00, 261-TW03-00, 261-TW04-00

RECRA METALS

SUMMARY

I.) General:

The analyses for RECRA Metals were performed using SW-846 Methods 6010B.

II.) Overall Assessment of Data:

All laboratory data were acceptable with qualifications.

MAJOR ISSUES

There were no major problems in this fraction of the SDG.

MINOR ISSUES

I.) Holding Times:

All Holding Time criteria were met. No action was required.

II.) Calibration:

All Initial and Continuing Calibration criteria were met. No action was required.

III.) CRDL Standards for ICP:

All CRDL criteria were met. No action was required.

IV.) Blanks:

The following blank results represent the highest detections associated with the samples and were used for data qualification:

Blank ID	Analyte	Max. Conc.	Action Level
ER08	barium	5.8 ug/L	5.8 mg/kg
CCB3	cadmium	0.5 ug/L	0.5 mg/kg
ER08	selenium	1.9 ug/L	1.9 mg/kg

CCB = Continuing Calibration Blank
ER08- Equipment Rinsate Blank (analyzed as part of SDG G2488)

All positive results for these analytes in the SDG samples less than the action level were flagged as undetected (U).

A negative result of 1.9 ug/L was reported for lead in the Initial Calibration Blank (ICB). All positive results for selenium in the SDG samples less than 5X the blank amount were previously flagged as undetected (U). All non-detect results were flagged as estimated (UJ).

V.) ICP Interference Check Sample Results:

All Interference Percent Recovery criteria were met. No action was required.

The following analytes were detected in the ICS Solution A with results greater than the IDL:

arsenic	2 ug/L
barium	2 ug/L
cadmium	7 ug/L
chromium	21 ug/L
selenium	1 ug/L

These analytes should not be present. Since neither aluminum, calcium, iron nor magnesium was detected in any sample at a concentration comparable to or greater than the respective concentration in ICS Solution A, data qualification was not required.

Two analytes had negative results in the ICS Solution A with absolute values greater than the IDL:

lead	-5 ug/L
silver	-1 ug/L

Since neither aluminum, calcium, iron nor magnesium was detected in any sample at a concentration comparable to or greater than the respective concentration in ICS Solution A, data qualification was not required.

VI.) ICP Serial Dilution Analysis:

Serial Dilution Analysis data was not submitted for this SDG. All positive results for the SDG samples were flagged as estimated (J).

VII.) Laboratory Control Samples (LCS):

All LCS criteria were met. No action was required.

VIII.) Duplicate Sample Analysis:

Duplicate Sample Analysis data was not submitted for this SDG. All positive results for the SDG samples were previously flagged as estimated, so no further action was taken.

IX.) Matrix Spike (MS):

Matrix Spike Analyses data was not submitted for this SDG. All positive results for the SDG samples were previously flagged as estimated, so no further action was taken.

X.) Field Duplicates:

There was one set of Field Duplicate samples (261-SS02 / 261-SS02D) identified in this SDG. The calculable Relative Percent Differences (RPDs) were:

Analyte	261-SS02	261-SS02D	RPD
barium	22.5 mg/kg	19.2 mg/kg	16%
cadmium	1.3 mg/kg	0.98 mg/kg	28%
chromium	9.6 mg/kg	7.5 mg/kg	25%
lead	53.9 mg/kg	39.2 mg/kg	32%

All RPDs were within the 60% QC limit for soil samples, so no action was required.

XI.) Sample Result, Calculation/Transcription Verification:

All criteria were met. No action was taken.

XII.) Quarterly Verification of Instrumental Parameters:

All criteria were met. No action was taken.

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DATA VALIDATION SUMMARY
REPORT

COMPANY:	CH2M HILL
SITE NAME:	Baker, CTO-143
CONTRACTED LAB:	CompuChem, Inc.
PROJECT NUMBER:	155022
QA/QC LEVEL:	EPA Level III
EPA SOW/METHOD:	EPA 1990 SOW
VALIDATION GUIDELINES:	*USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review*, 1994, *USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review*, 1994
SAMPLE MATRIX:	Soils
TYPES OF ANALYSES:	Total Organic Carbon (TOC)
SDG NUMBER:	N2488

OVERVIEW

SAMPLES:

Client Sample #	Lab Sample #	Matrix	TOC
265-TW02-05	N2488-1	Soil	X
264-TW01-04	N2488-2	Soil	X
314-TW01-02	N2488-3	Soil	X
315-TW02-11	N2488-4	Soil	X
311-TW03-03	N2488-5	Soil	X
360-TW04-06	N2488-6	Soil	X
308-TW01-07	N2488-7	Soil	X
269-TW03-06	N2488-8	Soil	X
43-TW02-06	N2488-9	Soil	X
285-TW01-02	N2488-10	Soil	X
279-TW02-04	N2488-11	Soil	X
362-SB01-01	N2488-12	Soil	X

DATA REVIEWERS: Amy L. Hogan, Jean M. Delashmit

RELEASE SIGNATURE: Jean M Delashmit

Data Qualifier Definitions

J	-	The associated numerical value is an estimated quantity.
R	-	The data are unusable (the compound/analyte may or may not be present). Resampling and reanalysis are necessary for verification.
U	-	The compound/analyte was analyzed for, but not detected. The associated numerical value is the sample quantitation limit.
UJ	-	The compound/analyte was analyzed for, but not detected. The sample quantitation limit is an estimated quantity.

DATA QUALIFICATION SUMMARY

CompuChem, Inc. - N2488 - Inorganics

SAMPLES: 265-TW02-05, 264-TW01-04, 314-TW01-02, 315-TW02-11, 311-TW03-03, 360-TW04-06, 308-TW01-07, 269-TW03-06, 43-TW02-06, 285-TW01-02, 279-TW02-04, 362-SB01-01

TOTAL ORGANIC CARBON (TOC)

SUMMARY

I.) General:

The analyses for TOC were made using SW846 method 9060.

II.) Overall Assessment of Data:

All laboratory data were acceptable without qualification.

MAJOR ISSUES

No major problems were observed in this fraction of the SDG.

MINOR ISSUES

I.) Holding Times:

All Holding Time criteria were met. No action was required.

II.) Calibration:

All Calibration criteria were met. No action was required.

III.) Blanks:

There were no detections in the blanks associated with this SDG. No action was required.

IV.) Laboratory Control Samples (LCS):

All LCS criteria were met. No action was required.

V.) Matrix Duplicate (MD):

MD data was not submitted for this SDG. No action was required.

VI.) Matrix Spike (MS):

MS data was not submitted for this SDG. No action was required.

VII.) Field Duplicates:

There were no field duplicate samples identified for this fraction of the SDG. No action was required.

VALIDATA

Chemical Services, Inc.

4070 Balleycastle Lane, Duluth, GA 30097

(770) 232-0130
(770) 232-5082 (Fax)
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DATA VALIDATION SUMMARY
REPORT

COMPANY:	CH2M HILL
SITE NAME:	Baker, CTO-143
CONTRACTED LAB:	CompuChem, Inc.
PROJECT NUMBER:	155022
QA/QC LEVEL:	EPA Level III
EPA SOW/METHOD:	EPA 1990 SOW
VALIDATION GUIDELINES:	*USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review*, 1994, *USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review*, 1994
SAMPLE MATRIX:	Water
TYPES OF ANALYSES:	Volatile Organics (VOA), Semivolatile Organics (SVOA), RECRA Metals
SDG NUMBER:	O2488

OVERVIEW

SAMPLES:

Client Sample #	Lab Sample #	Matrix	VOA	SVOA	RECRA Metals
300-GW01TW	O2488-1	Water		X	X
300-GW02TW	O2488-2	Water		X	X
300-GW03TW	O2488-3	Water		X	X
302-GW03TW	O2488-4	Water		X	X
299-GW02TW	O2488-5	Water		X	X
302-GW01TW	O2488-6	Water		X	X
302-GW02TW	O2488-7	Water		X	X
299-GW01TW	O2488-8	Water		X	X
299-GW03TW	O2488-9	Water		X	X
299-GW04TW	O2488-10	Water		X	X
303-GW01TW	O2488-11	Water		X	X
303-GW02TW	O2488-12	Water		X	X
303-GW03TW	O2488-13	Water		X	X
318-GW01TW	O2488-14	Water	X	X	X
318-GW02TW	O2488-15	Water	X	X	X
318-GW02TW-02BD	O2488-16	Water	X	X	X
318-GW03TW	O2488-17	Water	X	X	X

Client Sample #	Lab Sample #	Matrix	VOA	SVOA	RECRA Metals
272-GTW03TW	O2488-18	Water		X	X
TB09	O2488-19	Water	X		
318-GW01TWMS	O2488-14MS	Water	X		
318-GW01TWMSD	O2488-14MSD	Water	X		

Sample ID Codes: TB = TRIP BLANK

Suffix Codes: D = FIELD DUPLICATE, MS = MATRIX SPIKE, MSD = MATRIX SPIKE DUPLICATE

DATA REVIEWERS: Amy L. Hogan, Kevin C. Harmon, Jean M. Delashmit

RELEASE SIGNATURE:

Data Qualifier Definitions

J	-	The associated numerical value is an estimated quantity.
R	-	The data are unusable (the compound/analyte may or may not be present). Resampling and reanalysis are necessary for verification.
U	-	The compound/analyte was analyzed for, but not detected. The associated numerical value is the sample quantitation limit.
UJ	-	The compound/analyte was analyzed for, but not detected. The sample quantitation limit is an estimated quantity.

DATA QUALIFICATION SUMMARY

CompuChem, Inc. - O2488 - Organics

SAMPLES: 300-GW01TW, 300-GW02TW, 300-GW03TW, 302-GW03TW, 299-GW02TW, 302-GW01TW, 302-GW02TW, 299-GW01TW, 299-GW03TW, 299-GW04TW, 303-GW01TW, 303-GW02TW, 303-GW03TW, 318-GW01TW, 318-GW02TW, 318-GW02TW-02BD, 318-GW03TW, 272-GTW03TW, TB09

VOLATILE ORGANICS

SUMMARY

I.) General:

The analyses for Volatile Organics were performed by gas chromatography / mass spectroscopy (GC / MS) using SW-846 Method 8260.

II.) Overall Assessment of Data:

All laboratory data were acceptable with qualifications.

MAJOR ISSUES

There were no major problems in this SDG fraction.

MINOR ISSUES

I.) Holding Times:

All Holding Time criteria were met. No action was required.

II.) GC / MS Tuning:

All GC / MS Tuning criteria were met. No action was required.

III.) Calibration:

Initial Calibration:

All Initial Calibration criteria were met. No action was required.

Continuing Calibration:

The Percent Difference (%D) for the standards run on 4/08/02 at 14:01 on instrument HP59 exceeded the

25% QC limit for bromomethane at 63.0%. All results for this compound in the SDG samples, which consisted entirely of non-detects, were flagged as estimated (UJ).

IV.) Blanks:

Method Blanks:

Acetone was detected at 4 ug/L in method blank VBLKMP. All positive results for acetone in the SDG samples, which were less than 10X the blank amount, were flagged as undetected (U) with the results less than the CRQL being raised to the CRQL.

Trip Blanks:

Acetone was detected at 4 ug/L in trip blank TB09. All positive results for acetone in the SDG samples were previously flagged based on the method blank. No further action was required.

Tentatively Identified Compounds (TIC):

Octamethylcyclotetrasiloxane was detected at 15.6 ug/L in trip blank TB09. There were no detections of this TIC compound in the SDG samples. No action was required.

V.) Surrogate Recoveries:

All Surrogate Recovery criteria were met. No action was required.

VI.) Laboratory Control Samples (LCS):

Five LCSs were analyzed for this SDG. All LCS criteria were met. No action was required.

VII.) Matrix Spike / Matrix Spike Duplicate (MS / MSD):

MS / MSD analyses were run on SDG sample 318-GW01TW. Three Relative Percent Differences (RPDs) exceeded the QC limits, and two Percent Recoveries (%R's) were below the QC limits. Data qualification based on MS / MSD criteria was not required. No action was taken.

VIII.) Field Duplicates:

One set of Field Duplicate samples (318-GW02TW / 318-GW02TW-02BD) was identified for this fraction of the SDG. The calculable Relative Percent Differences (RPDs) were:

Compound	318-GW02TW	318-GW02TW-02BD	RPD
cis-1,2-dichloroethene	13 ug/L	12 ug/L	8%
trichloroethene	8 ug/L	7 ug/L	13%

Both RPDs were within the 30% QC limit for water samples. No action was required.

IX.) Internal Standards Performance (ISTD):

All ISTD criteria were met. No action was required.

X.) TCL Compound Identification:

All TCL Compound Identification criteria were met. No action was required.

XI.) Compound Quantitation and Reported Contract Required Quantitation Limits (CRQL):

All CRQL criteria were met. No action was required.

XII.) Tentatively Identified Compounds (TIC):

All TIC criteria were met. No action was required.

XIII.) System Performance:

All System Performance criteria were met. No action was required.

SEMIVOLATILE ORGANICS

SUMMARY

I.) General:

The analyses for Semivolatile Organics were performed by gas chromatography / mass spectroscopy (GC / MS) using SW-846 Method 8270.

II.) Overall Assessment of Data:

All laboratory data were acceptable with qualifications.

MAJOR ISSUES

There were no major problems in this fraction of the SDG.

MINOR ISSUES

I.) Holding Times:

All Holding Time criteria were met. No action was required.

II.) GC / MS Tuning:

All GC / MS Tuning criteria were met. No action was required.

III.) Calibration:

Initial Calibration:

All Initial Calibration criteria were met. No action was required.

Continuing Calibration:

The Percent Differences (%D's) for the standards run on 4/03/02 at 08:15 on instrument HP60 exceeded the 25% QC limit for the following compounds:

2,2'-oxybis(1-chloropropane)	39.1%
2-nitroaniline	36.4%
4-nitrophenol	33.9%
benzo(k)fluoranthene	28.0%

All results for these compounds in associated sample 300-GW01TW, which consisted entirely of non-detects, were flagged as estimated (UJ).

The Percent Difference (%D) for the standards run on 4/03/02 at 20:48 on instrument HP60 exceeded the 25% QC limit for the following compounds:

2,2'-oxybis(1-chloropropane)	45.4%
2-nitroaniline	48.4%
4-nitrophenol	41.7%
benzo(b)fluoroanthene	29.2%

All results for these compounds in associated samples 300-GW02TW, 300-GW03TW, 302-GW03TW and 299-GW02TW, which consisted entirely of non-detects, were flagged as estimated (UJ).

The Percent Differences (%D's) for the standards run on 4/05/02 at 12:06 on instrument HP60 exceeded the 25% QC limit for the following compounds:

2,2'-oxybis(1-chloropropane)	55.0%
hexachlorocyclopentadiene	26.0%
2-nitroaniline	51.6%
4-nitrophenol	35.8%

All results for these compounds in associated samples 302-GW01TW, 302-GW02TW, 299-GW01TW and 299-GW03TW, which consisted entirely of non-detects, were flagged as estimated (UJ).

The Percent Differences (%D's) for the standards run on 4/08/02 at 08:40 on instrument HP60 exceeded the 25% QC limit for the following compounds:

2,2'-oxybis(1-chloropropane)	54.4%
2-nitroaniline	58.9%
4-nitrophenol	63.0%
4-chlorophenyl phenylether	33.7%

All results for these compounds in the associated samples, which consisted entirely of non-detects, were flagged as estimated (UJ). The associated samples were 299-GW04TW, 303-GW01TW, 303-GW02TW, 303-GW03TW, 318-GW01TW, 318-GW02TW, 318-GW02TW-02BD, 318-GW03TW, and 272-GTW03TW.

IV.) Blanks:

Method Blanks:

Bis(2-ethylhexyl)phthalate was detected at 2 ug/L in method blank SBLKNS. All positive results for this compound in the associated samples, which were less than 10X the blank amount, were flagged as undetected (U) with the results less than the CRQL being raised to the CRQL. The associated samples were 300-GW01TW, 300-GW02TW, 300-GW03TW, 302-GW03TW and 299-GW02TW.

Tentatively Identified Compounds (TIC):

There were no TIC detections in the Method Blanks associated with this SDG. No action was required.

V.) Surrogate Recoveries:

The Percent Recoveries (%R's) for sample 303-GW03TW were below their respective QC limits for the following surrogate compounds:

Surrogate	%R	QC Limits
2-fluorobiphenyl	12%	41-110%
2,4,6-tribromophenol	14%	27-125%

Since only one Surrogate Recovery was below the QC limits for each fraction, no action was required.

VI.) Laboratory Control Samples (LCS):

Three LCSs were analyzed for this SDG. All LCS criteria were met. No action was required.

VII.) Matrix Spike / Matrix Spike Duplicate (MS / MSD):

MS / MSD analyses data were not submitted for this SDG. Data qualification based on MS / MSD criteria was not required. No action was taken.

VIII.) Field Duplicates:

One set of Field Duplicate samples (318-GW02TW / 318-GW02TW-02BD) was identified for this fraction of the SDG. The calculable Relative Percent Differences (RPDs) were:

Compound	318-GW02TW	318-GW02TW-02BD	RPD
naphthalene	97 ug/L	94 ug/L	3.1%
2-methylnaphthalene	12 ug/L	11 ug/L	8.7%

All RPDs were within the 30% QC limit for water samples. No action was required.

IX.) Internal Standards Performance (ISTD):

The Percent Recovery (%R) of acenaphthene-d10 was 1000% for sample 303-GW03TW, which exceeded the 50-200% QC limits. All positive results for the compounds quantitated on this ISTD compound in the sample were flagged as estimated (J).

X.) TCL Compound Identification:

All TCL Compound Identification criteria were met. No action was required.

XI.) Compound Quantitation and Reported Contract Required Quantitation Limits (CRQL):

All CRQL criteria were met. No action was required.

XII.) Tentatively Identified Compounds (TIC):

All TIC criteria were met. No action was required.

XIII.) System Performance:

All System Performance criteria were met. No action was required.

RECRA METALS

SUMMARY

I.) General:

The analyses for RECRA Metals were performed using SW-846 Methods 6010B.

II.) Overall Assessment of Data:

All laboratory data were acceptable with qualifications.

MAJOR ISSUES

There were no major problems for this fraction of the SDG.

MINOR ISSUES

I.) Holding Times:

All Holding Time criteria were met. No action was required.

II.) Calibration:

All Initial and Continuing Calibration criteria were met. No action was required.

III.) CRDL Standards for ICP:

All CRDL criteria were met. No action was required.

IV.) Blanks:

The following blank results represent the highest detections associated with the samples and were used for data qualification:

Blank ID	Analyte	Max. Conc.	Action Level
CCB2	barium	0.6 ug/L	3.0 ug/L
CCB6	cadmium	0.4 ug/L	2.0 ug/L

CCB = Continuing Calibration Blank

All detections of cadmium in the SDG samples, which were less than the action level, were flagged as undetected (U). All results for barium in the SDG samples were greater than the Action Level, so no action was required for this analyte.

V.) ICP Interference Check Sample Results:

All Interference Percent Recovery criteria were met. No action was required.

The following analytes were detected in the ICS Solution A with results greater than the IDL:

arsenic	2 ug/L
barium	2 ug/L
cadmium	7 ug/L
chromium	21 ug/L

These analytes should not be present. Since neither aluminum, calcium, iron nor magnesium was detected in any sample at a concentration comparable to or greater than the respective concentration in ICS Solution A, data qualification was not required.

The following analytes had negative results in the ICS Solution A with absolute values greater than the IDL:

lead	-2 ug/L
selenium	-1 ug/L
silver	-1 ug/L

Since neither aluminum, calcium, iron nor magnesium was detected in any sample at a concentration comparable to or greater than the respective concentration in ICS Solution A, data qualification was not required.

VI.) ICP Serial Dilution Analysis:

Serial Dilution Analysis data were not submitted for this SDG. All positive results for this fraction of

the SDG were flagged as estimated (J).

VII.) Laboratory Control Samples (LCS):

All LCS criteria were met. No action was required.

VIII.) Duplicate Sample Analysis:

Duplicate Sample Analysis data were not submitted for this SDG. All positive results were previously flagged based on Serial Dilution criteria, so no further action was required.

IX.) Matrix Spike (MS):

Matrix Spike data was not submitted for this SDG. All positive results were previously flagged based on Serial Dilution criteria, so no further action was required.

X.) Field Duplicates:

One set of Field Duplicate samples (318-GW02TW / 318-GW02TW-02BD) was identified for this fraction of the SDG. The calculable Relative Percent Differences (RPDs) were:

Analyte	318-GW02TW	318-GW02TW-02BD	RPD
arsenic	13.2 ug/L	20.7 ug/L	44%
barium	260 ug/L	393 ug/L	41%
chromium	41.9 ug/L	58.0 ug/L	32%
lead	10.2 ug/L	15.5 ug/L	41%

All RPDs exceeded the 30% QC limit for water samples. The results for these compounds in the two samples were previously flagged based on Serial Dilution Analysis criteria, so no further action was required.

X.) Sample Result, Calculation/Transcription Verification:

All criteria were met. No action was taken.

XI.) Quarterly Verification of Instrumental Parameters:

All criteria were met. No action was taken.

VALIDATA

Chemical Services, Inc.

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DATA VALIDATION SUMMARY
REPORT

COMPANY:	CH2M HILL
SITE NAME:	Baker, CTO-143
CONTRACTED LAB:	CompuChem, Inc.
PROJECT NUMBER:	155022
QA/QC LEVEL:	EPA Level III
EPA SOW/METHOD:	EPA 1990 SOW
VALIDATION GUIDELINES:	*USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review,* 1994, *USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review,* 1994
SAMPLE MATRIX:	Water
TYPES OF ANALYSES:	Volative Organics (VOA), Semivolatile Organics (SVOA), Pesticides, RECRA Metals
SDG NUMBER:	P2488

OVERVIEW

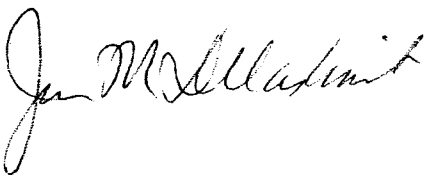
SAMPLES:

Client Sample #	Lab Sample #	Matrix	VOA	SVOA
272-GW01	P2488-4	Water		X
272-MW09	P2488-5	Water		X
339-GW01	P2488-6	Water	X	X
339-GW02	P2488-7	Water	X	X
339-GW03	P2488-8	Water	X	X
336-GW01	P2488-9	Water	X	X
336-GW02	P2488-10	Water	X	X
363-GW01	P2488-11	Water	X	X
363-GW02	P2488-12	Water	X	X
316-GW01	P2488-13	Water		X
316-GW01-02BD	P2488-14	Water		X
316-GW02	P2488-15	Water		X
316-GW03	P2488-16	Water		X
53-GW01	P2488-17	Water		X
53-GW02	P2488-18	Water		X
256-GW01	P2488-19	Water		X
256-GW02	P2488-20	Water		X

Client Sample #	Lab Sample #	Matrix	Pest.	Total Metals
307-GW01	P2488-1	Water		X
307-GW02	P2488-2	Water		X
307-GW03	P2488-3	Water		X
272-GW01	P2488-4	Water		X
272-MW09	P2488-5	Water		X
336-GW01	P2488-9	Water		X
336-GW02	P2488-10	Water		X
363-GW01	P2488-11	Water	X	X
363-GW02	P2488-12	Water	X	X
316-GW01	P2488-13	Water		X
316-GW01-02BD	P2488-14	Water		X
316-GW02	P2488-15	Water		X
316-GW03	P2488-16	Water		X
53-GW01	P2488-17	Water		X
53-GW02	P2488-18	Water		X

SUFFIX CODE: D = FIELD DUPLICATE

DATA REVIEWERS: Amy L. Hogan, Jean M. Delashmit

RELEASE SIGNATURE: 

Data Qualifier Definitions

J	-	The associated numerical value is an estimated quantity.
R	-	The data are unusable (the compound/analyte may or may not be present). Resampling and reanalysis are necessary for verification.
U	-	The compound/analyte was analyzed for, but not detected. The associated numerical value is the sample quantitation limit.
UJ	-	The compound/analyte was analyzed for, but not detected. The sample quantitation limit is an estimated quantity.

DATA QUALIFICATION SUMMARY

CompuChem, Inc. - P2488 - Organics

SAMPLES: 307-GW01, 307-GW02, 307-GW03, 272-GW01, 272-MW09, 339-GW01, 339-GW02, 339-GW03, 336-GW01, 336-GW02, 363-GW01, 363-GW02, 316-GW01, 316-GW01-02BD, 316-GW02, 316-GW03, 53-GW01, 53-GW02, 256-GW01, 256-GW02

VOLATILE ORGANICS

SUMMARY

I.) General:

The analyses for Volatile Organics were performed by gas chromatography / mass spectroscopy (GC / MS) using SW-846 Method 8260.

II.) Overall Assessment of Data:

All laboratory data were acceptable with qualifications.

MAJOR ISSUES

There were no major problems in this SDG.

MINOR ISSUES

I.) Holding Times:

All Holding Time criteria were met. No action was required.

II.) GC / MS Tuning:

All GC / MS Tuning criteria were met. No action was required.

III.) Calibration:

Initial Calibration:

All Initial Calibration criteria were met. No action was required.

Continuing Calibration:

The Percent Difference (%D) for the standards run on 4/09/02 at 17:46 on instrument HP59 exceeded the

25% QC limit for bromomethane at 31.1%. All results for bromomethane in the SDG samples, which consisted entirely of non-detects, were flagged as estimated (UJ).

IV.) Blanks:

Method Blanks:

Acetone and 1,2,4-trichlorobenzene were detected at 4 ug/L and 1 ug/L, respectively, in method blank VBLKNE. All positive results for these compounds in the SDG samples, which were less than 10X the blank amount for acetone and 5X the blank amount for 1,2,4-trichlorobenzene, were flagged as undetected (U) with the results less than the CRQL being raised to the CRQL.

Trip Blanks:

There were no target compounds detected in associated trip blank TB-10, analyzed in SDG QQ2488. No action was required.

Tentatively Identified Compounds (TIC):

Butylated hydroxytoluene was detected at 32.6 ug/L in method blank VBLKNE. This compound was not detected in the SDG samples. No action was required.

V.) Surrogate Recoveries:

All Surrogate Recovery criteria were met. No action was required.

VI.) Laboratory Control Samples (LCS):

One LCS was analyzed for this SDG. All LCS criteria were met. No action was required.

VII.) Matrix Spike / Matrix Spike Duplicate (MS / MSD):

MS / MSD analyses data were not submitted for this SDG. Data qualification based on MS / MSD criteria was not required. No action was taken.

VIII.) Field Duplicates:

There were no Field Duplicate samples identified in this fraction of the SDG. No action was required.

IX.) Internal Standards Performance (ISTD):

All ISTD criteria were met. No action was required.

X.) TCL Compound Identification:

All TCL Compound Identification criteria were met. No action was required.

XI.) Compound Quantitation and Reported Contract Required Quantitation Limits (CRQL):

All CRQL criteria were met. No action was required.

XII.) Tentatively Identified Compounds (TIC):

All TIC criteria were met. No action was required.

XIII.) System Performance:

All System Performance criteria were met. No action was required.

SEMIVOLATILE ORGANICS

SUMMARY

I.) General:

The analyses for Semivolatile Organics were performed by gas chromatography / mass spectroscopy (GC / MS) using SW-846 Method 8270.

II.) Overall Assessment of Data:

All laboratory data were acceptable with qualification.

MAJOR ISSUES

There were no Major Issues for this fraction of the SDG.

MINOR ISSUES

I.) Holding Times:

All Holding Time criteria were met. No action was required.

II.) GC / MS Tuning:

All GC / MS Tuning criteria were met. No action was required.

III.) Calibration:

Initial Calibration:

The Percent Relative Standard Deviation (%RSD) was 32.3% for 2,4-dinitrophenol in the standards analyzed on 3/27/02 on instrument HP66, which exceeded the 30% QC limit. Since there were no positive results for this compound in the associated samples, no action was required.

Continuing Calibration:

The Percent Difference (%D)was 49.1% for 2,4-dinitrophenol in the standard run on 4/07/02 at 11:52 on instrument HP66, which exceeded the 25% QC limit. All results for 2,4-dinitrophenol in the associated samples, which consisted entirely of non-detects, were flagged as estimated (UJ). The associated samples were 272-GW01, 272-MW09, 339-GW01, 339-GW02, 339-GW03, 336-GW01, 336-GW02, 363-GW01, 363-GW02,316-GW01, 316-GW01-02BD, 316-GW02, 316-GW03, 53-GW01 and 53-GW02.

The Percent Differences (%D's) for the standards run on 4/08/02 at 11:02 on instrument HP66 exceeded the 25% QC limit for the following compounds:

nitrobenzene	26.2%
hexachlorocyclopentadiene	28.9%

The results for these compound in associated samples 256-GW01 and 256-GW02, which consisted entirely of non-detects, were flagged as estimated (UJ).

IV.) Blanks:

Method Blanks:

Bis(2-ethylhexyl)phthalate was detected at 1 ug/L in method blank SBLKOC. All positive results for this compound in the SDG samples, which were less than 10X the blank amount, were flagged as undetected (U) with the results less than the CRQL raised to the CRQL.

Tentatively Identified Compounds (TIC):

There were no TIC detections in the method blanks associated with this SDG. No action was required.

V.) Surrogate Recoveries:

All Surrogate Recovery criteria were met. No action was required.

VI.) Laboratory Control Samples (LCS):

Two LCSs were analyzed for this SDG. All LCS criteria were met. No action was required.

VII.) Matrix Spike / Matrix Spike Duplicate (MS / MSD):

MS / MSD analyses data were not submitted for this fraction of the SDG. Data qualification based on MS / MSD criteria was not required. No action was taken.

VIII.) Field Duplicates:

One sets of Field Duplicate samples (316-GW01 / 316-GW01-02BD) was identified for this fraction of the SDG. There were no calculable Relative Percent Differences (RPDs). No action was required.

IX.) Internal Standards Performance (ISTD):

All ISTD criteria were met. No action was required.

X.) TCL Compound Identification:

All TCL Compound Identification criteria were met. No action was required.

XI.) Compound Quantitation and Reported Contract Required Quantitation Limits (CRQL):

All CRQL criteria were met. No action was required.

XII.) Tentatively Identified Compounds (TIC):

All TIC criteria were met. No action was required.

XIII.) System Performance:

All System Performance criteria were met. No action was required.

PESTICIDES

SUMMARY

I.) General:

The analyses for Pesticides were performed by gas chromatography (GC) using SW846 Method 8081.

II.) Overall Assessment of Data:

All laboratory data were acceptable with qualifications.

MAJOR ISSUES

There were no major problems in this fraction of the SDG.

MINOR ISSUES

I.) Holding Times:

All Holding Time criteria were met. No action was required.

II.) Instrument Performance:

All Instrument Performance criteria were met. No action was required.

III.) Calibration:

Initial Calibration:

All Initial Calibration criteria were met. No action was required.

Continuing Calibration:

The Percent Difference (%D) for the standards run on 4/10/02 at 12:47 on the primary column was 16.3% for endosulfan II, which exceeded the 15% QC limit. The non-detect result for this compound in associated sample 363-GW01 was flagged as estimated (UJ).

The Percent Difference (%D) for the standards run on 4/10/02 at 17:42 on the primary column was 26.9% for 4,4'-DDT, which exceeded the 15% QC limit. The positive result for 4,4'-DDT in associated sample 363-GW01 was flagged as estimated (J).

The Percent Differences (%D) for the standards run on 4/10/02 at 17:42 on the secondary column were 20.7% for 4,4'-DDT and 33.6% for methoxychlor, which exceeded the 15% QC limit. The positive result for 4,4'-DDT was previously flagged, and the non-detect result for methoxychlor in associated sample 363-GW01 was flagged as estimated (UJ).

The Percent Differences (%D's) for the standards run on 4/10/02 at 18:06 on the secondary column were 19.8% for endrin aldehyde and 18.3% for endrin ketone. The positive result for endrin aldehyde and the non-detect result for endrin ketone in associated sample 363-GW01 were flagged as estimated (J) and (UJ).

The Percent Difference (%D) for the standards run on 4/11/02 at 10:01 on the primary column were 20.1% for 4,4'-DDT and 18.4% for endosulfan II, which exceeded the 15% QC limit. The results for these comopunds in associated sample 363-GW02, which were both non-detects, were flagged as estimated (UJ).

The Percent Differences (%D's) for the standards run on 4/11/02 at 10:01 on the secondary column were 21.2% for 4,4'-DDT and 34.2% for methoxychlor, which exceeded the 15% QC limit. The positive result for 4,4'-DDT in associated sample 363-GW02 was previously flagged as estimated, and the non-detect result for methoxychlor was flagged as estimated (UJ).

The Percent Differences (%D's) for the standards run on 4/11/02 at 10:25 on the secondary column were 21.4% for endrin aldehyde and 17.3% for endrin ketone, which exceeded the 15% QC limit. The non-detect results for these compounds in associated sample 363-GW02 were flagged as estimated (UJ).

The Percent Difference (%D) for the standards run on 4/11/02 at 12:49 on the primary column were 19.7% for 4,4'-DDT and 17.3% for endosulfan II, which exceeded the 15% QC limit. The results for these comopunds in associated sample 363-GW02 were previously flagged as estimated, so no further action was required.

The Percent Differences (%D's) for the standards run on 4/11/02 at 12:49 on the secondary column were 21.2% for 4,4'-DDT and 32.2% for methoxychlor, which exceeded the 15% QC limit. The results for these compounds in associated sample 363-GW02 were previously flagged as estimated, so no further

action was required.

The Percent Differences (%D's) for the standards run on 4/11/02 at 13:13 on the secondary column exceeded the 15% QC limit for the following compounds:

endosulfan sulfate	21.3%
endrin	16.4%
endrin aldehyde	28.7%
endrin ketone	23.9%

All results for these compounds in associated sample 363-GW02, which consisted entirely of non-detects, were flagged as estimated (UJ).

IV.) Blanks:

There were no detections in the method or instrument blanks associated with this SDG. No action was required.

V.) Surrogate Recoveries:

The Percent Recovery (%R) of tetrachloro-m-xylene on the secondary column was 387% for sample 363-GW02. The positive result for heptachlor epoxide in this sample was flagged as estimated (J).

VI.) Laboratory Control Samples (LCS):

Two LCSs were analyzed by the laboratory for this SDG. All LCS criteria were met. No action was required.

VII.) Matrix Spike / Matrix Spike Duplicate (MS / MSD):

MS / MSD analyses data were not submitted for this SDG. Data qualification based on MS / MSD criteria was not required. No action was taken.

VIII.) Field Duplicates:

There were no Field Duplicate samples identified for this fraction of the SDG. No action was required.

IX.) Florisil Cleanup:

Florisil Cleanup data was not provided for this SDG. No action was taken.

X.) GPC Cleanup:

GPC data was not provided for this SDG. No action was taken.

XI.) Pesticide / PCB Identification Summary (PIS):

The Column Percent Difference (%D) exceeded the 25% QC limit for the following sample:

Sample	Compound	%D
363-GW01	4,4'-DDT	383%
	heptachlor	999%

The results for these compounds were flagged as estimated (J).

XII.) Compound Quantitation and Reported Contract Required Quantitation Limits (CRQL):

All CRQL criteria were met. No action was required.

XIII.) System Performance:

All System Performance criteria were met. No action was required.

RECRA METALS

SUMMARY

I.) General:

The analyses for RECRA Metals were performed using SW-846 Methods 6010B.

II.) Overall Assessment of Data:

All laboratory data were acceptable with qualifications.

MAJOR ISSUES

There were no major problems for this fraction of the SDG.

MINOR ISSUES

I.) Holding Times:

All Holding Time criteria were met. No action was required.

II.) Calibration:

All Initial and Continuing Calibration criteria were met. No action was required.

III.) CRDL Standards for ICP:

All CRDL criteria were met. No action was required.

IV.) Blanks:

The following Continuing Calibration Blank (CCB) results represent the highest detections associated

with the samples and were used for data qualification:

Blank ID	Analyte	Max. Conc.	Action Level
CCB2	barium	0.6 ug/L	3.0 ug/L
CCB6	cadmium	0.4 ug/L	2.0 ug/L

All results for these analytes in the SDG samples less than the Action Level were flagged as undetected (U).

A negative result of 0.63 ug/L was reported in the Preparation Water Blank (PBW) for chromium. All results for chromium in the SDG samples, which were less than 5X the blank amount, were flagged as estimated (J).

V.) ICP Interference Check Sample Results:

All Interference Percent Recovery criteria were met. No action was required.

The following analytes were detected in the ICS Solution A with results greater than the IDL:

arsenic	2 ug/L
barium	2 ug/L
cadmium	7 ug/L
chromium	21 ug/L

These analytes should not be present. Since neither aluminum, calcium, iron nor magnesium was detected in any sample at a concentration comparable to or greater than the respective concentration in ICS Solution A, data qualification was not required.

The following analytes had negative results in the ICS Solution A with the absolute value greater than the IDL:

lead	-2 ug/L
selenium	-1 ug/L
silver	-1 ug/L

Since neither aluminum, calcium, iron nor magnesium was detected in any sample at a concentration comparable to or greater than the respective concentration in ICS Solution A, data qualification was not required.

VI.) ICP Serial Dilution Analysis:

Serial Dilution Analysis data were not submitted for this SDG. All positive results for the SDG samples were flagged as estimated (J).

VII.) Laboratory Control Samples (LCS):

All LCS criteria were met. No action was required.

VIII.) Duplicate Sample Analysis:

Duplicate Sample Analysis data were not submitted for this SDG. Since all positive results for the SDG samples were previously flagged, no further action was required.

IX.) Matrix Spike (MS):

Matrix Spike Analyses data were not submitted for this SDG. Since all positive results for the SDG samples were previously flagged, no further action was required.

X.) Field Duplicates:

One set of Field Duplicate samples (316-GW01 / 316-GW01-02BD) was identified for this fraction of the SDG. The only calculable Relative Percent Difference (RPD) were:

Analyte	316-GW01	316-GW01-02BD	RPD
barium	37.1 ug/L	38.3 ug/L	3.2%

The RPD was within the 30% QC limit for water samples. No action was required.

XI.) Sample Result, Calculation/Transcription Verification:

All criteria were met. No action was taken.

XII.) Quarterly Verification of Instrumental Parameters:

All criteria were met. No action was taken.

VALIDATA

Chemical Services, Inc.

4070 Balleycastle Lane, Duluth, GA 30097

(770) 232-0130
(770) 232-5082 (Fax)
www.datavalidator.com

DATA VALIDATION SUMMARY
REPORT

COMPANY:	CH2M HILL
SITE NAME:	Baker, CTO-143
CONTRACTED LAB:	CompuChem, Inc.
PROJECT NUMBER:	155022
QA/QC LEVEL:	EPA Level III
EPA SOW/METHOD:	EPA 1990 SOW
VALIDATION GUIDELINES:	*USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review*, 1994, *USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review*, 1994
SAMPLE MATRIX:	Soil
TYPES OF ANALYSES:	Semivolatile Organics (SVOA), RECRA Metals
SDG NUMBER:	Q2488

OVERVIEW

SAMPLES:

Client Sample #	Lab Sample #	Matrix	SVOA	RECRA Metals
299-SB01-00	Q2488-1	Soil	X	X
299-SB01-01	Q2488-2	Soil	X	X
299-SB03-00	Q2488-3	Soil	X	X
299-SB03-02	Q2488-4	Soil	X	X
299-SB02-00	Q2488-5	Soil	X	X
299-SB02-02	Q2488-6	Soil	X	X
299-SB04-00	Q2488-7	Soil	X	X
299-SB04-02	Q2488-8	Soil	X	X
303-SB01-00	Q2488-9	Soil	X	X
303-SB01-04	Q2488-10	Soil	X	X
303-SB01-04D	Q2488-11	Soil	X	X
303-SB02-00	Q2488-12	Soil	X	X
303-SB02-04	Q2488-13	Soil	X	X
316-TW03-04	Q2488-14	Soil	X	X
316-TW03-00	Q2488-15	Soil	X	X
316-TW03-00D	Q2488-16	Soil	X	X
316-TW01-04	Q2488-17	Soil	X	X
316-TW01-00	Q2488-18	Soil	X	X
316-TW02-04	Q2488-19	Soil	X	X

Client Sample #	Lab Sample #	Matrix	SVOA	RECRA Metals
316-TW02-00	Q2488-20	Soil	X	X
299-SB04-00MS	Q2488-7MS	Soil	X	X
299-SB04-00MSD	Q2488-7MSD	Soil	X	X

missing

Sample ID Suffix Codes: D = FIELD DUPLICATE, MS = MATRIX SPIKE, MSD = MATRIX SPIKE DUPLICATE

DATA REVIEWERS: Amy L. Hogan, Jean M. Delashmit

RELEASE SIGNATURE: Jean M Delashmit

Data Qualifier Definitions

J	-	The associated numerical value is an estimated quantity.
R	-	The data are unusable (the compound/analyte may or may not be present). Resampling and reanalysis are necessary for verification.
U	-	The compound/analyte was analyzed for, but not detected. The associated numerical value is the sample quantitation limit.
UJ	-	The compound/analyte was analyzed for, but not detected. The sample quantitation limit is an estimated quantity.

DATA QUALIFICATION SUMMARY

CompuChem, Inc. - Q2488 - Organics

SAMPLES: 299-SB01-00, 299-SB01-01, 299-SB03-00, 299-SB03-02, 299-SB02-00, 299-SB02-02, 299-SB04-00, 299-SB04-02, 303-SB01-00, 303-SB01-04, 303-SB01-04D, 303-SB02-00, 303-SB02-04, 316-TW03-04, 316-TW03-00, 316-TW03-00D, 316-TW01-04, 316-TW01-00, 316-TW02-04, 316-TW02-00

SEMIVOLATILE ORGANICS

SUMMARY

I.) General:

The analyses for Semivolatile Organics were performed by gas chromatography / mass spectroscopy (GC / MS) using SW-846 Method 8270.

II.) Overall Assessment of Data:

All laboratory data were acceptable with qualification.

MAJOR ISSUES

There were no major problems in this fraction of the SDG.

MINOR ISSUES

I.) Holding Times:

All Holding Time criteria were met. No action was required.

II.) GC / MS Tuning:

All GC / MS Tuning criteria were met. No action was required.

III.) Calibration:

Initial Calibration:

The Percent Relative Standard Deviation (%RSD) for the standards analyzed on 3/27/02 on instrument HP60 was 38.8% for hexachlorocyclopentadiene, which exceeded the 30% QC limit. Since there were no positive results for this compound in the associated samples, no action was required.

The Percent Relative Standard Deviation (%RSD) for the standards analyzed on 3/21/02 on instrument HP66 was 34.1% for 2,4-dinitrophenol, which exceeded the 30% QC limit. Since there were no positive results for this compound in the associated samples, no action was required.

Continuing Calibration:

The Percent Difference (%D) for the standards run on 3/21/02 at 17:06 on instrument HP64 was 38.5% for benzo(k)fluoroanthene, which exceeded the 25% QC limit. The non-detect result for this compound in associated sample 299-SB01-01 was flagged as estimated (UJ).

The Percent Differences (%D's) for the standards run on 3/26/02 at 10:29 on instrument HP64 exceeded the 25% QC limit for the following compounds:

hexachlorobenzene	33.6%
caprolactam	29.9%

The results for these compounds in associated samples 299-SB03-00 and 299-SB03-02, which consisted entirely of non-detects, were flagged as estimated (UJ).

The Percent Differences (%D's) for the standards run on 3/27/02 at 10:27 on instrument HP64 exceeded the 25% QC limit for the following compounds:

caprolactam	37.5%
hexachlorocyclopentadiene	37.5%

All results for these compounds in the associated samples, which consisted entirely of non-detects, were flagged as estimated (UJ). The associated samples were 299-SB01-00, 299-SB02-00, 299-SB02-02, 299-SB04-00, 299-SB04-02, 303-SB01-00, 303-SB01-04 and 303-SB01-04D.

The Percent Difference (%D) for the standards run on 3/25/02 at 22:40 on instrument HP66 was 29.5% for hexachlorobenzene, which exceeded the 25% QC limit. The results for this compound in associated samples 316-TW01-04 and 316-TW03-00D, which consisted entirely of non-detects, were flagged as estimated (UJ).

The Percent Difference (%D) for the standards run on 3/26/02 at 13:55 on instrument HP66 was 40.6% for 2,4-dinitrophenol, which exceeded the 25% QC limit. The results for this compound in the associated samples, which consisted entirely of non-detects, were flagged as estimated (UJ). The associated samples were 316-TW01-04, 316-TW03-00, 316-TW01-00, 316-TW02-04 and 316-TW02-00.

IV.) Blanks:

Method Blanks:

There were no detections in the method blanks associated with this SDG. No action was required.

Field Blanks:

There were no detections in the field blanks associated with this SDG, which were analyzed as part of

SDG V2488. No action was required.

Tentatively Identified Compounds (TIC):

1,1,2,2-Tetrachloroethane was detected at 590 ug/kg in method blank SBLKLH. All positive results for this compound in the associated samples, which were less than 10X the blank amount, were flagged as undetected (U). The associated samples were 316-TW01-04, 316-TW03-04D, 316-TW03-04, 316-TW03-00, 316-TW01-04, 316-TW02-04 and 316-TW02-00.

V.) Surrogate Recoveries:

All Surrogate Recovery criteria were met. No action was required.

VI.) Laboratory Control Samples (LCS):

Three LCSs were analyzed for this SDG. All LCS criteria were met. No action was required.

VII.) Matrix Spike / Matrix Spike Duplicate (MS / MSD):

MS / MSD analyses were run on SDG sample 299-SB04-00. All MS / MSD criteria were met. No action was required.

VIII.) Field Duplicates:

Two sets of Field Duplicate samples (303-SB01-04 / 303-SB01-04D and 316-TW03-00 / 316-TW03-00D) were identified for this fraction of the SDG. The calculable Relative Percent Difference (RPD) of 20% for pair 303-SB01-04 / 303-SB01-04D was within the 60% QC limit for soil samples. There were no calculable RPDs for the other field duplicate set. No action was required.

IX.) Internal Standards Performance (ISTD):

All ISTD criteria were met. No action was required.

X.) TCL Compound Identification:

All TCL Compound Identification criteria were met. No action was required.

XI.) Compound Quantitation and Reported Contract Required Quantitation Limits (CRQL):

All CRQL criteria were met. No action was required.

XII.) Tentatively Identified Compounds (TIC):

All TIC criteria were met. No action was required.

XIII.) System Performance:

All System Performance criteria were met. No action was required.

RECRA METALS

SUMMARY

I.) General:

The analyses for RECRA Metals were performed using SW-846 Methods 6010B.

II.) Overall Assessment of Data:

All laboratory data were acceptable with qualification.

MAJOR ISSUES

There were no major problems in this fraction of the SDG.

MINOR ISSUES

I.) Holding Times:

All Holding Time criteria were met. No action was required.

II.) Calibration:

All Initial and Continuing Calibration criteria were met. No action was required.

III.) CRDL Standards for ICP:

All CRDL criteria were met. No action was required.

IV.) Blanks:

The following blank results represent the highest detections associated with the samples and were used for data qualification:

Blank ID	Analyte	Max. Conc.	Action Level
ER01	barium	9.3 ug/L	9.3 mg/kg

ER01 = Equipment Rinsate Blank (analyzed as part of SDG V2488)

All results for barium in the SDG samples, which were less than the action level, were flagged as undetected (U).

V.) ICP Interference Check Sample Results:

All Interference Percent Recovery criteria were met. No action was required.

The following analytes were detected in the ICS Solution A with results greater than the IDL:

arsenic	3 ug/L
barium	2 ug/L
cadmium	9 ug/L
chromium	21 ug/L
lead	1 ug/L
selenium	2 ug/L

These analytes should not be present. Since neither aluminum, calcium, iron nor magnesium was detected in any sample at a concentration comparable to or greater than the respective concentration in ICS solution A, data qualification was not required.

Silver had a negative result of -2 ug/L in the ICS Solution A with an absolute value greater than the IDL. Since neither aluminum, calcium, iron nor magnesium was detected in any sample at a concentration comparable to or greater than the respective concentration in ICS solution A, data qualification was not required.

VI.) ICP Serial Dilution Analysis:

All Serial Dilution Analysis criteria were met. No action was required.

VII.) Laboratory Control Samples (LCS):

All LCS criteria were met. No action was required.

VIII.) Duplicate Sample Analysis:

All Duplicate Sample Analysis criteria were met. No action was required.

IX.) Matrix Spike (MS):

Matrix Spike / Matrix Spike Duplicate Analyses were run on SDG sample 299-SB04-00. All MS / MSD criteria were met. No action was required.

X.) Field Duplicates:

Two sets of Field Duplicate samples (303-SB01-04 / 303-SB01-04D and 316-TW03-00 / 316-TW03-00D) were identified for this fraction of the SDG. The calculable Relative Percent Differences (RPDs) were:

Analyte	303-SB01-04	303-SB01-04D	RPD
arsenic	3.0 mg/kg	1.5 mg/kg	67%
barium	12.9 mg/kg	15.1 mg/kg	16%
chromium	14.2 mg/kg	15.1 mg/kg	6.1%
lead	9.5 mg/kg	10.2 mg/kg	7.1%

Analyte	316-TW03-00	316-TW03-00D	RPD
barium	11.7 mg/kg	23.0 mg/kg	65%
chromium	9.3 mg/kg	8.1 mg/kg	7.4%
lead	5.5 mg/kg	4.8 mg/kg	14%
selenium	0.70 mg/kg	0.58 mg/kg	19%

The RPDs for arsenic in the first set and barium in the second set exceeded the 60% QC limit for soil samples. The results for these two analytes in the respective samples were flagged as estimated (J).

XI.) Sample Result, Calculation/Transcription Verification:

All criteria were met. No action was taken.

XII.) Quarterly Verification of Instrumental Parameters:

All criteria were met. No action was taken.

VALIDATA

Chemical Services, Inc.

4070 Balleycastle Lane, Duluth, GA 30097

(770) 232-0130
(770) 232-5082 (Fax)
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DATA VALIDATION SUMMARY
REPORT

COMPANY:	CH2M HILL
SITE NAME:	Baker, CTO-143
CONTRACTED LAB:	CompuChem, Inc.
PROJECT NUMBER:	155022
QA/QC LEVEL:	EPA Level III
EPA SOW/METHOD:	EPA 1990 SOW
VALIDATION GUIDELINES:	*USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review*, 1994, *USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review*, 1994
SAMPLE MATRIX:	Water
TYPES OF ANALYSES:	Volatile Organics (VOA), Semivolatile Organics (SVOA), Pesticides, Total Metals, Total Suspended Solids (TSS), Reactive Cyanide, Reactive Sulfide, Ignitability, pH, Total Dissolved Solids (TDS)
SDG NUMBER:	QA2488

No Form I for MD sample

OVERVIEW

SAMPLES:

Client Sample #	Lab Sample #	Matrix	VOA	SVOA
IDW-01	QA2488-1	Water	X	X
IDW-02	QA2488-2	Water	X	X

Client Sample #	Lab Sample #	Matrix	Pesticides	Total Metals
IDW-01	QA2488-1	Water	X	X
IDW-02	QA2488-2	Water	X	X

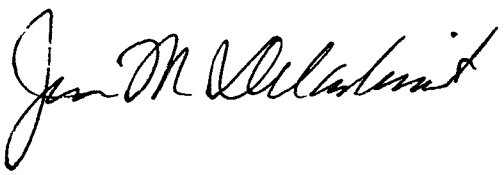
Client Sample #	Lab Sample #	Matrix	TSS	Reactive Cyanide
IDW-01	QA2488-1	Water	X	X
IDW-02	QA2488-2	Water	X	X
IDW-02MD	QA2488-2MD	Water	X	

Client Sample #	Lab Sample #	Matrix	Reactive Sulfide	Ignitability
IDW-01	QA2488-1	Water	X	X
IDW-02	QA2488-2	Water	X	X

Client Sample #	Lab Sample #	Matrix	pH.	TDS
IDW-01	QA2488-1	Water	X	X
IDW-02	QA2488-2	Water	X	X
IDW-02MD	QA2488-2MD	Water		X

Suffix Codes: MD = MATRIX DUPLICATE

DATA REVIEWERS: Amy L. Hogan, Kevin C. Harmon, Jean M. Delashmit

RELEASE SIGNATURE: 

Data Qualifier Definitions

J	-	The associated numerical value is an estimated quantity.
R	-	The data are unusable (the compound/analyte may or may not be present). Resampling and reanalysis are necessary for verification.
U	-	The compound/analyte was analyzed for, but not detected. The associated numerical value is the sample quantitation limit.
UJ	-	The compound/analyte was analyzed for, but not detected. The sample quantitation limit is an estimated quantity.

DATA QUALIFICATION SUMMARY

CompuChem, Inc. - QA2488 - Organics & Inorganics

SAMPLES: IDW-01, IDW-02

VOLATILE ORGANICS

SUMMARY

I.) General:

The analyses for Volatile Organics were performed by gas chromatography / mass spectroscopy (GC / MS) using SW-846 Method 8260.

II.) Overall Assessment of Data:

All laboratory data were acceptable with qualifications.

MAJOR ISSUES

There were no major problems for this SDG.

MINOR ISSUES

I.) Holding Times:

All Holding Time criteria were met. No action was required.

II.) GC / MS Tuning:

All GC / MS Tuning criteria were met. No action was required.

III.) Calibration:

Initial Calibration:

All Initial Calibration criteria were met. No action was required.

Continuing Calibration:

The Percent Difference (%D) for the standards run on 4/18/02 at 10:21 on instrument F50052 exceeded the 25% QC limit for methyl acetate at 56.9%. The results for this compound in the two SDG samples, which were both non-detects, were flagged as estimated (UJ).

IV.) Blanks:

Method Blanks:

1,2,4-Trichlorobenzene was detected at 1 ug/L in method blank VBLKRF. There were no positive results for this compound in the SDG samples, so no action was required.

Field Blanks:

Methylene chloride was detected at 2 ug/L in associated field blank FB-01, which was analyzed as part of SDG QC2488. The results for this compound in the SDG samples were flagged based on another field blank. No other action was required.

Acetone and methyl-tert-butyl ether were detected at 60 ug/L and 2 ug/L, respectively, in field blank FB02, which was analyzed as part of SDG QC2488. The positive results for these compounds in the SDG samples, which were less than 10X the blank amount for acetone and 5X the blank amount for methyl-tert-butyl ether, were flagged as undetected (U) with the results less than the CRQL being raised to the CRQL.

There were detections in associated field blank FB03, which was analyzed as part of SDG QC2488, for the following compounds:

methylene chloride	2 ug/L
chloroform	85 ug/L
bromodichloromethane	13 ug/L
dibromochloromethane	3 ug/L

The results for these compounds in the SDG samples, which were less than 10X the blank amount for methylene chloride and 5X the blank amounts for the other compounds, were flagged as undetected (U) with the results less than the CRQL being raised to the CRQL.

There were detections in associated field blank FB04, which was analyzed as part of SDG QC2488, for the following compounds:

methylene chloride	2 ug/L
chloroform	13 ug/L
bromodichloromethane	5 ug/L
dibromochloromethane	2 ug/L

All positive results for these compounds in the SDG samples were previously flagged based on FB03, so no further action was required.

Tentatively Identified Compounds (TIC):

Octamethyl cyclotetrasiloxane was detected at 26.9 ug/L in field blank FB01, at 23.0 ug/L in field blank FB02, and at 17.9 ug/L in field blank FB03. There were no positive results for this compound in the SDG samples, so no action was required.

V.) Surrogate Recoveries:

All Surrogate Recovery criteria were met. No action was required.

VI.) Laboratory Control Samples (LCS):

Two LCSs were analyzed for this SDG. All LCS criteria were met. No action was required.

VII.) Matrix Spike / Matrix Spike Duplicate (MS / MSD):

MS / MSD analyses were not submitted for this SDG. Data qualification based on MS / MSD criteria was not required. No action was taken.

VIII.) Field Duplicates:

There were no Field Duplicate samples identified for this fraction of the SDG. No action was required.

IX.) Internal Standards Performance (ISTD):

All ISTD criteria were met. No action was required.

X.) TCL Compound Identification:

All TCL Compound Identification criteria were met. No action was required.

XI.) Compound Quantitation and Reported Contract Required Quantitation Limits (CRQL):

All CRQL criteria were met. No action was required.

XII.) Tentatively Identified Compounds (TIC):

All TIC criteria were met. No action was required.

XIII.) System Performance:

All System Performance criteria were met. No action was required.

SEMIVOLATILE ORGANICS

SUMMARY

I.) General:

The analyses for Semivolatile Organics were performed by gas chromatography / mass spectroscopy (GC / MS) using SW-846 Method 8270.

II.) Overall Assessment of Data:

All laboratory data were acceptable with qualifications.

MAJOR ISSUES

There were no major problems for this fraction of the SDG.

MINOR ISSUES

I.) Holding Times:

All Holding Time criteria were met. No action was required.

II.) GC / MS Tuning:

All GC / MS Tuning criteria were met. No action was required.

III.) Calibration:

Initial Calibration:

The Percent Relative Standard Deviation (%RSD) for the standards analyzed on 3/31/02 on instrument HP64 was 30.8% for 2,4-dinitrophenol, which exceeded the 30% QC limit. Since there were no positive results for this compound in the associated samples, no action was required.

Continuing Calibration:

The Percent Difference (%D) for the standards run on 4/12/02 at 12:33 on instrument HP64 exceeded the 25% QC limit for 2,4-dinitrophenol at 40.0%. The results for this compound in the two SDG samples, which were both non-detects, were flagged as estimated (UJ).

IV.) Blanks:

Method Blanks:

There were no detections in the method blanks associated with this SDG. No action was required.

Field Blanks:

Caprolactam and bis(2-ethylhexyl)phthalate were detected at 40 ug/L and 1 ug/L, respectively, in associated field blank FB01, which was analyzed as part of SDG QC2488. The positive result for bis(2-ethylhexyl)phthalate in SDG sample IDW-01, which was less than 10X the blank amount, was flagged as undetected (U) with the result being raised to the CRQL.

2-Methylphenol and 4-methylphenol were detected at 11 ug/ L and 1 ug/L, respectively, in associated field blank FB02, which was analyzed as part of SDG QC2488. The positive result for 2-methylphenol in SDG sample IDW-02, which was less than 5X the blank amount, was flagged as undetected (U) with

the result being raised to the CRQL.

There were no detections in the associated field blanks FB03 and FB04, which were analyzed as part of SDG QC2488. No action was required.

Tentatively Identified Compounds (TIC):

2,4,5-Trimethyl benzoic acid was detected at 16 ug/L in field blank FB02. There were no positive results for this compound in the SDG samples. No action was required.

V.) Surrogate Recoveries:

All Surrogate Recovery criteria were met. No action was required.

VI.) Laboratory Control Samples (LCS):

Two LCSs were analyzed for this SDG. All LCS criteria were met. No action was required.

VII.) Matrix Spike / Matrix Spike Duplicate (MS / MSD):

MS / MSD analyses data were not submitted for this SDG. Data qualification based on MS / MSD criteria was not required. No action was taken.

VIII.) Field Duplicates:

There were no Field Duplicate samples identified for this fraction of the SDG. There were no calculable Relative Percent Differences (RPDs). No action was required.

IX.) Internal Standards Performance (ISTD):

All ISTD criteria were met. No action was required.

X.) TCL Compound Identification:

All TCL Compound Identification criteria were met. No action was required.

XI.) Compound Quantitation and Reported Contract Required Quantitation Limits (CRQL):

All CRQL criteria were met. No action was required.

XII.) Tentatively Identified Compounds (TIC):

All TIC criteria were met. No action was required.

XIII.) System Performance:

All System Performance criteria were met. No action was required.

PESTICIDES

SUMMARY

I.) General:

The analyses for Pesticides were performed by gas chromatography (GC) using SW846 Method 8081.

II.) Overall Assessment of Data:

All laboratory data were acceptable with qualifications.

MAJOR ISSUES

There were no major problems for this fraction of the SDG.

MINOR ISSUES

I.) Holding Times:

All Holding Time criteria were met. No action was required.

II.) Instrument Performance:

All Instrument Performance criteria were met. No action was required.

III.) Calibration:

All Initial and Continuing Calibration criteria were met. No action was required.

IV.) Blanks:

Method Blanks:

There were no detections in the associated Method Blanks. No action was required.

Field Blanks:

There were detections in associated field blank FB02, which was analyzed as part of SDG QC2488, for the following compounds:

delta-BHC	0.064 ug/L
gamma-BHC	0.035 ug/L
4,4'-DDT	0.072 ug/L
heptachlor	0.022 ug/L
gamma chlordane	0.018 ug/L
alpha chlordane	0.094 ug/L

All positive results for these compounds in the SDG samples, which were less than 5X the blank amounts, were flagged as undetected (U) with the results less than the CRQL being raised to the CRQL.

4,4'-DDT was detected at 0.045 ug/L in associated field blank FB03, which was analyzed as part of SDG QC2488. All results for this compound in the SDG samples were previously flagged, so no further action was required.

There were no detections in associated field blanks FB01 and FB04, which were analyzed as part of SDG QC2488. No action was required.

V.) Surrogate Recoveries:

All Surrogate Recovery criteria were met. No action was required.

VI.) Laboratory Control Samples (LCS):

Two LCSs were analyzed by the laboratory for this SDG. All LCS criteria were met. No action was required.

VII.) Matrix Spike / Matrix Spike Duplicate (MS / MSD):

MS / MSD analyses data were not submitted for this SDG. Data qualification based on MS / MSD criteria was not required. No action was taken.

VIII.) Field Duplicates:

There were no Field Duplicate samples identified for this fraction of the SDG. No action was required.

IX.) Florisil Cleanup:

Florisil Cleanup data was not provided for this SDG. No action was taken.

X.) GPC Cleanup:

GPC data was not provided for this SDG. No action was taken.

XI.) Pesticide / PCB Identification Summary (PIS):

The Column Percent Differences (%D's) exceeded the 25% QC limit for the following samples:

IDW-01	beta-BHC	45.8%
	delta-BHC	314%
	gamma-BHC	536%
	4,4'-DDD	52.6%
	4,4'-DDT	138%
IDW-02	gamma-BHC	100%
	4,4'-DDD	87.9%

The results for these compounds were flagged as estimated (J), unless previously flagged based on blank criteria.

XII.) Compound Quantitation and Reported Contract Required Quantitation Limits (CRQL):

All CRQL criteria were met. No action was required.

XIII.) System Performance:

All System Performance criteria were met. No action was required.

TOTAL METALS

SUMMARY

I.) General:

The analyses for Total Metals were performed using SW-846 Method 6010B.

II.) Overall Assessment of Data:

All laboratory data were acceptable with qualifications.

MAJOR ISSUES

There were no major problems for this fraction of the SDG.

MINOR ISSUES

I.) Holding Times:

All Holding Time criteria were met. No action was required.

II.) Calibration:

All Initial and Continuing Calibration criteria were met. No action was required.

III.) CRDL Standards for ICP:

All CRDL criteria were met. No action was required.

IV.) Blanks:

The following blank results represent the highest detections associated with the samples and were used for data qualification:

Blank ID	Analyte	Max. Conc.	Action Level
CCB3	aluminum	32.6 ug/L	163 ug/L
FB01	barium	11.3 ug/L	56.5 ug/L
CCB5	beryllium	0.3 ug/L	1.5 ug/L
CCB3	calcium	48.0 ug/L	240 ug/L
FB01	lead	1.6 ug/L	8.0 ug/L
CCB3	magnesium	105 ug/L	525 ug/L
CCB6	selenium	2.6 ug/L	13.0 ug/L
CCB6	thallium	3.1 ug/L	15.5 ug/L
PBW	zinc	3.2 ug/L	16.0 ug/L

CCB = Continuing Calibration Blank, FB01 = Field Blank (analyzed as part of SDG QC2488), PBW = Preparation Blank Water

All results for these analytes in the SDG samples less than the action level were flagged as undetected (U).

V.) ICP Interference Check Sample Results:

All Interference Percent Recovery criteria were met. No action was required.

The following analytes were detected in the ICS Solution A with results greater than the IDL:

arsenic	2 ug/L
barium	2 ug/L
cadmium	7 ug/L
chromium	21 ug/L
nickel	1 ug/L
potassium	190 ug/L
selenium	1 ug/L
sodium	152 ug/L
zinc	14 ug/L

These analytes should not be present. Since neither aluminum, calcium, iron nor magnesium was detected in any sample at a concentration comparable to or greater than the respective concentration in ICS Solution A, data qualification was not required.

The following analytes had negative results in the ICS Solution A with the absolute value greater than the IDL:

cobalt	-4 ug/L
manganese	-3 ug/L
thallium	-4 ug/L
vanadium	-1 ug/L

Since neither aluminum, calcium, iron nor magnesium was detected in any sample at a concentration comparable to or greater than the respective concentration in ICS Solution A, data qualification was not required.

VI.) ICP Serial Dilution Analysis:

Serial Dilution Analysis data were not submitted for this SDG. All positive results for the SDG samples were flagged as estimated (J).

VII.) Laboratory Control Samples (LCS):

All LCS criteria were met. No action was required.

VIII.) Duplicate Sample Analysis:

Duplicate Sample Analysis data were not submitted for this SDG. All positive results for the SDG samples were previously flagged based on Serial Dilution criteria. No further action was required.

IX.) Matrix Spike (MS):

Matrix Spike Analysis data were not submitted for this SDG. All positive results for the SDG samples were previously flagged based on Serial Dilution Analysis criteria, so no further action was required.

X.) Field Duplicates:

There were no Field Duplicate samples identified for this fraction of the SDG. No action was required.

XI.) Sample Result, Calculation/Transcription Verification:

All criteria were met. No action was taken.

XII.) Quarterly Verification of Instrumental Parameters:

All criteria were met. No action was taken.

TOTAL SUSPENDED SOLIDS (TSS)

SUMMARY

I.) General

The analyses for Total Suspended Solids were performed using method 160.2.

II.) Overall Assessment of Data:

All laboratory data were acceptable without qualification.

MAJOR ISSUES

There were no major problems for this fraction of the SDG.

MINOR ISSUES

I.) Holding Times:

All Holding Time criteria were met. No action was taken.

II.) Calibration:

Calibration data were not required for this fraction of the SDG. No action was required.

III.) Blanks:

There were no detections in the blanks associated with this SDG. No action was required.

IV.) Laboratory Control Sample (LCS):

All LCS Recovery criteria were met. No action was required.

V.) Matrix Spike / Matrix Spike Duplicate (MS / MSD):

MS / MSD analyses were not performed for this fraction of the SDG. No action was required.

VI.) Matrix Duplicate (MD)

Matrix Duplicate analysis was run on SDG sample IDW-02. All criteria were met. No action was required.

VII.) Field Duplicates:

There were no field duplicate samples identified for this SDG. No action was required.

REACTIVE CYANIDE

SUMMARY

I.) General:

The analyses for Reactive Cyanide were performed using method SW7.3.

II.) Overall Assessment of Data:

All laboratory data were acceptable without qualification.

MAJOR ISSUES

No major problems were observed in this fraction of the SDG.

MINOR ISSUES

I.) Holding Times:

All Holding Time criteria were met. No action was required.

II.) Calibration:

All Calibration criteria were met. No action was required.

III.) Blanks:

There were no detections in the blanks associated with this SDG. No action was required.

IV.) Laboratory Control Samples (LCS):

All LCS criteria were met. No action was required.

V.) Matrix Duplicate (MD):

MD analysis data was not submitted for this SDG. No action was required.

VI.) Matrix Spike (MS):

MS analysis data was not submitted for this SDG. No action was required.

VII.) Field Duplicates:

There were no Field Duplicate samples identified for this fraction of the SDG. No action was required.

IGNITABILITY

SUMMARY

I.) General:

The analyses for Ignitability were performed using method SW1010.

II.) Overall Assessment of Data:

All laboratory data were acceptable without qualification.

MAJOR ISSUES

No major problems were observed in this fraction of the SDG.

MINOR ISSUES

I.) Holding Times:

All Holding Time criteria were met. No action was required.

II.) Calibration:

Calibration data were not required for this fraction. No action was required.

III.) Blanks:

Blank data were not required for this fraction. No action was required.

IV.) Laboratory Control Samples (LCS):

All LCS criteria were met. No action was required.

V.) Matrix Duplicate (MD):

MD analysis was not required for this fraction of the SDG. No action was taken.

VI.) Matrix Spike (MS):

MS analysis was not required for this fraction of the SDG. No action was taken.

VII.) Field Duplicates:

There were no Field Duplicate samples identified for this fraction of the SDG. No action was required.

pH

SUMMARY

I.) General:

The analyses for pH were performed using method SW9045.

II.) Overall Assessment of Data:

All laboratory data were acceptable without qualification.

MAJOR ISSUES

No major problems were observed in this fraction of the SDG.

MINOR ISSUES

I.) Holding Times:

All Holding Time criteria were met. No action was required.

II.) Calibration:

Calibration data were not required for this fraction. No action was required.

III.) Blanks:

Blank data were not required for this fraction. No action was required.

IV.) Laboratory Control Samples (LCS):

All LCS criteria were met. No action was required.

V.) Matrix Duplicate (MD):

MD analysis data was not required for this fraction. No action was taken.

VI.) Matrix Spike (MS):

MS analysis was not required for this fraction of the SDG. No action was taken.

VII.) Field Duplicates:

There were no Field Duplicate samples identified for this fraction of the SDG. No action was required.

REACTIVE SULFIDE

SUMMARY

I.) General:

The analyses for Reactive Sulfide were performed using method SW7.3.

II.) Overall Assessment of Data:

All laboratory data were acceptable without qualification.

MAJOR ISSUES

No major problems were observed in this fraction of the SDG.

MINOR ISSUES

I.) Holding Times:

All Holding Time criteria were met. No action was required.

II.) Calibration:

Calibration data were not required for this fraction. No action was required.

III.) Blanks:

There were no detections in the Blanks associated with this SDG. No action was required.

IV.) Laboratory Control Samples (LCS):

All LCS criteria were met. No action was required.

V.) Matrix Duplicate (MD):

MD analysis data was not required for this fraction of the SDG. No action was required.

VI.) Matrix Spike (MS):

MS analysis was not required for this fraction of the SDG. No action was taken.

VII.) Field Duplicates:

There were no Field Duplicate samples identified for this fraction of the SDG. No action was required.

TOTAL DISSOLVED SOLIDS (TDS)

SUMMARY

I.) General

The analyses for Total Dissolved Solids were performed using method 160.1.

II.) Overall Assessment of Data:

All laboratory data were acceptable without qualification.

MAJOR ISSUES

There were no major problems for this fraction of the SDG.

MINOR ISSUES

I.) Holding Times:

All Holding Time criteria were met. No action was taken.

II.) Calibration:

Calibration data were not required for this fraction of the SDG. No action was taken.

III.) Blanks:

There were no positive detections in the blanks associated with this SDG. No action was required.

IV.) Laboratory Control Sample (LCS):

All LCS Recovery criteria were met. No action was required.

V.) Matrix Spike / Matrix Spike Duplicate (MS / MSD):

MS / MSD analyses were not performed for this fraction of the SDG. No action was required.

VI.) Matrix Duplicate (MD)

Matrix Duplicate analysis was run on SDG sample IDW-02. All criteria were met. No action was required.

VII.) Field Duplicates:

There were no field duplicate samples identified for this SDG. No action was required.

VALIDATA

Chemical Services, Inc.

4070 Balleycastle Lane, Duluth, GA 30097

(770) 232-0130
(770) 232-5082 (Fax)
www.datavalidator.com

DATA VALIDATION SUMMARY
REPORT

COMPANY:	CH2M HILL
SITE NAME:	Baker, CTO-143
CONTRACTED LAB:	CompuChem, Inc.
PROJECT NUMBER:	155022
QA/QC LEVEL:	EPA Level III
EPA SOW/METHOD:	EPA 1990 SOW
VALIDATION GUIDELINES:	*USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review,* 1994; *USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review,* 1994
SAMPLE MATRIX:	Soil
TYPES OF ANALYSES:	TCLP Volatile Organics (VOA), TCLP Semivolatile Organics (SVOA), TCLP Pesticides, TCLP Herbicides, TCLP Metals, Reactive Cyanide, pH, Reactive Sulfide, Ignitability
SDG NUMBER:	QB2488

OVERVIEW

SAMPLES:

Client Sample #	Lab Sample #	Matrix	TCLP VOA	TCLP SVOA	TCLP Pest.
IDW-03	QB2488-1	Soil	X	X	X

Client Sample #	Lab Sample #	TCLP Matrix	TCLP Herb.	TCLP Metals	Reactive Cyanide
IDW-03	QB2488-1	Soil	X	X	X

Client Sample #	Lab Sample #	Matrix	pH	Reactive Sulfide	Ignitability
IDW-03	QB2488-1	Soil	X	X	X

DATA REVIEWERS: Amy L. Hogan, Kevin C. Harmon, Jean M. Delashmit

RELEASE SIGNATURE: Jean M. Delashmit

Data Qualifier Definitions

J	-	The associated numerical value is an estimated quantity.
R	-	The data are unusable (the compound/analyte may or may not be present). Resampling and reanalysis are necessary for verification.
U	-	The compound/analyte was analyzed for, but not detected. The associated numerical value is the sample quantitation limit.
UJ	-	The compound/analyte was analyzed for, but not detected. The sample quantitation limit is an estimated quantity.

DATA QUALIFICATION SUMMARY

CompuChem, Inc. - QB2488 - Organics & Inorganics

SAMPLE: IDW-03

TCLP VOLATILE ORGANICS

SUMMARY

I.) General:

The analyses for Volatile Organics were performed by gas chromatography / mass spectroscopy (GC / MS) using SW-846 Method 8260.

II.) Overall Assessment of Data:

All laboratory data were acceptable without qualification.

MAJOR ISSUES

There were no major problems for this SDG fraction.

MINOR ISSUES

I.) Holding Times:

All Holding Time criteria were met. No action was required.

II.) GC / MS Tuning:

All GC / MS Tuning criteria were met. No action was required.

III.) Calibration:

All Initial and Continuing Calibration criteria were met. No action was required.

IV.) Blanks:

There were no detections in the method or leachate blanks for this SDG. No action was required.

Tentatively Identified Compounds (TIC):

TIC data were not submitted for this SDG. No action was required.

V.) Surrogate Recoveries:

All Surrogate Recovery criteria were met. No action was required.

VI.) Laboratory Control Samples (LCS):

Two LCSs were analyzed for this SDG. All LCS criteria were met. No action was required.

VII.) Matrix Spike / Matrix Spike Duplicate (MS / MSD):

MS / MSD analyses were not submitted for this SDG. Data qualification based on MS / MSD criteria was not required. No action was taken.

VIII.) Field Duplicates:

There were no Field Duplicate samples identified for this SDG. No action was required.

IX.) Internal Standards Performance (ISTD):

All ISTD criteria were met. No action was required.

X.) TCL Compound Identification:

All TCL Compound Identification criteria were met. No action was required.

XI.) Compound Quantitation and Reported Contract Required Quantitation Limits (CRQL):

All CRQL criteria were met. No action was required.

XII.) Tentatively Identified Compounds (TIC):

All TIC criteria were met. No action was required.

XIII.) System Performance:

All System Performance criteria were met. No action was required.

TCLP SEMIVOLATILE ORGANICS

SUMMARY

I.) General:

The analyses for Semivolatile Organics were performed by gas chromatography / mass spectroscopy (GC / MS) using SW-846 Method 8270.

II.) Overall Assessment of Data:

All laboratory data were acceptable without qualification.

MAJOR ISSUES

There were no major problems for this fraction of the SDG.

MINOR ISSUES

I.) Holding Times:

All Holding Time criteria were met. No action was required.

II.) GC / MS Tuning:

All GC / MS Tuning criteria were met. No action was required.

III.) Calibration:

All Initial and Continuing Calibration criteria were met. No action was required.

IV.) Blanks:

Method Blanks:

There were no detections in the Method or Leachate Blanks associated with this SDG. No action was required.

Tentatively Identified Compounds (TIC):

TIC data were not submitted for this SDG. No action was required.

V.) Surrogate Recoveries:

All Surrogate Recovery criteria were met. No action was required.

VI.) Laboratory Control Samples (LCS):

Two LCSs were analyzed for this SDG. Two Percent Recoveries (%R's) were below the QC limits. Data qualification based on LCS criteria was not required. No action was taken.

VII.) Matrix Spike / Matrix Spike Duplicate (MS / MSD):

MS / MSD analyses data were not submitted for this SDG. Data qualification based on MS / MSD criteria was not required. No action was taken.

VIII.) Field Duplicates:

There were no Field Duplicate samples identified for this fraction of the SDG. No action was required.

IX.) Internal Standards Performance (ISTD):

All ISTD criteria were met. No action was required.

X.) TCL Compound Identification:

All TCL Compound Identification criteria were met. No action was required.

XI.) Compound Quantitation and Reported Contract Required Quantitation Limits (CRQL):

All CRQL criteria were met. No action was required.

XII.) Tentatively Identified Compounds (TIC):

All TIC criteria were met. No action was required.

XIII.) System Performance:

All System Performance criteria were met. No action was required.

TCLP PESTICIDES

SUMMARY

I.) General:

The analyses for Pesticides were performed by gas chromatography (GC) using SW846 Method 8081.

II.) Overall Assessment of Data:

All laboratory data were acceptable with one qualification.

MAJOR ISSUES

There were no major problems for this fraction of the SDG.

MINOR ISSUES

I.) Holding Times:

All Holding Time criteria were met. No action was required.

II.) Instrument Performance:

All Instrument Performance criteria were met. No action was required.

III.) Calibration:

All Initial and Continuing Calibration criteria were met. No action was required.

IV.) Blanks:

There were no detections in the associated method or leachate blanks. No action was required.

V.) Surrogate Recoveries:

All Surrogate Recovery criteria were met. No action was required.

VI.) Laboratory Control Samples (LCS):

Two LCSs were analyzed by the laboratory for this SDG. All LCS criteria were met. No action was required.

VII.) Matrix Spike / Matrix Spike Duplicate (MS / MSD):

MS / MSD analyses were not submitted for this SDG. Data qualification based on MS / MSD criteria was not required. No action was taken.

VIII.) Field Duplicates:

There were no Field Duplicate samples identified for this fraction of the SDG. No action was required.

IX.) Florisil Cleanup:

Florisil Cleanup data was not provided for this SDG. No action was taken.

X.) GPC Cleanup:

GPC data was not provided for this SDG. No action was taken.

XI.) Pesticide / PCB Identification Summary (PIS):

The Column Percent Difference (%D) exceeded the 25% QC limit for heptachlor in sample IDW-03 at 108%. The result for heptachlor in this sample was flagged as estimated (J).

XII.) Compound Quantitation and Reported Contract Required Quantitation Limits (CRQL):

All CRQL criteria were met. No action was required.

XIII.) System Performance:

All System Performance criteria were met. No action was required.

TCLP HERBICIDES

SUMMARY

I.) General:

The analyses for Herbicides were performed by gas chromatography (GC) using SW846 Method 8015.

II.) Overall Assessment of Data:

All laboratory data were acceptable with one qualification.

MAJOR ISSUES

There were no major problems for this fraction of the SDG.

MINOR ISSUES

I.) Holding Times:

All Holding Time criteria were met. No action was required.

II.) Instrument Performance:

All Instrument Performance criteria were met. No action was required.

III.) Calibration:

All Initial and Continuing Calibration criteria were met. No action was required.

IV.) Blanks:

There were no detections in the associated Method or Leachate Blanks. No action was required.

V.) Surrogate Recoveries:

All Surrogate Recovery criteria were met. No action was required.

VI.) Laboratory Control Samples (LCS):

Two LCSs were analyzed by the laboratory for this SDG. All LCS criteria were met. No action was required.

VII.) Matrix Spike / Matrix Spike Duplicate (MS / MSD):

MS / MSD analyses were not submitted for this SDG. Data qualification based on MS / MSD criteria was not required. No action was taken.

VIII.) Field Duplicates:

There were no Field Duplicate samples identified for this fraction of the SDG. No action was required.

IX.) Florisil Cleanup:

Florisil Cleanup data was not provided for this SDG. No action was taken.

X.) GPC Cleanup:

GPC data was not provided for this SDG. No action was taken.

XI.) Pesticide / PCB Identification Summary (PIS):

The Column Percent Difference (%D) exceeded the 25% QC limit for the following sample:

Sample	Compound	%D
IDW-03	2,4-D	511%

The result for this compound was flagged as estimated (J).

XII.) Compound Quantitation and Reported Contract Required Quantitation Limits (CRQL):

All CRQL criteria were met. No action was required.

XIII.) System Performance:

All System Performance criteria were met. No action was required.

TCLP METALS

SUMMARY

I.) General:

The analyses for Total Metals were performed using SW-846 Method 6010B.

II.) Overall Assessment of Data:

All laboratory data were acceptable with qualifications.

MAJOR ISSUES

There were no major problems for this fraction of the SDG.

MINOR ISSUES

I.) Holding Times:

All Holding Time criteria were met. No action was required.

II.) Calibration:

All Initial and Continuing Calibration criteria were met. No action was required.

III.) CRDL Standards for ICP:

All CRDL criteria were met. No action was required.

IV.) Blanks:

The following blank results represent the highest detections associated with the samples and were used for data qualification:

Blank ID	Analyte	Max. Conc.	Action Level
TCLPB	barium	1.1 ug/L	5.5 ug/L
TCLPB	selenium	7.6 ug/L	38 ug/L

TCLP = TCLP Leachate Blank

The results for these analytes in the SDG sample were greater than the action levels. No action was required.

Negative results for reported above the IDL for the following analytes:

Blank ID	Analyte	Neg. Conc.	Action Level
CCB5	arsenic	-2.5 ug/L	12.5 ug/L
ICB	chromium	-0.5 ug/L	2.5 ug/L
ICB	mercury	-0.1 ug/L	0.5 ug/L

All positive results for these analytes less than 5X the blank amount were flagged as estimated (J), and all non-detect results for these analytes were flagged as estimated (UJ).

V.) ICP Interference Check Sample Results:

All Interference Percent Recovery criteria were met. No action was required.

The following analytes were detected in the ICS Solution A with results greater than the IDL:

arsenic	2 ug/L
barium	2 ug/L
cadmium	7 ug/L
chromium	21 ug/L
selenium	1 ug/L

These analytes should not be present. Since neither aluminum, calcium, iron nor magnesium was detected in any sample at a concentration comparable to or greater than the respective concentration in ICS Solution A, data qualification was not required.

VI.) ICP Serial Dilution Analysis:

Serial Dilution Analysis criteria were not submitted for this SDG. All positive results for the SDG sample were flagged as estimated (J).

VII.) Laboratory Control Samples (LCS):

All LCS criteria were met. No action was required.

VIII.) Duplicate Sample Analysis:

Duplicate Sample Analysis data were not submitted for this SDG. All positive results for the SDG sample were previously flagged based on Serial Dilution Analysis criteria. No further action was required.

IX.) Matrix Spike / Matrix Spike Duplicate (MS / MSD):

MS / MSD data were not submitted for this SDG. All positive results for the SDG sample were previously flagged based on Serial Dilution Analysis criteria. No further action was required.

X.) Field Duplicates:

There were no Field Duplicate samples identified for this SDG. No action was required.

XI.) Sample Result, Calculation/Transcription Verification:

All criteria were met. No action was taken.

XII.) Quarterly Verification of Instrumental Parameters:

All criteria were met. No action was taken.

REACTIVE CYANIDE

SUMMARY

I.) General:

The analyses for Reactive Cyanide were performed using method SW7.3.

II.) Overall Assessment of Data:

All laboratory data were acceptable with one qualification.

MAJOR ISSUES

No major problems were observed in this fraction of the SDG.

MINOR ISSUES

I.) Holding Times:

All Holding Time criteria were met. No action was required.

II.) Calibration:

All Calibration criteria were met. No action was required.

III.) Blanks:

There were no detections in the blanks associated with this SDG. No action was required.

IV.) Laboratory Control Samples (LCS):

The Percent Recoveries (%R's) of Reactive Cyanide in the two LCS samples were 5.1% and 8.3%, which were below the 75-125% QC limits. The non-detect result for Reactive Cyanide in the SDG sample was flagged as estimated (UJ).

V.) Matrix Duplicate (MD):

MD analysis data was not submitted for this SDG. No action was required.

VI.) Matrix Spike (MS):

MS analysis data was not submitted for this SDG. No action was required.

VII.) Field Duplicates:

There were no Field Duplicate samples identified for this SDG. No action was required.

pH

SUMMARY

I.) General:

The analyses for pH were performed using method SW9045.

II.) Overall Assessment of Data:

All laboratory data were acceptable without qualification.

MAJOR ISSUES

No major problems were observed in this fraction of the SDG.

MINOR ISSUES

I.) Holding Times:

All Holding Time criteria were met. No action was required.

II.) Calibration:

Calibration data were not required for this fraction. No action was required.

III.) Blanks:

Blank data were not required for this fraction. No action was required.

IV.) Laboratory Control Samples (LCS):

All LCS criteria were met. No action was required.

V.) Matrix Duplicate (MD):

MD analysis data was not required for this fraction. No action was taken.

VI.) Matrix Spike (MS):

MS analysis was not required for this fraction of the SDG. No action was taken.

VII.) Field Duplicates:

There were no Field Duplicate samples identified for this fraction of the SDG. No action was required.

REACTIVE SULFIDE

SUMMARY

I.) General:

The analyses for Reactive Sulfide were performed using method SW7.3.

II.) Overall Assessment of Data:

All laboratory data were acceptable with one qualification.

MAJOR ISSUES

No major problems were observed in this fraction of the SDG.

MINOR ISSUES

I.) Holding Times:

All Holding Time criteria were met. No action was required.

II.) Calibration:

Calibration data were not required for this fraction. No action was required.

III.) Blanks:

There were no detections in the Blanks associated with this SDG. No action was required.

IV.) Laboratory Control Samples (LCS):

The Percent Recoveries (%R's) of Reactive Sulfide in the two LCS samples were 33% and 35.6%, which were below the 75-125% QC limits. The non-detect result for Reactive Sulfide in the SDG sample was flagged as estimated (UJ).

V.) Matrix Duplicate (MD):

MD analysis data was not required for this fraction of the SDG. No action was required.

VI.) Matrix Spike (MS):

MS analysis was not required for this fraction of the SDG. No action was taken.

VII.) Field Duplicates:

There were no Field Duplicate samples identified for this SDG. No action was required.

IGNITABILITY

SUMMARY

I.) General:

The analyses for Ignitability were performed using method SW1010.

II.) Overall Assessment of Data:

All laboratory data were acceptable without qualification.

MAJOR ISSUES

No major problems were observed in this fraction of the SDG.

MINOR ISSUES

I.) Holding Times:

All Holding Time criteria were met. No action was required.

II.) Calibration:

Calibration data were not required for this fraction. No action was required.

III.) Blanks:

Blank data were not required for this fraction. No action was required.

IV.) Laboratory Control Samples (LCS):

All LCS criteria were met. No action was required.

V.) Matrix Duplicate (MD):

MD analysis was not required for this fraction of the SDG. No action was taken.

VI.) Matrix Spike (MS):

MS analysis was not required for this fraction of the SDG. No action was taken.

VII.) Field Duplicates:

There were no Field Duplicate samples identified for this fraction of the SDG. No action was required.

VALIDATA

Chemical Services, Inc.

4070 Balleycastle Lane, Duluth, GA 30097

(770) 232-0130
(770) 232-5082 (Fax)
www.datavalidator.com

DATA VALIDATION SUMMARY
REPORT

COMPANY:	CH2M HILL
SITE NAME:	Baker, CTO-143
CONTRACTED LAB:	CompuChem, Inc.
PROJECT NUMBER:	155022
QA/QC LEVEL:	EPA Level III
EPA SOW/METHOD:	EPA 1990 SOW
VALIDATION GUIDELINES:	*USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review*, 1994, *USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review*, 1994
SAMPLE MATRIX:	Water
TYPES OF ANALYSES:	Volatile Organics (VOA), Semivolatile Organics (SVOA), Pesticides, RECRA Metals
SDG NUMBER:	QC2488

OVERVIEW

SAMPLES:

Client Sample #	Lab Sample #	Matrix	VOA	SVOA
FB01	QC2488-1	Water	X	X
FB02	QC2488-2	Water	X	X
FB03	QC2488-3	Water	X	X
FB04	QC2488-4	Water	X	X
FB04RE	QC2488-4RE	Water		X

Client Sample #	Lab Sample #	Matrix	Pesticides	RECRA Metals
FB01	QC2488-1	Water	X	X
FB02	QC2488-2	Water	X	X
FB03	QC2488-3	Water	X	X
FB04	QC2488-4	Water	X	X

Suffix Codes: RE = REANALYSIS

DATA REVIEWERS: Amy L. Hogan, Kevin C. Harmon, Jean M. Delashmit

RELEASE SIGNATURE:

Data Qualifier Definitions

J	-	The associated numerical value is an estimated quantity.
R	-	The data are unusable (the compound/analyte may or may not be present). Resampling and reanalysis are necessary for verification.
U	-	The compound/analyte was analyzed for, but not detected. The associated numerical value is the sample quantitation limit.
UJ	-	The compound/analyte was analyzed for, but not detected. The sample quantitation limit is an estimated quantity.

DATA QUALIFICATION SUMMARY

CompuChem, Inc. - QC2488 - Organics & Inorganics

SAMPLES: FB01, FB02, FB03, FB04

VOLATILE ORGANICS

SUMMARY

I.) General:

The analyses for Volatile Organics were performed by gas chromatography / mass spectroscopy (GC / MS) using SW-846 Method 8260.

II.) Overall Assessment of Data:

All laboratory data were acceptable without qualification.

MAJOR ISSUES

There were no major problems for this SDG.

MINOR ISSUES

I.) Holding Times:

All Holding Time criteria were met. No action was required.

II.) GC / MS Tuning:

All GC / MS Tuning criteria were met. No action was required.

III.) Calibration:

Initial Calibration:

All Initial Calibration criteria were met. No action was required.

Continuing Calibration:

The Percent Difference (%D) for the standards run on 4/18/02 at 10:21 on instrument F50052 exceeded the 25% QC limit for methyl acetate at 56.9%. Since the SDG samples were field blanks, no action was required.

IV.) Blanks:

Method Blanks:

1,2,4-Trichlorobenzene was detected at 1 ug/L in method blank VBLKRF. Since the SDG samples were field blanks, no action was required.

Field Blanks:

Methylene chloride was detected at 2 ug/L in associated field blank FB-01. Since the SDG samples were field blanks, no action was required.

Acetone and methyl-tert-butyl ether were detected at 60 ug/L and 2 ug/L, respectively, in field blank FB02. Since the SDG samples were field blanks, no action was required.

There were detections in associated field blank FB03, for the following compounds:

methylene chloride	2 ug/L
chloroform	85 ug/L
bromodichloromethane	13 ug/L
dibromochloromethane	3 ug/L

Since the SDG samples were Field Blanks, no action was required.

There were detections in associated field blank FB04 for the following compounds:

methylene chloride	2 ug/L
chloroform	13 ug/L
bromodichloromethane	5 ug/L
dibromochloromethane	2 ug/L

Since the SDG samples were field blanks, no action was required.

Tentatively Identified Compounds (TIC):

Octamethyl cyclotetrasiloxane was detected at 26.9 ug/L in field blank FB01, at 23.0 ug/L in field blank FB02, and at 17.9 ug/L in field blank FB03. Since the SDG samples were field blanks, no action was required.

V.) Surrogate Recoveries:

All Surrogate Recovery criteria were met. No action was required.

VI.) Laboratory Control Samples (LCS):

Two LCSs were analyzed for this SDG. All LCS criteria were met. No action was required.

VII.) Matrix Spike / Matrix Spike Duplicate (MS / MSD):

MS / MSD analyses were not submitted for this SDG. Data qualification based on MS / MSD criteria was not required. No action was taken.

VIII.) Field Duplicates:

There were no Field Duplicate samples identified for this fraction of the SDG. No action was required.

IX.) Internal Standards Performance (ISTD):

All ISTD criteria were met. No action was required.

X.) TCL Compound Identification:

All TCL Compound Identification criteria were met. No action was required.

XI.) Compound Quantitation and Reported Contract Required Quantitation Limits (CRQL):

All CRQL criteria were met. No action was required.

XII.) Tentatively Identified Compounds (TIC):

All TIC criteria were met. No action was required.

XIII.) System Performance:

All System Performance criteria were met. No action was required.

SEMIVOLATILE ORGANICS

SUMMARY

I.) General:

The analyses for Semivolatile Organics were performed by gas chromatography / mass spectroscopy (GC / MS) using SW-846 Method 8270.

II.) Overall Assessment of Data:

The initial analysis of sample FB04 was considered by the validator to be of preferable data quality to the reanalysis based on surrogate recovery criteria and holding time criteria. The results for the reanalysis of this sample were rejected (R).

All non-detect results for the acid fraction of the initial analysis of sample FB04 were rejected (R) based on an extremely low surrogate recovery.

All other laboratory data were acceptable with qualification.

MAJOR ISSUES

I.) Surrogate Recovery Criteria:

The Percent Recovery (%R) of phenol-d5 was 6% for the initial analysis of sample FB04, which was below the 10-110% QC limits. Since the %R was less than 10%, all results for the acid fraction of the analysis, which consisted entirely of non-detects, were rejected (R).

The Percent Recovery (%R) of phenol-d5 was 2% for the reanalysis of sample FB04, which was below the 10-110% QC limits. All results for this analysis were rejected based on sample data preference (See Section II). No further action was required.

MINOR ISSUES

I.) Holding Times:

All Holding Time criteria were met. No action was required.

II.) GC / MS Tuning:

All GC / MS Tuning criteria were met. No action was required.

III.) Calibration:

Initial Calibration:

The Percent Relative Standard Deviation (%RSD) for the standards analyzed on 3/31/02 on instrument HP64 was 30.8% for 2,4-dinitrophenol, which exceeded the 30% QC limit. Since the SDG samples were field blanks, no action was required.

The Percent Relative Standard Deviation (%RSD) for the standards analyzed on 3/27/02 on instrument HP66 was 32.3% for 2,4-dinitrophenol, which exceeded the 30% QC limit. Since the SDG samples were field blanks, no action was required.

Continuing Calibration:

The Percent Differences (%D's) for the standards run on 4/16/02 at 22:29 on instrument HP64 exceeded the 25% QC limit for 2,4-dinitrophenol at 46.0% and atrazine at 31.0%. Since the SDG samples were field blanks, no action was required.

The Percent Difference (%D) for the standards run on 4/22/02 at 09:49 on instrument HP64 exceeded the 25% QC limit for 2,4-dinitrophenol at 25.6%. Since the SDG samples were field blanks, no action was required.

IV.) Blanks:

Method Blanks:

There were no detections in the method blanks associated with this SDG. No action was required.

Field Blanks:

Caprolactam and bis(2-ethylhexyl)phthalate were detected at 40 ug/L and 1 ug/L, respectively, in associated field blank FB01. Since the SDG samples were field blanks, no action was required.

2-Methylphenol and 4-methylphenol were detected at 11 ug/ L and 1 ug/L, respectively, in associated field blank FB02. Since the SDG samples were field blanks, no action was required.

There were no detections in the associated field blanks FB03 and FB04. No action was required.

Tentatively Identified Compounds (TIC):

2,4,5-Trimethyl benzoic acid was detected at 16 ug/L in field blank FB02. Since the SDG samples were field blanks, no action was required.

V.) Surrogate Recoveries:

The Percent Recovery (%R) of nitrobenzene-d5 was 34% for sample FB04, which was below the 35-110% QC limits. Since only one %R was below the QC limits for that fraction of the sample, and the %R was greater than 10%, no action was required.

Please also see the Major Issues section for this fraction of the SDG.

VI.) Laboratory Control Samples (LCS):

Four LCSs were analyzed for this SDG. One Relative Percent Difference (RPD) and three Percent Recoveries (%R's) exceeded the QC limits. Since the SDG samples were field blanks, no action was required.

VII.) Matrix Spike / Matrix Spike Duplicate (MS / MSD):

MS / MSD analyses data were not submitted for this SDG. Data qualification based on MS / MSD criteria was not required. No action was taken.

VIII.) Field Duplicates:

There were no Field Duplicate samples identified for this fraction of the SDG. There were no calculable Relative Percent Differences (RPDs). No action was required.

IX.) Internal Standards Performance (ISTD):

All ISTD criteria were met. No action was required.

X.) TCL Compound Identification:

All TCL Compound Identification criteria were met. No action was required.

XI.) Compound Quantitation and Reported Contract Required Quantitation Limits (CRQL):

All CRQL criteria were met. No action was required.

XII.) Tentatively Identified Compounds (TIC):

All TIC criteria were met. No action was required.

XIII.) System Performance:

All System Performance criteria were met. No action was required.

PESTICIDES

SUMMARY

I.) General:

The analyses for Pesticides were performed by gas chromatography (GC) using SW846 Method 8081.

II.) Overall Assessment of Data:

All laboratory data were acceptable without qualification.

MAJOR ISSUES

There were no major problems for this fraction of the SDG.

MINOR ISSUES

I.) Holding Times:

All Holding Time criteria were met. No action was required.

II.) Instrument Performance:

All Instrument Performance criteria were met. No action was required.

III.) Calibration:

All Initial and Continuing Calibration criteria were met. No action was required.

IV.) Blanks:

Method Blanks:

There were no detections in the associated method blanks. No action was required.

Field Blanks:

There were detections in associated field blank FB02 for the following compounds:

delta BHC	0.064 ug/L
gamma BHC	0.035 ug/L
4,4'-DDT	0.072 ug/L
heptachlor	0.022 ug/L
gamma chlordane	0.018 ug/L
alpha chlordane	0.094 ug/L

Since the SDG samples were field blanks, no action was required.

4,4'-DDT was detected at 0.045 ug/L in associated field blank FB03. Since the SDG samples were field blanks, no action was required.

There were no detections in associated field blanks FB01 and FB04. No action was required.

V.) Surrogate Recoveries:

All Surrogate Recovery criteria were met. No action was required.

VI.) Laboratory Control Samples (LCS):

Two LCSs were analyzed for this SDG. All LCS criteria were met. No action was required.

VII.) Matrix Spike / Matrix Spike Duplicate (MS / MSD):

MS / MSD analyses data were not submitted for this SDG. Data qualification based on MS / MSD criteria was not required. No action was taken.

VIII.) Field Duplicates:

There were no Field Duplicate samples identified for this fraction of the SDG. No action was required.

IX.) Florisil Cleanup:

Florisil Cleanup data was not provided for this SDG. No action was taken.

X.) GPC Cleanup:

GPC data was not provided for this SDG. No action was taken.

XI.) Pesticide / PCB Identification Summary (PIS):

The Column Percent Differences (%D's) exceeded the 25% QC limit for the following samples:

FB02	delta BHC	77.8%
	gamma BHC	29.6%
	heptachlor	999%
FB03	4,4'-DDT	114%

Since the SDG samples were field blanks, no action was required.

XII.) Compound Quantitation and Reported Contract Required Quantitation Limits (CRQL):

All CRQL criteria were met. No action was required.

XIII.) System Performance:

All System Performance criteria were met. No action was required.

RECRA METALS

SUMMARY

I.) General:

The analyses for RECRA Metals were performed using SW-846 Methods 6010B.

II.) Overall Assessment of Data:

All laboratory data were acceptable without qualification.

MAJOR ISSUES

There were no major problems for this fraction of the SDG.

MINOR ISSUES

I.) Holding Times:

All Holding Time criteria were met. No action was required.

II.) Calibration:

All Initial and Continuing Calibration criteria were met. No action was required.

III.) CRDL Standards for ICP:

All CRDL criteria were met. No action was required.

IV.) Blanks:

The following blank results represent the highest detections associated with the samples and were used for data qualification:

Blank ID	Analyte	Max. Conc.	Action Level
PBW	barium	1.3 ug/L	6.5 ug/L
ICB	chromium	0.5 ug/L	1.5 ug/L

CCB = Continuing Calibration Blank, PBW = Preparation Blank Water

Since the SDG samples were field blanks, no action was required.

V.) ICP Interference Check Sample Results:

All Interference Percent Recovery criteria were met. No action was required.

The following analytes were detected in the ICS Solution A with results greater than the IDL:

arsenic	3 ug/L
barium	2 ug/L
cadmium	7 ug/L
chromium	21 ug/L
lead	3 ug/L

These analytes should not be present. Since neither aluminum, calcium, iron nor magnesium was detected in any sample at a concentration comparable to or greater than the respective concentration in ICS Solution A, data qualification was not required.

The following analyte had a negative results in the ICS Solution A with the absolute value greater than the IDL:

selenium	-1 ug/L

Since neither aluminum, calcium, iron nor magnesium was detected in any sample at a concentration comparable to or greater than the respective concentration in ICS Solution A, data qualification was not required.

VI.) ICP Serial Dilution Analysis:

Serial Dilution Analysis data was not submitted for this SDG. Since the SDG samples were field blanks, no action was required.

VII.) Laboratory Control Samples (LCS):

All LCS criteria were met. No action was required.

VIII.) Duplicate Sample Analysis:

Duplicate Sample Analysis data was not submitted for this SDG. Since the SDG samples were field blanks, no action was required.

IX.) Matrix Spike (MS):

Matrix Spike Analysis data was not submitted for this SDG. Since the SDG samples were field blanks, no action was required.

X.) Field Duplicates:

There were no Field Duplicate samples identified for this fraction of the SDG. No action was required.

XI.) Sample Result, Calculation/Transcription Verification:

All criteria were met. No action was taken.

XII.) Quarterly Verification of Instrumental Parameters:

All criteria were met. No action was taken.

VALIDATA

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4070 Balleycastle Lane, Duluth, GA 30097

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DATA VALIDATION SUMMARY
REPORT

COMPANY:	CH2M HILL
SITE NAME:	Baker, CTO-143
CONTRACTED LAB:	CompuChem, Inc.
PROJECT NUMBER:	26007-143-0000-05201
QA/QC LEVEL:	EPA Level III
EPA SOW/METHOD:	EPA 1990 SOW
VALIDATION GUIDELINES:	*USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review,* 1994, *USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review,* 1994
SAMPLE MATRIX:	Water
TYPES OF ANALYSES:	Volatile Organics (VOA), Semivolatile Organics (SVOA), and RCRA Metals
SDG NUMBER:	QQ2488

OVERVIEW

SAMPLES:

Client Sample #	Lab Sample #	Matrix	VOA	SVOA	RCRA Metals
253-GW03	QQ2488-22	Water		X	X
256-GW03	QQ2488-1	Water		X	X
256-GW04	QQ2488-2	Water		X	
285-GW01	QQ2488-19	Water	X	X	
285-GW02	QQ2488-20	Water	X	X	
285-GW03	QQ2488-21	Water	X	X	
305-GW01	QQ2488-9	Water			X
305-GW02	QQ2488-10	Water			X
305-GW03	QQ2488-11	Water			X
311-GW01	QQ2488-16	Water	X		X
311-GW01D	QQ2488-17	Water	X		X
311-GW02	QQ2488-18	Water	X		X
312-GW01	QQ2488-3	Water		X	X
312-GW02	QQ2488-4	Water		X	X
312-GW03	QQ2488-5	Water		X	X
313-GW01	QQ2488-12	Water			X
313-GW01D	QQ2488-13	Water			X

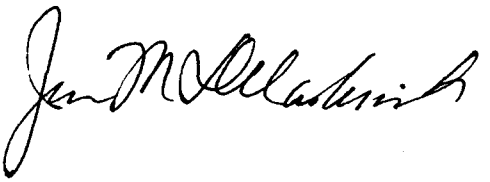
Client Sample #	Lab Sample #	Matrix	VOA	SVOA	RCRA Metals
313-GW02	QQ2488-14	Water			X
313-GW03	QQ2488-15	Water			X
IR86-TW01	QQ2488-6	Water	X		
TB10	QQ2488-7	Water	X		
TB11	QQ2488-8	Water	X		
311-GW01MS	WG16727-6	Water	X		
311-GW01MSD	WG16727-7	Water	X		
313-GW01MS	WG16732-1	Water	X		X
313GW01MSD	WG16732-2	Water	X		X

> in EDD

Sample ID Codes: TB = TRIP BLANK

Suffix Codes: D = FIELD DUPLICATE, MS = MATRIX SPIKE, MSD = MATRIX SPIKE DUPLICATE

DATA REVIEWERS: Mary Ann Brookshire, Kevin C. Harmon, Jean M. Delashmit

RELEASE SIGNATURE: 

Data Qualifier Definitions

J	-	The associated numerical value is an estimated quantity.
R	-	The data are unusable (the compound/analyte may or may not be present). Resampling and reanalysis are necessary for verification.
U	-	The compound/analyte was analyzed for, but not detected. The associated numerical value is the sample quantitation limit.
UJ	-	The compound/analyte was analyzed for, but not detected. The sample quantitation limit is an estimated quantity.

DATA QUALIFICATION SUMMARY

CompuChem, Inc. - QQ2488 - Organics

SAMPLES: 253-GW03, 256-GW03, 256-GW04, 285-GW01, 285-GW02, 285-GW03, 305-GW01, 305-GW02, 305-GW03, 311-GW01, 311-GW01D, 311-GW02, 312-GW01, 312-GW02, 312-GW03, 313-GW01, 313-GW01D, 313-GW02, 313-GW03, IR86-TW01, TB10, and TB11

VOLATILE ORGANICS

SUMMARY

I.) General:

The analyses for Volatile Organics were performed by gas chromatography / mass spectroscopy (GC / MS) using SW-846 Method 8260.

II.) Overall Assessment of Data:

All laboratory data were acceptable with qualification.

MAJOR ISSUES

There were no major problems for this SDG.

MINOR ISSUES

I.) Holding Times:

All Holding Time criteria were met. No action was required.

II.) GC / MS Tuning:

All GC / MS Tuning criteria were met. No action was required.

III.) Calibration:

Initial Calibration:

All Initial Calibration criteria were met. No action was required.

Continuing Calibration:

The Percent Difference (%D) for the standard analyzed on 4/9/02 at 17:46 on instrument HP59 exceeded the 25% QC limit for the following compound:

bromomethane	31.1%

Samples IR86-TW01, TB10, and TB-11 were associated with this continuing calibration standard.

The Percent Difference (%D) for the standard analyzed on 4/10/02 at 18:33 on instrument HP59 exceeded the 25% QC limit for the following compound:

bromomethane	28.9%

Samples 311-GW01 and 311-GW01D were associated with this continuing calibration standard.

The Percent Difference (%D) for the standard analyzed on 4/11/02 at 19:41 on instrument HP59 exceeded the 25% QC limit for the following compounds:

bromomethane	40.7%
1,2,4-trichlorobenzene	31.6%

Samples 285-GW01, 285-GW02, 285-GW03, 311-GW01MS, 311-GW01MSD, and 311-GW02 were associated with this continuing calibration standard.

All positive and non-detect results for these compounds in the associated SDG samples except the trip blanks and QC samples were flagged as estimated (J) and (UJ).

IV.) Blanks:

Method Blanks:

The following compounds were detected in method blank VBLKNE.

acetone	4 ug/L
1,2,4-trichlorobenzene	1 ug/L

All positive results for these compounds in associated SDG samples less than 10X the blank amount for acetone and 5X the blank amount for 1,2,4-trichlorobenzene were flagged as undetected (U) with the results less than the CRQL being raised to the CRQL. Samples IR86-TW01, TB10, and TB11 were associated with this method blank. The trip blanks were not qualified by other blank contamination.

The following compounds were detected in method blank VBLKNN.

acetone	6 ug/L
1,2,4-trichlorobenzene	0.9 ug/L

All positive results for these compounds in associated SDG samples less than 10X the blank amount for acetone and 5X the blank amount for 1,2,4-trichlorobenzene were flagged as undetected (U) with the results less than the CRQL being raised to the CRQL. Samples 311-GW01 and 311-GW01D were associated with this method blank.

The following compounds were detected in method blank VBLKOU.

acetone	4 ug/L
1,2,4-trichlorobenzene	0.9 ug/L

All positive results for these compounds in associated SDG samples less than 10X the blank amount for acetone and 5X the blank amount for 1,2,4-trichlorobenzene were flagged as undetected (U) with the results less than the CRQL being raised to the CRQL. Samples 285-GW01, 285-GW02, 285-GW03, 311-GW01MS, 311-GW01MSD, and 311-GW02 were associated with this method blank.

Trip Blanks:

Trip blanks TB-10 and TB-11 were associated with these SDG samples. There were no positive results in the trip blanks. No action was required.

Tentatively Identified Compounds (TIC):

Butylated hydroxytoluene was detected in method blank VBLKNE. This compound was not detected in associated samples, so no action was required.

Butylated hydroxytoluene and hexamethylcyclotrisiloxane were detected in method blank VBLKNN. These compounds were not detected in associated samples, so no action was required.

Hexamethylcyclotrisiloxane was detected in method blank VBLKOU. Detections of this compound in associated samples 285-GW01, 285-GW02, 285-GW03, and 311-GW02 were qualified as undetected (U).

There were no detections of TIC compounds in the trip blanks TB10 and TB11. No action was required.

V.) Surrogate Recoveries:

All Surrogate Recovery criteria were met. No action was required.

VI.) Laboratory Control Samples (LCS):

Three LCSs were analyzed for this SDG. All LCS criteria were met. No action was required.

VII.) Matrix Spike / Matrix Spike Duplicate (MS / MSD):

All MS/MSD criteria were met. No action was required.

VIII.) Field Duplicates:

One set of field duplicate samples (311-GW01/311-GW01D) was identified for this fraction of the SDG. There were no detections above the CRQL in the samples. No action was required.

IX.) Internal Standards Performance (ISTD):

All ISTD criteria were met. No action was required.

X.) TCL Compound Identification:

All TCL Compound Identification criteria were met. No action was required.

XI.) Compound Quantitation and Reported Contract Required Quantitation Limits (CRQL):

CRQL criteria were not met for acetone, 2-butanone, 4-methyl-2-pentanone, and 2-hexanone. These compounds were reported at a PQL of 13 ug/L; the CRQL for these compounds is 10 ug/L. CRQLs were achieved for the remaining compounds.

XII.) Tentatively Identified Compounds (TIC):

All TIC criteria were met. No action was required.

XIII.) System Performance:

All System Performance criteria were met. No action was required.

SEMIVOLATILE ORGANICS

SUMMARY

I.) General:

The analyses for Semivolatile Organics were performed by gas chromatography / mass spectroscopy (GC / MS) using SW-846 Method 8270.

II.) Overall Assessment of Data:

All laboratory data were acceptable with qualifications.

MAJOR ISSUES

There were no major problems for this fraction of the SDG.

MINOR ISSUES

I.) Holding Times:

All Holding Time criteria were met. No action was required.

II.) GC / MS Tuning:

All GC / MS Tuning criteria were met. No action was required.

III.) Calibration:

Initial Calibration:

The Relative Standard Deviation (RSD) for the initial calibration dated 3/27/02 on instrument HP66 exceeded the 30% QC limit for the following compound:

2,4-dinitrophenol	32.3%

There were no positive results for this compound in the associated samples. No action was required.

Continuing Calibration:

The Percent Differences (%D's) for the standard run on 4/8/02 at 11:02 on instrument HP66 exceeded the 25% QC limit for the following compounds:

nitrobenzene	26.2%
hexachlorocyclopentadiene	29.0%

Samples 256-GW03, 256-GW04, 312-GW01, and 312-GW02 were associated with this continuing calibration standard.

The Percent Differences (%D's) for the standard run on 4/10/02 at 17:46 on instrument HP66 exceeded the 25% QC limit for the following compounds:

hexachlorocyclopentadiene	26.5%

Samples 285-GW02 and 285-GW03 were associated with this continuing calibration standard.

The Percent Differences (%D's) for the standard run on 4/11/02 at 09:38 on instrument HP66

exceeded the 25% QC limit for the following compounds:

bis(2-chloroethoxy)methane	25.5%
naphthalene	25.6%

Samples 253-GW03 and 285-GW01 were associated with this continuing calibration standard.

All results for these compounds in associated SDG samples, which consisted entirely of non-detects, were flagged as estimated (UJ).

IV.) Blanks:

Method Blanks:

Bis(2-ethylhexyl)phthalate was detected in method blank SBLKOD at 0.9 ug/L but was not detected in the associated SDG samples. No action was required. Samples 256-GW03, 256-GW04, 312-GW01, 312-GW02, and 312-GW03 were associated with this method blank.

No target analytes were detected in method blank SBLKOS associated with samples 253-GW03, 285-GW01, 285-GW02, and 285-GW03.

Tentatively Identified Compounds (TIC):

There were no TIC detections in the method blanks for this SDG. No action was required.

V.) Surrogate Recoveries:

Surrogate recovery criteria were met. No action was required.

VI.) Laboratory Control Samples (LCS):

LCS recovery criteria were met. No action was required.

VII.) Matrix Spike / Matrix Spike Duplicate (MS / MSD):

MS / MSD analyses data were not submitted for this SDG. Data qualification based on MS / MSD criteria was not required. No action was taken.

VIII.) Field Duplicates:

Field duplicate samples were not identified for this fraction of the SDG. No action was required.

IX.) Internal Standards Performance (ISTD):

Internal standard criteria were met. No action was required.

X.) TCL Compound Identification:

All TCL Compound Identification criteria were met. No action was required.

XI.) Compound Quantitation and Reported Contract Required Quantitation Limits (CRQL):

The CRQL of 25 ug/L for 2,4-dinitrophenol was not achieved. The laboratory reported this compound at a PQL of 50 ug/L. No action was required.

XII.) Tentatively Identified Compounds (TIC):

All TIC criteria were met. No action was required.

XIII.) System Performance:

All System Performance criteria were met. No action was required.

RCRA METALS

SUMMARY

I.) General:

The analyses for RCRA Metals were performed using SW-846 Method 6010B.

II.) Overall Assessment of Data:

All laboratory data were acceptable with qualifications.

MAJOR ISSUES

There were no major problems for this fraction of the SDG.

MINOR ISSUES

I.) Holding Times:

All Holding Time criteria were met. No action was required.

II.) Calibration:

All Initial and Continuing Calibration criteria were met. No action was required.

III.) CRDL Standards for ICP:

All CRDL criteria were met. No action was required.

IV.) Blanks:

The following blank results represent the highest detections associated with the samples and were used for data qualification:

Blank ID	Analyte	Max. Conc.	Action Level
CCB4	barium	0.8 ug/L	4.0 ug/L
CCB4	cadmium	0.3 ug/L	1.5 ug/L
CCB5	mercury	0.1 ug/L	0.5 ug/L

CCB = Continuing Calibration Blank

All mercury results less than the action level in the associated SDG samples were flagged as undetected (U). Cadmium was not detected in the associated samples, so no qualification was required. All results for barium in the SDG samples were greater than the action level, so no action was required for this analyte.

A negative result of –2.9 ug/L was reported for arsenic in CCB5. All arsenic results, which consisted entirely of non-detects in the associated SDG samples, were flagged as estimated (UJ).

V.) ICP Interference Check Sample Results:

All Interference Percent Recovery criteria were met. No action was required.

The following analytes were detected in the ICS Solution A with results of absolute value greater than the IDL:

barium	2 ug/L
cadmium	7 ug/L
silver	-1 ug/L

These analytes should not be present. Calcium was detected in sample 256-GW03 at a concentration comparable to ICS Solution A. The positive barium result in sample 256-GW03 was qualified as estimated (J). The cadmium was not detected in sample 256-GW03, so qualification was not required. The non-detect silver result in sample 256-GW03 was qualified as estimated (UJ). Aluminum, calcium, iron, and magnesium were not detected in any other sample at concentrations comparable to or greater than the respective concentration in ICS Solution A. No further action was required.

VI.) ICP Serial Dilution Analysis:

Serial Dilution criteria were met. No action was required.

VII.) Laboratory Control Samples (LCS):

All LCS criteria were met. No action was required.

VIII.) Duplicate Sample Analysis:

Duplicate Sample criteria were met. No action was required.

IX.) Matrix Spike (MS):

The following matrix spike recoveries exceeded QC limits:

mercury	130%
selenium	56%

There were not positive mercury results in the associated SDG samples after blank qualification, so no action was required for mercury. Positive and non-detect selenium results in the associated SDG samples were qualified as estimated (J) and (UJ).

X.) Field Duplicates:

Two sets of field duplicate samples (311-GW01/311-GW01D and 313-GW01/313-GW01D) were identified for this fraction of the SDG. The calculable Relative Percent Differences (RPDs) were:

Compound	311-GW01	311-GW01D	RPD
barium	54.5 ug/L	53.0 ug/L	2.8%
chromium	11.4 ug/L	12.6 ug/L	10%
lead	9.4 ug/L	11.8 ug/L	23%

Compound	313-GW01	313-GW01D	RPD
barium	22.0 ug/L	23.1 ug/L	4.9%

All RPDs were within the 30% QC limit for water samples. No action was required.

XI.) Sample Result, Calculation/Transcription Verification:

All criteria were met. No action was taken.

XII.) Quarterly Verification of Instrumental Parameters:

All criteria were met. No action was taken.

VALIDATA

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DATA VALIDATION SUMMARY
REPORT

COMPANY:	CH2M HILL
SITE NAME:	Baker, CTO-143
CONTRACTED LAB:	CompuChem, Inc.
PROJECT NUMBER:	155022
QA/QC LEVEL:	EPA Level III
EPA SOW/METHOD:	EPA 1990 SOW
VALIDATION GUIDELINES:	*USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review,* 1994; *USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review,* 1994
SAMPLE MATRIX:	Water
TYPES OF ANALYSES:	Semivolatile Organics (SVOA), RECRA Metals
SDG NUMBER:	QR2488

OVERVIEW

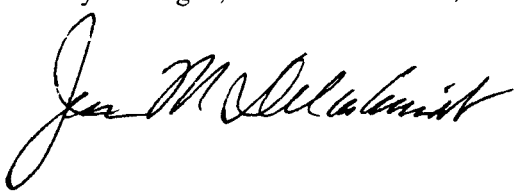
SAMPLES:

Client Sample #	Lab Sample #	Matrix	SVOA	RECRA Metals
254-GW01	QR2488-1	Water	X	
254-GW02	QR2488-2	Water	X	
254-GW03	QR2488-3	Water	X	
255-GW01	QR2488-4	Water	X	
255-GW01D	QR2488-5	Water	X	
279-GW01	QR2488-6	Water	X	
279-GW01D	QR2488-7	Water	X	
279-GW02	QR2488-8	Water	X	
279-GW03	QR2488-9	Water	X	
294-GW01	QR2488-10	Water	X	X
294-GW02	QR2488-11	Water	X	X
294-GW03	QR2488-12	Water	X	X
294-GW04	QR2488-13	Water	X	X
294-GW05	QR2488-14	Water	X	X
294-GW06	QR2488-15	Water	X	X
295-GW01	QR2488-16	Water	X	X
295-GW02	QR2488-17	Water	X	X
295-GW03	QR2488-18	Water	X	X

Client Sample #	Lab Sample #	Matrix	SVOA	RECRA Metals
253-GW01	QR2488-19	Water	X	X
253-GW02	QR2488-20	Water	X	X

SUFFIX CODES: D = FIELD DUPLICATE

DATA REVIEWERS: Amy L. Hogan, Kevin C. Harmon, Jean M. Delashmit

RELEASE SIGNATURE: 

Data Qualifier Definitions

J	-	The associated numerical value is an estimated quantity.
R	-	The data are unusable (the compound/analyte may or may not be present). Resampling and reanalysis are necessary for verification.
U	-	The compound/analyte was analyzed for, but not detected. The associated numerical value is the sample quantitation limit.
UJ	-	The compound/analyte was analyzed for, but not detected. The sample quantitation limit is an estimated quantity.

DATA QUALIFICATION SUMMARY

CompuChem, Inc. - QR2488 - Organics & Inorganics

SAMPLES: 254-GW01, 254-GW02, 254-GW03, 255-GW01, 255-GW01D, 279-GW01, 279-GW01D, 279-GW02, 279-GW03, 294-GW01, 294-GW02, 294-GW03, 294-GW04, 294-GW05, 294-GW06, 295-GW01, 295-GW02, 295-GW03, 253-GW01, 253-GW02

SEMIVOLATILE ORGANICS

SUMMARY

I.) General:

The analyses for Semivolatile Organics were performed by gas chromatography / mass spectroscopy (GC / MS) using SW-846 Method 8270.

II.) Overall Assessment of Data:

All laboratory data were acceptable with qualifications.

MAJOR ISSUES

There were no major problems for this fraction of the SDG.

MINOR ISSUES

I.) Holding Times:

All Holding Time criteria were met. No action was required.

II.) GC / MS Tuning:

All GC / MS Tuning criteria were met. No action was required.

III.) Calibration:

Initial Calibration:

The Percent Relative Standard Deviation (%RSD) for the standards analyzed on 3/27/02 on instrument HP66 was 32.3% for 2,4-dinitrophenol, which exceeded the 30% QC limit. Since there were no positive results for this compound in the associated samples, no action was required.

Continuing Calibration:

The Percent Differences (%D's) for the standards run on 4/08/02 at 19:13 on instrument HP60 exceeded the 25% QC limit for the following compounds:

2,2'-oxybis(1-chloropropane)	68.6%
isophorone	27.9%
hexachlorocylcopentadiene	26.6%
2-nitroaniline	66.7%
4-nitrophenol	68.3%
4-chlorophenyl-phenylether	45.9%
fluorene	28.3%
phenanthrene	29.2%
benzo(k)fluoranthene	36.8%

All positive and non-detect results for these compounds in the associated samples were flagged as estimated (J) and (UJ). The associated samples were 254-GW01, 254-GW02, 254-GW03 and 255-GW01.

The Percent Differences (%D's) for the standards run on 4/09/02 at 13:05 on instrument HP60 exceeded the 25% QC limit for the following compounds:

2,2'-oxybis(1-chloropropane)	54.9%
hexachlorocylcopentadiene	34.0%
2-nitroaniline	59.5%
4-nitrophenol	70.0%
4-chlorophenyl-phenylether	49.4%
fluorene	25.2%
butylbenzylphthalate	25.5%
3,3'-dichlorobenzidine	36.7%

All positive and non-detect results for these compounds in the associated samples were flagged as estimated (J) and (UJ). The associated samples were 295-GW02, 295-GW03, 253-GW01 and 253-GW02.

The Percent Differences (%D's) for the standards run on 4/09/02 at 11:22 on instrument HP66 exceeded the 25% QC limit for the following compounds:

2,4-dinitrophenol	28.7%
butylbenzylphthalate	32.0%
chrysene	25.8%

All positive and non-detect results for these compounds in the associated samples were flagged as estimated (J) and (UJ). The associated samples were 255-GW01D, 279-GW01, 279-GW01D, 279-GW02, 279-GW03, 294-GW01, 294-GW02, 294-GW03, 294-GW04, 294-GW05, 294-GW06 and 295-GW01.

IV.) Blanks:

Method Blanks:

Bis(2-ethylhexyl)phthalate was detected at 1 ug/L in method blank SBLKOS. All positive results for this compound in the associated samples, less than 10X the blank amount, were flagged as undetected (U) with the results less than the CRQL being raised to the CRQL. The associated samples were 254-GW01, 254-GW02, 254-GW03, 255-GW01, 295-GW02, 295-GW03, 253-GW01 and 253-GW02.

Bis(2-ethylhexyl)phthalate was detected at 3 ug/L in method blank SBLKSO. All positive results for this compound in the associated samples, less than 10X the blank amount, were flagged as undetected (U) with the results less than the CRQL being raised to the CRQL. The associated samples were 255-GW01D, 279-GW01, 279-GW01D, 279-GW02, 279-GW03, 294-GW01, 294-GW02, 294-GW03, 294-GW04, 294-GW05, 294-GW06 and 295-GW01.

Tentatively Identified Compounds (TIC):

There were no TIC detections in the method blanks associated with this SDG. No action was required.

V.) Surrogate Recoveries:

All Surrogate Recovery criteria were met. No action was required.

VI.) Laboratory Control Samples (LCS):

Two LCSs were analyzed for this SDG. All LCS criteria were met. No action was required.

VII.) Matrix Spike / Matrix Spike Duplicate (MS / MSD):

MS / MSD analyses were not run for this SDG. Data qualification was not required.

VIII.) Field Duplicates:

There were two sets of Field Duplicate samples (255-GW01 / 255-GW01D and 279-GW01 / 279-GW01D) identified for this fraction of the SDG. There were no calculable Relative Percent Differences (RPDs). No action was required.

IX.) Internal Standards Performance (ISTD):

All ISTD criteria were met. No action was required.

X.) TCL Compound Identification:

All TCL Compound Identification criteria were met. No action was required.

XI.) Compound Quantitation and Reported Contract Required Quantitation Limits (CRQL):

All CRQL criteria were met. No action was required.

XII.) Tentatively Identified Compounds (TIC):

All TIC criteria were met. No action was required.

XIII.) System Performance:

All System Performance criteria were met. No action was required.

RECRA METALS

SUMMARY

I.) General:

The analyses for RECRA Metals were performed using SW-846 Method 6010B.

II.) Overall Assessment of Data:

All laboratory data were acceptable with qualifications.

MAJOR ISSUES

There were no major problems for this fraction of the SDG.

MINOR ISSUES

I.) Holding Times:

All Holding Time criteria were met. No action was required.

II.) Calibration:

All Initial and Continuing Calibration criteria were met. No action was required.

III.) CRDL Standards for ICP:

All CRDL criteria were met. No action was required.

IV.) Blanks:

The following blank result represents the highest detection associated with the samples and was used for data qualification:

Blank ID#	Analyte	Max. Conc.	Action Level
CCB8	barium	0.7 ug/L	3.5 ug/L

CCB = Continuing Calibration Blank

All results for barium in the SDG samples were greater than the action level, so no action was required.

V.) ICP Interference Check Sample Results:

All Interference Percent Recovery criteria were met. No action was required.

The following analytes were detected in the ICS Solution A with results greater than the IDL:

arsenic	3 ug/L
barium	2 ug/L
cadmium	7 ug/L
chromium	21 ug/L
selenium	1 ug/L

These analytes should not be present. Since neither aluminum, calcium, iron nor magnesium was detected in any sample at a concentration comparable to or greater than the respective concentration in ICS Solution A, data qualification was not required.

The following analytes had negative results in the ICS Solution A with the absolute value greater than the IDL:

lead	-3 ug/L
silver	-1 ug/L

Since neither aluminum, calcium, iron nor magnesium was detected in any sample at a concentration comparable to or greater than the respective concentration in ICS Solution A, data qualification was not required.

VI.) ICP Serial Dilution Analysis:

Serial Dilution Analysis was not run for this SDG. All positive results for the SDG samples were flagged as estimated (J).

VII.) Laboratory Control Samples (LCS):

All LCS criteria were met. No action was required.

VIII.) Duplicate Sample Analysis:

Duplicate Sample Analysis was not run for this SDG. All positive results for the SDG samples were previously flagged based on Serial Dilution Analysis criteria, so no further action was required.

IX.) Matrix Spike / Matrix Spike Duplicate (MS / MSD):

MS / MSD analyses were not run for this SDG. All positive results for the SDG samples were previously flagged based on Serial Dilution Analysis criteria, so no further action was required.

X.) Field Duplicates:

There were no Field Duplicate samples identified for this fraction of the SDG. No action was required.

XI.) Sample Result, Calculation/Transcription Verification:

All criteria were met. No action was taken.

XII.) Quarterly Verification of Instrumental Parameters:

All criteria were met. No action was taken.

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DATA VALIDATION SUMMARY
REPORT

COMPANY:	CH2M HILL
SITE NAME:	Baker, CTO-143
CONTRACTED LAB:	CompuChem, Inc.
PROJECT NUMBER:	26007-143-0000-05201
QA/QC LEVEL:	EPA Level III
EPA SOW/METHOD:	EPA 1990 SOW
VALIDATION GUIDELINES:	*USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review*, 1994, *USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review*, 1994
SAMPLE MATRIX:	Water
TYPES OF ANALYSES:	Semivolatile Organics (SVOA) and RCRA Metals
SDG NUMBER:	QS2488

OVERVIEW

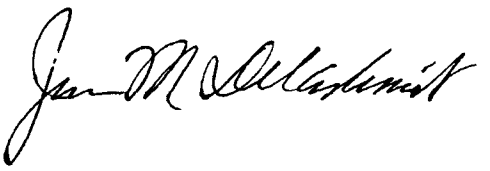
SAMPLES:

Client Sample #	Lab Sample #	Matrix	SVOA	RCRA Metals
258-GW01	QS2488-11	Water		X
258-GW02	QS2488-12	Water		X
258-GW03	QS2488-13	Water		X
269-GW01	QS2488-14	Water		X
269-GW02	QS2488-15	Water		X
269-GW03	QS2488-16	Water		X
293-GW01	QS2488-1	Water		X
293-GW02	QS2488-2	Water		X
293-GW03	QS2488-3	Water		X
314-GW01	QS2488-17	Water	X	X
314-GW02	QS2488-18	Water	X	X
314-GW02MS	WG16751-3	Water	X	X
314-GW02MSD	WG16752-4	Water	X	X
314-GW03	QS2488-19	Water	X	X
315-GW01	QS2488-20	Water	X	X
46-GW01	QS2488-4	Water		X
46-GW02	QS2488-5	Water		X
46-GW03	QS2488-6	Water		X

Client Sample #	Lab Sample #	Matrix	SVOA	RCRA Metals
46-GW04	QS2488-7	Water		X
46-GW05	QS2488-8	Water		X
46-GW05D	QS2488-9	Water		X
46-GW06	QS2488-10	Water		X

SUFFIX CODES D = FIELD DUPLICATE, MS = MATRIX SPIKE, MSD = MATRIX SPIKE DUPLICATE

DATA REVIEWERS: Mary Ann Brookshire, Kevin C. Harmon, Jean M. Delashmit

RELEASE SIGNATURE: 

Data Qualifier Definitions

J	-	The associated numerical value is an estimated quantity.
R	-	The data are unusable (the compound/analyte may or may not be present). Resampling and reanalysis are necessary for verification.
U	-	The compound/analyte was analyzed for, but not detected. The associated numerical value is the sample quantitation limit.
UJ	-	The compound/analyte was analyzed for, but not detected. The sample quantitation limit is an estimated quantity.

DATA QUALIFICATION SUMMARY

CompuChem, Inc. - QS2488 - Organics

SAMPLES: 258-GW01, 258-GW02, 258-GW03, 269-GW01, 269-GW02, 269-GW03, 293-GW01, 293-GW02, 293-GW03, 314-GW01, 314-GW02, 314-GW03, 315-GW01, 46-GW01, 46-GW02, 46-GW03, 46-GW04, 46-GW05, 46-GW05D, 46-GW06, 314-GW02MS, 314-GW02MSD

SEMIVOLATILE ORGANICS

SUMMARY

I.) General:

The analyses for Semivolatile Organics were performed by gas chromatography / mass spectroscopy (GC / MS) using SW-846 Method 8270.

II.) Overall Assessment of Data:

All laboratory data were acceptable with qualifications.

MAJOR ISSUES

There were no major problems for this fraction of the SDG.

MINOR ISSUES

I.) Holding Times:

All Holding Time criteria were met. No action was required.

II.) GC / MS Tuning:

All GC / MS Tuning criteria were met. No action was required.

III.) Calibration:

Initial Calibration:

Initial Calibration criteria were met. No action was required.

Continuing Calibration:

The Percent Differences (%D's) for the standards run on 4/10/02 at 08:46 on instrument HP60 exceeded the 25% QC limit for the following compounds:

2,2'-oxybis(1-chloropropane)	57.7%
2-nitroaniline	48.8%
4-nitrophenol	46.3%
4-chlorophenyl-phenylether	37.0%
pyrene	29.6%
butylbenzylphthalate	33.9%
3,3'-dichlorobenzidine	44.2%

All results for these compounds in associated SDG samples, which consisted entirely of non-detects, were flagged as estimated (UJ). All samples except sample 314-GW02MSD were associated with this continuing calibration standard.

The Percent Differences (%D's) for the standards run on 4/11/02 at 11:26 on instrument HP60 exceeded the 25% QC limit for the following compounds:

2,2'-oxybis(1-chloropropane)	76.0%
hexachlorocyclopentadiene	27.5%
2-nitroaniline	62.5%
4-nitrophenol	56.9%
4-chlorophenyl-phenylether	37.8%
fluorene	25.9%
3,3'-dichlorobenzidine	39.4%
benzo(k)fluoranthene	39.8%

The only associated SDG sample was matrix spike duplicate sample 314-GW02MSD, so no action was taken.

IV.) Blanks:

Method Blanks:

Method blank criteria were met. No action was required.

Tentatively Identified Compounds (TIC):

No TICs were detected in the method blanks associated with this SDG. No action was required.

V.) Surrogate Recoveries:

Surrogate recovery criteria were met. No action was required.

VI.) Laboratory Control Samples (LCS):

LCS recovery criteria were met. No action was required.

VII.) Matrix Spike / Matrix Spike Duplicate (MS / MSD):

MS/MSD criteria were met. No action was required.

VIII.) Field Duplicates:

No field duplicate samples were identified for this fraction of the SDG. No action was required.

IX.) Internal Standards Performance (ISTD):

Internal standard criteria were met. No action was required.

X.) TCL Compound Identification:

All TCL Compound Identification criteria were met. No action was required.

XI.) Compound Quantitation and Reported Contract Required Quantitation Limits (CRQL):

All CRQL criteria were met. No action was required.

XII.) Tentatively Identified Compounds (TIC):

All TIC criteria were met. No action was required.

XIII.) System Performance:

All System Performance criteria were met. No action was required.

RCRA METALS

SUMMARY

I.) General:

The analyses for RCRA Metals were performed using SW-846 Method 6010B.

II.) Overall Assessment of Data:

All laboratory data were acceptable with qualifications.

MAJOR ISSUES

There were no major problems for this fraction of the SDG.

MINOR ISSUES

I.) Holding Times:

All Holding Time criteria were met. No action was required.

II.) Calibration:

All Initial and Continuing Calibration criteria were met. No action was required.

III.) CRDL Standards for ICP:

All CRDL criteria were met. No action was required.

IV.) Blanks:

The following blank results represent the highest detections associated with the samples and were used for data qualification:

Blank ID	Analyte	Max. Conc.	Action Level
CCB3	barium	0.8 ug/L	4.0 ug/L
CCB3	cadmium	0.5 ug/L	2.5 ug/L

CCB = Continuing Calibration Blank

All results for cadmium in the SDG samples less than the action level were flagged as undetected (U). All results for barium in the SDG samples were greater than the action level, so no action was required for barium.

A negative result of –1.9 ug/L was reported for lead in the initial calibration blank (ICB). All positive and non-detect lead results less than 5X the blank amounts in the associated SDG samples were flagged as estimated (J) and (UJ).

V.) ICP Interference Check Sample Results:

All Interference Percent Recovery criteria were met. No action was required.

The following analytes were detected in the ICS Solution A with results of absolute value greater than the IDL:

barium	2 ug/L
cadmium	7 ug/L
lead	-5 ug/L
silver	-1 ug/L

These analytes should not be present. Because aluminum, calcium, iron, and magnesium were not detected in any sample at a concentration comparable to or greater than the respective concentration in ICS Solution A, data qualification was not required.

VI.) ICP Serial Dilution Analysis:

Serial Dilution criteria were met. No action was required.

VII.) Laboratory Control Samples (LCS):

All LCS criteria were met. No action was required.

VIII.) Duplicate Sample Analysis:

Duplicate Sample criteria were met. No action was required.

IX.) Matrix Spike (MS):

Matrix Spike criteria were met. No action was required.

X.) Field Duplicates:

One set of field duplicate samples (46-GW05/46-GW05D) was identified for this fraction of the SDG. The only calculable Relative Percent Difference (RPD) was:

Compound	46-GW05	46-GW05D	RPD
barium	87.5 ug/L	93.4 ug/L	6.5%

The RPD was within the 30% QC limit for water samples. No action was required.

XI.) Sample Result, Calculation/Transcription Verification:

All criteria were met. No action was taken.

XII.) Quarterly Verification of Instrumental Parameters:

All criteria were met. No action was taken.

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DATA VALIDATION SUMMARY
REPORT

COMPANY:	CH2M HILL
SITE NAME:	Baker, CTO-143
CONTRACTED LAB:	CompuChem, Inc.
PROJECT NUMBER:	155022
QA/QC LEVEL:	EPA Level III
EPA SOW/METHOD:	EPA 1990 SOW
VALIDATION GUIDELINES:	*USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review,* 1994
SAMPLE MATRIX:	Water
TYPES OF ANALYSES:	Total Metals
SDG NUMBER:	QU2488

OVERVIEW

SAMPLES:

Client Sample #	Lab Sample #	Matrix	Total Metals
BASE-GW08ITW	QU2488-1	Water	X
BASE-GW08ITWD	QU2488-2	Water	X
BASE-GW10STW	QU2488-3	Water	X
BASE-GW10ITW	QU2488-4	Water	X
BASE-GW04STW	QU2488-5	Water	X
BASE-GW04ITW	QU2488-6	Water	X
BASE-GW12STW	QU2488-7	Water	X
BASE-GW12STWD	QU2488-8	Water	X
BASE-GW12ITW	QU2488-9	Water	X
BASE-GW13STW	QU2488-10	Water	X
BASE-GW13ITW	QU2488-11	Water	X
BASE-GW14STW	QU2488-12	Water	X
BASE-GW14ITW	QU2488-13	Water	X
BASE-GW15STW	QU2488-14	Water	X
BASE-GW15ITW	QU2488-15	Water	X
BASE-GW21STW	QU2488-16	Water	X
BASE-GW21ITW	QU2488-17	Water	X
BASE-GW22STW	QU2488-18	Water	X
BASE-GW22ITW	QU2488-19	Water	X
BASE-GW23STW	QU2488-20	Water	X

Client Sample #	Lab Sample #	Matrix	Total Metals
BASE-GW23TWMD	QU2488-20MD	Water	X
BASE-GW23TWMS	QU2488-20MS	Water	X
BASE-GW23TWMSD	QU2488-20MSD	Water	X

Suffix Codes: D = FIELD DUPLICATE, MD = MATRIX DUPLICATE, MS = MATRIX SPIKE, MSD = MATRIX SPIKE DUPLICATE

DATA REVIEWERS: Amy L. Hogan, Kevin C. Harmon, Jean M. Delashmit

RELEASE SIGNATURE:

Data Qualifier Definitions

J	-	The associated numerical value is an estimated quantity.
R	-	The data are unusable (the compound/analyte may or may not be present). Resampling and reanalysis are necessary for verification.
U	-	The compound/analyte was analyzed for, but not detected. The associated numerical value is the sample quantitation limit.
UJ	-	The compound/analyte was analyzed for, but not detected. The sample quantitation limit is an estimated quantity.

DATA QUALIFICATION SUMMARY

CompuChem, Inc. - QU2488 - Inorganics

SAMPLES: BASE-GW08ITW, BASE-GW08ITWD, BASE-GW10STW, BASE-GW10ITW, BASE-GW04STW, BASE-GW04ITW, BASE-GW12STW, BASE-GW12STWD, BASE-GW12ITW, BASE-GW13STW, BASE-GW13ITW, BASE-GW14STW, BASE-GW14ITW, BASE-GW15STW, BASE-GW15ITW, BASE-GW21STW, BASE-GW21ITW, BASE-GW22STW, BASE-GW22ITW, BASE-GW23STW

TOTAL METALS

SUMMARY

I.) General:

The analyses for Total Metals were performed using SW-846 Method 6010B.

II.) Overall Assessment of Data:

All laboratory data were acceptable with qualifications.

MAJOR ISSUES

There were no major problems for this fraction of the SDG.

MINOR ISSUES

I.) Holding Times:

All Holding Time criteria were met. No action was required.

II.) Calibration:

All Initial and Continuing Calibration criteria were met. No action was required.

III.) CRDL Standards for ICP:

All CRDL criteria were met. No action was required.

IV.) Blanks:

The following blank results represent the highest detections associated with the samples and were used for data qualification:

Blank ID	Analyte	Max. Conc.	Action Level
CCB1	aluminum	51.5 ug/L	260 ug/L
CCB6	antimony	2.5 ug/L	12.5 ug/L
CCB6	barium	0.7 ug/L	3.5 ug/L
CCB6	beryllium	0.3 ug/L	1.5 ug/L
CCB1	calcium	55.4 ug/L	280 ug/L
ICB	chromium	0.5 ug/L	2.5 ug/L
CCB1	iron	19.5 ug/L	97.5 ug/L
CCB1	magnesium	116 ug/L	580 ug/L
CCB3	potassium	182 ug/L	910 ug/L
CCB1	vanadium	0.6 ug/L	3.0 ug/L
ICB	zinc	1.6 ug/L	8.0 ug/L

CCB = Continuing Calibration Blank, ICB = Initial Calibration Blank

All positive results for these analytes in the SDG samples less than the action levels were flagged as undetected (U).

V.) ICP Interference Check Sample Results:

All Interference Percent Recovery criteria were met. No action was required.

The following analytes were detected in the ICS Solution A with results greater than the IDL:

arsenic	3 ug/L
barium	2 ug/L
cadmium	7 ug/L
chromium	21 ug/L
copper	2 ug/L
lead	5 ug/L
nickel	2 ug/L
potassium	197 ug/L
sodium	138 ug/L
thallium	10 ug/L
zinc	15 ug/L

These analytes should not be present. Since neither aluminum, calcium, iron nor magnesium was detected in any sample at a concentration comparable to or greater than the respective concentration in ICS Solution A, data qualification was not required.

The following analytes had negative results in the ICS Solution A with absolute values above the IDL:

antimony	-2 ug/L
cobalt	-4 ug/L
manganese	-3 ug/L
selenium	-1 ug/L
silver	-1 ug/L
vanadium	-1 ug/L

Since neither aluminum, calcium, iron nor magnesium was detected in any sample at a concentration comparable to or greater than the respective concentration in ICS Solution A, data qualification was not required.

VI.) ICP Serial Dilution Analysis:

The Percent Difference (%D) of aluminum was 11.6% for the Serial Dilution Analysis, which exceeded the 10% QC limit. All positive results for aluminum in the SDG samples were flagged as estimated (J).

VII.) Laboratory Control Samples (LCS):

All LCS criteria were met. No action was required.

VIII.) Duplicate Sample Analysis:

All Duplicate Sample Analysis criteria were met. No action was required.

IX.) Matrix Spike / Matrix Spike Duplicate (MS / MSD):

The Percent Recoveries (%R's) of selenium were 42.7% for the MS and 47.5% for the MSD, which were below the 75-125% QC limits. All positive and non-detect results for selenium in the SDG samples were flagged as estimated (J) and (UJ).

X.) Field Duplicates:

Two sets of Field Duplicate samples (BASE-GW08ITW / BASE-GW08ITWD and BASE-GW12STW / BASE-GW12STWD) were identified for this SDG. The calculable Relative Percent Differences (RPDs) were:

Analyte	BASE-GW08ITW	BASE-GW08ITWD	RPD
calcium	16300 ug/L	16900 ug/L	3.6%
iron	193 ug/L	140 ug/L	32%
magnesium	1430 ug/L	1480 ug/L	3.4%
manganese	11.5 ug/L	11.3 ug/L	1.8%
sodium	6260 ug/L	6510 ug/L	3.9%

Analyte	BASE-GW12STW	BASE-GW12STWD	RPD
barium	21.7 ug/L	21.2 ug/L	2.3%
calcium	5240 ug/L	5110 ug/L	2.5%
cobalt	5.5 ug/L	5.3 ug/L	3.7%
iron	429 ug/L	422 ug/L	1.6%
magnesium	921 ug/L	901 ug/L	2.2%
manganese	209 ug/L	205 ug/L	1.9%
nickel	6.9 ug/L	6.8 ug/L	1.5%
potassium	1340 ug/L	1310 ug/L	2.3%
sodium	6500 ug/L	6330 ug/L	2.7%

The RPD for iron in field duplicate samples BASE-GW08ITW / BASE-GW08ITWD exceeded the 30% QC limit for water samples, so the results for iron in the two samples were flagged as estimated (J).

XI.) Sample Result, Calculation/Transcription Verification:

All criteria were met. No action was taken.

XII.) Quarterly Verification of Instrumental Parameters:

All criteria were met. No action was taken.

VALIDATA

Chemical Services, Inc.

4070 Balleycastle Lane, Duluth, GA 30097

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(770) 232-5082 (Fax)
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DATA VALIDATION SUMMARY
REPORT

COMPANY:	CH2M HILL
SITE NAME:	Camp LeJuene, CTO-143
CONTRACTED LAB:	CompuChem, Inc.
PROJECT NUMBER:	26007-143-0000-05201
QA/QC LEVEL:	EPA Level III
EPA SOW/METHOD:	EPA 1990 SOW
VALIDATION GUIDELINES:	*USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review*, 1994
SAMPLE MATRIX:	Water
TYPES OF ANALYSES:	TAL Metals
SDG NUMBER:	QT2488

OVERVIEW

SAMPLES:

Client Sample #	Lab Sample #	Matrix	TAL Metals
Base-GW-01ITW	QT2488-13	Water	X
Base-GW-01STW	QT2488-12	Water	X
Base-GW-02ITW	QT2488-15	Water	X
Base-GW-02STW	QT2488-14	Water	X
Base-GW-03ITW	QT2488-9	Water	X
Base-GW-03ITWD	QT2488-10	Water	X
Base-GW-03STW	QT2488-11	Water	X
Base-GW-05ITW	QT2488-2	Water	X
Base-GW-05STW	QT2488-1	Water	X
Base-GW-06ITW	QT2488-4	Water	X
Base-GW-06STW	QT2488-3	Water	X
Base-GW-07ITW	QT2488-6	Water	X
Base-GW-07STW	QT2488-5	Water	X
Base-GW-08STW	QT2488-20	Water	X
Base-GW-09ITW	QT2488-8	Water	X
Base-GW-09STW	QT2488-7	Water	X
Base-GW-011ITW	QT2488-17	Water	X
Base-GW16ITW	QT2488-19	Water	X
Base-GW16STW	QT2488-18	Water	X
Base-GW-011STW	QT2488-16	Water	X

Client Sample #	Lab Sample #	Matrix	TAL Metals
Base-GW-03ITWD	WG16754-3	Water	⊗
Base-GW-03ITWS	WG16754-1	Water	⊗
Base-GW-03ITWSD	WG16754-2	Water	⊗

SUFFIX CODES: D = FIELD DUPLICATE, S = MATRIX SPIKE,
SD = MATRIX SPIKE DUPLICATE

DATA REVIEWERS: Mary Ann Brookshire, Kevin C. Harmon, Jean M. Delashmit

RELEASE SIGNATURE:

Data Qualifier Definitions

J	-	The associated numerical value is an estimated quantity.
R	-	The data are unusable (the compound/analyte may or may not be present). Resampling and reanalysis are necessary for verification.
U	-	The compound/analyte was analyzed for, but not detected. The associated numerical value is the sample quantitation limit.
UJ	-	The compound/analyte was analyzed for, but not detected. The sample quantitation limit is an estimated quantity.

DATA QUALIFICATION SUMMARY

TAL METALS

SUMMARY

I.) General:

The analyses for TAL Metals were performed using SW-846 Method 6010B.

II.) Overall Assessment of Data:

All laboratory data were acceptable with qualifications.

MAJOR ISSUES

There were no major problems observed in this fraction of the SDG.

MINOR ISSUES

I.) Holding Times:

All Holding Time criteria were met. No action was required.

II.) Calibration:

All Initial and Continuing Calibration criteria were met. No action was required.

III.) CRDL Standards:

The CRDL criteria were met. No data qualification was required.

IV.) Blanks:

The following blank results represent the highest detections associated with the samples and were used for data qualification:

Blank ID	Analyte	Max. Conc.	Action Level
CCB8	barium	0.7 ug/L	3.5 ug/L
CCB3	beryllium	0.3 ug/L	1.5 ug/L
CCB3	calcium	71.6 ug/L	358 ug/L
CCB4	cobalt	1.0 ug/L	5.0 ug/L
CCB3	iron	27 ug/L	135 ug/L

Blank ID	Analyte	Max. Conc.	Action Level
CCB3	magnesium	134 ug/L	670 ug/L
CCB3	manganese	0.4 ug/L	2.0 ug/L
PB	zinc	3.0 ug/L	15 ug/L

CCB = Continuing Calibration Blank, ICB = Initial Calibration Blank, PB = Prep Blank

Results for beryllium, cobalt, iron, and zinc, which were less than the action level, were flagged as undetected (U). The barium, calcium, magnesium, manganese, results in the SDG samples were greater than the action level, so no action was required for these analytes.

V.) ICP Interference Check Sample Results:

All Interference Percent Recovery criteria were met. No action was required.

The following analytes were detected in the ICS Solution A with results greater than the IDL:

arsenic	3.0 ug/L
barium	2 ug/L
cadmium	7 ug/L
nickel	2.0 ug/L
potassium	243 ug/L
zinc	15.0 ug/L

These analytes should not be present. Because aluminum, calcium, iron, and magnesium were not detected in the samples at concentrations comparable to or greater than the respective concentration in ICS Solution A, data qualification was not required.

The following analytes had negative results in the ICS Solution A with the absolute value greater than the IDL:

cobalt	-4.0 ug/L
lead	-3.0 ug/L
manganese	-3.0 ug/L
silver	-1 ug/L
vanadium	-1.0 ug/L

Because aluminum, calcium, iron, and magnesium were not detected in the samples at concentrations comparable to or greater than the respective concentrations in ICS Solution A, data qualification was not required.

VI.) ICP Serial Dilution Analysis:

Serial Dilution criteria were met. No action was required.

VII.) Laboratory Control Samples (LCS):

All LCS criteria were met. No action was required.

VIII.) Duplicate Sample Analysis:

Duplicate Sample criteria were met. No action was required.

IX.) Matrix Spike (MS):

Matrix Spike criteria were met. No action was required.

X.) Field Duplicates:

No field duplicate samples were identified in this SDG.

XI.) Sample Result, Calculation/Transcription Verification:

All criteria were met. No action was taken.

XII.) Quarterly Verification of Instrumental Parameters:

All criteria were met. No action was taken.

VALIDATA

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(770) 232-5082 (Fax)
www.datavalidator.com

DATA VALIDATION SUMMARY
REPORT

COMPANY:	CH2M HILL
SITE NAME:	Baker, CTO-143
CONTRACTED LAB:	CompuChem, Inc.
PROJECT NUMBER:	26007-143-0000-05201
QA/QC LEVEL:	EPA Level III
EPA SOW/METHOD:	EPA 1990 SOW
VALIDATION GUIDELINES:	*USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review*, 1994, *USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review*, 1994
SAMPLE MATRIX:	Water
TYPES OF ANALYSES:	Semivolatile Organics (SVOA), Pesticides, and RCRA Metals
SDG NUMBER:	QX2488

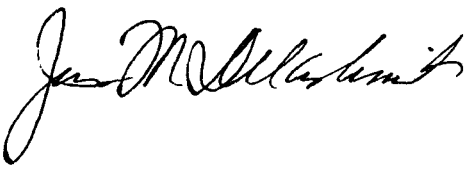
OVERVIEW

SAMPLES:

Client Sample #	Lab Sample #	Matrix	SVOA	Pesticides	RCRA Metals
261-GW01	QX2488-13	Water			X
261-GW02	QX2488-4	Water			X
261-GW03	QX2488-5	Water			X
291-GW01	QX2488-10	Water			X
291-GW02	QX2488-11	Water			X
291-GW03	QX2488-12	Water			X
306-GW02	QX2488-9	Water			X
317-GW01	QX2488-7	Water			X
317-GW02	QX2488-6	Water			X
317-GW03	QX2488-8	Water			X
43-GW01	QX2488-1	Water	X	X	X
43-GW02	QX2488-14	Water	X	X	X
43-GW03	QX2488-3	Water	X	X	X
43-GW03D	QX2488-2	Water	X	X	X
43-GW03MS	WG16759-5	Water	X	X	X
43-GW03MSD	WG16759-6	Water	X	X	X

SUFFIX CODES D = FIELD DUPLICATE, MS = MATRIX SPIKE,
MSD = MATRIX SPIKE DUPLICATE

DATA REVIEWERS: Mary Ann Brookshire, Kevin C. Harmon, Jean M. Delashmit

RELEASE SIGNATURE: 

Data Qualifier Definitions

J	-	The associated numerical value is an estimated quantity.
R	-	The data are unusable (the compound/analyte may or may not be present). Resampling and reanalysis are necessary for verification.
U	-	The compound/analyte was analyzed for, but not detected. The associated numerical value is the sample quantitation limit.
UJ	-	The compound/analyte was analyzed for, but not detected. The sample quantitation limit is an estimated quantity.

DATA QUALIFICATION SUMMARY

CompuChem, Inc. - QX2488 - Organics

SAMPLES: 261-GW01, 261-GW02, 261-GW03, 291-GW01, 291-GW02, 291-GW03, 306-GW02, 317-GW01, 317-GW02, 317-GW03, 43-GW01, 43-GW02, 43-GW03, 43-GW03D

SEMIVOLATILE ORGANICS

SUMMARY

I.) General:

The analyses for Semivolatile Organics were performed by gas chromatography / mass spectroscopy (GC / MS) using SW-846 Method 8270.

II.) Overall Assessment of Data:

All laboratory data were acceptable with qualifications.

MAJOR ISSUES

There were no major problems for this fraction of the SDG.

MINOR ISSUES

I.) Holding Times:

All Holding Time criteria were met. No action was required.

II.) GC / MS Tuning:

All GC / MS Tuning criteria were met. No action was required.

III.) Calibration:

Initial Calibration:

The Relative Standard Deviation (RSD) for the initial calibration dated 3/31/02 on instrument HP64 exceeded the 30% QC limit for the following compound:

2,4-dinitrophenol	30.8%

The Relative Standard Deviation (RSD) for the initial calibration dated 3/27/02 on instrument HP66 exceeded the 30% QC limit for the following compound:

2,4-dinitrophenol	32.3%

There were no positive results for this compound in the associated samples. No action was required.

Continuing Calibration:

The Percent Differences (%D's) for the standards run on 4/12/02 at 12:33 on instrument HP64 exceeded the 25% QC limit for the following compound:

2,4-dinitrophenol	40.3%

The result for this compound in associated SDG sample 43-GW02, which was a non-detect, was flagged as estimated (UJ).

The Percent Differences (%D's) for the standards run on 4/10/02 at 17:46 on instrument HP66 exceeded the 25% QC limit for the following compound:

hexachlorocyclopentadiene	26.5%

All results for this compound in the associated SDG samples, which consisted entirely of non-detects, were flagged as estimated (UJ). Samples 43-GW01, 43-GW03, and 43-GW03D were associated with this continuing calibration standard.

IV.) Blanks:

Method Blanks:

Method Blank criteria were met. No action was required.

Tentatively Identified Compounds (TIC):

There were no TIC detections in the method blank associated with this SDG. No action was required.

V.) Surrogate Recoveries:

Surrogate recovery criteria were met. No action was required.

VI.) Laboratory Control Samples (LCS):

LCS recovery criteria were met. No action was required.

VII.) Matrix Spike / Matrix Spike Duplicate (MS / MSD):

MS / MSD criteria were met. No action was required.

VIII.) Field Duplicates:

One set of field duplicate samples (43-GW03/43-GW03D) was identified for this fraction of the SDG. There were no detections above the CRQL in the samples. No action was required.

IX.) Internal Standards Performance (ISTD):

Internal standard criteria were met. No action was required.

X.) TCL Compound Identification:

All TCL Compound Identification criteria were met. No action was required.

XI.) Compound Quantitation and Reported Contract Required Quantitation Limits (CRQL):

CRQL criteria were met. No action was required.

XII.) Tentatively Identified Compounds (TIC):

All TIC criteria were met. No action was required.

XIII.) System Performance:

All System Performance criteria were met. No action was required.

PESTICIDES

SUMMARY

I.) General:

The analyses for Pesticides were performed by gas chromatography (GC) using SW-846 Method 8081A.

II.) Overall Assessment of Data:

All laboratory data were acceptable with one qualification.

MAJOR ISSUES

There were no major problems for this SDG.

MINOR ISSUES

I.) Holding Times:

All Holding Time criteria were met. No action was required.

II.) Instrument Performance:

All Instrument Performance criteria were met. No action was required.

III.) Calibration:

Initial Calibration:

All Initial Calibration criteria were met. No action was required.

Continuing Calibration:

The Percent Difference (%D) for the standard analyzed on 4/11/02 at 18:06 on instrument Varian 70/72 exceeded the 15% QC limit for the following compound:

beta-BHC	21.0%

The associated data consisted entirely of non-detects, so no data qualification was required.

IV.) Method Blanks:

All Method Blank criteria were met. No action was required.

V.) Surrogate Recoveries:

Surrogate Recovery criteria were met. No action was required.

VI.) Laboratory Control Samples (LCS):

All LCS criteria were met. No action was required.

VII.) Matrix Spike / Matrix Spike Duplicate (MS / MSD):

MS/MSD criteria were met. No action was required.

VIII.) Field Duplicate

One set of field duplicate samples (43-GW03/43-GW03D) was identified for this fraction of the SDG. There were no detections above the CRQL in the samples. No action was required.

IX.) TCL Compound Identification:

The %D between the primary and confirmation pesticide analyses was greater than QC limit for the following sample:

Sample	Analyte	%D
43-GW02	alpha-chlordane	90%

This data point was qualified as estimated (J) due to the high %D between columns.

X.) Compound Quantitation and Reported Contract Required Quantitation Limits (CRQL):

CRQL criteria were met. No action was required.

XI.) System Performance:

All System Performance criteria were met. No action was required.

RCRA METALS

SUMMARY

I.) General:

The analyses for RCRA Metals were performed using SW-846 Method 6010B.

II.) Overall Assessment of Data:

All laboratory data were acceptable with qualifications.

MAJOR ISSUES

There were no major problems for this fraction of the SDG.

MINOR ISSUES

I.) Holding Times:

All Holding Time criteria were met. No action was required.

II.) Calibration:

All Initial and Continuing Calibration criteria were met. No action was required.

III.) CRDL Standards for ICP:

All CRDL criteria were met. No action was required.

IV.) Blanks:

The following blank result represents the highest detection associated with the samples:

Blank ID	Analyte	Max. Conc.	Action Level
CCB3	barium	0.6 ug/L	3.0 ug/L

CCB = Continuing Calibration Blank

All results for barium in the SDG samples were greater than the action level, so no action was required for this analyte.

A negative result of –2.8 ug/L was reported for arsenic in the continuing calibration blank (CCB3) and –0.58 ug/L was reported for chromium in the Prep. blank. All positive results for arsenic and chromium less than 5X the absolute value of the blank amounts and all associated non-detects in the SDG samples were flagged as estimated (J) and (UJ).

V.) ICP Interference Check Sample Results:

All Interference Percent Recovery criteria were met. No action was required.

The following analytes were detected in the ICS Solution A with results of magnitude greater than the IDL:

barium	2 ug/L
cadmium	7 ug/L
lead	5 ug/L
silver	-1 ug/L

These analytes should not be present. Aluminum was detected at concentrations comparable to the ICS Solution A in sample 261-GW02. Calcium was detected at concentrations comparable to ICSA in samples 291-GW02 and 291-GW03. Aluminum and iron were detected at concentrations comparable to ICSA in sample 261-GW01. Positive results for barium, cadmium, and lead were qualified as estimated (J) in samples 261-GW01, 261-GW02, 291-GW02, and 291-GW03. Non-detect results for silver were qualified as estimated (UJ) in these samples.

VI.) ICP Serial Dilution Analysis:

Serial Dilution criteria were met. No action was required.

VII.) Laboratory Control Samples (LCS):

All LCS criteria were met. No action was required.

VIII.) Duplicate Sample Analysis:

Duplicate Sample criteria were met. No action was required.

IX.) Matrix Spike (MS):

Matrix Spike criteria were met. No action was required.

X.) Field Duplicates:

One set of field duplicate samples (43-GW03/43-GW03D) was identified for this fraction of the SDG. The calculable Relative Percent Differences (RPDs) were:

Compound	43-GW03	43-GW03D	RPD
barium	43.8	43.6	0.5

The RPD was within the 30% QC limit for water samples. No action was required.

XI.) Sample Result, Calculation/Transcription Verification:

All criteria were met. No action was taken.

XII.) Quarterly Verification of Instrumental Parameters:

All criteria were met. No action was taken.

VALIDATA

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(770) 232-5082 (Fax)
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DATA VALIDATION SUMMARY
REPORT

COMPANY:	CH2M HILL
SITE NAME:	Baker, CTO-143
CONTRACTED LAB:	CompuChem, Inc.
PROJECT NUMBER:	26007-143-0000-05201
QA/QC LEVEL:	EPA Level III
EPA SOW/METHOD:	EPA 1990 SOW
VALIDATION GUIDELINES:	*USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review*, 1994, *USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review*, 1994
SAMPLE MATRIX:	Water
TYPES OF ANALYSES:	Semivolatile Organics (SVOA) and RCRA Metals
SDG NUMBER:	QV2488

OVERVIEW

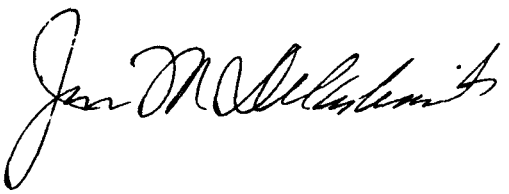
SAMPLES:

Client Sample #	Lab Sample #	Matrix	SVOA	RCRA Metals
261-GW04	QV2488-19	Water		X
261-GW04D	QV2488-20	Water		X
264-GW01	QV2488-4	Water	X	X
264-GW01D	QV2488-5	Water	X	X
264-GW02	QV2488-6	Water	X	X
264-GW03	QV2488-7	Water	X	X
265-GW01	QV2488-9	Water	X	
265-GW02	QV2488-10	Water	X	
265-GW03	QV2488-11	Water	X	
265-GW03D	QV2488-12	Water	X	
295-78GW09-1	QV2488-8	Water	X	X
306-GW01	QV2488-16	Water		X
306-GW03	QV2488-17	Water		X
306-GW03D	QV2488-18	Water		X
308-GW01	QV2488-13	Water	X	
308-GW02	QV2488-14	Water	X	
308-GW03	QV2488-15	Water	X	
315-GW02	QV2488-1	Water	X	X

Client Sample #	Lab Sample #	Matrix	SVOA	RCRA Metals
315-GW03	QV2488-2	Water	X	X
315-GW03D	QV2488-3	Water	X	X
315-GW02MS	WG16752-5	Water	X	X > WG 16770 -1, -2, -3
315-GW02MSD	WG16752-6	Water	X	X

SUFFIX CODES D = FIELD DUPLICATE, MS = MATRIX SPIKE, MSD = MATRIX SPIKE DUPLICATE

DATA REVIEWERS: Mary Ann Brookshire, Kevin C. Harmon, Jean M. Delashmit

RELEASE SIGNATURE: 

Data Qualifier Definitions

J	-	The associated numerical value is an estimated quantity.
R	-	The data are unusable (the compound/analyte may or may not be present). Resampling and reanalysis are necessary for verification.
U	-	The compound/analyte was analyzed for, but not detected. The associated numerical value is the sample quantitation limit.
UJ	-	The compound/analyte was analyzed for, but not detected. The sample quantitation limit is an estimated quantity.

DATA QUALIFICATION SUMMARY

CompuChem, Inc. - QV2488 - Organics and Inorganics

SAMPLES: 264-GW01, 264-GW01D, 264-GW02, 264-GW03, 265-GW01, 265-GW02, 265-GW03, 265-GW03D, 295-78GW09-1, 308-GW01, 308-GW02, 308-GW03, 315-GW02, 315-GW03, and 315-GW03D

SEMIVOLATILE ORGANICS

SUMMARY

I.) General:

The analyses for Semivolatile Organics were performed by gas chromatography / mass spectroscopy (GC / MS) using SW-846 Method 8270.

II.) Overall Assessment of Data:

All laboratory data were acceptable with qualifications.

MAJOR ISSUES

There were no major problems for this fraction of the SDG.

MINOR ISSUES

I.) Holding Times:

All Holding Time criteria were met. No action was required.

II.) GC / MS Tuning:

All GC / MS Tuning criteria were met. No action was required.

III.) Calibration:

Initial Calibration:

The Percent Difference (RSD) for the initial calibration dated 3/31/02 on instrument HP64 exceeded the 30% QC limit for the following compound:

2,4-dinitrophenol	30.9%

There were no positive results for this compound in the associated samples. No action was required.

Continuing Calibration:

The Percent Differences (%D's) for the standards run on 4/10/02 at 14:59 on instrument HP64 exceeded the 25% QC limit for the following compound:

2,4-dinitrophenol	33.4%

All results for this compound in associated SDG samples, which consisted entirely of non-detects, were flagged as estimated (UJ). All samples except sample 264-GW02 were associated with this continuing calibration standard.

The Percent Differences (%D's) for the standards run on 4/12/02 at 12:33 on instrument HP64 exceeded the 25% QC limit for the following compound:

2,4-dinitrophenol	40.0%

The result for this compound in associated SDG sample 264-GW02, which was a non-detect, was flagged as estimated (UJ).

IV.) Blanks:

Method Blanks:

Method blank criteria were met. No action was required.

Tentatively Identified Compounds (TIC):

No TICs were detected in the method blanks associated with this SDG. No action was required.

V.) Surrogate Recoveries:

Surrogate recovery criteria were met. No action was required.

VI.) Laboratory Control Samples (LCS):

The recovery of pentachlorophenol was 203%, which exceeded QC limits in the LCS sample. The associated sample results consisted entirely of non-detects, so no action was required.

VII.) Matrix Spike / Matrix Spike Duplicate (MS / MSD):

Pentachlorophenol recoveries in the MS/MSD samples were 200%, exceeding the QC criteria. The associated results consisted of non-detects, so no action was required.

VIII.) Field Duplicates:

Three sets of field duplicate samples (264-GW01 / 264-GW01D, 265-GW03 / 265-GW03D, and 315-GW03 / 315-GW03D) were identified for this fraction of the SDG. There were no detections above the CRQL in the samples. No action was required.

IX.) Internal Standards Performance (ISTD):

Internal standard criteria were met. No action was required.

X.) TCL Compound Identification:

All TCL Compound Identification criteria were met. No action was required.

XI.) Compound Quantitation and Reported Contract Required Quantitation Limits (CRQL):

Al CRQL criteria were met. No action was required.

XII.) Tentatively Identified Compounds (TIC):

All TIC criteria were met. No action was required.

XIII.) System Performance:

All System Performance criteria were met. No action was required.

RCRA METALS

SUMMARY

I.) General:

The analyses for RCRA Metals were performed using SW-846 Method 6010B.

II.) Overall Assessment of Data:

All laboratory data were acceptable with qualifications.

MAJOR ISSUES

There were no major problems for this fraction of the SDG.

MINOR ISSUES

I.) Holding Times:

All Holding Time criteria were met. No action was required.

II.) Calibration:

All Initial and Continuing Calibration criteria were met. No action was required.

III.) CRDL Standards for ICP:

All CRDL criteria were met. No action was required.

IV.) Blanks:

The following blank results represent the highest detections associated with the samples and were used for data qualification:

Blank ID	Analyte	Max. Conc.	Action Level
CCB3	barium	0.8 ug/L	4.0 ug/L
CCB3	cadmium	0.5 ug/L	2.5 ug/L
ICB	lead	1.8 ug/L	9.0 ug/L

CCB = Continuing Calibration Blank, ICB = Initial Calibration Blank

All results for cadmium and lead in the SDG samples, which were less than the action level, were flagged as undetected (U). All results for barium in the SDG samples were greater than the action level, so no action was required for this analyte.

V.) ICP Interference Check Sample Results:

All Interference Percent Recovery criteria were met. No action was required.

The following analytes were detected in the ICS Solution A with results greater than the IDL:

barium	2 ug/L
cadmium	7 ug/L
lead	5 ug/L
silver	1 ug/L

These analytes should not be present. Because aluminum, calcium, iron, and magnesium were not detected in any sample at a concentration comparable to or greater than the respective concentration in ICS Solution A, data qualification was not required.

VI.) ICP Serial Dilution Analysis:

All Serial Dilution criteria were met. No action was required.

VII.) Laboratory Control Samples (LCS):

All LCS criteria were met. No action was required.

VIII.) Duplicate Sample Analysis:

All Duplicate Sample criteria were met. No action was required.

IX.) Matrix Spike (MS):

All Matrix Spike criteria were met. No action was required.

X.) Field Duplicates:

Four sets of field duplicate samples (261-GW04/261-GW04D, 264-GW01/264-GW01D, 306-GW03/306-GW03D, 315-GW03/315-GW03D) were identified for this fraction of the SDG. The calculable Relative Percent Differences (RPDs) were:

Compound	264-GW01	264-GW01D	RPD
Barium	32.4	32.5	0.3

Compound	306-GW03	306-GW03D	RPD
Barium	50.4	49.7	1.4

Compound	315-GW03	315-GW03D	RPD
Barium	69.3	67.3	2.9

All RPDs were within the 30% QC limit for water samples. No action was required.

XI.) Sample Result, Calculation/Transcription Verification:

All criteria were met. No action was taken.

XII.) Quarterly Verification of Instrumental Parameters:

All criteria were met. No action was taken.

VALIDATA

Chemical Services, Inc.

4070 Balleycastle Lane, Duluth, GA 30097

(770) 232-0130
(770) 232-5082 (Fax)
www.datavalidator.com

DATA VALIDATION SUMMARY
REPORT

COMPANY:	CH2M HILL
SITE NAME:	Baker, CTO-143
CONTRACTED LAB:	CompuChem, Inc.
PROJECT NUMBER:	155022
QA/QC LEVEL:	EPA Level III
EPA SOW/METHOD:	EPA 1990 SOW
VALIDATION GUIDELINES:	*USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review*, 1994, *USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review*, 1994
SAMPLE MATRIX:	Water
TYPES OF ANALYSES:	Volatile Organics (VOA), Semivolatile Organics (SVOA), Pesticides, RECRA Metals
SDG NUMBER:	QW2488

OVERVIEW

SAMPLES:

Client Sample #	Lab Sample #	Matrix	VOA	SVOA
361-GW01	QW2488-1	Water	X	X
361-MW02	QW2488-2	Water	X	X
361-MW03	QW2488-3	Water	X	X
361-MW04	QW2488-4	Water	X	X
361-MW05	QW2488-5	Water	X	X
361-MW06	QW2488-6	Water	X	X
TB12	QW2488-7	Water	X	
TB13	QW2488-8	Water	X	
TB14	QW2488-9	Water	X	
360-GW01	QW2488-10	Water	X	X
360-GW02	QW2488-11	Water	X	X
360-GW02D	QW2488-12	Water	X	X
360-GW03	QW2488-13	Water	X	X
360-GW04	QW2488-14	Water	X	X
360-GW04DL	QW2488-14DL	Water	X	
359-GW01	QW2488-15	Water	X	X
359-GW02	QW2488-16	Water	X	X

Client Sample #	Lab Sample #	Matrix	VOA	SVOA
359-GW03	QW2488-17	Water	X	X
362-SW01	QW2488-18	Water	X	X
362-SW01D	QW2488-19	Water	X	X
362-SW02	QW2488-20	Water	X	X
362-SW03	QW2488-21	Water	X	X
ER09-02B	QW2488-22	Water	X	X
361-MW04MS	QW2488-4MS	Water	X	X
361-MW04MSD	QW2488-4MSD	Water	X	X

Client Sample #	Lab Sample #	Matrix	Pesticides	RECRA Metals
361-GW01	QW2488-1	Water	X	X
361-MW02	QW2488-2	Water	X	X
361-MW03	QW2488-3	Water	X	X
361-MW04	QW2488-4	Water	X	X
361-MW05	QW2488-5	Water	X	X
361-MW06	QW2488-6	Water	X	X
360-GW01	QW2488-10	Water	X	X
360-GW02	QW2488-11	Water	X	X
360-GW02D	QW2488-12	Water	X	X
360-GW03	QW2488-13	Water	X	X
360-GW04	QW2488-14	Water	X	X
359-GW01	QW2488-15	Water	X	X
359-GW02	QW2488-16	Water	X	X
359-GW03	QW2488-17	Water	X	X
362-SW01	QW2488-18	Water	X	X
362-SW01D	QW2488-19	Water	X	X
362-SW02	QW2488-20	Water	X	X
362-SW03	QW2488-21	Water	X	X
ER09-02B	QW2488-22	Water	X	X
361-MW04MS	QW2488-4MS	Water	X	X
361-MW04MSD	QW2488-4MSD	Water	X	X

Sample ID Prefix Codes: ER = EQUIPMENT RINSE BLANK, TB = TRIP BLANK

Suffix Codes: D = FIELD DUPLICATE, DL = DILUTION, MD = MATRIX DUPLICATE
MS = MATRIX DUPLICATE, MSD = MATRIX SPIKE DUPLICATE,

DATA REVIEWERS: Amy L. Hogan, Kevin C. Harmon, Jean M. Delashmit

RELEASE SIGNATURE: Jean M Delashmit

Data Qualifier Definitions

J	-	The associated numerical value is an estimated quantity.
R	-	The data are unusable (the compound/analyte may or may not be present). Resampling and reanalysis are necessary for verification.
U	-	The compound/analyte was analyzed for, but not detected. The associated numerical value is the sample quantitation limit.
UJ	-	The compound/analyte was analyzed for, but not detected. The sample quantitation limit is an estimated quantity.

DATA QUALIFICATION SUMMARY

CompuChem, Inc. - QW2488 - Organics & Inorganics

SAMPLES: 361-GW01, 361-MW02, 361-MW03, 361-MW04, 361-MW05, 361-MW06, TB12, TB13, TB14, 360-GW01, 360-GW02, 360-GW02D, 360-GW03, 360-GW04, 359-GW01, 359-GW02, 359-GW03, 362-SW01, 362-SW01D, 362-SW02, 362-SW03, ER09-02B

VOLATILE ORGANICS

SUMMARY

I.) General:

The analyses for Volatile Organics were performed by gas chromatography / mass spectroscopy (GC / MS) using SW-846 Method 8260.

II.) Overall Assessment of Data:

All laboratory data were acceptable with qualifications.

MAJOR ISSUES

There were no major problems for this SDG.

MINOR ISSUES

I.) Holding Times:

All Holding Time criteria were met. No action was required.

II.) GC / MS Tuning:

All GC / MS Tuning criteria were met. No action was required.

III.) Calibration:

Initial Calibration:

All Initial Calibration criteria were met. No action was required.

Continuing Calibration:

The Percent Difference (%D) for the standards run on 4/10/02 at 18:33 on instrument HP59

exceeded the 25% QC limit for bromomethane at 28.8%. All results for this compound in the associated samples, which consisted entirely of non-detects, were flagged as estimated (UJ). The associated samples were 361-GW01, 361-MW02, 361-MW03, 361-MW04, 361-MW05 and 361-MW06.

IV.) Blanks:

Method Blanks:

1,2,4-Trichlorobenzene was detected at 0.9 ug/L in associated method blank VBLKNN. There were no positive results for this compound in the associated samples, so no action was required.

Field Blanks:

There were no detections in associated field blank ER09-02B. No action was required.

Trip Blanks:

Acetone and chloroform were detected at 5 ug/L and 1 ug/L, respectively, in trip blank TB13. These compounds were not detected in the associated SDG samples.

Tentatively Identified Compounds (TIC):

Hexamethyl cyclotrisiloxane and butylated hydrotoluene were detected at 6.9 ug/L and 31 ug/L, respectively, in method blank VBLKNN. All positive results for these compounds in the associated samples less than 10X the blank amount were flagged as undetected (U). The associated samples were 361-GW01, 361-MW02, 361-MW03, 361-MW04, 361-MW05 and 361-MW06.

Hexamethyl cyclotrisiloxane and octamethyl cyclotrisiloxane were detected at 5.5 ug/L and 19.7 ug/l, respectively, in method blank VBLKOP. There were no positive results for these compounds in the associated samples, so no action was required.

Octamethyl cyclotetrasiloxane was detected at 11.3 ug/L in trip blank TB12, at 17.1 ug/L in trip blank TB13, and at 7.0 ug/L in trip blank TB14. There were no positive results for these compounds in the associated samples, so no action was required.

V.) Surrogate Recoveries:

All Surrogate Recovery criteria were met. No action was required.

VI.) Laboratory Control Samples (LCS):

Three LCSs were analyzed for this SDG. All LCS criteria were met. No action was required.

VII.) Matrix Spike / Matrix Spike Duplicate (MS / MSD):

MS / MSD analyses were run on SDG sample 361-MW04. All MS / MSD criteria were met. No action was required.

VIII.) Field Duplicates:

There were two sets of Field Duplicate samples (360-GW02 / 360-GW02D and 362-SW01 / 362-SW01D) identified for this fraction of the SDG. The only calculable Relative Percent Difference (RPD) was cis-1,2-dichloroethene at 4.4% for the first pair. This RPD was within the 30% QC limit for water samples. No action was required.

IX.) Internal Standards Performance (ISTD):

All ISTD criteria were met. No action was required.

X.) TCL Compound Identification:

All TCL Compound Identification criteria were met. No action was required.

XI.) Compound Quantitation and Reported Contract Required Quantitation Limits (CRQL):

The result for tetrachloroethene in the initial analysis of sample 360-GW04 exceeded the linear calibration range. A dilution analysis was performed for this sample with all calibration criteria met. The result for tetrachloroethene in the initial analysis of the sample was rejected (R), and the results for all compounds except tetrachloroethene in the reanalysis were rejected (R) due to redundancy.

XII.) Tentatively Identified Compounds (TIC):

All TIC criteria were met. No action was required.

XIII.) System Performance:

All System Performance criteria were met. No action was required.

SEMIVOLATILE ORGANICS

SUMMARY

I.) General:

The analyses for Semivolatile organics were performed by gas chromatography / mass spectroscopy (GC / MS) using SW-846 Method 8270.

II.) Overall Assessment of Data:

All laboratory data were acceptable with qualification.

MAJOR ISSUES

There were no major problems for this fraction of the SDG.

MINOR ISSUES

I.) Holding Times:

All Holding Time criteria were met. No action was required.

II.) GC / MS Tuning:

All GC / MS Tuning criteria were met. No action was required.

III.) Calibration:

Initial Calibration:

The Percent Relative Standard Deviation (%RSD) for the standards analyzed on 3/27/02 on instrument HP66 was 32.3% for 2,4-dinitrophenol, which exceeded the 30% QC limit. Since there were no positive results for this compound in the associated samples, no action was required.

Continuing Calibration:

The Percent Difference (%D) for the standards run on 4/10/02 at 17:46 on instrument HP66 exceeded the 25% QC limit for hexachlorocyclopentadiene at 26.5%. The results for this compound in the associated samples, which consisted entirely of non-detects, were flagged as estimated (UJ). The associated samples were 361-GW01, 361-MW02, 361-MW03 and 361-MW04.

The Percent Differences (%D's) for the standards run on 4/11/02 at 09:38 on instrument HP66 exceeded the 25% QC limit for the following compounds:

bis(2-chloroethyl)ether	25.2%
bis(2-chloroethoxy)methane	25.5%
naphthalene	25.6%

The results for these compounds in associated samples 361-MW05 and 361-MW06, which consisted entirely of non-detects, were flagged as estimated (UJ).

The Percent Differences (%D's) for the standards run on 4/16/02 at 09:35 on instrument HP66 exceeded the 25% QC limit for the following compounds:

nitrobenzene	31.1%
bis(2-chloroethoxy)methane	26.8%
atrazine	38.6%

The results for these compounds in associated samples 360-GW02D, 362-SW01D, 362-SW02 and 362-SW03, which consisted entirely of non-detects, were flagged as estimated (UJ).

IV.) Blanks:

Method Blanks:

There were no detections in the method blanks associated with this SDG. No action was required.

Field Blanks:

There were no detections in field blank ER09-02B. No action was required.

Tentatively Identified Compounds (TIC):

There were no TIC detections in the method or field blanks associated with this SDG. No action was required.

V.) Surrogate Recoveries:

All Surrogate Recovery criteria were met. No action was required.

VI.) Laboratory Control Samples (LCS):

Three LCSs were analyzed for this SDG. All LCS criteria were met. No action was required.

VII.) Matrix Spike / Matrix Spike Duplicate (MS / MSD):

MS / MSD analyses were run on SDG sample 361-MW04. One Relative Percent Difference (RPD) exceeded the QC limits. Data qualification based on MS / MSD criteria was not required. No action was taken.

VIII.) Field Duplicates:

There were two sets of Field Duplicate samples (360-GW02 / 360-GW02D and 362-SW01 / 362-SW01D) identified for this fraction of the SDG. There were no calculable Relative Percent Differences (RPDs). No action was required.

IX.) Internal Standards Performance (ISTD):

All ISTD criteria were met. No action was required.

X.) TCL Compound Identification:

All TCL Compound Identification criteria were met. No action was required.

XI.) Compound Quantitation and Reported Contract Required Quantitation Limits (CRQL):

All CRQL criteria were met. No action was required.

XII.) Tentatively Identified Compounds (TIC):

All TIC criteria were met. No action was required.

XIII.) System Performance:

All System Performance criteria were met. No action was required.

PESTICIDES

SUMMARY

I.) General:

The analyses for Pesticides were performed by gas chromatography (GC) using SW846 Method 8081.

II.) Overall Assessment of Data:

All laboratory data were acceptable with qualifications.

MAJOR ISSUES

There were no major problems for this fraction of the SDG.

MINOR ISSUES

I.) Holding Times:

All Holding Time criteria were met. No action was required.

II.) Instrument Performance:

All Instrument Performance criteria were met. No action was required.

III.) Calibration:

Initial Calibration:

All Initial Calibration criteria were met. No action was required.

Continuing Calibration:

The Percent Difference (%D) for the standards run on 4/11/02 at 18:38 on the primary column was 21.4% for beta-BHC, which exceeded the 15% QC limit. All results for this compound in the associated samples, which consisted entirely of non-detects, were flagged as estimated (UJ). The associated samples were 361-GW01, 361-MW02, 361-MW03, 361-MW04 and 361-MW05.

The Percent Differences (%D's) for the standards run on 4/15/02 at 01:18 on the secondary column were 20.5% for beta-BHC and 16.2% for dieldrin, which exceeded the 15% QC limit. All positive and non-detect results for these compounds in the associated samples were flagged as estimated (J) and (UJ). The associated samples were 360-GW01, 360-GW02, 360-GW02D, 360-GW03, 359-GW01, 359-GW02, 362-SW01, 362-SW01D, 362-SW02 and 362-SW03.

The Percent Differences (%D's) for the standards run on 4/15/02 at 01:42 on the secondary column exceeded the 15% QC limit for the following compounds:

alpha-BHC	15.5%
delta-BHC	15.6%
4,4'-DDD	17.3%
endrin aldehyde	19.4%

All positive and non-detect results for these compounds in the associated samples were flagged as estimated (J) and (UJ). The associated samples were 360-GW01, 360-GW02, 360-GW02D, 360-GW03, 359-GW02, 359-GW03, 362-SW01, 362-SW01D, 362-SW02 and 362-SW03.

The Percent Differences (%D's) for the standards run on 4/15/02 at 04:54 on the secondary column exceeded the 15% QC limit for the following compounds:

delta-BHC	15.8%
endosulfan sulfate	15.9%
endrin aldehyde	18.8%

The positive and non-detect results for these compounds in associated sample 362-SW03 were flagged as estimated (J) and (UJ).

The Percent Differences (%D's) for the standard run on 4/17/02 at 21:32 on the primary column exceeded the 15% QC limit for the following compounds:

4,4'-DDD	18.3%
4,4'-DDE	18.3%
endrin ketone	15.3%

The positive and non-detect results for these compounds in associated samples 360-GW04 and 361-MW06 were flagged as estimated (J) and (UJ).

IV.) Blanks:

There were no detections in the associated method or field blanks. No action was required.

V.) Surrogate Recoveries:

The Percent Recovery (%R) of tetrachloro-m-xylene was 303% on the secondary column for sample 359-GW01, which exceeded the 30-150% QC limits. All positive results for this sample were flagged as estimated (J).

VI.) Laboratory Control Samples (LCS):

Two LCSs were analyzed for this SDG. All LCS criteria were met. No action was required.

VII.) Matrix Spike / Matrix Spike Duplicate (MS / MSD):

MS / MSD analyses were run on SDG sample 361-MW04. All MS / MSD criteria were met. No action was required.

VIII.) Field Duplicates:

Two sets of Field Duplicate samples (362-SW01 / 362-SW01D and 360-GW02 / 360-GW02D) were identified for this fraction of the SDG. There were no calculable Relative Percent Differences (RPDs). No action was required.

IX.) Florisil Cleanup:

Florisil Cleanup data was not provided for this SDG. No action was taken.

X.) GPC Cleanup:

GPC data was not provided for this SDG. No action was taken.

XI.) Pesticide / PCB Identification Summary (PIS):

The Column Percent Difference (%D) exceeded the 25% QC limit for the following samples:

Sample ID	Compound	%D
359-GW01	beta-BHC	533%
	delta-BHC	414%
	gamma-BHC	601%
	4,4'-DDE	44.3%
	heptachlor epoxide	64.5%
359-GW02	beta-BHC	81.8%
	delta-BHC	51.1%
	gamma-BHC	163%
	4,4'-DDE	63.2%
	4,4'-DDT	32.7%
	heptachlor epoxide	181%
360-GW01	aldrin	312%
	gamma-BHC	96.1%
	4,4'-DDE	140%
	heptachlor	35.4%
	heptachlor epoxide	983%
	gamma chlordane	144%
	alpha chlordane	115%

Sample ID	Compound	%D
360-GW04	beta-BHC	45.4%
	delta-BHC	38.5%
	heptachlor epoxide	275%
361-MW02	heptachlor epoxide	35.2%
361-MW06	4,4'-DDE	52.7%
	heptachlor epoxide	136%
	gamma chlordane	58.3%
	alpha chlordane	34.9%
362-SW01	alpha-BHC	26.3%

The results for these compounds were flagged as estimated (J), unless previously flagged based on other criteria.

XII.) Compound Quantitation and Reported Contract Required Quantitation Limits (CRQL):

All CRQL criteria were met. No action was required.

XIII.) System Performance:

All System Performance criteria were met. No action was required.

RECRA METALS

SUMMARY

I.) General:

The analyses for Total Metals were performed using SW-846 Method 6010B.

II.) Overall Assessment of Data:

All laboratory data were acceptable with qualifications.

MAJOR ISSUES

There were no major problems for this fraction of the SDG.

MINOR ISSUES

I.) Holding Times:

All Holding Time criteria were met. No action was required.

II.) Calibration:

All Initial and Continuing Calibration criteria were met. No action was required.

III.) CRDL Standards for ICP:

All CRDL criteria were met. No action was required.

IV.) Blanks:

The following blank results represent the highest detections associated with the samples and were used for data qualification:

Blank ID	Analyte	Max. Conc.	Action Level
ER09	barium	8.0 ug/L	40.0 ug/L
ER09	lead	1.2 ug/L	6.0 ug/L

CCB = Continuing Calibration Blank

All results for these analytes in the SDG samples, which were less than the action level, were flagged as undetected (U).

Negative results for reported above the IDL for the following analytes:

Blank ID	Analyte	Max. Conc.	Action Level
ICB	chromium	-0.7 ug/L	3.5 ug/L
CCB6	selenium	-2.4 ug/L	12.0 ug/L

All positive results for these analytes less than 5X the blank amounts and all non-detect results were flagged as estimated (J) and (UJ).

V.) ICP Interference Check Sample Results:

All Interference Percent Recovery criteria were met. No action was required.

The following analytes were detected in the ICS Solution A with results greater than the IDL:

arsenic	3 ug/L
barium	2 ug/L
cadmium	7 ug/L
chromium	21 ug/L
lead	3 ug/L

These analytes should not be present. Since neither aluminum, calcium, iron nor magnesium was detected in any sample at a concentration comparable to or greater than the respective concentration in ICS Solution A, data qualification was not required.

Selenium had a negative result of -1 ug/L in the ICS Solution A with an absolute value greater than

the IDL:. Since neither aluminum, calcium, iron nor magnesium was detected in any sample at a concentration comparable to or greater than the respective concentration in ICS Solution A, data qualification was not required.

VI.) ICP Serial Dilution Analysis:

All Serial Dilution Analysis criteria were met. No action was required.

VII.) Laboratory Control Samples (LCS):

All LCS criteria were met. No action was required.

VIII.) Duplicate Sample Analysis:

Duplicate Sample Analysis was run on SDG sample 361-MW04. All criteria were met. No action was required.

IX.) Matrix Spike / Matrix Spike Duplicate (MS / MSD):

Matrix Spike / Matrix Spike Duplicate Analyses were run on SDG sample 361-MW04. The Percent Recoveries (%R's) of mercury were 43.5% for the MS and 55.0% for the MSD, which were below the 75-125% QC limits. All positive and non-detect results for the SDG samples were flagged as estimated (J) and (UJ).

X.) Field Duplicates:

There were two sets of Field Duplicate samples (360-GW02 / 360-GW02D and 362-SW01 / 361-SW01D) identified for this fraction of the SDG. The calculable Relative Percent Differences (RPD's) were:

Analyte	360-GW02	360-GW02D	RPD
barium	42.1 ug/L	40.5 ug/L	3.9%
chromium	7.6 ug/L	6.5 ug/L	15.6%

Analyte	362-SW01	362-SW01D	RPD
barium	22.9 ug/L	22.3 ug/L	2.7%

All RPDs were within the 30% QC limit for water samples. No action was required.

XI.) Sample Result, Calculation/Transcription Verification:

All criteria were met. No action was taken.

XII.) Quarterly Verification of Instrumental Parameters:

All criteria were met. No action was taken.

VALIDATA

Chemical Services, Inc.

4070 Balleycastle Lane, Duluth, GA 30097

(770) 232-0130
(770) 232-5082 (Fax)
www.datavalidator.com

DATA VALIDATION SUMMARY
REPORT

COMPANY:	CH2M HILL
SITE NAME:	Baker, CTO-143
CONTRACTED LAB:	CompuChem, Inc.
PROJECT NUMBER:	26007-143-0000-05201
QA/QC LEVEL:	EPA Level III
EPA SOW/METHOD:	EPA 1990 SOW
VALIDATION GUIDELINES:	*USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review,* 1994; *USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review,* 1994
SAMPLE MATRIX:	Soil
TYPES OF ANALYSES:	Volatile Organics (VOA), Semivolatile Organics (SVOA), Pesticides, and RCRA Metals
SDG NUMBER:	QY2488

OVERVIEW

SAMPLES:

Client Sample #	Lab Sample #	Matrix	VOA	SVOA	Pesticides	RCRA Metals
261-TW01A-07	QY2488-9	Soil		X		X
306-TW02A-07	QY2488-8	Soil		X		X
311-TW03A-08	QY2488-5	Soil	X			X
317-TW01A-10	QY2488-6	Soil			X	X
317-TW03A-10	QY2488-7	Soil		X		X
360-TW01A-10	QY2488-1	Soil	X	X	X	X
360-TW02A-10	QY2488-2	Soil	X	X	X	X
360-TW03A-10	QY2488-3	Soil	X	X	X	X
360-TW04A-11	QY2488-4	Soil	X	X	X	X
362-SD01	QY2488-10	Soil	X	X	X	X
362-SD02	QY2488-11	Soil	X	X	X	X
362-SD03	QY2488-12	Soil	X	X	X	X
311-TW03A-08RE	QY2488-5	Soil	X			
311-TW03A-08REMS	WG16901-6	Soil	X			
311TW03A-08REMSD	WG16901-7	Soil	X			

SUFFIX CODES: MS = MATRIX SPIKE, MSD = MATRIX SPIKE DUPLICATE, RE = REANALYSIS

DATA REVIEWERS: Mary Ann Brookshire, Kevin C. Harmon, Jean M. Delashmit

RELEASE SIGNATURE:

Data Qualifier Definitions

J	-	The associated numerical value is an estimated quantity.
R	-	The data are unusable (the compound/analyte may or may not be present). Resampling and reanalysis are necessary for verification.
U	-	The compound/analyte was analyzed for, but not detected. The associated numerical value is the sample quantitation limit.
UJ	-	The compound/analyte was analyzed for, but not detected. The sample quantitation limit is an estimated quantity.

DATA QUALIFICATION SUMMARY

CompuChem, Inc. - QY2488 - Organics

SAMPLES: 261-TW01A-07, 306-TW02A-07, 311-TW03A-08, 317-TW01A-10, 317-TW03A-10, 360-TW01A-10, 360-TW02A-10, 360-TW03A-10, 360-TW04A-11, 362-SD01, 362-SD02, 362-SD03

VOLATILE ORGANICS

SUMMARY

I.) General:

The analyses for Volatile Organics were performed by gas chromatography / mass spectroscopy (GC / MS) using SW-846 Method 8260.

II.) Overall Assessment of Data:

All laboratory data were acceptable with qualifications.

MAJOR ISSUES

There were no major problems observed for this SDG fraction.

MINOR ISSUES

I.) Holding Times:

All Holding Time criteria were met. No action was required.

II.) GC / MS Tuning:

All GC / MS Tuning criteria were met. No action was required.

III.) Calibration:

Initial Calibration:

All Initial Calibration criteria were met. No action was required.

Continuing Calibration:

The Percent Difference (%D) for the standard analyzed on 4/16/02 at 22:02 on instrument HP59 exceeded the 25% QC limit for the following compounds:

bromomethane	41.1%
methyl acetate	31.7%
xylenes	32.5%

All positive and non-detect results for these compounds in the associated SDG samples were flagged as estimated (J and UJ). The associated samples were 311-TW03A-08, 360-TW01A-10, 360-TW02A-10, 360-TW03A-10, 360-TW04A-11, 362-SD01, 362-SD02, and 362-SD03.

The Percent Difference (%D) for the standard analyzed on 4/17/02 at 09:42 on instrument HP59 exceeded the 25% QC limit for the following compounds:

bromomethane	66.7%
cyclohexane	30.7%
2-hexanone	26.3%
4-methyl-2-pentanone	26.4%

All positive and non-detect results for these compounds in the associated SDG samples were flagged as estimated (J and UJ). The associated samples were 311-TW03A-08RE, 311-TW03A-08REMS, and 311-TW03A-08REMSD.

IV.) Blanks:

Method Blanks:

The following compounds were detected in method blank VBlkRR.

acetone	2 ug/L
trans-1,3-dichloropropene	1 ug/L
xylenes	1 ug/L

All positive results for acetone in associated samples 311-TW03A-08, 360-TW01A-10, 360-TW02A-10, 360-TW03A-10, 360-TW04A-11, 362-SD01, 362-SD02, and 362-SD03 less than 10X the blank amount were flagged as undetected (U) with the results less than the CRQL being raised to the CRQL. Positive results for trans-1,3-dichloropropene and xylenes less than 5X the blank amount were flagged as undetected (U) with the results less than the CRQL raised to the CRQL.

The following compounds were detected in method blank VBLKSG:

acetone	200 ug/L
xylenes	46 ug/L

All positive results for acetone in associated samples 311-TW03A-08RE, 311-TW03A-08REMS, and 311-TW03A-08REMSD, which were less than 10X the blank amount, were flagged as undetected (U) with the results less than the CRQL being raised to the CRQL. Positive results for xylenes detected at concentrations less than 5X the blank amount were flagged as undetected (U) with the results less than the CRQL raised to the CRQL.

Trip Blanks:

Trip blank TB-13 (from SDG QW2488) was associated with samples 311-TW03A-08, 360-TW01A-10, 360-TW02A-10, 360-TW03A-10, and 360-TW04A-11. Acetone was detected at 5 ug/L in trip blank TB13. All positive results for acetone in the SDG samples were previously flagged based on the method blank. Chloroform was detected at 1 ug/L in TB-13; however, it was not detected in the associated samples. No further action was required.

Trip blank TB-14 (associated from SDG QW2488) was associated with samples 362-SD01, 362-SD02, and 362-SD03. No target analytes were detected in this trip blank.

Tentatively Identified Compounds (TIC):

Hexamethylcyclotrisiloxane was detected in method blank VBlkRR. Detections of this compound in samples 360-TW02A-10 and 362-SD03 were qualified as undetected (U).

Octamethylcyclotetrasiloxane was detected in method blank VBlkSG. There were no detections of this TIC compound in the SDG samples. No action was required.

Octamethylcyclotetrasiloxane was detected at 17 ug/L in trip blank TB13. There were no detections of this TIC compound in the SDG samples. No action was required.

Hexamethylcyclotrisiloxane was detected in trip blank TB-14 at 7 ug/L. Hexamethylcyclotrisiloxane was previously flagged in the associated samples based on the method blank.

V.) Surrogate Recoveries:

All Surrogate Recovery criteria were met. No action was required.

VI.) Laboratory Control Samples (LCS):

Two LCSs were analyzed for this SDG. All LCS criteria were met. No action was required.

VII.) Matrix Spike / Matrix Spike Duplicate (MS / MSD):

MS / MSD analyses were run on SDG sample 311-TW03A-08RE. MS/MSD criteria were met. No action was taken.

VIII.) Field Duplicates:

No field duplicate samples were identified in this SDG.

IX.) Internal Standards Performance (ISTD):

All ISTD criteria were met. No action was required.

X.) TCL Compound Identification:

All TCL Compound Identification criteria were met. No action was required.

XI.) Compound Quantitation and Reported Contract Required Quantitation Limits (CRQL):

All CRQL criteria were met. Sample 311-TW03A-08 was initially analyzed as a low level sample. Results for tetrachloroethene exceeded calibration range, so the sample was reanalyzed as a medium level sample. Results of the reanalysis were non-detect at an elevated detection limit. The initial analysis was considered by the validator to be of preferable data quality, with tetrachloroethene flagged as estimated (J). The results for the reanalysis were rejected (R) as redundant.

XII.) Tentatively Identified Compounds (TIC):

All TIC criteria were met. No action was required.

XIII.) System Performance:

All System Performance criteria were met. No action was required.

SEMIVOLATILE ORGANICS

SUMMARY

I.) General:

The analyses for Semivolatile Organics were performed by gas chromatography / mass spectroscopy (GC / MS) using SW-846 Method 8270.

II.) Overall Assessment of Data:

All laboratory data were acceptable with qualifications.

MAJOR ISSUES

There were no major problems observed for this fraction of the SDG.

MINOR ISSUES

I.) Holding Times:

All Holding Time criteria were met. No action was required.

II.) GC / MS Tuning:

All GC / MS Tuning criteria were met. No action was required.

III.) Calibration:

Initial Calibration:

The Percent Difference (RSD) for the initial calibration dated 3/31/02 on instrument HP64 exceeded the 30% QC limit for the following compound:

2,4-dinitrophenol	30.9%

There were no positive results for this compound in the associated samples. No action was required.

Continuing Calibration:

The Percent Differences (%D's) for the standards run on 4/15/02 at 08:25 on instrument HP64 exceeded the 25% QC limit for the following compounds:

2,4-dinitrophenol	45.8%

All results for this compound in associated SDG samples, which consisted entirely of non-detects, were flagged as estimated (UJ).

IV.) Blanks:

Method Blanks:

Method blank criteria were met. No action was required.

Tentatively Identified Compounds (TIC):

There were no TIC detections in the method blanks associated with this SDG. No action was required.

V.) Surrogate Recoveries:

Surrogate recovery criteria were met. No action was required.

VI.) Laboratory Control Samples (LCS):

Recoveries of the following compounds exceeded QC limits in the LCS sample:

4-nitrophenol	170%
pentachlorophenol	165%

All results for these compounds in SDG samples were non-detects, so no action was required.

VII.) Matrix Spike / Matrix Spike Duplicate (MS / MSD):

MS / MSD analyses data were not submitted for this SDG. Data qualification based on MS / MSD criteria was not required. No action was taken.

VIII.) Field Duplicates:

No field duplicate samples were identified in this SDG.

IX.) Internal Standards Performance (ISTD):

Internal standard criteria were met. No action was required.

X.) TCL Compound Identification:

All TCL Compound Identification criteria were met. No action was required.

XI.) Compound Quantitation and Reported Contract Required Quantitation Limits (CRQL):

All CRQL criteria were met. No action was required.

XII.) Tentatively Identified Compounds (TIC):

All TIC criteria were met. No action was required.

XIII.) System Performance:

All System Performance criteria were met. No action was required.

PESTICIDES

SUMMARY

I.) General:

The analyses for Pesticides were performed by gas chromatography (GC) using SW-846 Method 8081A.

II.) Overall Assessment of Data:

All laboratory data were acceptable with qualifications.

MAJOR ISSUES

There were no major problems observed for this SDG fraction.

MINOR ISSUES

I.) Holding Times:

All Holding Time criteria were met. No action was required.

II.) Instrument Performance:

All Instrument Performance criteria were met. No action was required.

III.) Calibration:

Initial Calibration:

All Initial Calibration criteria were met. No action was required.

Continuing Calibration:

The Percent Difference (%D) for the standard analyzed on 4/17/02 at 21:32 on instrument Varian72 exceeded the 15% QC limit for the following compounds:

4,4'-DDE	18.3%
4,4'-DDD	18.3%

The Percent Difference (%D) for the standard analyzed on 4/18/02 at 07:35 on instrument Varian72 exceeded the 15% QC limit for the following compound:

methoxychlor	17.7%

All positive results for these compounds in the associated SDG samples were flagged as estimated (J).

IV.) Method Blanks:

All Method Blank criteria were met. No action was required.

V.) Surrogate Recoveries:

Surrogate recoveries in sample 360-TW01A-10 were above QC limits. DCB recoveries were 144% and 156%, and TCX recoveries were 148% and 167%. There were no positive results in this sample, so no data qualification was required.

VI.) Laboratory Control Samples (LCS):

Two LCSs were analyzed for this SDG. All LCS criteria were met. No action was required.

VII.) Matrix Spike / Matrix Spike Duplicate (MS / MSD):

MS / MSD analyses data were not submitted for this SDG. Data qualification based on MS / MSD criteria was not required. No action was taken.

VIII.) Field Duplicates:

No field duplicate samples were identified in this SDG.

IX.) TCL Compound Identification:

All TCL Compound Identification criteria were met. No action was required.

X.) Compound Quantitation and Reported Contract Required Quantitation Limits (CRQL):

4,4-DDT was reported with a 5.0 ug/kg reporting limit exceeding the CRQL of 3.3 ug/kg. All remaining CRQL criteria were met. No action was required.

XI.) System Performance:

All System Performance criteria were met. No action was required.

RCRA METALS

SUMMARY

I.) General:

The analyses for RCRA Metals were performed using SW-846 Method 6010B.

II.) Overall Assessment of Data:

All laboratory data were acceptable with qualifications.

MAJOR ISSUES

There were no major problems observed for this fraction of the SDG.

MINOR ISSUES

I.) Holding Times:

All Holding Time criteria were met. No action was required.

II.) Calibration:

All Initial and Continuing Calibration criteria were met. No action was required.

III.) CRDL Standards for ICP:

All CRDL criteria were met. No action was required.

IV.) Blanks:

The following blank results represent the highest detections associated with the samples and were used for data qualification:

Blank ID	Analyte	Max. Conc.	Action Level
CCB6	barium	0.7 ug/L	3.5 ug/L
CCB4	mercury	0.2 ug/L	1.0 ug/L

CCB = Continuing Calibration Blank, ICB = Initial Calibration Blank

All results for mercury, and selenium in the SDG samples less than the action level were flagged as undetected (U). All results for barium in the SDG samples were greater than the action level, so no action was required for barium.

A negative result of -0.7 ug/L was reported for chromium in the Initial Calibration Blank (ICB) and selenium in the Continuing Calibration Blank (CCB4). All positive and non-detect results for these analytes in the SDG samples less than 5X the blank amounts were flagged as estimated (J).

V.) ICP Interference Check Sample Results:

All Interference Percent Recovery criteria were met. No action was required.

The following analytes were detected in the ICS Solution A with results greater than the IDL:

arsenic	3 ug/L
barium	2 ug/L
cadmium	7 ug/L
lead	3 ug/L

These analytes should not be present. Because aluminum, calcium, iron, and magnesium were not detected in any sample at concentrations comparable to or greater than the respective concentrations in ICS Solution A, data qualification was not required.

VI.) ICP Serial Dilution Analysis:

Serial Dilution Analysis data were not submitted for this SDG. All positive results for this fraction of the SDG were flagged as estimated (J).

VII.) Laboratory Control Samples (LCS):

All LCS criteria were met. No action was required.

VIII.) Duplicate Sample Analysis:

Duplicate Sample Analysis data were not submitted for this SDG. All positive results were previously flagged based on Serial Dilution criteria, so no further action was required.

IX.) Matrix Spike (MS):

Matrix Spike data was not submitted for this SDG. All positive results were previously flagged based on Serial Dilution criteria, so no further action was required.

X.) Field Duplicates:

There were no field duplicate samples identified in this SDG.

XI.) Sample Result, Calculation/Transcription Verification:

All criteria were met. No action was taken.

XII.) Quarterly Verification of Instrumental Parameters:

All criteria were met. No action was taken.

VALIDATA

Chemical Services, Inc.

4070 Balleycastle Lane, Duluth, GA 30097

(770) 232-0130
(770) 232-5082 (Fax)
www.datavalidator.com

DATA VALIDATION SUMMARY
REPORT

COMPANY:	CH2M HILL
SITE NAME:	Baker, CTO-143
CONTRACTED LAB:	CompuChem, Inc.
PROJECT NUMBER:	155022
QA/QC LEVEL:	EPA Level III
EPA SOW/METHOD:	EPA 1990 SOW
VALIDATION GUIDELINES:	*USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review,* 1994; *USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review,* 1994
SAMPLE MATRIX:	Water
TYPES OF ANALYSES:	Total Metals
SDG NUMBER:	QZ2488

OVERVIEW

SAMPLES:

Client Sample #	Lab Sample #	Matrix	Total Metals
BASE-GW23ITW	QZ2488-1	Water	X
BASE-GW25STW	QZ2488-2	Water	X
BASE-GW25ITW	QZ2488-3	Water	X
BASE-GW24STW	QZ2488-4	Water	X
BASE-GW24ITW	QZ2488-5	Water	X
BASE-GW17STW	QZ2488-6	Water	X
BASE-GW17ITW	QZ2488-7	Water	X
BASE-GW18STW	QZ2488-8	Water	X
BASE-GW18ITW	QZ2488-9	Water	X
BASE-GW19STW	QZ2488-10	Water	X
BASE-GW19ITW	QZ2488-11	Water	X
BASE-GW20STW	QZ2488-12	Water	X
BASE-GW20ITW	QZ2488-13	Water	X

DATA REVIEWERS: Amy L. Hogan, Kevin C. Harmon, Jean M. Delashmit

RELEASE SIGNATURE: Jean M Delashmit

Data Qualifier Definitions

J	-	The associated numerical value is an estimated quantity.
R	-	The data are unusable (the compound/analyte may or may not be present). Resampling and reanalysis are necessary for verification.
U	-	The compound/analyte was analyzed for, but not detected. The associated numerical value is the sample quantitation limit.
UJ	-	The compound/analyte was analyzed for, but not detected. The sample quantitation limit is an estimated quantity.

DATA QUALIFICATION SUMMARY

CompuChem, Inc. - QZ2488 - Inorganics

SAMPLES: BASE-GW23ITW, BASE-GW25STW, BASE-GW25ITW, BASE-GW24STW, BASE-GW24ITW, BASE-GW17STW, BASE-GW17ITW, BASE-GW18STW, BASE-GW18ITW, BASE-GW19STW, BASE-GW19ITW, BASE-GW20STW, BASE-GW20ITW

TOTAL METALS

SUMMARY

I.) General:

The analyses for Total Metals were performed using SW-846 Method 6010B.

II.) Overall Assessment of Data:

All laboratory data were acceptable with qualification.

MAJOR ISSUES

There were no major issues for this fraction of the SDG.

MINOR ISSUES

I.) Holding Times:

All Holding Time criteria were met. No action was required.

II.) Calibration:

All Initial and Continuing Calibration criteria were met. No action was required.

III.) CRDL Standards for ICP:

All CRDL criteria were met. No action was required.

IV.) Blanks:

The following blank results represent the highest detections associated with the samples and were used for data qualification:

Blank ID	Analyte	Max. Conc.	Action Level
CCB1	aluminum	51.2 ug/L	256 ug/L
CCB6	antimony	2.5 ug/L	12.5 ug/L
FB01	barium	11.3 ug/L	56.5 ug/L
CCB6	beryllium	0.3 ug/L	1.5 ug/L
CCB1	calcium	55.4 ug/L	277 ug/L
CCB1	iron	19.5 ug/L	97.5 ug/L
FB01	lead	1.6 ug/L	8.0 ug/L
CCB1	magnesium	116 ug/L	580 ug/L
CCB10	potassium	197 ug/L	985 ug/L

CCB = Continuing Calibration Blank, FB01- field blank (analyzed as part of SDG QC2488)

All positive results for these analytes in the SDG samples less than the action level were flagged as undetected (U).

The following blank results represent the negative results greater than the IDL associated with the samples and were used for data qualification:

Blank ID	Analyte	Neg. Conc.	Action Level
ICB	chromium	-0.7 ug/L	3.5 ug/L
CCB7	selenium	-2.4 ug/L	12.0 ug/L
CCB8	zinc	-4.2 ug/L	21.0 ug/L

All positive results for these analytes in the SDG samples, which were less than 5X the blank amount, and all non-detect results were flagged as estimated (J) and (UJ).

V.) ICP Interference Check Sample Results:

All Interference Percent Recovery criteria were met. No action was required.

The following analytes were detected in the ICS Solution A with results greater than the IDL:

arsenic	3 ug/L
barium	2 ug/L
cadmium	7 ug/L
chromium	21 ug/L
copper	1 ug/L
lead	3 ug/L
nickel	1 ug/L
potassium	197 ug/L
sodium	98 ug/L
thallium	8 ug/L
zinc	11 ug/L

These analytes should not be present. Since neither aluminum, calcium, iron nor magnesium was detected in any sample at a concentration comparable to or greater than the respective concentration in ICS Solution A, data qualification was not required.

The following analytes had negative results in the ICS Solution A with the absolute value greater than the IDL:

cobalt	-4 ug/L
manganese	-3 ug/L
selenium	-1 ug/L
vanadium	-1 ug/L

Since neither aluminum, calcium, iron nor magnesium was detected in any sample at a concentration comparable to or greater than the respective concentration in ICS Solution A, data qualification was not required.

VI.) ICP Serial Dilution Analysis:

Serial Dilution Analysis data was not submitted for this SDG. All positive results for the SDG samples were flagged as estimated (J).

VII.) Laboratory Control Samples (LCS):

All LCS criteria were met. No action was required.

VIII.) Duplicate Sample Analysis:

Duplicate Sample Analysis data was not submitted for this SDG. All positive results for the SDG samples were previously flagged as estimated, so no further action was taken.

IX.) Matrix Spike (MS):

Matrix Spike Analyses data was not submitted for this SDG. All positive results for the SDG samples were previously flagged as estimated, so no further action was taken.

X.) Field Duplicates:

There were no Field Duplicate samples identified for this SDG. No action was required.

XI.) Sample Result, Calculation/Transcription Verification:

All criteria were met. No action was taken.

XII.) Quarterly Verification of Instrumental Parameters:

All criteria were met. No action was taken.

VALIDATA

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DATA VALIDATION SUMMARY
REPORT

COMPANY:	CH2M HILL
SITE NAME:	Baker, CTO-143
CONTRACTED LAB:	CompuChem, Inc.
PROJECT NUMBER:	155022
QA/QC LEVEL:	EPA Level III
EPA SOW/METHOD:	EPA 1990 SOW
VALIDATION GUIDELINES:	*USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review*, 1994, *USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review*, 1994
SAMPLE MATRIX:	Soil
TYPES OF ANALYSES:	Semivolatile Organics (SVOA), RECRA Metals
SDG NUMBER:	R2488

OVERVIEW

SAMPLES:

Client Sample #	Lab Sample #	Matrix	SVOA	RECRA Metals
299-TW02-00	R2488-1	Soil	X	X
299-TW02-02	R2488-2	Soil	X	X
299-TW04-00	R2488-3	Soil	X	X
299-TW04-02	R2488-4	Soil	X	X
299-TW01-00	R2488-5	Soil	X	X
299-TW01-02	R2488-6	Soil	X	X
299-TW03-00	R2488-7	Soil	X	X
299-TW03-02	R2488-8	Soil	X	X
299-TW03-02D	R2488-9	Soil	X	X
303-TW01-00	R2488-10	Soil	X	X
303-TW01-04	R2488-11	Soil	X	X
303-TW02-00	R2488-12	Soil	X	X
303-TW02-04	R2488-13	Soil	X	X
303-TW03-00	R2488-14	Soil	X	X
303-TW03-03	R2488-15	Soil	X	X
272-TW01-03	R2488-16	Soil	X	X
272-TW01-00	R2488-17	Soil	X	X
272-TW03-03	R2488-18	Soil	X	X
272-TW03-00	R2488-19	Soil	X	X

Client Sample #	Lab Sample #	Matrix	SVOA	RECRA Metals
299-TW04-02MS	R2488-4MS	Soil	X	X
299-TW04-02MSD	R2488-4MSD	Soil	X	X

SAMPLE ID SUFFIX CODES: D = FIELD DUPLICATE, MS = MATRIX SPIKE, MSD = MATRIX SPIKE DUPLICATE

DATA REVIEWERS: Amy L. Hogan, Jean M. Delashmit

RELEASE SIGNATURE:

Data Qualifier Definitions

J	-	The associated numerical value is an estimated quantity.
R	-	The data are unusable (the compound/analyte may or may not be present). Resampling and reanalysis are necessary for verification.
U	-	The compound/analyte was analyzed for, but not detected. The associated numerical value is the sample quantitation limit.
UJ	-	The compound/analyte was analyzed for, but not detected. The sample quantitation limit is an estimated quantity.

DATA QUALIFICATION SUMMARY

CompuChem, Inc. - R2488 - Organics

SAMPLES: 299-TW02-00, 299-TW02-02, 299-TW04-00, 299-TW04-02, 299-TW01-00, 299-TW01-02, 299-TW03-00, 299-TW03-02, 299-TW03-02D, 303-TW01-00, 303-TW01-04, 303-TW02-00, 303-TW02-04, 303-TW03-00, 303-TW03-03, 272-TW01-03, 272-TW01-00, 272-TW03-03, 272-TW03-00

SEMIVOLATILE ORGANICS

SUMMARY

I.) General:

The analyses for Semivolatile Organics were performed by gas chromatography / mass spectroscopy (GC / MS) using SW-846 Method 8270.

II.) Overall Assessment of Data:

All laboratory data were acceptable with qualification.

MAJOR ISSUES

There were no major problems in this fraction of the SDG.

MINOR ISSUES

I.) Holding Times:

All Holding Time criteria were met. No action was required.

II.) GC / MS Tuning:

All GC / MS Tuning criteria were met. No action was required.

III.) Calibration:

Initial Calibration:

The Percent Relative Standard Deviation (%RSD) for the standards analyzed on 3/21/02 on instrument HP66 was 34.1% for 2,4-dinitrophenol, which exceeded the 30% QC limit. Since there were no positive results for this compound in the associated samples, no action was required.

The Percent Relative Standard Deviation (%RSD) for the standards analyzed on 3/27/02 on instrument HP66 was 32.3% for 2,4-dinitrophenol, which exceeded the 30% QC limit. Since there were no positive results for this compound in the associated samples, no action was required.

Continuing Calibration:

The Percent Differences (%D's) for the standards run on 3/22/02 at 13:46 on instrument HP66 exceeded the 25% QC limit for the following compounds:

hexachlorocyclopentadiene	32.7%
2,4-dinitrophenol	44.5%

All results for these compounds in associated samples 299-TW02-00, 299-TW02-02 and 299-TW04-00, which consisted entirely of non-detects, were flagged as estimated (UJ).

The Percent Differences (%D's) for the standards run on 3/25/02 at 09:42 on instrument HP66 exceeded the 25% QC limit for the following compounds:

4-bromophenyl phenylether	30.5%
hexachlorobenzene	31.9%

The results for these compounds in the associated samples, which consisted entirely of non-detects, were flagged as estimated (UJ). The associated samples were 299-TW04-02, 299-TW01-00, 299-TW01-02, 299-TW03-00, 299-TW03-02, 299-TW03-02D, 303-TW01-00, 303-TW02-04, 303-TW03-00, 303-TW03-03 and 303-TW01-04.

The Percent Difference (%D) for the standards run on 3/25/02 at 22:40 on instrument HP66 was 29.5% for hexachlorobenzene, which exceeded the 25% QC limit. The results for this compound in the associated samples, which consisted entirely of non-detects, were flagged as estimated (UJ). The associated samples were 272-TW01-03, 272-TW01-00, 272-TW03-03 and 272-TW03-00.

The Percent Differences (%D's) for the standards run on 3/29/02 at 15:23 on instrument HP66 exceeded the 25% QC limit for the following compounds:

hexachlorocylcopentadiene	30.5%
2,4-dinitrophenol	39.3%

The results for these compounds in associated sample 303-TW02-00, which were both non-detects, were flagged as estimated (UJ).

IV.) Blanks:

Method Blanks:

Bis(2-ethylhexyl)phthalate was detected at 43 ug/kg in method blank SBLKLY. The positive result for this compound in associated sample 303-TW02-00, which was less than 10X the blank amount, was flagged as undetected (U) with the analytical result being raised to the CRQL.

Field Blanks:

There were no detections in the field blanks associated with this SDG, which were analyzed as part of SDG V2488. No action was required.

Tentatively Identified Compounds (TIC):

1,1,2,2-Tetrachloroethane was detected at 590 ug/kg in method blank SBLKLH. There were no positive results for this compound in the associated samples, so no action was required.

V.) Surrogate Recoveries:

All Surrogate Recovery criteria were met. No action was required.

VI.) Laboratory Control Samples (LCS):

Three LCSs were analyzed for this SDG. All LCS criteria were met. No action was required.

VII.) Matrix Spike / Matrix Spike Duplicate (MS / MSD):

MS / MSD analyses were run on SDG sample 299-TW04-02. All MS / MSD criteria were met. No action was required.

VIII.) Field Duplicates:

One set of Field Duplicate samples (299-TW03-02 / 299-TW03-02D) was identified for this fraction of the SDG. The calculable Relative Percent Differences (RPDs) were:

Compound	299-TW03-02	299-TW03-02D	RPD
bis(2-ethylhexyl)phthalate	95 ug/kg	150 ug/kg	45%
di-n-octylphthalate	210 ug/kg	95 ug/kg	75%

The RPD for di-n-octylphthalate exceeded the 60% QC limit for soil samples. The results for this compound in the two samples were flagged as estimated (J).

IX.) Internal Standards Performance (ISTD):

All ISTD criteria were met. No action was required.

X.) TCL Compound Identification:

All TCL Compound Identification criteria were met. No action was required.

XI.) Compound Quantitation and Reported Contract Required Quantitation Limits (CRQL):

All CRQL criteria were met. No action was required.

XII.) Tentatively Identified Compounds (TIC):

All TIC criteria were met. No action was required.

XIII.) System Performance:

All System Performance criteria were met. No action was required.

RECRA METALS

SUMMARY

I.) General:

The analyses for RECRA Metals were performed using SW-846 Methods 6010B.

II.) Overall Assessment of Data:

All laboratory data were acceptable with qualifications.

MAJOR ISSUES

There were no major issues for this fraction of the SDG.

MINOR ISSUES

I.) Holding Times:

All Holding Time criteria were met. No action was required.

II.) Calibration:

All Initial and Continuing Calibration criteria were met. No action was required.

III.) CRDL Standards for ICP:

All CRDL criteria were met. No action was required.

IV.) Blanks:

The following blank results represent the highest detections associated with the samples and were used for data qualification:

Blank ID	Analyte	Max. Conc.	Action Level
ER01	barium	9.3 ug/L	9.3 mg/kg
CCB5	cadmium	0.3 ug/L	0.3 mg/kg
CCB6	mercury	0.2 ug/L	0.2 mg/kg

CCB = Continuing Calibration Blank,
ER01 = Equipment Rinsate Blank (analyzed as part of SDG V2488)

All results for these analytes in the SDG samples less than the Action Level were flagged as undetected (U).

V.) ICP Interference Check Sample Results:

All Interference Percent Recovery criteria were met. No action was required.

The following analytes were detected in the ICS Solution A with results greater than the IDL:

arsenic	3 ug/L
barium	2 ug/L
cadmium	9 ug/L
chromium	21 ug/L
lead	1 ug/L
selenium	2 ug/L

These analytes should not be present. Since neither aluminum, calcium, iron nor magnesium was detected in any sample at a concentration comparable to or greater than the respective concentration in ICS solution A, data qualification was not required.

Silver had a negative result of -2 ug/L in the ICS Solution A with the absolute value greater than the IDL. Since neither aluminum, calcium, iron nor magnesium was detected in any sample at a concentration comparable to or greater than the respective concentration in ICS solution A, data qualification was not required.

VI.) ICP Serial Dilution Analysis:

All Serial Dilution Analysis criteria were met. No action was required.

VII.) Laboratory Control Samples (LCS):

All LCS criteria were met. No action was required.

VIII.) Duplicate Sample Analysis:

The Percent Difference (%D) of chromium was 42.4% in the Duplicate Sample Analysis of SDG sample 299-TW04-02, which exceeded the 35% QC limit for soil samples. All results for chromium in the SDG samples, which consisted entirely of positive results, were flagged as estimated (J).

IX.) Matrix Spike (MS):

Matrix Spike / Matrix Spike Duplicate Analyses were run on SDG sample 299-TW04-02. All MS / MSD criteria were met. No action was required.

X.) Field Duplicates:

One set of Field Duplicate samples (299-TW03-02 / 299-TW03-02D) was identified for this fraction of the SDG. The calculable Relative Percent Differences (RPDs) were:

Analyte	299-TW03-02	299-TW03-02D	RPD
chromium	11.0 mg/kg	6.4 mg/kg	53%
lead	7.0 mg/kg	4.9 mg/kg	35%
mercury	0.041 mg/kg	0.033 mg/kg	22%

All RPDs were within the 60% QC limit for soil samples. No action was required.

XI.) Sample Result, Calculation/Transcription Verification:

All criteria were met. No action was taken.

XII.) Quarterly Verification of Instrumental Parameters:

All criteria were met. No action was taken.

VALIDATA

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DATA VALIDATION SUMMARY
REPORT

COMPANY:	CH2M HILL
SITE NAME:	Baker, CTO-143
CONTRACTED LAB:	CompuChem, Inc.
PROJECT NUMBER:	155022
QA/QC LEVEL:	EPA Level III
EPA SOW/METHOD:	EPA 1990 SOW
VALIDATION GUIDELINES:	*USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review*, 1994, *USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review*, 1994
SAMPLE MATRIX:	Soil
TYPES OF ANALYSES:	Semivolatile Organics (SVOA), RECRA Metals
SDG NUMBER:	S2488

OVERVIEW

SAMPLES:

Client Sample #	Lab Sample #	Matrix	SVOA	RECRA Metals
302-TW02-00	S2488-1	Soil	X	X
302-TW02-04	S2488-2	Soil	X	X
302-TW01-00	S2488-3	Soil	X	X
302-TW01-05	S2488-4	Soil	X	X
302-TW03-00	S2488-5	Soil	X	X
302-TW03-05	S2488-6	Soil	X	X
319-SB01-01	S2488-7	Soil	X	X
319-SB01-00	S2488-8	Soil	X	X
307-TW01-02	S2488-9	Soil		X
307-TW01-00	S2488-10	Soil		X
307-TW03-03	S2488-11	Soil		X
307-TW03-00	S2488-12	Soil		X
336-TW01-04	S2488-13	Soil	X	X
336-TW01-04D	S2488-14	Soil	X	X
336-TW01-00	S2488-15	Soil	X	X
336-TW02-04	S2488-16	Soil	X	X
336-TW02-00	S2488-17	Soil	X	X

Client Sample #	Lab Sample #	Matrix	SVOA	RECRA Metals
307-TW02-03	S2488-18	Soil		X
307-TW02-00	S2488-19	Soil		X
307-TW02-00MS	S2488-1MS	Soil	X	X
307-TW02-00MSD	S2488-1MSD	Soil	X	X

Missing

DATA REVIEWERS: Amy L. Hogan, Jean M. Delashmit

RELEASE SIGNATURE: Jean M Delashmit

Data Qualifier Definitions

J	-	The associated numerical value is an estimated quantity.
R	-	The data are unusable (the compound/analyte may or may not be present). Resampling and reanalysis are necessary for verification.
U	-	The compound/analyte was analyzed for, but not detected. The associated numerical value is the sample quantitation limit.
UJ	-	The compound/analyte was analyzed for, but not detected. The sample quantitation limit is an estimated quantity.

DATA QUALIFICATION SUMMARY

CompuChem, Inc. - S2488 - Organics

SAMPLES: 302-TW02-00, 302-TW02-04, 302-TW01-00, 302-TW01-05, 302-TW03-00, 302-TW03-05, 319-SB01-01, 319-SB01-00, 307-TW01-02, 307-TW01-00, 307-TW03-03, 307-TW03-00, 336-TW01-04, 336-TW01-04D, 336-TW01-00, 336-TW02-04, 336-TW02-00, 307-TW02-03, 307-TW02-00

SEMIVOLATILE ORGANICS

SUMMARY

I.) General:

The analyses for Semivolatile Organics were performed by gas chromatography / mass spectroscopy (GC / MS) using SW-846 Method 8270.

II.) Overall Assessment of Data:

The non-detect result for 2,4-dinitrophenol in sample 302-TW02-04 was rejected based on Relative Response criteria for the Continuing Calibration.

All other laboratory data were acceptable with qualification.

MAJOR ISSUES

I.) Continuing Calibration:

The Relative Response Factor (RRF) for the standards run on 3/24/02 at 09:38 on instrument HP64 was 0.039 for 2,4-dinitrophenol, which was below the 0.050 QC limit. The non-detect result for this compound in associated sample 302-TW02-04 was rejected (R).

MINOR ISSUES

I.) Holding Times:

All Holding Time criteria were met. No action was required.

II.) GC / MS Tuning:

All GC / MS Tuning criteria were met. No action was required.

III.) Calibration:

Initial Calibration:

The Percent Relative Standard Deviation (%RSD) for the standards analyzed on 3/27/02 on instrument HP60 was 38.8% for hexachlorocyclopentadiene, which exceeded the 30% QC limit. Since there were no positive results for this compound in the associated samples, no action was required.

The Percent Relative Standard Deviation (%RSD) for the standards analyzed on 3/21/02 on instrument HP66 was 34.1% for 2,4-dinitrophenol, which exceeded the 30% QC limit. Since there were no positive results for this compound in the associated samples, no action was required.

Continuing Calibration:

The Percent Difference (%D) for the standards run on 3/21/02 at 17:06 on instrument HP64 was 38.5% for benzo(k)fluoroanthene, which exceeded the 25% QC limit. Since the associated samples were QC samples, no action was required.

The Percent Differences (%D's) for the standards run on 3/22/02 at 21:33 on instrument HP64 exceeded the 25% QC limit for the following compounds:

caprolactam	31.7%
hexachlorobenzene	28.4%
benzo(b)fluoranthene	27.6%
benzo(k)fluoroanthene	41.9%

All results for these compounds in associated samples 302-TW01-00, 302-TW01-05 and 302-TW03-05, which consisted entirely of non-detects, were flagged as estimated (UJ).

The Percent Differences (%D's) for the standards run on 3/24/02 at 09:38 on instrument HP64 exceeded the 25% QC limit for the following compounds:

2,4-dinitrophenol	36.9%
hexachlorobenzene	26.5%
caprolactam	27.4%

The non-detect result for 2,4-dinitrophenol in associated sample 302-TW02-04 was previously rejected. The results for hexachlorobenzene and caprolactam in the sample, which consisted entirely of non-detects, were flagged as estimated (UJ).

The Percent Differences (%D's) for the standards run on 3/25/02 at 10:18 on instrument HP64 exceeded the 25% QC limit for the following compounds:

caprolactam	28.6%
hexachlorocyclopentadiene	28.6%
benzo(k)fluoroanthene	33.0%

All results for these compounds in associated sample 302-TW03-00, which consisted entirely of non-

detects, were flagged as estimated (UJ).

The Percent Difference (%D) for the standards run on 3/25/02 at 22:40 on instrument HP66 was 29.5% for hexachlorobenzene, which exceeded the 25% QC limit. The results for this compound in associated samples 319-SB01-01 and 319-SB01-00, which consisted entirely of non-detects, were flagged as estimated (UJ).

The Percent Difference (%D) for the standards run on 3/26/02 at 13:55 on instrument HP66 was 40.6% for 2,4-dinitrophenol, which exceeded the 25% QC limit. The results for this compound in the associated samples, which consisted entirely of non-detects, were flagged as estimated (UJ). The associated samples were 336-TW01-04, 336-TW01-04D, 336-TW01-00, 336-TW02-04 and 336-TW02-00.

IV.) Blanks:

Method Blanks:

There were no detections in the method blanks associated with this SDG. No action was required.

Field Blanks:

There were no detections in the field blanks associated with this SDG, which were analyzed as part of SDG V2488. No action was required.

Tentatively Identified Compounds (TIC):

There were no TIC detections in the method or field blanks associated with this SDG. No action was required.

V.) Surrogate Recoveries:

The Percent Recoveries (%R) of nitrobenzene-d5 (33%) and 2-fluorobiphenyl (29%) in sample 336-TW01-04 were below the respective 35-110% and 37-110% QC limits. All results for the base/neutral fraction of this sample, which consisted entirely of non-detects, were flagged as estimated (UJ).

VI.) Laboratory Control Samples (LCS):

Three LCSs were analyzed for this SDG. All LCS criteria were met. No action was required.

VII.) Matrix Spike / Matrix Spike Duplicate (MS / MSD):

MS / MSD analyses were run on SDG sample 302-TW02-00. All MS / MSD criteria were met. No action was required.

VIII.) Field Duplicates:

One set of Field Duplicate samples (336-TW01-04 / 336-TW01-04D) was identified for this fraction of the SDG. There were no calculable Relative Percent Differences (RPDs). No action was required.

IX.) Internal Standards Performance (ISTD):

All ISTD criteria were met. No action was required.

X.) TCL Compound Identification:

All TCL Compound Identification criteria were met. No action was required.

XI.) Compound Quantitation and Reported Contract Required Quantitation Limits (CRQL):

All CRQL criteria were met. No action was required.

XII.) Tentatively Identified Compounds (TIC):

All TIC criteria were met. No action was required.

XIII.) System Performance:

All System Performance criteria were met. No action was required.

RECRA METALS

SUMMARY

I.) General:

The analyses for RECRA Metals were performed using SW-846 Methods 6010B.

II.) Overall Assessment of Data:

All laboratory data were acceptable with qualifications.

MAJOR ISSUES

There were no major problems in this fraction of the SDG.

MINOR ISSUES

I.) Holding Times:

All Holding Time criteria were met. No action was required.

II.) Calibration:

All Initial and Continuing Calibration criteria were met. No action was required.

III.) CRDL Standards for ICP:

All CRDL criteria were met. No action was required.

IV.) Blanks:

The following blank results represent the highest detections associated with the samples and were used for data qualification:

Blank ID	Analyte	Max. Conc.	Action Level
CCB2	barium	0.7 ug/L	0.7 mg/kg

CCB = Continuing Calibration Blank

All results for barium in the SDG samples were greater than the Action Level, so no action was required.

IV.) ICP Interference Check Sample Results:

All Interference Percent Recovery criteria were met. No action was required.

The following analytes were detected in the ICS Solution A with results greater than the IDL:

barium	7 ug/L
cadmium	7 ug/L
chromium	21 ug/L

These analytes should not be present. Since neither aluminum, calcium, iron nor magnesium was detected in any sample at a concentration comparable to or greater than the respective concentration in ICS solution A, data qualification was not required.

Selenium had a negative result of -1 ug/L in the ICS Solution A with the absolute value greater than the IDL. Since neither aluminum, calcium, iron nor magnesium was detected in any sample at a concentration comparable to or greater than the respective concentration in ICS solution A, data qualification was not required.

V.) ICP Serial Dilution Analysis:

All Serial Dilution Analysis criteria were met. No action was required.

VI.) Laboratory Control Samples (LCS):

All LCS criteria were met. No action was required.

VII.) Duplicate Sample Analysis:

All Duplicate Sample Analysis criteria were met. No action was required.

VIII.) Matrix Spike (MS):

Matrix Spike / Matrix Spike Duplicate Analyses were run on SDG sample 302-TW02-00. The Percent Recoveries (%R's) of lead were 144% for both samples, which exceeded the 75-125% QC limits. All positive results for lead in the SDG samples were flagged as estimated (J).

IX.) Field Duplicates:

One set of field duplicate samples (336-TW01-04 / 336-TW01-04D) was identified in this SDG. The calculable Relative Percent Differences (RPDs) were:

Analyte	336-TW01-04	336-TW01-04D	RPD
barium	11.5 mg/kg	9.2 mg/kg	22%
chromium	11.6 mg/kg	10.5 mg/kg	9.9%
lead	5.5 mg/kg	4.9 mg/kg	11.5%

All RPDs were within the 60% QC limit for soil samples. No action was required.

X.) Sample Result, Calculation/Transcription Verification:

All criteria were met. No action was taken.

XI.) Quarterly Verification of Instrumental Parameters:

All criteria were met. No action was taken.

VALIDATA

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DATA VALIDATION SUMMARY
REPORT

COMPANY:	CH2M HILL
SITE NAME:	Baker, CTO-143
CONTRACTED LAB:	CompuChem, Inc.
PROJECT NUMBER:	155022
QA/QC LEVEL:	EPA Level III
EPA SOW/METHOD:	EPA 1990 SOW
VALIDATION GUIDELINES:	*USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review*, 1994, *USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review*, 1994
SAMPLE MATRIX:	Soils
TYPES OF ANALYSES:	Semivolatile Organics (SVOA)
SDG NUMBER:	T2488

OVERVIEW

SAMPLES:

Client Sample #	Lab Sample #	Matrix	SVOA
300-TW01-00	T2488-1	Soil	X
300-TW01-00D	T2488-2	Soil	X
300-TW01-02	T2488-3	Soil	X
300-TW02-00	T2488-4	Soil	X
300-TW02-02	T2488-5	Soil	X
300-TW03-00	T2488-6	Soil	X
300-TW03-02	T2488-7	Soil	X
339-TW02-06	T2488-8	Soil	X
339-TW02-00	T2488-9	Soil	X
255-TW01-00	T2488-10	Soil	X
255-TW01-04	T2488-11	Soil	X
256-TW01-03	T2488-12	Soil	X
256-TW01-00	T2488-13	Soil	X
256-TW02-03	T2488-14	Soil	X
256-TW02-00	T2488-15	Soil	X
256-TW04-03	T2488-16	Soil	X
256-TW04-00	T2488-17	Soil	X
256-SB01-03	T2488-18	Soil	X
256-SB01-00	T2488-19	Soil	X

Client Sample #	Lab Sample #	Matrix	SVOA
254-SS02	T2488-20	Soil	X
254-SS02DL	T2488-20DL	Soil	X
300-TW02-02MS	T2488-5MS	Soil	X
300-TW02-02MSD	T2488-5MSD	Soil	X

SAMPLE ID
SUFFIX CODES: D = FIELD DUPLICATE, MS = MATRIX SPIKE,
MSD = MATRIX SPIKE DUPLICATE

DATA REVIEWERS: Amy L. Hogan, Jean M. Delashmit

RELEASE SIGNATURE:

Data Qualifier Definitions

J	-	The associated numerical value is an estimated quantity.
R	-	The data are unusable (the compound/analyte may or may not be present). Resampling and reanalysis are necessary for verification.
U	-	The compound/analyte was analyzed for, but not detected. The associated numerical value is the sample quantitation limit.
UJ	-	The compound/analyte was analyzed for, but not detected. The sample quantitation limit is an estimated quantity.

DATA QUALIFICATION SUMMARY

CompuChem, Inc. - T2488 - Organics

SAMPLES: 300-TW01-00, 300-TW01-00D, 300-TW01-02, 300-TW02-00, 300-TW02-02, 300-TW03-00, 300-TW03-02, 339-TW02-06, 339-TW02-00, 255-TW01-00, 255-TW01-04, 256-TW01-03, 256-TW01-00, 256-TW02-03, 256-TW02-00, 256-TW04-03, 256-TW04-00, 256-SB01-03, 256-SB01-00, 254-SS02

SEMIVOLATILE ORGANICS

SUMMARY

I.) General:

The analyses for Semivolatile organics were performed by gas chromatography / mass spectroscopy (GC / MS) using SW-846 Method 8270.

II.) Overall Assessment of Data:

All laboratory data were acceptable with qualification.

MAJOR ISSUES

There were no major problems in this SDG.

MINOR ISSUES

I.) Holding Times:

All Holding Time criteria were met. No action was required.

II.) GC / MS Tuning:

All GC / MS Tuning criteria were met. No action was required.

III.) Calibration:

Initial Calibration:

The Percent Relative Standard Deviation (%RSD) for the standards analyzed on 3/21/02 on instrument HP66 was 34.1% for 2,4-dinitrophenol, which exceeded the 30% QC limit. Since there were no positive results for this compound in the associated samples, no action was required.

The Percent Relative Standard Deviation (%RSD) for the standards analyzed on 3/27/02 on instrument

HP66 was 32.3% for 2,4-dinitrophenol, which exceeded the 30% QC limit. Since there were no positive results for this compound in the associated samples, no action was required.

Continuing Calibration:

The Percent Difference (%D) for the standards run on 3/26/02 at 13:55 on instrument HP66 was 40.6% for 2,4-dinitrophenol, which exceeded the 25% QC limit. All results for this compound in the associated samples, which consisted entirely of non-detects, were flagged as estimated (UJ). The associated samples were 300-TW01-00, 300-TW01-02, 300-TW02-00, 300-TW02-02 and 300-TW01-00D.

The Percent Differences (%D's) for the standards run on 3/28/02 at 12:08 on instrument HP66 exceeded the 25% QC limit for 2-methylnaphthalene at 30.2% and hexachlorocyclopentadiene at 48.6%. The results for these two compounds in associated samples 256-SB01-00 and 254-SS02, which consisted entirely of non-detects, were flagged as estimated (UJ).

The Percent Difference (%D) for the standards run on 3/29/02 at 00:54 on instrument HP66 for acetophenone was 54.9%, which exceeded the 25% QC limit. The non-detect result for acetophenone in associated sample 254-SS02DL was flagged as estimated (UJ).

IV.) Blanks:

Method Blanks:

There were no detections in the method blanks associated with this SDG. No action was required.

Field Blanks:

There were no detections in the field blanks associated with this SDG, which were analyzed as part of SDG V2488. No action was required.

Tentatively Identified Compounds (TIC):

There were no TIC detections for the method or field blanks associated with this SDG. No action was required.

V.) Surrogate Recoveries:

The Percent Recoveries (%R's) of nitrobenzene-d5 were 32% for sample 300-TW02-02 and 34% in the matrix spike of that sample, which were below the 35-110%. Since only one %R was outside the QC limits in each sample, no action was required.

Terphenyl-d14 was diluted out of sample 254-SS02. No action was required.

VI.) Laboratory Control Samples (LCS):

One LCS was analyzed for this SDG. All LCS criteria were met. No action was required.

VII.) Matrix Spike / Matrix Spike Duplicate (MS / MSD):

MS / MSD analyses were run on SDG sample 300-TW02-02. The Percent Recovery (%R) of 4-chloro-3-methylphenol was 35%, which was below 39-121%. Data qualification based on MS / MSD criteria was not required. No action was taken.

VIII.) Field Duplicates:

One set of Field Duplicate samples (300-TW01-00 / 300-TW01-00D) was identified for this fraction of the SDG. The Relative Percent Difference (RPD) for bis(2-ethylhexyl)phthalate was 78.6% for the field duplicate pair, which exceeded the 60% QC limit for soil samples. The results for bis(2-ethylhexyl)phthalate in the two samples were flagged as estimated (J).

IX.) Internal Standards Performance (ISTD):

The Percent Recovery (%R) of perylene-d12 was 43.8% for sample 254-SS02, which was below the 50-200% QC limit. All positive and non-detect results for the compounds quantitated against this ISTD were flagged as estimated (J) and (UJ).

The Percent Recovery (%R) of perylene-d12 was 49.7% for sample 254-SS02DL, which was below the 50-200% QC limit. All positive and non-detect results for the compounds quantitated against this ISTD were flagged as estimated (J) and (UJ).

X.) TCL Compound Identification:

All TCL Compound Identification criteria were met. No action was required.

XI.) Compound Quantitation and Reported Contract Required Quantitation Limits (CRQL):

The results for fluoranthene and benzo(b)fluoranthene in the initial analysis of sample 254-SS02 exceeded the linear calibration range. A dilution analysis was performed for this sample with all calibration criteria met. The dilution results for fluoranthene and benzo(b)fluoranthene were considered by the validator to be of preferable data quality to the initial results. The initial results for these two compounds, and all other dilution results were rejected (R) as redundant.

XII.) Tentatively Identified Compounds (TIC):

All TIC criteria were met. No action was required.

XIII.) System Performance:

All System Performance criteria were met. No action was required.

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DATA VALIDATION SUMMARY
REPORT

COMPANY:	CH2M HILL
SITE NAME:	Baker, CTO-143
CONTRACTED LAB:	CompuChem, Inc.
PROJECT NUMBER:	155022
QA/QC LEVEL:	EPA Level III
EPA SOW/METHOD:	EPA 1990 SOW
VALIDATION GUIDELINES:	*USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review,* 1994; USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review, 1994
SAMPLE MATRIX:	Soil
TYPES OF ANALYSES:	Volatile Organics (VOA), Semivolatile Organics (SVOA), RECRA Metals
SDG NUMBER:	U2488

OVERVIEW

SAMPLES:

Client Sample #	Lab Sample #	Matrix	VOA	SVOA	RECRA Metals
318-SS02	U2488-1	Soil	X	X	X
318-SS02RE	U2488-1RE	Soil	X		
318-SS03	U2488-2	Soil	X	X	X
318-SS03RE	U2488-2RE	Soil	X		
318-SS03D	U2488-3	Soil	X	X	X
318-TW03-00	U2488-4	Soil	X	X	X
318-TW03-04	U2488-5	Soil	X	X	X
318-TW03-04D	U2488-6	Soil	X	X	X
339-TW01-00	U2488-7	Soil	X	X	
339-TW01-03	U2488-8	Soil	X	X	
303-IS04-00	U2488-9	Soil	X		
303-IS04-00D	U2488-10	Soil	X		
318-TW01-04	U2488-11	Soil	X	X	X
318-TW01-00	U2488-12	Soil	X	X	X
318-TW01-00RE	U2488-12RE	Soil	X		
318-TW02-04	U2488-13	Soil	X	X	X
318-TW02-00	U2488-14	Soil	X	X	X

Client Sample #	Lab Sample #	Matrix	VOA	SVOA	RECRA Metals
339-IS01-01	U2488-15	Soil	X	X	
339-TW03-02	U2488-16	Soil	X	X	
339-TW03-00	U2488-17	Soil	X	X	
339-TW03-00RE	U2488-17RE	Soil	X		
339-TW03-00D	U2488-18	Soil	X	X	
258-IS05-00	U2488-19	Soil	X		
53-SB01-03	U2488-20	Soil		X	X
258-IS05-00MS	U2488-19MS	Soil	X		
258-IS05-00MSD	U2488-19MSD	Soil	X		
53-SB01-03MS	U2488-20MS	Soil		X	X
53-SB01-03MSD	U2488-20MSD	Soil		X	X

Sample ID
Suffix Codes: D = FIELD DUPLICATE, MS = MATRIX SPIKE,
MSD = MATRIX SPIKE DUPLICATE, RE = REANALYSIS

DATA REVIEWERS: Amy L. Hogan, Jean M. Delashmit

RELEASE SIGNATURE:

Data Qualifier Definitions

J	-	The associated numerical value is an estimated quantity.
R	-	The data are unusable (the compound/analyte may or may not be present). Resampling and reanalysis are necessary for verification.
U	-	The compound/analyte was analyzed for, but not detected. The associated numerical value is the sample quantitation limit.
UJ	-	The compound/analyte was analyzed for, but not detected. The sample quantitation limit is an estimated quantity.

DATA QUALIFICATION SUMMARY

CompuChem, Inc. - U2488 - Organics

SAMPLES: 318-SS02, 318-SS03, 318-SS03D, 318-TW03-00, 318-TW03-04, 318-TW03-04D, 339-TW01-00, 339-TW01-03, 303-IS04-00, 303-IS04-00D, 318-TW01-04, 318-TW01-00, 318-TW02-04, 318-TW02-00, 339-IS01-01, 339-TW03-02, 339-TW03-00, 339-TW03-00D, 258-IS05-00, 53-SB01-03

VOLATILE ORGANICS

SUMMARY

I.) General:

The analyses for Volatile Organics were performed by gas chromatography / mass spectroscopy (GC / MS) using SW-846 Method 8260.

II.) Overall Assessment of Data:

The initial analyses of samples 318-SS02, 318-SS03, 318-TW01-00 and 339-TW03-00 were considered by the validator to be of preferable data quality based on holding times and internal standard performance. The reanalyses for these samples were rejected (R) as redundant.

All other laboratory data were acceptable with qualification.

MAJOR ISSUES

There were no major problems for this SDG fraction.

MINOR ISSUES

I.) Holding Times:

All Holding Time criteria were met. No action was required.

II.) GC / MS Tuning:

All GC / MS Tuning criteria were met. No action was required.

III.) Calibration:

Initial Calibration:

All Initial Calibration criteria were met. No action was required.

Continuing Calibration:

The Percent Differences (%D's) for the standards run on 3/21/02 at 21:11 on instrument HP59 exceeded the 25% QC limit for the following compounds:

dichlorodifluoromethane	38.6%
chloromethane	35.5%
xylene	257%

All results for these compounds in associated samples 318-SS02, 318-SS03 and 318-SS03D, which consisted entirely of non-detects, were flagged as estimated (UJ).

The Percent Differences (%D's) for the standards run on 3/22/02 at 08:57 on instrument HP59 exceeded the 25% QC limit for the following compounds:

dichlorodifluoromethane	39.7%
chloroethane	40.8%
acetone	32.9%
2-butanone	25.2%
xylene	233%

All positive and non-detect results for these compounds in the associated samples were flagged as estimated (J) and (UJ). The associated samples were 318-TW03-00, 318-TW03-04, 318-TW03-04D, 339-TW01-00, 303-IS04-00, 303-IS04-00D and 339-TW01-03.

The Percent Differences (%D's) for the standards run on 3/26/02 at 10:48 on instrument HP59 exceeded the 25% QC limit for the following compounds:

bromomethane	64.2%
xylene	252%

All results for these compounds in the associated samples, which consisted entirely of non-detects, were flagged as estimated (UJ). The associated samples were 339-IS01-01, 318-TW01-04, 318-TW01-00, 318-TW02-00, 339-TW03-02 and 339-TW03-00.

The Percent Differences (%D's) for the standards run on 3/26/02 at 21:29 on instrument HP59 exceeded the 25% QC limit for the following compounds:

bromomethane	65.9%
xylene	240%

All results for these compounds in the associated samples, which consisted entirely of non-detects, were flagged as estimated (UJ). The associated samples were 258-IS05-00 and 318-TW02-04.

The Percent Differences (%D's) for the standards run on 3/27/02 at 08:47 on instrument HP59 exceeded the 25% QC limit for the following compounds:

bromomethane	75.4%
acetone	25.4%
xylene	290%

All positive and non-detect results for these compounds in associated sample 33-TW03-00D were flagged as estimated (J) and (UJ).

IV.) Blanks:

Method Blanks:

4-methyl-2-pentanone and toluene were detected at 2 ug/kg and 1 ug/kg, respectively, in method blank VBLKFK. The detections of toluene in associated samples 318-SS02, 318-SS03 and 318-SS03D, which were less than 5X the blank amount, were flagged as undetected (U) with the results less than the CRQL being raised to the CRQL. There were no detections of 4-methyl-2-pentanone in the associated samples, so no further action was required.

Toluene was detected at 2 ug/kg in method blank VBLKEZ. The detection of toluene in associated sample 318-TW03-00, which was less than 5X the blank amount, was flagged as undetected (U) with the result being raised to the CRQL.

Toluene was detected at 1 ug/kg in method blank VBLKQW. All detections of for toluene in the associated samples, which were less than 5X the blank amount, were flagged as undetected (U) with the results less than the CRQL being raised to the CRQL. The associated samples were 318-TW01-04, 318-TW01-00, 318-TW02-00 and 339-TW03-00.

Toluene was detected at 1 ug/kg in method blank VBLKIM. The detection of toluene in associated sample 258-IS05-00, which was less than 5X the blank amount, was flagged as undetected (U) with the results being raised to the CRQL.

Toluene was detected at 1 ug/kg in method blank VBLKIN. The detection of toluene in associated sample 339-TW03-00D, which was less than 5X the blank amount, were flagged as undetected (U) with the result being raised to the CRQL.

Field Blanks:

Chloroform and toluene were detected at 1 ug/L each in field blank ER03. The detections of chloroform in associated samples 318-TW02-04, 339-TW03-00D and 258-IS05-00, which were less than 5X the blank amount, were flagged as undetected (U) with the results less than the CRQL being raised to the CRQL. All positive results for toluene in the associated samples were previously flagged based on the associated method blanks. No further action was required.

Trip Blanks:

Toluene was detected at 2 ug/L in trip blank TB01. All detections of toluene in the associated samples were previously flagged based on the associated method blanks. No further action was required.

Toluene was detected at 2 ug/L in trip blank TB02. All detections of toluene in the associated samples

were previously flagged based on the associated method blanks. No further action was required.

Toluene was detected at 1 ug/L in trip blank TB04. All detections of toluene in the associated samples were previously flagged based on the associated method blanks. No further action was required.

Tentatively Identified Compounds (TIC):

Hexamethylcyclotrisiloxane and octamethyl cyclotetrasiloxane were detected at 9.5 ug/kg and 37.2 ug/kg, respectively, in method blank VBLKEZ. All positive results for these compounds in the associated samples, which were less than 10X the blank amount, were flagged as undetected (U). The associated samples were 318-SS02RE, 318-SS03RE, 318-TW03-00, 318-TW03-04, 318-TW03-04D, 339-TW01-00, 303-IS04-00, 303-IS04-00D and 339-TW01-03.

Octamethylcyclotetrasiloxane was detected at 34.1 ug/L in method blank VBLKQW. All positive results for this compound in the associated samples, which were less than 10X the blank amount, were flagged as undetected (U). The associated samples were 339-IS01-01, 318-TW01-04, 318-TW01-00, 318-TW02-00, 339-TW03-02 and 339-TW03-00.

Hexamethylcyclotrisiloxane was detected at 7.8 ug/L in trip blank TB01. All positive results for this compound in the associated samples, which were less than 10X the blank amount, were flagged as undetected (U). The associated samples were 318-SS02, 318-SS03, 318-SS03D, 318-TW03-00, 318-TW03-04, 318-TW03-04D, 339-TW01-00, 339-TW01-03, 303-IS04-00, 303-IS04-00D, 318-TW01-04, 318-TW01-00, 318-TW02-04, 318-TW02-00, 339-IS01-01, 339-TW03-02, 339-TW03-00 and 339-TW03-00D.

Octamethylcyclotetrasiloxane was detected at 29.3 ug/L in trip blank TB02. All positive results for this compound in the associated samples, which were less than 10X the blank amount, were flagged as undetected (U). The associated samples were 318-SS02, 318-SS03, 318-SS03D, 318-TW03-00, 318-TW03-04, 318-TW03-04D, 339-TW01-00, 339-TW01-03, 303-IS04-00, 303-IS04-00D, 318-TW01-04, 318-TW01-00, 318-TW02-04, 318-TW02-00, 339-IS01-01, 339-TW03-02, 339-TW03-00 and 339-TW03-00D.

Octamethylcyclotetrasiloxane was detected at 42.5 ug/L in trip blank TB04. Since there were no positive results for this compound in the associated samples, no action was required.

V.) Surrogate Recoveries:

All Surrogate Recovery criteria were met. No action was required.

VI.) Laboratory Control Samples (LCS):

Five LCSs were analyzed for this SDG. All LCS criteria were met. No action was required.

VII.) Matrix Spike / Matrix Spike Duplicate (MS / MSD):

MS / MSD analyses were run on SDG sample 258-IS05-00. One Relative Percent Difference (RPD) exceeded the QC limits. Data qualification based on MS / MSD criteria was not required. No action was taken.

VIII.) Field Duplicates:

Four sets of Field Duplicate samples (318-SS03 / 318-SS03D, 318-TW03-04, 318-TW03-04D, 303-IS04-00 / 303-IS04-00D and 339-TW03-00 / 339-TW03-00D) were identified for this fraction of the SDG. The calculable Relative Percent Differences (RPDs) were:

Compound	318-SS03	318-SS03D	RPD
acetone	40 ug/kg	21 ug/kg	62%
2-butanone	16 ug/kg	9 ug/kg	56%

Compound	318-TW03-04	318-TW03-04D	RPD
carbon disulfide	3 ug/kg	4 ug/kg	28%
acetone	24 ug/kg	32 ug/kg	28%
methylene chloride	1 ug/kg	3 ug/kg	100%
2-butanone	5 ug/kg	7 ug/kg	33%

Compound	303-IS04-00	303-IS04-00D	RPD
chloroethane	44 ug/kg	22 ug/kg	67%
acetone	27 ug/kg	33 ug/kg	20%
2-butanone	7 ug/kg	9 ug/kg	25%

Compound	339-TW03-00	339-TW03-00D	RPD
acetone	220 ug/kg	49 ug/kg	127%
methylene chloride	29 ug/kg	35 ug/kg	19%
2-butanone	38 ug/kg	13 ug/kg	98%

The RPDs for five compounds exceeded the 60% QC limit for soil samples. The results for these compounds in the associated samples were flagged as estimated (J).

IX.) Internal Standards Performance (ISTD):

The Percent Recovery (%R) of 1,4-dichlorobenzene-d4 was 47.6% for sample 318-SS02, which was below the 50-200% QC limits. All results for the compounds quantitated against this ISTD, which consisted entirely of non-detects, were flagged as estimated (UJ).

The Percent Recovery (%R) of 1,4-dichlorobenzene-d4 was 43.3% for sample 318-SS03, which was below the 50-200% QC limits. All results for the compounds quantitated against this ISTD, which consisted entirely of non-detects, were flagged as estimated (UJ).

The Percent Recovery (%R) of 1,4-dichlorobenzene-d4 was 39.6% for sample 318-SS02RE, which was below the 50-200% QC limits. All results for this sample were previously rejected. No further action was required.

The Percent Recovery (%R) of 1,4-dichlorobenzene-d4 was 49.4% for sample 318-SS03RE, which was below the 50-200% QC limits. All results for this sample were previously rejected. No further action was required.

The Percent Recovery (%R) of 1,4-dichlorobenzene-d4 was 49.2% for sample 318-TW01-00, which was

below the 50-200% QC limits. All results for the compounds quantitated against this ISTD, which consisted entirely of non-detects, were flagged as estimated (UJ).

The Percent Recovery (%R) of 1,4-dichlorobenzene-d4 was 49.1% for sample 339-TW03-00, which was below the 50-200% QC limits. All results for the compounds quantitated against this ISTD, which consisted entirely of non-detects, were flagged as estimated (UJ).

The Percent Recovery (%R) of 1,4-dichlorobenzene-d4 was 28.2% for sample 318-TW01-00RE, which was below the 50-200% QC limits. All results for this sample were previously rejected. No further action was required.

The Percent Recovery (%R) of 1,4-dichlorobenzene-d4 was 27.3% for sample 339-TW03-00RE, which was below the 50-200% QC limits. All results for this sample were previously rejected. No further action was required.

X.) TCL Compound Identification:

All TCL Compound Identification criteria were met. No action was required.

XI.) Compound Quantitation and Reported Contract Required Quantitation Limits (CRQL):

All CRQL criteria were met. No action was required.

XII.) Tentatively Identified Compounds (TIC):

All TIC criteria were met. No action was required.

XIII.) System Performance:

All System Performance criteria were met. No action was required.

SEMIVOLATILE ORGANICS

SUMMARY

I.) General:

The analyses for Semivolatile Organics were performed by gas chromatography / mass spectroscopy (GC / MS) using SW-846 Method 8270.

II.) Overall Assessment of Data:

All laboratory data were acceptable with qualification.

MAJOR ISSUES

There were no major problems in this fraction of the SDG.

MINOR ISSUES

I.) Holding Times:

All Holding Time criteria were met. No action was required.

II.) GC / MS Tuning:

All GC / MS Tuning criteria were met. No action was required.

III.) Calibration:

Initial Calibration:

The Percent Relative Standard Deviation (%RSD) for the standards analyzed on 3/27/02 on instrument HP66 was 32.3% for 2,4-dinitrophenol, which exceeded the 30% QC limit. Since there were no positive results for this compound in the associated samples, no action was required.

Continuing Calibration:

The Percent Differences (%D's) for the standards run on 3/28/02 at 12:08 on instrument HP66 exceeded the 25% QC limit for the following compounds:

2-methylnaphthalene	30.2%
hexachlorocyclopentadiene	48.6%

All positive and non-detect results for these compounds in the associated samples were flagged as estimated (J) and (UJ). The associated samples were 318-SS02, 318-SS03, 318-SS03D, 318-TW03-00, 318-TW03-04, 318-TW03-04D, 339-TW01-00, 339-TW01-03, 318-TW01-04, 318-TW01-00, 318-TW02-04, 318-TW02-00, 339-IS01-01 and 53-SB01-03.

The Percent Difference (%D) for the standards run on 3/29/02 at 00:54 on instrument HP66 was 54.9% for acetophenone, which exceeded the 25% QC limit. The results for this compound in the associated samples, which consisted entirely of non-detects, were flagged as estimated (UJ). The associated samples were 339-TW03-00, 339-TW03-00D and 339-TW03-02.

IV.) Blanks:

Method Blanks:

There were no detections in the method blanks associated with this SDG. No action was required.

Field Blanks:

There were no detections in the field blanks associated with this SDG, which were analyzed as part of SDG V2488. No action was required.

Tentatively Identified Compounds (TIC):

There were no TIC detections in the method and field blanks associated with this SDG. No action was required.

V.) Surrogate Recoveries:

All Surrogate Recovery criteria were met. No action was required.

VI.) Laboratory Control Samples (LCS):

One LCS was analyzed for this SDG. All LCS criteria were met. No action was required.

VII.) Matrix Spike / Matrix Spike Duplicate (MS / MSD):

MS / MSD analyses were run on SDG sample 53-SB01-03. All MS / MSD criteria were met. No action was required.

VIII.) Field Duplicates:

Three sets of Field Duplicate samples (318-SS03 / 318-SS03D, 318-TW03-04 / 318-TW03-04D and 339-TW03-00 / 339-TW03-00D) were identified for this fraction of the SDG. The calculable Relative Percent Differences (RPDs) were:

Compound	318-SS03	318-SS03D	RPD
caprolactam	100 ug/kg	78 ug/kg	25%
acenaphthene	34 ug/kg	64 ug/kg	61%
phenanthrene	110 ug/kg	250 ug/kg	78%
carbazole	44 ug/kg	35 ug/kg	23%
fluoranthene	440 ug/kg	660 ug/kg	40%
pyrene	370 ug/kg	480 ug/kg	26%
bis(2-ethylhexyl)phthalate	1100 ug/kg	490 ug/kg	77%
benzo(a)anthracene	220 ug/kg	280 ug/kg	24%
chrysene	290 ug/kg	340 ug/kg	16%
benzo(b)fluoranthene	260 ug/kg	290 ug/kg	11%
benzo(k)fluoranthene	300 ug/kg	280 ug/kg	6.9%
benzo(a)pyrene	190 ug/kg	240 ug/kg	23%
dibenzo(a,h)anthracene	68 ug/kg	72 ug/kg	5.7%

Compound	318-TW03-04	318-TW03-04D	RPD
bis(2-ethylhexyl)phthalate	660 ug/kg	63 ug/kg	165%

Compound	339-TW03-00	339-TW03-00D	RPD
bis(2-ethylhexyl)phthalate	240 ug/kg	320 ug/kg	29%

The RPD's for four of the compounds exceeded the 60% QC limit for soil samples. The results for these compounds in the associated samples were flagged as estimated (J).

IX.) Internal Standards Performance (ISTD):

All ISTD criteria were met. No action was required.

X.) TCL Compound Identification:

All TCL Compound Identification criteria were met. No action was required.

XI.) Compound Quantitation and Reported Contract Required Quantitation Limits (CRQL):

All CRQL criteria were met. No action was required.

XII.) Tentatively Identified Compounds (TIC):

All TIC criteria were met. No action was required.

XIII.) System Performance:

All System Performance criteria were met. No action was required.

RECRA METALS

SUMMARY

I.) General:

The analyses for RECRA Metals were performed using SW-846 Methods 6010B.

II.) Overall Assessment of Data:

All laboratory data were acceptable with qualifications

MAJOR ISSUES

There were no major problems in this fraction of the SDG.

MINOR ISSUES

I.) Holding Times:

All Holding Time criteria were met. No action was required.

II.) Calibration:

All Initial and Continuing Calibration criteria were met. No action was required.

III.) CRDL Standards for ICP:

All CRDL criteria were met. No action was required.

IV.) Blanks:

The following blank result represents the highest detection associated with the samples and was used for data qualification:

Blank ID	Analyte	Max. Conc.	Action Level
ER03	barium	7.2 ug/L	7.2 mg/kg

ER03 = Equipment Rinsate Blank (analyzed as part of SDG V2488)

The result for barium in SDG sample 53-SB01-03, which was less than the action level, was flagged as undetected (U).

V.) ICP Interference Check Sample Results:

All Interference Percent Recovery criteria were met. No action was required.

The following analytes were detected in the ICS Solution A with results greater than the IDL:

barium	2 ug/L
cadmium	7 ug/L
chromium	21 ug/L

These analytes should not be present. Since neither aluminum, calcium, iron nor magnesium was detected in any sample at a concentration comparable to or greater than the respective concentration in ICS solution A, data qualification was not required.

Selenium had a negative result of -1 ug/L in the ICS Solution A with the absolute value greater than the IDL. Since neither aluminum, calcium, iron nor magnesium was detected in any sample at a concentration comparable to or greater than the respective concentration in ICS solution A, data qualification was not required.

VI.) ICP Serial Dilution Analysis:

All Serial Dilution Analysis criteria were met. No action was required.

VII.) Laboratory Control Samples (LCS):

All LCS criteria were met. No action was required.

VIII.) Duplicate Sample Analysis:

All Duplicate Sample Analysis criteria were met. No action was required.

IX.) Matrix Spike (MS):

Matrix Spike / Matrix Spike Duplicate Analyses were run on SDG sample 53-SB01-03. The Percent Recoveries (%R's) of lead were 127% and 149%, respectively, which exceeded the 75-125% QC limits. All positive results for lead in the SDG samples were flagged as estimated (J).

X.) Field Duplicates:

Two sets of Field Duplicate samples (318-SS03 / 318-SS03D and 318-TW03-04 / 318-TW03-04D) were identified for this fraction of the SDG. The calculable Relative Percent Differences (RPDs) were:

Analyte	318-SS03	318-SS03D	RPD
arsenic	3.3 mg/kg	3.8 mg/kg	14%
barium	47.8 mg/kg	1060 mg/kg	460%
chromium	24.9 mg/kg	26.6 mg/kg	6.6%
lead	20.8 mg/kg	32.1 mg/kg	43%
selenium	1.3 mg/kg	1.0 mg/kg	26%

Analyte	318-TW03-04	318-TW03-04D	RPD
arsenic	4.8 mg/kg	1.1 mg/kg	125%
barium	30.0 mg/kg	29.1 mg/kg	3.0%
chromium	4.1 mg/kg	4.2 mg/kg	2.4%
lead	1.0 mg/kg	1.1 mg/kg	9.5%

The RPDs for barium in the first set and arsenic in the second set exceeded the 60% QC limit for soil samples. The results for barium in the first set and arsenic in the second set were flagged as estimated (J).

XI.) Sample Result, Calculation/Transcription Verification:

All criteria were met. No action was taken.

XII.) Quarterly Verification of Instrumental Parameters:

All criteria were met. No action was taken.

VALIDATA

Chemical Services, Inc.

4070 Balleycastle Lane, Duluth, GA 30097

(770) 232-0130
(770) 232-5082 (Fax)
www.datavalidator.com

DATA VALIDATION SUMMARY
REPORT

COMPANY:	CH2M HILL
SITE NAME:	Baker, CTO-143
CONTRACTED LAB:	CompuChem, Inc.
PROJECT NUMBER:	155022
QA/QC LEVEL:	EPA Level III
EPA SOW/METHOD:	EPA 1990 SOW
VALIDATION GUIDELINES:	*USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review*, 1994; *USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review*, 1994
SAMPLE MATRIX:	Water
TYPES OF ANALYSES:	Volatile Organics (VOA), Semivolatile Organics (SVOA), RECRA Metals
SDG NUMBER:	V2488

OVERVIEW

SAMPLES:

Client Sample #	Lab Sample #	Matrix	VOA	SVOA	RECRA Metals
TB01	V2488-1	Water	X		
TB02	V2488-2	Water	X		
TB03	V2488-3	Water	X		
ER01	V2488-4	Water	X	X	X
ER03	V2488-5	Water	X	X	X
TB04	V2488-6	Water	X		
TB05	V2488-7	Water	X		
ER04	V2488-8	Water	X	X	X

Sample ID Codes: ER = EQUIPMENT RINSATE BLANK, TB = TRIP BLANK

DATA REVIEWERS: Amy L. Hogan, Jean M. Delashmit

RELEASE SIGNATURE:

Data Qualifier Definitions

J	-	The associated numerical value is an estimated quantity.
R	-	The data are unusable (the compound/analyte may or may not be present). Resampling and reanalysis are necessary for verification.
U	-	The compound/analyte was analyzed for, but not detected. The associated numerical value is the sample quantitation limit.
UJ	-	The compound/analyte was analyzed for, but not detected. The sample quantitation limit is an estimated quantity.

DATA QUALIFICATION SUMMARY

CompuChem, Inc. - V2488 - Organics

SAMPLES: TB01, TB02, TB03, ER01, ER03, TB04, TB05, ER04

VOLATILE ORGANICS

SUMMARY

I.) General:

The analyses for Volatile Organics were performed by gas chromatography / mass spectroscopy (GC / MS) using SW-846 Method 8260.

II.) Overall Assessment of Data:

All laboratory data were acceptable without qualification.

MAJOR ISSUES

There were no Major Issues for this SDG.

MINOR ISSUES

I.) Holding Times:

All Holding Time criteria were met. No action was required.

II.) GC / MS Tuning:

All GC / MS Tuning criteria were met. No action was required.

III.) Calibration:

Initial Calibration:

All Initial Calibration criteria were met. No action was required.

Continuing Calibration:

The Percent Difference (%D) for the standards run on 3/25/02 at 08:35 on instrument HP59 was 37.0% for dichlorodifluoromethane, which exceeded the 25% QC limit. Since the associated samples were field and trip blanks, no action was required.

IV.) Blanks:

Method Blanks:

Toluene was detected at 1 ug/L in method blank VBLKFE. Since the associated samples were field and trip blanks, no action was required.

Field Blanks:

Chloroform and toluene were detected at 2 ug/L each in field blank ER01. Since the samples in this SDG were field and trip blanks, no action was required.

Chloroform and toluene were detected at 1 ug/L each in field blank ER03. Since the samples in this SDG were field and trip blanks, no action was required.

Toluene was detected at 1 ug/L in field blank ER04. Since the samples in this SDG were field and trip blanks, no action was required.

Trip Blanks:

Toluene was detected at 2 ug/L in trip blank TB01. Since the samples in this SDG were field and trip blanks, no action was required.

Toluene was detected at 2 ug/L in trip blank TB02. Since the samples in this SDG were field and trip blanks, no action was required.

Chloroform and toluene were detected at 2 ug/L and 1 ug/L, respectively, in trip blank TB03. Since the samples in this SDG were field and trip blanks, no action was required.

Toluene was detected at 1 ug/L in trip blank TB04. Since the samples in this SDG were field and trip blanks, no action was required.

Toluene was detected at 1 ug/L in trip blank TB05. Since the samples in this SDG were field and trip blanks, no action was required.the

Tentatively Identified Compounds (TIC):

Hexamethylcyclotrisiloxane was detected at 7.8 ug/L in method blank VBLKFE. Since the samples in this SDG were field and trip blanks, no action was required.

Octamethylcyclotetrasiloxane was detected at 26 ug/L in field blank ER01. Since the samples in this SDG were field and trip blanks, no action was required.

Octamethylcyclotetrasiloxane was detected at 31.4 ug/L in field blank ER04. Since the samples in this SDG were field and trip blanks, no action was required.

Hexamethylcyclotrisiloxane was detected at 7.8 ug/L in trip blank TB01. Since the samples in this SDG were field and trip blanks, no action was required.

Octamethylcyclotetrasiloxane was detected at 29.3 ug/L in trip blank TB02. Since the samples in this SDG were field and trip blanks, no action was required.

Hexamethylcyclotrisiloxane was detected at 8.2 ug/L in trip blank TB03. Since the samples in this SDG were field and trip blanks, no action was required.

Octamethylcyclotetrasiloxane was detected at 42.5 ug/L in trip blank TB04. Since the samples in this SDG were field and trip blanks, no action was required.

V.) Surrogate Recoveries:

All Surrogate Recovery criteria were met. No action was required.

VI.) Laboratory Control Samples (LCS):

One LCS was analyzed for this SDG. All LCS criteria were met. No action was required.

VII.) Matrix Spike / Matrix Spike Duplicate (MS / MSD):

MS / MSD analyses were not run for this SDG. Data qualification based on MS / MSD criteria was not required. No action was taken.

VIII.) Field Duplicates:

There were no Field Duplicate samples identified in this fraction of the SDG. No action was required.

IX.) Internal Standards Performance (ISTD):

All ISTD criteria were met. No action was required.

X.) TCL Compound Identification:

All TCL Compound Identification criteria were met. No action was required.

XI.) Compound Quantitation and Reported Contract Required Quantitation Limits (CRQL):

All CRQL criteria were met. No action was required.

XII.) Tentatively Identified Compounds (TIC):

All TIC criteria were met. No action was required.

XIII.) System Performance:

All System Performance criteria were met. No action was required.

SEMIVOLATILE ORGANICS

SUMMARY

I.) General:

The analyses for Semivolatile Organics were performed by gas chromatography / mass spectroscopy (GC / MS) using SW-846 Method 8270.

II.) Overall Assessment of Data:

All laboratory data were acceptable without qualification.

MAJOR ISSUES

There were no Major Issues for this SDG.

MINOR ISSUES

I.) Holding Times:

All Holding Time criteria were met. No action was required.

II.) GC / MS Tuning:

All GC / MS Tuning criteria were met. No action was required.

III.) Calibration:

Initial Calibration:

The Percent Relative Standard Deviation (%RSD) for the standards analyzed on 3/27/02 on instrument HP60 was 38.8% for hexachlorocyclopentadiene, which exceeded the 30% QC limit. There were no positive results for this compound in the associated samples. No action was required.

Continuing Calibration:

All Continuing Calibration criteria were met. No action was required.

IV.) Blanks:

Method Blanks:

There were no detections in the method blanks associated with this SDG. No action was required.

Field Blanks:

There were no detections in the field blanks associated with this SDG. No action was required.

Tentatively Identified Compounds (TIC):

There were no TIC detections for the method or field blanks associated with this SDG. No action was required.

V.) Surrogate Recoveries:

All Surrogate Recovery criteria were met. No action was required.

VI.) Laboratory Control Samples (LCS):

One LCS was analyzed for this SDG. All LCS criteria were met. No action was required.

VII.) Matrix Spike / Matrix Spike Duplicate (MS / MSD):

MS / MSD analyses were not run for this SDG. Data qualification based on MS / MSD criteria was not required. No action was taken.

VIII.) Field Duplicates:

There were no Field Duplicate samples identified for this fraction of the SDG. No action was required.

IX.) Internal Standards Performance (ISTD):

All ISTD criteria were met. No action was required.

X.) TCL Compound Identification:

All TCL Compound Identification criteria were met. No action was required.

XI.) Compound Quantitation and Reported Contract Required Quantitation Limits (CRQL):

All CRQL criteria were met. No action was required.

XII.) Tentatively Identified Compounds (TIC):

All TIC criteria were met. No action was required.

XIII.) System Performance:

All System Performance criteria were met. No action was required.

RECRA METALS

SUMMARY

I.) General:

The analyses for RECRA Metals were performed using SW-846 Methods 6010B.

II.) Overall Assessment of Data:

All laboratory data were acceptable without qualification.

MAJOR ISSUES

There were no major issues for this fraction of the SDG.

MINOR ISSUES

I.) Holding Times:

All Holding Time criteria were met. No action was required.

II.) Calibration:

All Initial and Continuing Calibration criteria were met. No action was required.

III.) CRDL Standards for ICP:

All CRDL criteria were met. No action was required.

IV.) Blanks:

The following blank results represent the highest detections associated with the samples and were used for data qualification:

Blank ID	Analyte	Max. Conc.	Action Level
CCB3	barium	0.7 ug/L	3.5 ug/L
CCB6	mercury	0.2 ug/L	1.0 ug/L

CCB = Continuing Calibration Blank

Since the associated samples were field blanks, no action was required.

IV.) ICP Interference Check Sample Results:

All Interference Percent Recovery criteria were met. No action was required.

The following analytes were detected in the ICS Solution A with results greater than the IDL:

arsenic	4 ug/L
barium	2 ug/L
cadmium	6 ug/L
chromium	21 ug/L
selenium	3 ug/L
silver	2 ug/L

These analytes should not be present. Since neither aluminum, calcium, iron nor magnesium was detected in any sample at a concentration comparable to or greater than the respective concentration in ICS solution A, data qualification was not required.

Lead had a negative result of -1 ug/L in the ICS Solution A with the absolute value greater than the IDL. Since neither aluminum, calcium, iron nor magnesium was detected in any sample at a concentration comparable to or greater than the respective concentration in ICS solution A, data qualification was not required.

V.) ICP Serial Dilution Analysis:

Serial Dilution Analysis was not run for this SDG. No action was taken.

VI.) Laboratory Control Samples (LCS):

All LCS criteria were met. No action was required.

VII.) Duplicate Sample Analysis:

Duplicate Sample Analysis was not run for this SDG. No action was taken.

VIII.) Matrix Spike (MS):

Matrix Spike / Matrix Spike Duplicate Analyses were not run for this SDG. No action was taken.

IX.) Field Duplicates:

There were no Field Duplicate samples identified for this SDG. No action was required.

X.) Sample Result, Calculation/Transcription Verification:

All criteria were met. No action was taken.

XI.) Quarterly Verification of Instrumental Parameters:

All criteria were met. No action was taken.

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(770) 232-5082 (Fax)
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DATA VALIDATION SUMMARY
REPORT

COMPANY:	CH2M HILL
SITE NAME:	Baker, CTO-143
CONTRACTED LAB:	CompuChem, Inc.
PROJECT NUMBER:	155022
QA/QC LEVEL:	EPA Level III
EPA SOW/METHOD:	EPA 1990 SOW
VALIDATION GUIDELINES:	*USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review,* 1994, *USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review,* 1994
SAMPLE MATRIX:	Soil
TYPES OF ANALYSES:	Semivolatile Organics (SVOA), RECRA Metals
SDG NUMBER:	W2488

OVERVIEW

SAMPLES:

Client Sample #	Lab Sample #	Matrix	SVOA	RECRA Metals
272-SB01-03	W2488-1	Soil	X	X
272-SB01-00	W2488-2	Soil	X	X
272-SB02-03	W2488-3	Soil	X	X
272-SB02-00	W2488-4	Soil	X	X
272-SB02-00D	W2488-5	Soil	X	X
272-SB03-02	W2488-6	Soil	X	X
272-SB03-00	W2488-7	Soil	X	X
312-SB01-02	W2488-8	Soil	X	X
312-SB01-00	W2488-9	Soil	X	X
312-SB02-04	W2488-10	Soil	X	X
312-SB02-00	W2488-11	Soil	X	X
53-SB02-04	W2488-12	Soil	X	X
53-SB02-00	W2488-13	Soil	X	X
53-SB01-00	W2488-14	Soil	X	X
53-TW01-03	W2488-15	Soil	X	X
53-TW01-00	W2488-16	Soil	X	X
53-TW02-03	W2488-17	Soil	X	X
53-TW02-00	W2488-18	Soil	X	X

Client Sample #	Lab Sample #	Matrix	SVOA	RECRA Metals
256-TW03-03	W2488-19	Soil	X	X
256-TW03-00	W2488-20	Soil	X	X
272-SB03-00MS	W2488-7MS	Soil	X	X
272-SB03-00MSD	W2488-7MSD	Soil	X	X

Form I's, elec. are both missing

Sample ID Suffix Codes: D = FIELD DUPLICATE, MS = MATRIX SPIKE, MSD = MATRIX SPIKE DUPLICATE

DATA REVIEWERS: Amy L. Hogan, Jean M. Delashmit

RELEASE SIGNATURE:

Data Qualifier Definitions

J	-	The associated numerical value is an estimated quantity.
R	-	The data are unusable (the compound/analyte may or may not be present). Resampling and reanalysis are necessary for verification.
U	-	The compound/analyte was analyzed for, but not detected. The associated numerical value is the sample quantitation limit.
UJ	-	The compound/analyte was analyzed for, but not detected. The sample quantitation limit is an estimated quantity.

DATA QUALIFICATION SUMMARY

CompuChem, Inc. - W2488 - Organics

SAMPLES: 272-SB01-03, 272-SB01-00, 272-SB02-03, 272-SB02-00, 272-SB02-00D, 272-SB03-02, 272-SB03-00, 312-SB01-02, 312-SB01-00, 312-SB02-04, 312-SB02-00, 53-SB02-04, 53-SB02-00, 53-SB01-00, 53-TW01-03, 53-TW01-00, 53-TW02-03, 53-TW02-00, 256-TW03-03, 256-TW03-00

SEMIVOLATILE ORGANICS

SUMMARY

I.) General:

The analyses for Semivolatile Organics were performed by gas chromatography / mass spectroscopy (GC / MS) using SW-846 Method 8270.

II.) Overall Assessment of Data:

All laboratory data were acceptable with qualifications.

MAJOR ISSUES

There were no major problems in this fraction of the SDG.

MINOR ISSUES

I.) Holding Times:

All Holding Time criteria were met. No action was required.

II.) GC / MS Tuning:

All GC / MS Tuning criteria were met. No action was required.

III.) Calibration:

Initial Calibration:

The Percent Relative Standard Deviation (%RSD) for the standards analyzed on 3/27/02 on instrument HP66 was 32.3% for 2,4-dinitrophenol, which exceeded the 30% QC limit. Since there were no positive results for this compound in the SDG samples, no action was required.

Continuing Calibration:

The Percent Differences (%D's) for the standards run on 3/29/02 at 00:54 on instrument HP66 exceeded the 25% QC limit for acetophenone at 54.9%. All results for this compound in the associated samples, which consisted entirely of non-detects, were flagged as estimated (UJ). The associated samples were 272-SB01-03, 272-SB01-00, 272-SB02-03, 272-SB02-00, 272-SB02-00D, 272-SB03-02, 272-SB03-00, 312-SB01-02, 312-SB01-00 and 312-SB03-02.

The Percent Differences (%D's) for the standards run on 3/29/02 at 15:23 on instrument HP66 exceeded the 25% QC limit for the following compounds:

hexachlorocylcopentadiene	30.5%
2,4-dinitrophenol	39.3%

The results for these compounds in the associated samples, which consisted entirely of non-detects, were flagged as estimated (UJ). The associated samples were 312-SB02-04, 312-SB02-00, 53-SB02-04, 53-SB02-00, 53-SB01-00, 53-TW01-03, 53-TW01-00, 53-TW02-03, 53-TW02-00, 256-TW03-03 and 256-TW03-00.

IV.) Blanks:

Method Blanks:

Bis(2-ethylhexyl)phthalate was detected at 47 ug/kg in method blank SBLKLM. All positive results for this compound in the SDG samples, which were less than 10X the blank amount, were flagged as undetected (U) with the results less than the CRQL being raised to the CRQL.

Field Blanks:

There were no detections in the field blanks associated with this SDG, which were analyzed as part of SDG V2488. No action was required.

Tentatively Identified Compounds (TIC):

1,1,2,2-Tetrachloroethane was detected at 490 ug/kg in method blank SBLKLM. There were no positive results for this compound in the SDG samples, so no action was required.

V.) Surrogate Recoveries:

The Percent Recovery (%R) of 2-fluorobiphenyl was 30% for sample 272-SB03-00MS, which was below the 37-110% QC limits. Since the sample was a QC sample, no action was required.

The Percent Recovery (%R) of nitrobenzene-d5 was 151% for sample 272-SB03-00MSD, which exceeded the 35-110% QC limits. Since the sample was a QC sample, no action was required.

VI.) Laboratory Control Samples (LCS):

One LCS was analyzed for this SDG. All LCS criteria were met. No action was required.

VII.) Matrix Spike / Matrix Spike Duplicate (MS / MSD):

MS / MSD analyses were run on SDG sample 272-SB03-00. The Percent Recovery of 4-chloro-3-methylphenol was 31% for the Matrix Spike sample, which was below the 39-121% QC limits. Data qualification based on MS / MSD criteria was not required. No action was taken.

VIII.) Field Duplicates:

One set of Field Duplicate samples (272-SB02-00 / 272-SB02-00D) was identified for this fraction of the SDG. There were no calculable Relative Percent Differences (RPDs). No action was required.

IX.) Internal Standards Performance (ISTD):

All ISTD criteria were met. No action was required.

X.) TCL Compound Identification:

All TCL Compound Identification criteria were met. No action was required.

XI.) Compound Quantitation and Reported Contract Required Quantitation Limits (CRQL):

All CRQL criteria were met. No action was required.

XII.) Tentatively Identified Compounds (TIC):

All TIC criteria were met. No action was required.

XIII.) System Performance:

All System Performance criteria were met. No action was required.

RECRA METALS

SUMMARY

I.) General:

The analyses for RECRA Metals were performed using SW-846 Methods 6010B.

II.) Overall Assessment of Data:

All laboratory data were acceptable with qualifications.

MAJOR ISSUES

There were no major problems for this fraction of the SDG.

MINOR ISSUES

I.) Holding Times:

All Holding Time criteria were met. No action was required.

II.) Calibration:

All Initial and Continuing Calibration criteria were met. No action was required.

III.) CRDL Standards for ICP:

All CRDL criteria were met. No action was required.

IV.) Blanks:

The following blank results represent the highest detections associated with the samples and were used for data qualification:

Blank ID#	Analyte	Max. Conc.	Action Level
ER01	barium	9.3 ug/L	9.3 mg/kg

ER = Equipment Rinsate Blank

All results for barium in the SDG samples less than the Action Level were flagged as undetected (U).

V.) ICP Interference Check Sample Results:

All Interference Percent Recovery criteria were met. No action was required.

The following analytes were detected in the ICS Solution A with results greater than the IDL:

arsenic	2 ug/L
barium	2 ug/L
cadmium	6 ug/L
chromium	21 ug/L
lead	1 ug/L

These analytes should not be present. Since neither aluminum, calcium, iron nor magnesium was detected in any sample at a concentration comparable to or greater than the respective concentration in ICS solution A, data qualification was not required.

Silver had a negative result of -1 ug/L in the ICS Solution A with an absolute value greater than the IDL. Since neither aluminum, calcium, iron nor magnesium was detected in any sample at a concentration comparable to or greater than the respective concentration in ICS solution A, data qualification was not required.

VI.) ICP Serial Dilution Analysis:

All Serial Dilution Analysis criteria were met. No action was required.

VII.) Laboratory Control Samples (LCS):

All LCS criteria were met. No action was required.

VIII.) Duplicate Sample Analysis:

Duplicate Sample Analysis was run on SDG sample 272-SB03-00. All Duplicate Sample Analysis criteria were met. No action was required.

IX.) Matrix Spike (MS):

Matrix Spike / Matrix Spike Duplicate Analyses were run on SDG sample 272-SB03-00. All MS / MSD criteria were met. No action was required.

X.) Field Duplicates:

One set of Field Duplicate samples (272-SB02-00 / 272-SB02-00D) was identified for this fraction of the SDG. The calculable Relative Percent Differences (RPDs) were:

Analyte	272-SB02-00	272-SB02-00D	RPD
arsenic	2.7 mg/kg	3.2 mg/kg	17%
barium	26.5 mg/kg	28.4 mg/kg	6.9%
chromium	13.3 mg/kg	15.4 mg/kg	15%
lead	12.4 mg/kg	12.1 mg/kg	2.4%
mercury	0.06 mg/kg	0.04 mg/kg	40%
selenium	0.85 mg/kg	0.93 mg/kg	8.9%

All RPDs were within the 60% QC limit for soil samples. No action was required.

XI.) Sample Result, Calculation/Transcription Verification:

All criteria were met. No action was taken.

XII.) Quarterly Verification of Instrumental Parameters:

All criteria were met. No action was taken.

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DATA VALIDATION SUMMARY
REPORT

COMPANY:	CH2M HILL
SITE NAME:	Camp LeJuene, CTO-143
CONTRACTED LAB:	CompuChem, Inc.
PROJECT NUMBER:	26007-143-0000-05201
QA/QC LEVEL:	EPA Level III
EPA SOW/METHOD:	EPA 1990 SOW
VALIDATION GUIDELINES:	*USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review*, 1994
SAMPLE MATRIX:	Water
TYPES OF ANALYSES:	RCRA Metals
SDG NUMBER:	X2488

OVERVIEW

SAMPLES:

Client Sample #	Lab Sample #	Matrix	RCRA Metals
ER02	X2488-1	Water	X

SUFFIX CODES ER = EQUIPMENT RINSATE BLANK

DATA REVIEWERS: Mary Ann Brookshire, Kevin C. Harmon, Jean M. Delashmit

RELEASE SIGNATURE:

Data Qualifier Definitions

J	-	The associated numerical value is an estimated quantity.
R	-	The data are unusable (the compound/analyte may or may not be present). Resampling and reanalysis are necessary for verification.
U	-	The compound/analyte was analyzed for, but not detected. The associated numerical value is the sample quantitation limit.
UJ	-	The compound/analyte was analyzed for, but not detected. The sample quantitation limit is an estimated quantity.

DATA QUALIFICATION SUMMARY

RCRA METALS

SUMMARY

I.) General:

The analyses for RCRA Metals were performed using SW-846 Methods 6010B.

II.) Overall Assessment of Data:

All laboratory data were acceptable with qualification.

MAJOR ISSUES

There were no major problems for this SDG.

MINOR ISSUES

I.) Holding Times:

All Holding Time criteria were met. No action was required.

II.) Calibration:

All Initial and Continuing Calibration criteria were met. No action was required.

III.) CRDL Standards:

All CRDL criteria were met for ICP metals. No action was required.

IV.) Blanks:

The following blank results represent the highest detections associated with the samples:

Blank ID	Analyte	Max. Conc.	Action Level
CCB2	arsenic	2.4 ug/L	12 ug/L
CCB4	barium	0.8 ug/L	4.0 ug/L
CCB4	cadmium	0.3 ug/L	1.5 ug/L
ICB	mercury	0.1 ug/L	0.5 ug/L

CCB = Continuing Calibration Blank, ICB = Initial Calibration Blank

The results for arsenic, cadmium, and mercury in the SDG sample were non-detect, so no action was required. The barium result in the SDG sample was greater than the action level, so no action was required for this analyte.

V.) ICP Interference Check Sample Results:

All Interference Percent Recovery criteria were met. No action was required.

The following analytes were detected in the ICS Solution A with results greater than the IDL:

barium	2 ug/L
cadmium	7 ug/L

These analytes should not be present. Because aluminum, calcium, iron, and magnesium were not detected in the sample at concentrations comparable to or greater than the respective concentrations in ICS Solution A, data qualification was not required.

Silver had a negative result of -1 ug/L in the ICS Solution A with the absolute value greater than the IDL. Because aluminum, calcium, iron, and magnesium were not detected in the sample at concentrations comparable to or greater than the respective concentrations in ICS Solution A, data qualification was not required.

VI.) ICP Serial Dilution Analysis:

Serial Dilution Analysis data were not submitted for this SDG. All positive results for this fraction of the SDG were flagged as estimated (J).

VII.) Laboratory Control Samples (LCS):

All LCS criteria were met. No action was required.

VIII.) Duplicate Sample Analysis:

Duplicate Sample Analysis data were not submitted for this SDG. All positive results were previously flagged based on Serial Dilution criteria, so no further action was required.

IX.) Matrix Spike (MS):

Matrix Spike data was not submitted for this SDG. All positive results were previously flagged based on Serial Dilution criteria, so no further action was required.

X.) Field Duplicates:

No field duplicate samples were identified in this SDG. No action was required.

XI.) Sample Result, Calculation/Transcription Verification:

All criteria were met. No action was taken.

XII.) Quarterly Verification of Instrumental Parameters:

All criteria were met. No action was taken.

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DATA VALIDATION SUMMARY
REPORT

COMPANY:	CH2M HILL
SITE NAME:	Baker, CTO-143
CONTRACTED LAB:	CompuChem, Inc.
PROJECT NUMBER:	155022
QA/QC LEVEL:	EPA Level III
EPA SOW/METHOD:	EPA 1990 SOW
VALIDATION GUIDELINES:	*USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review*, 1994, *USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review*, 1994
SAMPLE MATRIX:	Soil
TYPES OF ANALYSES:	Semivolatile Organics (SVOA), RECRA Metals
SDG NUMBER:	Y2488

OVERVIEW

SAMPLES:

Client Sample #	Lab Sample #	Matrix	SVOA	RECRA Metals
312-TW01-02	Y2488-1	Soil	X	X
312-TW01-00	Y2488-2	Soil	X	X
312-TW02-04	Y2488-3	Soil	X	X
312-TW02-00	Y2488-4	Soil	X	X
312-TW03-03	Y2488-5	Soil	X	X
312-TW03-00	Y2488-6	Soil	X	X
253-TW01-06	Y2488-7	Soil	X	X
253-TW01-00	Y2488-8	Soil	X	X
253-TW02-05	Y2488-9	Soil	X	X
253-TW02-00	Y2488-10	Soil	X	X
253-TW03-06	Y2488-11	Soil	X	X
253-TW03-06D	Y2488-12	Soil	X	X
253-TW03-00	Y2488-13	Soil	X	X
254-TW01-04	Y2488-14	Soil	X	
254-TW01-00	Y2488-15	Soil	X	
254-TW02-04	Y2488-16	Soil	X	
254-TW02-00	Y2488-17	Soil	X	
254-TW02-00D	Y2488-18	Soil	X	

Client Sample #	Lab Sample #	Matrix	SVOA	RECRA Metals
254-TW03-04	Y2488-19	Soil	X	
254-TW03-00	Y2488-20	Soil	X	
312-TW03-03MS	Y2488-5MS	Soil	X	X
312-TW03-03MSD	Y2488-5MSD	Soil	X	X

missing Form I

Sample ID Suffix Codes: D = FIELD DUPLICATE, MS = MATRIX SPIKE, MSD = MATRIX SPIKE DUPLICATE

DATA REVIEWERS: Amy L. Hogan, Jean M. Delashmit

RELEASE SIGNATURE:

Data Qualifier Definitions

J	-	The associated numerical value is an estimated quantity.
R	-	The data are unusable (the compound/analyte may or may not be present). Resampling and reanalysis are necessary for verification.
U	-	The compound/analyte was analyzed for, but not detected. The associated numerical value is the sample quantitation limit.
UJ	-	The compound/analyte was analyzed for, but not detected. The sample quantitation limit is an estimated quantity.

DATA QUALIFICATION SUMMARY

CompuChem, Inc. - Y2488 - Organics

SAMPLES: 312-TW01-02, 312-TW01-00, 312-TW02-04, 312-TW02-00, 312-TW03-03, 312-TW03-00, 253-TW01-06, 253-TW01-00, 253-TW02-05, 253-TW02-00, 253-TW03-06, 253-TW03-06D, 253-TW03-00, 254-TW01-04, 254-TW01-00, 254-TW02-04, 254-TW02-00, 254-TW02-00D, 254-TW03-04, 254-TW03-00

SEMIVOLATILE ORGANICS

SUMMARY

I.) General:

The analyses for Semivolatile Organics were performed by gas chromatography / mass spectroscopy (GC / MS) using SW-846 Method 8270.

II.) Overall Assessment of Data:

All laboratory data were acceptable with qualifications.

MAJOR ISSUES

There were no major problems in this fraction of the SDG.

MINOR ISSUES

I.) Holding Times:

All Holding Time criteria were met. No action was required.

II.) GC / MS Tuning:

All GC / MS Tuning criteria were met. No action was required.

III.) Calibration:

Initial Calibration:

All Initial Calibration criteria were met. No action was required.

Continuing Calibration:

The Percent Difference (%D) was 45.4% for hexachlorobutadiene in the standard run on 4/01/02 at 14:16

on instrument HP60, which exceeded the 25% QC limit. All results for hexachlorobutadiene in the associated samples, which consisted entirely of non-detects, were flagged as estimated (UJ). The associated samples were 312-TW01-02, 312-TW01-00, 312-TW02-04, 312-TW02-00 and 312-TW03-03.

The Percent Differences (%D's) for the standards run on 4/02/02 at 11:01 on instrument HP60 exceeded the 25% QC limit for the following compounds:

2,2'-oxybis(1-chloropropane)	25.3%
4-nitrophenol	28.8%

The results for these compounds in associated samples 253-TW01-06 and 253-TW03-06D, which consisted entirely of non-detects, were flagged as estimated (UJ).

IV.) Blanks:

Method Blanks:

Bis(2-ethylhexyl)phthalate was detected at 75 ug/kg in method blank SBLKLN. All positive results for this compound in the SDG samples, which were less than 10X the blank amount, were flagged as undetected (U) with the results less than the CRQL being raised to the CRQL.

Field Blanks:

There were no detections in the field blanks associated with this SDG, which were analyzed as part of SDG V2488. No action was required.

Tentatively Identified Compounds (TIC):

Tetrachloroethane was detected at 158 ug/kg in method blank SBLKLN. All positive results for this compound in the SDG samples less than 10X the blank amount were flagged as undetected (U).

V.) Surrogate Recoveries:

All Surrogate Recovery criteria were met. No action was required.

VI.) Laboratory Control Samples (LCS):

One LCS was analyzed for this SDG. All LCS criteria were met. No action was required.

VII.) Matrix Spike / Matrix Spike Duplicate (MS / MSD):

MS / MSD analyses were run on SDG sample 312-TW03-03. All MS / MSD criteria were met. No action was required.

VIII.) Field Duplicates:

Two sets of Field Duplicate samples (253-TW03-06 / 253-TW03-06D and 254-TW02-00 / 254-TW02-00D) were identified for this fraction of the SDG. There were no calculable Relative Percent

Differences (RPDs). No action was required.

IX.) Internal Standards Performance (ISTD):

All ISTD criteria were met. No action was required.

X.) TCL Compound Identification:

All TCL Compound Identification criteria were met. No action was required.

XI.) Compound Quantitation and Reported Contract Required Quantitation Limits (CRQL):

All CRQL criteria were met. No action was required.

XII.) Tentatively Identified Compounds (TIC):

All TIC criteria were met. No action was required.

XIII.) System Performance:

All System Performance criteria were met. No action was required.

RECRA METALS

SUMMARY

I.) General:

The analyses for RECRA Metals were performed using SW-846 Methods 6010B.

II.) Overall Assessment of Data:

All laboratory data were acceptable with qualifications.

MAJOR ISSUES

There were no major problems for this fraction of the SDG.

MINOR ISSUES

I.) Holding Times:

All Holding Time criteria were met. No action was required.

II.) Calibration:

All Initial and Continuing Calibration criteria were met. No action was required.

III.) CRDL Standards for ICP:

All CRDL criteria were met. No action was required.

IV.) Blanks:

The following blank results represent the highest detections associated with the samples and were used for data qualification:

Blank ID	Analyte	Max. Conc.	Action Level
ER03	barium	7.2 ug/L	7.2 mg/kg
CCB6	cadmium	0.4 ug/L	0.4 mg/kg

CCB = Continuing Calibration Blank
ER03 = Equipment Rinsate Blank (analyzed as part of SDG V2488)

All detections of barium and cadmium in the SDG samples less than the Action Level were flagged as undetected (U).

V.) ICP Interference Check Sample Results:

All Interference Percent Recovery criteria were met. No action was required.

The following analytes were detected in the ICS Solution A with results greater than the IDL:

arsenic	2 ug/L
barium	2 ug/L
cadmium	7 ug/L
chromium	21 ug/L

These analytes should not be present. Since neither aluminum, calcium, iron nor magnesium was detected in any sample at a concentration comparable to or greater than the respective concentration in ICS solution A, data qualification was not required.

VI.) ICP Serial Dilution Analysis:

All Serial Dilution Analysis criteria were met. No action was required.

VII.) Laboratory Control Samples (LCS):

All LCS criteria were met. No action was required.

VIII.) Duplicate Sample Analysis:

Duplicate Sample Analysis was run on SDG sample 312-TW03-03. All Duplicate Sample Analysis criteria were met. No action was required.

IX.) Matrix Spike (MS):

Matrix Spike / Matrix Spike Duplicate Analyses were run on SDG sample 312-TW03-03. The Percent Recovery (%R) of lead in the MSD sample was 160%, which exceeded the 75-125% QC limits. All positive results for lead in the SDG samples were flagged as estimated (J).

X.) Field Duplicates:

One set of Field Duplicate samples (253-TW03-06 / 253-TW03-06D) was identified in this fraction of the SDG. The calculable Relative Percent Differences (RPDs) were:

Analyte	253-TW03-06	253-TW03-06D	RPD
barium	10.5 mg/kg	7.4 mg/kg	35%
chromium	3.6 mg/kg	2.7 mg/kg	29%
lead	3.6 mg/kg	3.9 mg/kg	8%

All RPDs were within the 60% QC limit for soil samples. No action was required.

XI.) Sample Result, Calculation/Transcription Verification:

All criteria were met. No action was taken.

XII.) Quarterly Verification of Instrumental Parameters:

All criteria were met. No action was taken.

VALIDATA

Chemical Services, Inc.

4070 Balleycastle Lane, Duluth, GA 30097

(770) 232-0130
(770) 232-5082 (Fax)
www.datavalidator.com

DATA VALIDATION SUMMARY
REPORT

COMPANY:	CH2M HILL
SITE NAME:	Baker, CTO-143
CONTRACTED LAB:	CompuChem, Inc.
PROJECT NUMBER:	155022
QA/QC LEVEL:	EPA Level III
EPA SOW/METHOD:	EPA 1990 SOW
VALIDATION GUIDELINES:	*USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review*, 1994, *USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review*, 1994
SAMPLE MATRIX:	Soils
TYPES OF ANALYSES:	RECRA Metals
SDG NUMBER:	Z2488

OVERVIEW

SAMPLES:

Client Sample #	Lab Sample #	Matrix	RECRA Metals
258-TW01-02	Z2488-1	Soil	X
258-TW01-00	Z2488-2	Soil	X
258-TW02-02	Z2488-3	Soil	X
258-TW02-00	Z2488-4	Soil	X
258-TW03-02	Z2488-5	Soil	X
258-TW03-00	Z2488-6	Soil	X
258-TW03-00D	Z2488-7	Soil	X
313-SB02-01	Z2488-8	Soil	X
313-SB02-00	Z2488-9	Soil	X
313-SB01-01	Z2488-10	Soil	X
313-SB01-01D	Z2488-11	Soil	X
313-SB01-00	Z2488-12	Soil	X
313-TW01-01	Z2488-13	Soil	X
313-TW01-00	Z2488-14	Soil	X
313-TW02-01	Z2488-15	Soil	X
313-TW02-00	Z2488-16	Soil	X
313-TW03-01	Z2488-17	Soil	X
313-TW03-00	Z2488-18	Soil	X

Client Sample #	Lab Sample #	Matrix	RECRA Metals
293-TW01-04	Z2488-19	Soil	X
293-TW01-00	Z2488-20	Soil	X
293-TW01-04MS	Z2488-19MS	Soil	X
293-TW01-04MSD	Z2488-19MSD	Soil	X

missing Form I ? Electronic

Sample ID
Suffix Codes: D = FIELD DUPLICATE, MS = MATRIX SPIKE, MSD = MATRIX SPIKE DUPLICATE

DATA REVIEWERS: Amy L. Hogan, Jean M. Delashmit

RELEASE SIGNATURE: Jean M Delashmit

Data Qualifier Definitions

J	-	The associated numerical value is an estimated quantity.
R	-	The data are unusable (the compound/analyte may or may not be present). Resampling and reanalysis are necessary for verification.
U	-	The compound/analyte was analyzed for, but not detected. The associated numerical value is the sample quantitation limit.
UJ	-	The compound/analyte was analyzed for, but not detected. The sample quantitation limit is an estimated quantity.

DATA QUALIFICATION SUMMARY

CompuChem, Inc. - Z2488 - Inorganics

SAMPLES: 258-TW01-02, 258-TW01-00, 258-TW02-02, 258-TW02-00, 258-TW03-02, 258-TW03-00, 258-TW03-00D, 313-SB02-01, 313-SB02-00, 313-SB01-01, 313-SB01-01D, 313-SB01-00, 313-TW01-01, 313-TW01-00, 313-TW02-01, 313-TW02-00, 313-TW03-01, 313-TW03-00, 293-TW01-04, 293-TW01-00

RECRA METALS

SUMMARY

I.) General:

The analyses for RECRA Metals were performed using SW-846 Methods 6010B.

II.) Overall Assessment of Data:

All laboratory data were acceptable with qualifications.

MAJOR ISSUES

There were no major problems in this fraction of the SDG.

MINOR ISSUES

I.) Holding Times:

All Holding Time criteria were met. No action was required.

II.) Calibration:

All Initial and Continuing Calibration criteria were met. No action was required.

III.) CRDL Standards for ICP:

All CRDL criteria were met. No action was required.

IV.) Blanks:

The following blank result represents the highest detection associated with the samples and was used for data qualification:

Blank ID	Analyte	Max. Conc.	Action Level
ER03	barium	7.2 ug/L	7.2 mg/kg

ER = Equipment Rinsate Blank (analyzed as part of SDG V2488)

All positive results for barium in the SDG samples less than the Action Level were flagged as undetected (U).

V.) ICP Interference Check Sample Results:

All Interference Percent Recovery criteria were met. No action was required.

The following analytes were detected in the ICS Solution A with results greater than the IDL:

barium	2 ug/L
cadmium	7 ug/L
chromium	21 ug/L

These analytes should not be present. Since neither aluminum, calcium, iron nor magnesium was detected in any sample at a concentration comparable to or greater than the respective concentration in ICS solution A, data qualification was not required.

Selenium had a negative result of-1 ug/L in the ICS Solution A with the absolute value greater than the IDL. Since neither aluminum, calcium, iron nor magnesium was detected in any sample at a concentration comparable to or greater than the respective concentration in ICS solution A, data qualification was not required.

VI.) ICP Serial Dilution Analysis:

All Serial Dilution Analysis criteria were met. No action was required.

VII.) Laboratory Control Samples (LCS):

All LCS criteria were met. No action was required.

VIII.) Duplicate Sample Analysis:

Duplicate Sample Analysis was run on SDG sample 293-TW01-04. The Percent Difference (%D) for chromium was 39.4%, which exceeded the 35% QC limit for soil samples. All results for chromium in the SDG samples, which consisted entirely of positive results, were flagged as estimated (J).

IX.) Matrix Spike (MS):

Matrix Spike / Matrix Spike Duplicate Analyses were run on SDG sample 293-TW01-04. The Percent Recovery (%R) of mercury was 127% for the MS sample, which exceeded the 75-125% QC limits. All positive results for mercury in the SDG samples were flagged as estimated (J).

X.) Field Duplicates:

There were two sets of Field Duplicate samples (258-TW03-00 / 258-TW03-00D and 313-SB01-01 / 313-SB01-01D) identified in this SDG. The calculable Relative Percent Differences (RPDs) were:

Analyte	258-TW03-00	258-TW03-00D	RPD
arsenic	2.0 mg/kg	2.5 mg/kg	22%
barium	43.8 mg/kg	36.5 mg/kg	18%
chromium	12 mg/kg	7.1 mg/kg	52%
lead	79.5 mg/kg	109 mg/kg	31%
mercury	0.08 mg/kg	0.07 mg/kg	13%

Analyte	313-SB01-01	313-SB01-01D	RPD
barium	4.8 mg/kg	6.1 mg/kg	24%
chromium	9.2 mg/kg	13.2 mg/kg	36%
lead	4.1 mg/kg	5.4 mg/kg	27%
mercury	0.03 mg/kg	0.04 mg/kg	28%

All RPDs were within the 60% QC limit for soil samples, so no action was required.

XI.) Sample Result, Calculation/Transcription Verification:

All criteria were met. No action was taken.

XII.) Quarterly Verification of Instrumental Parameters:

All criteria were met. No action was taken.

APPENDIX J
TOC ANALYTICAL RESULTS

APPENDIX J

TOTAL ORGANIC CARBON RESULTS
SWMU CONFIRMATORY SAMPLING (CTO 143)
MCB, CAMP LEJEUNE, NORTH CAROLINA

Total Organic Carbon Results (mg/kg)					
SITE ID	**Sample Name**	**Sample Date**	**Phase I Result**	**Phase II Result**	**Average TOC**
SWMU043	SWMU43-IS01-07	07-18-1900	589		**472**
	SWMU43-IS02-07	07-17-1900	341		
	SWMU43-IS03-07	07-17-1900	239		
	SWMU43-TW02-06	3/25/02		719	
SWMU053	SWMU53-TW01-03	3/21/02		21150	**21150**
SWMU253	SWMU253-TW02-05	3/22/02		2005	**2005**
SWMU254	SWMU254-IS01-05	07-18-1900	2500		**2735**
	SWMU254-SS01-05	07-18-1900	3620		
	SWMU254-TW02-04	3/22/02		2084	
SWMU255	SWMU255-SS01-04	07-18-1900	444		**634**
	SWMU255-TW01-04	3/21/02		824	
SWMU256/257	SWMU256-IS02-01	07-18-1900	2470		**2965**
	SWMIU256-IS03-01	07-18-1900	3460		
SWMU258	SWMU258-IS02-07	07-18-1900	30400		**11379**
	SWMU258-IS05-01	07-17-1900	1820		
	SWMU258-TW01-02	3/22/02		1916	
SWMU261	SWMU261-IS02-07	07-18-1900	3930		**3930**
SWMU264	SWMU264-IS01-04	07-17-1900	578		**4848**
	SWMU264-SS01-04	07-17-1900	9800		
	SWMU264-TW01-04	3/24/02		4167	
SWMU265	SWMU265-TW02-05	3/24/02		976	**976**
SWMU269	SWMU269-TW03-06	3/25/02		1601	**1601**
SWMU272	SWMU272-IS01-02	07-17-1900	4880		**5508**
	SWMU272-IS02-02	07-17-1900	7910		
	SWMU272-IS03-02	07-17-1900	9290		
	SWMU272-IS04-02	07-17-1900	3570		
	SWMU272-TW03-03	3/21/02		1890	
SWMU279	SWMU279-TW02-04	3/26/02		2326	**2326**
SWMU285	SWMU285-IS03-04	07-19-1900	784		**6067**
	SWMU285-TW01-02	3/26/02		11350	
SWMU294	SWMU294-TW01-04	3/22/02		1559	**1559**
SWMU295	SWMU295-TW01-04	3/22/02		1966	**1966**
SWMU299	SWMU299-IS02-01	07-18-1900	1110		**11408**
	SWMU299-IS03-01	07-18-1900	1980		
	SWMU299-IS04-01	07-18-1900	1250		
	SWMU299-IS05-01	07-18-1900	38700		
	SWMU299-SB03-02	3/19/02		14000	
SWMU300	SWMU300-IS03-02	07-18-1900	1370		**4310**
	SWMU300-TW01-02	3/19/02		7250	
SWMU302	SWMU302-IS03-03	07-17-1900	1700		**3482**
	SWMU302-TW03-05	3/19/02		5264	
SWMU303	SWMU303-IS04-02	07-17-1900	7720		**5407**
	SWMU303-TW01-04	3/20/02		3094	
SWMU308	SWMU308-IS04-07	07-17-1900	1150		**1441**
	SWMU308-TW01-07	3/25/02		1731	
SWMU311	SWMU311-TW03-03	3/25/02		1364	**1364**
SWMU312	SWMU312-TW01-02	3/21/02		2005	**2005**
SWMU314	SWMU314-TW01-02	3/23/02		9500	**9500**
SWMU315	SWMU315-IS03-07	07-17-1900	4370		**2876**
	SWMU315-TW02-11	3/25/02		1382	
SWMU316	SWMU316-IS01-04	07-17-1900	1890		**1625**
	SWMU316-IS02-04	07-17-1900	1630		
	SWMU316-IS03-04	07-17-1900	1540		
	SWMU316-TW02-04	3/21/02		1439	
SWMU318	SWMU318-IS01-03	07-18-1900	3610		**3029**
	SWMU318-SS01-03	07-18-1900	3050		
	SWMU318-TW03-04	3/19/02		2427	
SWMU319	SWMU319-SB01-01	3/21/02		4150	**4150**
SWMU336	SWMU336-TW02-04	3/20/02		3732	**3732**
SWMU339	SWMU339-TW01-03	3/20/02		6572	**6572**
SWMU360	SWMU360-TW04-06	3/25/02		875	**875**
SWMU361	SWMU361-TW01-02	3/24/02		1216	**1216**
SWMU362	SWMU362-SB01-01	3/26/02		13670	**13670**
SWMU363	SWMU363-TW02-05	3/23/02		742	**742**

APPENDIX K
IM REPORT, OHM

DRAFT
INTERIM MEASURES REPORT
SOLID WASTE MANAGEMENT UNITS 291, 310, 358, & 359
MARINE CORPS BASE
CAMP LAJEUNE, NORTH CAROLINA

Prepared for:

DEPARTMENT OF THE NAVY
Contract No. N62470-97-D-5000
Task Order 0052

Commander
Naval Facilities Engineering Command
Atlantic Division
1510 Gilbert Street
Norfolk, Virginia 24311-6287

Prepared by:

OHM Remediation Services Corp.
11560 Great Oaks Way, Suite 500
Alpharetta, Georgia 30022-2424

William Guite, E.I.T.
Staff Engineer

James A. Dunn, Jr., P.E.
Sr. Project Manager

Roland Moreau, P.E.
Program Manager

October 2001
OHM Project No. 803538

TABLE OF CONTENTS

1.0 INTRODUCTION 1-1

2.0 DESCRIPTIONS OF INTERIM MEASURES IMPLEMENTED 2-1

2.1 SWMU 291 2-1
2.2 SWMU 310 2-1
2.3 SWMU 358 2-1
2.4 SWMU 359 2-1

3.0 SUMMARY OF RESULTS 3-1

4.0 SUMMARY OF PROBLEMS ENCOUNTERED 4-1

5.0 EFFECTIVENESS OF INTERIM MEASURES 5-1

TABLES

Table 2.1 Excavation at SWMU 358
Table 2.2 Backfill at SWMU 358
Table 2.3 Excavation at SWMU 359
Table 2.4 Backfill at SWMU 359
Table 3.1 Analytical Data Summary – SWMU 291
Table 3.2 Analytical Data Summary – SWMU 310
Table 3.3 Analytical Data Summary – SWMU 358
Table 3.4 Analytical Data Summary – SWMU 359
Table 3.5 NC SSL Analytical Data For SWMU 358 (July 26, 2001)
Table 3.6 NC SSL Analytical Data For SWMU 359 (August 2, 2001)

APPENDICES

Appendix A Analytical Data
Appendix B T&D Documentation
Appendix C Contractor Production Reports
Appendix D Photographs

1.0 INTRODUCTION

This submittal has been generated as the Interim Response Measures Report to document all related project activities associated with the excavation and investigation of Solid Waste Management Units (SWMU) 291, 310, 358, and 359 at Marine Corps Base (MCB) Camp Lejeune, North Carolina. The excavations and investigations were conducted under an amendment to Task Order 0052, N62470-97-D-5000.

This Interim Report covers activities at the following SWMUs:

- SWMU 291- 034 Ditch
- SWMU 310- Former Ponds
- SWMU 358- Sneads Ferry Road Battery Dump (Also referred to as "Borrow Pit")
- SWMU 359- Lot 201 Battery Dump

Results of sampling at SWMU 291 & 310, conducted on January 12, 2001, indicated that remediation was not necessary at these two sites. Visual inspection of SWMU 358 and 359 indicated that active remediation would be necessary. Excavation of impacted soils, followed by backfill and grading was selected as the appropriate interim measure for these two sites. The soil that was removed was transported to Camp Lejeune's Base landfill.

Intrusive field investigation activities, at SWMU 358 & 359, were started on July 25, 2001 and concluded with final site grading on August 3, 2001. Field activities were conducted in compliance with Hazardous Waste Management Permit No. NC 617 002 2580-R1, effective on January 10, 1997.

2.0 DESCRIPTIONS OF INTERIM MEASURES IMPLEMENTED

2.1 SWMU 291

Analytical results from the January 12, 2001 sampling event (Table 3.1) indicated that that the soils at SWMU 291 were below the North Carolina Site Specific Levels (NC SSL's). Therefore, excavation activities were not conducted at this site. However, it was determined that backfilling would be beneficial for the site. On July 28, 2001, back filling operations were commenced. Twenty-two (22) loads of fill material weighing approximately 15,000 lbs per load were placed. Back filling operations continued on July 29, 2001 with placement of an additional 29 loads. After final grading, the disturbed area was fertilized and seeded.

2.2 SWMU 310

Analytical results from the January 12, 2001 sampling event (Table 3.2) indicated that that the soils at SWMU 310 were below the NC SSL's. Therefore, excavation activities were not conducted at this site.

2.3 SWMU 358

The excavation was initiated at SWMU 358, "Borrow Pit" on July 25, 2001. The final excavation dimensions were approximately 20 feet (ft) wide by 31ft long by 6ft deep. Figure 1 shows the location of the excavation and Figure 2 depicts its irregular size. Two loads weighing 14,040 pounds (lbs) and 14,260 lbs were hauled off to the Base landfill (Table 2.1). No additional batteries were discovered during the excavation activities. Samples were taken from the locations shown on Figure 2. Results of the analyses of the samples are located in Table 3.3. Comparison of the results to the NC SSL's is found in Table 3.5. Approximately fifteen (15) tons of soils were used for backfill at SWMU 358, which was placed on July 25, 2001 (Table 2.2).

2.4 SWMU 359

Upon completion of the excavation at SWMU 358, the equipment was relocated to SWMU 359 and excavating activities were conducted for the remainder of July 25, 2001. From July 25, 2001 through August 2, 2001, eighty-two (82) loads of excavated material were transported from SWMU 359 to the Base landfill at weights ranging from 11,620 lbs to

21,040 lbs per load (Table 2.3). Figure 3 shows the locations of the excavations conducted at SWMU 359.

On August 2, 2001, nineteen (19) confirmation samples were taken at locations indicated on Figure 4. Results of the analyses are located in Table 3.4 and Table 3.6 presents a comparison to NC SSL's. Final grading and backfilling activities included placement of five (5) loads of imported fill (Table 2.4), on August 2, 2001.

3.0 SUMMARY OF RESULTS

Investigative soil sampling was conducted at SWMU 291, and 310 on January 12, 2001. Results of the sampling (Tables 3.1 & 3.2) indicated that soil excavation was not necessary at SWMU 291 and 310. No investigative sampling was deemed necessary at SWMU 358 and 359, due to the visual presence of batteries.

Four (4) soil confirmation samples were collected from the SWMU 358 excavation on July 26, 2001 and nineteen (19) soil confirmation samples were collected from the SWMU 359 excavations, on August 2, 2001. The samples were shipped to Severn Trent Laboratories (STL) for Total Metals analysis by EPA Method 6010B and mercury analysis by EPA Method 7471A. The laboratory results are presented in Appendix A. Results of the sampling efforts at SWMUs 358 & 359 are found in Table 3.3 and 3.4 that follow.

Tables 3.5 and 3.6 summarize the results of metals analyses that are compared to the NC SSL's for the confirmation samples taken from SWMU 358 and SWMU 359, respectively. The data in these tables indicate that all but one confirmation sample from excavations at SWMU 358 and 359 are less than the NC SSL's. The sample taken from the floor of excavation 1 at SWMU 359, shown on Figures 3 and 4, exceeded the NC SSL for Zinc (1,100 mg/kg) at 3,530 mg/kg.

TABLE 3.1
ANALYTICAL DATA SUMMARY - SWMU 291
JANUARY 12, 2001

CONTAMINANT	METHOD	UNIT	CLJ-52-SC-027 Ditch Location 1, 0 1' B1A160124 1/12/01	CLJ-52-SC-028 Ditch Location 1, 1'-2' B1A160124 1/12/01	CLJ-52-SC-029 Ditch Location 1, 2'-3' B1A160124 1/12/01	CLJ-52-SC-030 Ditch Location 2, 0 1' B1A160124 1/12/01	CLJ-52-SC-031 Ditch Location 2, 1'-2' B1A160124 1/12/01	CLJ-52-SC-032 Ditch Location 2, 2'-3' B1A160124 1/12/01
GENERAL CHEMISTRY								
Total Solids	EPA 160.3	%	81.9	79.7	75.3	65	73.5	77.2
METALS								
Arsenic	SW-846 6010B	mg/Kg	1.2	0.99	3.1	2.6	3	0.8
Lead	SW-846 6010B	mg/Kg	11.9	80.8	4.7	13.6	4.6	2.2
Antimony	SW-846 6010B	mg/Kg	0.53	8.1	0.42 B	0.36 B	0.22 B	<0.5
Selenium	SW-846 6010B	mg/Kg	<0.25	<0.25	0.51	0.24 B	0.56	0.26
Thallium	SW-846 6010B	mg/Kg	<0.5	0.26 B	<0.5	<0.5	<0.5	<0.5
Silver	SW-846 6010B	mg/Kg	0.18 B	0.17 B	0.27 B	0.53 B	0.24 B	0.17 B
Aluminum	SW-846 6010B	mg/Kg	3050	1190	4360	16900	4620	2180
Barium	SW-846 6010B	mg/Kg	10.1	39.9	10.1	34.6	9.1	4 B
Beryllium	SW-846 6010B	mg/Kg	<0.5	<0.5	<0.5	0.19 B	0.1 B	<0.5
Calcium	SW-846 6010B	mg/Kg	6060	24900	1170	13000	693	422
Cadmium	SW-846 6010B	mg/Kg	<0.5	3.1	<0.5	<0.5	<0.5	<0.5
Cobalt	SW-846 6010B	mg/Kg	0.23 B	0.71 B	0.23 B	0.74 B	0.25 B	0.14 B
Chromium	SW-846 6010B	mg/Kg	4.7	13.6	7.9	17.9	8.9	3.3
Copper	SW-846 6010B	mg/Kg	2.6	22.9	2.9	5.1	5.3	0.8 B
Iron	SW-846 6010B	mg/Kg	1800	2500	3600	5710	3660	743
Potassium	SW-846 6010B	mg/Kg	152	74 B	307	554	351	126
Magnesium	SW-846 6010B	mg/Kg	179	412	107	569	122	36.2 B
Manganese	SW-846 6010B	mg/Kg	5.8	13.2	4	16.9	3.8	1.7
Sodium	SW-846 6010B	mg/Kg	21 B	57.6 B	23 B	53.6 B	16.7 B	11.5 B
Nickel	SW-846 6010B	mg/Kg	0.79 B	1.9 B	0.72 B	3.4	0.75 B	<2.5
Vanadium	SW-846 6010B	mg/Kg	6.4	4.4	12	23.1	10.3	5.6
Zinc	SW-846 6010B	mg/Kg	16.8	91.6	7.5	24.3	6.4	2.1
Mercury	SW-846 7471A	mg/Kg	0.039 B	0.097	<0.08	0.14	<0.08	0.099

B = detected in blank
J = estimated below RL
P >40% difference in columns

Samples analyzed by STL

TABLE 3.1
ANALYTICAL DATA SUMMARY - SWMU 291
JANUARY 12, 2001

CLIENT SAMPLE ID:	CLJ-52-SC-027	CLJ-52-SC-028	CLJ-52-SC-029	CLJ-52-SC-030	CLJ-52-SC-031	CLJ-52-SC-032
	Ditch Location 1, 0	Ditch Location 1,	Ditch Location 1,	Ditch Location 2, 0	Ditch Location 2,	Ditch Location 2,
SAMPLE LOCATION:	1'	1'-2'	2'-3'	1'	1'-2'	2'-3'
LABORATORY SAMPLE ID:	B1A160124	B1A160124	B1A160124	B1A160124	B1A160124	B1A160124
SAMPLE DATE:	1/12/01	1/12/01	1/12/01	1/12/01	1/12/01	1/12/01

CONTAMINANT	METHOD	UNIT						
ORGANOCHLORINE PESTICIDES								
Aldrin	SW-846 8081A	ug/Kg	<1.7	<1.7	<1.7	<1.7	<1.7	<1.7
alpha-BHC	SW-846 8081A	ug/Kg	<1.7	<1.7	<1.7	<1.7	<1.7	<1.7
beta-BHC	SW-846 8081A	ug/Kg	<1.7	<1.7	<1.7	<1.7	<1.7	<1.7
delta-BHC	SW-846 8081A	ug/Kg	<1.7	<1.7	<1.7	<1.7	<1.7	<1.7
gamma-BHC (Lindane)	SW-846 8081A	ug/Kg	<1.7	<1.7	<1.7	<1.7	<1.7	<1.7
alpha-Chlordane	SW-846 8081A	ug/Kg	**1.1 J**	**5.2**	<1.7	<1.7	<1.7	<1.7
gamma-Chlordane	SW-846 8081A	ug/Kg	**1.2 J**	**5.2**	<1.7	<1.7	<1.7	<1.7
4,4'-DDD	SW-846 8081A	ug/Kg	**33**	**2.8**	<1.7	**7.1**	**4.6**	<1.7
4,4'-DDE	SW-846 8081A	ug/Kg	**24**	**2.4 P**	<1.7	**3.1**	**1.4 J**	<1.7
4,4'-DDT	SW-846 8081A	ug/Kg	**6.1**	<1.7	<1.7	**0.8 J**	<1.7	<1.7
Dieldrin	SW-846 8081A	ug/Kg	**0.93 J**	<1.7	<1.7	<1.7	<1.7	<1.7
Endosulfan I	SW-846 8081A	ug/Kg	<1.7	<1.7	<1.7	<1.7	<1.7	<1.7
Endosulfan II	SW-846 8081A	ug/Kg	<1.7	<1.7	<1.7	<1.7	<1.7	<1.7
Endosulfan sulfate	SW-846 8081A	ug/Kg	<1.7	<1.7	<1.7	<1.7	<1.7	<1.7
Endrin	SW-846 8081A	ug/Kg	<1.7	<1.7	<1.7	<1.7	<1.7	<1.7
Endrin aldehyde	SW-846 8081A	ug/Kg	<1.7	<1.7	<1.7	<1.7	<1.7	<1.7
Endrin ketone	SW-846 8081A	ug/Kg	<1.7	<1.7	<1.7	<1.7	<1.7	<1.7
Heptachlor	SW-846 8081A	ug/Kg	<1.7	<1.7	<1.7	<1.7	<1.7	<1.7
Heptachlor epoxide	SW-846 8081A	ug/Kg	<1.7	<1.7	<1.7	<1.7	<1.7	<1.7
Methoxychlor	SW-846 8081A	ug/Kg	<3.3	<3.3	<3.3	<3.3	<3.3	<3.3
Toxaphene	SW-846 8081A	ug/Kg	<67	<67	<67	<67	<67	<67
PCBs								
PCB-1016	SW-846 8082	ug/Kg	<33	<33	<33	<33	<33	<33
PCB-1221	SW-846 8082	ug/Kg	<33	<33	<33	<33	<33	<33
PCB-1232	SW-846 8082	ug/Kg	<33	<33	<33	<33	<33	<33
PCB-1242	SW-846 8082	ug/Kg	<33	<33	<33	<33	<33	<33
PCB-1248	SW-846 8082	ug/Kg	<33	<33	<33	<33	<33	<33
PCB-1254	SW-846 8082	ug/Kg	<33	<33	<33	<33	<33	<33
PCB-1260	SW-846 8082	ug/Kg	**9 J**	<33	<33	**3.8 J**	<33	<33

B = detected in blank
J = estimated below RL
P >40% difference in columns

Samples analyzed by STL

TABLE 3.1
ANALYTICAL DATA SUMMARY - SWMU 291
JANUARY 12, 2001

CONTAMINANT	METHOD	UNIT	CLJ-52-SC-027 Ditch Location 1, 0 1' B1A160124 1/12/01	CLJ-52-SC-028 Ditch Location 1, 1'-2' B1A160124 1/12/01	CLJ-52-SC-029 Ditch Location 1, 2'-3' B1A160124 1/12/01	CLJ-52-SC-030 Ditch Location 2, 0 1' B1A160124 1/12/01	CLJ-52-SC-031 Ditch Location 2, 1'-2' B1A160124 1/12/01	CLJ-52-SC-032 Ditch Location 2, 2'-3' B1A160124 1/12/01
VOLATILE ORGANICS								
cis-1,2-Dichloroethene	SW-846 8260B	ug/Kg	<5	<5	<5	<5	<5	<5
trans-1,2-Dichloroethene	SW-846 8260B	ug/Kg	<5	<5	<5	<5	<5	<5
Chloromethane	SW-846 8260B	ug/Kg	<10	<10	<10	<10	<10	<10
Bromomethane	SW-846 8260B	ug/Kg	<10	<10	<10	<10	<10	<10
Vinyl chloride	SW-846 8260B	ug/Kg	<10	<10	<10	<10	<10	<10
Choroethane	SW-846 8260B	ug/Kg	<10	<10	<10	<10	<10	<10
Methylene chloride	SW-846 8260B	ug/Kg	<10	<10	**2.6 J**	<10	**2.1 J**	**2.2 J**
Acetone	SW-846 8260B	ug/Kg	<25	<25	**33**	<25	**50**	**33**
Carbon disulfide	SW-846 8260B	ug/Kg	<5	<5	<5	<5	<5	<5
1,1-Dichloroethene	SW-846 8260B	ug/Kg	<5	<5	<5	<5	<5	<5
1,1-Dichloroethane	SW-846 8260B	ug/Kg	<5	<5	<5	<5	<5	<5
Chloroform	SW-846 8260B	ug/Kg	<5	<5	<5	<5	<5	<5
1,2-Dichloroethane	SW-846 8260B	ug/Kg	<5	<5	<5	<5	<5	<5
2-Butanone	SW-846 8260B	ug/Kg	<25	<25	<25	<25	<25	<25
1,1,1-Trichloroethene	SW-846 8260B	ug/Kg	<5	<5	<5	<5	<5	<5
Carbon tetrachloride	SW-846 8260B	ug/Kg	<5	<5	<5	<5	<5	<5
Bromodichloromethane	SW-846 8260B	ug/Kg	<5	<5	<5	<5	<5	<5
1,2-Dichloropropane	SW-846 8260B	ug/Kg	<5	<5	<5	<5	<5	<5
cis-1,3-Dichlorpropene	SW-846 8260B	ug/Kg	<5	<5	<5	<5	<5	<5
Trichloroethene	SW-846 8260B	ug/Kg	<5	<5	<5	<5	<5	<5
Dibromochloromethane	SW-846 8260B	ug/Kg	<5	<5	<5	<5	<5	<5
1,1,2-Trichloroethane	SW-846 8260B	ug/Kg	<5	<5	<5	<5	<5	<5
Benzene	SW-846 8260B	ug/Kg	<5	<5	<5	<5	<5	<5
trans-1,3-Dichloropropene	SW-846 8260B	ug/Kg	<5	<5	<5	<5	<5	<5
Bromoform	SW-846 8260B	ug/Kg	<5	<5	<5	<5	<5	<5
4-Methyl-2-pentanone	SW-846 8260B	ug/Kg	<25	<25	<25	<25	<25	<25
2-Hexanone	SW-846 8260B	ug/Kg	<25	<25	<25	<25	<25	<25
Tetrachloroethene	SW-846 8260B	ug/Kg	<5	<5	<5	<5	<5	<5
1,1,2,2-Tetrachloroethane	SW-846 8260B	ug/Kg	<5	<5	<5	<5	<5	<5
Toluene	SW-846 8260B	ug/Kg	<5	<5	<5	<5	<5	<5
Chlorobenzene	SW-846 8260B	ug/Kg	<5	<5	<5	<5	<5	<5
Ethylbenzene	SW-846 8260B	ug/Kg	<5	<5	<5	<5	<5	<5
Styrene	SW-846 8260B	ug/Kg	<5	<5	<5	<5	<5	<5
Xylenes (Total)	SW-846 8260B	ug/Kg	<5	<5	<5	<5	<5	<5

B = detected in blank
J = estimated below RL
P >40% difference in columns

Samples analyzed by STL

TABLE 3.1
ANALYTICAL DATA SUMMARY - SWMU 291
JANUARY 12, 2001

CLIENT SAMPLE ID:	**CLJ-52-SC-027**	**CLJ-52-SC-028**	**CLJ-52-SC-029**	**CLJ-52-SC-030**	**CLJ-52-SC-031**	**CLJ-52-SC-032**	
	Ditch Location 1, 0	**Ditch Location 1,**	**Ditch Location 1,**	**Ditch Location 2, 0**	**Ditch Location 2,**	**Ditch Location 2,**	
SAMPLE LOCATION:	**1'**	**1'-2'**	**2'-3'**	**1'**	**1'-2'**	**2'-3'**	
LABORATORY SAMPLE ID:	**B1A160124**	**B1A160124**	**B1A160124**	**B1A160124**	**B1A160124**	**B1A160124**	
SAMPLE DATE:	**1/12/01**	**1/12/01**	**1/12/01**	**1/12/01**	**1/12/01**	**1/12/01**	
CONTAMINANT	**METHOD**	**UNIT**					
SEMI-VOLATILE ORGANICS							
Acenaphthene	SW-846 8270C	ug/Kg	<330	<330	<330	<330	<330	<330
Acenaphthylene	SW-846 8270C	ug/Kg	<330	<330	<330	<330	<330	<330
Anthracene	SW-846 8270C	ug/Kg	<330	<330	<330	<330	<330	<330
Benzo(a)anthracene	SW-846 8270C	ug/Kg	<330	**83 J**	<330	<330	<330	<330
Benzo(b)fluoranthene	SW-846 8270C	ug/Kg	<330	**170 J**	<330	<330	<330	<330
Benzo(k)fluoranthene	SW-846 8270C	ug/Kg	<330	**120 J**	<330	<330	<330	<330
Benzo(ghi)perylene	SW-846 8270C	ug/Kg	<330	**95 J**	<330	<330	<330	<330
Benzo(a)pyrene	SW-846 8270C	ug/Kg	<330	<330	<330	<330	<330	<330
bis(2-Chloroethoxy)methane	SW-846 8270C	ug/Kg	<330	<330	<330	<330	<330	<330
bis(2-Chloroethyl)ether	SW-846 8270C	ug/Kg	<330	<330	<330	<330	<330	<330
bis(2-Ethylhexyl)phthalate	SW-846 8270C	ug/Kg	<330	**1500 B**	<330	<330	**84 JB**	<330
4-Bromophenyl phenyl ether	SW-846 8270C	ug/Kg	<330	<330	<330	<330	<330	<330
Butyl benzyl phthalate	SW-846 8270C	ug/Kg	<330	<330	<330	<330	<330	<330
Carbazole	SW-846 8270C	ug/Kg	<330	<330	<330	<330	<330	<330
4-Chloroaniline	SW-846 8270C	ug/Kg	<330	<330	<330	<330	<330	<330
4-Chloro-3-methylphenol	SW-846 8270C	ug/Kg	<330	<330	<330	<330	<330	<330
2-Chloronaphthalene	SW-846 8270C	ug/Kg	<330	<330	<330	<330	<330	<330
2-Chlorophenol	SW-846 8270C	ug/Kg	<330	<330	<330	<330	<330	<330
bis(2-Chloroisopropyl)ether	SW-846 8270C	ug/Kg	<330	<330	<330	<330	<330	<330
4-Chlorophenyl phenyl ether	SW-846 8270C	ug/Kg	<330	<330	<330	<330	<330	<330
Chrysene	SW-846 8270C	ug/Kg	<330	**120 J**	<330	<330	<330	<330
Dibenz(a,h)anthracene	SW-846 8270C	ug/Kg	<330	<330	<330	<330	<330	<330
Dibenzofuran	SW-846 8270C	ug/Kg	<330	<330	<330	<330	<330	<330
1,2-Dichlorobenzene	SW-846 8270C	ug/Kg	<330	<330	<330	<330	<330	<330
1,3-Dichlorobenzene	SW-846 8270C	ug/Kg	<330	<330	<330	<330	<330	<330
1,4-Dichlorobenzene	SW-846 8270C	ug/Kg	<330	<330	<330	<330	<330	<330
3,3'-Dichlorobenzidine	SW-846 8270C	ug/Kg	<1600	<1600	<1600	<1600	<1600	<1600
2,4-Dichlorophenol	SW-846 8270C	ug/Kg	<330	<330	<330	<330	<330	<330
Diethyl phthalate	SW-846 8270C	ug/Kg	<330	<330	<330	<330	<330	<330
2,4-Dimethylphenol	SW-846 8270C	ug/Kg	<330	<330	<330	<330	<330	<330
Dimethyl phthalate	SW-846 8270C	ug/Kg	<330	<330	<330	<330	<330	<330
Di-n-butyl phthalate	SW-846 8270C	ug/Kg	<330	<330	<330	<330	<330	<330
Di-n-octyl phthalate	SW-846 8270C	ug/Kg	<330	**710**	<330	<330	<330	<330
4,6-Dinitro-2-methylphenol	SW-846 8270C	ug/Kg	<1600	<1600	<1600	<1600	<1600	<1600
2,4-Dinitrophenol	SW-846 8270C	ug/Kg	<1600	<1600	<1600	<1600	<1600	<1600

B = detected in blank
J = estimated below RL
P >40% difference in columns

Samples analyzed by STL

TABLE 3.1
ANALYTICAL DATA SUMMARY - SWMU 291
JANUARY 12, 2001

CLIENT SAMPLE ID:	CLJ-52-SC-027 Ditch Location 1, 0	CLJ-52-SC-028 Ditch Location 1,	CLJ-52-SC-029 Ditch Location 1,	CLJ-52-SC-030 Ditch Location 2, 0	CLJ-52-SC-031 Ditch Location 2,	CLJ-52-SC-032 Ditch Location 2,
SAMPLE LOCATION:	1'	1'-2'	2'-3'	1'	1'-2'	2'-3'
LABORATORY SAMPLE ID:	B1A160124	B1A160124	B1A160124	B1A160124	B1A160124	B1A160124
SAMPLE DATE:	1/12/01	1/12/01	1/12/01	1/12/01	1/12/01	1/12/01

CONTAMINANT	METHOD	UNIT						
SEMI-VOLATILE ORGANICS (continued)								
2,4-Dinitrotoluene	SW-846 8270C	ug/Kg	<330	<330	<330	<330	<330	<330
2,6-Dinitrotoluene	SW-846 8270C	ug/Kg	<330	<330	<330	<330	<330	<330
Fluoranthene	SW-846 8270C	ug/Kg	<330	**130 J**	<330	<330	<330	<330
Fluorene	SW-846 8270C	ug/Kg	<330	<330	<330	<330	<330	<330
Hexachlorobenzene	SW-846 8270C	ug/Kg	<330	<330	<330	<330	<330	<330
Hexachlorobutadiene	SW-846 8270C	ug/Kg	<330	<330	<330	<330	<330	<330
Hexachlorocyclopentadiene	SW-846 8270C	ug/Kg	<330	<330	<330	<330	<330	<330
Hexachloroethane	SW-846 8270C	ug/Kg	<330	<330	<330	<330	<330	<330
Indeno(1,2,3-cd)pyrene	SW-846 8270C	ug/Kg	<330	<330	<330	<330	<330	<330
Isophorone	SW-846 8270C	ug/Kg	<330	<330	<330	<330	<330	<330
2-Methylnaphthalene	SW-846 8270C	ug/Kg	<330	<330	<330	<330	<330	<330
2-Methylphenol	SW-846 8270C	ug/Kg	<330	<330	<330	<330	<330	<330
3 & 4-Methylphenol	SW-846 8270C	ug/Kg	<660	<660	<660	<660	<660	<660
Naphthalene	SW-846 8270C	ug/Kg	<330	<330	<330	<330	<330	<330
2-Nitroaniline	SW-846 8270C	ug/Kg	<1600	<1600	<1600	<1600	<1600	<1600
3-Nitroaniline	SW-846 8270C	ug/Kg	<1600	<1600	<1600	<1600	<1600	<1600
4-Nitroaniline	SW-846 8270C	ug/Kg	<1600	<1600	<1600	<1600	<1600	<1600
Nitrobenzene	SW-846 8270C	ug/Kg	<330	<330	<330	<330	<330	<330
2-Nitrophenol	SW-846 8270C	ug/Kg	<330	<330	<330	<330	<330	<330
4-Nitrophenol	SW-846 8270C	ug/Kg	<1600	<1600	<1600	<1600	<1600	<1600
N-Nitrosodiphenylamine	SW-846 8270C	ug/Kg	<330	<330	<330	<330	<330	<330
N-Nitrosodi-n-propyl-amine	SW-846 8270C	ug/Kg	<330	<330	<330	<330	<330	<330
Pentachlorophenol	SW-846 8270C	ug/Kg	<1600	<1600	<1600	<1600	<1600	<1600
Phenanthrene	SW-846 8270C	ug/Kg	<330	<330	<330	<330	**1200**	**130 J**
Phenol	SW-846 8270C	ug/Kg	<330	<330	<330	<330	<330	<330
Pyrene	SW-846 8270C	ug/Kg	<330	**180 J**	<330	<330	**240 J**	<330
1,2,4-Trichlorobenzene	SW-846 8270C	ug/Kg	<330	<330	<330	<330	<330	<330
2,4,5-Trichlorophenol	SW-846 8270C	ug/Kg	<330	<330	<330	<330	<330	<330
2,4,6-Trichlorophenol	SW-846 8270C	ug/Kg	<330	<330	<330	<330	<330	<330

B = detected in blank
J = estimated below RL
P >40% difference in columns

Samples analyzed by STL

TABLE 3.1
ANALYTICAL DATA SUMMARY - SWMU 291
JANUARY 12, 2001

CONTAMINANT	METHOD	UNIT	CLJ-52-SC-033 Ditch Location 3, 0 1' B1A160124 1/12/01	CLJ-52-SC-034 Ditch Location 3, 1'-2' B1A160124 1/12/01	CLJ-52-SC-035 Ditch Location 3, 2'-3' B1A160124 1/12/01	CLJ-52-SC-036 Ditch Location 4, 0 1' B1A160124 1/12/01	CLJ-52-SC-037 Ditch Location 4, 1'-2' B1A160124 1/12/01	CLJ-52-SC-038 Ditch Location 4, 2'-3' B1A160124 1/12/01
GENERAL CHEMISTRY								
Total Solids	EPA 160.3	%	78.8	68.9	63.6	81.4	78.4	76.4
METALS								
Arsenic	SW-846 6010B	mg/Kg	<0.25	1.9	0.87	0.22 B	<0.25	0.21 B
Lead	SW-846 6010B	mg/Kg	1.3	16	9.8	2.1	1.3	2.1
Antimony	SW-846 6010B	mg/Kg	0.13 B	1.9	2.1	<0.5	<0.5	0.42 B
Selenium	SW-846 6010B	mg/Kg	<0.25	0.25	<0.25	<0.25	<0.25	0.16 B
Thallium	SW-846 6010B	mg/Kg	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Silver	SW-846 6010B	mg/Kg	<1	0.37 B	0.23 B	<1	<1	<1
Aluminum	SW-846 6010B	mg/Kg	703	9690	3270	813	653	1040
Barium	SW-846 6010B	mg/Kg	1.8 B	24.5	12.4	2.8 B	1.9 B	3 B
Beryllium	SW-846 6010B	mg/Kg	<0.5	0.11 B	<0.5	<0.5	<0.5	<0.5
Calcium	SW-846 6010B	mg/Kg	610	7040	3830	1260	846	1170
Cadmium	SW-846 6010B	mg/Kg	<0.5	1.2	1.7	<0.5	<0.5	<0.5
Cobalt	SW-846 6010B	mg/Kg	<2.5	0.62 B	0.42 B	<2.5	<2.5	0.15 B
Chromium	SW-846 6010B	mg/Kg	1.2	12.1	7	1.3	1.1	3.9
Copper	SW-846 6010B	mg/Kg	<2.5	8.7	7.8	<2.5	<2.5	1.3 B
Iron	SW-846 6010B	mg/Kg	350	3870	1680	399	266	491
Potassium	SW-846 6010B	mg/Kg	46 B	324	149	52.8 B	35.5 B	80 B
Magnesium	SW-846 6010B	mg/Kg	26.6 B	307	139	30.8 B	30.4 B	44.5 B
Manganese	SW-846 6010B	mg/Kg	0.97 B	12.6	5.4	1.5	1.2	2.5
Sodium	SW-846 6010B	mg/Kg	10.8 B	38.8 B	22.6 B	12.7 B	10.2 B	13 B
Nickel	SW-846 6010B	mg/Kg	<2.5	2.3 B	1.5 B	<2.5	<2.5	1.2 B
Vanadium	SW-846 6010B	mg/Kg	1.5 B	15.1	7	1.8 B	1.3 B	2.1 B
Zinc	SW-846 6010B	mg/Kg	1.8 B	44.1	41.8	2.9	1.4 B	6.4
Mercury	SW-846 7471A	mg/Kg	0.042 B	0.19	0.22	<0.08	<0.08	<0.08

B = detected in blank
J = estimated below RL
P >40% difference in columns

Samples analyzed by STL

TABLE 3.1
ANALYTICAL DATA SUMMARY - SWMU 291
JANUARY 12, 2001

CONTAMINANT	METHOD	UNIT	CLIENT SAMPLE ID: CLJ-52-SC-033 Ditch Location 3, 0	CLJ-52-SC-034 Ditch Location 3,	CLJ-52-SC-035 Ditch Location 3,	CLJ-52-SC-036 Ditch Location 4, 0	CLJ-52-SC-037 Ditch Location 4,	CLJ-52-SC-038 Ditch Location 4,
			SAMPLE LOCATION: 1'	1'-2'	2'-3'	1'	1'-2'	2'-3'
			LABORATORY SAMPLE ID: B1A160124	B1A160124	B1A160124	B1A160124	B1A160124	B1A160124
			SAMPLE DATE: 1/12/01	1/12/01	1/12/01	1/12/01	1/12/01	1/12/01
ORGANOCHLORINE PESTICIDES								
Aldrin	SW-846 8081A	ug/Kg	<1.7	<1.7	<1.7	<1.7	<1.7	<1.7
alpha-BHC	SW-846 8081A	ug/Kg	<1.7	<1.7	<1.7	<1.7	<1.7	<1.7
beta-BHC	SW-846 8081A	ug/Kg	<1.7	<1.7	<1.7	<1.7	<1.7	<1.7
delta-BHC	SW-846 8081A	ug/Kg	<1.7	<1.7	<1.7	<1.7	<1.7	<1.7
gamma-BHC (Lindane)	SW-846 8081A	ug/Kg	<1.7	<1.7	<1.7	<1.7	<1.7	<1.7
alpha-Chlordane	SW-846 8081A	ug/Kg	<1.7	**1.8**	**1.9**	<1.7	<1.7	<1.7
gamma-Chlordane	SW-846 8081A	ug/Kg	<1.7	**2.2**	**1.7**	<1.7	<1.7	<1.7
4,4'-DDD	SW-846 8081A	ug/Kg	<1.7	**12**	**4.9**	**1 J**	<1.7	**1 J**
4,4'-DDE	SW-846 8081A	ug/Kg	<1.7	**2.3**	**1.9**	<1.7	<1.7	<1.7
4,4'-DDT	SW-846 8081A	ug/Kg	<1.7	**0.81 J**	**1.4 J**	<1.7	<1.7	<1.7
Dieldrin	SW-846 8081A	ug/Kg	<1.7	<1.7	<1.7	<1.7	<1.7	<1.7
Endosulfan I	SW-846 8081A	ug/Kg	<1.7	<1.7	<1.7	<1.7	<1.7	<1.7
Endosulfan II	SW-846 8081A	ug/Kg	<1.7	<1.7	<1.7	<1.7	<1.7	<1.7
Endosulfan sulfate	SW-846 8081A	ug/Kg	<1.7	<1.7	<1.7	<1.7	<1.7	<1.7
Endrin	SW-846 8081A	ug/Kg	<1.7	<1.7	<1.7	<1.7	<1.7	<1.7
Endrin aldehyde	SW-846 8081A	ug/Kg	<1.7	<1.7	<1.7	<1.7	<1.7	<1.7
Endrin ketone	SW-846 8081A	ug/Kg	<1.7	<1.7	<1.7	<1.7	<1.7	<1.7
Heptachlor	SW-846 8081A	ug/Kg	<1.7	<1.7	<1.7	<1.7	<1.7	<1.7
Heptachlor epoxide	SW-846 8081A	ug/Kg	<1.7	<1.7	<1.7	<1.7	<1.7	<1.7
Methoxychlor	SW-846 8081A	ug/Kg	<3.3	**1.5 J**	**0.8 J**	<3.3	<3.3	<3.3
Toxaphene	SW-846 8081A	ug/Kg	<67	<67	<67	<67	<67	<67
PCBs								
PCB-1016	SW-846 8082	ug/Kg	<33	<33	<33	<33	<33	<33
PCB-1221	SW-846 8082	ug/Kg	<33	<33	<33	<33	<33	<33
PCB-1232	SW-846 8082	ug/Kg	<33	<33	<33	<33	<33	<33
PCB-1242	SW-846 8082	ug/Kg	<33	<33	<33	<33	<33	<33
PCB-1248	SW-846 8082	ug/Kg	<33	<33	<33	<33	<33	<33
PCB-1254	SW-846 8082	ug/Kg	<33	<33	<33	<33	<33	<33
PCB-1260	SW-846 8082	ug/Kg	<33	**2.8 J**	<33	<33	<33	<33

B = detected in blank
J = estimated below RL
P >40% difference in columns

Samples analyzed by STL

TABLE 3.1
ANALYTICAL DATA SUMMARY - SWMU 291
JANUARY 12, 2001

CLIENT SAMPLE ID:	CLJ-52-SC-033 Ditch Location 3, 0	CLJ-52-SC-034 Ditch Location 3,	CLJ-52-SC-035 Ditch Location 3,	CLJ-52-SC-036 Ditch Location 4, 0	CLJ-52-SC-037 Ditch Location 4,	CLJ-52-SC-038 Ditch Location 4,
SAMPLE LOCATION:	1'	1'-2'	2'-3'	1'	1'-2'	2'-3'
LABORATORY SAMPLE ID:	B1A160124	B1A160124	B1A160124	B1A160124	B1A160124	B1A160124
SAMPLE DATE:	1/12/01	1/12/01	1/12/01	1/12/01	1/12/01	1/12/01

CONTAMINANT	METHOD	UNIT						
VOLATILE ORGANICS								
cis-1,2-Dichloroethene	SW-846 8260B	ug/Kg	<5	<5	<5	<5	<5	<5
trans-1,2-Dichloroethene	SW-846 8260B	ug/Kg	<5	<5	<5	<5	<5	<5
Chloromethane	SW-846 8260B	ug/Kg	<10	<10	<10	<10	<10	<10
Bromomethane	SW-846 8260B	ug/Kg	<10	<10	<10	<10	<10	<10
Vinyl chloride	SW-846 8260B	ug/Kg	<10	<10	<10	<10	<10	<10
Choroethane	SW-846 8260B	ug/Kg	<10	<10	<10	<10	<10	<10
Methylene chloride	SW-846 8260B	ug/Kg	<10	<10	<10	<10	<10	<10
Acetone	SW-846 8260B	ug/Kg	<25	<25	<25	<25	<25	<25
Carbon disulfide	SW-846 8260B	ug/Kg	<5	<5	<5	<5	<5	<5
1,1-Dichloroethene	SW-846 8260B	ug/Kg	<5	<5	<5	<5	<5	<5
1,1-Dichloroethane	SW-846 8260B	ug/Kg	<5	<5	<5	<5	<5	<5
Chloroform	SW-846 8260B	ug/Kg	<5	<5	<5	<5	<5	<5
1,2-Dichloroethane	SW-846 8260B	ug/Kg	<5	<5	<5	<5	<5	<5
2-Butanone	SW-846 8260B	ug/Kg	<25	<25	<25	<25	<25	<25
1,1,1-Trichloroethene	SW-846 8260B	ug/Kg	<5	<5	<5	<5	<5	<5
Carbon tetrachloride	SW-846 8260B	ug/Kg	<5	<5	<5	<5	<5	<5
Bromodichloromethane	SW-846 8260B	ug/Kg	<5	<5	<5	<5	<5	<5
1,2-Dichloropropane	SW-846 8260B	ug/Kg	<5	<5	<5	<5	<5	<5
cis-1,3-Dichlorpropene	SW-846 8260B	ug/Kg	<5	<5	<5	<5	<5	<5
Trichloroethene	SW-846 8260B	ug/Kg	<5	<5	<5	<5	<5	<5
Dibromochloromethane	SW-846 8260B	ug/Kg	<5	<5	<5	<5	<5	<5
1,1,2-Trichloroethane	SW-846 8260B	ug/Kg	<5	<5	<5	<5	<5	<5
Benzene	SW-846 8260B	ug/Kg	<5	<5	<5	<5	<5	<5
trans-1,3-Dichloropropene	SW-846 8260B	ug/Kg	<5	<5	<5	<5	<5	<5
Bromoform	SW-846 8260B	ug/Kg	<5	<5	<5	<5	<5	<5
4-Methyl-2-pentanone	SW-846 8260B	ug/Kg	<25	<25	<25	<25	<25	<25
2-Hexanone	SW-846 8260B	ug/Kg	<25	<25	<25	<25	<25	<25
Tetrachloroethene	SW-846 8260B	ug/Kg	<5	<5	<5	<5	<5	<5
1,1,2,2-Tetrachloroethane	SW-846 8260B	ug/Kg	<5	<5	<5	<5	<5	<5
Toluene	SW-846 8260B	ug/Kg	<5	<5	<5	<5	<5	<5
Chlorobenzene	SW-846 8260B	ug/Kg	<5	<5	<5	<5	<5	<5
Ethylbenzene	SW-846 8260B	ug/Kg	<5	<5	<5	<5	<5	<5
Styrene	SW-846 8260B	ug/Kg	<5	<5	<5	<5	<5	<5
Xylenes (Total)	SW-846 8260B	ug/Kg	<5	<5	<5	<5	<5	<5

B = detected in blank
J = estimated below RL
P >40% difference in columns

Samples analyzed by STL

TABLE 3.1
ANALYTICAL DATA SUMMARY - SWMU 291
JANUARY 12, 2001

CLIENT SAMPLE ID:	**CLJ-52-SC-033**	**CLJ-52-SC-034**	**CLJ-52-SC-035**	**CLJ-52-SC-036**	**CLJ-52-SC-037**	**CLJ-52-SC-038**
SAMPLE LOCATION:	**Ditch Location 3, 0-1'**	**Ditch Location 3, 1'-2'**	**Ditch Location 3, 2'-3'**	**Ditch Location 4, 0-1'**	**Ditch Location 4, 1'-2'**	**Ditch Location 4, 2'-3'**
LABORATORY SAMPLE ID:	**B1A160124**	**B1A160124**	**B1A160124**	**B1A160124**	**B1A160124**	**B1A160124**
SAMPLE DATE:	**1/12/01**	**1/12/01**	**1/12/01**	**1/12/01**	**1/12/01**	**1/12/01**

CONTAMINANT	METHOD	UNIT						
SEMI-VOLATILE ORGANICS								
Acenaphthene	SW-846 8270C	ug/Kg	<330	<330	<330	<330	<330	<330
Acenaphthylene	SW-846 8270C	ug/Kg	<330	<330	<330	<330	<330	<330
Anthracene	SW-846 8270C	ug/Kg	<330	<330	<330	<330	<330	<330
Benzo(a)anthracene	SW-846 8270C	ug/Kg	<330	<330	<330	<330	<330	<330
Benzo(b)fluoranthene	SW-846 8270C	ug/Kg	<330	**160 J**	**78 J**	<330	<330	<330
Benzo(k)fluoranthene	SW-846 8270C	ug/Kg	<330	<330	<330	<330	<330	<330
Benzo(ghi)perylene	SW-846 8270C	ug/Kg	<330	<330	<330	<330	<330	<330
Benzo(a)pyrene	SW-846 8270C	ug/Kg	<330	**71 J**	<330	<330	<330	<330
bis(2-Chloroethoxy)methane	SW-846 8270C	ug/Kg	<330	<330	<330	<330	<330	<330
bis(2-Chloroethyl)ether	SW-846 8270C	ug/Kg	<330	<330	<330	<330	<330	<330
bis(2-Ethylhexyl)phthalate	SW-846 8270C	ug/Kg	<330	**440 B**	<330	**130 J**	**130 J**	**130 J**
4-Bromophenyl phenyl ether	SW-846 8270C	ug/Kg	<330	<330	<330	<330	<330	<330
Butyl benzyl phthalate	SW-846 8270C	ug/Kg	<330	<330	<330	<330	<330	<330
Carbazole	SW-846 8270C	ug/Kg	<330	<330	<330	<330	<330	<330
4-Chloroaniline	SW-846 8270C	ug/Kg	<330	<330	<330	<330	<330	<330
4-Chloro-3-methylphenol	SW-846 8270C	ug/Kg	<330	<330	<330	<330	<330	<330
2-Chloronaphthalene	SW-846 8270C	ug/Kg	<330	<330	<330	<330	<330	<330
2-Chlorophenol	SW-846 8270C	ug/Kg	<330	<330	<330	<330	<330	<330
bis(2-Chloroisopropyl)ether	SW-846 8270C	ug/Kg	<330	<330	<330	<330	<330	<330
4-Chlorophenyl phenyl ether	SW-846 8270C	ug/Kg	<330	<330	<330	<330	<330	<330
Chrysene	SW-846 8270C	ug/Kg	<330	**90 J**	<330	<330	<330	<330
Dibenz(a,h)anthracene	SW-846 8270C	ug/Kg	<330	<330	<330	<330	<330	<330
Dibenzofuran	SW-846 8270C	ug/Kg	<330	<330	<330	<330	<330	<330
1,2-Dichlorobenzene	SW-846 8270C	ug/Kg	<330	<330	<330	<330	<330	<330
1,3-Dichlorobenzene	SW-846 8270C	ug/Kg	<330	<330	<330	<330	<330	<330
1,4-Dichlorobenzene	SW-846 8270C	ug/Kg	<330	<330	<330	<330	<330	<330
3,3'-Dichlorobenzidine	SW-846 8270C	ug/Kg	<1600	<1600	<1600	<1600	<1600	<1600
2,4-Dichlorophenol	SW-846 8270C	ug/Kg	<330	<330	<330	<330	<330	<330
Diethyl phthalate	SW-846 8270C	ug/Kg	<330	<330	<330	<330	<330	<330
2,4-Dimethylphenol	SW-846 8270C	ug/Kg	<330	<330	<330	<330	<330	<330
Dimethyl phthalate	SW-846 8270C	ug/Kg	<330	<330	<330	<330	<330	<330
Di-n-butyl phthalate	SW-846 8270C	ug/Kg	<330	<330	<330	<330	<330	<330
Di-n-octyl phthalate	SW-846 8270C	ug/Kg	<330	<330	<330	<330	<330	<330
4,6-Dinitro-2-methylphenol	SW-846 8270C	ug/Kg	<1600	<1600	<1600	<1600	<1600	<1600
2,4-Dinitrophenol	SW-846 8270C	ug/Kg	<1600	<1600	<1600	<1600	<1600	<1600

B = detected in blank
J = estimated below RL
P >40% difference in columns

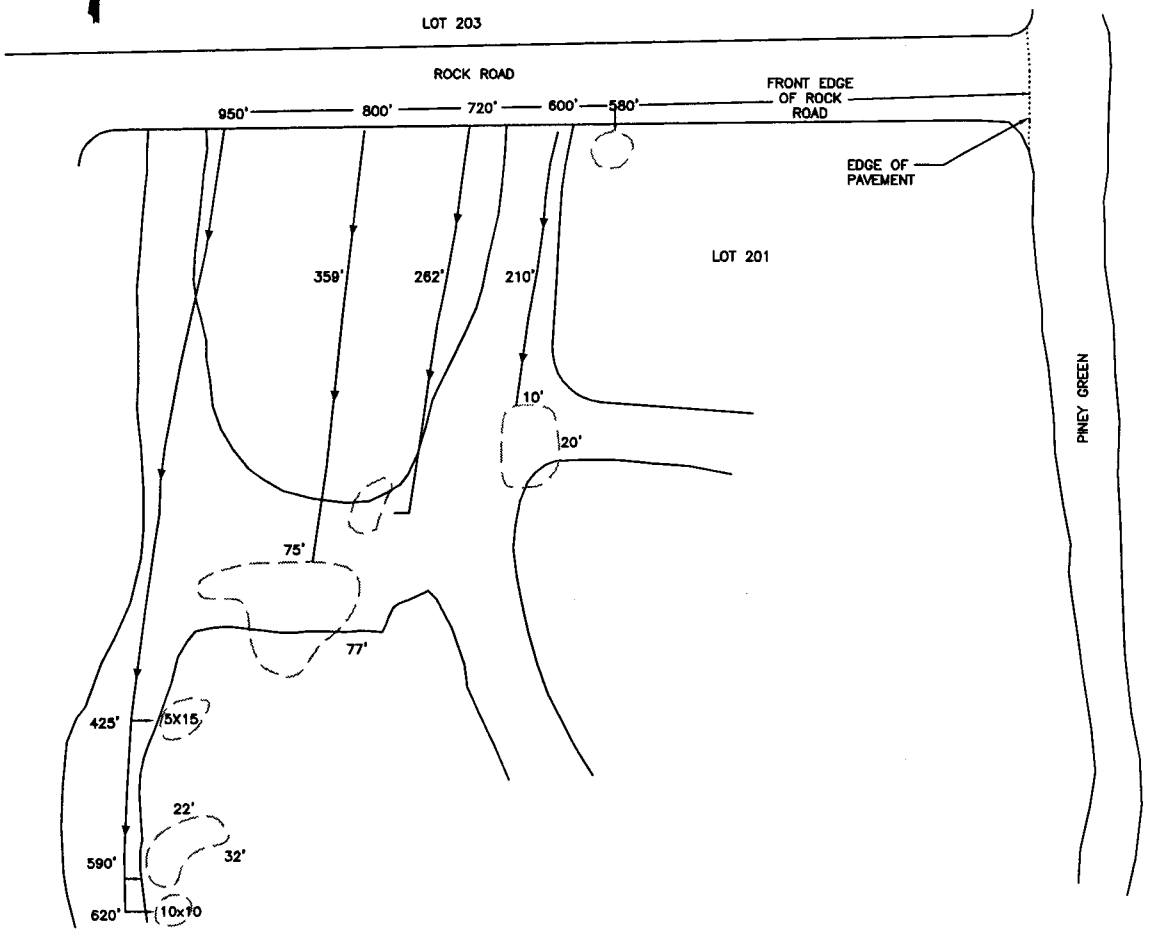
Samples analyzed by STL

TABLE 3.1
ANALYTICAL DATA SUMMARY - SWMU 291
JANUARY 12, 2001

CONTAMINANT	METHOD	UNIT	CLIENT SAMPLE ID: CLJ-52-SC-033 Ditch Location 3, 0 SAMPLE LOCATION: 1' LABORATORY SAMPLE ID: B1A160124 SAMPLE DATE: 1/12/01	CLJ-52-SC-034 Ditch Location 3, 1'-2' B1A160124 1/12/01	CLJ-52-SC-035 Ditch Location 3, 2'-3' B1A160124 1/12/01	CLJ-52-SC-036 Ditch Location 4, 0 1' B1A160124 1/12/01	CLJ-52-SC-037 Ditch Location 4, 1'-2' B1A160124 1/12/01	CLJ-52-SC-038 Ditch Location 4, 2'-3' B1A160124 1/12/01
SEMI-VOLATILE ORGANICS (continued)								
2,4-Dinitrotoluene	SW-846 8270C	ug/Kg	<330	<330	<330	<330	<330	<330
2,6-Dinitrotoluene	SW-846 8270C	ug/Kg	<330	<330	<330	<330	<330	<330
Fluoranthene	SW-846 8270C	ug/Kg	<330	**130 J**	<330	<330	<330	<330
Fluorene	SW-846 8270C	ug/Kg	<330	<330	<330	<330	<330	<330
Hexachlorobenzene	SW-846 8270C	ug/Kg	<330	<330	<330	<330	<330	<330
Hexachlorobutadiene	SW-846 8270C	ug/Kg	<330	<330	<330	<330	<330	<330
Hexachlorocyclopentadiene	SW-846 8270C	ug/Kg	<330	<330	<330	<330	<330	<330
Hexachloroethane	SW-846 8270C	ug/Kg	<330	<330	<330	<330	<330	<330
Indeno(1,2,3-cd)pyrene	SW-846 8270C	ug/Kg	<330	<330	<330	<330	<330	<330
Isophorone	SW-846 8270C	ug/Kg	<330	<330	<330	<330	<330	<330
2-Methylnaphthalene	SW-846 8270C	ug/Kg	<330	<330	<330	<330	<330	<330
2-Methylphenol	SW-846 8270C	ug/Kg	<330	<330	<330	<330	<330	<330
3 & 4-Methylphenol	SW-846 8270C	ug/Kg	<660	<660	<660	<660	<660	<660
Naphthalene	SW-846 8270C	ug/Kg	<330	<330	<330	<330	<330	<330
2-Nitroaniline	SW-846 8270C	ug/Kg	<1600	<1600	<1600	<1600	<1600	<1600
3-Nitroaniline	SW-846 8270C	ug/Kg	<1600	<1600	<1600	<1600	<1600	<1600
4-Nitroaniline	SW-846 8270C	ug/Kg	<1600	<1600	<1600	<1600	<1600	<1600
Nitrobenzene	SW-846 8270C	ug/Kg	<330	<330	<330	<330	<330	<330
2-Nitrophenol	SW-846 8270C	ug/Kg	<330	<330	<330	<330	<330	<330
4-Nitrophenol	SW-846 8270C	ug/Kg	<1600	<1600	<1600	<1600	<1600	<1600
N-Nitrosodiphenylamine	SW-846 8270C	ug/Kg	<330	<330	<330	<330	<330	<330
N-Nitrosodi-n-propyl-amine	SW-846 8270C	ug/Kg	<330	<330	<330	<330	<330	<330
Pentachlorophenol	SW-846 8270C	ug/Kg	<1600	<1600	<1600	<1600	<1600	<1600
Phenanthrene	SW-846 8270C	ug/Kg	<330	<330	<330	<330	<330	<330
Phenol	SW-846 8270C	ug/Kg	<330	<330	<330	<330	<330	<330
Pyrene	SW-846 8270C	ug/Kg	<330	**140 J**	<330	<330	<330	<330
1,2,4-Trichlorobenzene	SW-846 8270C	ug/Kg	<330	<330	<330	<330	<330	<330
2,4,5-Trichlorophenol	SW-846 8270C	ug/Kg	<330	<330	<330	<330	<330	<330
2,4,6-Trichlorophenol	SW-846 8270C	ug/Kg	<330	<330	<330	<330	<330	<330

B = detected in blank
J = estimated below RL
P >40% difference in columns

Samples analyzed by STL



OHM Remediation Services Corp. NORCROSS, GEORGIA A SUBSIDIARY OF OHM CORPORATION			
DRAWN BY	A. MORGAN	10/23/01	
CHECKED BY	B. GUITE	10/23/01	
APPROVED BY	J. DUNN	10/23/01	
REV. 0	SHEET # –	PROJECT NO. 803538	

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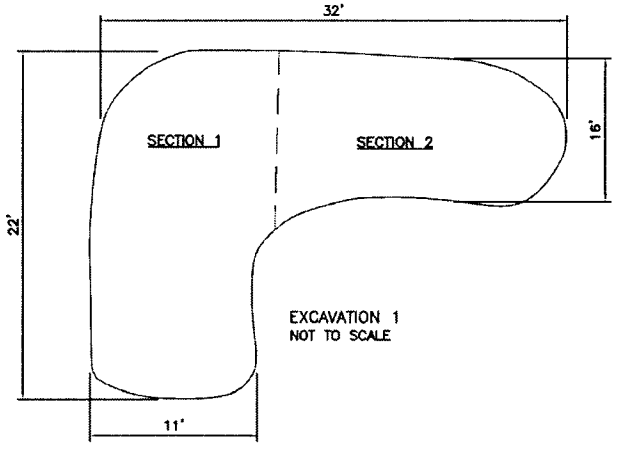
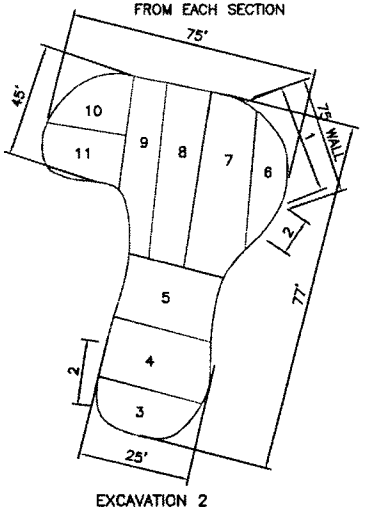
FIGURE 3
EXCAVATION LOCATIONS
SWMU 359

5 POINT COMPOSITE WAS TAKEN
FROM EACH FLOOR SECTION



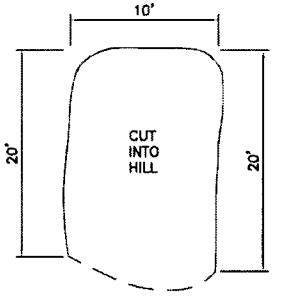
EXCAVATION 1
NOT TO SCALE

5 POINT COMPOSITE WAS TAKEN
FROM EACH SECTION



EXCAVATION 2
NOT TO SCALE

5 POINT COMPOSITE WAS TAKEN
FROM FLOOR AND WALL



EXCAVATION 3
NOT TO SCALE

OHM Remediation Services Corp.			
DRAWN BY	L. SHULMAN	9/17/01	
CHECKED BY	S. CLINE	9/17/01	
APPROVED BY	J. DUNN	9/17/01	
REV. 0	SHEET # –	PROJECT NO. 803538	

FIGURE 4
SAMPLING POINTS
AUGUST 2, 2001
EXCAVATION 1, 2, & 3
SWMU 359

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Camp Lejeune, NC
SWMU 359

Results of Confirmation Sampling

Project 803538

Sample Number			SWMU359-CS-005	SWMU359-CS-006	SWMU359-CS-007	SWMU359-CS-008	SWMU359-CS-009
Sample Date			8/2/01	8/2/01	8/2/01	8/2/01	8/2/01
Lab Lot #			B1H040118	B1H040118	B1H040118	B1H040118	B1H040118
Location	Units	NC SSL	Excav. 1 Floor Sec. 1	Excav. 1 Floor Sec. 2	Excav. 3, Floor	Excav. 3 Wall	Excav. 2 Wall 1
Parameter							
Mercury	mg/kg		<0.080	<0.080	<0.080	**0.08**	<0.08
Antimony	mg/kg		<0.50	<0.50	<0.50	<0.50	<0.50
Aluminum	mg/kg		**93.2**	**729**	**2620**	**1960**	**761**
Arsenic	mg/kg		<5.0	<0.25	**0.37**	**0.4**	<0.25
Lead	mg/kg	270	**23.2**	**6.3**	**15.1**	**17.8**	**1.4**
Selenium	mg/kg		<0.25	<0.25	**0.42**	**0.5**	<0.25
Barium	mg/kg		<5.0	<5.0	<5.0	<5.0	<5.0
Thallium	mg/kg		<0.50	<0.50	<0.50	<0.50	<0.50
Beryllium	mg/kg		<0.50	<0.50	<0.50	<0.50	<0.50
Cadmium	mg/kg	2.72	**0.75**	<0.50	<0.50	<0.50	<0.50
Calcium	mg/kg		<100	<100	<100	<100	<100
Lithium	mg/kg	4380	<10.0	<10.0	<10.0	<10.0	<10.0
Chromium	mg/kg		**9.5**	**1.1**	**3.5**	**3.7**	<1.0
Cobalt	mg/kg		<2.5	<2.5	<2.5	<2.5	<2.5
Copper	mg/kg		**5.6**	**2.7**	**6.8**	**9.2**	<2.5
Iron	mg/kg		**166**	**230**	**2630**	**2500**	**135**
Magnesium	mg/kg		<100	<100	<100	<100	<100
Manganese	mg/kg		**153**	**29.3**	**14.6**	**26.9**	**3.4**
Nickel	mg/kg	56.4	<2.5	<2.5	<2.5	<2.5	<2.5
Potassium	mg/kg		<100	<100	<100	<100	<100
Silver	mg/kg		<1.0	<1.0	<1.0	<1.0	<1.0
Sodium	mg/kg		<100	<100	<100	<100	<100
Vanadium	mg/kg		<2.5	<2.5	**3.5**	**3.0**	<2.5
Zinc	mg/kg	1100	**3530**	**48.9**	**69.2**	**184**	**3.6**

Camp Lejeune, NC
SWMU 359

Results of Confirmation Sampling

Project 803538

Sample Number	SWMU359-CS-010	SWMU359-CS-011	SWMU359-CS-012	SWMU359-CS-013	SWMU359-CS-015	SWMU359-CS-016
Sample Date	8/2/01	8/2/01	8/2/01	8/2/01	8/2/01	8/2/01
Lab Lot #	B1H040118	B1H040118	B1H040118	B1H040118	B1H040118	B1H040118
Location	Excav. 2 Wall 2	Excav. 2 Floor Sec 1	Excav. 2 Floor Sec 2	Excav. 2 Floor Sec 3	Excav. 2 Floor Sec 4	Excav. 2 Floor Sec 5
Parameter						
Mercury	<0.080	<0.080	<0.080	<0.080	<0.080	<0.080
Antimony	**0.88**	<0.50	<0.50	<0.50	<0.50	<0.50
Aluminum	**8910**	**392**	**3700**	**951**	**585**	**1700**
Arsenic	**1.7**	<0.25	**0.47**	<0.25	<0.25	<0.25
Lead	**12.4**	**1.2**	**7.4**	**3.2**	**1.4**	**2.5**
Selenium	**0.7**	<0.25	**0.25**	<0.25	<0.25	<0.25
Barium	**11.3**	<5.0	**5.7**	<5.0	<5.0	<5.0
Thallium	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50
Beryllium	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50
Cadmium	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
Calcium	**227**	<100	**128**	<100	<100	<100
Lithium	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0
Chromium	**10.2**	<1.0	**4.5**	**1.2**	<1.0	**1.9**
Cobalt	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5
Copper	**10.2**	<2.5	**4.2**	<2.5	<2.5	<2.5
Iron	**3350**	**114**	**1490**	**351**	**207**	**637**
Magnesium	**290**	<100	**116**	<100	<100	<100
Manganese	**18.3**	**4.0**	**11.4**	**6.5**	**3.9**	**5.9**
Nickel	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5
Potassium	**307**	<100	**164**	<100	<100	<100
Silver	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Sodium	<100	<100	<100	<100	<100	<100
Vanadium	**12.5**	<2.5	**5.6**	<2.5	<2.5	<2.5
Zinc	**88.7**	**2.9**	**39.0**	**10.2**	**4.9**	**10.5**

Camp Lejeune, NC
SWMU 359

Results of Confirmation Sampling

Project 803538

Sample Number	SWMU359-CS-017	SWMU359-CS-018	SWMU359-CS-019	SWMU359-CS-020	SWMU359-CS-021	SWMU359-CS-022
Sample Date	8/2/01	8/2/01	8/2/01	8/2/01	8/2/01	8/2/01
Lab Lot #	B1H040118	B1H040118	B1H040118	B1H040118	B1H040118	B1H040118
Location	Excav. 2 Floor Sec 6	Excav. 2 Floor Sec 7	Excav. 2 Floor Sec 8	Excav. 2 Floor Sec 9	Excav. 2 Floor Sec 10	Excav. 2 Floor Sec 11
Parameter						
Mercury	**0.52**	<0.080	<0.080	<0.080	<0.080	**0.32**
Antimony	<0.50	<0.50	<0.50	**1.9**	<0.50	<0.50
Aluminum	**1820**	**918**	**844**	**2600**	**2680**	**1710**
Arsenic	<0.25	<0.25	<0.25	**0.49**	<0.25	<0.25
Lead	**18.9**	**3.4**	**4.0**	**21.5**	**8.8**	**10.6**
Selenium	<0.25	<0.25	<0.25	**0.39**	<0.25	**0.25**
Barium	<5.0	<5.0	<5.0	**6.1**	<5.0	<5.0
Thallium	<0.50	<0.50	<0.50	<0.50	<5.0	<0.50
Beryllium	<0.50	<0.50	<0.50	<0.50	<5.0	<0.50
Cadmium	<0.50	<0.50	<0.50	<0.50	<5.0	<0.50
Calcium	<100	<100	<100	**105**	<100	<100
Lithium	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0
Chromium	**1.6**	**1.3**	**1.2**	**5.9**	**3.6**	**2.6**
Cobalt	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5
Copper	**2.8**	<2.5	<2.5	**27.7**	**4.8**	**5.5**
Iron	**346**	**378**	**343**	**1640**	**1120**	**966**
Magnesium	<100	<100	<100	<100	<100	<100
Manganese	**12.4**	**5.0**	**8.4**	**65.3**	**26.6**	**30.4**
Nickel	<2.5	<2.5	<2.5	**2.8**	<2.5	<2.5
Potassium	<100	<100	<100	**104**	**105**	<100
Silver	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Sodium	<100	<100	<100	<100	<100	<100
Vanadium	<2.5	<2.5	<2.5	**3.7**	**3.7**	**2.5**
Zinc	**45.7**	**12.2**	**20.6**	**77**	**55.2**	**117**

Camp Lejeune, NC
SWMU 359

Results of Confirmation Sampling

Project 803538

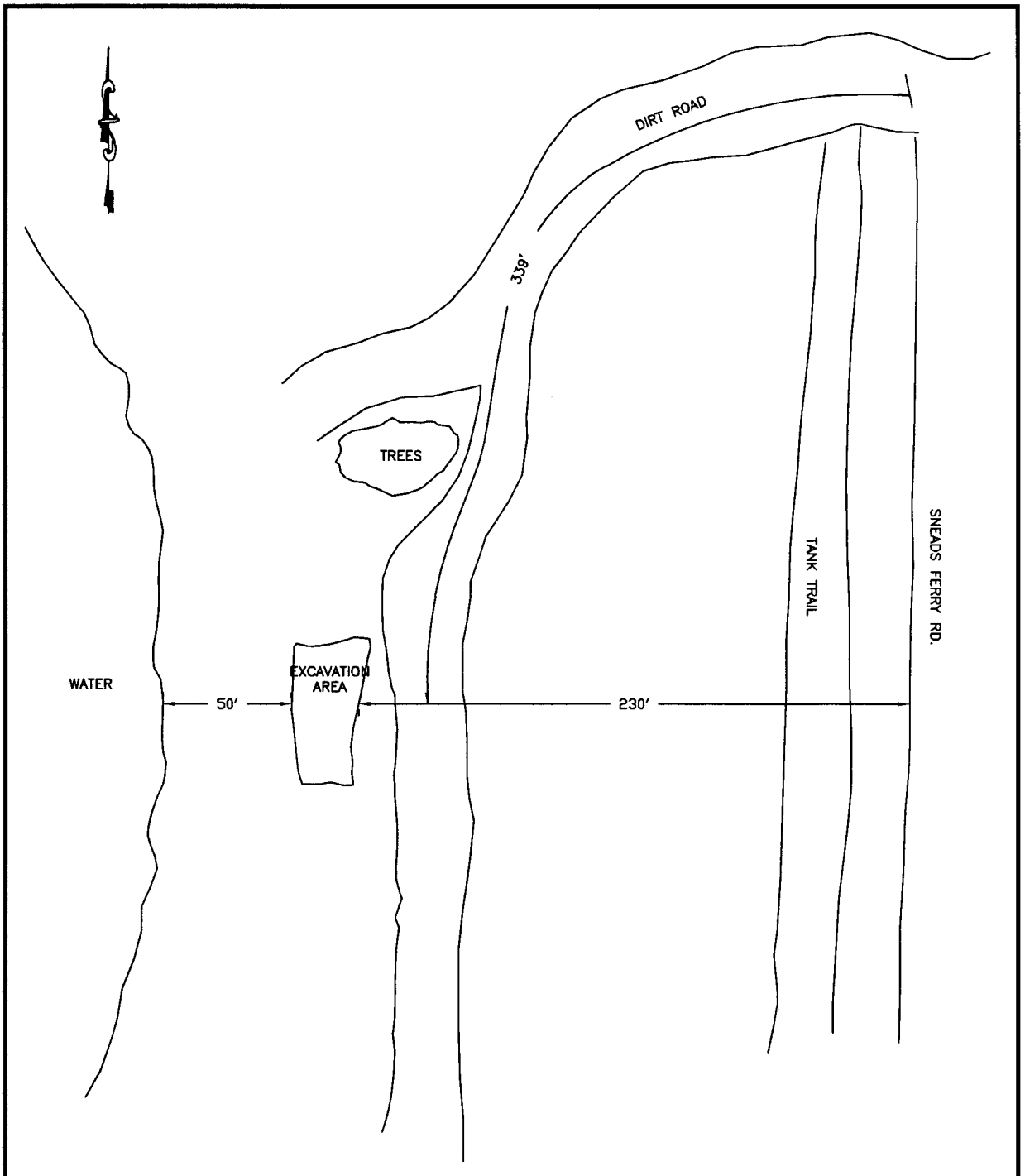
Sample Number	SWMU359-CS-023	SWMU359-CS-024
Sample Date	8/2/01	8/2/01
Lab Lot #	B1H040118	B1H040118
Location	Excav. 2 Floor Sec 6	Excav. 2 Floor Sec 4
Parameter		
Mercury	**1.5**	<0.080
Antimony	<0.50	<0.50
Aluminum	**1230**	**1090**
Arsenic	<0.25	<0.25
Lead	**20.6**	**1.5**
Selenium	**0.28**	<0.25
Barium	<5.0	<5.0
Thallium	<0.50	<0.50
Beryllium	<0.50	<0.50
Cadmium	<0.50	<0.50
Calcium	<100	<100
Lithium	<10.0	<10.0
Chromium	**2.0**	**1.5**
Cobalt	<2.5	<2.5
Copper	**5.2**	<2.5
Iron	**644**	350
Magnesium	<100	<100
Manganese	**24.5**	**4.4**
Nickel	<2.5	<2.5
Potassium	<100	<100
Silver	<1.0	<1.0
Sodium	<100	<100
Vanadium	<2.5	<2.5
Zinc	**118**	**5.1**

Table 3.6
NC SSL Analytical Data - SWMU 359
August 2, 2001

Sample Number			5	6	7	8	9	10	11	12	13	15	16	17
Sample Date			8/2/01	8/2/01	8/2/01	8/2/01	8/2/01	8/2/01	8/2/01	8/2/01	8/2/01	8/2/01	8/2/01	8/2/01
Location	Units	NC SSL	Excav. 1 Floor Sec. 1	Excav. 1 Floor Sec. 2	Excav. 3, Floor	Excav. 3 Wall	Excav. 2 Wall 1	Excav. 2 Wall 2	Excav. 2 Floor Sec 1	Excav. 2 Floor Sec 2	Excav. 2 Floor Sec 3	Excav. 2 Floor Sec 4	Excav. 2 Floor Sec 5	Excav. 2 Floor Sec 6
Parameter														
Lead	mg/kg	270	**23.2**	**6.3**	**15.1**	**17.8**	**1.4**	**12.4**	**1.2**	**7.4**	**3.2**	**1.4**	**2.5**	**18.9**
Cadmium	mg/kg	2.72	**0.75**	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
Lithium	mg/kg	4380	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0
Nickel	mg/kg	56.4	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5
Zinc	mg/kg	1100	**3530**	**48.9**	**69.2**	**184**	**3.6**	**88.7**	**2.9**	**39.0**	**10.2**	**4.9**	**10.5**	**45.7**

Table 3.6
NC SSL Analytical Data - SWMU 359
August 2, 2001

Sample Number	18	19	20	21	22	23	24
Sample Date	8/2/01	8/2/01	8/2/01	8/2/01	8/2/01	8/2/01	8/2/01
Location	Excav. 2 Floor Sec 7	Excav. 2 Floor Sec 8	Excav. 2 Floor Sec 9	Excav. 2 Floor Sec 10	Excav. 2 Floor Sec 11	Excav. 2 Floor Sec 6	Excav. 2 Floor Sec 4
Parameter						DUP	DUP
Lead	**3.4**	**4.0**	**21.5**	**8.8**	**10.6**	**20.6**	**1.5**
Cadmium	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	<0.50
Lithium	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0
Nickel	<2.5	<2.5	**2.8**	<2.5	<2.5	<2.5	<2.5
Zinc	**12.2**	**20.6**	**77**	**55.2**	**117**	**118**	**5.1**



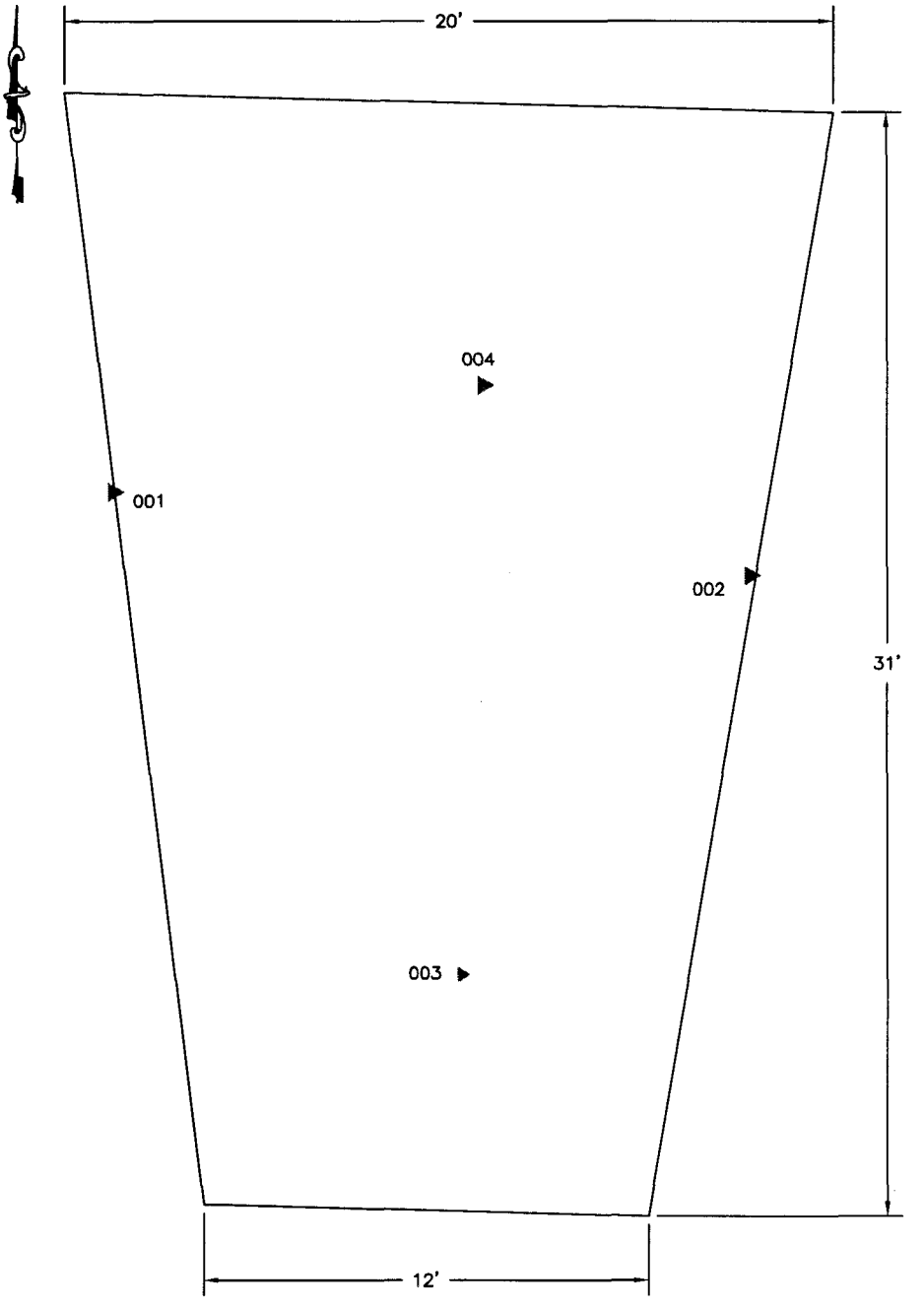
OHM Remediation Services Corp.

DRAWN BY	A. MORGAN	9/17/01
CHECKED BY	B. GUITE	9/17/01
APPROVED BY	J. DUNN	9/17/01

REV.	SHEET #	PROJECT NO.
0	–	803538

J:\LANTDIV\LEJUNE\803538\UNITS 291, 310, 358\DWG1.DWG

FIGURE 1
EXCAVATION LOCATION
JULY 25, 2001
SWMU 358



OHM Remediation Services Corp.			
DRAWN BY	A. MORGAN	9/17/01	
CHECKED BY	B. GUITE	9/17/01	
APPROVED BY	J. DUNN	9/17/01	
REV. 0	SHEET # –	PROJECT NO. 803538	

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FIGURE 2
SAMPLING POINTS
JULY 25, 2001
SWMU 358

TABLE 3.3
ANALYTICAL DATA SUMMARY - SWMU-358
July 25, 2001

Sample Number			CLJ-52-CS-001	CLJ-52-CS-002	CLJ-52-CS-003	CLJ-52-CS-004
Sample Date			7/25/01	7/25/01	7/25/01	7/25/01
Lab Lot #			B1G260156	B1G260156	B1G260156	B1G260156
Location		Clean-up Levels	Soil, East Wall	Soil, West Wall	Soil, Floor South End	Soil, Floor North End
Parameter	Units					
Antimony	mg/kg		<0.50	<0.50	<0.50	<0.50
Aluminum	mg/kg		**1300**	**1380**	**3320**	**1310**
Arsenic	mg/kg		<0.25	<0.25	**0.45**	<0.25
Lead	mg/kg	270	**1.3**	**1.3**	**1.5**	**0.92**
Barium	mg/kg		<5.0	<5.0	**6.6**	<5.0
Selenium	mg/kg		<0.25	<0.25	**0.26**	<0.25
Beryllium	mg/kg		<0.50	<0.50	<0.50	<0.50
Thallium	mg/kg		<0.50	<0.50	<0.50	<0.50
Cadmium	mg/kg	2.27	<0.50	<0.50	<0.50	<0.50
Calcium	mg/kg		<100	<100	<100	<100
Chromium	mg/kg		**1.5**	**1.8**	**4.1**	**1.6**
Lithium	mg/kg		<10.0	<10.0	<10.0	<10.0
Cobalt	mg/kg		<2.5	<2.5	<2.5	<2.5
Copper	mg/kg		<2.5	<2.5	<2.5	<2.5
Iron	mg/kg		**532**	**460**	**1420**	**444**
Magnesium	mg/kg		<100	<100	**107**	<100
Manganese	mg/kg		**4.4**	**2.3**	**2.4**	**2.6**
Nickel	mg/kg	56.4	<2.5	<2.5	<2.5	<2.5
Potassium	mg/kg		<100	<100	**169**	**119**
Silver	mg/kg		<1.0	<1.0	<1.0	<1.0
Sodium	mg/kg		<100	<100	<100	<100
Vanadium	mg/kg		<2.5	<2.5	**6.9**	<2.5
Zinc	mg/kg	1100	<2.0	<2.0	<2.0	<2.0
Mercury	mg/kg		<0.080	<0.080	<0.080	<0.080

J =Estimated Result

Table 3.5
NC SSL Analytical Data - SWMU 358
July 25, 2001

Sample Number			1	2	3	4
Sample Date			7/25/01	7/25/01	7/25/01	7/25/01
Location	Units	NC SSL	Excav. 1 Floor Sec. 1	Excav. 1 Floor Sec. 2	Excav. 3, Floor	Excav. 3 Wall
Parameter						
Lead	mg/kg	270	**1.3**	**1.3**	**1.5**	**0.92**
Cadmium	mg/kg	2.72	<0.50	<0.50	<0.50	<0.50
Lithium	mg/kg	4380	<10.0	<10.0	<10.0	<10.0
Nickel	mg/kg	56.4	<2.5	<2.5	<2.5	<2.5
Zinc	mg/kg	1100	**<2.0**	**<2.0**	**<2.0**	**<2.0**