10/1/98-3188

DNAPL Site Characterization using a Partitioning Interwell Tracer Test at Site 88, Marine Corps Base, Camp Lejeune, North Carolina

APPENDICES

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Appendix A

Geologic Logs and Well Construction Details

Location Coordinates of Wells, soil borings, CPT borings and MLS samplers

Location	Northing	Easting	Elevation Ground	TOC
IN01	339435.8315	2496487.07	25.54	25.71
IN02	339444.8916	2496489.85	25.52	25.27
IN03	339453.1307	2496492.71	25.8	25.34
HC01	339427.527	2496483.9	26.85	26.42
HC02	339461.6546	2496495.7	26.17	25.87
EX01	339440.8058	2496472.62	25.63	25.59
EX02	339450.5296	2496475.9	25.66	25.56
EX03	339459.3573	2496479.4	25.98	25.64
EX04	339430.571	2496500.34	25.59	25.65
EX04R	339432.88	2496502.62	25.6	
EX05	339439.9732	2496504.05	25.42	25.22
EX06	339447.4862	2496506.44	25.73	25.45
RW01	339447.2038	2496475.77	25.49	25.24
RW02	339441.6861	2496489.87	25.54	25.35
RW03	339429.4074	2496466.98	26.84	26.49
RW04	339427.0241	2496511.78	26.07	25.78
RW06	339417.9552	2496507.8	26.86	26.46
IW01	339439.3594	2496496.52	25.61	25.24
MW10IW	339451.5	2496487.02	25.8*	NA
WP01AQT	339448.32	2496485	25.6*	NA
WP02AQT	339449.61	2496485.72	25.6*	NA
MLS-1	339439.23	2496477.66	25.6*	
MLS-2	339448.96	2496480.72	25.6*	
MLS-3	339457.37	2496487.02	25.8*	
CPT01	339429.1547	2496573.55	25.79	
CPT02	339442.6893	2496537.93	28.83	
CPT04	339469.7012	2496499.49	25.8	
CPT05	339496.3537	2496424.99	25	
CPT06	339467.986	2496437.42	25.54	
CPT07	339450.2707	2496410.37	25.99	
CPT08	339382.1602	2496399.19	25.73	
CPT09	339361.3396	2496464.64	26.28	
CPT10	339342.0089	2496515.72	26.33	
CPT11	339372.7974	2496436.73	26.13	
CPT12	339454.1104	2496483.59	25.69	
IS01	339435.6666	2496505.83	25.45	
IS02	339434.5729	2496511.08	25.57	
IS03	339429.3495	2496514.01	25.98	
IS04	339379.83	2496471.4		
IS05	339405.9933	2496486.14	26.87	
IS06	339390.05	2496486.31		
IS07	339454.0657	2496469.83	25.74	
IS09	339391.1085	2496486.19	26.8	
IS10	339441.94	2496486.31		
IS11	339447.94	2496484.99		
IS12	339451.8148	2496452.56	26.11	
IS13	339447.94	2496483.18		
IS14	339439.95	2496511.93		
IS15	339457.02	2496492.37		
IS16	339428.05	2496516.91		
IS17	339454.25	2496470		
IS18	339466.8791	2496462.76	25.24	
IS19	339440.57	2496502.33		
IS20	339461.2	2496484.19		
IS21	339431.59	2496501.06		
IS22	339434.43	2496491.13		
IS23	339445.37	2494993.26		
IS24	339441.66	2496499.46		
IS25	339445.43	246485.45		
IS26	339443.58	2496496.18		
IS27	339453.36	2496505.63		
IS28	339401.2763	2496543.85	26.86	
IS29	339428.27	2496476.53		
IS30	339414.46	2496498.38		
IS31	339407.2556	2496533.24	26.83	
IS32	339432.88	2496498.38		

* Estimated from nearby well elevations

Well Construction Details

Well ID	Casing Dia (in)	Elevation (amsl) Ground	TOC	well depth BGS	Screen intervals (AMSL) lower	upper	Bentonite seal interval (ft amsl)	Sand pack Interval (ft amsl)
EX01	4	25.63	25.59	19.96	6.1-10.6	NA	16.8-12.8	12.8-5.6
EX02	4	25.56	25.66	21.20	4.9-9.5	NA	14.7-11.8	11.8-4.2
EX03	4	25.64	25.98	19.94	6.5-11.0	NA	15.9-12.9	12.9-6.0
EX04	4	25.65	25.59	21.09	4.9-9.5	NA	14.1-11.8	11.8-4.6
EX04R	4	25.65	25.59	19.70	6.3-10.9	NA	16.9-13.1	13.1-5.6
EX05	4	25.22	25.42	21.75	4.1-8.7	NA	13.9-11.2	11.2-4.4
EX06	4	25.45	25.73	20.41	5.7-10.3	NA	15.5-12.5	12.5-5.2
HC01	2	26.42	26.85	22.71	4.5-9.1	5.9-15	13.9-11.9	11.9-4.9
HC02	2	25.87	26.17	20.40	6.1-10.8	13.9-18.4	12.8-11.8	11.8-6.1
IN01	4	25.71	25.54	22.58	3.5-8.0	14.0-18.0	12.1-10.1	10.1-3.0
IN02	4	25.27	25.52	19.65	6.5-11.0	14.5-18.5	12.6-11.6	11.6-5.5
IN03	4	25.34	25.8	19.96	6.4-10.9	14.4-18.4	12.9-11.9	11.9-5.8
RW01	4	25.49	25.24	20.00	6.2-10.4	NA	16.2-13.2	13.2-5.2
RW02	4	25.54	25.35	20.00	6.4-10.9	NA	16.4-13.4	13.4-5.4
RW03	2	26.49	26.84	21.97	5.2-9.9	15.8-19.7	14.0-12.0	12.0-5.0
RW04	4	25.78	26.07	23.39	3.3-7.8	13.7-18.2	13.2-11.2	11.2-4.1
RW06	2	26.46	26.86	21.07	6.1-10.8	14.2-18.7	13.9-12.4	12.4-6.4
IW01	2	25.61	25.24	18.50	6.9-11.4	NA	20.7-17.7	17.7-6.2
MW10IW	2	25.8*		39.00	-12.9 - -8.4	NA	8.2- -6.1	-6.1 - -13.34
WP01AQT	2	25.6*		0.00	4.1-5.0	NA	10.7-4.0	4.0-0.2
WP02AQT	2	25.6*		0.00	4.6-5.5	NA	10.7-2.7	2.7-0.7

* Estimated from nearby wells

DRILLING LOG	DIVISION	INSTALLATION: MCB Camp Lejeune	SHEET 1 OF 1 SHEETS

1. PROJECT: Bldg 25: DNAPL Source Zone Boring
2. LOCATION (Coordinates or Station): Bldg 25: UST T25-2 Area
3. DRILLING AGENCY: Geo Environmental
4. HOLE NO. (As shown on drawing title and file number): IRBB-IS01
5. NAME OF DRILLER: Rich Melton
6. DIRECTION OF HOLE: ☒ VERTICAL ☐ INCLINED _____ DEG. FROM VERT.
7. THICKNESS OF OVERBURDEN
8. DEPTH DRILLED INTO ROCK
9. TOTAL DEPTH OF HOLE: 19 ft
10. SIZE AND TYPE OF BIT: Direct Push
11. DATUM FOR ELEVATION SHOWN (TBM or MSL)
12. MANUFACTURER'S DESIGNATION OF DRILL: Geoprobe
13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN: DISTURBED 1; UNDISTURBED 5
14. TOTAL NUMBER CORE BOXES
15. ELEVATION GROUND WATER: ~9 ft bgs
16. DATE HOLE: STARTED 7/25/97 @ 1025; COMPLETED 7/25/97 @
17. ELEVATION TOP OF HOLE
18. TOTAL CORE RECOVERY FOR BORING %
19. SIGNATURE OF INSPECTOR: Geologist: Fred Holzmer INTERA

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY e	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g
			TANK REMOVAL: Backfill: clean f. SAND, tan, moist, loose	85%	3	Geoprobe cont tube 1 11/16 in ID HNu 0.5' = 1.6 1.0 = 4.2 1.5 = 3.9 2.0 = 3.5 3.5 = 2.9 4.0 = 2.6 4.5 = 2.1
	2					
	4		4.5 Contact @ native seds: f. SAND w̄ silt/clay, wet, cohesive, low plast, mottled lt/med gray	75%	7	5.0 = 56 (Sample IS01-1) HS 5.2 = 796 5.5 = 98 strong chemical odor: smells like petrol distillates (Varsol?) Sample 01-1 @ 5.4-5.5
	6					
	8			85%	10	7.0 = 196 7.5 = 511 8.0 = 780 (Sample IS01-2) HS@ " = 1950 8.5 = 1024 (Sample IS01-2) HS@ " = 1640 9.0 = 331 Strong chem odor
	10		med gray, wet, loose		13	10 = 311 (Sample IS01-4) HS 10.0 = 1436 10.5 = 96 11 = 117 11.5 = 121 12 = 34 12.5 = 25 mild chem. odor
	12		11.0 f. SAND, w̄ decreased silt/clay, wet, cohesive, slight plast, lt gray	100%		
	14		f. SAND w̄ minor fines, wet, cohesive, no plast, lt gray Core samples from ~14-19 may be borehole backfilling	60%	16	13 = 17 resistant probing layer ~14-16' Sample tube split lengthwise 14 = 44 trace chem. odor 15 = 13 HS 15.5 = 32 HS 16.0 = 72
	16		Samples from 16-19' of unknown depth (borehole backfilling?) Flowing sands, borehole not staying open between core runs	?		Core samples clogged in sampler, extruded, not represent. samples
	18		TD = 19'; descriptions to ~14' bgs.		19	

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Hole No.

DRILLING LOG	DIVISION	INSTALLATION: MCB Camp Lejeune	SHEET 1 OF 1 SHEETS

1. PROJECT: Bldg 25 DNAPL Source Zone Borings
2. LOCATION (Coordinates or Station): N of Bldg 25: T25-1 Area
3. DRILLING AGENCY: GeoEnvironmental
4. HOLE NO. (As shown on drawing title and file number): IRBB-IS02
5. NAME OF DRILLER: Rich Melton
6. DIRECTION OF HOLE: [X] VERTICAL [ ] INCLINED _____ DEG. FROM VERT.
7. THICKNESS OF OVERBURDEN
8. DEPTH DRILLED INTO ROCK
9. TOTAL DEPTH OF HOLE: 20 ft
10. SIZE AND TYPE OF BIT: Direct Push
11. DATUM FOR ELEVATION SHOWN (TBM or MSL)
12. MANUFACTURER'S DESIGNATION OF DRILL: Geoprobe
13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN: DISTURBED: ; UNDISTURBED: 7
14. TOTAL NUMBER CORE BOXES
15. ELEVATION GROUND WATER: ~ 9 ft bgs
16. DATE HOLE: STARTED 7/25/97 @ 1430; COMPLETED 7/25/97 @ 1510
17. ELEVATION TOP OF HOLE
18. TOTAL CORE RECOVERY FOR BORING %
19. SIGNATURE OF INSPECTOR: Geologist: Fred Hofmann INTERA

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY e	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g
			Tank Removal / Backfill: f. SAND, clean, moist, loose			Cont tube Samples 1 1/16 in ID
						HNu 1.5' = 3.1
						2.0 3.1
						2.5 2.6
	2			80%		3.0 2.8
						3.5 2.3
	4			4		4.5' = 120
			4.9 Contact Native seds f. SAND w̄ ~~some~~ silt/clay, moist, cohesive, slt to low plast, minor peat, organic decay smell, med-dk gray	100%		5 97
						5.5 61
	6					6. 33
						6.5 158
			6.1 f. SAND w̄ minor silt/clay, wet, cohesive, lt gray, org decay & hydrocarb smell			
		NR	6.8 CLAY seam, w̄ some ~~an~~ silt, wet, med plast, lt to greenish gray w̄ yellow-orange mottling	7		
	8		7.5 f. SAND (w̄ intermitant silt & clay, decreasing w̄ depth) wet, cohesive, lt to med gray strong hydrocarb smell	70%		8' = 394 strong hydrocarb smell; HS 8.3 = 1616; 8.5 1032; HS 8.8 = 1180 (Sample IS02-2, IS02-; 9 909
			9.0 f. SAND, trace silt, wet, loose, lt tannish gray, strong hydrocarb smell			9.5 115 open to atm
	10			10		
			10.5 si-f. SAND, wet, loose, tan to lt gray	90%		11 = 146
						11.5 68
						12 27
	12		11.9 f. SAND w̄ minor silt, lt to med gray			12.5 12
				13	NS	Muck sample; will use discrete sampler
	14		14 si-f. SAND	14		Discrete sampler (2' x 1" ID) HNu 14.5' = 2.8
						15 2.8
			f. SAND, minor silt			15.5 2.7
	16		16 si-cl-f. SAND grading to	16		16.3 — (Sample IS02-4) 16.5 = 2.0
			16.6 si-CLAY, wet, soft, med plast, olive gray	100%		17 2.0
			17.4 grading to si-cl-f. SAND, low plast.			17.3 2.3
	18			18		
			18.4 CLAY w̄ peat, med plast, olive to charcoal brn @ 20'	80%		HNu 18.5 = 1.6; 19 1.6
				20		

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Hole No.

DRILLING LOG	DIVISION	INSTALLATION MCB Camp Lejeune	SHEET 1 OF 1 SHEETS

1. PROJECT: Bldg 25 DNAPL Source Zone Borings
2. LOCATION (Coordinates or Station): N-side Bldg 25 @ former AST/PCE (5 ft west of Air Comp)
3. DRILLING AGENCY: GeoEnvironmental
4. HOLE NO. (As shown on drawing title and file number): IR88-IS03
5. NAME OF DRILLER: Rich Melton
6. DIRECTION OF HOLE: ☒ VERTICAL ☐ INCLINED _____ DEG. FROM VERT.
7. THICKNESS OF OVERBURDEN
8. DEPTH DRILLED INTO ROCK
9. TOTAL DEPTH OF HOLE: 16'
10. SIZE AND TYPE OF BIT: Direct Push
11. DATUM FOR ELEVATION SHOWN (TBM or MSL)
12. MANUFACTURER'S DESIGNATION OF DRILL: Geoprobe
13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN: DISTURBED ; UNDISTURBED 4
14. TOTAL NUMBER CORE BOXES
15. ELEVATION GROUND WATER: ~9 ft bgs
16. DATE HOLE: STARTED 7-25-97 @ 1654 ; COMPLETED 7-25-97 @ 1725
17. ELEVATION TOP OF HOLE
18. TOTAL CORE RECOVERY FOR BORING %
19. SIGNATURE OF INSPECTOR: Geologist: Fred Holzner INTERA

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY e	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g
			Soil Zone/orig bldg constr backfill. f. SAND w minor silt, color alternating lt brn to dk brn to charcoal brn (3.2-3.5)			HNu 1' = 92 ppm 1.5 66 2 210 mild sweet smell
	2			100%		2.5 400 HS 2.8 = 191 Sample IS03-1 3 309
			2.8 Native sed contact f. SAND w some silt/clay, moist, cohesive, friable to slt plast, lt brn-gray			3.5 10
	4			4		4.5 = 153 mild sweet smell 5 40
			5.4 Si-CLAY, moist, firm, low plast, lt gray	100%		5.5 51 Sample IS03-2 HS 5.7 26 6 82
	6		6.0 f. SAND, minor fines, moist, friable, mottled yel-orange in tan matrix			HS 6.1 12 6.5 14
				7		7.5 = 211 mild sweet smell HS 7.6 108 Sample IS03-3 8 23
	8			70%		8.5 11 9 14
	10			10		10 = 6 10.5 2.8 11 2.4
			11.5 grading to med gray (texture as above	100%		11.5 3.0 12 2.4 12.5 2.6
	12			13		
	14					14 = 2.2 14.5 = 1.6 15 1.9 15.5 2.1
	16		as above to TD @ 16.0	16		
	18					

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PROJECT | HOLE NO.

Hole No.

DRILLING LOG

DIVISION

INSTALLATION: MCB Camp Lejeune

SHEET 1 OF 1 SHEETS

1. PROJECT: Bldg 25 DNAPL Source Zone Borings
2. LOCATION (Coordinates or Station): ~6' W of TW04 (S-side Bldg 25)
3. DRILLING AGENCY: GeoEnvironmental
4. HOLE NO. (As shown on drawing title and file number): IR88-IS04
5. NAME OF DRILLER: Rich Melton
6. DIRECTION OF HOLE: ☒ VERTICAL ☐ INCLINED _____ DEG. FROM VERT.
7. THICKNESS OF OVERBURDEN
8. DEPTH DRILLED INTO ROCK
9. TOTAL DEPTH OF HOLE: 13 ft
10. SIZE AND TYPE OF BIT: Direct Push
11. DATUM FOR ELEVATION SHOWN (TBM or MSL)
12. MANUFACTURER'S DESIGNATION OF DRILL: Geoprobe
13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN: DISTURBED: ; UNDISTURBED: 4
14. TOTAL NUMBER CORE BOXES
15. ELEVATION GROUND WATER: ~9.5 ft bgs
16. DATE HOLE: STARTED 7-26-97 @ 0740; COMPLETED 7-26-97 @ 0815
17. ELEVATION TOP OF HOLE
18. TOTAL CORE RECOVERY FOR BORING %
19. SIGNATURE OF INSPECTOR: Geologist: Fred Holzmer INTERA

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY e	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g
			Grass, soil zone, f. SAND w̄ silt, moist, cohesive, friable, gray brn			HNa Backgrnd = 1.5 1.0' = 1.5 ppm 1.5 1.5
	2		si-v.f. SAND	95%		2 1.7 2.5 1.7 3 1.6 3.5 1.6
	4				4	
			5.1 Sediments sat'd to ~7.0 ft bgs, then unsat'd (recharge pulse from recent rains)	90%		5 = 1.5 5.5 = 1.5 6 = 1.5 6.5 = 1.5
	6		6.1 si-CLAY w f. sand, moist cohesive, low plast, lt brn			
			6.5 si-v.f. SAND, moist firm, cohesive, friable, tan w̄ yel-orange mottling		7	
	8			80%		8.5 = 2.7 9 1.9 9.5 2.7
			9.1 sat'd 7-24-97 WL = 9.36 btoc @ MW02 (~20 ft from boring)			
	10				10	11 = 9.2 11.25 34 11.5 11
			11.0 grading to f. to v.f. SAND, clean, wet, stiff, cohesive, tan	80%		12 107 12-12.2 Sample IS04-1 12.5 22
	12		TD = 13			
					13	
	14					

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PROJECT

HOLE NO.

Hole No.

DRILLING LOG	DIVISION	INSTALLATION: MCB Camp Lejeune	SHEET 1 OF 1 SHEETS

1. PROJECT: Bldg 25 DNAPL Source Zone Borings
2. LOCATION (Coordinates or Station): Inside Bldg 25, ~ 13' from S of N-wall
3. DRILLING AGENCY: Geoprobe
4. HOLE NO. (As shown on drawing title and file number): IRBB-IS05
5. NAME OF DRILLER: Rich Melton
6. DIRECTION OF HOLE: ☒ VERTICAL ☐ INCLINED _____ DEG. FROM VERT.
7. THICKNESS OF OVERBURDEN
8. DEPTH DRILLED INTO ROCK
9. TOTAL DEPTH OF HOLE: 20 ft
10. SIZE AND TYPE OF BIT: Direct Push
11. DATUM FOR ELEVATION SHOWN (TBM or MSL)
12. MANUFACTURER'S DESIGNATION OF DRILL: Geoprobe
13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN: DISTURBED: ; UNDISTURBED: 7
14. TOTAL NUMBER CORE BOXES
15. ELEVATION GROUND WATER: ~ 9-9.5 ft bgs
16. DATE HOLE: STARTED 7-26-97 @ 0915; COMPLETED 7-26-97 @ 1026
17. ELEVATION TOP OF HOLE
18. TOTAL CORE RECOVERY FOR BORING %
19. SIGNATURE OF INSPECTOR: Geologist: Fred Holzner INTERA

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY e	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g
			0-.35 Conc	.4		Cont tube samples 1 1/16 ID (43 mm) HNu
			.35 construction backfill; f. SAND, moist, loose, tan to lt brn			1.0 = 240 ppm
				70%		1.5 445 strong hydrocarb smell
	2		2.1 Native soil zone contact f. SAND w̄ minor silt/clay, lt brn w̄ charcoal mottling, loose			2 609
						2.5 861
						HS 2.8 1005 Sample IS05-1
			as above, grading to buff color			3 760
	4			4		
			4.5 cl-SILT, moist, cohesive, friable mottled lt gray-brn & yellow-orange			4.5 = 308 strong hydrocarb smell
			w̄ ↑ f. sand fraction	95%		5 844
						5.5 945
						HS 5.8 1179 Sample IS05-2
	6		6.1 si-CLAY, moist, firm, low-med plast, lt gray/brn & yel-org			6 1051
			grading @ 6.5 cl-SILT, slt plast			6.5 653
		NR		7		
			7.0 SILT/v.f. SAND, moist cohesive, friable, some clay clasts, buff color			7.5 = 947 strong hydrocarb smell
	8					8 887
						HS 8.4 1225
				100%		8.5 945 Sample IS05-3
			increasing v.f. sand content			
			v.f. SAND/SILT, clean (no clay)			
	10		darker (lt gray) w̄ depth	10		HS 10.2 938 Sample IS05-4
						10.5 = 621
						11 371
				90%		11.5 154
	12					12 100
						12.5 101
				13		
			as above			13.5 = 39
	14					14 89
				90		14.5 60
						15 49
						15.5 36
	16			16	1" dia discrete sampler	16.5 = 73
						17 = 52
				100		17.5 = 45
	18		18.2 grading to cl-SILT wet, cohesive, med-gray	18	as above	18.5 = 30
				100		19 11
			19.3 grading to si-CLAY, wet cohesive, low-med plast, med-gray TD = 20' bgs			19.5 9.3
						20 9.9

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PROJECT | HOLE NO.

Hole No.

DRILLING LOG	DIVISION	INSTALLATION: MCB Camp Lejeune	SHEET 1 OF 1 SHEETS

1. PROJECT: Bldg 25 DNAPL Source Zone Borings
2. LOCATION (Coordinates or Station): SW Corner Bldg 25 (outside ~5' S of Bldg)
3. DRILLING AGENCY: GeoEnvironmental
4. HOLE NO. (As shown on drawing title and file number): IRBB-IS06
5. NAME OF DRILLER: Rich Melton
6. DIRECTION OF HOLE: ☒ VERTICAL ☐ INCLINED _____ DEG. FROM VERT.
7. THICKNESS OF OVERBURDEN
8. DEPTH DRILLED INTO ROCK
9. TOTAL DEPTH OF HOLE: 14 ft
10. SIZE AND TYPE OF BIT: Direct Push
11. DATUM FOR ELEVATION SHOWN (TBM or MSL)
12. MANUFACTURER'S DESIGNATION OF DRILL: Geoprobe
13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN: DISTURBED: ; UNDISTURBED: 5
14. TOTAL NUMBER CORE BOXES
15. ELEVATION GROUND WATER: ~ 9.5 ft bgs
16. DATE HOLE: STARTED 7-26-97 @ 1412; COMPLETED 7-26-97 @
17. ELEVATION TOP OF HOLE
18. TOTAL CORE RECOVERY FOR BORING %
19. SIGNATURE OF INSPECTOR: Geologist: Fred Hohmer INTERA

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY e	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g
			Soil horizon: v.f. SAND, moist, cohesive, friable, dk brn			Geoprobe cont tube 1 11/16" ID HNu
				100%		1.0 = 3.6 1.5 = 3.3
	2		2.6 grading to unweathered seds. Si-v.f. SAND, moist, cohesive friable, tan w mottled yel-orange			2 3 2.5 3 3 2.8 3.5 2.7
	4			4		4.5 = 2.9
				100		5 2.5 5.5 2.4 6 2.5 6.5 2.5
	6			7		
			as above			7.5 = 100 8 130 8.5 5.4
	8			80% Resampled; Seds dropped out of tube on 1st try		9 12.6 strong hydrocarbon smell HS 9.3 — 405 / 61 (Sample IS06-1) 9.5
			wet			
	10		as above	10 Sampled dropped out; moved rig ~1' & used 2'x1"d scrate sampler		10.1' = 3.6 (bkgrnd) 10.5 " 11 " 11.5 "
			11.6 grading to f. SAND, minor fines, wet, cohesive, yel-orange	100%		12 " 12.1 = 7.5 12.5 6.6 (Bkgrnd)
	12			12		
			13.0 grading to f. to v.f. SAND, minor fines, wet, cohesive, med gray (to TD = 14' bgs)	100%		13 6.4 13.5 6.5
	14			14		TD = 14' bgs
	16					
	18					

ENG FORM 1836 MAR 71 PREVIOUS EDITIONS ARE OBSOLETE. PROJECT HOLE NO.

Hole No.

DRILLING LOG	DIVISION	INSTALLATION: MCB Camp Lejeune	SHEET 1 OF 1 SHEETS

1. PROJECT: Bldg 25 DNAPL	10. SIZE AND TYPE OF BIT: Direct Push
2. LOCATION (Coordinates or Station): N-side Bldg 25 @ Tank T25-4	11. DATUM FOR ELEVATION SHOWN (TBM or MSL):
3. DRILLING AGENCY: Geo Environmental	12. MANUFACTURER'S DESIGNATION OF DRILL: Geoprobe
4. HOLE NO. (As shown on drawing title and file number): IR88-IS07	13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN: DISTURBED: ; UNDISTURBED: 7
5. NAME OF DRILLER: Rich Melton	14. TOTAL NUMBER CORE BOXES:
6. DIRECTION OF HOLE: ☒ VERTICAL ☐ INCLINED ____ DEG. FROM VERT.	15. ELEVATION GROUND WATER:
7. THICKNESS OF OVERBURDEN	16. DATE HOLE: STARTED 7-26-97 @ 1555; COMPLETED 7-26-97 @
8. DEPTH DRILLED INTO ROCK	17. ELEVATION TOP OF HOLE: ~9-9.5 ft bgs
9. TOTAL DEPTH OF HOLE: 20 ft	18. TOTAL CORE RECOVERY FOR BORING: %
	19. SIGNATURE OF INSPECTOR: Geologist: Fred Hoffman INTERA

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY e	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g
			0.0 Tank yank backfill f-v.f. SAND, clean, moist, loose tan.			Geoprobe Cont tube 1 11/16" ID HNu
						1.0' = 4.0 (bkgrd)
						1.5 3.6
	2			75%		2 3.4
						2.5 3.5
						3 3.3
						3.5 3.6
	4			4		
			4.7 Contact w native seds: SILT w clay & f. sand, moist cohesive, friable, med-gray			4.5' = 3.1
				70%		5 138 Sample IS07-1
			5.5 grading to cl-SILT, trace f. sand, minor peat, moist, cohesive, slt plast, organic decay odor, dk gray			HS 5.3 — 83
						5.5 20
	6					6 112
		NR				
				7		
			cl-SILT / cl-f. SAND moist cohesive, friable, slt plast, occassional plant fibers & clay clasts, med-dk gray w mottled yel-orange			7.5' = 4
	8			90%		8 29 strong hyd-carb smell
						8.5 171
						HS 8.8 — 477 Sample IS07-2
						9 53
			9.2 f.-v.f. SAND. w silt,			9.5 79
			9.8 si-f. SAND, wet, firm, cohesive, olive gray			
	10			10		10' = 47
						10.5 37 Sample IS07-3
				100%		HS 10.8 — 195
						11 44
						11.5 32
	12					12 11
						12.5 9
				13		13 13
						13 113(?) probably backfill from above
						13.5 153(?)
	14			50%(?)		14 90(?)
						14.5 14
						15 14
						15.5 10
	16			16	1" ID Sampler	16.5' = 12
						17 13
				100%		17.5 16
			17.8 grading to SILT w clay & v.f. sand, wet, firm			18 77
	18			18	1" ID Sample	
						18 81 Sample IS07-4
				50% likely bottom foot dropped out		18.5 701
			19 si-sa-CLAY w plant matter, soft, olive-gray			19 219
			TD push = 20'; TD recovery ~ 19'			

DRILLING LOG	DIVISION	INSTALLATION: MCB Camp Lejeune	SHEET 1 OF 1 SHEETS

1. PROJECT: Bldg 25 DNAPL Source Zone Borings
2. LOCATION (Coordinates or Station): N-side of Bldg 25, ~ 20' west of tank T25-4
3. DRILLING AGENCY:
4. HOLE NO. (As shown on drawing title and file number): IR88-IS08
5. NAME OF DRILLER: Rich Melton
6. DIRECTION OF HOLE: ☒ VERTICAL ☐ INCLINED _____ DEG. FROM VERT.
7. THICKNESS OF OVERBURDEN:
8. DEPTH DRILLED INTO ROCK:
9. TOTAL DEPTH OF HOLE: 21 ft
10. SIZE AND TYPE OF BIT: Direct Push
11. DATUM FOR ELEVATION SHOWN (TBM or MSL):
12. MANUFACTURER'S DESIGNATION OF DRILL: Geoprobe
13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN: DISTURBED: ; UNDISTURBED: 9
14. TOTAL NUMBER CORE BOXES:
15. ELEVATION GROUND WATER: ~ 9-9.5 ft bgs
16. DATE HOLE: STARTED 7-27-97 @ 0728; COMPLETED 7-27-97 @
17. ELEVATION TOP OF HOLE:
18. TOTAL CORE RECOVERY FOR BORING: %
19. SIGNATURE OF INSPECTOR: Geologist: Fred Hofmann INTERA

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY e	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g
			0.0 Backfill f. SAND, tan			Geoprobe cont. tube sampler 1 1/16" ID
			.8 Native soil contact si-cl-f. SAND, wet, soft, minor peat matter, dk gray-brn low plast	80%		HNu 0.5' = 54 ppm; 1 33; 1.5 48; 2 23; 2.5 280; 3 234
	2		2.6 grading to f. SAND w fines, moist, cohesive, firm friable, lt brn			
	4			95%	4	Sample IS08-6 Hydrocarb Sample; Sample IS08-4 4.5 604 strong hydrocarb smell; 5 523; 5.5 350; 6 516; 6.5 381
	6		6.4 grading to cl-f. SAND, wet, cohesive, low plast, med gray-brn			
			7.2 grading to f. SAND w fines, moist to wet, cohesive, lt gray, soft to med firm	100	7; 8-10 dropped out	7 340 Sample IS08-5; 7.5 442; 8 166 Sample IS08-6 Hydro Carb Sample
	8	?	8-10 Sample interval uncertain	50%	8; 1" ID discrete sampler (collected ~1' N of orig. boring)	Looks like 7-8' interval 440; Bottom 1/2 dropped out of sample tube 340; 83
	10		si-f. SAND, wet, cohesive firm, lt gray		10	10' = 56; 10.5 41; 11 32; 11.5 28; 12 23; 12.5 24
			10.8 grading to f. SAND, minor fines, lt gray brn	100		
	12		grading to med gray some clay content, slt plast			
			f. SAND w silt, minor clay		13	13 81; 13.5 13
	14			100	14.5	14 15; 15 52; 15.5 13
			~~17.0 grading to si-cl-f. SAND~~	95%		16 12
	16				16.5; 17 NS	
			17.0 grading to si-cl-f. SAND			HS 17.5 — 829 strong Solvent (sweet) smell; 17.5 870; Sample IS08-1 18 534
	18		grading to si-cl-v.f. SAND slt plast			HS 18.5 — 875; Sample IS08-2 18.5 683 DNAPL(?) fluid inclusion; 19 871; " 254 (Bkgrd 200)
			19.0 grading to si-CLAY, wet, soft med plast, med gray, to TD = 21' bgs	19	HS 19.5 = 925 (Bkgrd 50); Sample IS08-3	19.5 871 (" 165); 20 230 (" 220); 20.5 174; 21 156

ENG FORM 1836 MAR 71 PREVIOUS EDITIONS ARE OBSOLETE. PROJECT HOLE NO. (17B) (14B)

Hole No.

DRILLING LOG

DIVISION	
INSTALLATION	MCB Camp Lejeune
SHEET	1 OF 1 SHEETS
1. PROJECT	Bldg 25 DNAPL Source Zone Borings
2. LOCATION (Coordinates or Station)	Inside Bldg 25: ~ 25 ft S of N-wall
3. DRILLING AGENCY	GeoEnvironmental
4. HOLE NO. (As shown on drawing title and file number)	IR88-IS09
5. NAME OF DRILLER	Rich Melton
6. DIRECTION OF HOLE	☒ VERTICAL ☐ INCLINED ____ DEG. FROM VERT.
7. THICKNESS OF OVERBURDEN	
8. DEPTH DRILLED INTO ROCK	
9. TOTAL DEPTH OF HOLE	21 ft
10. SIZE AND TYPE OF BIT	Direct Push
11. DATUM FOR ELEVATION SHOWN (TBM or MSL)	
12. MANUFACTURER'S DESIGNATION OF DRILL	Geoprobe
13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN	DISTURBED: ; UNDISTURBED: 8
14. TOTAL NUMBER CORE BOXES	
15. ELEVATION GROUND WATER	~ 9-9.5 ft bgs
16. DATE HOLE	STARTED 7-27-97 @ 1040; COMPLETED 7-27-97 @
17. ELEVATION TOP OF HOLE	
18. TOTAL CORE RECOVERY FOR BORING	%
19. SIGNATURE OF INSPECTOR	Geologist: Fred Hahgmer INTERA

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY e	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g
			0. - .4 Conc floor		Conc.	
			.4 Construction backfill f. SAND, moist, loose, tan to lt brn			HNu .5' = 134; 1 151; 1.5 174; 2 220; 2.5 15
	2			70%		
			2.3 Contact with native sed si-f. SAND, firm, cohesive friable, lt gray-brn			
	4			4		4.5' = 176; 5 81; 5.5 206
				95%		
	6		6.4 si-v.f. SAND, moist, cohesive, mottled lt gray & yel-orange			6 160; 6.5 15
				7		7' = 518 strong hydrocarbon smell; 7.5 367
	8			100%		8 370; 8.5 470
		NR				
	10		as above, lt gray, wet	10		10' = 44; 10.5 181 (Sample 1509-1); 11 21
				70%		11.5 29; 12 36
	12					
			13.5 as above, grading to yel-orange	13		13' = 62; 13.5 33
	14			90%		14 9; 14.5 41 (Sample 1509-2); 15 105 moderate solvent smell
				15	1" ID discrete sampler	15 55; 15.5 6; 16' = 6; 16.5 2.5; 17 10 (after HNu malfcn & repair)
	16					
			increasing fines, slt plast	17	as above	17 7; 17.5 2
			as above, grading to med gray	50%		18
	18	NR			bottom	
			as above	19		19' = 3; 19.5 1.3; 20 1.5
			19.1 si-CLAY w minor v.f. sand, wet, med plast, med gray (to TD = 21' bgs)			20.5 3.4; 21 1.7

ENG FORM 1836 MAR 71 PREVIOUS EDITIONS ARE OBSOLETE. PROJECT HOLE NO.

Hole No.

DRILLING LOG	DIVISION	INSTALLATION: MCB Camp Lejeune	SHEET 1 OF 1 SHEETS

1. PROJECT: Bldg 25 DNAPL Source Zone Borings	10. SIZE AND TYPE OF BIT: Direct Push
2. LOCATION (Coordinates or Station): N-side Bldg 25: ~ 10' W-SW of Tank T25-4	11. DATUM FOR ELEVATION SHOWN (TBM or MSL):
3. DRILLING AGENCY: GeoEnvironmental	12. MANUFACTURER'S DESIGNATION OF DRILL: Geoprobe
4. HOLE NO. (As shown on drawing title and file number): IR88-IS10	13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN: DISTURBED: ; UNDISTURBED: 8
5. NAME OF DRILLER: Rich Melton	14. TOTAL NUMBER CORE BOXES:
6. DIRECTION OF HOLE: ☒ VERTICAL ☐ INCLINED ____ DEG. FROM VERT.	15. ELEVATION GROUND WATER: ~9-9.5 ft bgs
	16. DATE HOLE: STARTED 7-27-97 @ 1454; COMPLETED 7-27-97
7. THICKNESS OF OVERBURDEN:	17. ELEVATION TOP OF HOLE:
8. DEPTH DRILLED INTO ROCK:	18. TOTAL CORE RECOVERY FOR BORING: %
9. TOTAL DEPTH OF HOLE: 21	19. SIGNATURE OF INSPECTOR: Geologist: Fred Hofmann INTERA

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY e	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g
			Tank yank backfill f-v.f. SAND, clean, tan			Geoprobe cont tube sampler 1 1/16" ID; HNu – DL 101; 0.5 = .8 (Bkgrnd); 1 .8; 1.5 1; 2 .9; 2.5 1
	2			75%		
		NR	3-4' interval dropped out of tube upon retrieval			
	4		si-v.f. SAND, moist, cohesive soft, lt tan-gray	4		4.5' = 3.1; 5 .4; 5.5 1.1
				85%		6 2.3; 6.5 .7
	6	NR	6.1 si-CLAY, moist, med plast, lt gray			
			si-v.f. SAND, moist, cohesive, buff color w̄ yel-orange	7		7' = 4.1; 7.5 18
	8			100%		8 34; 8.5 19; 9 0.6; 9.5 .7
			8.7 as above, grading to lt gray & wet			
	10		as above	10		10' = 4; 10.5 217
		NR	11.1-13: sampled dropped out out of tube upon retrieval.	35%		11 73
	12					
			as above, lt gray & bright yellow-orange pockets, wet; 13.8 grading to med-gray	13		13' = 3.3; 13.5 1.0 HNu ?!
	14			100		14 1.0; 14.5 1.0 mod solvent smell
			v.f. SAND, minor silt	15	1" 2D / discrete sampler	15 → 15.4 Sample IS10-1; HNu out of order
	16			90%		Sample tubes noticably cool upon retrieval, with strong solvent smell. 16.1-16.4 Sample IS10-2
			Increasing fines, w̄ coarse plant fibers	17	as above	Sample tube noted cool. Fluid inclusions of DNAPL(?) associated with sporadic peat (plant fibers) @ 17.2-17.4, & trapped droplets @ 17.6-17.8'. 17.2 Sample IS10-3; 17.75 Sample IS10-4
	18		17.7 grading to cl-SILT, low plast med gray			
		NR	Sample dropped out upon retrieval			
			si-CLAY, decreasing silt w̄ depth, soft, med plast, med-dk gray	19	as above	Strong solvent smell @ 19.0, decreasing to none @ ~19.5
			20.3 organic CLAY (with fine peat layers), no solvent smell, only organic decay / H_2S smell, to TD = 21' bgs			

ENG FORM 1836 MAR 71 PREVIOUS EDITIONS ARE OBSOLETE. PROJECT HOLE NO.

DRILLING LOG	DIVISION	INSTALLATION MCB Camp Lejeune	SHEET 1 OF 1 SHEETS

1. PROJECT: Bldg 25 DNAPL Source Zone Borings
2. LOCATION (Coordinates or Station): N-side Bldg 25; ~16' W of Tank T25-4
3. DRILLING AGENCY: GeoEnvironmental
4. HOLE NO. (As shown on drawing title and file number): IR88-IS11
5. NAME OF DRILLER: Rich Melton
6. DIRECTION OF HOLE: ☒ VERTICAL ☐ INCLINED _____ DEG. FROM VERT.
7. THICKNESS OF OVERBURDEN
8. DEPTH DRILLED INTO ROCK
9. TOTAL DEPTH OF HOLE: 18 ft
10. SIZE AND TYPE OF BIT: Direct Push
11. DATUM FOR ELEVATION SHOWN (TBM or MSL)
12. MANUFACTURER'S DESIGNATION OF DRILL: Geoprobe
13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN: DISTURBED ; UNDISTURBED 6
14. TOTAL NUMBER CORE BOXES
15. ELEVATION GROUND WATER: ~9-9.5 ft bgs
16. DATE HOLE: STARTED 7-27-97 @ 1728 ; COMPLETED 7-27-97
17. ELEVATION TOP OF HOLE
18. TOTAL CORE RECOVERY FOR BORING %
19. SIGNATURE OF INSPECTOR: Geologist: Fred Hofmer INTERA

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY e	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g
			Mixed tank yank backfill & native sediments, disturbed thru-out f. to v.f. SAND			HNu 0.5' = 7.7 (bkgrnd); 1 7.2; 1.5 6.4; 2 6.8; 2.5 6.4
	2			75		
		NR	See below			
	4	NR	Core sample dropped out upon retrieval (Geoprobe needs to develop catcher baskets to prevent this)	4 / 0%		
	6					
	8		cl- f. to v.f. SAND, wet, soft, low plast, occassional gray clay clasts in dk-gray brn matrix	7 / 70%		7.5' = 6.4; 8 8.7 moderate hydrocarb & organic decay smell; 8.5 70; 9 27
	10		Core tube stuck in barrel due to flowing sands; had to destroy tube: misc disturbed core described: f. to v.f. SAND, wet, cohesive, lt to med gray	10 / 30%		strong hydrocarb smell
	12					
			No sample collected	13	NS	
	14		si- f.- v.f. SAND, wet, cohesive, med gray	14 / 100%	1" ID discrete sampler	14' = 5; 14.5 4 (bkgrnd); 15 4 no solvent smell; 15.5 4; 16 4
	16		16.0 grading to cl-SILT, wet soft, low plast, med gray; 16.4 grading to si-CLAY, wet, soft low-med plast, med gray. (to TD=18' bgs) sparse plant fibers	16 / 70%	as above	16.5 43 mild solvent smell; 17 18; 17.5 17 organic decay smell
	18			18		

ENG FORM 1836 MAR 71 PREVIOUS EDITIONS ARE OBSOLETE. PROJECT HOLE NO.

Hole No.

DRILLING LOG

DIVISION	
INSTALLATION	Camp Lejeune, NC
SHEET	01 OF 01 SHEETS
1. PROJECT	Bldg. HP25 DNAPL Source Zone Borings
2. LOCATION (Coordinates or Station)	
3. DRILLING AGENCY	TARRATT-WOLFE INC
4. HOLE NO. (As shown on drawing title and file number)	IR88-IS12
5. NAME OF DRILLER	ARNOLD CHAPEL
6. DIRECTION OF HOLE	☒ VERTICAL ☐ INCLINED _____ DEG. FROM VERT.
7. THICKNESS OF OVERBURDEN	NA
8. DEPTH DRILLED INTO ROCK	NA
9. TOTAL DEPTH OF HOLE	19 feet
10. SIZE AND TYPE OF BIT	
11. DATUM FOR ELEVATION SHOWN (TBM or MSL)	
12. MANUFACTURER'S DESIGNATION OF DRILL	CME 55 adapted for hollow stem augers
13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN	DISTURBED: ; UNDISTURBED:
14. TOTAL NUMBER CORE BOXES	
15. ELEVATION GROUND WATER	
16. DATE HOLE	STARTED 8/19/97 ; COMPLETED 8/19/97
17. ELEVATION TOP OF HOLE	
18. TOTAL CORE RECOVERY FOR BORING	78 %
19. SIGNATURE OF INSPECTOR	John T. Londergan, INTERA

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY e	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g
			SANDY LOAM, brown, dry			HNU (ppm)
	2		clay content increases			
					3	1.8
						16.0
	4					39.0 RECOVERED 3' out of a 4' push
						49.8
						77.0
						45.0
	6					
			fine sand, moist, lt. brown		7	1.0
						0.8
	8					4.8 RECOVERED 3' out of a 4' push
						1.6
						1.0
						1.2
	10					
			very fine sand, wet lt. gray/brown color		11	7.4
						3.6
						1.1
	12					RECOVERED 3' out of a 4' push
						0.8
						0.7
						0.7
	14					
					15	6.7 IS12-03 PCE 15.5'
						2.3
						2.7 IS12-01 16-16.5' PCE
	16		silty clay, gray, soft wet			1.2 RECOVERED 3.5' out of a 4' push
						1.3
						0.8
	18					0.7 IR88-IS12-08 16.2-16.5'
			silty clay, gray, soft wet		19	IS12-02 PCE 17-17.2'
	20					

ENG FORM 1836-1 PROJECT HOLE NO.

Hole No.

DRILLING LOG	DIVISION	INSTALLATION: Camp Lejeune, NC	SHEET 01 OF 01 SHEETS

1. PROJECT: Bldg HP25 DNAPL Source Zone Borings
2. LOCATION (Coordinates or Station):
3. DRILLING AGENCY: FARRATT-WOLFF INC.
4. HOLE NO. (As shown on drawing title and file number): IR88-I513
5. NAME OF DRILLER: ARNOLD CHAPEL
6. DIRECTION OF HOLE: [X] VERTICAL [ ] INCLINED _____ DEG. FROM VERT.
7. THICKNESS OF OVERBURDEN: NA
8. DEPTH DRILLED INTO ROCK: NA
9. TOTAL DEPTH OF HOLE: 19 FEET
10. SIZE AND TYPE OF BIT:
11. DATUM FOR ELEVATION SHOWN (TBM or MSL):
12. MANUFACTURER'S DESIGNATION OF DRILL: CME 55 adapted for hollow stem auger
13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN: DISTURBED: UNDISTURBED:
14. TOTAL NUMBER CORE BOXES:
15. ELEVATION GROUND WATER:
16. DATE HOLE: STARTED 8/19/97 COMPLETED 8/19/97
17. ELEVATION TOP OF HOLE:
18. TOTAL CORE RECOVERY FOR BORING: 75 %
19. SIGNATURE OF INSPECTOR: John T. Londergan - INTERA

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY e	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g
			Very fine sand, lt. brown, dry			HNU (ppm)
	2					
				3		1.2
						0.8
	4					1.1
						1.5
						5.2
						30.0
	6			2.5' recovery out of 4' push		
			Hydrocarbon odor			
				7		6.8
	8					19.5
						93.0 — 1513-04 TPH 8.5
						71.0
				2.5' recovery out of 4' push		6.3 NOT SUBMITTED TO LABORATORY
	10					2.6
				11		7.9
						1.4
	12					1.5
						1.1
						1.0
				3.5' recovery out of 4' push		0.7
	14					0.7
						1.0
			Very fine sand, lt. gray wet, Hydrocarbon odor	15		4.8
						4.0 — 1513-1 PCE 17.0
	16					6.6
						15.9 — 1513-2 PCE 17.5
						148.0 — 1513-09 FOC 17.5-17.7
				7.5' recovery out of 8' push		132.0
	18					106.0 — 1513-3 PCE 18.0
						12.0
			Silty clay, soft, dark gray, wet	19		1513-08 TPH 18.0-18.5
	20					

Hole No.

DRILLING LOG

DIVISION	
INSTALLATION	MCB Camp Lejeune
SHEET	1 OF 1 SHEETS
1. PROJECT	Geoprobe soil sampling @ Bldg 25
2. LOCATION (Coordinates or Station)	N-side of Bldg 25
3. DRILLING AGENCY	FUGRO
4. HOLE NO. (As shown on drawing title and file number)	IR88-IS14
5. NAME OF DRILLER	Frank Ward
6. DIRECTION OF HOLE	☒ VERTICAL ☐ INCLINED ____ DEG. FROM VERT.
7. THICKNESS OF OVERBURDEN	
8. DEPTH DRILLED INTO ROCK	
9. TOTAL DEPTH OF HOLE	22 ft
10. SIZE AND TYPE OF BIT	1" & 1 3/4" ID core barrel
11. DATUM FOR ELEVATION SHOWN (TBM or MSL)	
12. MANUFACTURER'S DESIGNATION OF DRILL	Geoprobe
13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN	DISTURBED: ; UNDISTURBED: 7
14. TOTAL NUMBER CORE BOXES	
15. ELEVATION GROUND WATER	~ 8 ft BGS
16. DATE HOLE	STARTED 11-18-97 @ 0912 ; COMPLETED 11-18-97 @ 1450
17. ELEVATION TOP OF HOLE	
18. TOTAL CORE RECOVERY FOR BORING	%
19. SIGNATURE OF INSPECTOR	Fred Holmer DE&S Geologist

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY e	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g	Hnu
			0.0 Grass, v.f. SAND, moist, cohesive, loose, tan				18
			1.5 si-CLAY, tan-brn, low plast				78
			1.6 SILT w̄ v.f. sand, moist, friable, charcoal-brn grading to dk brn				74
	2		2.8 SILT w̄ clay & v.f. sand, moist slt plast, gray-brn	3			24
							20
							19
							8
	4						13
			5.1 Si-CLAY, wet, low plast	80%			9
							5
		NR					3
	6		6.0 Cl-SILT w̄ v.f. sand, slt plast, moist grading to wet @ ~ 7.0, gray	6			4
							2
			7.7 SILT w̄ minor clay, wet, cohesive, tan to buff, trace v.f. sand	100			1
							1
	8		8.4 si-CLAY, wet, low plast, tan-gray				1
			8.5 v.f. SAND, trace fines, wet, cohesive, lt gray w̄ tan & yel-org mottling	9			0
							0
							0
	10		10.4 grading to cl-si-v.f. sand, wet, slt plast, med-gray cohesive	85%			1
			10.8 v.f. SAND, wet, loose, gray				2
							1
		NR					1
	12		12.0 si-v.f. SAND, wet, cohesive med-gray	12			12
							0
			13.1 thin cl-si-v.f. SAND seam, slt plast				1
			13.2 f.-v.f. SAND, trace fines, wet cohesive,	70%			0
	14		grading to v.f. SAND				0
				15			0
							0
	16						2
				50%			1
		NR					
	18		18.0 CLAY, v. soft, med plast gray	18			3
							0
			20.1 grading to CLAY w̄ peat, soft, med plast, gray-brn to TD @ 22'	100			0
							0
							0

ENG FORM 1836 MAR 71 PREVIOUS EDITIONS ARE OBSOLETE. PROJECT 22 HOLE NO. 8

DRILLING LOG	DIVISION	INSTALLATION: MCB Camp Lejeune	SHEET 1 OF 1 SHEETS

1. PROJECT: Geoprobe soil sampling Bldg 25
2. LOCATION (Coordinates or Station): N-side of Bldg 25
3. DRILLING AGENCY: FUGRO
4. HOLE NO. (As shown on drawing title and file number): IRBB-IS15
5. NAME OF DRILLER: Frank Ward
6. DIRECTION OF HOLE: ☐ VERTICAL ☐ INCLINED _____ DEG. FROM VERT.
7. THICKNESS OF OVERBURDEN
8. DEPTH DRILLED INTO ROCK
9. TOTAL DEPTH OF HOLE: 22 ft
10. SIZE AND TYPE OF BIT: 1" & 1 3/4" ID core barrel
11. DATUM FOR ELEVATION SHOWN (TBM or MSL)
12. MANUFACTURER'S DESIGNATION OF DRILL: Geoprobe
13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN: DISTURBED: ; UNDISTURBED: 7
14. TOTAL NUMBER CORE BOXES
15. ELEVATION GROUND WATER: ~8 ft BGS
16. DATE HOLE: STARTED 11-18-97@1500; COMPLETED 11-18-97@1730
17. ELEVATION TOP OF HOLE
18. TOTAL CORE RECOVERY FOR BORING %
19. SIGNATURE OF INSPECTOR: Fred Hohmer DE&S Geologist

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY e	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g	Hnu
			0 Appears to be mixed backfill from tank removal area: clean f. sand w̄ native soil: si-f. sand w̄ clay			Core samples collected in 1-11/16" ID core tubes	0
				70%			0
	2						2
							1
				3			1
	4						0
				50%			0
	6			6			
			6.4 CLAY, soft, wet, med plast, yel-org & gray				2
			6.6 si-v.f. SAND, moist, cohesive buff	85			4
							6
	8					IS15-01 8-9'	13
				9			
			9.5 grading to SILT w̄ v.f. sand, wet, cohesive, gray				3
	10		w̄ intermitant zones of SILT w̄ clay & v.f. sand	85%			2
							4
							3
							0
	12			12			
							1
							5
				80			6
	14						0
				15			
	16	NR		0			
				18			
			18.0 SILT, wet, cohesive, gray				8
			19.0 CLAY, wet, v. soft, med plast gray	90%		IS15-02 @ 19' above clay contact	25
			19.9 CLAY w̄ peat, low-med plast gray-brn				0
							0
							0

ENG FORM 1836 MAR 71 PREVIOUS EDITIONS ARE OBSOLETE. PROJECT 22 HOLE NO.

DRILLING LOG	DIVISION	INSTALLATION: MCB Camp Lejeune	SHEET 1 OF 1 SHEETS

1. PROJECT: Geoprobe Soil sampling @ Bldg 25
2. LOCATION (Coordinates or Station): 5ft N of Bldg 25
3. DRILLING AGENCY: FUGRO
4. HOLE NO. (As shown on drawing title and file number): IRBB-IS16
5. NAME OF DRILLER: Frank Ward
6. DIRECTION OF HOLE: ☒ VERTICAL ☐ INCLINED _____ DEG. FROM VERT.
7. THICKNESS OF OVERBURDEN
8. DEPTH DRILLED INTO ROCK
9. TOTAL DEPTH OF HOLE: 20 ft
10. SIZE AND TYPE OF BIT: 1" & 1 3/4" ID core barrel
11. DATUM FOR ELEVATION SHOWN (TBM or MSL)
12. MANUFACTURER'S DESIGNATION OF DRILL: Geoprobe
13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN: DISTURBED ; UNDISTURBED 2
14. TOTAL NUMBER CORE BOXES
15. ELEVATION GROUND WATER
16. DATE HOLE: STARTED 11.19.97 ; COMPLETED 11.19.97
17. ELEVATION TOP OF HOLE
18. TOTAL CORE RECOVERY FOR BORING %
19. SIGNATURE OF INSPECTOR: Fred Hohmer DE&S Geologist

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY e	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g
						IS16 is located 1 ft E of IS03
	2					
	4					
	6					
	8		8.0 si-v.f. SAND, wet, cohesive, tan	8 / 75% / 10		4, 7, 8, 7 — IS16-01 8-9'
	10					
	12					
	14					
	16		16.0 si-v.f. SAND, wet, cohesive, firm, gray to loose	16		2, 3
	18		17.5 grading to SILT w/ v.f. sand, wet, soft, cohesive; 18.6 grading to si-CLAY, wet, v. soft, low plast	100%		70, 320, 500, 250, 250, 500 — Strong solvent smell — IS16-02 @ 18.5'
	20			20		

ENG FORM 1836 MAR 71 PREVIOUS EDITIONS ARE OBSOLETE. PROJECT HOLE NO.

DRILLING LOG	DIVISION	INSTALLATION: MCB Camp Lejeune	SHEET 1 OF 1 SHEETS

1. PROJECT: Geoprobe Soil Sampling @ Bldg 25
2. LOCATION (Coordinates or Station):
3. DRILLING AGENCY: FUGRO
4. HOLE NO. (As shown on drawing title and file number): IRBB-IS17
5. NAME OF DRILLER: Frank Ward
6. DIRECTION OF HOLE: ☒ VERTICAL ☐ INCLINED _____ DEG. FROM VERT.
7. THICKNESS OF OVERBURDEN:
8. DEPTH DRILLED INTO ROCK:
9. TOTAL DEPTH OF HOLE: 21 ft
10. SIZE AND TYPE OF BIT: 1" & 1 3/4" ID core barrel
11. DATUM FOR ELEVATION SHOWN (TBM or MSL):
12. MANUFACTURER'S DESIGNATION OF DRILL: Geoprobe
13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN: DISTURBED: ; UNDISTURBED: 2
14. TOTAL NUMBER CORE BOXES:
15. ELEVATION GROUND WATER: ~ 8 ft BGS
16. DATE HOLE: STARTED 11-19-97 @ 1015; COMPLETED 11-19-97 @ 1150
17. ELEVATION TOP OF HOLE:
18. TOTAL CORE RECOVERY FOR BORING: %
19. SIGNATURE OF INSPECTOR: Fred Holzner DE&S Geologist

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY e	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g	
	2						
	4						
	6						
	8		8.0 si-v.f. SAND, wet, loose, lt. gray	8			Hnu
						Strong hydrocarb smell	280
				80%		IS17-01 8-9'	160
							70
	10			10			80
	12						
	14						
	16						
			17.0 SILT w̄ clay & v.f. sand, firm, wet, cohesive, slt plast, gray	17			Hnu
							220
	18					Strong solvent odor IS17-02 @ 18.0' →	400
			18.5 grading to si-CLAY w̄ v.f. sand & peat, wet, v. soft, low plastic gray	100%			100
							190
			19.8 CLAY w̄ peat, soft to firm, low plast, peat decreasing w̄ depth				40
	20						80

ENG FORM 1836 | PROJECT 21 | HOLE NO. 20 30

Hole No.

DRILLING LOG

DIVISION	
INSTALLATION	MCB Camp Lejeune
SHEET	1 OF 1 SHEETS
1. PROJECT	Geoprobe Soil Sampling @ Bldg 25
2. LOCATION (Coordinates or Station)	~12 ft N of well TW-3
3. DRILLING AGENCY	FUGRO
4. HOLE NO. (As shown on drawing title and file number)	IR88-IS18
5. NAME OF DRILLER	Frank Ward
6. DIRECTION OF HOLE	☒ VERTICAL ☐ INCLINED _____ DEG. FROM VERT.
7. THICKNESS OF OVERBURDEN	
8. DEPTH DRILLED INTO ROCK	
9. TOTAL DEPTH OF HOLE	21 ft
10. SIZE AND TYPE OF BIT	1" & 1 3/4" ID core barrel
11. DATUM FOR ELEVATION SHOWN (TBM or MSL)	
12. MANUFACTURER'S DESIGNATION OF DRILL	Geoprobe
13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN	DISTURBED: ; UNDISTURBED: 2
14. TOTAL NUMBER CORE BOXES	
15. ELEVATION GROUND WATER	~ 8 ft BGS
16. DATE HOLE	STARTED 11.19.97 @ 1400 ; COMPLETED 11.19.97
17. ELEVATION TOP OF HOLE	
18. TOTAL CORE RECOVERY FOR BORING	%
19. SIGNATURE OF INSPECTOR	Fred Holzner DE&S Geologist

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY e	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g
	2					
	4					
	6					
	8		8.0 f. to v.f. SAND, wet, loose to cohesive, firm, lt gray	8 / 100% / 10		Hnu 6 2 2 0
	10					
	12					
	14					
	16					
			17.0 si- v.f. SAND, wet, firm, cohesive, gray	17		3
	18		18.0 grading to cl-SILT w̄ f. sand & peat particles, slt plast.	100%	IS18-02 @ 18.4' →	7 7
			18.8 grading to si-CLAY w̄ f sand & peat particles, wet, soft, med gray low plast			3
			19.6 grading to CLAY w̄ peat, minor silt & f. sand, soft-firm, low plast			1
	20					0
						0

ENG FORM 1836 | PROJECT 21 | HOLE NO.

Hole No.

DRILLING LOG	DIVISION	INSTALLATION: MCB Camp Lejeune	SHEET 1 OF 1 SHEETS

1. PROJECT: Geoprobe Soil Sampling @ Bldg 25	10. SIZE AND TYPE OF BIT: 1" & 1 3/4" ID core barrel
2. LOCATION (Coordinates or Station)	11. DATUM FOR ELEVATION SHOWN (TBM or MSL)
3. DRILLING AGENCY: FUGRO	12. MANUFACTURER'S DESIGNATION OF DRILL: Geoprobe
4. HOLE NO. (As shown on drawing title and file number): IR88-IS19	13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN: DISTURBED ; UNDISTURBED 2
5. NAME OF DRILLER: Frank Ward	14. TOTAL NUMBER CORE BOXES
6. DIRECTION OF HOLE: ☒ VERTICAL ☐ INCLINED ____ DEG. FROM VERT.	15. ELEVATION GROUND WATER: ~ 8 ft BGS
	16. DATE HOLE: STARTED 11.19.97 @ 1510; COMPLETED 11.19.97
7. THICKNESS OF OVERBURDEN	17. ELEVATION TOP OF HOLE
8. DEPTH DRILLED INTO ROCK	18. TOTAL CORE RECOVERY FOR BORING %
9. TOTAL DEPTH OF HOLE: 21 ft	19. SIGNATURE OF INSPECTOR: Fred Holzmer DE&S Geologist

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY e	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g	
	2						
	4						
	6						
							Hnu
	8		8.0 si-f. SAND, wet, gray	8			40
			8.7 si-cl-v.f. SAND w̄ peat	80%		Strong hydrocarb Smell	280
						IS19-01	170
						@ 8-9'	250
	10			10			
	12						
	14						
	16						
							Hnu
			17.0 si-f. SAND, wet, firm,	17			12
	18		18.2 grading to cl-SILT w v.f. sand & peat particles, wet, slt plast	100%			3
			18.9 grading to si-CLAY w̄ v.f. sand & peat particles, wet, low plast, soft				.5
			19.5 grading to CLAY w̄ minor silt, peat particles, v. soft, low-med plast				.5
	20						.5
	21			91			

ENG FORM 1836 PROJECT HOLE NO. 3

Hole No.

DRILLING LOG	DIVISION	INSTALLATION: MCB Camp Lejeune	SHEET 1 OF 1 SHEETS

1. PROJECT: Geoprobe Soil Sampling @ Bldg 25
2. LOCATION (Coordinates or Station):
3. DRILLING AGENCY: FUGRO
4. HOLE NO. (As shown on drawing title and file number): IR88-IS20
5. NAME OF DRILLER: Frank Ward
6. DIRECTION OF HOLE: ☒ VERTICAL ☐ INCLINED _____ DEG. FROM VERT.
7. THICKNESS OF OVERBURDEN
8. DEPTH DRILLED INTO ROCK
9. TOTAL DEPTH OF HOLE: 21 ft
10. SIZE AND TYPE OF BIT: 1" & 1 3/4" ID core barrel
11. DATUM FOR ELEVATION SHOWN (TBM or MSL):
12. MANUFACTURER'S DESIGNATION OF DRILL: Geoprobe
13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN: DISTURBED: ; UNDISTURBED: 2
14. TOTAL NUMBER CORE BOXES
15. ELEVATION GROUND WATER: ~8 ft BGS
16. DATE HOLE: STARTED 11-19-97 @ 1630; COMPLETED 11-19-97
17. ELEVATION TOP OF HOLE
18. TOTAL CORE RECOVERY FOR BORING %
19. SIGNATURE OF INSPECTOR: Fred Holzman DE&S Geologist

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY e	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g
	2					
	4					
	6					
	8		8.0 si-v.f. SAND, wet, firm, lt gray	8		Hnu 4
			lt brn	100%		11 125
			tan-gray			25
	10			10		3
	12					
	14					
	16					
			17.0 si-v.f. SAND, wet, firm,	17		Hnu
	18			100%		slight solvent smell 38 16
			19.0 grading to cl-SILT, wet, slt plast			IS20-02 @ 18.5 52 20
	20		19.4 grading to CLAY, wet, soft, low plast, w/ peat particles			7

ENG FORM 1836 MAR 71 — PREVIOUS EDITIONS ARE OBSOLETE. — PROJECT — HOLE NO.

Hole No.

DRILLING LOG	DIVISION	INSTALLATION: MCB Camp Lejeune	SHEET 1 OF 1 SHEETS

1. PROJECT: Geoprobe Soil Sampling at Bldg 25
2. LOCATION (Coordinates or Station):
3. DRILLING AGENCY: FUGRO
4. HOLE NO. (As shown on drawing title and file number): IR88-IS22
5. NAME OF DRILLER: Frank Ward
6. DIRECTION OF HOLE: ☒ VERTICAL ☐ INCLINED _____ DEG. FROM VERT.
7. THICKNESS OF OVERBURDEN
8. DEPTH DRILLED INTO ROCK
9. TOTAL DEPTH OF HOLE: 22 ft
10. SIZE AND TYPE OF BIT: 1" & 1 3/4" ID core barrel
11. DATUM FOR ELEVATION SHOWN (TBM or MSL):
12. MANUFACTURER'S DESIGNATION OF DRILL: Geoprobe
13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN: DISTURBED: ; UNDISTURBED: 3
14. TOTAL NUMBER CORE BOXES
15. ELEVATION GROUND WATER: ~8 ft BGS
16. DATE HOLE: STARTED 11-20-97 @ 1140; COMPLETED 11-20-97
17. ELEVATION TOP OF HOLE
18. TOTAL CORE RECOVERY FOR BORING %
19. SIGNATURE OF INSPECTOR: Fred Holzmer DE&S Geologist

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY e	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g
	2					
	4					
	6					
	8		8.0 f. to v.f. SAND, minor silt, wet, cohesive, lt. gray to buff	8 / 100% / 10		IS22-01 8-9'
	10					
	12					
	14					
	16		16.0 f. to v.f. SAND, wet, firm, lt gray	16		
			17.5 grading to si-cl-f. SAND, wet firm to slt soft, slt plast			
	18		18.4 grading to cl-SILT w v.f. sand, wet, soft, low plast, med gray	100%	20	Perm Test Core
			19.2 grading to si-CLAY, wet, soft, low plast., med-dk gray		90	
	20			20	22 / 340	
	21		21.0 grading to CLAY w silt & peat particles, peat increasing w depth, low plast, brown, solvent smell			

Hnu: 400, 400, 360, 360, 425

Hnu: Strong solvent odor; 420, 380, 340, 220, 420, 440, 260, 160

Hnu: 400

ENG FORM 1836 | PROJECT | HOLE NO.

DRILLING LOG

DIVISION	
INSTALLATION	MCB Camp Lejeune
SHEET	1 OF 1 SHEETS
1. PROJECT	Geoprobe Soil Sampling @ Bldg 25
2. LOCATION (Coordinates or Station)	
3. DRILLING AGENCY	FUGRO
4. HOLE NO. (As shown on drawing title and file number)	IR88 - IS23
5. NAME OF DRILLER	Frank Ward
6. DIRECTION OF HOLE	☒ VERTICAL ☐ INCLINED ____ DEG. FROM VERT.
7. THICKNESS OF OVERBURDEN	
8. DEPTH DRILLED INTO ROCK	
9. TOTAL DEPTH OF HOLE	21 ft
10. SIZE AND TYPE OF BIT	1 3/4" ID core barrel
11. DATUM FOR ELEVATION SHOWN (TBM or MSL)	
12. MANUFACTURER'S DESIGNATION OF DRILL	Geoprobe
13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN	DISTURBED: ; UNDISTURBED: 1
14. TOTAL NUMBER CORE BOXES	
15. ELEVATION GROUND WATER	~8 ft BGS
16. DATE HOLE	STARTED 11-21-97 ; COMPLETED 11-21-97
17. ELEVATION TOP OF HOLE	
18. TOTAL CORE RECOVERY FOR BORING	%
19. SIGNATURE OF INSPECTOR	Fred Hohmer DE&S Geologist

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY e	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g	Hnu
	2						
	4						
	6						
	8						
	10						
	12						
	14						
	16						
			17.0 v.f. SAND, wet, firm, gray	17		* PA Samples *	40
						IS23-01 @ 17.5' →	160 VOA
	18		18.3 grading to SILT w/ v.f. sand & clay, wet, firm, slt plast	95%		IS23-02 @ 18.25' →	240 VOA
							380
			19.0 grading to si-CLAY w/ peat particles, wet, v. soft, low-med plast med-dk gray			IS23-03 @ 19.0'	320 VOA
						IS23-04: 19.5-19.9	70 Kv/CapP
	20		20.2 as above grading to gray-brn. w/ increasing peat fragments, low plast			IS23-05: 20.0-20.4	24 Kv/CapP

ENG FORM 1836 21 PROJECT 21 HOLE NO. 40

DRILLING LOG	DIVISION	INSTALLATION: MCB Camp Lejeune	SHEET 1 OF 1 SHEETS

1. PROJECT: Geoprobe Soil Sampling @ Bldg 25
2. LOCATION (Coordinates or Station):
3. DRILLING AGENCY: FUGRO
4. HOLE NO. (As shown on drawing title and file number): IR88-IS24
5. NAME OF DRILLER: Frank Ward
6. DIRECTION OF HOLE: ☒ VERTICAL ☐ INCLINED _____ DEG. FROM VERT.
7. THICKNESS OF OVERBURDEN:
8. DEPTH DRILLED INTO ROCK:
9. TOTAL DEPTH OF HOLE: 20 ft
10. SIZE AND TYPE OF BIT: 1 3/4" ID core barrel
11. DATUM FOR ELEVATION SHOWN (TBM or MSL):
12. MANUFACTURER'S DESIGNATION OF DRILL: Geoprobe
13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN: DISTURBED: ; UNDISTURBED:
14. TOTAL NUMBER CORE BOXES:
15. ELEVATION GROUND WATER: ~ 8 ft BGS
16. DATE HOLE: STARTED 11-20-97 @ 1600; COMPLETED 11-20-97
17. ELEVATION TOP OF HOLE:
18. TOTAL CORE RECOVERY FOR BORING: %
19. SIGNATURE OF INSPECTOR: Fred Hofmer DE&S Geologist

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY e	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g
	2					
	4					
	6					
	8					
	10					No Performance Assessment VOC samples collected here due to difficult sampling & poor recovery
	12					
	14					Difficulty collecting core: 1st attempt recovered ~25% 2nd " " ~40% ↳ strong solvent smell
	16			16		Estimate recovered core is from ~ 17.5-19.0 ft based on nearby logs IS07 & IW01
	18		~17.5 si-v.f. SAND, wet, firm ~18.0 grading to cl-SILT ~19.0 grading to si-CLAY, wet, v. soft, w̄ peat fragments v. soft, low-med plast			Hnu 420 — 17; 440 — 18; 360; 250 — 19
	20			20		

ENG FORM 1836 PREVIOUS EDITIONS ARE OBSOLETE | PROJECT | HOLE NO.

DRILLING LOG	DIVISION	INSTALLATION: MCB Camp Lejeune	SHEET 1 OF 1 SHEETS

1. PROJECT: Geoprobe Soil Sampling @ Bldg 25
2. LOCATION (Coordinates or Station):
3. DRILLING AGENCY: FUGRO
4. HOLE NO. (As shown on drawing title and file number): IR88-IS25
5. NAME OF DRILLER: Frank Ward
6. DIRECTION OF HOLE: ☒ VERTICAL ☐ INCLINED _____ DEG. FROM VERT.
7. THICKNESS OF OVERBURDEN:
8. DEPTH DRILLED INTO ROCK:
9. TOTAL DEPTH OF HOLE: 20 ft
10. SIZE AND TYPE OF BIT: 1" & 1 3/4" ID core barrel
11. DATUM FOR ELEVATION SHOWN (TBM or MSL):
12. MANUFACTURER'S DESIGNATION OF DRILL: Geoprobe
13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN: DISTURBED: ; UNDISTURBED: 2
14. TOTAL NUMBER CORE BOXES:
15. ELEVATION GROUND WATER: ~ 8 ft BGS
16. DATE HOLE: STARTED 11-21-97 @ 0850; COMPLETED 11-21-97
17. ELEVATION TOP OF HOLE:
18. TOTAL CORE RECOVERY FOR BORING: %
19. SIGNATURE OF INSPECTOR: Fred Hohmer DE&S Geologist

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY e	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g	Hnu
	2						
	4						
	6						
	8		8.0 f. to v.f. SAND, wet, firm, lt gray to buff, sparse peat fragments	8 / 75%			6, 6, 7, 3
	10			10			
	12						
	14						
	16		16.0 f. SAND, wet, stiff,	16		* PA Samples *	38, 80
			17.5 SILT w̄ clay & v.f. sand, sparse peat fragments, slt plast, med-dk gray	85%		IS25-01 @ 17'	440, 260
	18		18.4 grading to v.f. SAND			IS25-02 @ 18'	280, 480
			18.5 Cl-SILT w̄ v.f. SAND, slt-low plast				
			18.7 si-CLAY, med soft, low plast minor peat, med gray			IS25-03 @ 19'	420
	20		19.0 thin si-v.f. SAND seam followed by si-CLAY, minor peat, low-mod plast, gray-brn	20			

ENG FORM 1836 PREVIOUS EDITIONS ARE OBSOLETE PROJECT HOLE NO.

DRILLING LOG	DIVISION	INSTALLATION: MCB Camp Lejeune	SHEET 1 OF 1 SHEETS

1. PROJECT: Geoprobe Soil Sampling at Bldg 25
2. LOCATION (Coordinates or Station):
3. DRILLING AGENCY: FUGRO
4. HOLE NO. (As shown on drawing title and file number): IR88-IS26
5. NAME OF DRILLER: Frank Ward
6. DIRECTION OF HOLE: [X] VERTICAL [ ] INCLINED _____ DEG. FROM VERT.
7. THICKNESS OF OVERBURDEN:
8. DEPTH DRILLED INTO ROCK:
9. TOTAL DEPTH OF HOLE: 20 ft
10. SIZE AND TYPE OF BIT: 1 3/4" ID core barrel
11. DATUM FOR ELEVATION SHOWN (TBM or MSL):
12. MANUFACTURER'S DESIGNATION OF DRILL: Geoprobe
13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN: DISTURBED: ; UNDISTURBED: 1
14. TOTAL NUMBER CORE BOXES:
15. ELEVATION GROUND WATER: ~ 8 ft BGS
16. DATE HOLE: STARTED 11.21.97 @ 1000; COMPLETED 11.21.97
17. ELEVATION TOP OF HOLE:
18. TOTAL CORE RECOVERY FOR BORING: %
19. SIGNATURE OF INSPECTOR: Fred Hofmann DE&S Geologist

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY e	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g
	2					
	4					
	6					
	8					
	10					
	12					
	14					
	16		16.0 f. SAND, wet, firm, sparse peat fragments, gray	16		* PA Samples * Hnu 13
			17.2 si-v.f. SAND, wet, stiff, sparse peat fragments			4
			17.7 grading to cl-SILT, wet, slt plast, sparse peat fragments, med-soft	80%		IS26-01 @ 17.0' → 60; 160; IS26-02 @ 17.75' → 130
	18		18.3 grading to si-CLAY, wet, soft, low plast, sparse peat frags			IS26-03 @ 18.5' → 60; 62
		NR				
	20			20		

ENG FORM 1836 PREVIOUS EDITIONS ARE OBSOLETE | PROJECT | HOLE NO.

Hole No.

DRILLING LOG	DIVISION	INSTALLATION: MCB Camp Lejeune	SHEET 1 OF 1 SHEETS

1. PROJECT: Geoprobe Soil Sampling at Bldg 25
2. LOCATION (Coordinates or Station):
3. DRILLING AGENCY: FUGRO
4. HOLE NO. (As shown on drawing title and file number): IRBB-IS27
5. NAME OF DRILLER: Frank Ward
6. DIRECTION OF HOLE: ☒ VERTICAL ☐ INCLINED _____ DEG. FROM VERT.
7. THICKNESS OF OVERBURDEN:
8. DEPTH DRILLED INTO ROCK:
9. TOTAL DEPTH OF HOLE: 10 ft
10. SIZE AND TYPE OF BIT: 1" ID core barrel
11. DATUM FOR ELEVATION SHOWN (TBM or MSL):
12. MANUFACTURER'S DESIGNATION OF DRILL: Geoprobe
13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN: DISTURBED: ; UNDISTURBED: 1
14. TOTAL NUMBER CORE BOXES:
15. ELEVATION GROUND WATER: ~ 8 ft BGS
16. DATE HOLE: STARTED 11-21-97 @ 1035; COMPLETED 11-21-97
17. ELEVATION TOP OF HOLE:
18. TOTAL CORE RECOVERY FOR BORING: %
19. SIGNATURE OF INSPECTOR: Fred Holzner DE&S Geologist

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY e	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g	
	2						
	4						
	6						
	8		8.0 f. to v.f. SAND w/ intermittent si-cl-f. SAND layers, wet, firm, grading from brn to yel-orange to lt gray	8		IS27-01 @ 8-9' Varsol Sample	Hnu 1
		NR		65%			0
	10			10			1.5

ENG FORM 1836 PREVIOUS EDITIONS ARE OBSOLETE | PROJECT | HOLE NO.

HOLE NO.

DRILLING LOG	DIVISION	INSTALLATION: MCB Camp Lejeune	SHEET 1 OF 1 SHEETS

1. PROJECT: Geoprobe Soil Sampling inside Bldg 25
2. LOCATION (Coordinates or Station):
3. DRILLING AGENCY: FUGRO
4. HOLE NO. (As shown on drawing title and file number): IR88-IS28
5. NAME OF DRILLER: Frank Ward
6. DIRECTION OF HOLE: ☒ VERTICAL ☐ INCLINED _____ DEG. FROM VERT.
7. THICKNESS OF OVERBURDEN
8. DEPTH DRILLED INTO ROCK
9. TOTAL DEPTH OF HOLE: 20
10. SIZE AND TYPE OF BIT: 1" & 1 3/4" ID core barrel
11. DATUM FOR ELEVATION SHOWN (TBM or MSL):
12. MANUFACTURER'S DESIGNATION OF DRILL: Geoprobe
13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN: DISTURBED: ; UNDISTURBED: 3
14. TOTAL NUMBER CORE BOXES
15. ELEVATION GROUND WATER: ~8 ft BGS
16. DATE HOLE: STARTED 11-21-97 @ 1935; COMPLETED 11-22-97 @ 0815
17. ELEVATION TOP OF HOLE
18. TOTAL CORE RECOVERY FOR BORING %
19. SIGNATURE OF INSPECTOR: Fred Hohmer DE&S Geologist

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY e	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g
	2					
	4					
	6					
	8		8.0 f. to v.f. SAND, wet, firm, tan to buff color	8 – 10: 80%	8 – 10	Hnu 1 1 1 1
	10					No VOC sample collected since no contacts were observed between sand to silt to clay, & no evidence of contam.
	12					
	14		cl-SILT, med-firm, gray, low plast, sparse peat	14 – 18: 40%	14 – 18	Poor recovery: 1.5 ft from somewhere between 14-18. ft PID malfunction but no evidence of contamination, only mild organic decay smell
	16					
	18		18.0 CLAY, wet, soft, low-med plast, sparse peat, med-gray; 18.7 grading to peaty-CLAY, soft-firm, low plast, grayish-brn	18 – 20: 100%	18 – 20	Hnu malfunction, but no evidence of contam; mild organic decay odor only.
	20					

ENG FORM 1836 PREVIOUS EDITIONS ARE OBSOLETE | PROJECT | HOLE NO.

Hole No.

DRILLING LOG	DIVISION	INSTALLATION: MCB Camp Lejeune	SHEET 1 OF 1 SHEETS

1. PROJECT: Geoprobe soil sampling inside Bldg 25
2. LOCATION (Coordinates or Station):
3. DRILLING AGENCY: FUGRO
4. HOLE NO. (As shown on drawing title and file number): IRBB-IS29
5. NAME OF DRILLER: Frank Ward
6. DIRECTION OF HOLE: ☒ VERTICAL ☐ INCLINED _____ DEG. FROM VERT.
7. THICKNESS OF OVERBURDEN:
8. DEPTH DRILLED INTO ROCK:
9. TOTAL DEPTH OF HOLE: 20 ft
10. SIZE AND TYPE OF BIT: 1" & 1¾" ID core barrel
11. DATUM FOR ELEVATION SHOWN (TBM or MSL):
12. MANUFACTURER'S DESIGNATION OF DRILL: Geoprobe
13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN: DISTURBED: ; UNDISTURBED: 2
14. TOTAL NUMBER CORE BOXES:
15. ELEVATION GROUND WATER: ~ 8 ft BGS
16. DATE HOLE: STARTED 11-22-97 @ 0825; COMPLETED 11-22-97
17. ELEVATION TOP OF HOLE:
18. TOTAL CORE RECOVERY FOR BORING: %
19. SIGNATURE OF INSPECTOR: Fred Holmes DE&S Geologist

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY e	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g	Hnu
	2						
	4						
	6						
	8		8.0 f. SAND, moist on top, then wet, firm, tan, grading to lt gray	8 / 75%		IS29-01 8-9' Strong hydrocarb smell	58, 170, 250, 120
	10	NR		10			
	12						
	14						
	16			16 / 50%		* * Due to poor recovery (50%), depth of Hnu readings & geologic description are estimated to be from ~18-19.5 ft but not known w certainty of actual depth	
	18		~18.0 f. to v.f. SAND, minor silt, wet, firm, gray, sparse peat; 18.9 grading to CLAY, variable silt content, low-med plast, med-dk gray soft			IS29-02 ~18.8' * * free-phase DNAPL observed in voids (~1/8")	300, 260, 260, 200
	20		TD @ ~ 19.8	20			

ENG FORM 1836 PREVIOUS EDITIONS ARE OBSOLETE PROJECT HOLE NO.

Hole No.

DRILLING LOG	DIVISION	INSTALLATION: MCB Camp Lejeune	SHEET 1 OF 1 SHEETS

1. PROJECT: Geoprobe Soil Sampling inside Bldg 25
2. LOCATION (Coordinates or Station):
3. DRILLING AGENCY:
4. HOLE NO. (As shown on drawing title and file number): IR88-IS30
5. NAME OF DRILLER: Frank Ward
6. DIRECTION OF HOLE: [X] VERTICAL [ ] INCLINED _____ DEG. FROM VERT.
7. THICKNESS OF OVERBURDEN:
8. DEPTH DRILLED INTO ROCK:
9. TOTAL DEPTH OF HOLE: 20 ft
10. SIZE AND TYPE OF BIT: 1" & 1 3/4" dia core barrel
11. DATUM FOR ELEVATION SHOWN (TBM or MSL):
12. MANUFACTURER'S DESIGNATION OF DRILL: Geoprobe
13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN: DISTURBED: ; UNDISTURBED: 2
14. TOTAL NUMBER CORE BOXES:
15. ELEVATION GROUND WATER:
16. DATE HOLE: STARTED 11-22-97 @ 1030; COMPLETED 11-22-97
17. ELEVATION TOP OF HOLE:
18. TOTAL CORE RECOVERY FOR BORING: %
19. SIGNATURE OF INSPECTOR: Fred Holzner DE&S Geologist

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY e	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g
	2					
	4					
	6					
	8		8.0 f. SAND, wet, firm	8 / 60% / 10		IS30-01 8-9' — Hnu 250, 200, 60
	10					
	12					
	14					Core sample from 16-20 ft had poor recovery (~40%) Recovered core is estimated to be from a depth interval of ~18.5-20 ft
	16			16 / 40%		
	18		~18.5 si-CLAY, soft-firm, low plast, med-gray; ~18.8 CLAY w̄ minor silt, soft, low to med plast, med-gray minor peat, grading to brn-gray w̄ increasing Peat Content			* * * IS30-02 @ ~18.8'; abundant free-phase DNAPL in core-catcher tracks & in water in core tube → Hnu 200, 70, 60
	20			20		

ENG FORM 1836 PREVIOUS EDITIONS ARE OBSOLETE PROJECT HOLE NO.

Hole No.

DRILLING LOG

DIVISION

INSTALLATION: MCB Camp Lejeune

SHEET 1 OF 1 SHEETS

1. PROJECT: Geoprobe soil Sampling inside Bldg 25
2. LOCATION (Coordinates or Station): 7.7 ft
3. DRILLING AGENCY: FUGRO
4. HOLE NO. (As shown on drawing title and file number): IR88-IS31
5. NAME OF DRILLER: Frank Ward
6. DIRECTION OF HOLE: ☒ VERTICAL ☐ INCLINED _____ DEG. FROM VERT.
7. THICKNESS OF OVERBURDEN
8. DEPTH DRILLED INTO ROCK
9. TOTAL DEPTH OF HOLE: 20 ft
10. SIZE AND TYPE OF BIT: 1" & 1 3/4" dia core barrel
11. DATUM FOR ELEVATION SHOWN (TBM or MSL)
12. MANUFACTURER'S DESIGNATION OF DRILL: Geoprobe
13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN: DISTURBED ; UNDISTURBED 2
14. TOTAL NUMBER CORE BOXES
15. ELEVATION GROUND WATER
16. DATE HOLE: STARTED 11-22-97 @ 1400 ; COMPLETED 11-22-97
17. ELEVATION TOP OF HOLE
18. TOTAL CORE RECOVERY FOR BORING %
19. SIGNATURE OF INSPECTOR: Fred Holzmer DE&S Geologist

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY e	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g	
	2						
	4						
	6						
	8		8.0 f. to v.f. SAND, wet, firm, lt yel-orange w̄ lt gray mottling assoc'ed w̄ clayey areas.	90%	8 – 10	IS30-01 8-9 ft	Hnu 9, 15, 5, 12
	10						
	12						
	14						
	16		16.0 v.f. SAND, wet, firm, sparse peat frags, gray		16	IS31-02 @ ~16.8 ft →	Hnu 110, 100, 20, 8, 1, 1, 0
			17.0 interlayered v.f. SAND & CLAY firm,				
	18		17.5 CLAY, soft, low-med plast, w̄ minor v.f. sand seams (< 1/8") med-dk gray; sparse peat	95%			
			18.9 grading to peaty-CLAY, low-med plast, soft-firm, gray-brn				
	20				20		

ENG FORM 1836 MAR 71 PREVIOUS EDITIONS ARE OBSOLETE.

PROJECT

HOLE NO.

Hole No.

DRILLING LOG	DIVISION	INSTALLATION: MCB Camp Lejeune	SHEET 1 OF 1 SHEETS

1. PROJECT: Site 88: Bldg 25	10. SIZE AND TYPE OF BIT: 3¼" ID HSA
2. LOCATION (Coordinates or Station): PITT Wellfield: 3 ft W of EX04	11. DATUM FOR ELEVATION SHOWN (TBM or MSL):
3. DRILLING AGENCY: Parratt-Wolfe	12. MANUFACTURER'S DESIGNATION OF DRILL: CME 55
4. HOLE NO. (As shown on drawing title and file number): IR88-IS32	13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN: DISTURBED: ; UNDISTURBED: 5
5. NAME OF DRILLER: Layne Pech / Parratt-Wolff	14. TOTAL NUMBER CORE BOXES:
6. DIRECTION OF HOLE: ☒ VERTICAL ☐ INCLINED ____ DEG. FROM VERT.	15. ELEVATION GROUND WATER:
7. THICKNESS OF OVERBURDEN	16. DATE HOLE: STARTED 3/23/98 @ 1345; COMPLETED 1515
8. DEPTH DRILLED INTO ROCK	17. ELEVATION TOP OF HOLE:
9. TOTAL DEPTH OF HOLE: 22 ft BGS	18. TOTAL CORE RECOVERY FOR BORING: %
	19. SIGNATURE OF INSPECTOR: Fred Holzmer DE&S Geologist

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY e	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g	PID Reading
						Geoprobe macrocore Sampler (2" x 48") from 4-20 ft. bgs	
			4.0 v.f. SAND w minor silt & clay, cohesive, friable, moist	4		Split-spoon sample 20-22 ft bgs	
	5			50%			250 250 300
				8			
			~9 si-cl-f. SAND, moist, slt plast				200 280
	10		~10 f SAND, minor fines, moist, lt gray	75			300
			11 as above, med-gray, wet, loose				200
	12			12			
			as above	40%			250 100 150
	14						
	16			16			
			as above grading to si-v.f. SAND, wet, cohesive, friable, solvent odor	30%			250 300
	18		poor recovery				300
			contact between sand & clay not recovered				
	20		20.0 CLAY w minor peat med plast,	20		Spt Spoon sample 1¾" x 24"	9 4 4
				100%			3 2 2
	22			22			

ENG FORM 1836 PREVIOUS EDITIONS ARE OBSOLETE PROJECT HOLE NO.

Hole No.

DRILLING LOG

DIVISION	
INSTALLATION	Camp Lejeune, NC
SHEET	1 OF 1 SHEETS
1. PROJECT	Bldg. HP25 DNAPL Source Zone Borings
LOCATION (Coordinates or Station)	
3. DRILLING AGENCY	Parratt - Wolff Inc.
4. HOLE NO. (As shown on drawing title and file number)	IR88-RW01
5. NAME OF DRILLER	Arnold Chapel
6. DIRECTION OF HOLE	☒ VERTICAL ☐ INCLINED _____ DEG. FROM VERT.
7. THICKNESS OF OVERBURDEN	NA
8. DEPTH DRILLED INTO ROCK	NA
9. TOTAL DEPTH OF HOLE	20.0 FEET
10. SIZE AND TYPE OF BIT	
11. DATUM FOR ELEVATION SHOWN (TBM or MSL)	
12. MANUFACTURER'S DESIGNATION OF DRILL	CME 55 Adapted for hollow stem augers
13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN	DISTURBED: ; UNDISTURBED:
14. TOTAL NUMBER CORE BOXES	
15. ELEVATION GROUND WATER	
16. DATE HOLE	STARTED 8/19/97 ; COMPLETED 8/19/97
17. ELEVATION TOP OF HOLE	
18. TOTAL CORE RECOVERY FOR BORING	72 %
19. SIGNATURE OF INSPECTOR	INTERA JOHN T. LONDERGAN

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (Description)	% CORE RECOVERY e	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g
			8-inch HSA Hole			HNU (ppm)
			very fine sand, dry			
			water tight grippers plug			
	2		grout mixed at 600 lb Portland Cement w/ 40 gal water and 6 lb bentonite 3			
	4		4 inch diam. Sch 40 Flush Threaded Joint PVC Casing	Only 1.5' recovery from 4' push		9.2
						147
						47
	6		Hydro carbon odor			121
			7			3.1
	8					10.1
			bentonite seal			9.8
▽ Hw = 8.46' 8/20/97 1800 hrs			12.25-inch diam. Borehole	1.5' recovery from 4' push		4.6 — RW01-05 TPH 9.5
						4.6
	10					3.5
			Very fine sand, wet, lt gray color 11			
						4.7
	12					1.8
			Drilling Service Inc. #1 Filter Sand 704-322-1100 8-50 lb bags	3.0' recovery from 4' push		2.4
						1.5
						1.3
	14					1.3
						1.5
			4 inch diam. 304 SS 0.01-inch wire wrap continuous slot screen 15			
						22.4
	16					10.2
						4.3
				3.5' recovery from 4' push		10.0 — RW01-1 PCE 17.0
						165.0
	18					270.0 — RW01-2 PCE 18'
						122.0
			silty clay, lt gray wet, soft 19			27.0
	20		1' sump 304 SS	1.0' recovery from 4' push		RW01-3 PCE 20.0

Hole No.

DRILLING LOG	DIVISION	INSTALLATION: CAMP LEJEUNE, NC	SHEET 01 OF 01 SHEETS

1. PROJECT: Bldg. HP25 DNAPL Source Zone Borings
2. LOCATION (Coordinates or Station):
3. DRILLING AGENCY: Parratt Wolff
4. HOLE NO. (As shown on drawing title and file number): IR88-RW02
5. NAME OF DRILLER: Arnold Chapel
6. DIRECTION OF HOLE: [X] VERTICAL [ ] INCLINED _____ DEG. FROM VERT.
7. THICKNESS OF OVERBURDEN: NA
8. DEPTH DRILLED INTO ROCK: NA
9. TOTAL DEPTH OF HOLE: 120.0
10. SIZE AND TYPE OF BIT:
11. DATUM FOR ELEVATION SHOWN (TBM or MSL):
12. MANUFACTURER'S DESIGNATION OF DRILL: CME 55 Adapted for hollow stem augers
13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN: DISTURBED: / UNDISTURBED:
14. TOTAL NUMBER CORE BOXES:
15. ELEVATION GROUND WATER:
16. DATE HOLE: STARTED 8/19/97 COMPLETED 8/19/97
17. ELEVATION TOP OF HOLE:
18. TOTAL CORE RECOVERY FOR BORING: 82 %
19. SIGNATURE OF INSPECTOR: JOHN T. LONDERGAN, INTERA

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY e	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g
			8 inch diameter manhole			
			very fine sand, dry, lt gray			HNu (ppm)
			watertight gripper cap			
	2		grout mixed at 600 lbs portland cement w/ 40 gal. water and 6 lbs bentonite 3			
	4		4-inch diameter Schedule 40 PVC flush threaded casing	2.5 ft recovery from 4' push		4.7, 8.8, 22.0, 66.0, 5.6, 11.3
			12.25-inch diam. borehole 7			
	6					5.5, 4.6, 2.7
	8		wet			
▽ tw = 8.96' 8/19/97 1003 hrs			change to a tan color	3.0 ft recovery from 4' push		112.0, 22.0, 11.0, 4.4
	10		bentonite seal 11			RW02-04 TPH 9.0-9.5
	12		change back to a lt. gray color	recovered 3.3 ft on a 4' push		97.0, 72.0, 6.7, 3.3, 11.2, 14.7
	14		4-inch diameter 304 stainless steel 0.01-inch wire wrap continuous slot screen w/ flush threaded joints 15			36.0, 12.8, 16.7, 16.0, 4.0, 5.6, 19.0, 13.1, 94.0, 20.0
	16		Drilling Service Inc. #1 fifth sand 704-322-1180 8-50 lb bags of sand	4.0 ft recovery on a 4.0 ft push		RW02-1 PCE 17.0' RW02-2 PCE 18.0' RW02-09 FOC 18.0-18.5' RW02-3 PCE 18.5'
	18		silty clay, gray, soft, wet			
	20			1.4 ft recovered on 1.4 ft push		

Hole No.

DRILLING LOG	DIVISION	INSTALLATION: CAMP LEJEUNE, NC	SHEET 01 OF 01 SHEETS

1. PROJECT: Bldg. HP25 DNAPL Source Zone Borings
2. LOCATION (Coordinates or Station):
3. DRILLING AGENCY: TARRATT-WOLFF INC.
4. HOLE NO. (As shown on drawing title and file number): IR88-IW01
5. NAME OF DRILLER: ARNOLD CHAPEL
6. DIRECTION OF HOLE: ☒ VERTICAL ☐ INCLINED _____ DEG. FROM VERT.
7. THICKNESS OF OVERBURDEN: NA
8. DEPTH DRILLED INTO ROCK: NA
9. TOTAL DEPTH OF HOLE: 19.0 FEET
10. SIZE AND TYPE OF BIT:
11. DATUM FOR ELEVATION SHOWN (TBM or MSL):
12. MANUFACTURER'S DESIGNATION OF DRILL: EMESS Adapted for hollow stem augers
13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN: DISTURBED: UNDISTURBED:
14. TOTAL NUMBER CORE BOXES:
15. ELEVATION GROUND WATER:
16. DATE HOLE: STARTED 8/20/97 COMPLETED 8/20/97
17. ELEVATION TOP OF HOLE:
18. TOTAL CORE RECOVERY FOR BORING: 75 %
19. SIGNATURE OF INSPECTOR: JOHN T. LONDERGAN, INTERA

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (Description)	% CORE RECOVERY e	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g
			8-inch diam. manhole			
			fine sand, lt brown, dry; water tight grippe cap			HNu (ppm)
	2					note: 2-inch diam. well installed inside 8-inch ID augers because drillers had no other augers available at the time.
			2-inch diameter schedule 40 PVC casing w/ flush threaded joints	3		
	4					15.9
			clayey fine sand, dk grey, moist; grout mixed at 400 lbs lb portland cement w/ 1 lb bentonite and 3.0 gal water	2.5 ft recovery on a 4' push		227.0 — IW01-04 TPH 4[illegible]
						268.0
						311.0 — IW01-06 PCE 4.5
	6					42.0
						48.0
			12.25-inch diam. borehole	7		
	8		decrease in clay content becomes fine sand lt grey wet			19.8
						55.0
				2.5 ft recovery on a 4' push		61.0 — ~~IW01-05 TPH 9.0-9.5~~
						5.7
	10					3.3 — Not submitted to lab
			BENTONITE SEAL			17.0
				11		
			becomes darker grey in color			13.0
	12					13.6
			Drillers Service Inc. #1 filter sand 704-322-1168 12-50 lb bags of sand			4.9
						1.2
				3.0 ft recovery on a 4.0 ft push		2.0
	14					2.1
						2.3
			2-inch diameter 304 stainless steel 0.01-inch wire wrap continuous slot screen w/ flush threaded joints	15		
						22.0 — IW01-1 PCE 17.0
	16					6.1
				4.0 ft recovery on a 4.0 ft push		1.5 — IW01-7 PCE 18.0
						6.2
						20.1 — IW01-09 FOC 18.0-18.5
	18		silty clay, soft, grey, wet			140.0
						613.0 — IW01-3 TCE 18.5
				19		22.0 — IW01-09 TPH 18.5-19.0
	20					

ENG FORM 1836 | PROJECT | HOLE NO.

INTERA | TAN304

SOIL BORING LOG

SITE NAME AND LOCATION	DRILLING METHOD: 3 1/4 HSA	BORING NO. ~~EX~~-EX01	
		SHEET 1 OF 1	
	SAMPLING METHOD: 2' x 1 3/8" SPLIT SPOON	DRILLING	
		START	FINISH
	WATER LEVEL (BLS) / TIME	TIME 1119	TIME 1350
	DATE	DATE 12/3	DATE 12/3
DATUM ELEVATION	CASING DEPTH (BLS)		

DRILLER:

DRILL RIG	SURFACE CONDITIONS
ANGLE BEARING	
SAMPLE HAMMER TORQUE FT.-LBS.	

PID (PPm)	DEPTH IN FEET (BLS)	BLOWS / 6 IN. ON SAMPLER	% RECOVERY	SOIL GRAPH	MATERIAL CHANGE DEPTH (BLS)(FT)	DESCRIPTION OF MATERIAL	SAMPLED INTERVAL	SAMPLE No.	FIELD SCREENING OR HEAD SPACE ANALYSIS OVM/HNU (ppm)	DEPTH IN FEET FROM	DEPTH IN FEET TO	DESCRIPTION OF OPERATION AND REMARKS
						0-16' A-H (Auger-No Sample)						
260	16.5			NR				EX01-01		16.5'		VOA
320			75			VF SAND, some silt, trace clay; gray; wet; solvent odor		EX01-02		17.5'		(VOA)
360												
300	18							EX01-03		18.5'		(VOA)
150					18.7							
150			80									
160												
300	20				20.0	CLAY, little silt, trace sand; dark gray; wet to moist						
250												
200			90			CLAY, trace silt, and peat; dark gray; moist						
100	22											

LOGGED BY: M. DeJOHN (BAKER)

INTERA

~~TRG304~~ TDN304 SOIL BORING LOG

SITE NAME AND LOCATION	DRILLING METHOD: 3 1/4" HSA	BORING NO. 88-EX02	
		SHEET 1 OF 1	
	SAMPLING METHOD: 2' x 1 3/8" SPLIT SPOON	DRILLING	
		START	FINISH
	WATER LEVEL (BLS)	TIME 1534	TIME 1625
	TIME		
	DATE	DATE 12/3	DATE 12/3
DATUM ELEVATION	CASING DEPTH (BLS)		

DRILLER:

DRILL RIG	SURFACE CONDITIONS
ANGLE BEARING	
SAMPLE HAMMER TORQUE FT.-LBS.	

DEPTH IN FEET (BLS)	BLOWS / 6 IN. ON SAMPLER	% RECOVERY	SOIL GRAPH	MATERIAL CHANGE DEPTH (BLS)(FT)	DESCRIPTION OF MATERIAL	SAMPLED INTERVAL	SAMPLE No.	FIELD SCREENING OR HEAD SPACE ANALYSIS OVM/HNU (ppm)	DEPTH IN FEET FROM	DEPTH IN FEET TO	DESCRIPTION OF OPERATION AND REMARKS
13					0-13' A-N 13.0						
14		90			VF SAND, little silt, trace clay; dark gray; wet						
15											
16		100			VF SAND, some silt, trace clay; dark gray; wet						
17											
18		100			VF SAND, some silt, trace clay; dark gray; wet						
19				19.3	19.3 SILT, trace fine sand; clay; gray; wet						SOLVENT ODOR
20		100		20.0	20.0 CLAY, little silt, trace fine sand and peat; brown (dark); moist						
21	30	4@	21.0'								

PER JTL, NO SOIL SAMPLES COLLECTED FOR VOA.

LOGGED BY:

INTERA | ~~IRG304~~ TDN304 | **SOIL BORING LOG**

SITE NAME AND LOCATION	DRILLING METHOD: 3 1/4" HSA	BORING NO. 88-EX03
		SHEET OF
	SAMPLING METHOD: 2' x 1 3/8" SPLIT SPOON	DRILLING START / FINISH
	WATER LEVEL (BLS) / TIME / DATE / CASING DEPTH (BLS)	TIME 0720 / TIME 0800
DATUM / ELEVATION		DATE 12/4 / DATE 12/4

DRILLER:

DRILL RIG	SURFACE CONDITIONS
ANGLE / BEARING	
SAMPLE HAMMER TORQUE FT.-LBS.	

DEPTH IN FEET (BLS)	BLOWS / 6 IN. ON SAMPLER	% RECOVERY	SOIL GRAPH	MATERIAL CHANGE DEPTH (BLS)(FT)	DESCRIPTION OF MATERIAL	SAMPLED INTERVAL	SAMPLE No.	FIELD SCREENING OR HEAD SPACE ANALYSIS OVM/HNU (ppm)	DEPTH IN FEET FROM	DEPTH IN FEET TO	DESCRIPTION OF OPERATION AND REMARKS
					0-16' A-N						
16	2 2 3 2	100			VF SAND, some silt, trace M sand; dark gray; wet		EX03-01	@16.0'			VOA
17							EX03-02	@17.5'			VOA
18	8 2 8										
19	40 18 12	90		19.0 / 19.4	19.0 SILT, little clay; trace f sand; dark gray; wet 19.4'		EX03-03	@19.0			VOA SL. SOLVENT ODOR
20	BOLIQ		20.0'		CLAY, little silt, trace f sand, dark gray; wet						
21											
22											
23											
24											

LOGGED BY:

LITERA - TDN304

SOIL BORING LOG

SITE NAME AND LOCATION

DRILLING METHOD: 3 1/4" HSA

SAMPLING METHOD: GEOPROBE MACROCORE

BORING NO. 88-EX04

SHEET 1 OF 1

DRILLING START TIME 1151 DATE 12/4 FINISH TIME 1853 DATE 12/4

WATER LEVEL (BLS)				
TIME				
DATE				
CASING DEPTH (BLS)				

DATUM ELEVATION

DRILL RIG SURFACE CONDITIONS

ANGLE BEARING

SAMPLE HAMMER TORQUE FT.-LBS.

DRILLER:

DEPTH IN FEET (BLS)	BLOWS / 6 IN. ON SAMPLER	% RECOVERY	SOIL GRAPH	MATERIAL CHANGE DEPTH (BLS)(FT)	DESCRIPTION OF MATERIAL	SAMPLED INTERVAL	SAMPLE No.	FIELD SCREENING OR HEAD SPACE ANALYSIS OVM/HNU (ppm)	DEPTH IN FEET FROM	TO	DESCRIPTION OF OPERATION AND REMARKS
16											
17		80%			VF SAND, some silt, little clay; dark brown; wet		EX04-01	(17.0')			VOA
18							EX04-02	(18.5')			VOA
19					VF SAND, some silt, trace clay; dark gray; wet		EX04-03	(19.5')			VOA
20				20.0							
21				21.0	SILT, some clay; dark gray; wet			SL. SOLVENT ODOR			
22		80%		21.5	CLAY, some silt; dark gray; moist						
23					CLAY, little silt, peaty; dark brown; damp to moist						
24	BOHE		24.0'								

LOGGED BY:

INTERA | TON304 | **SOIL BORING LOG**

SITE NAME AND LOCATION	DRILLING METHOD: 3 1/4" HSA	BORING NO. 88-EX05
		SHEET 1 OF 1
	SAMPLING METHOD: GEOPROBE MACRO CORE	DRILLING
		START / FINISH
	WATER LEVEL (BLS) / TIME	TIME 1430 / TIME
	DATE / CASING DEPTH (BLS)	DATE 12/4 / DATE
DATUM / ELEVATION		
DRILL RIG	SURFACE CONDITIONS	
ANGLE / BEARING		
SAMPLE HAMMER TORQUE / FT.-LBS.		

DRILLER:

DEPTH IN FEET (BLS)	BLOWS / 6 IN. ON SAMPLER	% RECOVERY	SOIL GRAPH	MATERIAL CHANGE DEPTH (BLS)(FT)	DESCRIPTION OF MATERIAL	SAMPLED INTERVAL	SAMPLE No.	FIELD SCREENING OR HEAD SPACE ANALYSIS OVM/HNU (ppm)	DEPTH IN FEET FROM	TO	DESCRIPTION OF OPERATION AND REMARKS
					0-17' A-N						
17			N.R.		F SAND, little silt; tan; wet						
18		75			VF SAND, some silt, trace clay; dark brown; wet		EX05-01	(18')			VOC
19				19.0			EX05-02	(19')			VOC
20					SILT, trace clay; f sand; dark brown; wet		EX05-03	(20')			VOC
21				20.5	CLAY, trace silt; dark brown; moist						
				21.0							
22											
23											
24											

6
15
1
38
20
0

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INTERA - TDN304

SOIL BORING LOG

SITE NAME AND LOCATION	DRILLING METHOD: 3 1/4" HSA	BORING NO. 88-EX06	
		SHEET 1 OF 1	
	SAMPLING METHOD: GEOPROBE MACRO CORE	DRILLING	
		START	FINISH
	WATER LEVEL (BLS)	TIME 0758	TIME 0840
	TIME		
	DATE	DATE 12/5	DATE 12/5
DATUM ELEVATION	CASING DEPTH (BLS)		

DRILLER:

DRILL RIG	SURFACE CONDITIONS
ANGLE BEARING	
SAMPLE HAMMER TORQUE FT.-LBS.	

PID	DEPTH IN FEET (BLS)	BLOWS / 6 IN. ON SAMPLER	% RECOVERY	SOIL GRAPH	MATERIAL CHANGE DEPTH (BLS)(FT)	DESCRIPTION OF MATERIAL	SAMPLED INTERVAL	SAMPLE No.	FIELD SCREENING OR HEAD SPACE ANALYSIS OVM/HNU (ppm)	DEPTH IN FEET FROM	DEPTH IN FEET TO	DESCRIPTION OF OPERATION AND REMARKS
						0-16' A-N						
2	16											
1						F SAND, some silt; dark brown; gray; wet						
1	17											
0												
0	18		100			VF SAND, some silt, trace clay; dark gray; wet						
0												
0	19				19.0	SILT, little clay; dark gray; wet						
0					19.6	CLAY, little silt; dark gray; moist						
0	20											
			Bottom 20.0'									

LOGGED BY:

INTERA - TON 304

SOIL BORING LOG

SITE NAME AND LOCATION	
DRILLING METHOD:	3 1/4" HSA
SAMPLING METHOD:	GEOPROBE MACRO CORE
BORING NO.	88-IN01
SHEET	1 OF 1
DRILLING START	TIME 0740 DATE 12/8
DRILLING FINISH	TIME 0830 DATE 12/8
WATER LEVEL (BLS) / TIME / DATE / CASING DEPTH (BLS)	
DATUM	ELEVATION
DRILL RIG	SURFACE CONDITIONS
ANGLE	BEARING
SAMPLE HAMMER TORQUE	FT.-LBS.

DRILLER:

DEPTH IN FEET (BLS)	BLOWS / 6 IN. ON SAMPLER	% RECOVERY	SOIL GRAPH	MATERIAL CHANGE DEPTH (BLS)(FT)	DESCRIPTION OF MATERIAL	SAMPLED INTERVAL	SAMPLE No.	FIELD SCREENING OR HEAD SPACE ANALYSIS OVM/HNU (ppm)	DEPTH IN FEET FROM	DEPTH IN FEET TO	DESCRIPTION OF OPERATION AND REMARKS
					0-15' A-N						
15											
240											
360 16					VF SAND, some silt & clay; dark brown; wet						STRONG SOLVENT ODOR THROUGHOUT SAMPLE CORES
340											
340 17		90									
190					VF SAND, little silt; dark gray; wet						
300 18							IN	01-01	(18')		VOA
300					VF SAND, trace silt; dark gray; wet						
330 19											
FREE PHASE DNAPL				19.5			IN	01-02 VOA	(19.5')		FREE PHASE DNAPL
20					CLAY, some silt, trace f sand; dark gray; wet						
80		100					IN	01-03 VOA	(20.5')		
130 21											
70											
11 22					CLAY, trace silt & peat; dark brown moist						
	Bottom @ 22.0'										

LOGGED BY:

INTERA - TAN 304

SOIL BORING LOG

SITE NAME AND LOCATION	DRILLING METHOD:	BORING NO.	88-IN02
		SHEET	1 OF 1
	SAMPLING METHOD:	DRILLING	
		START	FINISH
	WATER LEVEL (BLS)	TIME	TIME
	TIME		
	DATE	DATE 12/8	DATE 12/8
DATUM ELEVATION	CASING DEPTH (BLS)		

DRILLER:

DRILL RIG	SURFACE CONDITIONS
ANGLE BEARING	
SAMPLE HAMMER TORQUE FT.-LBS.	

DEPTH IN FEET (BLS)	BLOWS / 6 IN. ON SAMPLER	% RECOVERY	SOIL GRAPH	MATERIAL CHANGE DEPTH (BLS)(FT)	DESCRIPTION OF MATERIAL	SAMPLED INTERVAL	SAMPLE No.	FIELD SCREENING OR HEAD SPACE ANALYSIS OVM/HNU (ppm)	DEPTH IN FEET FROM	DEPTH IN FEET TO	DESCRIPTION OF OPERATION AND REMARKS
16					VF SAND, trace silt; gray; wet						
17					VF SAND, some silt; gray; wet						
18		100		18.0	SILT, little clay, trace vf sand; dark gray; wet						
19				18.7	CLAY, some silt; dark gray; wet						
20		Bore 20'			CLAY, trace silt; dark gray; moist						

104
28
70
280
140
350
150
82

LOGGED BY:

INTERA - TDN 304

SOIL BORING LOG

SITE NAME AND LOCATION	
DRILLING METHOD:	3 1/4" HSA
SAMPLING METHOD:	GEOPROBE MACRO CORE
BORING NO.	88-IN03
SHEET	1 OF 1
DRILLING START	TIME 1508 DATE 12/8
DRILLING FINISH	TIME 1535 DATE 12/8
WATER LEVEL (BLS) / TIME / DATE / CASING DEPTH (BLS)	
DATUM	ELEVATION
DRILL RIG	SURFACE CONDITIONS
ANGLE	BEARING
SAMPLE HAMMER TORQUE	FT.-LBS.

DRILLER:

DEPTH IN FEET (BLS)	BLOWS / 6 IN. ON SAMPLER	% RECOVERY	SOIL GRAPH	MATERIAL CHANGE DEPTH (BLS)(FT)	DESCRIPTION OF MATERIAL	SAMPLED INTERVAL	SAMPLE No.	FIELD SCREENING OR HEAD SPACE ANALYSIS OVM/HNU (ppm)	DEPTH IN FEET FROM	DEPTH IN FEET TO	DESCRIPTION OF OPERATION AND REMARKS
PID					0-14' A-N						
14											
15	13 13				VF SAND, little silt & clay; dark brown; wet						
16	15 2	90			VF SAND, little to some silt (inc. w/ depth) gray; wet		88-IN03-01 (16.0') VOA				
17	9 2						88-IN03-02 (17.5') VOA				
18	41			18.0	SILT, some vf sand; dark gray; wet		88-IN03-03 (19') VOA				
19	2 5	80		19.0							
20	3 2				CLAY, little silt, trace vf sand; dark gray; moist						
21		BOH @ 21'									
22											

LOGGED BY:

INTERA - TDN 304

SOIL BORING LOG

SITE NAME AND LOCATION	
DRILLING METHOD:	6" CASING DRIVE
SAMPLING METHOD:	GEOPROBE MACRO CORE
BORING NO.	88-HC01
SHEET	1 OF 1
DRILLING START / FINISH	
DRILLER:	
DATUM	ELEVATION
WATER LEVEL (BLS) / TIME / DATE / CASING DEPTH (BLS)	
DRILL RIG	
SURFACE CONDITIONS	
ANGLE	BEARING
SAMPLE HAMMER TORQUE	FT.-LBS.
LOGGED BY:	

DEPTH IN FEET (BLS)	BLOWS / 6 IN. ON SAMPLER	% RECOVERY	SOIL GRAPH	MATERIAL CHANGE DEPTH (BLS)(FT)	DESCRIPTION OF MATERIAL	SAMPLED INTERVAL	SAMPLE No.	FIELD SCREENING OR HEAD SPACE ANALYSIS OVM/HNU (ppm)	DEPTH IN FEET FROM	DEPTH IN FEET TO	DESCRIPTION OF OPERATION AND REMARKS
16											
200 17											
280											
220 18					VF SAND, some silt; dark gray; wet						STRONG SOLVENT ODOR
320							88-HC01-01 (18.5') VOA				
300 19		19									FREE PHASE DNAPL
220											
200 20							88-HC01-02 (20') VOA				
400		100		20.3 ?							
150 21					SILT, little clay (increase amt w/depth to some); dark gray; wet		88-HC01-03 (21') VOA				
22				21.5							
22					CLAY, trace silt; dark gray; moist						
		BOH @ 22.0									

INTERA - TDN304

SOIL BORING LOG

SITE NAME AND LOCATION	
DRILLING METHOD:	3 1/4" HSA
SAMPLING METHOD:	GEOPROBE MACRO CORE
BORING NO.	88-HC02
SHEET	1 OF 1
DRILLING START TIME	0800
DRILLING FINISH TIME	0830
DRILLING START DATE	12/9
DRILLING FINISH DATE	12/9
DATUM	
ELEVATION	
DRILL RIG	
SURFACE CONDITIONS	
ANGLE	
BEARING	
SAMPLE HAMMER TORQUE	FT.-LBS.

WATER LEVEL (BLS)				
TIME				
DATE				
CASING DEPTH (BLS)				

DRILLER:

DEPTH IN FEET (BLS)	BLOWS / 6 IN. ON SAMPLER	% RECOVERY	SOIL GRAPH	MATERIAL CHANGE DEPTH (BLS)(FT)	DESCRIPTION OF MATERIAL	SAMPLED INTERVAL	SAMPLE No.	FIELD SCREENING OR HEAD SPACE ANALYSIS OVM/HNU (ppm)	DEPTH IN FEET FROM	DEPTH IN FEET TO	DESCRIPTION OF OPERATION AND REMARKS
14		14									
15					VF SAND, some silt, trace clay; dark brown; wet						
16		80%					88-HC02-01		(6.0')		VOA
17					VF SAND, some silt; gray; wet						
18		18					88-HC02-02		(17.5')		VOA SL. SOLVENT ODOR
							88-HC02-03		(18.5')		VOA
19		100		18.7	SILT, trace clay; dark gray; wet						
20				19.2	CLAY, some to trace silt (decreasing w/ depth); dark gray; wet						
21		205			BOHR 20.5'						

5 5 1 1 4 14 19 50 65 7 3

LOGGED BY:

INTERA - TON304

SOIL BORING LOG

SITE NAME AND LOCATION	DRILLING METHOD: 3 1/4" HSA	BORING NO. 88-RW04	
		SHEET 1 OF 1	
	SAMPLING METHOD: GEOPROBE MACROCORE	DRILLING	
		START	FINISH
	WATER LEVEL (BLS) / TIME	TIME 1200	TIME
	DATE	DATE 12/9	DATE 12/9
DATUM ELEVATION	CASING DEPTH (BLS)		

DRILLER:

DRILL RIG	SURFACE CONDITIONS
ANGLE BEARING	
SAMPLE HAMMER TORQUE FT.-LBS.	

DEPTH IN FEET (BLS)	BLOWS / 6 IN. ON SAMPLER	% RECOVERY	SOIL GRAPH	MATERIAL CHANGE DEPTH (BLS)(FT)	DESCRIPTION OF MATERIAL	SAMPLED INTERVAL	SAMPLE No.	FIELD SCREENING OR HEAD SPACE ANALYSIS OVM/HNU (ppm)	DEPTH IN FEET FROM	DEPTH IN FEET TO	DESCRIPTION OF OPERATION AND REMARKS
PID											
14											
26				14.8	VF SAND, some silt, trace clay; dark brown; wet						
4 15				15.2	CLAY, some silt; gray; wet						
30					VF SAND, little silt; gray; wet to some						
10 16		100									
10											
3 17											
20					VF SAND, some silt, trace clay; dark brown; wet						
200 18							88-RW04-01 (18') VOA				STRONG SOLVENT ODOR
9				18.7	VF SAND, some silt; dark gray; wet						
300 19											
340		100			SILT, little clay; dark gray; wet		88-RW04-02 (19.5') VOA				FREE PHASE DNAPL
340 20											
200				20.3			88-RW04-03 (20.5') VOA				
360 21					CLAY, trace silt; dark gray; moist						
		80	H@21'								
22											

LOGGED BY:

LITERA · TON 304

SOIL BORING LOG

SITE NAME AND LOCATION	DRILLING METHOD:	BORING NO. RW06	
		SHEET 1 OF 1	
	SAMPLING METHOD:	DRILLING	
		START	FINISH
	WATER LEVEL (BLS)	TIME	TIME
	TIME		
	DATE	DATE	DATE
DATUM ELEVATION	CASING DEPTH (BLS)		

DRILLER:

DRILL RIG	SURFACE CONDITIONS
ANGLE BEARING	
SAMPLE HAMMER TORQUE FT.-LBS.	

DEPTH IN FEET (BLS)	BLOWS / 6 IN. ON SAMPLER	% RECOVERY	SOIL GRAPH	MATERIAL CHANGE DEPTH (BLS)(FT)	DESCRIPTION OF MATERIAL	SAMPLED INTERVAL	SAMPLE No.	FIELD SCREENING OR HEAD SPACE ANALYSIS OVM/HNU (ppm)	DEPTH IN FEET FROM	DEPTH IN FEET TO	DESCRIPTION OF OPERATION AND REMARKS
14											
15											
60 16					VF SAND, some silt; dark brown; wet						
24											
30 17					VF SAND, little silt; gray; wet						
20											
18											
19											
20		50									
160 21											
200											
22											

LOGGED BY:

Hole No.

DRILLING LOG	DIVISION	INSTALLATION: MCB Camp Lejeune	SHEET 1 OF 1 SHEETS

1. PROJECT: Site 88: Replacement Well
2. LOCATION (Coordinates or Station): PITT Wellfield: 3 ft N of EX04
3. DRILLING AGENCY: Parratt-Wolfe
4. HOLE NO. (As shown on drawing title and file number): EX04R
5. NAME OF DRILLER: Layne Pech
6. DIRECTION OF HOLE: [X] VERTICAL [ ] INCLINED _____ DEG. FROM VERT.
7. THICKNESS OF OVERBURDEN
8. DEPTH DRILLED INTO ROCK
9. TOTAL DEPTH OF HOLE
10. SIZE AND TYPE OF BIT
11. DATUM FOR ELEVATION SHOWN (TBM or MSL)
12. MANUFACTURER'S DESIGNATION OF DRILL
13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN: DISTURBED: ; UNDISTURBED: 4
14. TOTAL NUMBER CORE BOXES
15. ELEVATION GROUND WATER
16. DATE HOLE: STARTED 3/23/98 @ 1545; COMPLETED 3/23/98 @
17. ELEVATION TOP OF HOLE
18. TOTAL CORE RECOVERY FOR BORING %
19. SIGNATURE OF INSPECTOR: Fred Holymer DE&S Geologist

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY e	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g	PID
						1 3/4" x 24" split spoon sampler	
	5						
	10						
	12		f. to v.f. SAND, trace fines, wet, loose, gray	12 / 60%			20, 280, 50, 70
	14		as above	14 / 75%			
	16		as above; solvent odor	16 / 90%			35, 12, 10, 10, 30
	18		18.0 cl-sa-SILT, wet, slt plast grading to cl-SILT, low plast, soft grading to si-CLAY, soft, med plast.	18 / 100%		solvent odor	200, 20, 10, 3, 3
	20			20			

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Hole No.

DRILLING LOG	DIVISION	INSTALLATION: MCB Camp Lejeune	SHEET 1 OF 1 SHEETS

1. PROJECT: Site 88 : Bldg 25 Aquitard Well Point Installation
2. LOCATION (Coordinates or Station): PITT Wellfield
3. DRILLING AGENCY: Parratt-Wolfe
4. HOLE NO. (As shown on drawing title and file number): WP01AQT
5. NAME OF DRILLER: Lee
6. DIRECTION OF HOLE: ☒ VERTICAL ☐ INCLINED _____ DEG. FROM VERT.
7. THICKNESS OF OVERBURDEN
8. DEPTH DRILLED INTO ROCK
9. TOTAL DEPTH OF HOLE: 23.5 ft BGS
10. SIZE AND TYPE OF BIT: 6 1/4" ID HSA
11. DATUM FOR ELEVATION SHOWN (TBM or MSL)
12. MANUFACTURER'S DESIGNATION OF DRILL: CME 55
13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN: DISTURBED ; UNDISTURBED 3
14. TOTAL NUMBER CORE BOXES
15. ELEVATION GROUND WATER
16. DATE HOLE: STARTED 6-25-98 @ 0800 ; COMPLETED 6-26-98
17. ELEVATION TOP OF HOLE
18. TOTAL CORE RECOVERY FOR BORING %
19. SIGNATURE OF INSPECTOR: Fred Holzmer DE&S Geologist

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY e	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g	
						No core samples from 0-13' bgs	
						Continuous tube sampling from 13-21' bgs w/ 2" ID x 4 ft long geoprobe Macrosampler	
	5						
	10						
							PID Reading
			13.0 f. SAND w/ minor fines, wet, cohesive, lt gray	13			
						14	25 ppm
	15			70%		14.5	20
						15	3
						15.5	0
	16		as above	16			
						17.5	0
				65%		18	0
						18.5	12
	18						
			19.0 cl-SILT w/ f. sand, wet low plast, lt gray, soft	19			
			19.5 grading to si-CLAY, wet, low plast, med gray, v. soft.			19.5	110
	20			100%		20	20
			19.8 grading to CLAY w/ minor silt & minor peat, wet, soft, med plast, gray-brn.			20.5	12
						No PCE odor at 21.0	
			as above to 21 ft bgs	21			
						- Drilled to 19.5' bgs to set surface casing. (3" ID x 21.1' steel pipe)	
	22					- Pushed casing from 19.5-21.0' bgs	
						- Grout	
	24						

ENG FORM 1836 PREVIOUS EDITIONS ARE OBSOLETE. PROJECT HOLE NO.

Hole No.

DRILLING LOG	DIVISION	INSTALLATION: MCB Camp Lejeune	SHEET 1 OF 1 SHEETS

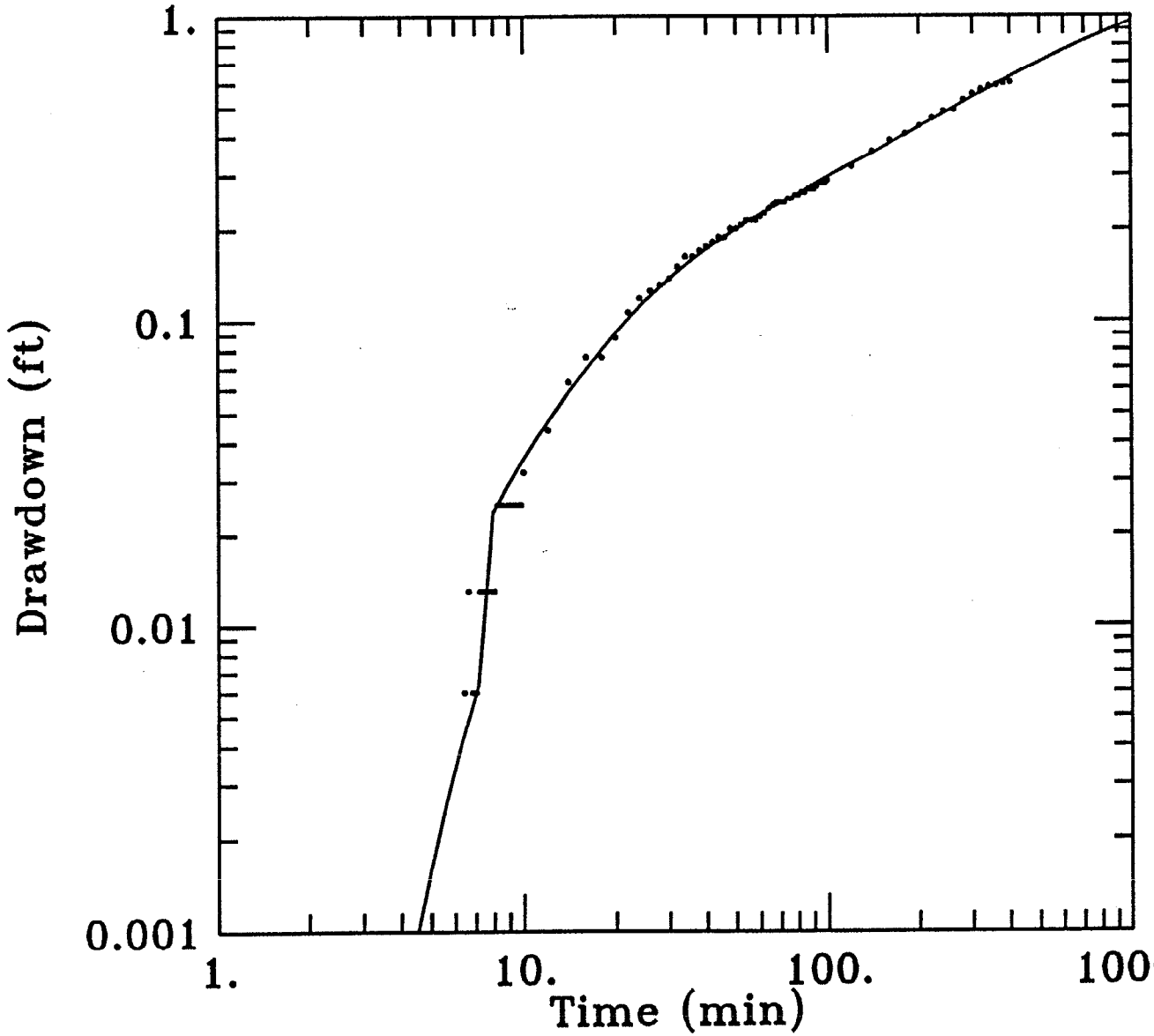
1. PROJECT: Site 88 : Bldg 25 Aquitard Well Point Installation
2. LOCATION (Coordinates or Station): PITT Wellfield
3. DRILLING AGENCY: Parratt Wolfe
4. HOLE NO. (As shown on drawing title and file number): WP02AQT
5. NAME OF DRILLER: Lee
6. DIRECTION OF HOLE: ☒ VERTICAL ☐ INCLINED _____ DEG. FROM VERT.
7. THICKNESS OF OVERBURDEN
8. DEPTH DRILLED INTO ROCK
9. TOTAL DEPTH OF HOLE: 25.5 ft BGS
10. SIZE AND TYPE OF BIT: 6 1/4" ID HSA
11. DATUM FOR ELEVATION SHOWN (TBM or MSL)
12. MANUFACTURER'S DESIGNATION OF DRILL: CME 55
13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN: DISTURBED ; UNDISTURBED 3
14. TOTAL NUMBER CORE BOXES
15. ELEVATION GROUND WATER
16. DATE HOLE: STARTED 6-25-98 @ 1015 ; COMPLETED 6-26-98
17. ELEVATION TOP OF HOLE
18. TOTAL CORE RECOVERY FOR BORING %
19. SIGNATURE OF INSPECTOR: Fred Holzmer DE&S Geologist

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY e	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g	
						No core samples collected from 0-15 ft	
	5					Continuous tube sampling from 15-21' bgs w/ 2" ID x 4 ft long geoprobe Macrosampler	
	10						
							PID Reading
	15		15.0 f-v.f SAND, wet, Cohesive, lt gray	15		15.5	55 ppm
	16			100%		16	12
						16.5	3
	17		17-19 grading to si-v.f SAND, wet, cohesive, lt gray	17			
	18			50%		18	110
			19.0 grading si-CLAY, wet, soft, low plast, lt to med gray.	19		19	120
						19.5	20
	20		20.0 as above, w/ minor peat grading to gray brn to TD @ 21' bgs	100%		20	8
						20.5	8
						21	0
				21		TD drilling = 19.0' bgs Set Surface Casing from 19.0-21.0' bgs (3" ID x 21' steel pipe) Grout outside casing from 19' to surface	
	22						
	24						
	26						

ENG FORM 1836 PREVIOUS EDITIONS ARE OBSOLETE. PROJECT HOLE NO.

Appendix B

Aquifer Test Data, Drawdown and Curve Match Plots



DATA SET:
TW02-PT.AQT
09/28/97

AQUIFER MODEL:
Unconfined

SOLUTION METHOD:
Neuman (approx.)

PROJECT DATA:
test date: Sept 22, 1997
test well: RW-02
obs. well: TW-02

TEST DATA:
Q = 0.067 ft^3/min
r = 18.8 ft
r_c = 0.17 ft
r_w = 0.5 ft
b = 11. ft
Pumping Well Screen Depth:
top = 6. ft
bot.= 11. ft
Obs. Well Screen Depth:
top = 0. ft
bot.= 7. ft

PARAMETER ESTIMATES:
T = 0.01278 ft^2/min K= 6E-4 $\frac{cm}{s}$
S = 0.002564
Sy = 0.008588
β = 1.049

AQTESOLV

Water Level Drawdown at Observation Well TW02 During Pump Test

SE2000
Environmental Logger
08/23 20:17

Unit# 373 Test 1
Setups: INPUT 2

Type Level (F)
Mode TOC
I.D. TW:02

Reference 8.550
PSI at Ref. 2.325
SG 1.000
Linearity 0.020
Scale factor 19.901
Offset -0.064
Delay mSEC 50.000

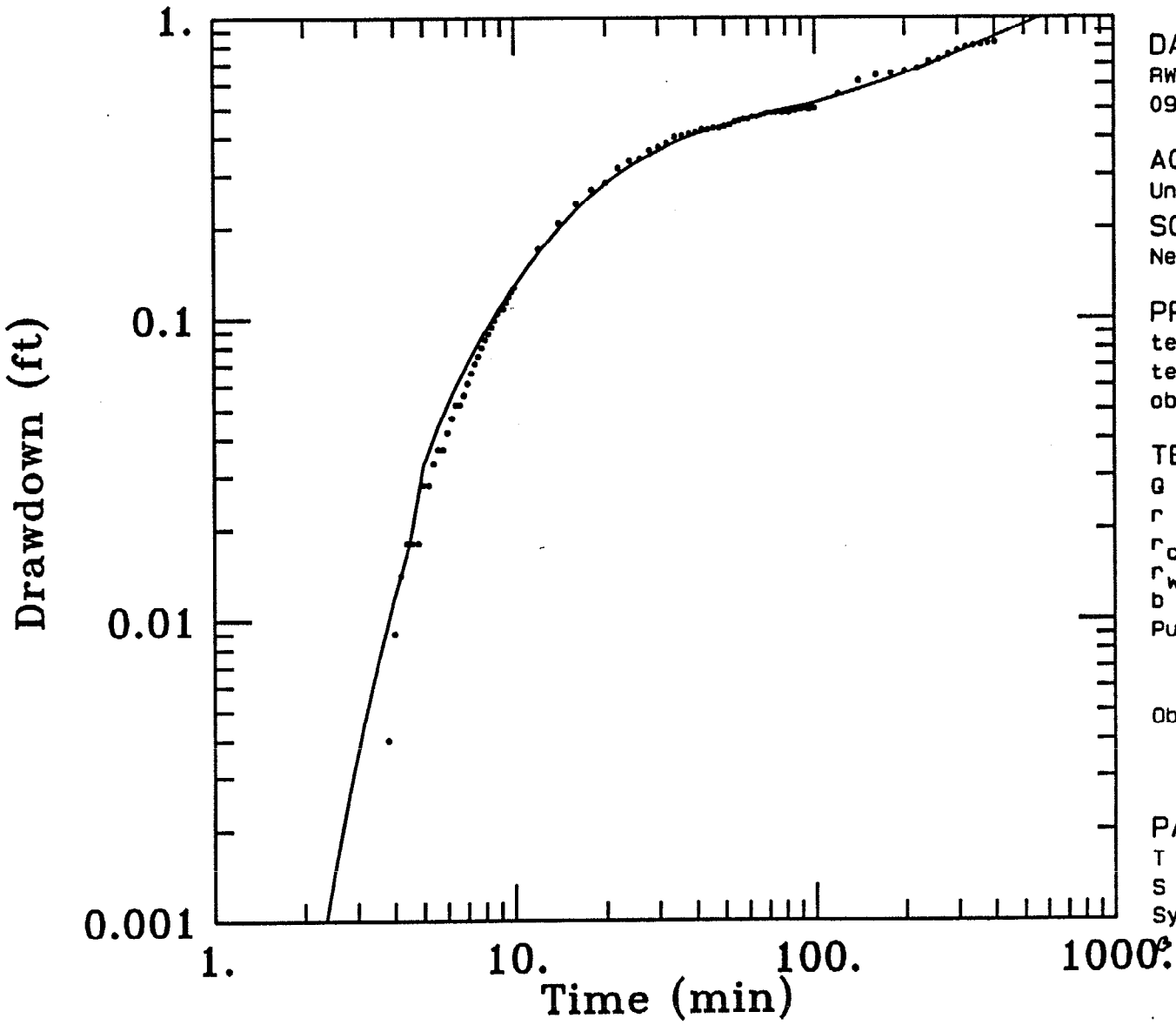
Step 0 08/22 11:59:35
Elapsed Time INPUT 2

Elapsed Time (min)	Water Level (ft)
0.0000	8.474
0.0083	8.474
0.0166	8.474
0.0250	8.468
0.0333	8.474
0.0416	8.474
0.0500	8.474
0.0583	8.474
0.0666	8.474
0.0750	8.474
0.0833	8.474
0.0916	8.474
0.1000	8.468
0.1083	8.474
0.1166	8.468
0.1250	8.474
0.1333	8.474
0.1416	8.474
0.1500	8.474
0.1583	8.468
0.1666	8.474
0.1750	8.468
0.1833	8.474
0.1916	8.468
0.2000	8.474
0.2083	8.474
0.2166	8.474
0.2250	8.474
0.2333	8.468
0.2416	8.474
0.2500	8.474
0.2583	8.474
0.2666	8.474
0.2750	8.474
0.2833	8.474
0.2916	8.468
0.3000	8.474
0.3083	8.474
0.3166	8.474
0.3250	8.468
0.3333	8.468
0.3500	8.468
0.3666	8.474
0.3833	8.474
0.4000	8.474
0.4166	8.474
0.4333	8.474

Elapsed Time (min)	Water Level (ft)
0.4500	8.474
0.4666	8.468
0.4833	8.468
0.5000	8.474
0.5166	8.474
0.5333	8.474
0.5500	8.468
0.5666	8.474
0.5833	8.474
0.6000	8.468
0.6166	8.474
0.6333	8.474
0.6500	8.474
0.6666	8.474
0.6833	8.474
0.7000	8.468
0.7166	8.474
0.7333	8.474
0.7500	8.474
0.7666	8.474
0.7833	8.474
0.8000	8.474
0.8166	8.474
0.8333	8.474
0.8500	8.474
0.8666	8.468
0.8833	8.468
0.9000	8.474
0.9166	8.474
0.9333	8.474
0.9500	8.474
0.9666	8.474
0.9833	8.474
1.0000	8.474
1.2000	8.474
1.4000	8.474
1.6000	8.474
1.8000	8.474
2.0000	8.474
2.2000	8.474
2.4000	8.468
2.6000	8.468
2.8000	8.474
3.0000	8.468
3.2000	8.468
3.4000	8.468
3.6000	8.474

Elapsed Time (min)	Water Level (ft)
3.8000	8.474
4.0000	8.474
4.2000	8.480
4.4000	8.474
4.6000	8.474
4.8000	8.474
5.0000	8.474
5.2000	8.480
5.4000	8.474
5.6000	8.480
5.8000	8.474
6.0000	8.480
6.2000	8.480
6.4000	8.480
6.6000	8.487
6.8000	8.480
7.0000	8.480
7.2000	8.487
7.4000	8.487
7.6000	8.487
7.8000	8.487
8.0000	8.487
8.2000	8.499
8.4000	8.499
8.6000	8.499
8.8000	8.499
9.0000	8.499
9.2000	8.499
9.4000	8.499
9.6000	8.499
9.8000	8.499
10.0000	8.506
12.0000	8.518
14.0000	8.537
16.0000	8.550
18.0000	8.550
20.0000	8.562
22.0000	8.581
24.0000	8.593
26.0000	8.600
28.0000	8.606
30.0000	8.612
32.0000	8.625
34.0000	8.637
36.0000	8.637
38.0000	8.644
40.0000	8.650

Elapsed Time (min)	Water Level (ft)
42.0000	8.656
44.0000	8.663
46.0000	8.663
48.0000	8.675
50.0000	8.675
52.0000	8.681
54.0000	8.688
56.0000	8.688
58.0000	8.688
60.0000	8.694
62.0000	8.700
64.0000	8.707
66.0000	8.713
68.0000	8.719
70.0000	8.719
72.0000	8.719
74.0000	8.725
76.0000	8.725
78.0000	8.732
80.0000	8.732
82.0000	8.738
84.0000	8.738
86.0000	8.744
88.0000	8.744
90.0000	8.744
92.0000	8.750
94.0000	8.757
96.0000	8.757
98.0000	8.757
100.000	8.763
120.000	8.794
140.000	8.832
160.000	8.864
180.000	8.882
200.000	8.908
220.000	8.933
240.000	8.958
260.000	8.964
280.000	9.002
300.000	9.027
320.000	9.046
340.000	9.058
360.000	9.065
380.000	9.071
400.000	9.077



DATA SET:
RW01-PT.OUT
09/28/97

AQUIFER MODEL:
Unconfined

SOLUTION METHOD:
Neuman (approx.)

PROJECT DATA:
test date: Sept 22, 1997
test well: RW-02
obs. well: RW-01

TEST DATA:
Q = 0.067 ft^3/min
r = 15. ft
r_c = 0.17 ft
r_w = 0.5 ft
b = 11. ft
Pumping Well Screen Depth:
top = 6. ft
bot.= 11. ft
Obs. Well Screen Depth:
top = 6. ft
bot.= 11. ft

PARAMETER ESTIMATES:
T = 0.008504 ft^2/min K=4E-4 cm/s
S = 0.001814
Sy = 0.01433
β = 1.104

AQTESOLV

Water Level Drawdown at Observation Well RW01 During Pump Test

SE2000
Environmental Logger
08/23 16:44

Unit# 328 Test 1
Setups: INPUT 4
--- ---
Type Level (F)
Mode TOC
I.D. RW01

Reference 8.130
PSI at Ref. 4.329
SG 1.000
Linearity 0.112
Scale factor 14.921
Offset -0.011
Delay mSEC 50.000

Step 0 08/22 08:59:55
Elapsed Time INPUT 4

Elapsed Time (min)	Water Level (ft)
0.0000	8.059
0.0083	8.059
0.0166	8.059
0.0250	8.059
0.0333	8.059
0.0416	8.059
0.0500	8.059
0.0583	8.059
0.0666	8.059
0.0750	8.059
0.0833	8.059
0.0916	8.059
0.1000	8.059
0.1083	8.059
0.1166	8.059
0.1250	8.059
0.1333	8.059
0.1416	8.059
0.1500	8.059
0.1583	8.059
0.1666	8.059
0.1750	8.059
0.1833	8.059
0.1916	8.059
0.2000	8.059
0.2083	8.059
0.2166	8.059
0.2250	8.059
0.2333	8.059
0.2416	8.059
0.2500	8.059
0.2583	8.059
0.2666	8.054
0.2750	8.059
0.2833	8.059
0.2916	8.059
0.3000	8.059
0.3083	8.059
0.3166	8.059
0.3250	8.059
0.3333	8.059
0.3500	8.059
0.3666	8.054
0.3833	8.059
0.4000	8.059
0.4166	8.059

Elapsed Time (min)	Water Level (ft)
0.4333	8.059
0.4500	8.059
0.4666	8.059
0.4833	8.059
0.5000	8.054
0.5166	8.059
0.5333	8.059
0.5500	8.059
0.5666	8.059
0.5833	8.059
0.6000	8.059
0.6166	8.059
0.6333	8.059
0.6500	8.059
0.6666	8.059
0.6833	8.059
0.7000	8.059
0.7166	8.059
0.7333	8.059
0.7500	8.059
0.7666	8.059
0.7833	8.063
0.8000	8.059
0.8166	8.059
0.8333	8.059
0.8500	8.059
0.8666	8.059
0.8833	8.059
0.9000	8.059
0.9166	8.059
0.9333	8.059
0.9500	8.059
0.9666	8.059
0.9833	8.059
1.0000	8.059
1.2000	8.059
1.4000	8.059
1.6000	8.059
1.8000	8.059
2.0000	8.054
2.2000	8.054
2.4000	8.054
2.6000	8.059
2.8000	8.059
3.0000	8.059
3.2000	8.059

Elapsed Time (min)	Water Level (ft)
3.4000	8.059
3.6000	8.063
3.8000	8.063
4.0000	8.068
4.2000	8.073
4.4000	8.077
4.6000	8.077
4.8000	8.077
5.0000	8.087
5.2000	8.087
5.4000	8.092
5.6000	8.096
5.8000	8.096
6.0000	8.101
6.2000	8.106
6.4000	8.111
6.6000	8.111
6.8000	8.115
7.0000	8.120
7.2000	8.125
7.4000	8.130
7.6000	8.134
7.8000	8.139
8.0000	8.144
8.2000	8.148
8.4000	8.153
8.6000	8.158
8.8000	8.163
9.0000	8.167
9.2000	8.167
9.4000	8.172
9.6000	8.177
9.8000	8.182
10.0000	8.186
12.0000	8.229
14.0000	8.267
16.0000	8.300
18.0000	8.328
20.0000	8.342
22.0000	8.376
24.0000	8.394
26.0000	8.399
28.0000	8.423
30.0000	8.432
32.0000	8.442
34.0000	8.461
36.0000	8.465

Elapsed Time (min)	Water Level (ft)
38.0000	8.470
40.0000	8.475
42.0000	8.484
44.0000	8.484
46.0000	8.489
48.0000	8.489
50.0000	8.494
52.0000	8.499
54.0000	8.508
56.0000	8.513
58.0000	8.518
60.0000	8.518
62.0000	8.527
64.0000	8.527
66.0000	8.532
68.0000	8.536
70.0000	8.541
72.0000	8.541
74.0000	8.541
76.0000	8.546
78.0000	8.541
80.0000	8.546
82.0000	8.541
84.0000	8.551
86.0000	8.551
88.0000	8.555
90.0000	8.555
92.0000	8.560
94.0000	8.560
96.0000	8.555
98.0000	8.560
100.000	8.560
120.000	8.617
140.000	8.674
160.000	8.702
180.000	8.711
200.000	8.721
220.000	8.735
240.000	8.773
260.000	8.782
280.000	8.811
300.000	8.834
320.000	8.853
340.000	8.863
360.000	8.868
380.000	8.877
400.000	8.882

Appendix C

CPT Logs

FUGRO GEOSCIENCES, INC.

6105 Rookin
Houston, TX 77074
Phone : 713-778-5580
Fax : 713-778-5501

December 5, 1997
Report Number: 0301-7257

Baker Environmental
AOP # 3
420 Brauser Rd.
Corapolis, PA 15108

Attention: Mr. John Andy

REPORT FOR
CONE PENETRATION TESTING
AND RELATED SERVICES
CAMP LEJEUNE, NORTH CAROLINA

Dear Mr. Andy:

Please find enclosed herewith the final results of the cone penetrometer tests conducted at the above referenced location.

For your information, the soil stratigraphy was identified using Campanella and Robertson's Simplified Soil Behavior Chart. Please note that because of the empirical nature of the soil behavior chart, the soil identification should be verified locally.

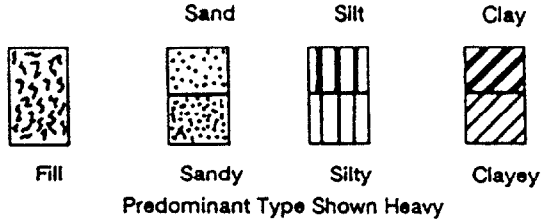
Fugro Geosciences appreciates the opportunity to be of service to your organization. If you should have any questions, or if we can be of further assistance, please do not hesitate to contact us. We look forward to working with you in the future.

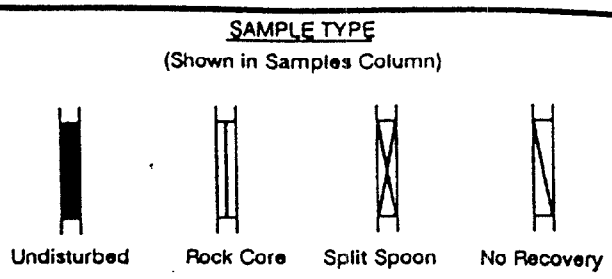
Very truly yours,
FUGRO GEOSCIENCES, INC.

Jeffery L. Ness
General Manager
CPT Operations

JLN/mw

Key To Soil Classification and Symbols





TERMS DESCRIBING CONSISTENCY OR CONDITION

COARSE GRAINED SOILS (Major portion Retained on No. 200 Sieve)
Includes (1) clean gravels and sand described as fine, medium or course, depending on distribution of grain sizes (2) silty or clayey gravels and sands and (3) fine grained low plasticity soils (PI < 10) such as sandy silts. Condition is rated according to relative density, as determined by lab tests or estimated from resistance to sampler penetration.

Descriptive Term	Penetration Resistance*	Relative Density
Loose	0 - 10	0 to 40%
Medium Dense	10 - 30	40 to 70%
Dense	30 - 50	70 to 90%
Very Dense	Over 50	90 to 100%

* Blows/Foot, 140# Hammer, 30" Drop

FINE GRAINED SOILS (Major Portion Passing No. 200 Sieve)
Includes (1) inorganic and organic silts and clays, (2) sandy, gravelly or silty clays, and (3) clayey silts. Consistency is rated according to shearing strength, as indicated by penetrometer readings or by unconfined compression tests for soils with PI $\geq$ 10.

Descriptive Term	Cohesive Shear Strength Tons/Square Foot
Very Soft	Less Than 0.125
Soft	0.125 to 0.25
Firm	0.25 to 0.50
Stiff	0.50 to 1.00
Very Stiff	1.00 to 2.00
Hard	2.00 and Higher

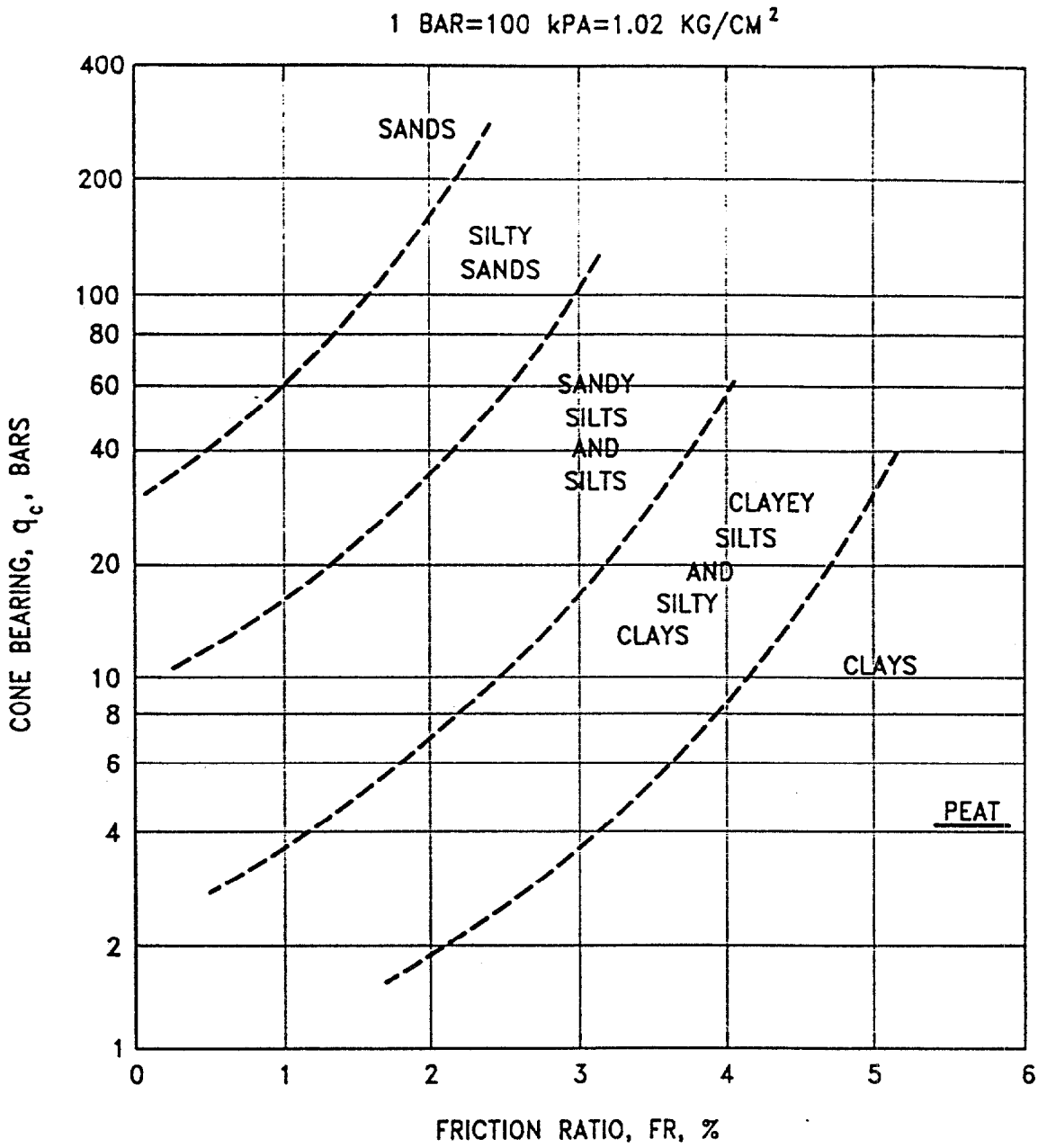
Note: Slickensided and fissured clay may have lower unconfined compressive strengths than shown above because of planes of weakness or shrinkage cracks; consistency ratings of such soils are based on hand penetrometer readings.

TERMS CHARACTERIZING SOIL STRUCTURE

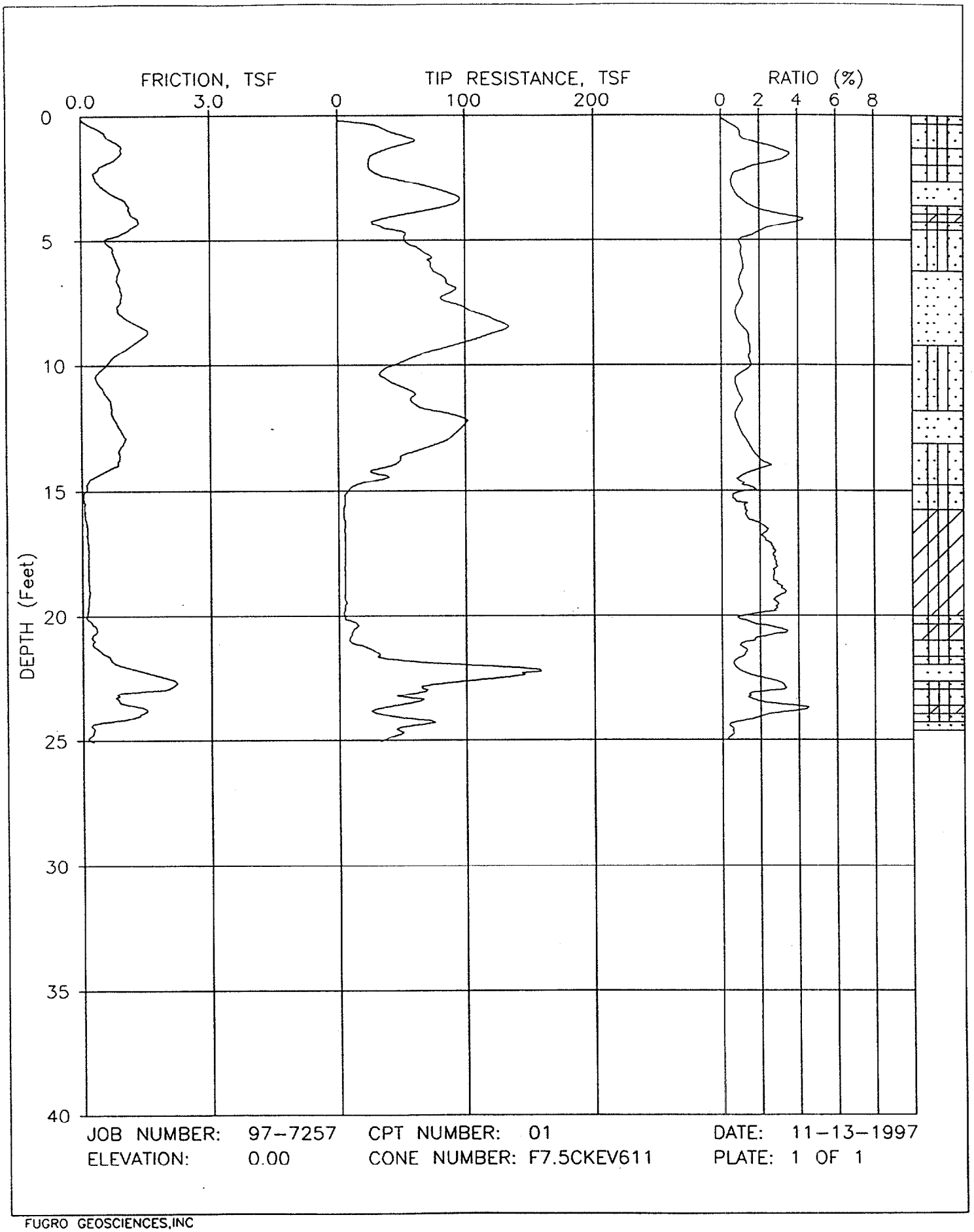
Parting:	paper thin in size
Seam:	1/8" to 3" thick
Layer:	greater than 3"
Fissured:	containing shrinkage cracks, frequently filled with fine sand or silt, usually more or less vertical
Sensitive:	pertaining to cohesive soils that are subject to appreciable loss of strength when remolded
Interbedded:	composed of alternate layers of different soil types
Laminated:	composed of thin layers of varying color and texture
Calcareous:	containing appreciable quantities of calcium carbonate
Well Graded:	having wide range in grain sizes and substantial amounts of all intermediate particle sizes
Poorly Graded:	predominantly of one grain size, or having a range of sizes with some intermediate size missing
Flocculated:	pertaining to cohesive soils that exhibit a loose knit or flakey structure
Slickensided:	having inclined planes of weakness that are slick and glossy in appearance.

Degree of Slickensided Development

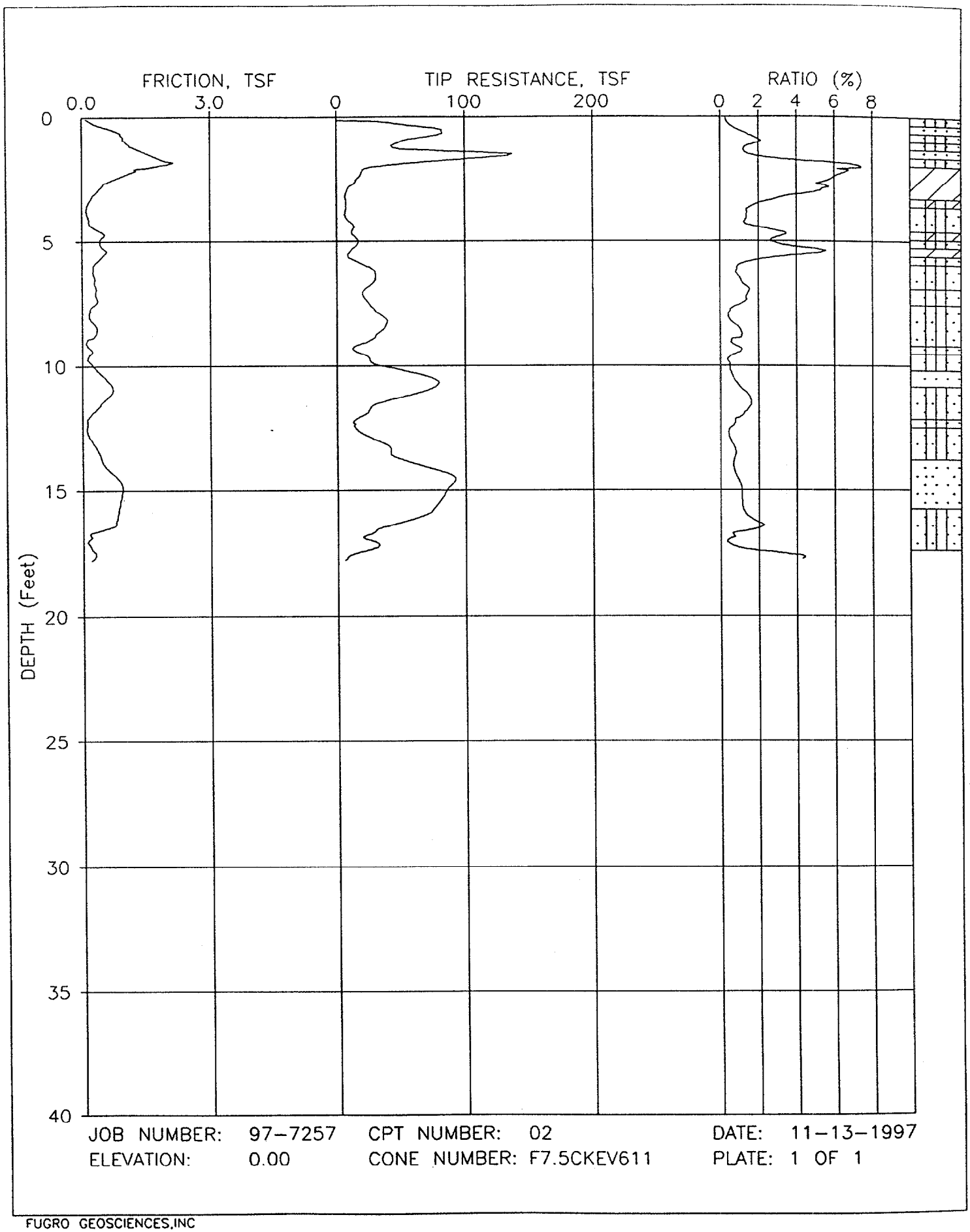
Slightly Slickensided:	slickensides present at intervals of 1' to 2', soil does not easily break along these plates
Moderately Slickensided:	slickensides spaced at intervals of 1' to 2', soil breaks easily along these planes
Extremely Slickensided:	continuous and interconnected slickensides spaced at intervals of 4" to 12', soil breaks along the slickensides into pieces 3" to 6" in size
Intensely Slickensided:	slickensides spaced at intervals of less than 4", continuous in all directions; soil breaks down along planes into nodules 1/4" to 2" in size.



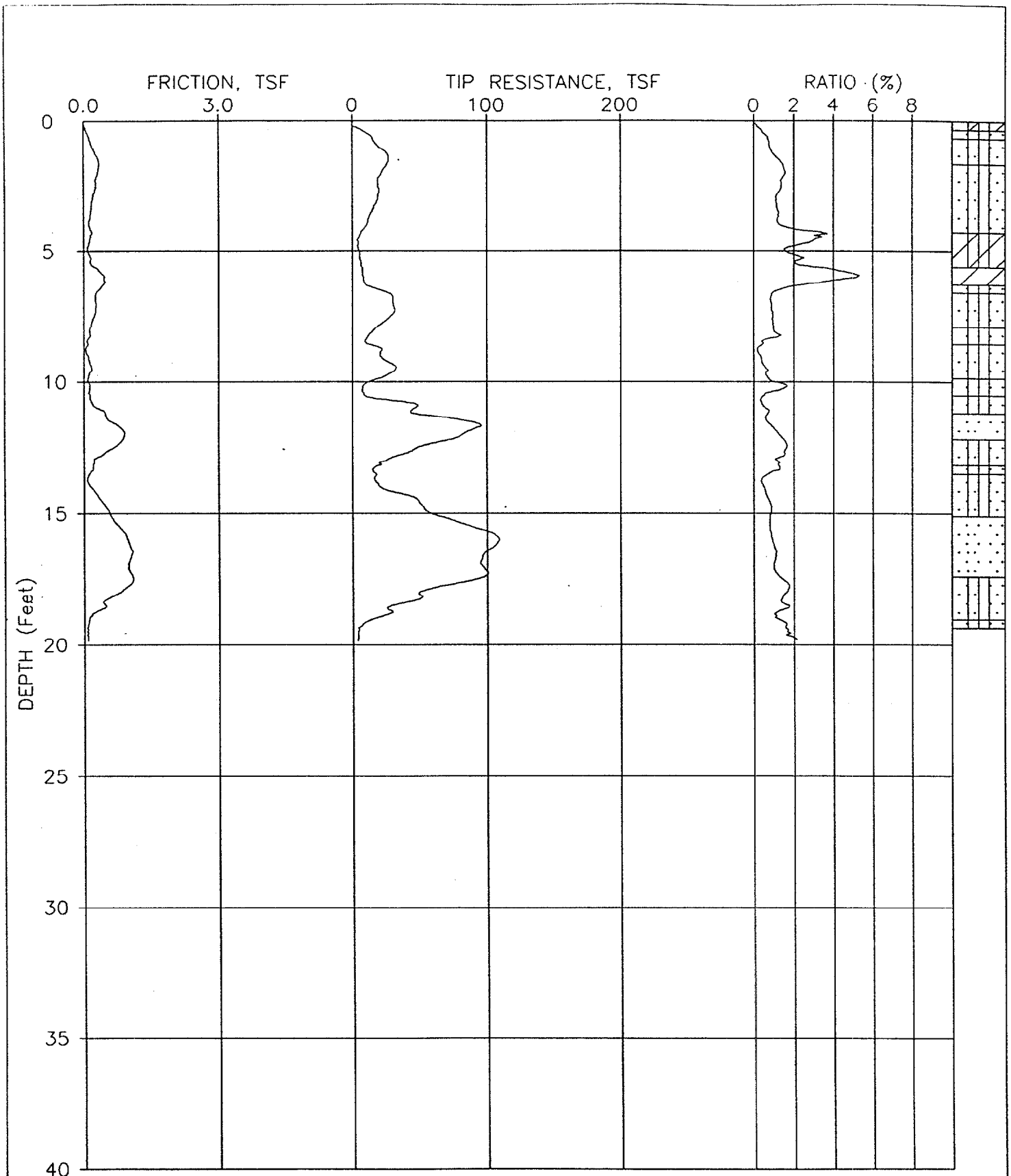
CAMPANELLA AND ROBERTSON CLASSIFICATION CHART (1983)



FUGRO GEOSCIENCES,INC



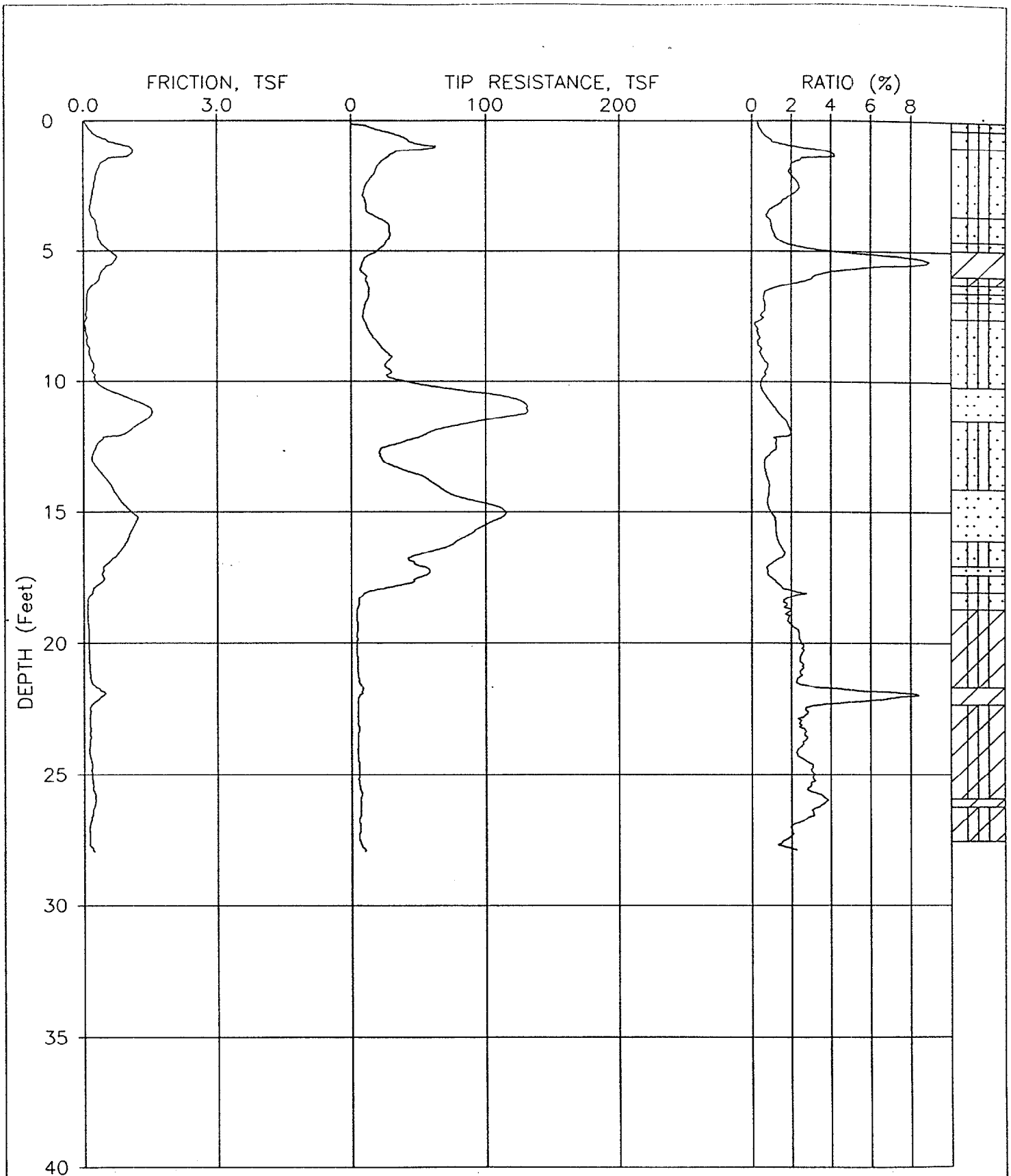
FUGRO GEOSCIENCES,INC



JOB NUMBER: 97-7257 CPT NUMBER: 03 DATE: 11-13-1997

ELEVATION: 0.00 CONE NUMBER: F7.5CKEV611 PLATE: 1 OF 1

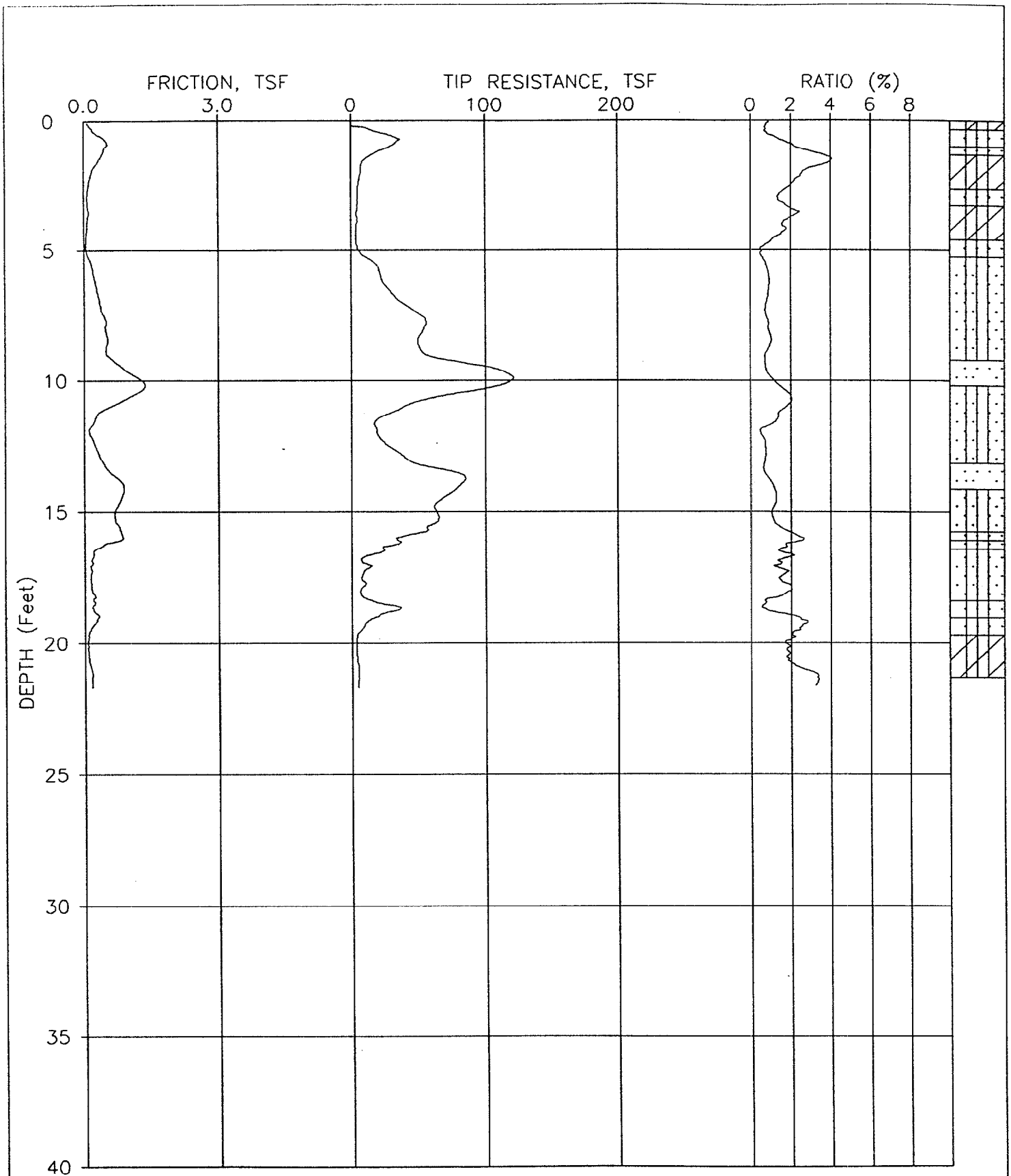
FUGRO GEOSCIENCES,INC



JOB NUMBER: 97-7257 CPT NUMBER: 04 DATE: 11-13-1997

ELEVATION: 0.00 CONE NUMBER: F7.5CKEV611 PLATE: 1 OF 1

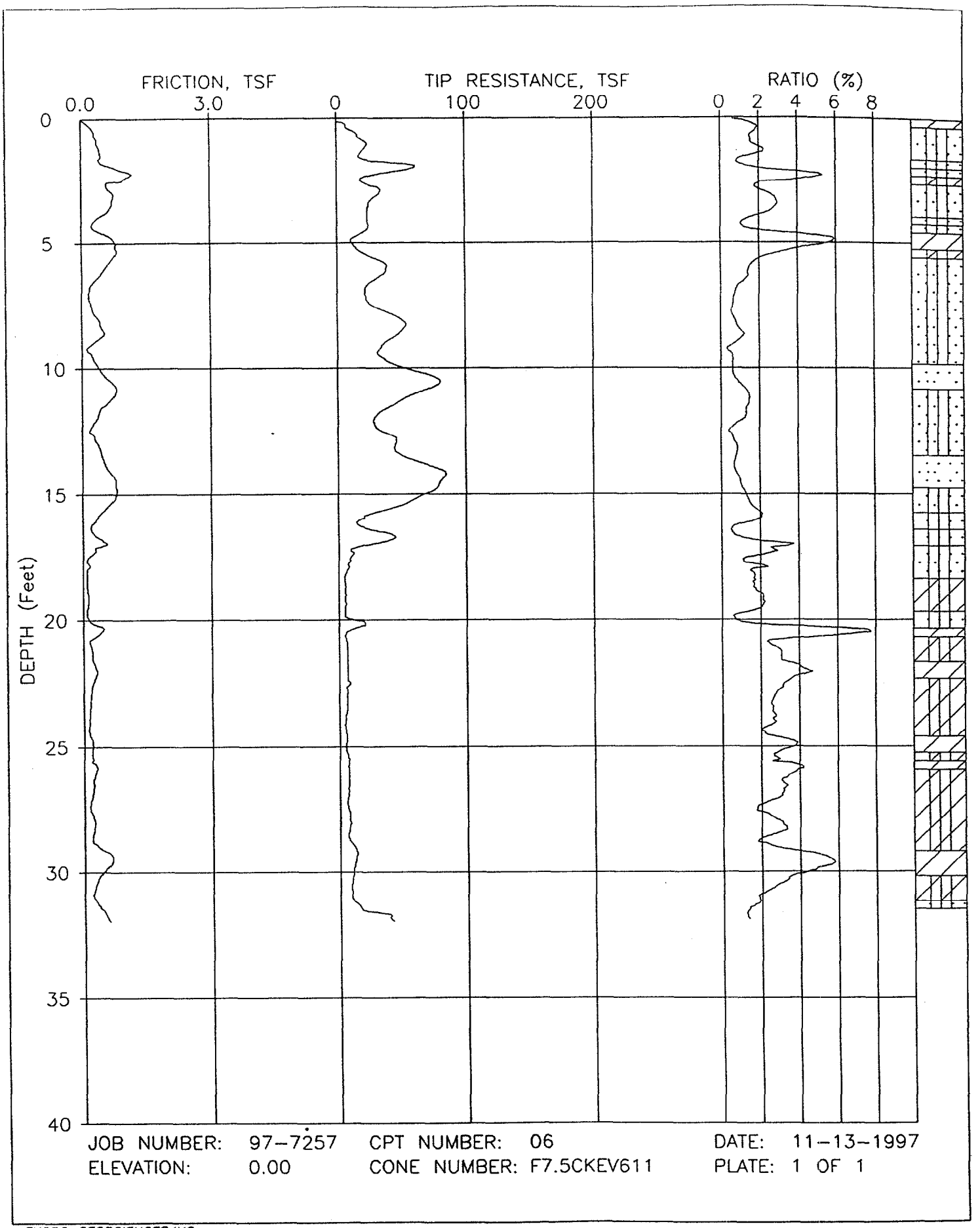
FUGRO GEOSCIENCES,INC



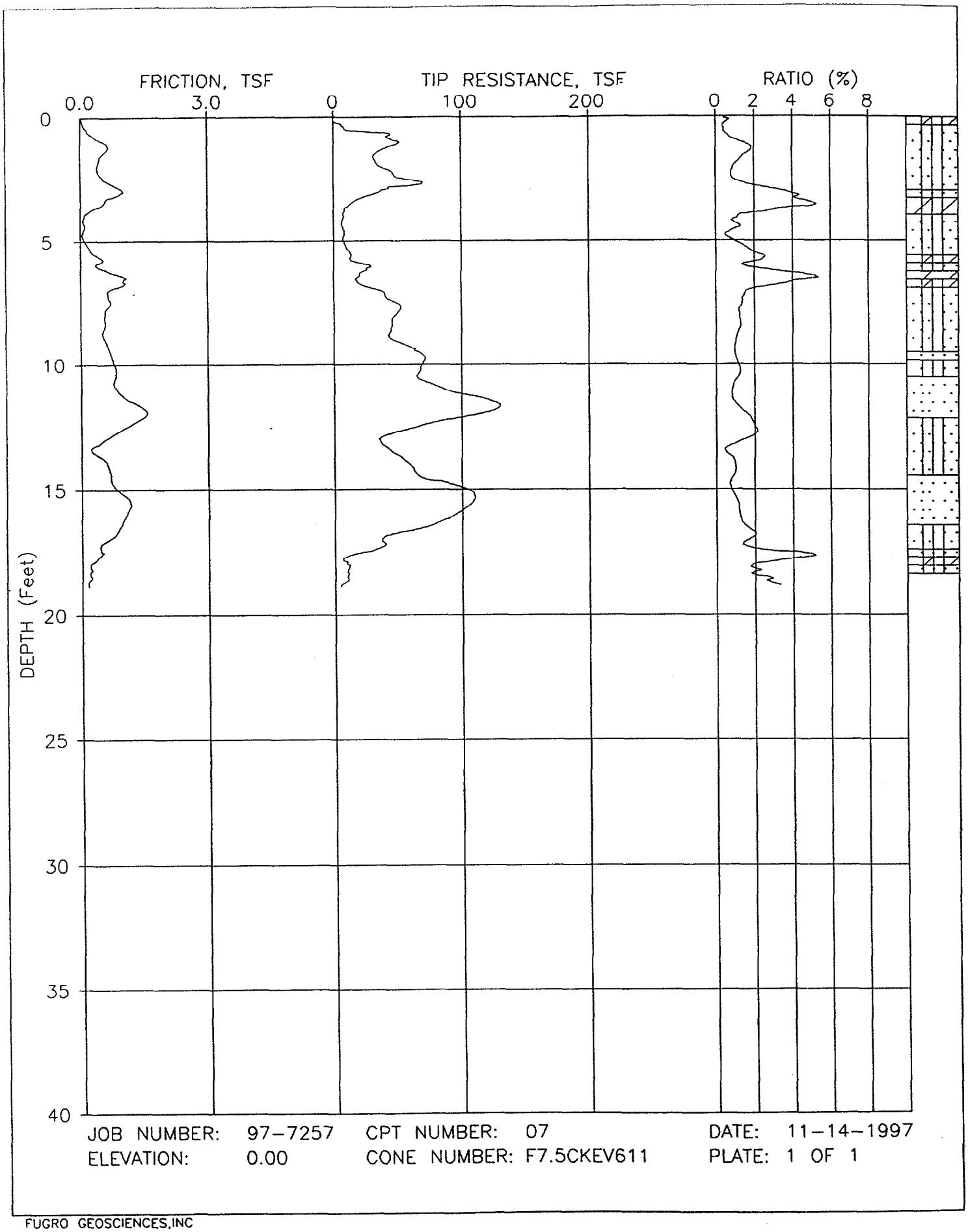
JOB NUMBER: 97-7257.DE DEPT NUMBER: 05 DATE: 11-13-1997

ELEVATION: 0.00 CONE NUMBER: F7.5CKEV611 PLATE: 1 OF 1

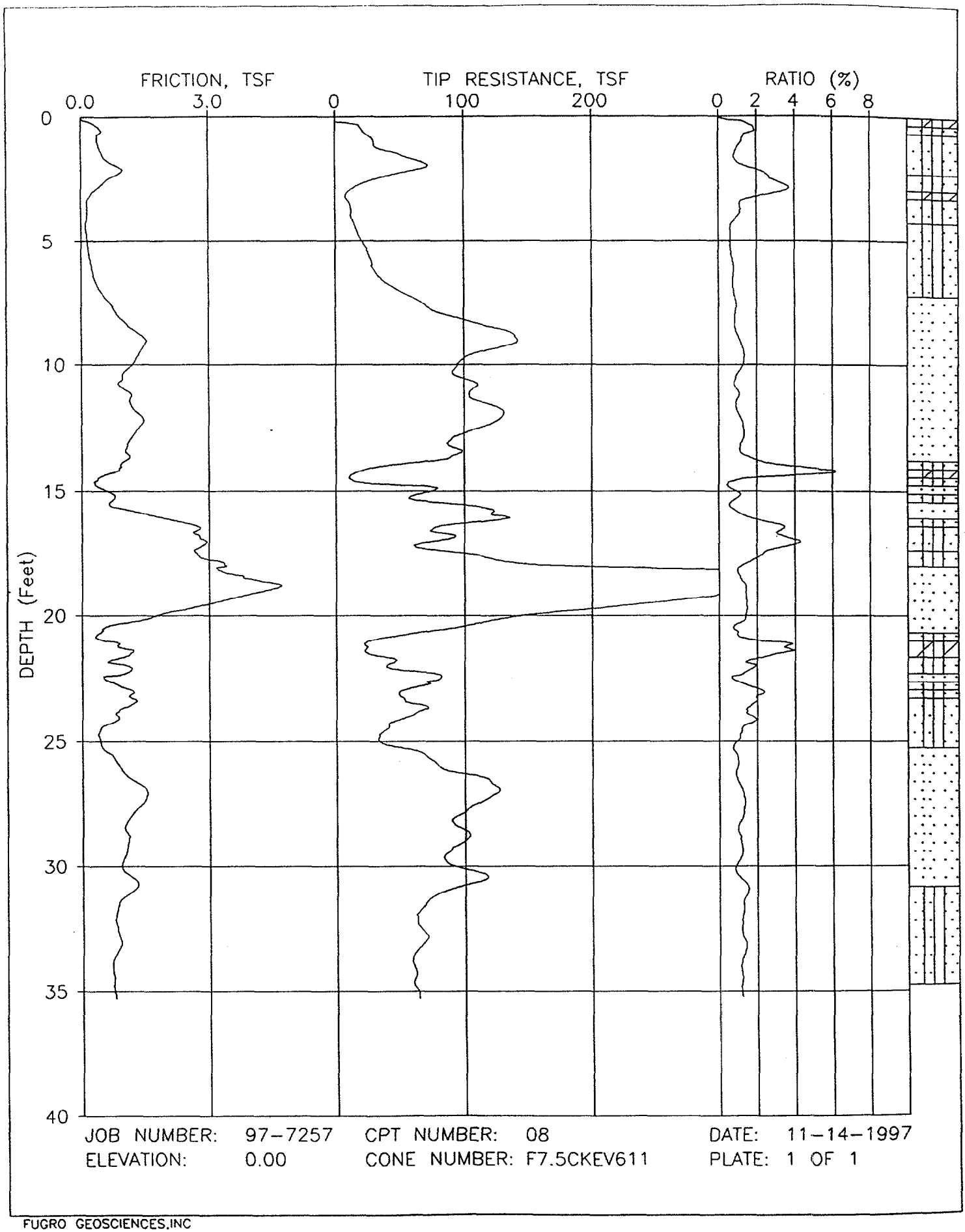
FUGRO GEOSCIENCES,INC



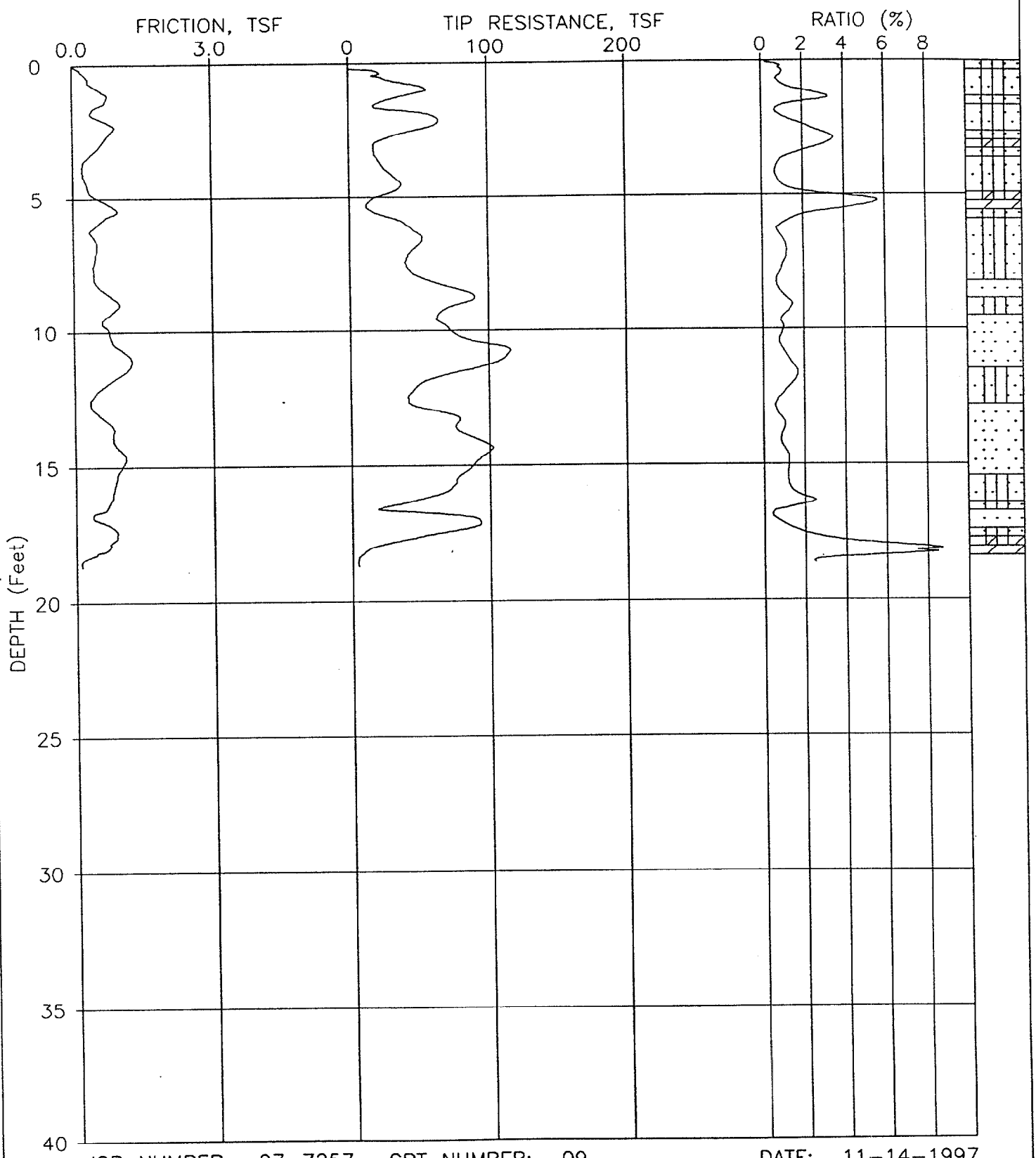
FUGRO GEOSCIENCES,INC



FUGRO GEOSCIENCES,INC



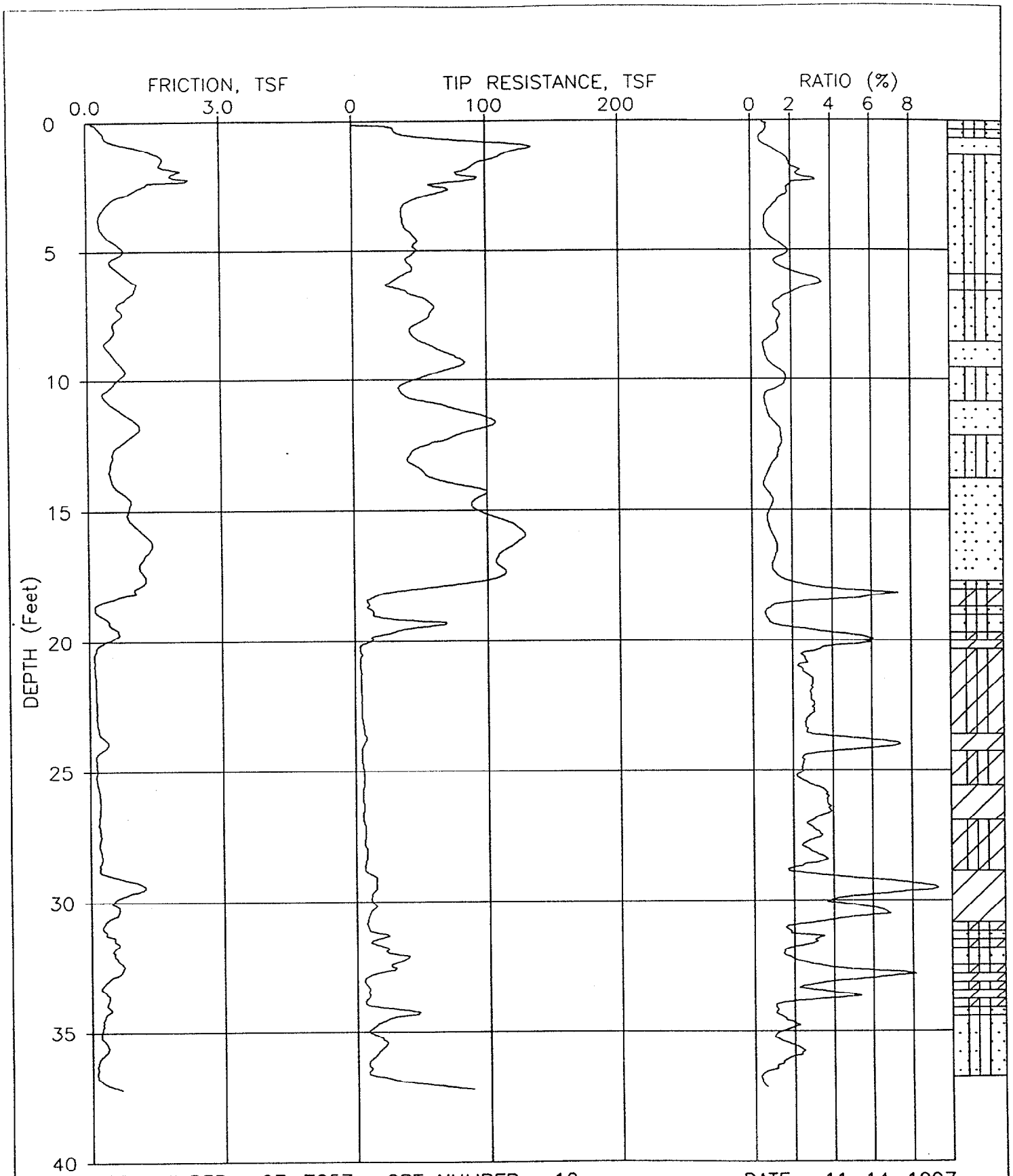
FUGRO GEOSCIENCES,INC



JOB NUMBER: 97-7257 CPT NUMBER: 09 DATE: 11-14-1997

ELEVATION: 0.00 CONE NUMBER: F7.5CKEV611 PLATE: 1 OF 1

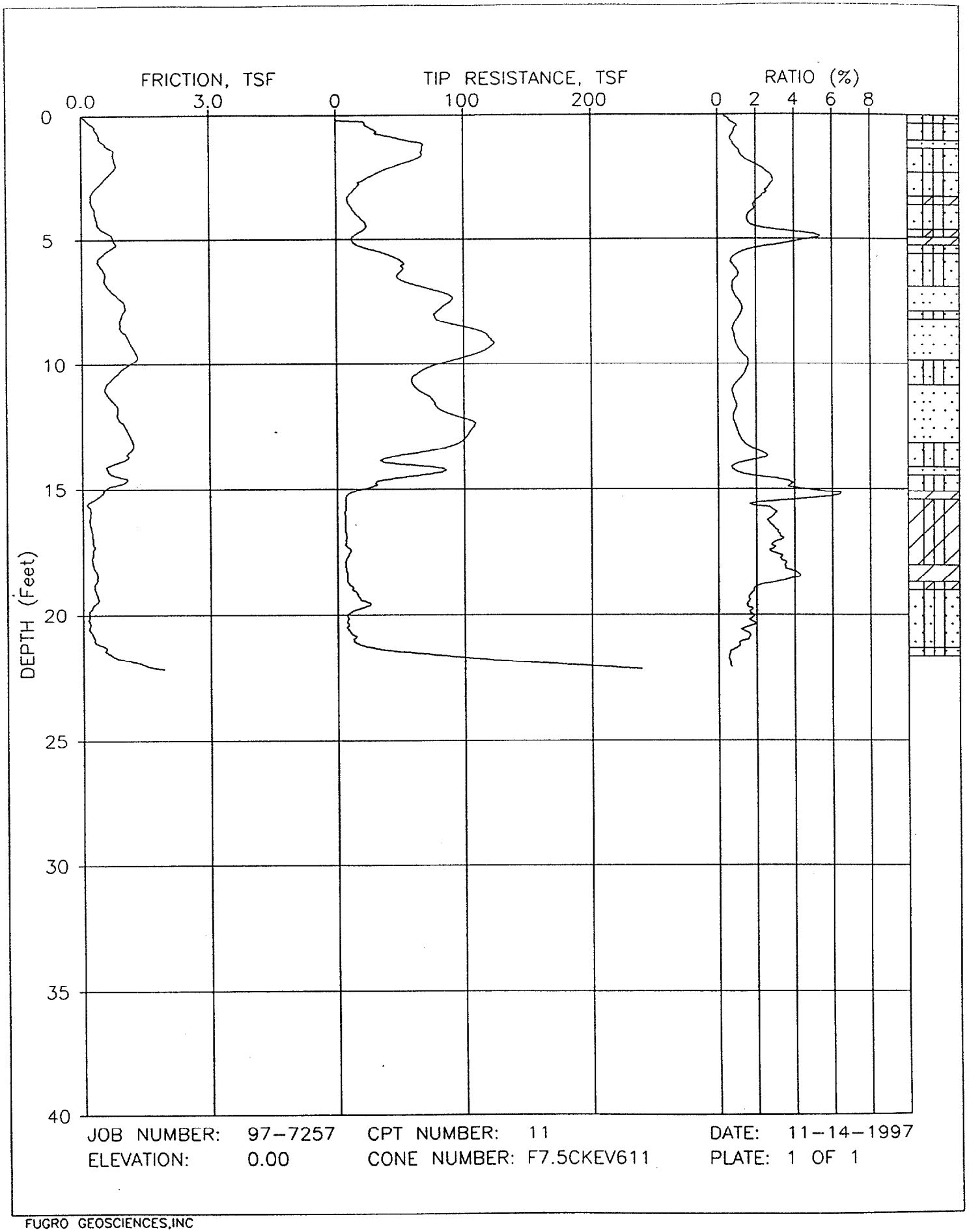
FUGRO GEOSCIENCES,INC



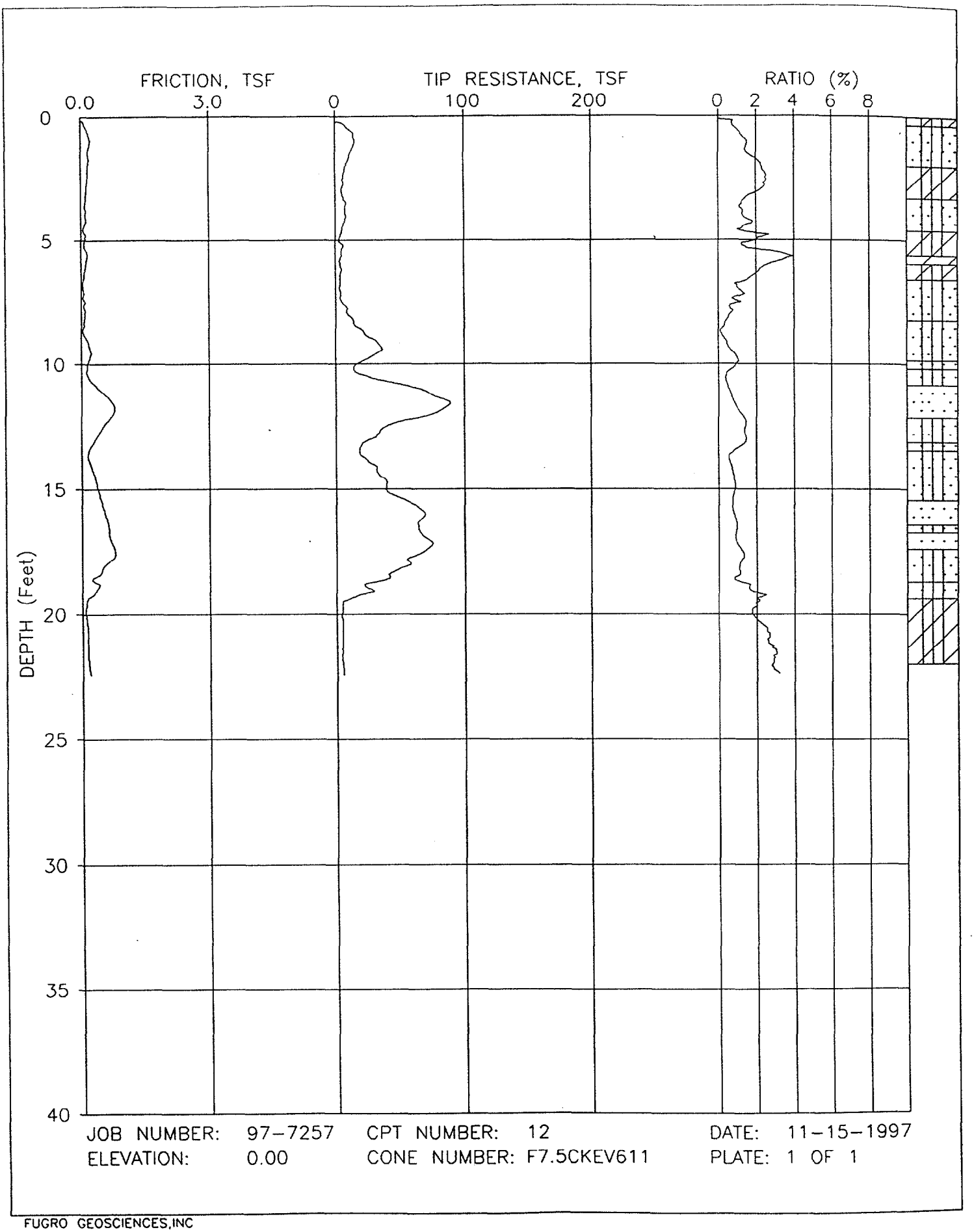
JOB NUMBER: 97-7257 CPT NUMBER: 10 DATE: 11-14-1997

ELEVATION: 0.00 CONE NUMBER: F7.5CKEV611 PLATE: 1 OF 1

FUGRO GEOSCIENCES,INC



FUGRO GEOSCIENCES,INC



FUGRO GEOSCIENCES,INC

Appendix D

Non-VOC Soil Analyses, and Ion and Ground-Water VOC Analyses

ANALYSYS INC.

4221 Freidrich Lane, Suite 190, Austin, TX 78744
& 9320 Up River Road, Corpus Christi, TX 78409
(512) 444-5896 • FAX (512) 447-4766

Client: Duke Engineering & Services
Attn: Fred Holzmer
Address: 9111 Research Blvd
Austin, Tx 78758

Phone: 425-2000 **FAX:** 425-2099

Report #/Lab ID#: 87533 **Report Date:** 12/9/97
Project ID: MCB Camp Lejeune
Sample Name: IS26-04
Sample Matrix: soil
Date Received: 12/5/97 **Time:** 16:30:00
Date Sampled: 11/21/97 **Time:** 00:00:00

REPORT OF ANALYSIS

QUALITY ASSURANCE DATA[1]

Parameter	Result	Units	RQL[5]	Blank	Date	Method	Prec.[2]	Recov.[3]	CCV[4]	LCS[4]
Total organic carbon	1510	mg/Kg	200	<200	12/9/97	ASA 29-3.5.2	11.34	119.62	111.25	111.24

@ 16.5 ft in f. SAND

This analytical report respectfully submitted by AnalySys, Inc. The enclosed results have been reviewed and to the best of my knowledge the analytical results are consistent with AnalySys, Inc.'s Quality Assurance/Quality Control Program. © Copyright 1996 AnalySys, Inc., Austin, Texas. All rights reserved. No part of this publication may be reproduced or transmit- ted in any form or by any means without the express written permission of AnalySys, Inc..

Respectfully Submitted,

Hopkins Haden

Hopkins Haden

1. Quality assurance data reported is for the lot analyzed which included this sample.
2. Precision (Prec.) is the absolute value of the relative percent (%) difference between duplicate measurements.
3. Recovery (Recov.) is the percent (%) of analyte recovered from a spiked sample.
4. Calibration Verification (CCV) and Lab Control Sample (LCS) results expressed as the percent (%) recovery of analyte from a known standard.
5. Reporting Quantitation Limit. The Practical Quantitation Limit (PQL) or the Method Detection Limit (MDL) reported for the analyte.
6. Method numbers typically denote USEPA procedures. Less than ("<") values reflect nominal quantitation limits, adjusted for any required dilution.

AnalySys Inc.

4221 Freidrich Lane, Suite 190, Austin, TX 78744
& 9320 Up River Road, Corpus Christi, TX 78409
(512) 444-5896 • FAX (512) 447-4766

Client: Duke Engineering & Services
Attn: Fred Holzmer
Address: 9111 Research Blvd
Austin, Tx 78758

Phone: 425-2000 **FAX:** 425-2099

Report #/Lab ID#: 87534 **Report Date:** 12/9/97
Project ID: MCB Camp Lejeune
Sample Name: IS26-05
Sample Matrix: soil
Date Received: 12/5/97 **Time:** 16:30:00
Date Sampled: 11/21/97 **Time:** 00:00:00

REPORT OF ANALYSIS

QUALITY ASSURANCE DATA[1]

Parameter	Result	Units	RQL[5]	Blank	Date	Method	Prec.[2]	Recov.[3]	CCV[4]	LCS[4]
Total organic carbon	5560	mg/Kg	400	<200	12/9/97	ASA 29-3.5.2	11.34	119.62	111.25	111.24

@ 18.0 ft in cl-SILT

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Hopkins Haden

Hopkins Haden

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3. Recovery (Recov.) is the percent (%) of analyte recovered from a spiked sample.
4. Calibration Verification (CCV) and Lab Control Sample (LCS) results expressed as the percent (%) recovery of analyte from a known standard.
5. Reporting Quantitation Limit. The Practical Quantitation Limit (PQL) or the Method Detection Limit (MDL) reported for the analyte.
6. Method numbers typically denote USEPA procedures. Less than ("<") values reflect nominal quantitation limits, adjusted for any required dilution.

ANALYSYS INC.

4221 Freidrich Lane, Suite 190, Austin, TX 78744
& 9320 Up River Road, Corpus Christi, TX 78409
(512) 444-5896 • FAX (512) 447-4766

Client: Duke Engineering & Services
Attn: Fred Holzmer
Address: 9111 Research Blvd
Austin, Tx 78758

Phone: 425-2000 **FAX:** 425-2099

Report #/Lab ID#: 87535 **Report Date:** 12/9/97
Project ID: MCB Camp Lejeune
Sample Name: IS26-06
Sample Matrix: soil
Date Received: 12/5/97 **Time:** 16:30:00
Date Sampled: 11/21/97 **Time:** 00:00:00

REPORT OF ANALYSIS

QUALITY ASSURANCE DATA[1]

Parameter	Result	Units	RQL[5]	Blank	Date	Method	Prec.[2]	Recov.[3]	CCV[4]	LCS[4]
Total organic carbon	6420	mg/Kg	400	<200	12/9/97	ASA 29-3.5.2	11.34	119.62	111.25	111.24

@ 19.0 ft in Si-CLAY

This analytical report respectfully submitted by AnalySys, Inc. The enclosed results have been reviewed and to the best of my knowledge the analytical results are consistent with AnalySys, Inc.'s Quality Assurance/Quality Control Program.© Copyright 1996 AnalySys, Inc., Austin, Texas. All rights reserved. No part of this publication may be reproduced or transmit- ted in any form or by any means without the express written permission of AnalySys, Inc..

Respectfully Submitted,

Hopkins Haden

Hopkins Haden

1. Quality assurance data reported is for the lot analyzed which included this sample.
2. Precision (Prec.) is the absolute value of the relative percent (%) difference between duplicate measurements.
3. Recovery (Recov.) is the percent (%) of analyte recovered from a spiked sample.
4. Calibration Verification (CCV) and Lab Control Sample (LCS) results expressed as the percent (%) recovery of analyte from a known standard.
5. Reporting Quantitation Limit. The Practical Quantitation Limit (PQL) or the Method Detection Limit (MDL) reported for the analyte.
6. Method numbers typically denote USEPA procedures. Less than ("<") values reflect nominal quantitation limits, adjusted for any required dilution.

QUANTERRA INCORPORATED

PRELIMINARY DATA SUMMARY

The results shown below may still require additional laboratory review and are subject to change. Actions taken based on these results are the responsibility of the data user.

Lot #: H7HZZ0200

Baker Environmental
Camp LeJeune
Project Number: CTO-356

Date Reported: 8/29/97

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD
Client Sample ID: IR88IW01-04				
Sample #: 001 Date Sampled: 08/20/97 08:10 Date Received: 08/22/97 Matrix: SOLID				
Inorganic Analysis				Reviewed
Percent Moisture	17.3	0.10	%	MCAWW 160.3 MOD
N-Hexane Ext. Material, Silica Gel Treated (1664)	ND	330	mg/kg	CFR136A 1664 SGT
Client Sample ID: IR88RW01-05				
Sample #: 002 Date Sampled: 08/19/97 12:39 Date Received: 08/22/97 Matrix: SOLID				
Inorganic Analysis				Reviewed
Percent Moisture	17.5	0.10	%	MCAWW 160.3 MOD
N-Hexane Ext. Material, Silica Gel Treated (1664)	ND	330	mg/kg	CFR136A 1664 SGT
Client Sample ID: IR88RW02-04				
Sample #: 003 Date Sampled: 08/19/97 16:29 Date Received: 08/22/97 Matrix: SOLID				
Inorganic Analysis				Reviewed
Percent Moisture	18.1	0.10	%	MCAWW 160.3 MOD
N-Hexane Ext. Material, Silica Gel Treated (1664)	ND	330	mg/kg	CFR136A 1664 SGT
Client Sample ID: IR88IS13-08				
Sample #: 004 Date Sampled: 08/20/97 11:15 Date Received: 08/22/97 Matrix: SOLID				
Inorganic Analysis				Reviewed
Percent Moisture	21.2	0.10	%	MCAWW 160.3 MOD
N-Hexane Ext. Material, Silica Gel Treated (1664)	ND	330	mg/kg	CFR136A 1664 SGT
Client Sample ID: IR88IW01-09				
Sample #: 005 Date Sampled: 08/20/97 08:50 Date Received: 08/22/97 Matrix: SOLID				

(Continued on next page)

QUANTERRA INCORPORATED

PRELIMINARY DATA SUMMARY

esults shown below may still require additional laboratory review and are subject to ge. Actions taken based on these results are the responsibility of the data user.

Baker Environmental
Camp LeJeune
Project Number: CTO-356

: H7H220200 Date Reported: 8/29/97

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD
lient Sample ID: IR88IW01-09				
a ple #: 005 Date Sampled: 08/20/97 08:50 Date Received: 08/22/97 Matrix: SOLID				
Inorganic Analysis				Reviewed
Percent Moisture	20.2	0.10	%	MCAWW 160.3 MOD
N-Hexane Ext. Material, Silica Gel Treated (1664)	ND	330	mg/kg	CFR136A 1664 SGT

QUANTERRA INCORPORATED

PRELIMINARY DATA SUMMARY

ie results shown below may still require additional laboratory review and are subject to hange. Actions taken based on these results are the responsibility of the data user.

Baker Environmental, Inc.
Camp LeJeune
Project Number: CTO-356

ot #: H7H250122

Date Reported: 9/03/97

Client Sample ID: IR88-RW01-97C
Sample #: 001 Date Sampled: 08/21/97 12:20 Date Received: 08/25/97 Matrix: WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD	
Inductively Coupled Plasma					In Review
Silver	ND	10.0	ug/L	ICLP ILM03.0	
Aluminum	273	200	ug/L	ICLP ILM03.0	
Barium	141 B	200	ug/L	ICLP ILM03.0	
Beryllium	ND	5.0	ug/L	ICLP ILM03.0	
Calcium	15600	5000	ug/L	ICLP ILM03.0	
Cadmium	ND	5.0	ug/L	ICLP ILM03.0	
Cobalt	4.5 B	50.0	ug/L	ICLP ILM03.0	
Chromium	8.9 B	10.0	ug/L	ICLP ILM03.0	
Copper	ND	25.0	ug/L	ICLP ILM03.0	
Iron	15100	100	ug/L	ICLP ILM03.0	
Potassium	2080 B	5000	ug/L	ICLP ILM03.0	
Magnesium	4510 B	5000	ug/L	ICLP ILM03.0	
Manganese	126	15.0	ug/L	ICLP ILM03.0	
Sodium	12200	5000	ug/L	ICLP ILM03.0	
Nickel	75.1	40.0	ug/L	ICLP ILM03.0	
Antimony	ND	60.0	ug/L	ICLP ILM03.0	
Vanadium	ND	50.0	ug/L	ICLP ILM03.0	
Zinc	14.7 B	20.0	ug/L	ICLP ILM03.0	
Mercury (Cold Vapor Technique)					In Review
Mercury	ND	0.20	ug/L	ICLP ILM03.0	
Inductively Coupled Plasma					In Review
Arsenic	4.3 B	10.0	ug/L	ICLP ILM03.0	
Lead	1.4 B	3.0	ug/L	ICLP ILM03.0	
Selenium	ND	5.0	ug/L	ICLP ILM03.0	
Thallium	ND	10.0	ug/L	ICLP ILM03.0	

B Estimated result. Result is less than RL.

Volatile Organics by GC/MS					In Review
Benzene	ND	10000	ug/L	SW846 8260A	
Bromobenzene	ND	10000	ug/L	SW846 8260A	
Bromochloromethane	ND	10000	ug/L	SW846 8260A	
Bromodichloromethane	ND	10000	ug/L	SW846 8260A	
Bromoform	ND	10000	ug/L	SW846 8260A	

(Continued on next page)

QUANTERRA INCORPORATED

PRELIMINARY DATA SUMMARY

e results shown below may still require additional laboratory review and are subject to ange. Actions taken based on these results are the responsibility of the data user.

Baker Environmental, Inc.
Camp LeJeune
Project Number: CTO-356

ot #: H7H250122 Date Reported: 9/03/97

Client Sample ID: IR88-RW01-97C
Sample #: 001 Date Sampled: 08/21/97 12:20 Date Received: 08/25/97 Matrix: WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD	
Volatile Organics by GC/MS					In Review
Bromomethane	ND	20000	ug/L	SW846 8260A	
n-Butylbenzene	ND	10000	ug/L	SW846 8260A	
sec-Butylbenzene	ND	10000	ug/L	SW846 8260A	
tert-Butylbenzene	ND	10000	ug/L	SW846 8260A	
Carbon tetrachloride	ND	10000	ug/L	SW846 8260A	
Chlorobenzene	ND	10000	ug/L	SW846 8260A	
Chlorodibromomethane	ND	10000	ug/L	SW846 8260A	
Chloroethane	ND	20000	ug/L	SW846 8260A	
Chloroform	ND	10000	ug/L	SW846 8260A	
Chloromethane	ND	20000	ug/L	SW846 8260A	
2-Chlorotoluene	ND	10000	ug/L	SW846 8260A	
4-Chlorotoluene	ND	10000	ug/L	SW846 8260A	
1,2-Dibromo-3-chloro-propane	ND	20000	ug/L	SW846 8260A	
1,2-Dibromoethane	ND	10000	ug/L	SW846 8260A	
Dibromomethane	ND	10000	ug/L	SW846 8260A	
1,2-Dichlorobenzene	ND	10000	ug/L	SW846 8260A	
1,3-Dichlorobenzene	ND	10000	ug/L	SW846 8260A	
1,4-Dichlorobenzene	ND	10000	ug/L	SW846 8260A	
Dichlorodifluoromethane	ND	20000	ug/L	SW846 8260A	
1,1-Dichloroethane	ND	10000	ug/L	SW846 8260A	
1,2-Dichloroethane	ND	10000	ug/L	SW846 8260A	
1,1-Dichloroethene	ND	10000	ug/L	SW846 8260A	
cis-1,2-Dichloroethene	11000	5000	ug/L	SW846 8260A	
trans-1,2-Dichloroethene	ND	5000	ug/L	SW846 8260A	
1,2-Dichloropropane	ND	10000	ug/L	SW846 8260A	
1,3-Dichloropropane	ND	10000	ug/L	SW846 8260A	
2,2-Dichloropropane	ND	10000	ug/L	SW846 8260A	
1,1-Dichloropropene	ND	10000	ug/L	SW846 8260A	
Ethylbenzene	ND	10000	ug/L	SW846 8260A	
Hexachlorobutadiene	ND	10000	ug/L	SW846 8260A	
Isopropylbenzene	ND	10000	ug/L	SW846 8260A	
p-Isopropyltoluene	ND	10000	ug/L	SW846 8260A	
Methylene chloride	ND	10000	ug/L	SW846 8260A	
Naphthalene	ND	10000	ug/L	SW846 8260A	
n-Propylbenzene	ND	10000	ug/L	SW846 8260A	
Styrene	ND	10000	ug/L	SW846 8260A	

(Continued on next page)

QUANTERRA INCORPORATED

PRELIMINARY DATA SUMMARY

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Baker Environmental, Inc.
Camp LeJeune
Project Number: CTO-356

ot #: H7H250122 Date Reported: 9/03/97

Client Sample ID: IR88-RW01-97C
Sample #: 001 Date Sampled: 08/21/97 12:20 Date Received: 08/25/97 Matrix: WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD
Volatile Organics by GC/MS				In Review
1,1,1,2-Tetrachloroethane	ND	10000	ug/L	SW846 8260A
1,1,2,2-Tetrachloroethane	ND	10000	ug/L	SW846 8260A
Tetrachloroethene	170000	10000	ug/L	SW846 8260A
Toluene	ND	10000	ug/L	SW846 8260A
1,2,3-Trichlorobenzene	ND	10000	ug/L	SW846 8260A
1,2,4-Trichlorobenzene	ND	10000	ug/L	SW846 8260A
1,1,1-Trichloroethane	ND	10000	ug/L	SW846 8260A
1,1,2-Trichloroethane	ND	10000	ug/L	SW846 8260A
Trichloroethene	3200 J	10000	ug/L	SW846 8260A
Trichlorofluoromethane	ND	20000	ug/L	SW846 8260A
1,2,3-Trichloropropane	ND	10000	ug/L	SW846 8260A
1,2,4-Trimethylbenzene	ND	10000	ug/L	SW846 8260A
1,3,5-Trimethylbenzene	ND	10000	ug/L	SW846 8260A
Vinyl chloride	ND	20000	ug/L	SW846 8260A
o-Xylene	ND	5000	ug/L	SW846 8260A
m-Xylene & p-Xylene	ND	5000	ug/L	SW846 8260A

J Estimated result. Result is less than RL.

Client Sample ID: IR88-RW02-97C
Sample #: 002 Date Sampled: 08/22/97 09:12 Date Received: 08/25/97 Matrix: WATER

Volatile Organics by GC/MS				In Review
Benzene	ND	10000	ug/L	SW846 8260A
Bromobenzene	ND	10000	ug/L	SW846 8260A
Bromochloromethane	ND	10000	ug/L	SW846 8260A
Bromodichloromethane	ND	10000	ug/L	SW846 8260A
Bromoform	ND	10000	ug/L	SW846 8260A
Bromomethane	ND	20000	ug/L	SW846 8260A
n-Butylbenzene	ND	10000	ug/L	SW846 8260A
sec-Butylbenzene	ND	10000	ug/L	SW846 8260A
tert-Butylbenzene	ND	10000	ug/L	SW846 8260A
Carbon tetrachloride	ND	10000	ug/L	SW846 8260A
Chlorobenzene	ND	10000	ug/L	SW846 8260A
Chlorodibromomethane	ND	10000	ug/L	SW846 8260A

(Continued on next page)

QUANTERRA INCORPORATED

PRELIMINARY DATA SUMMARY

ie results shown below may still require additional laboratory review and are subject to hange. Actions taken based on these results are the responsibility of the data user.

Baker Environmental, Inc.
Camp LeJeune
Project Number: CTO-356

ot #: H7H250122 Date Reported: 9/03/97 PAGE 4

Client Sample ID: IR88-RW02-97C
Sample #: 002 Date Sampled: 08/22/97 09:12 Date Received: 08/25/97 Matrix: WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD	
Volatile Organics by GC/MS					In Review
Chloroethane	ND	20000	ug/L	SW846 8260A	
Chloroform	ND	10000	ug/L	SW846 8260A	
Chloromethane	ND	20000	ug/L	SW846 8260A	
2-Chlorotoluene	ND	10000	ug/L	SW846 8260A	
4-Chlorotoluene	ND	10000	ug/L	SW846 8260A	
1,2-Dibromo-3-chloro-propane	ND	20000	ug/L	SW846 8260A	
1,2-Dibromoethane	ND	10000	ug/L	SW846 8260A	
Dibromomethane	ND	10000	ug/L	SW846 8260A	
1,2-Dichlorobenzene	ND	10000	ug/L	SW846 8260A	
1,3-Dichlorobenzene	ND	10000	ug/L	SW846 8260A	
1,4-Dichlorobenzene	ND	10000	ug/L	SW846 8260A	
Dichlorodifluoromethane	ND	20000	ug/L	SW846 8260A	
1,1-Dichloroethane	ND	10000	ug/L	SW846 8260A	
1,2-Dichloroethane	ND	10000	ug/L	SW846 8260A	
1,1-Dichloroethene	ND	10000	ug/L	SW846 8260A	
cis-1,2-Dichloroethene	10000	5000	ug/L	SW846 8260A	
trans-1,2-Dichloroethene	ND	5000	ug/L	SW846 8260A	
1,2-Dichloropropane	ND	10000	ug/L	SW846 8260A	
1,3-Dichloropropane	ND	10000	ug/L	SW846 8260A	
2,2-Dichloropropane	ND	10000	ug/L	SW846 8260A	
1,1-Dichloropropene	ND	10000	ug/L	SW846 8260A	
Ethylbenzene	ND	10000	ug/L	SW846 8260A	
Hexachlorobutadiene	ND	10000	ug/L	SW846 8260A	
Isopropylbenzene	ND	10000	ug/L	SW846 8260A	
p-Isopropyltoluene	ND	10000	ug/L	SW846 8260A	
Methylene chloride	ND	10000	ug/L	SW846 8260A	
Naphthalene	ND	10000	ug/L	SW846 8260A	
n-Propylbenzene	ND	10000	ug/L	SW846 8260A	
Styrene	ND	10000	ug/L	SW846 8260A	
1,1,1,2-Tetrachloroethane	ND	10000	ug/L	SW846 8260A	
1,1,2,2-Tetrachloroethane	ND	10000	ug/L	SW846 8260A	
Tetrachloroethene	150000	10000	ug/L	SW846 8260A	
Toluene	ND	10000	ug/L	SW846 8260A	
1,2,3-Trichlorobenzene	ND	10000	ug/L	SW846 8260A	
1,2,4-Trichlorobenzene	ND	10000	ug/L	SW846 8260A	
1,1,1-Trichloroethane	ND	10000	ug/L	SW846 8260A	

(Continued on next page)

QUANTERRA INCORPORATED

PRELIMINARY DATA SUMMARY

ie results shown below may still require additional laboratory review and are subject to ıange. Actions taken based on these results are the responsibility of the data user.

Baker Environmental, Inc.
Camp LeJeune
Project Number: CTO-356

ɔt #: H7H250122 Date Reported: 9/03/97

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD	
Client Sample ID: IR88-RW02-97C					
Sample #: 002 Date Sampled: 08/22/97 09:12 Date Received: 08/25/97 Matrix: WATER					
Volatile Organics by GC/MS					In Review
1,1,2-Trichloroethane	ND	10000	ug/L	SW846 8260A	
Trichloroethene	3500 J	10000	ug/L	SW846 8260A	
Trichlorofluoromethane	ND	20000	ug/L	SW846 8260A	
1,2,3-Trichloropropane	ND	10000	ug/L	SW846 8260A	
1,2,4-Trimethylbenzene	ND	10000	ug/L	SW846 8260A	
1,3,5-Trimethylbenzene	ND	10000	ug/L	SW846 8260A	
Vinyl chloride	ND	20000	ug/L	SW846 8260A	
o-Xylene	ND	5000	ug/L	SW846 8260A	
m-Xylene & p-Xylene	ND	5000	ug/L	SW846 8260A	
J Estimated result. Result is less than RL.					
Inorganic Analysis					In Review
Carbonate Alkalinity	ND	5.0	mg/L	SM18 2320 B	
Client Sample ID: IR88-DRM01					
Sample #: 003 Date Sampled: 08/22/97 16:40 Date Received: 08/25/97 Matrix: SOLID					
Volatile Organics by GC/MS TCLP					In Review
Benzene	ND	0.62	mg/L	SW846 8260A	
Carbon tetrachloride	0.50 J	0.62	mg/L	SW846 8260A	
Chlorobenzene	ND	0.62	mg/L	SW846 8260A	
Chloroform	ND	0.62	mg/L	SW846 8260A	
1,2-Dichloroethane	ND	0.62	mg/L	SW846 8260A	
1,1-Dichloroethylene	ND	0.62	mg/L	SW846 8260A	
Methyl ethyl ketone	ND	3.0	mg/L	SW846 8260A	
Tetrachloroethylene	37	0.62	mg/L	SW846 8260A	
Trichloroethylene	0.42 J	0.62	mg/L	SW846 8260A	
Vinyl chloride	ND	1.2	mg/L	SW846 8260A	
J Estimated result. Result is less than RL.					

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QUANTERRA INCORPORATED

PRELIMINARY DATA SUMMARY

The results shown below may still require additional laboratory review and are subject to change. Actions taken based on these results are the responsibility of the data user.

Baker Environmental
Camp LeJeune
Project Number: CTO-356

Lot #: H7K180134 Date Reported: 12/15/97

Client Sample ID: IR88-RW01-97D
Sample #: 012 Date Sampled: 11/17/97 12:20 Date Received: 11/18/97 Matrix: WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD
Aluminum	0.28	0.20	mg/L	SW846 6010A
Barium	ND	0.20	mg/L	SW846 6010A
Beryllium	ND	0.0050	mg/L	SW846 6010A
Calcium	15.7	5.0	mg/L	SW846 6010A
Cadmium	ND	0.0050	mg/L	SW846 6010A
Cobalt	ND	0.050	mg/L	SW846 6010A
Chromium	ND	0.010	mg/L	SW846 6010A
Copper	ND	0.025	mg/L	SW846 6010A
Iron	25.8	0.10	mg/L	SW846 6010A
Potassium	ND	5.0	mg/L	SW846 6010A
Magnesium	ND	5.0	mg/L	SW846 6010A
Manganese	0.094	0.015	mg/L	SW846 6010A
Sodium	19.7	5.0	mg/L	SW846 6010A
Nickel	ND	0.040	mg/L	SW846 6010A
Antimony	ND	0.060	mg/L	SW846 6010A
Vanadium	ND	0.050	mg/L	SW846 6010A
Zinc	0.023	0.020	mg/L	SW846 6010A
Mercury in Liquid Waste (Manual Cold-Vapor)				Reviewed
Mercury	ND	0.00020	mg/L	SW846 7470A
Inorganic Analysis				Reviewed
Alkalinity, Total	28.2	5.0	mg/L	SM18 2320 B
Alkalinity, Total	31.5	5.0	mg/L	SM18 2320 B
Bromide	0.84	0.50	mg/L	MCAWW 300.0A
Chloride	66.0	5.0	mg/L	MCAWW 300.0A
Fluoride	ND	1.0	mg/L	MCAWW 300.0A
Nitrite as N	ND	0.50	mg/L	MCAWW 300.0A
Nitrate as N	ND	0.50	mg/L	MCAWW 300.0A
o-Phosphate as P	ND	1.0	mg/L	MCAWW 300.0A
Sulfate	16.1	1.0	mg/L	MCAWW 300.0A

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QUANTERRA INCORPORATED

PRELIMINARY DATA SUMMARY

The results shown below may still require additional laboratory review and are subject to change. Actions taken based on these results are the responsibility of the data user.

Baker Environmental
Camp LeJeune
Project Number: CTO-356

Lot #: H7K180134 Date Reported: 12/15/97

Client Sample ID: IR88-RW02-97D
Sample #: 013 Date Sampled: 11/17/97 12:35 Date Received: 11/18/97 Matrix: WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD	
Trace Inductively Coupled Plasma (ICP) Metals					Reviewed
Arsenic	ND	0.010	mg/L	SW846 6010A	
Lead	ND	0.0030	mg/L	SW846 6010A	
Selenium	ND	0.0050	mg/L	SW846 6010A	
Thallium	ND	0.010	mg/L	SW846 6010A	
Inductively Coupled Plasma (ICP) Metals					Reviewed
Silver	ND	0.010	mg/L	SW846 6010A	
Aluminum	0.33	0.20	mg/L	SW846 6010A	
Barium	ND	0.20	mg/L	SW846 6010A	
Beryllium	ND	0.0050	mg/L	SW846 6010A	
Calcium	15.1	5.0	mg/L	SW846 6010A	
Cadmium	ND	0.0050	mg/L	SW846 6010A	
Cobalt	ND	0.050	mg/L	SW846 6010A	
Chromium	ND	0.010	mg/L	SW846 6010A	
Copper	ND	0.025	mg/L	SW846 6010A	
Iron	6.1	0.10	mg/L	SW846 6010A	
Potassium	9.9	5.0	mg/L	SW846 6010A	
Magnesium	5.3	5.0	mg/L	SW846 6010A	
Manganese	0.10	0.015	mg/L	SW846 6010A	
Sodium	30.9	5.0	mg/L	SW846 6010A	
Nickel	ND	0.040	mg/L	SW846 6010A	
Antimony	ND	0.060	mg/L	SW846 6010A	
Vanadium	ND	0.050	mg/L	SW846 6010A	
Zinc	0.039	0.020	mg/L	SW846 6010A	
Mercury in Liquid Waste (Manual Cold-Vapor)					Reviewed
Mercury	ND	0.00020	mg/L	SW846 7470A	
Inorganic Analysis					Reviewed
Alkalinity, Total	ND	5.0	mg/L	SM18 2320 B	
Bromide	ND	0.50	mg/L	MCAWW 300.0A	
Chloride	45.5	5.0	mg/L	MCAWW 300.0A	
Fluoride	ND	1.0	mg/L	MCAWW 300.0A	
Nitrite as N	ND	0.50	mg/L	MCAWW 300.0A	
Nitrate as N	1.0	0.50	mg/L	MCAWW 300.0A	
o-Phosphate as P	ND	1.0	mg/L	MCAWW 300.0A	

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QUANTERRA INCORPORATED

PRELIMINARY DATA SUMMARY

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Baker Environmental
Camp LeJeune
Project Number: CTO-356

Lot #: H7K180134 Date Reported: 12/15/97

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD	
Client Sample ID: IR88-RW02-97D					
Sample #: 013 Date Sampled: 11/17/97 12:35 Date Received: 11/18/97 Matrix: WATER					
Sulfate					Reviewed
Sulfate	46.7	5.0	mg/L	MCAWW 300.0A	
Client Sample ID: IR88-FB02					
Sample #: 014 Date Sampled: 11/17/97 14:20 Date Received: 11/18/97 Matrix: WATER					
Trace Inductively Coupled Plasma (ICP) Metals					Reviewed
Arsenic	ND	0.010	mg/L	SW846 6010A	
Lead	ND	0.0030	mg/L	SW846 6010A	
Selenium	ND	0.0050	mg/L	SW846 6010A	
Thallium	ND	0.010	mg/L	SW846 6010A	
Inductively Coupled Plasma (ICP) Metals					Reviewed
Silver	ND	0.010	mg/L	SW846 6010A	
Aluminum	0.20	0.20	mg/L	SW846 6010A	
Barium	ND	0.20	mg/L	SW846 6010A	
Beryllium	ND	0.0050	mg/L	SW846 6010A	
Calcium	26.9	5.0	mg/L	SW846 6010A	
Cadmium	ND	0.0050	mg/L	SW846 6010A	
Cobalt	ND	0.050	mg/L	SW846 6010A	
Chromium	ND	0.010	mg/L	SW846 6010A	
Copper	ND	0.025	mg/L	SW846 6010A	
Iron	ND	0.10	mg/L	SW846 6010A	
Potassium	ND	5.0	mg/L	SW846 6010A	
Magnesium	ND	5.0	mg/L	SW846 6010A	
Manganese	ND	0.015	mg/L	SW846 6010A	
Sodium	9.0	5.0	mg/L	SW846 6010A	
Nickel	ND	0.040	mg/L	SW846 6010A	
Antimony	ND	0.060	mg/L	SW846 6010A	
Vanadium	ND	0.050	mg/L	SW846 6010A	
Zinc	ND	0.020	mg/L	SW846 6010A	
Mercury in Liquid Waste (Manual Cold-Vapor)					Reviewed
Mercury	ND	0.00020	mg/L	SW846 7470A	

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QUANTERRA INCORPORATED

PRELIMINARY DATA SUMMARY

he results shown below may still require additional laboratory review and are subject to hange. Actions taken based on these results are the responsibility of the data user.

Baker Environmental
Camp LeJeune
Project Number: CTO-356

ot #: H7K180134 Date Reported: 12/15/97

Client Sample ID: IR88-FB02
Sample #: 014 Date Sampled: 11/17/97 14:20 Date Received: 11/18/97 Matrix: WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD	
Inorganic Analysis					Reviewed
Alkalinity, Total	63.9	5.0	mg/L	SM18 2320 B	
Bromide	ND	0.50	mg/L	MCAWW 300.0A	
Chloride	12.4	1.0	mg/L	MCAWW 300.0A	
Fluoride	ND	1.0	mg/L	MCAWW 300.0A	
Nitrite as N	ND	0.50	mg/L	MCAWW 300.0A	
Nitrate as N	ND	0.50	mg/L	MCAWW 300.0A	
o-Phosphate as P	ND	1.0	mg/L	MCAWW 300.0A	
Sulfate	5.4	1.0	mg/L	MCAWW 300.0A	

TerraTek

TerraTek Inc.

June 16, 1998

Mr. John Londergan
Duke Engineering
9111 Research Blvd.
Austin, TX 78758

Dear Mr. Londergan:

Attached are the procedures I used in order to determine the capillary pressure curve and porosity on the sample you submitted for testing.

If you have any questions or need more information, please give me a call at (801)584-2489. TerraTek sincerely appreciates the opportunity to work with you on this project.

Respectfully,
TerraTek, Inc.

Dick Winzenried

Dick Winzenried
Laboratory Supervisor

DW/sh

University Research Park • 400 Wakara Way • Salt Lake City, Utah 84108, U.S.A. • (801) 584-2400 • Fax (801) 584-2406

Introduction

Two soil samples, one approximately 18 inches long and one approximately 6 inches long by 1-5/8 inches diameter were submitted for testing. The samples were designated IN01, 18-22 ft. Two test samples from the 18 inch long piece were prepared for testing and designated Sample #1 (21.0 ft.) and Sample #2 (21.1 ft.). Sample #1 was used to determine capillary pressure using DNAPL as the driving fluid and Sample #2 was used to determine porosity of the formation.

Procedures for Capillary Pressure Test

- Sample was cut to length.
- Measurements were taken to determine bulk volume.
- Sample was placed in test apparatus at an overburden stress of 25 psi.
- The sample and flow system was vacuum back-filled with water.
- Approximately 2.3 ml of water was flowed through the sample at in injection pressure of 5.4 psi. This was over a period of three days.
- DNAPL was flowed across the face of the sample to displace water from the flow lines and establish DNAPL contact with the face of the sample.
- The injection pressure of DNAPL was established at 1.05 psi and maintained for approximately 3 days. Water displaced = 0.00 ml.
- The injection pressure of DNAPL was raised to 2.02 psi and maintained for approximately 4 days. Water displaced = 0.01 ml.
- The injection pressure of DNAPL was raised to 3.17 psi and maintained for approximately 2 days. Water displaced = 0.00 ml.
- The injection pressure of DNAPL was raised to 5.25 psi and maintained for approximately 2 days. Water displaced = 0.00 ml.
- The injection pressure of DNAPL was raised to 7.25 psi and maintained for approximately 2 days. Water displaced = 0.00 ml.
- The injection pressure of DNAPL was raised to 8.75 psi and maintained for approximately 1 day. Water displaced = 0.00 ml.
- The injection pressure of DNAPL was raised to 10.85 psi and maintained for approximately 2 days. Water displaced = 0.00 ml.
- The injection pressure of DNAPL was raised to 12.55 psi and maintained for approximately 5 days. Water displaced = 0.10 ml.
- The injection pressure of DNAPL was raised to 14.0 psi and maintained for approximately 12 days. Water displaced = 0.20 ml.

- The injection pressure of DNAPL was raised to 14.4 psi and maintained for approximately 9 days. Water displaced = 0.13 ml.
- The injection pressure of DNAPL was raised to 14.7 psi and maintained for approximately 29 days. Water displaced = 0.22 ml.
- Total water displaced over a 63 day period was 0.66 ml.

The test was terminated at this time. The water continued to be displaced at a fairly constant rate, but at the rate it was going it would take a very unreasonable amount of time to reach equilibrium. Since it was taking so long it was decided that enough data had been generated so that calculations could be made in order to get the required information.

Procedures for Porosity Determination

- Sample was cut to length.
- Measurements were taken to determine bulk volume.
- Sample was placed in test apparatus at an overburden stress of 25 psi.
- The sample and flow system was vacuum back-filled with water.
- Approximately 3 ml of water was flowed through the sample at in injection pressure of ~10 psi in order to ensure 100% saturation of the sample.
- The sample was removed from the test fixture and the sample was weighed to determine the saturated mass.
- The sample was placed in a convection oven at 60° C until a constant dry mass was achieved.
- The weight change and the original bulk volume were then used to calculate porosity.

Sample Identification Table

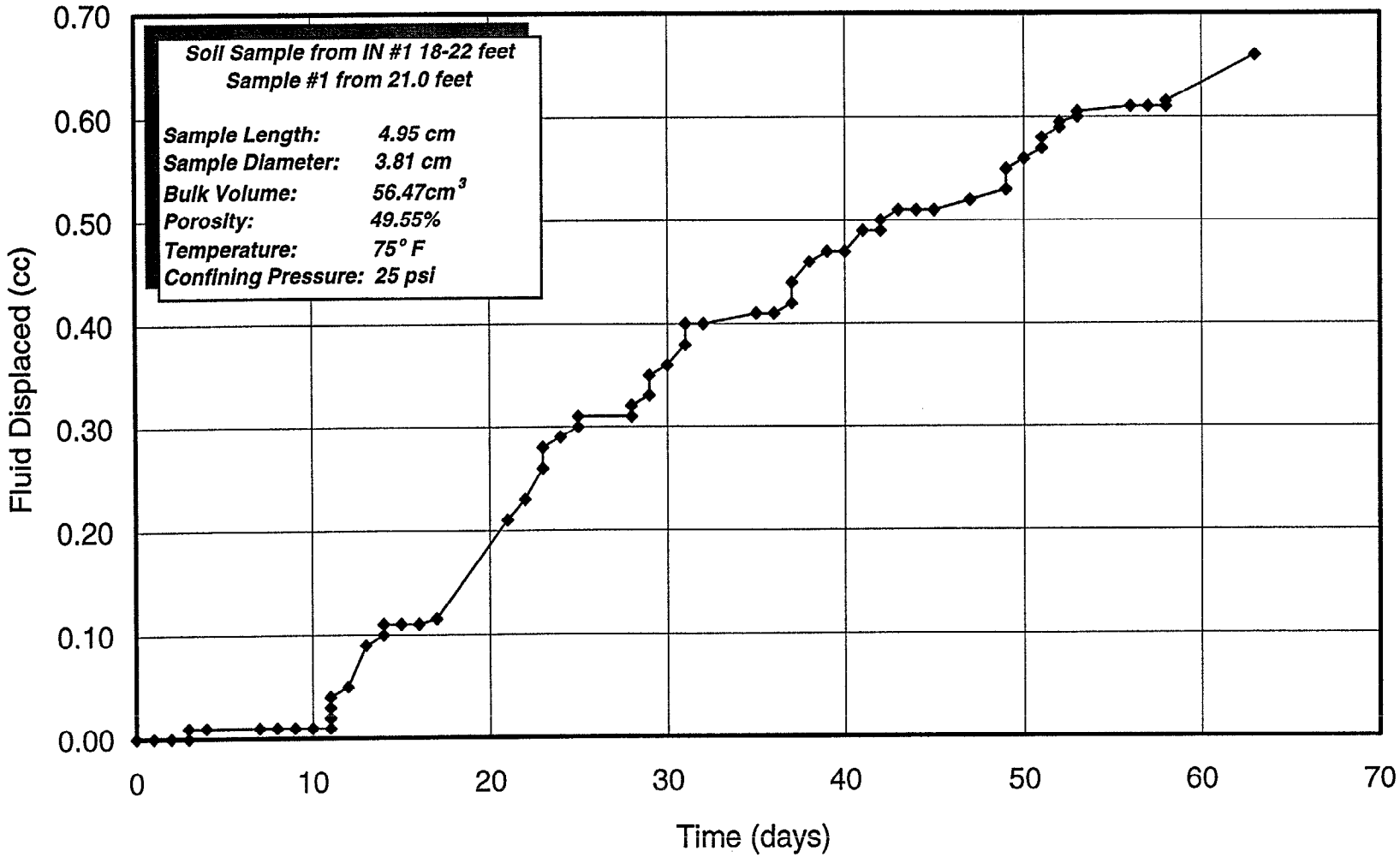
Sample Number	*Length (cm)*	*Diameter (cm)*	*Bulk Volume (cm^3)*	*Wet Mass (g)*	*Dry Mass (g)*	*Pore Volume (ml)*	*Porosity (%)*
1	4.95	3.81	56.47			27.98	49.55
2	5.347	3.81	60.953	104.733	74.534	32.20	49.55

All of the raw data for the capillary pressure study was entered in an Excel file spread sheet. This information was e-mailed to Duke Engineering so they could make their own observations as to what took place during the test.

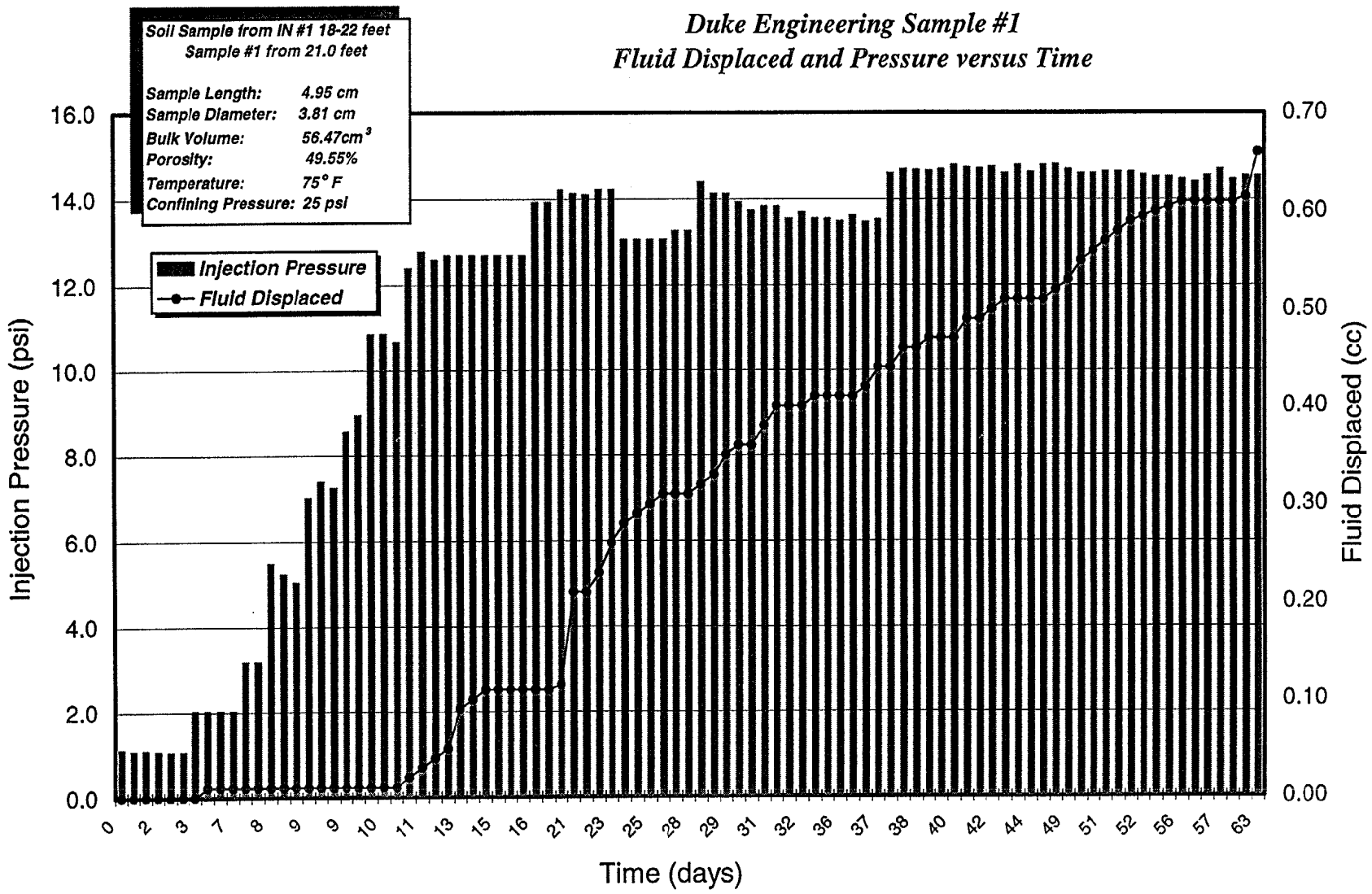
Included in this letter report is a table of the raw data and three plots of the data acquired. The three plots including a Capillary Pressure Curve, Fluid Displaced versus Time and Fluid Displaced and Pressure versus Time.

TerraTek
University Research Park
420 Wakara Way • Salt Lake City, Utah 84108
Telephone (801) 584-2400
Fax (801) 584-2406

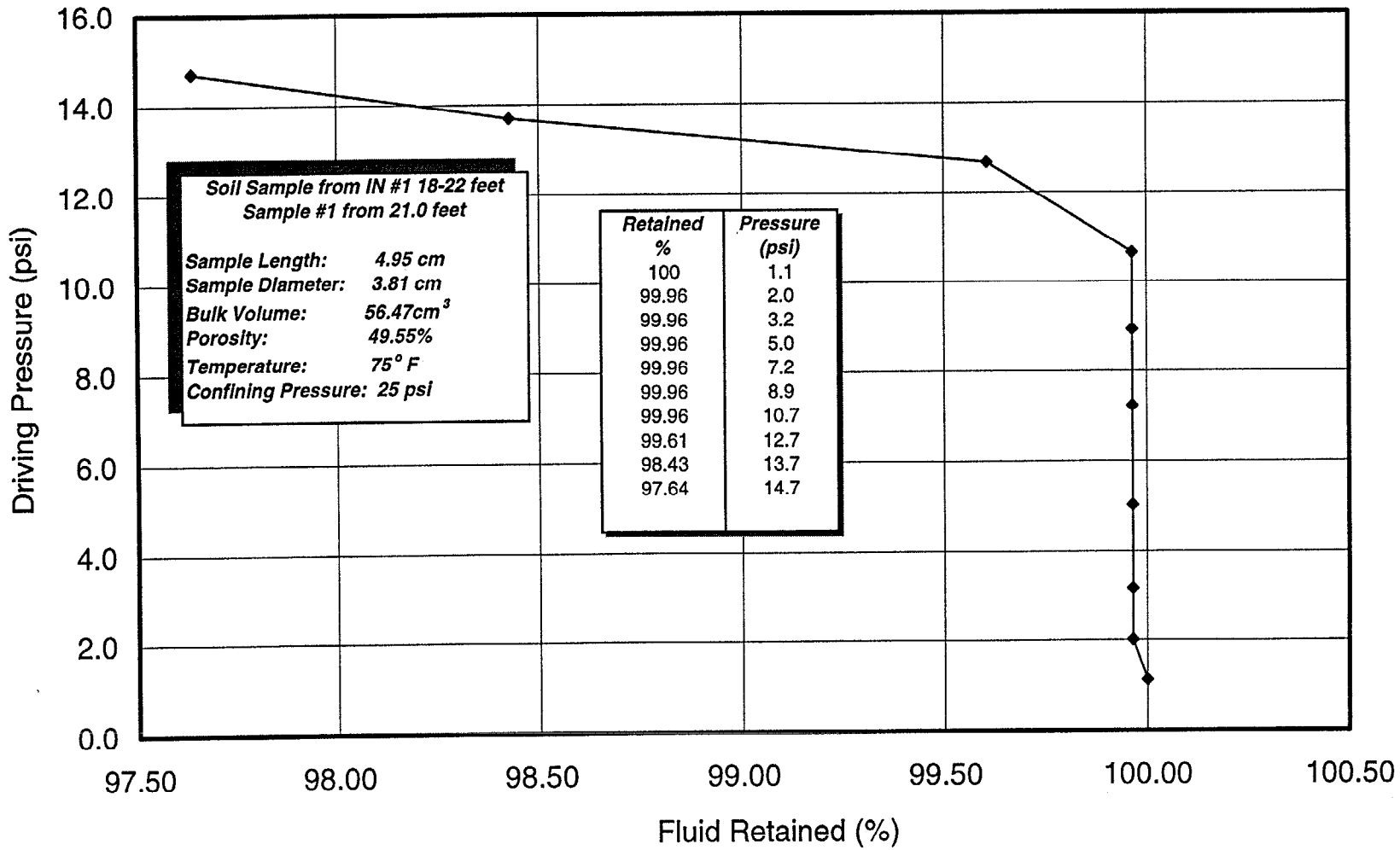
Duke Engineering Sample #1
Fluid Displaced versus Time



TerraTek
University Research Park
420 Wakara Way • Salt Lake City, Utah 84108
Telephone (801) 584-2400
Fax (801) 584-2406


Duke Engineering Sample #1
Fluid Displaced and Pressure versus Time
Soil Sample from IN #1 18-22 feet
Sample #1 from 21.0 feet
Sample Length: 4.95 cm
Sample Diameter: 3.81 cm
Bulk Volume: 56.47cm³
Porosity: 49.55%
Temperature: 75° F
Confining Pressure: 25 psi
Injection Pressure
Fluid Displaced
Injection Pressure (psi)
Fluid Displaced (cc)
Time (days)
16.0
14.0
12.0
10.0
8.0
6.0
4.0
2.0
0.0
0.70
0.60
0.50
0.40
0.30
0.20
0.10
0.00
0 2 3 7 8 9 9 10 11 13 15 16 21 23 25 28 29 31 32 36 37 38 40 42 44 49 51 52 56 57 63

Duke Engineering Sample #1
Capillary Pressure Curve



Retained %	Pressure (psi)
100	1.1
99.96	2.0
99.96	3.2
99.96	5.0
99.96	7.2
99.96	8.9
99.96	10.7
99.61	12.7
98.43	13.7
97.64	14.7

Capillary Pressure Study
Soil Core from IN#1 18-22 feet
Sample #1 from 21 feet

Sample Length:	*4.95 cm*	*Pore Volume:*	*27.98 cm^3*
Sample Diameter:	*3.81 cm*	*Porosity:*	*49.55%*
Bulk Volume:	*56.47 cm^3*		

Raw Data used for Calculations						Data used for Plots						
Date	Time	Time (days)	Total Fluid Displaced (cc)	Effluent Burette Reading (cc)	DNAPL Injection Pressure (mm/Hg)	Time (days)	DNAPL Injection Pressure (psi)	Total Fluid Displaced (cc)	DNAPL Injection Pressure (psi)	Water Retained (%)	Water Retained (%)	DNAPL Injection Pressure (psi)
23-Feb	8:00a.m.	0	0.00	1.31	5.9	0	1.1	0.00	1.1		100.00	1.1
24-Feb	7:12a.m.	1	0.00	1.31	5.6	1	1.1	0.00	1.1		99.96	2.0
24-Feb	5:00p.m.	1	0.00	1.31	5.7	1	1.1	0.00	1.1		99.96	3.2
25-Feb	9:35a.m.	2	0.00	1.31	5.6	2	1.1	0.00	1.1		99.96	5.0
25-Feb	5:00p.m.	2	0.00	1.31	5.5	2	1.1	0.00	1.1		99.96	7.2
26-Feb	9:15a.m.	3	0.00	1.31	5.5	3	1.1	0.00	1.1	100	99.96	8.9
26-Feb	9:19a.m.	3	0.00	1.31	10.5	3	2.0	0.00	2.0		99.96	10.7
26-Feb	4:37p.m.	3	0.01	1.30	10.5	3	2.0	0.01	2.0		99.61	12.7
27-Feb	9:21a.m.	4	0.01	1.30	10.5	4	2.0	0.01	2.0		98.43	13.7
2-Mar	8:05a.m.	7	0.01	1.30	10.5	7	2.0	0.01	2.0	99.96	97.64	14.7
2-Mar	8:00a.m.	7	0.01	1.30	16.5	7	3.2	0.01	3.2			
3-Mar	8:00a.m.	8	0.01	1.30	16.5	8	3.2	0.01	3.2	99.96		
3-Mar	8:02a.m.	8	0.01	1.30	28.5	8	5.5	0.01	5.5			
3-Mar	5:14p.m.	8	0.01	1.30	27.2	8	5.2	0.01	5.2			
4-Mar	7:53a.m.	9	0.01	1.30	26.2	9	5.0	0.01	5.0	99.96		

Raw Data used for Calculations						Data used for Plots				
Date	Time	Time (days)	Total Fluid Displaced (cc)	Effluent Burette Reading (cc)	DNAPL Injection Pressure (mm/Hg)	Time (days)	DNAPL Injection Pressure (psi)	Total Fluid Displaced (cc)	DNAPL Injection Pressure (psi)	Water Retained (%)
4-Mar	7:54a.m.	9	0.01	1.30	36.5	9	7.0	0.01	7.0	
4-Mar	9:47a.m.	9	0.01	1.30	38.5	9	7.4	0.01	7.4	
4-Mar	5:09p.m.	9	0.01	1.30	37.7	9	7.2	0.01	7.2	99.96
4-Mar	5:11p.m.	9	0.01	1.30	44.5	9	8.5	0.01	8.5	
5-Mar	8:14a.m.	10	0.01	1.30	46.5	10	8.9	0.01	8.9	99.96
5-Mar	8:16a.m.	10	0.01	1.30	56	10	10.8	0.01	10.8	
5-Mar	11:44a.m.	10	0.01	1.30	56.5	10	10.9	0.01	10.9	
6-Mar	8:29a.m.	11	0.01	1.30	55.5	11	10.7	0.01	10.7	99.96
6-Mar	8:30a.m.	11	0.02	1.29	64.5	11	12.4	0.02	12.4	
6-Mar	9:23a.m.	11	0.03	1.28	66.5	11	12.8	0.03	12.8	
6-Mar	5:02p.m.	11	0.04	1.27	65.5	11	12.6	0.04	12.6	
7-Mar	8:25a.m.	12	0.05	1.26	66	12	12.7	0.05	12.7	
8-Mar	3:00p.m	13	0.09	1.22	66	13	12.7	0.09	12.7	
9-Mar	7:32p.m.	14	0.10	1.21	66	14	12.7	0.10	12.7	
9-Mar	4:08a.m.	14	0.11	1.20	66	14	12.7	0.11	12.7	
10-Mar	9:26a.m.	15	0.11	1.20	66	15	12.7	0.11	12.7	
10-Mar	5:34p.m.	15	0.11	1.20	66	15	12.7	0.11	12.7	
11-Mar	8:26a.m.	16	0.11	1.20	66	16	12.7	0.11	12.7	99.61
11-Mar	8:27a.m.	16	0.11	1.20	72.5	16	13.9	0.11	13.9	
11-Mar	5:39p.m.	16	0.11	1.20	72.5	16	13.9	0.11	13.9	
12-Mar	10:25a.m.	17	0.12	1.20	74	17	14.2	0.12	14.2	

Raw Data used for Calculations						Data used for Plots				
Date	Time	Time (days)	Total Fluid Displaced (cc)	Effluent Burette Reading (cc)	DNAPL Injection Pressure (mm/Hg)	Time (days)	DNAPL Injection Pressure (psi)	Total Fluid Displaced (cc)	DNAPL Injection Pressure (psi)	Water Retained (%)
16-Mar	7:45a.m.	21	0.21	1.10	73.5	21	14.1	0.21	14.1	
16-Mar	5:04p.m.	21	0.21	1.10	73.4	21	14.1	0.21	14.1	
17-Mar	10:13a.m.	22	0.23	1.08	74	22	14.2	0.23	14.2	
18-Mar	9:44a.m.	23	0.26	1.05	74	23	14.2	0.26	14.2	
18-Mar	5:13p.m.	23	0.28	1.03	68	23	13.1	0.28	13.1	
19-Mar	9:07a.m.	24	0.29	1.02	68	24	13.1	0.29	13.1	
20-Mar	8:11a.m.	25	0.30	1.01	68	25	13.1	0.30	13.1	
20-Mar	3:27p.m.	25	0.31	1.00	68	25	13.1	0.31	13.1	
20-Mar	6:18p.m.	25	0.31	1.00	69	25	13.2	0.31	13.2	
23-Mar	7:59a.m.	28	0.31	1.00	69	28	13.2	0.31	13.2	
23-Mar	5:13p.m.	28	0.32	0.99	75	28	14.4	0.32	14.4	
24-Mar	8:01a.m.	29	0.33	0.98	73.5	29	14.1	0.33	14.1	
24-Mar	4:33p.m.	29	0.35	0.96	73.5	29	14.1	0.35	14.1	
25-Mar	7:46a.m.	30	0.36	0.95	72.5	30	13.9	0.36	13.9	
25-Mar	5:48p.m.	30	0.36	0.95	71.5	30	13.7	0.36	13.7	
26-Mar	7:58a.m.	31	0.38	0.93	72	31	13.8	0.38	13.8	
26-Mar	5:06p.m.	31	0.40	0.91	72	31	13.8	0.40	13.8	
27-Mar	7:58a.m.	32	0.40	0.91	70.5	32	13.5	0.40	13.5	
27-Mar	12:25p.m.	32	0.40	0.91	71.3	32	13.7	0.40	13.7	
30-Mar	7:29a.m.	35	0.41	0.90	70.5	35	13.5	0.41	13.5	
30-Mar	5:15p.m.	35	0.41	0.90	70.5	35	13.5	0.41	13.5	

Raw Data used for Calculations						Data used for Plots				
Date	**Time**	**Time (days)**	**Total Fluid Displaced (cc)**	**Effluent Burette Reading (cc)**	**DNAPL Injection Pressure (mm/Hg)**	**Time (days)**	**DNAPL Injection Pressure (psi)**	**Total Fluid Displaced (cc)**	**DNAPL Injection Pressure (psi)**	**Water Retained (%)**
31-Mar	7:56a.m.	36	0.41	0.90	70.2	36	13.5	0.41	13.5	
31-Mar	5:26p.m.	36	0.41	0.90	70.9	36	13.6	0.41	13.6	
1-Apr	8:05a.m.	37	0.42	0.89	70.1	37	13.5	0.42	13.5	Avg = 13.7
1-Apr	5:01p.m.	37	0.44	0.87	70.4	37	13.5	0.44	13.5	98.43
1-Apr	5:02p.m.	37	0.44	0.87	76	37	14.6	0.44	14.6	
2-Apr	8:29a.m.	38	0.46	0.85	76.5	38	14.7	0.46	14.7	
2-Apr	6:30p.m.	38	0.46	0.85	76.4	38	14.7	0.46	14.7	
3-Apr	7:43a.m.	39	0.47	0.84	76.3	39	14.6	0.47	14.6	
3-Apr	4:00p.m.	39	0.47	0.84	76.5	39	14.7	0.47	14.7	
4-Apr	10:00a.m.	40	0.47	0.84	77	40	14.8	0.47	14.8	
5-Apr	2:30p.m.	41	0.49	0.82	76.7	41	14.7	0.49	14.7	
6-Apr	8:00a.m..	42	0.49	0.82	76.6	42	14.7	0.49	14.7	
6-Apr	5:00p.m.	42	0.50	0.81	76.8	42	14.7	0.50	14.7	
7-Apr	8:00a.m.	43	0.51	0.80	76	43	14.6	0.51	14.6	
7-Apr	4:30p.m.	43	0.51	0.80	77	43	14.8	0.51	14.8	
8-Apr	8:00a.m.	44	0.51	0.80	76.1	44	14.6	0.51	14.6	
9-Apr	1:35p.m.	45	0.51	0.80	77	45	14.8	0.51	14.8	
11-Apr	1:48p.m.	47	0.52	0.79	77.1	47	14.8	0.52	14.8	
13-Apr	8:10a.m.	49	0.53	0.78	76.5	49	14.7	0.53	14.7	
13-Apr	5:34p.m.	49	0.55	0.76	76	49	14.6	0.55	14.6	

Raw Data used for Calculations						Data used for Plots				
Date	Time	Time (days)	Total Fluid Displaced (cc)	Effluent Burette Reading (cc)	DNAPL Injection Pressure (mm/Hg)	Time (days)	DNAPL Injection Pressure (psi)	Total Fluid Displaced (cc)	DNAPL Injection Pressure (psi)	Water Retained (%)
14-Apr	4:28p.m.	50	0.56	0.75	76	50	14.6	0.56	14.6	
15-Apr	11:18a.m.	51	0.57	0.74	76.2	51	14.6	0.57	14.6	
15-Apr	5:33p.m.	51	0.58	0.73	76.2	51	14.6	0.58	14.6	
16-Apr	7:47a.m.	52	0.59	0.72	76.2	52	14.6	0.59	14.6	
16-Apr	5:15p.m.	52	0.60	0.72	75.8	52	14.6	0.60	14.6	
17-Apr	8:03a.m.	53	0.60	0.71	75.6	53	14.5	0.60	14.5	
17-Apr	5:32p.m.	53	0.61	0.71	75.6	53	14.5	0.61	14.5	
20-Apr	10:40a.m.	56	0.61	0.70	75.3	56	14.5	0.61	14.5	
20-Apr	5:00p.m.	56	0.61	0.70	75	56	14.4	0.61	14.4	
21-Apr	7:44a.m.	57	0.61	0.70	75.7	57	14.5	0.61	14.5	
21-Apr	6:04p.m.	57	0.61	0.70	76.5	57	14.7	0.61	14.7	
22-Apr	7:59a.m.	58	0.61	0.70	75.3	58	14.5	0.61	14.5	
22-Apr	5:26	58	0.62	0.70	75.7	58	14.5	0.62	14.5	
27-Apr	11:32	63	0.66	0.65	75.7	63	14.5	0.66	14.5	97.64

PTS Laboratories, Inc.

Duke Engineering & Services
File No.: 21585

PHYSICAL PROPERTIES DATA

(Methodology: API RP40, EPA 9100)

Project Name: MCB Camp Lejeune

			Confining Stress: 25.0 psi	
Sample ID.	Depth, ft.	Sample Orientation	Native State Effective Permeability to Water (millidarcy)	Native State Effective Water Conductivity (cm/s)
IS23-04	19.5 - 19.9	vertical	0.082	7.74E-08
IS22-06	21.0 - 21.7	vertical	0.341	3.22E-07

PTS Laboratories, Inc.

Duke Engineering & Services
File No.: 21585

X-RAY DIFFRACTION MINERAL PERCENTAGES

Project Name: MCB Camp Lejeune

Sample ID	BULK METHOD										CLAY METHOD						Total
	Qtz (%)	Feld (%)	Cal (%)	Dol (%)	Sid (%)	Pyr (%)	Bar (%)			Total Bulk (%)	Kao (%)	Ill (%)	Chl (%)	Sme (%)	EML	Total Clay (%)	(%)
IS25-05	81	11	*	*	*	1				93	3	2	1	1		7	100
IS25-06	85	2	*	*	*	4	*			91	4	2	1	2	*	9	100

* Denotes a trace percentage

Legend

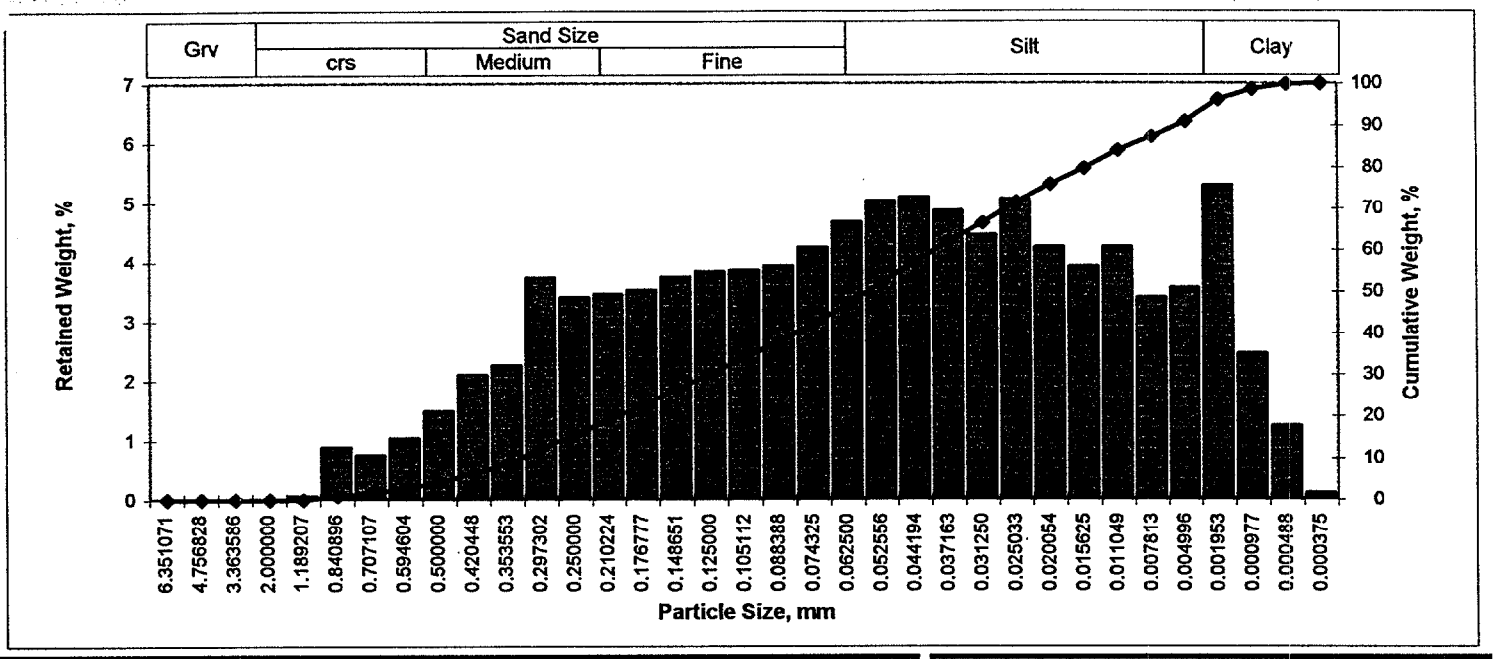
Qtz	=	Quartz, SiO_2	Feld	=	Feldspar, (K, Na, Ca, Ba) $(Al, Si)_3 O_8$
Cal	=	Calcite, $CaCO_3$	Dol	=	Dolomite, $CaMg(CO_3)$
Sid	=	Siderite, $FeCO_3$	Pyr	=	Pyrite FeS_2
Bar	=	Barite $BaSO_4$	EML	=	Expandable Mixed Layer Illite/Smectite)
			Clay Minerals	=	Phyllosilicates

PTS Laboratories, Inc.

Particle Size Analysis - ASTM D4464M

File No.: 21585
Sample ID: IS22-06
Depth, ft.: 21.0 - 21.7

Client: Duke Engineering & Services
Project: MCB Camp Lejeune



Opening Inches	Opening Millimeters	Phi of Screen	U.S. No.	Sample Weight, grams	Incremental Weight, percent	Cumulative Weight, percent
0.250042	6.351	-2.67	1/4	0.00	0.00	0.00
0.187277	4.757	-2.25	4	0.00	0.00	0.00
0.132425	3.364	-1.75	6	0.00	0.00	0.00
0.078740	2.000	-1	10	0.00	0.00	0.00
0.046819	1.189	-0.25	16	0.06	0.06	0.06
0.033106	0.841	0.25	20	0.89	0.89	0.95
0.027839	0.707	0.50	25	0.76	0.76	1.71
0.023410	0.595	0.75	30	1.04	1.04	2.75
0.019685	0.500	1.00	35	1.49	1.49	4.24
0.016553	0.420	1.25	40	2.10	2.10	6.34
0.013919	0.354	1.50	45	2.26	2.26	8.60
0.011705	0.297	1.75	50	3.73	3.73	12.33
0.009843	0.250	2.00	60	3.41	3.41	15.74
0.008277	0.210	2.25	70	3.46	3.46	19.20
0.006960	0.177	2.50	80	3.53	3.53	22.73
0.005852	0.149	2.75	100	3.74	3.74	26.47
0.004921	0.125	3.00	120	3.83	3.83	30.31
0.004138	0.105	3.25	140	3.85	3.85	34.16
0.003480	0.088	3.50	170	3.93	3.93	38.09
0.002926	0.074	3.75	200	4.24	4.24	42.33
0.002461	0.063	4.00	230	4.67	4.67	47.00
0.002069	0.053	4.25	270	5.03	5.03	52.03
0.001740	0.044	4.50	325	5.09	5.09	57.12
0.001463	0.037	4.75	400	4.87	4.87	61.99
0.001230	0.031	5.00	450	4.46	4.46	66.45
0.000986	0.025	5.32	500	5.06	5.06	71.51
0.000790	0.020	5.64	635	4.25	4.25	75.76
0.000615	0.016	6.00		3.92	3.92	79.68
0.000435	0.011	6.50		4.25	4.25	83.94
0.000308	0.008	7.00		3.40	3.40	87.34
0.000197	0.005	7.65		3.56	3.56	90.90
0.000077	0.002	9.00		5.29	5.29	96.19
0.000038	0.001	10.00		2.45	2.45	98.64
0.000019	0.000	11.00		1.24	1.24	99.88
0.000015	0.000	11.38		0.12	0.12	100.00
TOTALS				99.98	100.00	100.00

Cumulative Weight Percent greater than			
Weight percent	Phi Value	Particle Size Inches	Particle Size Millimeters
5	1.09	0.0185	0.470
10	1.59	0.0130	0.331
16	2.02	0.0097	0.247
25	2.65	0.0063	0.159
40	3.61	0.0032	0.082
50	4.15	0.0022	0.056
60	4.65	0.0016	0.040
75	5.58	0.0008	0.021
84	6.51	0.0004	0.011
90	7.48	0.0002	0.006
95	8.70	0.0001	0.002

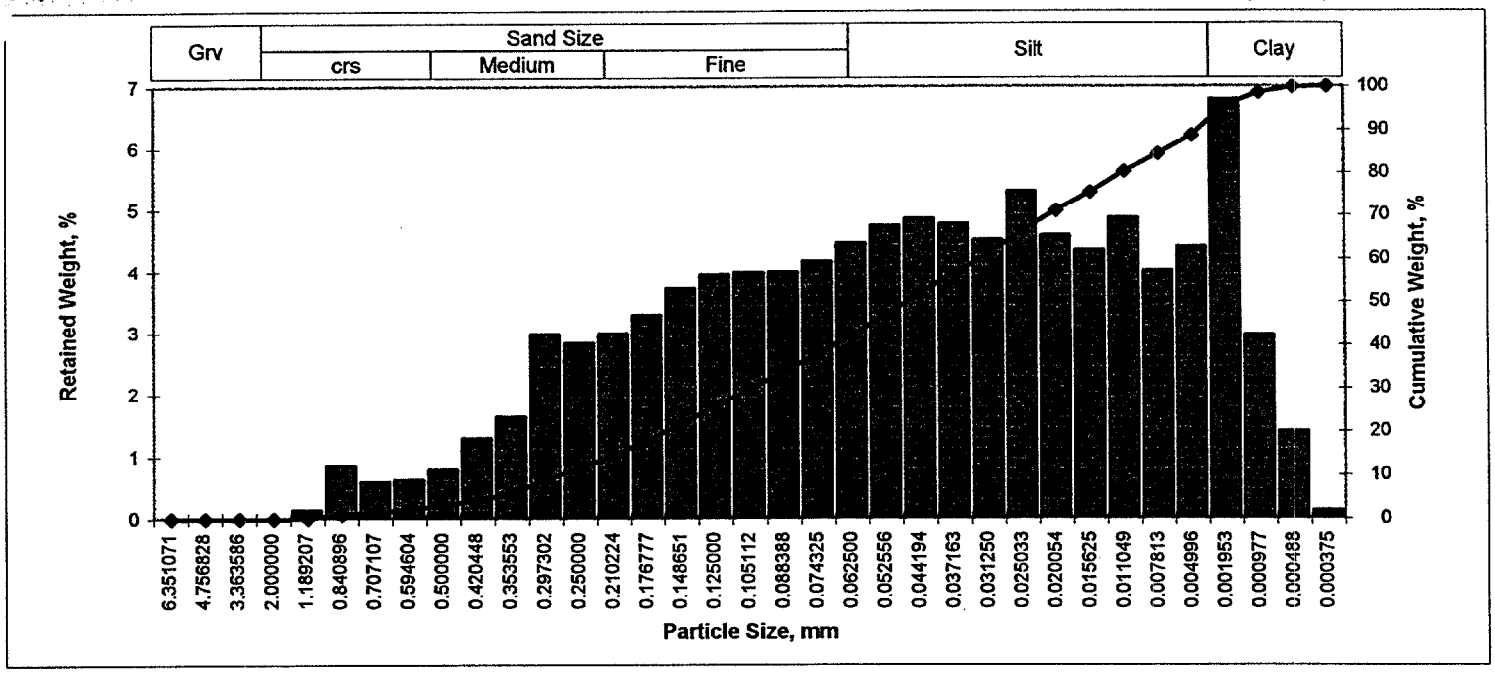
Measure	Trask,	Inman,	Folk-Ward,
Median, phi	4.15	4.15	4.15
Mean, in.	0.0022	0.0022	0.0022
Median, mm	0.056	0.056	0.056
Mean, phi	3.47	4.26	4.23
Mean, in.	0.0035	0.0022	0.0021
Mean, mm	0.090	0.052	0.053
Sorting	0.362	2.245	2.275
Skewness	1.230	0.051	0.123
Kurtosis	0.212	0.694	1.063
Grain Size Description (ASTM-USCS Scale)		Fine Sand (Based on Mean from Trask)	

Description	Retained on Sieve #	Weight Percent
Gravel	4	0.00
Coarse Sand	10	0.00
Medium Sand	40	6.34
Fine Sand	200	35.99
Silt	>0.005 mm	48.57
Clay	<0.005 mm	9.10

PTS Laboratories, Inc.

Particle Size Analysis - ASTM D4464M

Client:	Duke Engineering & Services	File No.:	21585
Project:	MCB Camp Lejeune	Sample ID:	IS23-04
		Depth, ft.:	19.5 - 19.9



Opening Inches	Opening Millimeters	Phi of Screen	U.S. No.	Sample Weight, grams	Incremental Weight, percent	Cumulative Weight, percent
0.250042	6.351	-2.67	1/4	0.00	0.00	0.00
0.187277	4.757	-2.25	4	0.00	0.00	0.00
0.132425	3.364	-1.75	6	0.00	0.00	0.00
0.078740	2.000	-1	10	0.00	0.00	0.00
0.046819	1.189	0.25	16	0.14	0.14	0.14
0.033106	0.841	0.25	20	0.86	0.86	1.01
0.027839	0.707	0.50	25	0.60	0.60	1.61
0.023410	0.595	0.75	30	0.63	0.62	2.23
0.019685	0.500	1.00	35	0.79	0.79	3.02
0.016553	0.420	1.25	40	1.30	1.30	4.32
0.013919	0.354	1.50	45	1.64	1.64	5.96
0.011705	0.297	1.75	50	2.98	2.98	8.94
0.009843	0.250	2.00	60	2.84	2.84	11.78
0.008277	0.210	2.25	70	3.00	3.00	14.78
0.006960	0.177	2.50	80	3.29	3.29	18.07
0.005852	0.149	2.75	100	3.73	3.73	21.80
0.004921	0.125	3.00	120	3.95	3.95	25.75
0.004138	0.105	3.25	140	3.98	3.98	29.72
0.003480	0.088	3.50	170	3.99	3.99	33.71
0.002926	0.074	3.75	200	4.17	4.17	37.88
0.002461	0.063	4.00	230	4.46	4.46	42.34
0.002069	0.053	4.25	270	4.74	4.74	47.08
0.001740	0.044	4.50	325	4.85	4.85	51.92
0.001463	0.037	4.75	400	4.77	4.77	56.69
0.001230	0.031	5.00	450	4.51	4.51	61.20
0.000986	0.025	5.32	500	5.30	5.30	66.50
0.000790	0.020	5.64	635	4.59	4.59	71.09
0.000615	0.016	6.00		4.35	4.35	75.44
0.000435	0.011	6.50		4.86	4.86	80.29
0.000308	0.008	7.00		4.02	4.02	84.31
0.000197	0.005	7.65		4.40	4.40	88.71
0.000077	0.002	9.00		6.80	6.80	95.51
0.000038	0.001	10.00		2.96	2.96	98.47
0.000019	0.000	11.00		1.40	1.40	99.87
0.000015	0.000	11.38		0.14	0.13	100.00
TOTALS				100.04	100.00	100.00

Cumulative Weight Percent greater than			
Weight percent	Phi Value	Particle Size Inches	Particle Size Millimeters
5	1.35	0.0154	0.391
10	1.84	0.0110	0.279
16	2.34	0.0078	0.197
25	2.95	0.0051	0.129
40	3.87	0.0027	0.068
50	4.40	0.0019	0.047
60	4.93	0.0013	0.033
75	5.96	0.0006	0.016
84	6.96	0.0003	0.008
90	7.90	0.0002	0.004
95	8.90	0.0001	0.002

Measure	Trask,	Inman,	Folk-Ward,
Median, phi	4.40	4.40	4.40
Mean, in.	0.0019	0.0019	0.0019
Median, mm	0.047	0.047	0.047
Mean, phi	3.78	4.65	4.57
Mean, in.	0.0029	0.0016	0.0017
Mean, mm	0.073	0.040	0.042
Sorting	0.352	2.309	2.298
Skewness	0.961	0.109	0.151
Kurtosis	0.206	0.634	1.027
Grain Size Description (ASTM-USCS Scale)		Silt (Based on Mean from Trask)	

Description	Retained on Sieve #	Weight Percent
Gravel	4	0.00
Coarse Sand	10	0.00
Medium Sand	40	4.32
Fine Sand	200	33.56
Silt	>0.005 mm	50.83
Clay	<0.005 mm	11.29

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PTS Laboratories, Inc.

Duke Engineering & Services
File No.: 21585

PARTICLE SIZE SUMMARY

(Methodology: ASTM D4464)

Project Name: MCB Camp Lejeune

Sample ID	Depth, ft.	Description USCS/ASTM (1)	Median Grain Size, mm	Particle Size Distribution, wt. percent						Silt & Clay
				Gravel	Sand Size			Silt	Clay	
					Coarse	Medium	Fine			
IS23-04	19.5-19.9	Silt	0.352	0.00	0.00	4.32	33.56	50.83	11.29	62.12
IS22-06	21.0-21.7	Fine sand	0.362	0.00	0.00	6.34	35.99	48.57	9.10	57.67

* (1) Based on Mean from Trask

Appendix E

Soil Concentration Correction Calculations

Extract Volume Correction Calculation (V_E)

$$V_E = V_{meoh} + V_{sw}$$

Where:

V_E = Extract Volume (mL)
V_{meoh} = Volume of methanol (mL)
V_{sw} = Volume of soil water (mL)

$$V_{meoh} = M_{meoh}\ \rho_{meoh}$$

Where:

M_{meoh} = mass Methanol (gms)
ρ_{meoh} = density of methanol (0.79 gms/mL)

$$M_w = \%\ \text{soil moisture}\ (M_s)$$

Where:

M_w = Mass soil water (gms)
M_s = Mass soil (gms)

Since density of water = 1 gm/ml then mass in grams is equal to volume in ml.

Sample calculation for sample IS07-02

Volume of methanol	(157.0gms -126.9gms)/ 0.79gm/ml = 38.1ml
Mass of Soil	303.0 gms– 157.0 gms = 146 gms
Mass of Water	146gms (0.2) = 29.2 gms percent soil moisture = 20%
Volume of water	29.2 ml assuming density of water = 1 gm/ml
Extract Volume	38.1ml + 29.2 ml = 67.3 ml

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Extract Concentration from Reported Soil Concentration

$$RC = OCC\ (df)\ (V_{meoh})/[1{,}000(M_s)]$$

Where:

RC = Reported soil concentration (µg/kg)
OCC = On column concentration (µg/L)
df = sample dilution factor
M_s= Mass of soil (gms)
1,000 = unit conversion factor

$$EC = OCC(df)$$

Where:

EC = extract concentration (µg/L)

Then:

$$EC = RC(M_s)(1000)/V_{meoh}$$

Sample calculation for sample IS07-02

Extract concentration (µg/L)

110,830µg/kg(146gms)(1,000)/38,100µl = 424,703 (µg/L)

Soil concentration Conversion

$$M_{pce} = EC(V_E)(1{,}000)$$

Where:

M_{pce} = mass of PCE (mg)

$$SC = M_{pce}(1000)/M_s$$

Where:

SC = concentration of PCE in soil (µg/kg)

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Sample calculation for sample IS07-02

Mass of PCE (μg)

424,703 (μg/L) (67.3 ml)/(1,000 ml/L) = 28582.5 μg

Concentration in soil (μg/kg)

28582.5 μg (1,000 gms/kg)/146 gms = 195,771μg/kg

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A Duke Engineering & Services Company

Project Number TDN 200
Date 7-25 to 7/27/97
Page 1 of 3

SOIL SAMPLES PRESERVATIVE LOG

Sample Number	Tare (gm)	Tare + Methanol (gm)	Final Weight (gm) Soil + methanol	Volume Added (ml)
1501-1	127.3	156.8	264.7	
1501-2	127.3	150.5	291.3	
1501-3	128.6	161.2	285.9	
1501-4	127.5	152.7	271.9	
1502-1	126.6	153.0	297.0	
1502-2	126.3	152.8	302.3	
1502-3	128.4	161.5	274.9	
1503-1	127.6	150.8	251.2	
1503-2	128.6	163.2	288.2	
1503-3	126.6	152.8	280.3	
1502-4	127.6	159.5	232.1	
1504-1	127.6	157.8	299.3	
1505-1	127.3	156.6	268.6	
1505-2	127.1	156.2	279.5	
1505-3	128.2	158.7	287.1	
1505-4	127.0	155.7	280.3	
1506-1	127.4	159.2	317.9	
1507-1	127.4	156.9	292.3	
1507-2	126.9	157.0	303.0	
1507-3	125.6	156.1	311.9	
1507-4	126.0	152.7	250.6	
1508-1	126.5	156.6	241.1	
1508-2	127.5	153.7	229.8	
1508-3	126.0	151.8	225.3	
~~[illegible]~~ 1508-4	126.3	159.2	280.0	

MILD SPLASH

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BAKER ENVIRONMENTAL

Lab Name:QUANTERRA

SDG Number:

Matrix: (soil/water) SOLID

Lab Sample ID:H7G290134 019

Method: SW846 8260A
Volatile Organics, GC/MS (8260A)

Sample WT/Vol: 5 / mL
Work Order: CC006202
Dilution factor: 870
Moisture %:

Date Received: 07/29/97
Date Extracted:08/03/97
Date Analyzed: 08/03/97

QC Batch: 7215125

Client Sample Id: IS07-2 -RE 1

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/kg	Q
71-43-2	Benzene	4400	U
108-86-1	Bromobenzene	4400	U
74-97-5	Bromochloromethane	4400	U
75-27-4	Bromodichloromethane	4400	U
75-25-2	Bromoform	4400	U
74-83-9	Bromomethane	8700	U
104-51-8	n-Butylbenzene	4400	U
135-98-8	sec-Butylbenzene	4400	U
98-06-6	tert-Butylbenzene	4400	U
56-23-5	Carbon tetrachloride	4400	U
108-90-7	Chlorobenzene	4400	U
124-48-1	Chlorodibromomethane	4400	U
75-00-3	Chloroethane	8700	U
67-66-3	Chloroform	4400	U
74-87-3	Chloromethane	8700	U
95-49-8	2-Chlorotoluene	4400	U
106-43-4	4-Chlorotoluene	4400	U
96-12-8	1,2-Dibromo-3-chloropropane	8700	U
106-93-4	1,2-Dibromoethane	4400	U
74-95-3	Dibromomethane	4400	U
95-50-1	1,2-Dichlorobenzene	4400	U
541-73-1	1,3-Dichlorobenzene	4400	U
106-46-7	1,4-Dichlorobenzene	4400	U
75-71-8	Dichlorodifluoromethane	8700	U
75-34-3	1,1-Dichloroethane	4400	U
107-06-2	1,2-Dichloroethane	4400	U
75-35-4	1,1-Dichloroethene	4400	U
156-59-2	**cis-1,2-Dichloroethene**	**46000**	
156-60-5	trans-1,2-Dichloroethene	2200	U

BAKER ENVIRONMENTAL

Lab Name:QUANTERRA

SDG Number:

Matrix: (soil/water) SOLID

Lab Sample ID:H7G290134 019

Method: SW846 8260A
Volatile Organics, GC/MS (8260A)

Sample WT/Vol: 5 / mL
Work Order: CC006202
Dilution factor: 870
Moisture %:

Date Received: 07/29/97
Date Extracted:08/03/97
Date Analyzed: 08/03/97

QC Batch: 7215125

Client Sample Id: IS07-2 -RE 1

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/kg	Q
78-87-5	1,2-Dichloropropane	4400	U
142-28-9	1,3-Dichloropropane	4400	U
594-20-7	2,2-Dichloropropane	4400	U
563-58-6	1,1-Dichloropropene	4400	U
100-41-4	Ethylbenzene	4400	U
87-68-3	Hexachlorobutadiene	4400	U
98-82-8	Isopropylbenzene	4400	U
99-87-6	p-Isopropyltoluene	4400	U
75-09-2	Methylene chloride	4400	U
91-20-3	Naphthalene	4400	U
103-65-1	n-Propylbenzene	4400	U
100-42-5	Styrene	4400	U
630-20-6	1,1,1,2-Tetrachloroethane	4400	U
79-34-5	1,1,2,2-Tetrachloroethane	4400	U
127-18-4	**Tetrachloroethene**	**110000**	
108-88-3	Toluene	4400	U
87-61-6	1,2,3-Trichlorobenzene	4400	U
120-82-1	1,2,4-Trichlorobenzene	4400	U
71-55-6	1,1,1-Trichloroethane	4400	U
79-00-5	1,1,2-Trichloroethane	4400	U
79-01-6	**Trichloroethene**	**3900**	**J**
75-69-4	Trichlorofluoromethane	8700	U
96-18-4	1,2,3-Trichloropropane	4400	U
95-63-6	**1,2,4-Trimethylbenzene**	**3800**	**J**
108-67-8	**1,3,5-Trimethylbenzene**	**1700**	**J**
75-01-4	**Vinyl chloride**	**4800**	**J**
95-47-6	o-Xylene	2200	U
136777-61-2	m-Xylene & p-Xylene	2200	U

Data File: /chem/gcms/mw.i/W080397.b/CC006202.d
Report Date: 03-Aug-97 17:46:16

Quanterra - Knoxville

SW-846 Method 8260A - Volatile Organics

Data file : /chem/gcms/mw.i/W080397.b/CC006202.d
Lab Smp Id: CC006202
Inj Date : 03-AUG-97 16:12:00
Operator : 60487 Inst ID: mw.i
Smp Info : CC006202,870,0,,,
Misc Info : W080397,MS8260_L,
Comment :
Method : /chem/gcms/mw.i/W080397.b/MS8260_L.m
Meth Date : 03-Aug-97 13:19:28 wilesd Quant Type: ISTD
Cal Date : 30-JUL-97 20:57:00 Cal File: WI0730A.d
Als bottle: 1
Dil Factor: 870.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 3.30
Processing Host: hpuxcs12

Concentration Formula: Vt/(Ws*1000)

Name	Value	Description
Vt	5000.000	Sample Volume Purged
Ws	5.000	Weight of sample

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	FINAL (ug/Kg)
* 1 Fluorobenzene	96	9.483	9.517	(1.000)	255535	50.0000	
* 2 Chlorobenzene-d5	117	13.833	13.900	(1.000)	237432	50.0000	
* 3 1,4 Dichlorobenzene-d4	152	17.417	17.517	(1.000)	176643	50.0000	
$ 4 1,2-Dichloroethane-d4	65	9.100	9.133	(0.960)	86542	37.8135	37.814(a)
$ 5 Toluene-d8	98	11.683	11.733	(0.845)	221489	46.1209	46.121(a)
$ 6 4-Bromofluorobenzene	95	15.617	15.700	(0.897)	195307	41.3967	41.397(a)
7 Dichlorodifluoromethane	85.00	Compound Not Detected.					
8 Chloromethane (spcc)	50.00	Compound Not Detected.					
9 Vinyl Chloride (ccc)	62	3.050	3.050	(0.322)	9396	5.54636	4825.3(a)
10 Bromomethane	94.00	Compound Not Detected.					
11 Chloroethane	64.00	Compound Not Detected.					
12 Trichlorofluoromethane	101.00	Compound Not Detected.					
13 1,1-Dichloroethene (ccc)	96.00	Compound Not Detected.					
14 Carbon Disulfide	76.00	Compound Not Detected.					
15 Acetone	43	5.383	5.400	(0.568)	625	1.03861	903.59(a)
16 Methylene Chloride	84	6.017	6.033	(0.634)	2030	1.03158	897.48(a)
17 trans-1,2-Dichloroethene	96.00	Compound Not Detected.					

Data File: /chem/gcms/mw.i/W080397.b/CC006202.d
Report Date: 03-Aug-97 17:46:16

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	FINAL (ug/Kg)
	18 1,1-Dichloroethane (spcc)	63.00	Compound Not Detected.					
	19 2,2-Dichloropropane	77.00	Compound Not Detected.					
	20 cis 1,2-Dichloroethene	96	7.917	7.950	(0.835)	108219	53.3411	46407
M	21 1,2-Dichloroethene (total)	96				108219	53.3411	46407
	22 2-Butanone	43	7.967	7.983	(0.840)	736	0.58136	~~505.78(aq)~~
	23 Bromochloromethane	128.00	Compound Not Detected.					
	24 Chloroform (ccc)	83.00	Compound Not Detected.					
	25 1,1,1-Trichloroethane	97.00	Compound Not Detected.					
	26 Carbon Tetrachloride	117.00	Compound Not Detected.					
	27 1,1-Dichloropropene	75.00	Compound Not Detected.					
	28 Benzene	78.00	Compound Not Detected.					
	29 1,2-Dichloroethane	62	9.483	9.233	(1.000)	2706	1.00733	~~876.38(a)~~
	30 Trichloroethene	130	9.967	10.017	(1.051)	12495	4.52553	3937.2(a)
	31 1,2-Dichloropropane (ccc)	63.00	Compound Not Detected.					
	32 Dibromomethane	93.00	Compound Not Detected.					
	33 Bromodichloromethane	83.00	Compound Not Detected.					
	34 cis-1,3-Dichloropropene	75.00	Compound Not Detected.					
	35 4-Methyl-2-pentanone	43.00	Compound Not Detected.					
	36 Toluene (ccc)	91.00	Compound Not Detected.					
	37 trans-1,3-Dichloropropene	75.00	Compound Not Detected.					
	38 1,1,2-Trichloroethane	97	12.533	12.500	(0.906)	1796	0.76042	~~664.57(aq)~~
	39 Tetrachloroethene	164	12.533	12.583	(0.906)	346227	127.392	110830
	40 1,3-Dichloropropane	76.00	Compound Not Detected.					
	41 2-Hexanone	43.00	Compound Not Detected.					
	42 Chlorodibromomethane	129.00	Compound Not Detected.					
	43 1,2-Dibromoethane	107.00	Compound Not Detected.					
	44 Chlorobenzene (spcc)	112.00	Compound Not Detected.					
	45 Ethylbenzene (ccc)	106.00	Compound Not Detected.					
	46 1,1,1,2-Tetrachloroethane	131.00	Compound Not Detected.					
	47 m&p-Xylene	106.00	Compound Not Detected.					
	48 o-Xylene	106.00	Compound Not Detected.					
M	49 Xylene (total)	106.00	Compound Not Detected.					
	50 Styrene	104.00	Compound Not Detected.					
	51 Bromoform (spcc)	173.00	Compound Not Detected.					
	52 Isopropylbenzene	105.00	Compound Not Detected.					
	53 Bromobenzene	156.00	Compound Not Detected.					
	54 1,1,2,2-Tetrachloroethane(sp)	83.00	Compound Not Detected.					
	55 n-Propylbenzene	91.00	Compound Not Detected.					
	56 1,2,3-Trichloropropane	75.00	Compound Not Detected.					
	57 2-Chlorotoluene	91.00	Compound Not Detected.					
	58 1,3,5-Trimethylbenzene	105	16.183	16.267	(0.929)	11347	1.97959	1722.2(a)
	59 4-Chlorotoluene	91.00	Compound Not Detected.					
	60 tert-Butylbenzene	119.00	Compound Not Detected.					
	61 1,2,4-Trimethylbenzene	105	16.783	16.883	(0.964)	25716	4.33953	3775.4(a)
	62 sec-Butylbenzene	105.00	Compound Not Detected.					
	63 1,3-Dichlorobenzene	146.00	Compound Not Detected.					
	64 p-Isopropyltoluene	119	17.233	17.333	(0.989)	3880	0.56635	492.72(a)
	65 1,4-Dichlorobenzene	146.00	Compound Not Detected.					

8/4/97

Appendix F

Laboratory Results of Soil Core VOC Analyses

BAKER ENVIRONMENTAL, INC.

Lab Name: QUANTERRA

SDG Number:

Matrix: (soil/water) SOLID

Lab Sample ID: H7L100182 017

Method: SW846 8260A
Volatile Organics, GC/MS (8260A)

Sample WT/Vol: 62.1 / g
Work Order: CEG4E101
Dilution factor: 1805.62
Moisture %:

Date Received: 12/10/97
Date Extracted: 12/12/97
Date Analyzed: 12/12/97

QC Batch: 7346142

Client Sample Id: IR88-RW04-03

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/kg	Q
108-88-3	Toluene	9000	U
108-90-7	Chlorobenzene	9000	U
100-41-4	Ethylbenzene	9000	U
100-42-5	Styrene	9000	U
1330-20-7	Xylenes (total)	9000	U

BAKER ENVIRONMENTAL, INC.

Lab Name:QUANTERRA

SDG Number:

Matrix: (soil/water) SOLID

Lab Sample ID:H7L060115 001

Method: SW846 8260A
Volatile Organics, GC/MS (8260A)

Sample WT/Vol: 37 / g
Work Order: CEE8T101
Dilution factor: 4900

Date Received: 12/06/97
Date Extracted:12/09/97
Date Analyzed: 12/09/97

QC Batch: 7343138

Client Sample Id: IR88-EX01-01

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/kg	Q
108-88-3	Toluene	24000	U
108-90-7	Chlorobenzene	24000	U
100-41-4	Ethylbenzene	24000	U
100-42-5	Styrene	24000	U
1330-20-7	Xylenes (total)	24000	U

BAKER ENVIRONMENTAL, INC.

Lab Name:QUANTERRA

SDG Number:

Matrix: (soil/water) SOLID

Lab Sample ID:H7L060115 001

Method: SW846 8260A
Volatile Organics, GC/MS (8260A)

Sample WT/Vol: 37 / g

Date Received: 12/06/97

Work Order: CEE8T201

Date Extracted:12/10/97

Dilution factor: 24500

Date Analyzed: 12/10/97

QC Batch: 7344136

DVP.

Client Sample Id: IR88-EX01-01 -RE 1

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/kg	Q
74-87-3	Chloromethane	240000	U
74-83-9	Bromomethane	240000	U
75-01-4	Vinyl chloride	240000	U
75-00-3	Chloroethane	240000	U
75-09-2	Methylene chloride	120000	U
67-64-1	Acetone	490000	U
75-15-0	Carbon disulfide	120000	U
75-35-4	1,1-Dichloroethene	120000	U
75-34-3	1,1-Dichloroethane	120000	U
540-59-0	1,2-Dichloroethene (total)	120000	U
67-66-3	Chloroform	120000	U
107-06-2	1,2-Dichloroethane	120000	U
78-93-3	2-Butanone	490000	U
71-55-6	1,1,1-Trichloroethane	120000	U
56-23-5	Carbon tetrachloride	120000	U
75-27-4	Bromodichloromethane	120000	U
78-87-5	1,2-Dichloropropane	120000	U
10061-01-5	cis-1,3-Dichloropropene	120000	U
79-01-6	Trichloroethene	120000	U
124-48-1	Dibromochloromethane	120000	U
79-00-5	1,1,2-Trichloroethane	120000	U
71-43-2	Benzene	120000	U
10061-02-6	trans-1,3-Dichloropropene	120000	U
75-25-2	Bromoform	120000	U
108-10-1	4-Methyl-2-pentanone	490000	U
591-78-6	2-Hexanone	490000	U
127-18-4	Tetrachloroethene	2700000	D
79-34-5	1,1,2,2-Tetrachloroethane	120000	U

BAKER ENVIRONMENTAL, INC.

Lab Name:QUANTERRA

SDG Number:

Matrix: (soil/water) SOLID

Lab Sample ID:H7L060115 001

Method: SW846 8260A
Volatile Organics, GC/MS (8260A)

Sample WT/Vol: 37 / g

Date Received: 12/06/97

Work Order: CEE8T201

Date Extracted:12/10/97

Dilution factor: 24500

Date Analyzed: 12/10/97

QC Batch: 7344136

Client Sample Id: IR88-EX01-01 -RE 1

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/kg	Q
108-88-3	Toluene	120000	U
108-90-7	Chlorobenzene	120000	U
100-41-4	Ethylbenzene	120000	U
100-42-5	Styrene	120000	U
1330-20-7	Xylenes (total)	120000	U

BAKER ENVIRONMENTAL, INC.

Lab Name:QUANTERRA

SDG Number:

Matrix: (soil/water) SOLID

Lab Sample ID:H7L060115 002

Method: SW846 8260A
Volatile Organics, GC/MS (8260A)

Sample WT/Vol: 45.3 / g
Work Order: CEE8X101
Dilution factor: 86738

Date Received: 12/06/97
Date Extracted:12/09/97
Date Analyzed: 12/09/97

QC Batch: 7343138

Client Sample Id: IR88-EX01-02

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/kg	Q
74-87-3	Chloromethane	870000	U
74-83-9	Bromomethane	870000	U
75-01-4	Vinyl chloride	870000	U
75-00-3	Chloroethane	870000	U
75-09-2	Methylene chloride	430000	U
67-64-1	Acetone	1700000	U
75-15-0	Carbon disulfide	430000	U
75-35-4	1,1-Dichloroethene	430000	U
75-34-3	1,1-Dichloroethane	430000	U
540-59-0	1,2-Dichloroethene (total)	430000	U
67-66-3	Chloroform	430000	U
107-06-2	1,2-Dichloroethane	430000	U
78-93-3	2-Butanone	1700000	U
71-55-6	1,1,1-Trichloroethane	430000	U
56-23-5	Carbon tetrachloride	430000	U
75-27-4	Bromodichloromethane	430000	U
78-87-5	1,2-Dichloropropane	430000	U
10061-01-5	cis-1,3-Dichloropropene	430000	U
79-01-6	Trichloroethene	430000	U
124-48-1	Dibromochloromethane	430000	U
79-00-5	1,1,2-Trichloroethane	430000	U
71-43-2	Benzene	430000	U
10061-02-6	trans-1,3-Dichloropropene	430000	U
75-25-2	Bromoform	430000	U
108-10-1	4-Methyl-2-pentanone	1700000	U
591-78-6	2-Hexanone	1700000	U
127-18-4	**Tetrachloroethene**	**36000000**	**E**
79-34-5	1,1,2,2-Tetrachloroethane	430000	U

BAKER ENVIRONMENTAL, INC.

Lab Name:QUANTERRA

SDG Number:

Matrix: (soil/water) SOLID

Lab Sample ID:H7L060115 002

Method: SW846 8260A
Volatile Organics, GC/MS (8260A)

Sample WT/Vol: 45.3 / g

Date Received: 12/06/97

Work Order: CEE8X101

Date Extracted:12/09/97

Dilution factor: 86738

Date Analyzed: 12/09/97

QC Batch: 7343138

Client Sample Id: IR88-EX01-02

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/kg	Q
108-88-3	Toluene	430000	U
108-90-7	Chlorobenzene	430000	U
100-41-4	Ethylbenzene	430000	U
100-42-5	Styrene	430000	U
1330-20-7	Xylenes (total)	430000	U

BAKER ENVIRONMENTAL, INC.

Lab Name:QUANTERRA

SDG Number:

Matrix: (soil/water) SOLID

Lab Sample ID:H7L060115 002

Method: SW846 8260A
Volatile Organics, GC/MS (8260A)

Sample WT/Vol: 45.3 / g
Work Order: CEE8X201
Dilution factor: 289125

Date Received: 12/06/97
Date Extracted:12/10/97
Date Analyzed: 12/10/97

QC Batch: 7344136

Client Sample Id: IR88-EX01-02 -RE 1

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/kg	Q
74-87-3	Chloromethane	2900000	U
74-83-9	Bromomethane	2900000	U
75-01-4	Vinyl chloride	2900000	U
75-00-3	Chloroethane	2900000	U
75-09-2	Methylene chloride	1400000	U
67-64-1	Acetone	5800000	U
75-15-0	Carbon disulfide	1400000	U
75-35-4	1,1-Dichloroethene	1400000	U
75-34-3	1,1-Dichloroethane	1400000	U
540-59-0	1,2-Dichloroethene (total)	1400000	U
67-66-3	Chloroform	1400000	U
107-06-2	1,2-Dichloroethane	1400000	U
78-93-3	2-Butanone	5800000	U
71-55-6	1,1,1-Trichloroethane	1400000	U
56-23-5	Carbon tetrachloride	1400000	U
75-27-4	Bromodichloromethane	1400000	U
78-87-5	1,2-Dichloropropane	1400000	U
10061-01-5	cis-1,3-Dichloropropene	1400000	U
79-01-6	Trichloroethene	1400000	U
124-48-1	Dibromochloromethane	1400000	U
79-00-5	1,1,2-Trichloroethane	1400000	U
71-43-2	Benzene	1400000	U
10061-02-6	trans-1,3-Dichloropropene	1400000	U
75-25-2	Bromoform	1400000	U
108-10-1	4-Methyl-2-pentanone	5800000	U
591-78-6	2-Hexanone	5800000	U
127-18-4	Tetrachloroethene	38000000	D
79-34-5	1,1,2,2-Tetrachloroethane	1400000	U

BAKER ENVIRONMENTAL, INC.

Lab Name:QUANTERRA

SDG Number:

Matrix: (soil/water) SOLID

Lab Sample ID:H7L060115 002

Method: SW846 8260A
Volatile Organics, GC/MS (8260A)

Sample WT/Vol: 45.3 / g

Date Received: 12/06/97

Work Order: CEE8X201

Date Extracted:12/10/97

Dilution factor: 289125

Date Analyzed: 12/10/97

QC Batch: 7344136

Client Sample Id: IR88-EX01-02 -RE 1

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/kg	Q
108-88-3	Toluene	1400000	U
108-90-7	Chlorobenzene	1400000	U
100-41-4	Ethylbenzene	1400000	U
100-42-5	Styrene	1400000	U
1330-20-7	Xylenes (total)	1400000	U

BAKER ENVIRONMENTAL, INC.

Lab Name:QUANTERRA

SDG Number:

Matrix: (soil/water) SOLID

Lab Sample ID:H7L060115 003

Method: SW846 8260A
Volatile Organics, GC/MS (8260A)

Sample WT/Vol: 50.2 / g
Work Order: CEE90101
Dilution factor: 40772

Date Received: 12/06/97
Date Extracted:12/09/97
Date Analyzed: 12/09/97

QC Batch: 7343138

Client Sample Id: IR88-EX01-03

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/kg	Q
74-87-3	Chloromethane	410000	U
74-83-9	Bromomethane	410000	U
75-01-4	Vinyl chloride	410000	U
75-00-3	Chloroethane	410000	U
75-09-2	Methylene chloride	200000	U
67-64-1	Acetone	820000	U
75-15-0	Carbon disulfide	200000	U
75-35-4	1,1-Dichloroethene	200000	U
75-34-3	1,1-Dichloroethane	200000	U
540-59-0	1,2-Dichloroethene (total)	200000	U
67-66-3	Chloroform	200000	U
107-06-2	1,2-Dichloroethane	200000	U
78-93-3	2-Butanone	820000	U
71-55-6	1,1,1-Trichloroethane	200000	U
56-23-5	Carbon tetrachloride	200000	U
75-27-4	Bromodichloromethane	200000	U
78-87-5	1,2-Dichloropropane	200000	U
10061-01-5	cis-1,3-Dichloropropene	200000	U
79-01-6	Trichloroethene	200000	U
124-48-1	Dibromochloromethane	200000	U
79-00-5	1,1,2-Trichloroethane	200000	U
71-43-2	Benzene	200000	U
10061-02-6	trans-1,3-Dichloropropene	200000	U
75-25-2	Bromoform	200000	U
108-10-1	4-Methyl-2-pentanone	820000	U
591-78-6	2-Hexanone	820000	U
127-18-4	**Tetrachloroethene**	**24000000**	**E**
79-34-5	1,1,2,2-Tetrachloroethane	200000	U

BAKER ENVIRONMENTAL, INC.

Lab Name:QUANTERRA

SDG Number:

Matrix: (soil/water) SOLID

Lab Sample ID:H7L060115 003

Method: SW846 8260A
Volatile Organics, GC/MS (8260A)

Sample WT/Vol: 50.2 / g
Work Order: CEE90101
Dilution factor: 40772

Date Received: 12/06/97
Date Extracted:12/09/97
Date Analyzed: 12/09/97

QC Batch: 7343138

Client Sample Id: IR88-EX01-03

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/kg	Q
108-88-3	Toluene	200000	U
108-90-7	Chlorobenzene	200000	U
100-41-4	Ethylbenzene	200000	U
100-42-5	Styrene	200000	U
1330-20-7	Xylenes (total)	200000	U

BAKER ENVIRONMENTAL, INC.

Lab Name:QUANTERRA

SDG Number:

Matrix: (soil/water) SOLID

Lab Sample ID:H7L060115 003

Method: SW846 8260A
Volatile Organics, GC/MS (8260A)

Sample WT/Vol: 50.2 / g
Work Order: CEE90201
Dilution factor: 203859

Date Received: 12/06/97
Date Extracted:12/10/97
Date Analyzed: 12/10/97

QC Batch: 7344136

Client Sample Id: IR88-EX01-03 -RE 1

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/kg	Q
74-87-3	Chloromethane	2000000	U
74-83-9	Bromomethane	2000000	U
75-01-4	Vinyl chloride	2000000	U
75-00-3	Chloroethane	2000000	U
75-09-2	Methylene chloride	1000000	U
67-64-1	Acetone	4100000	U
75-15-0	Carbon disulfide	1000000	U
75-35-4	1,1-Dichloroethene	1000000	U
75-34-3	1,1-Dichloroethane	1000000	U
540-59-0	1,2-Dichloroethene (total)	1000000	U
67-66-3	Chloroform	1000000	U
107-06-2	1,2-Dichloroethane	1000000	U
78-93-3	2-Butanone	4100000	U
71-55-6	1,1,1-Trichloroethane	1000000	U
56-23-5	Carbon tetrachloride	1000000	U
75-27-4	Bromodichloromethane	1000000	U
78-87-5	1,2-Dichloropropane	1000000	U
10061-01-5	cis-1,3-Dichloropropene	1000000	U
79-01-6	Trichloroethene	1000000	U
124-48-1	Dibromochloromethane	1000000	U
79-00-5	1,1,2-Trichloroethane	1000000	U
71-43-2	Benzene	1000000	U
10061-02-6	trans-1,3-Dichloropropene	1000000	U
75-25-2	Bromoform	1000000	U
108-10-1	4-Methyl-2-pentanone	4100000	U
591-78-6	2-Hexanone	4100000	U
127-18-4	Tetrachloroethene	27000000	D
79-34-5	1,1,2,2-Tetrachloroethane	1000000	U

BAKER ENVIRONMENTAL, INC.

Lab Name:QUANTERRA

SDG Number:

Matrix: (soil/water) SOLID

Lab Sample ID:H7L060115 003

Method: SW846 8260A
Volatile Organics, GC/MS (8260A)

Sample WT/Vol: 50.2 / g
Work Order: CEE90201
Dilution factor: 203859

Date Received: 12/06/97
Date Extracted:12/10/97
Date Analyzed: 12/10/97

QC Batch: 7344136

Client Sample Id: IR88-EX01-03 -RE 1

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/kg	Q
108-88-3	Toluene	1000000	U
108-90-7	Chlorobenzene	1000000	U
100-41-4	Ethylbenzene	1000000	U
100-42-5	Styrene	1000000	U
1330-20-7	Xylenes (total)	1000000	U

BAKER ENVIRONMENTAL, INC.

Lab Name:QUANTERRA

SDG Number:

Matrix: (soil/water) SOLID

Lab Sample ID:H7L060115 004

Method: SW846 8260A
Volatile Organics, GC/MS (8260A)

Sample WT/Vol: 54.1 / g
Work Order: CEE91101
Dilution factor: 41.69

Date Received: 12/06/97
Date Extracted:12/09/97
Date Analyzed: 12/10/97

QC Batch: 7343138

Client Sample Id: IR88-EX02-01

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/kg	Q
74-87-3	Chloromethane	420	U
74-83-9	Bromomethane	420	U
75-01-4	Vinyl chloride	420	U
75-00-3	Chloroethane	420	U
75-09-2	Methylene chloride	210	U
67-64-1	Acetone	830	U
75-15-0	Carbon disulfide	210	U
75-35-4	1,1-Dichloroethene	210	U
75-34-3	1,1-Dichloroethane	210	U
540-59-0	1,2-Dichloroethene (total)	210	U
67-66-3	Chloroform	210	U
107-06-2	1,2-Dichloroethane	210	U
78-93-3	**2-Butanone**	**1600**	
71-55-6	1,1,1-Trichloroethane	210	U
56-23-5	Carbon tetrachloride	210	U
75-27-4	Bromodichloromethane	210	U
78-87-5	1,2-Dichloropropane	210	U
10061-01-5	cis-1,3-Dichloropropene	210	U
79-01-6	Trichloroethene	210	U
124-48-1	Dibromochloromethane	210	U
79-00-5	1,1,2-Trichloroethane	210	U
71-43-2	Benzene	210	U
10061-02-6	trans-1,3-Dichloropropene	210	U
75-25-2	Bromoform	210	U
108-10-1	4-Methyl-2-pentanone	830	U
591-78-6	2-Hexanone	830	U
127-18-4	**Tetrachloroethene**	**1000**	
79-34-5	1,1,2,2-Tetrachloroethane	210	U

BAKER ENVIRONMENTAL, INC.

Lab Name:QUANTERRA

SDG Number:

Matrix: (soil/water) SOLID

Lab Sample ID:H7L060115 004

Method: SW846 8260A
Volatile Organics, GC/MS (8260A)

Sample WT/Vol: 54.1 / g

Date Received: 12/06/97

Work Order: CEE91101

Date Extracted:12/09/97

Dilution factor: 41.69

Date Analyzed: 12/10/97

QC Batch: 7343138

Client Sample Id: IR88-EX02-01

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/kg	Q
108-88-3	Toluene	210	U
108-90-7	Chlorobenzene	210	U
100-41-4	Ethylbenzene	210	U
100-42-5	Styrene	210	U
1330-20-7	Xylenes (total)	210	U

BAKER ENVIRONMENTAL, INC.

Lab Name:QUANTERRA

SDG Number:

Matrix: (soil/water) SOLID

Lab Sample ID:H7L060115 005

Method: SW846 8260A
Volatile Organics, GC/MS (8260A)

Sample WT/Vol: 57.8 / g
Work Order: CEE93101
Dilution factor: 122.77

Date Received: 12/06/97
Date Extracted:12/10/97
Date Analyzed: 12/10/97

QC Batch: 7344136

Client Sample Id: IR88-EX02-02

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/kg	Q
74-87-3	Chloromethane	1200	U
74-83-9	Bromomethane	1200	U
75-01-4	Vinyl chloride	1200	U
75-00-3	Chloroethane	1200	U
75-09-2	Methylene chloride	610	U
67-64-1	Acetone	2500	U
75-15-0	Carbon disulfide	610	U
75-35-4	1,1-Dichloroethene	610	U
75-34-3	1,1-Dichloroethane	610	U
540-59-0	1,2-Dichloroethene (total)	610	U
67-66-3	Chloroform	610	U
107-06-2	1,2-Dichloroethane	610	U
78-93-3	**2-Butanone**	**1300**	**J**
71-55-6	1,1,1-Trichloroethane	610	U
56-23-5	Carbon tetrachloride	610	U
75-27-4	Bromodichloromethane	610	U
78-87-5	1,2-Dichloropropane	610	U
10061-01-5	cis-1,3-Dichloropropene	610	U
79-01-6	Trichloroethene	610	U
124-48-1	Dibromochloromethane	610	U
79-00-5	1,1,2-Trichloroethane	610	U
71-43-2	Benzene	610	U
10061-02-6	trans-1,3-Dichloropropene	610	U
75-25-2	Bromoform	610	U
108-10-1	4-Methyl-2-pentanone	2500	U
591-78-6	2-Hexanone	2500	U
127-18-4	**Tetrachloroethene**	**15000**	
79-34-5	1,1,2,2-Tetrachloroethane	610	U

BAKER ENVIRONMENTAL, INC.

Lab Name:QUANTERRA

SDG Number:

Matrix: (soil/water) SOLID

Lab Sample ID:H7L060115 005

Method: SW846 8260A
Volatile Organics, GC/MS (8260A)

Sample WT/Vol: 57.8 / g
Work Order: CEE93101
Dilution factor: 122.77

Date Received: 12/06/97
Date Extracted:12/10/97
Date Analyzed: 12/10/97

QC Batch: 7344136

Client Sample Id: IR88-EX02-02

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/kg	Q
108-88-3	Toluene	610	U
108-90-7	Chlorobenzene	610	U
100-41-4	Ethylbenzene	610	U
100-42-5	Styrene	610	U
1330-20-7	Xylenes (total)	610	U

BAKER ENVIRONMENTAL, INC.

Lab Name:QUANTERRA

SDG Number:

Matrix: (soil/water) SOLID

Lab Sample ID:H7L060115 006

Method: SW846 8260A
Volatile Organics, GC/MS (8260A)

Sample WT/Vol: 32.4 / g
Work Order: CEE95101
Dilution factor: 666.81

Date Received: 12/06/97
Date Extracted:12/10/97
Date Analyzed: 12/10/97

QC Batch: 7344136

Client Sample Id: IR88-EX02-03

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/kg	Q
74-87-3	Chloromethane	6700	U
74-83-9	Bromomethane	6700	U
75-01-4	Vinyl chloride	6700	U
75-00-3	Chloroethane	6700	U
75-09-2	Methylene chloride	3300	U
67-64-1	Acetone	13000	U
75-15-0	Carbon disulfide	3300	U
75-35-4	1,1-Dichloroethene	3300	U
75-34-3	1,1-Dichloroethane	3300	U
540-59-0	1,2-Dichloroethene (total)	3300	U
67-66-3	Chloroform	3300	U
107-06-2	1,2-Dichloroethane	3300	U
78-93-3	**2-Butanone**	**3500**	**J**
71-55-6	1,1,1-Trichloroethane	3300	U
56-23-5	Carbon tetrachloride	3300	U
75-27-4	Bromodichloromethane	3300	U
78-87-5	1,2-Dichloropropane	3300	U
10061-01-5	cis-1,3-Dichloropropene	3300	U
79-01-6	Trichloroethene	3300	U
124-48-1	Dibromochloromethane	3300	U
79-00-5	1,1,2-Trichloroethane	3300	U
71-43-2	Benzene	3300	U
10061-02-6	trans-1,3-Dichloropropene	3300	U
75-25-2	Bromoform	3300	U
108-10-1	4-Methyl-2-pentanone	13000	U
591-78-6	2-Hexanone	13000	U
127-18-4	**Tetrachloroethene**	**83000**	
79-34-5	1,1,2,2-Tetrachloroethane	3300	U

BAKER ENVIRONMENTAL, INC.

Lab Name:QUANTERRA

SDG Number:

Matrix: (soil/water) SOLID

Lab Sample ID:H7L060115 006

Method: SW846 8260A
Volatile Organics, GC/MS (8260A)

Sample WT/Vol: 32.4 / g

Date Received: 12/06/97

Work Order: CEE95101

Date Extracted:12/10/97

Dilution factor: 666.81

Date Analyzed: 12/10/97

QC Batch: 7344136

Client Sample Id: IR88-EX02-03

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/kg	Q
108-88-3	Toluene	3300	U
108-90-7	Chlorobenzene	3300	U
100-41-4	Ethylbenzene	3300	U
100-42-5	Styrene	3300	U
1330-20-7	Xylenes (total)	3300	U

BAKER ENVIRONMENTAL, INC.

Lab Name:QUANTERRA

SDG Number:

Matrix: (soil/water) SOLID
Method: SW846 8260A
Volatile Organics, GC/MS (8260A)

Lab Sample ID:H7L060115 007

Sample WT/Vol: 46.5 / g
Work Order: CEE97101
Dilution factor: 912.93

Date Received: 12/06/97
Date Extracted:12/09/97
Date Analyzed: 12/09/97

QC Batch: 7343138

Client Sample Id: IR88-EX04-01

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/kg	Q
74-87-3	Chloromethane	9100	U
74-83-9	Bromomethane	9100	U
75-01-4	Vinyl chloride	9100	U
75-00-3	Chloroethane	9100	U
75-09-2	Methylene chloride	4600	U
67-64-1	Acetone	18000	U
75-15-0	Carbon disulfide	4600	U
75-35-4	1,1-Dichloroethene	4600	U
75-34-3	1,1-Dichloroethane	4600	U
540-59-0	**1,2-Dichloroethene (total)**	**1800**	**J**
67-66-3	Chloroform	4600	U
107-06-2	1,2-Dichloroethane	4600	U
78-93-3	2-Butanone	18000	U
71-55-6	1,1,1-Trichloroethane	4600	U
56-23-5	Carbon tetrachloride	4600	U
75-27-4	Bromodichloromethane	4600	U
78-87-5	1,2-Dichloropropane	4600	U
10061-01-5	cis-1,3-Dichloropropene	4600	U
79-01-6	**Trichloroethene**	**1500**	**J**
124-48-1	Dibromochloromethane	4600	U
79-00-5	1,1,2-Trichloroethane	4600	U
71-43-2	Benzene	4600	U
10061-02-6	trans-1,3-Dichloropropene	4600	U
75-25-2	Bromoform	4600	U
108-10-1	4-Methyl-2-pentanone	18000	U
591-78-6	2-Hexanone	18000	U
127-18-4	**Tetrachloroethene**	**100000**	
79-34-5	1,1,2,2-Tetrachloroethane	4600	U

BAKER ENVIRONMENTAL, INC.

Lab Name:QUANTERRA

SDG Number:

Matrix: (soil/water) SOLID
Method: SW846 8260A
Volatile Organics, GC/MS (8260A)

Lab Sample ID:H7L060115 007

Sample WT/Vol: 46.5 / g
Work Order: CEE97101
Dilution factor: 912,93

Date Received: 12/06/97
Date Extracted:12/09/97
Date Analyzed: 12/09/97

QC Batch: 7343138

Client Sample Id: IR88-EX04-01

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/kg	Q
108-88-3	Toluene	4600	U
108-90-7	Chlorobenzene	4600	U
100-41-4	Ethylbenzene	4600	U
100-42-5	Styrene	4600	U
1330-20-7	Xylenes (total)	4600	U

BAKER ENVIRONMENTAL, INC.

Lab Name:QUANTERRA

SDG Number:

Matrix: (soil/water) SOLID

Lab Sample ID:H7L060115 008

Method: SW846 8260A
Volatile Organics, GC/MS (8260A)

Sample WT/Vol: 79.3 / g
Work Order: CEE99101
Dilution factor: 174,71

Date Received: 12/06/97
Date Extracted:12/09/97
Date Analyzed: 12/09/97

QC Batch: 7343138

Client Sample Id: IR88-EX04-02

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/kg	Q
74-87-3	Chloromethane	1700	U
74-83-9	Bromomethane	1700	U
75-01-4	Vinyl chloride	1700	U
75-00-3	Chloroethane	1700	U
75-09-2	Methylene chloride	870	U
67-64-1	Acetone	3500	U
75-15-0	Carbon disulfide	870	U
75-35-4	1,1-Dichloroethene	870	U
75-34-3	1,1-Dichloroethane	870	U
540-59-0	1,2-Dichloroethene (total)	870	U
67-66-3	Chloroform	870	U
107-06-2	1,2-Dichloroethane	870	U
78-93-3	2-Butanone	1000	J
71-55-6	1,1,1-Trichloroethane	870	U
56-23-5	Carbon tetrachloride	870	U
75-27-4	Bromodichloromethane	870	U
78-87-5	1,2-Dichloropropane	870	U
10061-01-5	cis-1,3-Dichloropropene	870	U
79-01-6	Trichloroethene	870	U
124-48-1	Dibromochloromethane	870	U
79-00-5	1,1,2-Trichloroethane	870	U
71-43-2	Benzene	870	U
10061-02-6	trans-1,3-Dichloropropene	870	U
75-25-2	Bromoform	870	U
108-10-1	4-Methyl-2-pentanone	3500	U
591-78-6	2-Hexanone	3500	U
127-18-4	Tetrachloroethene	18000	
79-34-5	1,1,2,2-Tetrachloroethane	870	U

BAKER ENVIRONMENTAL, INC.

Lab Name:QUANTERRA

SDG Number:

Matrix: (soil/water) SOLID

Lab Sample ID:H7L060115 008

Method: SW846 8260A
Volatile Organics, GC/MS (8260A)

Sample WT/Vol: 79.3 / g
Work Order: CEE99101
Dilution factor: 174,71

Date Received: 12/06/97
Date Extracted:12/09/97
Date Analyzed: 12/09/97

QC Batch: 7343138

Client Sample Id: IR88-EX04-02

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/kg	Q
108-88-3	Toluene	870	U
108-90-7	Chlorobenzene	870	U
100-41-4	Ethylbenzene	870	U
100-42-5	Styrene	870	U
1330-20-7	Xylenes (total)	870	U

BAKER ENVIRONMENTAL, INC.

Lab Name:QUANTERRA

SDG Number:

Matrix: (soil/water) SOLID
Method: SW846 8260A
Volatile Organics, GC/MS (8260A)

Lab Sample ID:H7L060115 009

Sample WT/Vol: 103.1 / g
Work Order: CEE9D101
Dilution factor: 21506

Date Received: 12/06/97
Date Extracted:12/09/97
Date Analyzed: 12/09/97

QC Batch: 7343138

Client Sample Id: IR88-EX04-03

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/kg	Q
74-87-3	Chloromethane	220000	U
74-83-9	Bromomethane	220000	U
75-01-4	Vinyl chloride	220000	U
75-00-3	Chloroethane	220000	U
75-09-2	Methylene chloride	110000	U
67-64-1	Acetone	430000	U
75-15-0	Carbon disulfide	110000	U
75-35-4	1,1-Dichloroethene	110000	U
75-34-3	1,1-Dichloroethane	110000	U
540-59-0	1,2-Dichloroethene (total)	110000	U
67-66-3	Chloroform	110000	U
107-06-2	1,2-Dichloroethane	110000	U
78-93-3	2-Butanone	430000	U
71-55-6	1,1,1-Trichloroethane	110000	U
56-23-5	Carbon tetrachloride	110000	U
75-27-4	Bromodichloromethane	110000	U
78-87-5	1,2-Dichloropropane	110000	U
10061-01-5	cis-1,3-Dichloropropene	110000	U
79-01-6	Trichloroethene	110000	U
124-48-1	Dibromochloromethane	110000	U
79-00-5	1,1,2-Trichloroethane	110000	U
71-43-2	Benzene	110000	U
10061-02-6	trans-1,3-Dichloropropene	110000	U
75-25-2	Bromoform	110000	U
108-10-1	4-Methyl-2-pentanone	430000	U
591-78-6	2-Hexanone	430000	U
127-18-4	**Tetrachloroethene**	**8000000**	**E**
79-34-5	1,1,2,2-Tetrachloroethane	110000	U

BAKER ENVIRONMENTAL, INC.

Lab Name:QUANTERRA

SDG Number:

Matrix: (soil/water) SOLID

Lab Sample ID:H7L060115 009

Method: SW846 8260A
Volatile Organics, GC/MS (8260A)

Sample WT/Vol: 103.1 / g
Work Order: CEE9D101
Dilution factor: 21506

Date Received: 12/06/97
Date Extracted:12/09/97
Date Analyzed: 12/09/97

QC Batch: 7343138

Client Sample Id: IR88-EX04-03

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/kg	Q
108-88-3	Toluene	110000	U
108-90-7	Chlorobenzene	110000	U
100-41-4	Ethylbenzene	110000	U
100-42-5	Styrene	110000	U
1330-20-7	Xylenes (total)	110000	U

BAKER ENVIRONMENTAL, INC.

Lab Name:QUANTERRA

SDG Number:

Matrix: (soil/water) SOLID

Lab Sample ID:H7L060115 009

Method: SW846 8260A
Volatile Organics, GC/MS (8260A)

Sample WT/Vol: 103.1 / g
Work Order: CEE9D201
Dilution factor: 71689.4

Date Received: 12/06/97
Date Extracted:12/10/97
Date Analyzed: 12/10/97

QC Batch: 7344136

Client Sample Id: IR88-EX04-03 -RE 1

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/kg	Q
74-87-3	Chloromethane	720000	U
74-83-9	Bromomethane	720000	U
75-01-4	Vinyl chloride	720000	U
75-00-3	Chloroethane	720000	U
75-09-2	Methylene chloride	360000	U
67-64-1	Acetone	1400000	U
75-15-0	Carbon disulfide	360000	U
75-35-4	1,1-Dichloroethene	360000	U
75-34-3	1,1-Dichloroethane	360000	U
540-59-0	1,2-Dichloroethene (total)	360000	U
67-66-3	Chloroform	360000	U
107-06-2	1,2-Dichloroethane	360000	U
78-93-3	2-Butanone	1400000	U
71-55-6	1,1,1-Trichloroethane	360000	U
56-23-5	Carbon tetrachloride	360000	U
75-27-4	Bromodichloromethane	360000	U
78-87-5	1,2-Dichloropropane	360000	U
10061-01-5	cis-1,3-Dichloropropene	360000	U
79-01-6	Trichloroethene	360000	U
124-48-1	Dibromochloromethane	360000	U
79-00-5	1,1,2-Trichloroethane	360000	U
71-43-2	Benzene	360000	U
10061-02-6	trans-1,3-Dichloropropene	360000	U
75-25-2	Bromoform	360000	U
108-10-1	4-Methyl-2-pentanone	1400000	U
591-78-6	2-Hexanone	1400000	U
127-18-4	Tetrachloroethene	8400000	D
79-34-5	1,1,2,2-Tetrachloroethane	360000	U

BAKER ENVIRONMENTAL, INC.

Lab Name:QUANTERRA

SDG Number:

Matrix: (soil/water) SOLID

Lab Sample ID:H7L060115 009

Method: SW846 8260A
Volatile Organics, GC/MS (8260A)

Sample WT/Vol: 103.1 / g

Date Received: 12/06/97

Work Order: CEE9D201

Date Extracted:12/10/97

Dilution factor: 71689.4

Date Analyzed: 12/10/97

QC Batch: 7344136

Client Sample Id: IR88-EX04-03 -RE 1

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/kg	Q
108-88-3	Toluene	360000	U
108-90-7	Chlorobenzene	360000	U
100-41-4	Ethylbenzene	360000	U
100-42-5	Styrene	360000	U
1330-20-7	Xylenes (total)	360000	U

BAKER ENVIRONMENTAL, INC.

Lab Name:QUANTERRA

SDG Number:

Matrix: (soil/water) SOLID

Lab Sample ID:H7L060115 010

Method: SW846 8260A
Volatile Organics, GC/MS (8260A)

Sample WT/Vol: 74.5 / g
Work Order: CEE9E101
Dilution factor: 30.7

Date Received: 12/06/97
Date Extracted:12/09/97
Date Analyzed: 12/09/97

QC Batch: 7343138

Client Sample Id: IR88-EX05-01

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/kg	Q
74-87-3	Chloromethane	310	U
74-83-9	Bromomethane	310	U
75-01-4	Vinyl chloride	310	U
75-00-3	Chloroethane	310	U
75-09-2	Methylene chloride	150	U
67-64-1	Acetone	610	U
75-15-0	Carbon disulfide	150	U
75-35-4	1,1-Dichloroethene	150	U
75-34-3	1,1-Dichloroethane	150	U
540-59-0	1,2-Dichloroethene (total)	270	
67-66-3	Chloroform	150	U
107-06-2	1,2-Dichloroethane	150	U
78-93-3	2-Butanone	990	
71-55-6	1,1,1-Trichloroethane	150	U
56-23-5	Carbon tetrachloride	150	U
75-27-4	Bromodichloromethane	150	U
78-87-5	1,2-Dichloropropane	150	U
10061-01-5	cis-1,3-Dichloropropene	150	U
79-01-6	Trichloroethene	150	U
124-48-1	Dibromochloromethane	150	U
79-00-5	1,1,2-Trichloroethane	150	U
71-43-2	Benzene	150	U
10061-02-6	trans-1,3-Dichloropropene	150	U
75-25-2	Bromoform	150	U
108-10-1	4-Methyl-2-pentanone	610	U
591-78-6	2-Hexanone	610	U
127-18-4	Tetrachloroethene	1700	
79-34-5	1,1,2,2-Tetrachloroethane	150	U

BAKER ENVIRONMENTAL, INC.

Lab Name:QUANTERRA

SDG Number:

Matrix: (soil/water) SOLID

Lab Sample ID:H7L060115 010

Method: SW846 8260A
Volatile Organics, GC/MS (8260A)

Sample WT/Vol: 74.5 / g
Work Order: CEE9E101
Dilution factor: 30.7

Date Received: 12/06/97
Date Extracted:12/09/97
Date Analyzed: 12/09/97

QC Batch: 7343138

Client Sample Id: IR88-EX05-01

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/kg	Q
108-88-3	Toluene	150	U
108-90-7	Chlorobenzene	150	U
100-41-4	Ethylbenzene	150	U
100-42-5	Styrene	150	U
1330-20-7	Xylenes (total)	150	U

BAKER ENVIRONMENTAL, INC.

Lab Name:QUANTERRA

SDG Number:

Matrix: (soil/water) SOLID

Lab Sample ID:H7L060115 011

Method: SW846 8260A
Volatile Organics, GC/MS (8260A)

Sample WT/Vol: 91.4 / g
Work Order: CEE9F101
Dilution factor: 23.71

Date Received: 12/06/97
Date Extracted:12/10/97
Date Analyzed: 12/10/97

QC Batch: 7344136

Client Sample Id: IR88-EX05-02

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/kg	Q
74-87-3	Chloromethane	240	U
74-83-9	Bromomethane	240	U
75-01-4	**Vinyl chloride**	**1100**	
75-00-3	Chloroethane	240	U
75-09-2	Methylene chloride	120	U
67-64-1	Acetone	470	U
75-15-0	Carbon disulfide	120	U
75-35-4	1,1-Dichloroethene	120	U
75-34-3	1,1-Dichloroethane	120	U
540-59-0	**1,2-Dichloroethene (total)**	**2200**	
67-66-3	Chloroform	120	U
107-06-2	1,2-Dichloroethane	120	U
78-93-3	**2-Butanone**	**860**	
71-55-6	1,1,1-Trichloroethane	120	U
56-23-5	Carbon tetrachloride	120	U
75-27-4	Bromodichloromethane	120	U
78-87-5	1,2-Dichloropropane	120	U
10061-01-5	cis-1,3-Dichloropropene	120	U
79-01-6	Trichloroethene	120	U
124-48-1	Dibromochloromethane	120	U
79-00-5	1,1,2-Trichloroethane	120	U
71-43-2	Benzene	120	U
10061-02-6	trans-1,3-Dichloropropene	120	U
75-25-2	Bromoform	120	U
108-10-1	4-Methyl-2-pentanone	470	U
591-78-6	2-Hexanone	470	U
127-18-4	**Tetrachloroethene**	**570**	
79-34-5	1,1,2,2-Tetrachloroethane	120	U

BAKER ENVIRONMENTAL, INC.

Lab Name:QUANTERRA

SDG Number:

Matrix: (soil/water) SOLID

Lab Sample ID:H7L060115 011

Method: SW846 8260A
Volatile Organics, GC/MS (8260A)

Sample WT/Vol: 91.4 / g
Work Order: CEE9F101
Dilution factor: 23.71

Date Received: 12/06/97
Date Extracted:12/10/97
Date Analyzed: 12/10/97

QC Batch: 7344136

Client Sample Id: IR88-EX05-02

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/kg	Q
108-88-3	Toluene	120	U
108-90-7	Chlorobenzene	120	U
100-41-4	Ethylbenzene	120	U
100-42-5	Styrene	120	U
1330-20-7	Xylenes (total)	54	J

BAKER ENVIRONMENTAL, INC.

Lab Name:QUANTERRA

SDG Number:

Matrix: (soil/water) SOLID

Lab Sample ID:H7L060115 012

Method: SW846 8260A
Volatile Organics, GC/MS (8260A)

Sample WT/Vol: 33.6 / g
Work Order: CEE9G101
Dilution factor: 560.27

Date Received: 12/06/97
Date Extracted:12/09/97
Date Analyzed: 12/09/97

QC Batch: 7343138

Client Sample Id: IR88-EX05-03

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/kg	Q
74-87-3	Chloromethane	5600	U
74-83-9	Bromomethane	5600	U
75-01-4	Vinyl chloride	5600	U
75-00-3	Chloroethane	5600	U
75-09-2	Methylene chloride	2800	U
67-64-1	Acetone	11000	U
75-15-0	Carbon disulfide	2800	U
75-35-4	1,1-Dichloroethene	2800	U
75-34-3	1,1-Dichloroethane	2800	U
540-59-0	1,2-Dichloroethene (total)	2800	U
67-66-3	Chloroform	2800	U
107-06-2	1,2-Dichloroethane	2800	U
78-93-3	**2-Butanone**	**2600**	**J**
71-55-6	1,1,1-Trichloroethane	2800	U
56-23-5	Carbon tetrachloride	2800	U
75-27-4	Bromodichloromethane	2800	U
78-87-5	1,2-Dichloropropane	2800	U
10061-01-5	cis-1,3-Dichloropropene	2800	U
79-01-6	Trichloroethene	2800	U
124-48-1	Dibromochloromethane	2800	U
79-00-5	1,1,2-Trichloroethane	2800	U
71-43-2	Benzene	2800	U
10061-02-6	trans-1,3-Dichloropropene	2800	U
75-25-2	Bromoform	2800	U
108-10-1	4-Methyl-2-pentanone	11000	U
591-78-6	2-Hexanone	11000	U
127-18-4	**Tetrachloroethene**	**73000**	
79-34-5	1,1,2,2-Tetrachloroethane	2800	U

BAKER ENVIRONMENTAL, INC.

Lab Name:QUANTERRA

SDG Number:

Matrix: (soil/water) SOLID

Lab Sample ID:H7L060115 012

Method: SW846 8260A
Volatile Organics, GC/MS (8260A)

Sample WT/Vol: 33.6 / g

Date Received: 12/06/97

Work Order: CEE9G101

Date Extracted:12/09/97

Dilution factor: 560,27

Date Analyzed: 12/09/97

QC Batch: 7343138

Client Sample Id: IR88-EX05-03

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/kg	Q
108-88-3	Toluene	2800	U
108-90-7	Chlorobenzene	2800	U
100-41-4	Ethylbenzene	2800	U
100-42-5	Styrene	2800	U
1330-20-7	Xylenes (total)	2800	U

BAKER ENVIRONMENTAL, INC.

Lab Name:QUANTERRA

SDG Number:

Matrix: (soil/water) SOLID

Lab Sample ID:H7L060115 013

Method: SW846 8260A
Volatile Organics, GC/MS (8260A)

Sample WT/Vol: 105.6 / g
Work Order: CEE9H101
Dilution factor: 22.01

Date Received: 12/06/97
Date Extracted:12/10/97
Date Analyzed: 12/10/97

QC Batch: 7344136

Client Sample Id: IR88-EX06-01

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/kg	Q
74-87-3	Chloromethane	220	U
74-83-9	Bromomethane	220	U
75-01-4	**Vinyl chloride**	**200**	**J**
75-00-3	Chloroethane	220	U
75-09-2	Methylene chloride	110	U
67-64-1	Acetone	440	U
75-15-0	Carbon disulfide	110	U
75-35-4	1,1-Dichloroethene	110	U
75-34-3	1,1-Dichloroethane	110	U
540-59-0	**1,2-Dichloroethene (total)**	**330**	
67-66-3	Chloroform	110	U
107-06-2	1,2-Dichloroethane	110	U
78-93-3	**2-Butanone**	**810**	
71-55-6	1,1,1-Trichloroethane	110	U
56-23-5	Carbon tetrachloride	110	U
75-27-4	Bromodichloromethane	110	U
78-87-5	1,2-Dichloropropane	110	U
10061-01-5	cis-1,3-Dichloropropene	110	U
79-01-6	Trichloroethene	110	U
124-48-1	Dibromochloromethane	110	U
79-00-5	1,1,2-Trichloroethane	110	U
71-43-2	Benzene	110	U
10061-02-6	trans-1,3-Dichloropropene	110	U
75-25-2	Bromoform	110	U
108-10-1	4-Methyl-2-pentanone	440	U
591-78-6	2-Hexanone	440	U
127-18-4	**Tetrachloroethene**	**450**	
79-34-5	1,1,2,2-Tetrachloroethane	110	U

BAKER ENVIRONMENTAL, INC.

Lab Name:QUANTERRA

SDG Number:

Matrix: (soil/water) SOLID

Lab Sample ID:H7L060115 013

Method: SW846 8260A
Volatile Organics, GC/MS (8260A)

Sample WT/Vol: 105.6 / g

Date Received: 12/06/97

Work Order: CEE9H101

Date Extracted:12/10/97

Dilution factor: 22.01

Date Analyzed: 12/10/97

QC Batch: 7344136

Client Sample Id: IR88-EX06-01

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/kg	Q
108-88-3	Toluene	110	U
108-90-7	Chlorobenzene	110	U
100-41-4	Ethylbenzene	110	U
100-42-5	Styrene	110	U
1330-20-7	Xylenes (total)	110	U

BAKER ENVIRONMENTAL, INC.

Lab Name:QUANTERRA

SDG Number:

Matrix: (soil/water) SOLID

Lab Sample ID:H7L060115 014

Method: SW846 8260A
Volatile Organics, GC/MS (8260A)

Sample WT/Vol: 111.5 / g
Work Order: CEE9J101
Dilution factor: 19.04

Date Received: 12/06/97
Date Extracted:12/09/97
Date Analyzed: 12/09/97

QC Batch: 7343138

Client Sample Id: IR88-EX06-02

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/kg	Q
74-87-3	Chloromethane	190	U
74-83-9	Bromomethane	190	U
75-01-4	Vinyl chloride	190	U
75-00-3	Chloroethane	190	U
75-09-2	Methylene chloride	95	U
67-64-1	Acetone	380	U
75-15-0	Carbon disulfide	95	U
75-35-4	1,1-Dichloroethene	95	U
75-34-3	1,1-Dichloroethane	95	U
540-59-0	1,2-Dichloroethene (total)	95	U
67-66-3	Chloroform	95	U
107-06-2	1,2-Dichloroethane	95	U
78-93-3	**2-Butanone**	**540**	
71-55-6	1,1,1-Trichloroethane	95	U
56-23-5	Carbon tetrachloride	95	U
75-27-4	Bromodichloromethane	95	U
78-87-5	1,2-Dichloropropane	95	U
10061-01-5	cis-1,3-Dichloropropene	95	U
79-01-6	Trichloroethene	95	U
124-48-1	Dibromochloromethane	95	U
79-00-5	1,1,2-Trichloroethane	95	U
71-43-2	Benzene	95	U
10061-02-6	trans-1,3-Dichloropropene	95	U
75-25-2	Bromoform	95	U
108-10-1	4-Methyl-2-pentanone	380	U
591-78-6	2-Hexanone	380	U
127-18-4	**Tetrachloroethene**	**520**	
79-34-5	1,1,2,2-Tetrachloroethane	95	U

BAKER ENVIRONMENTAL, INC.

Lab Name:QUANTERRA

SDG Number:

Matrix: (soil/water) SOLID

Lab Sample ID:H7L060115 014

Method: SW846 8260A
Volatile Organics, GC/MS (8260A)

Sample WT/Vol: 111.5 / g

Date Received: 12/06/97

Work Order: CEE9J101

Date Extracted:12/09/97

Dilution factor: 19.04

Date Analyzed: 12/09/97

QC Batch: 7343138

Client Sample Id: IR88-EX06-02

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/kg	Q
108-88-3	Toluene	95	U
108-90-7	Chlorobenzene	95	U
100-41-4	Ethylbenzene	95	U
100-42-5	Styrene	95	U
1330-20-7	Xylenes (total)	95	U

BAKER ENVIRONMENTAL, INC.

Lab Name:QUANTERRA

SDG Number:

Matrix: (soil/water) SOLID

Lab Sample ID:H7L060115 015

Method: SW846 8260A
Volatile Organics, GC/MS (8260A)

Sample WT/Vol: 61.3 / g
Work Order: CEE9K101
Dilution factor: 32.56

Date Received: 12/06/97
Date Extracted:12/09/97
Date Analyzed: 12/09/97

QC Batch: 7343138

Client Sample Id: IR88-EX06-03

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/kg	Q
74-87-3	Chloromethane	330	U
74-83-9	Bromomethane	330	U
75-01-4	Vinyl chloride	330	U
75-00-3	Chloroethane	330	U
75-09-2	Methylene chloride	160	U
67-64-1	Acetone	650	U
75-15-0	Carbon disulfide	160	U
75-35-4	1,1-Dichloroethene	160	U
75-34-3	1,1-Dichloroethane	160	U
540-59-0	1,2-Dichloroethene (total)	160	U
67-66-3	Chloroform	160	U
107-06-2	1,2-Dichloroethane	160	U
78-93-3	**2-Butanone**	**1200**	
71-55-6	1,1,1-Trichloroethane	160	U
56-23-5	Carbon tetrachloride	160	U
75-27-4	Bromodichloromethane	160	U
78-87-5	1,2-Dichloropropane	160	U
10061-01-5	cis-1,3-Dichloropropene	160	U
79-01-6	Trichloroethene	160	U
124-48-1	Dibromochloromethane	160	U
79-00-5	1,1,2-Trichloroethane	160	U
71-43-2	Benzene	160	U
10061-02-6	trans-1,3-Dichloropropene	160	U
75-25-2	Bromoform	160	U
108-10-1	4-Methyl-2-pentanone	650	U
591-78-6	2-Hexanone	650	U
127-18-4	**Tetrachloroethene**	**380**	
79-34-5	1,1,2,2-Tetrachloroethane	160	U

BAKER ENVIRONMENTAL, INC.

Lab Name:QUANTERRA

SDG Number:

Matrix: (soil/water) SOLID

Lab Sample ID:H7L060115 015

Method: SW846 8260A
Volatile Organics, GC/MS (8260A)

Sample WT/Vol: 61.3 / g

Date Received: 12/06/97

Work Order: CEE9K101

Date Extracted:12/09/97

Dilution factor: 32.56

Date Analyzed: 12/09/97

QC Batch: 7343138

Client Sample Id: IR88-EX06-03

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/kg	Q
108-88-3	Toluene	160	U
108-90-7	Chlorobenzene	160	U
100-41-4	Ethylbenzene	160	U
100-42-5	Styrene	160	U
1330-20-7	Xylenes (total)	160	U

QUANTERRA INCORPORATED

PRELIMINARY DATA SUMMARY

The results shown below may still require additional laboratory review and are subject to change. Actions taken based on these results are the responsibility of the data user.

Baker Environmental
Camp LeJeune
Project Number: CTO-356

Lot #: H7G290134 Date Reported: 8/05/97

Client Sample ID: IS01-1
Sample #: 001 Date Sampled: 07/25/97 11:40 Date Received: 07/29/97 Matrix: SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD
Volatile Organics by GC/MS				In Review
Benzene	ND	850	ug/kg	SW846 8260A
Bromobenzene	ND	850	ug/kg	SW846 8260A
Bromochloromethane	ND	850	ug/kg	SW846 8260A
Bromodichloromethane	ND	850	ug/kg	SW846 8260A
Bromoform	ND	850	ug/kg	SW846 8260A
Bromomethane	ND	1700	ug/kg	SW846 8260A
n-Butylbenzene	240 J	850	ug/kg	SW846 8260A
sec-Butylbenzene	ND	850	ug/kg	SW846 8260A
tert-Butylbenzene	ND	850	ug/kg	SW846 8260A
Carbon tetrachloride	ND	850	ug/kg	SW846 8260A
Chlorobenzene	ND	850	ug/kg	SW846 8260A
Chlorodibromomethane	ND	850	ug/kg	SW846 8260A
Chloroethane	ND	1700	ug/kg	SW846 8260A
Chloroform	ND	850	ug/kg	SW846 8260A
Chloromethane	ND	1700	ug/kg	SW846 8260A
2-Chlorotoluene	ND	850	ug/kg	SW846 8260A
4-Chlorotoluene	ND	850	ug/kg	SW846 8260A
1,2-Dibromo-3-chloro-propane	ND	1700	ug/kg	SW846 8260A
1,2-Dibromoethane	ND	850	ug/kg	SW846 8260A
Dibromomethane	ND	850	ug/kg	SW846 8260A
1,2-Dichlorobenzene	ND	850	ug/kg	SW846 8260A
1,3-Dichlorobenzene	ND	850	ug/kg	SW846 8260A
1,4-Dichlorobenzene	ND	850	ug/kg	SW846 8260A
Dichlorodifluoromethane	ND	1700	ug/kg	SW846 8260A
1,1-Dichloroethane	ND	850	ug/kg	SW846 8260A
1,2-Dichloroethane	250 J	850	ug/kg	SW846 8260A
1,1-Dichloroethene	ND	850	ug/kg	SW846 8260A
cis-1,2-Dichloroethene	12000	420	ug/kg	SW846 8260A
trans-1,2-Dichloroethene	ND	420	ug/kg	SW846 8260A
1,2-Dichloropropane	ND	850	ug/kg	SW846 8260A
1,3-Dichloropropane	ND	850	ug/kg	SW846 8260A
2,2-Dichloropropane	ND	850	ug/kg	SW846 8260A
1,1-Dichloropropene	ND	850	ug/kg	SW846 8260A
Ethylbenzene	ND	850	ug/kg	SW846 8260A
Hexachlorobutadiene	ND	850	ug/kg	SW846 8260A
Isopropylbenzene	ND	850	ug/kg	SW846 8260A

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QUANTERRA INCORPORATED

PRELIMINARY DATA SUMMARY

The results shown below may still require additional laboratory review and are subject to change. Actions taken based on these results are the responsibility of the data user.

Baker Environmental
Camp LeJeune
Project Number: CTO-356

Lot #: H7G290134 Date Reported: 8/05/97

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD	
Client Sample ID: IS01-1					
Sample #: 001 Date Sampled: 07/25/97 11:40 Date Received: 07/29/97 Matrix: SOLID					
Volatile Organics by GC/MS					In Review
p-Isopropyltoluene	320 J	850	ug/kg	SW846 8260A	
Methylene chloride	ND	850	ug/kg	SW846 8260A	
Naphthalene	ND	850	ug/kg	SW846 8260A	
n-Propylbenzene	ND	850	ug/kg	SW846 8260A	
Styrene	ND	850	ug/kg	SW846 8260A	
1,1,1,2-Tetrachloroethane	ND	850	ug/kg	SW846 8260A	
1,1,2,2-Tetrachloroethane	ND	850	ug/kg	SW846 8260A	
Tetrachloroethene	ND	850	ug/kg	SW846 8260A	
Toluene	ND	850	ug/kg	SW846 8260A	
1,2,3-Trichlorobenzene	ND	850	ug/kg	SW846 8260A	
1,2,4-Trichlorobenzene	ND	850	ug/kg	SW846 8260A	
1,1,1-Trichloroethane	ND	850	ug/kg	SW846 8260A	
1,1,2-Trichloroethane	ND	850	ug/kg	SW846 8260A	
Trichloroethene	ND	850	ug/kg	SW846 8260A	
Trichlorofluoromethane	ND	1700	ug/kg	SW846 8260A	
1,2,3-Trichloropropane	6600	850	ug/kg	SW846 8260A	
1,2,4-Trimethylbenzene	1800	850	ug/kg	SW846 8260A	
1,3,5-Trimethylbenzene	890	850	ug/kg	SW846 8260A	
Vinyl chloride	1800	1700	ug/kg	SW846 8260A	
o-Xylene	ND	420	ug/kg	SW846 8260A	
m-Xylene & p-Xylene	ND	420	ug/kg	SW846 8260A	

J Estimated result. Result is less than RL.

Inorganic Analysis					In Review
Percent Moisture	IN PROCESS	0.10	%	MCAWW 160.3 MOD	

Client Sample ID: IS01-2					
Sample #: 002 Date Sampled: 07/25/97 11:54 Date Received: 07/29/97 Matrix: SOLID					
Volatile Organics by GC/MS					In Review
Benzene	ND	1000	ug/kg	SW846 8260A	
Bromobenzene	ND	1000	ug/kg	SW846 8260A	
Bromochloromethane	ND	1000	ug/kg	SW846 8260A	
Bromodichloromethane	ND	1000	ug/kg	SW846 8260A	
Bromoform	ND	1000	ug/kg	SW846 8260A	

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QUANTERRA INCORPORATED

PRELIMINARY DATA SUMMARY

The results shown below may still require additional laboratory review and are subject to change. Actions taken based on these results are the responsibility of the data user.

Lot #: H7G290134

Baker Environmental
Camp LeJeune
Project Number: CTO-356

Date Reported: 8/05/97

Client Sample ID: IS01-2
Sample #: 002 Date Sampled: 07/25/97 11:54 Date Received: 07/29/97 Matrix: SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD	
Volatile Organics by GC/MS					In Review
Bromomethane	ND	2100	ug/kg	SW846 8260A	
n-Butylbenzene	670 J	1000	ug/kg	SW846 8260A	
sec-Butylbenzene	550 J	1000	ug/kg	SW846 8260A	
tert-Butylbenzene	ND	1000	ug/kg	SW846 8260A	
Carbon tetrachloride	ND	1000	ug/kg	SW846 8260A	
Chlorobenzene	ND	1000	ug/kg	SW846 8260A	
Chlorodibromomethane	ND	1000	ug/kg	SW846 8260A	
Chloroethane	ND	2100	ug/kg	SW846 8260A	
Chloroform	ND	1000	ug/kg	SW846 8260A	
Chloromethane	ND	2100	ug/kg	SW846 8260A	
2-Chlorotoluene	ND	1000	ug/kg	SW846 8260A	
4-Chlorotoluene	ND	1000	ug/kg	SW846 8260A	
1,2-Dibromo-3-chloro-propane	ND	2100	ug/kg	SW846 8260A	
1,2-Dibromoethane	ND	1000	ug/kg	SW846 8260A	
Dibromomethane	ND	1000	ug/kg	SW846 8260A	
1,2-Dichlorobenzene	ND	1000	ug/kg	SW846 8260A	
1,3-Dichlorobenzene	ND	1000	ug/kg	SW846 8260A	
1,4-Dichlorobenzene	ND	1000	ug/kg	SW846 8260A	
Dichlorodifluoromethane	ND	2100	ug/kg	SW846 8260A	
1,1-Dichloroethane	ND	1000	ug/kg	SW846 8260A	
1,2-Dichloroethane	ND	1000	ug/kg	SW846 8260A	
1,1-Dichloroethene	ND	1000	ug/kg	SW846 8260A	
cis-1,2-Dichloroethene	22000	520	ug/kg	SW846 8260A	
trans-1,2-Dichloroethene	ND	520	ug/kg	SW846 8260A	
1,2-Dichloropropane	ND	1000	ug/kg	SW846 8260A	
1,3-Dichloropropane	ND	1000	ug/kg	SW846 8260A	
2,2-Dichloropropane	ND	1000	ug/kg	SW846 8260A	
1,1-Dichloropropene	ND	1000	ug/kg	SW846 8260A	
Ethylbenzene	ND	1000	ug/kg	SW846 8260A	
Hexachlorobutadiene	ND	1000	ug/kg	SW846 8260A	
Isopropylbenzene	ND	1000	ug/kg	SW846 8260A	
p-Isopropyltoluene	600 J	1000	ug/kg	SW846 8260A	
Methylene chloride	ND	1000	ug/kg	SW846 8260A	
Naphthalene	410 J	1000	ug/kg	SW846 8260A	
n-Propylbenzene	990 J	1000	ug/kg	SW846 8260A	
Styrene	ND	1000	ug/kg	SW846 8260A	

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QUANTERRA INCORPORATED

PRELIMINARY DATA SUMMARY

The results shown below may still require additional laboratory review and are subject to change. Actions taken based on these results are the responsibility of the data user.

Baker Environmental
Camp LeJeune
Project Number: CTO-356

Lot #: H7G290134 Date Reported: 8/05/97

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD
Client Sample ID: IS01-2				
Sample #: 002 Date Sampled: 07/25/97 11:54 Date Received: 07/29/97 Matrix: SOLID				
Volatile Organics by GC/MS				In Review
1,1,1,2-Tetrachloroethane	ND	1000	ug/kg	SW846 8260A
1,1,2,2-Tetrachloroethane	ND	1000	ug/kg	SW846 8260A
Tetrachloroethene	37000	1000	ug/kg	SW846 8260A
Toluene	ND	1000	ug/kg	SW846 8260A
1,2,3-Trichlorobenzene	ND	1000	ug/kg	SW846 8260A
1,2,4-Trichlorobenzene	ND	1000	ug/kg	SW846 8260A
1,1,1-Trichloroethane	ND	1000	ug/kg	SW846 8260A
1,1,2-Trichloroethane	ND	1000	ug/kg	SW846 8260A
Trichloroethene	3500	1000	ug/kg	SW846 8260A
Trichlorofluoromethane	ND	2100	ug/kg	SW846 8260A
1,2,3-Trichloropropane	ND	1000	ug/kg	SW846 8260A
1,2,4-Trimethylbenzene	9600	1000	ug/kg	SW846 8260A
1,3,5-Trimethylbenzene	4300	1000	ug/kg	SW846 8260A
Vinyl chloride	ND	2100	ug/kg	SW846 8260A
o-Xylene	460 J	520	ug/kg	SW846 8260A
m-Xylene & p-Xylene	ND	520	ug/kg	SW846 8260A

J Estimated result. Result is less than RL.

Inorganic Analysis				In Review
Percent Moisture	IN PROCESS	0.10	%	MCAWW 160.3 MOD

Client Sample ID: IS01-3				
Sample #: 003 Date Sampled: 07/25/97 11:48 Date Received: 07/29/97 Matrix: SOLID				
Volatile Organics by GC/MS				In Review
Benzene	ND	2800	ug/kg	SW846 8260A
Bromobenzene	ND	2800	ug/kg	SW846 8260A
Bromochloromethane	ND	2800	ug/kg	SW846 8260A
Bromodichloromethane	ND	2800	ug/kg	SW846 8260A
Bromoform	ND	2800	ug/kg	SW846 8260A
Bromomethane	ND	5500	ug/kg	SW846 8260A
n-Butylbenzene	ND	2800	ug/kg	SW846 8260A
sec-Butylbenzene	2700 J	2800	ug/kg	SW846 8260A
tert-Butylbenzene	ND	2800	ug/kg	SW846 8260A
Carbon tetrachloride	ND	2800	ug/kg	SW846 8260A

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QUANTERRA INCORPORATED

PRELIMINARY DATA SUMMARY

The results shown below may still require additional laboratory review and are subject to change. Actions taken based on these results are the responsibility of the data user.

Baker Environmental
Camp LeJeune
Project Number: CTO-356

Lot #: H7G290134 Date Reported: 8/05/97

Client Sample ID: IS01-3
Sample #: 003 Date Sampled: 07/25/97 11:48 Date Received: 07/29/97 Matrix: SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD	
Volatile Organics by GC/MS					In Review
Chlorobenzene	ND	2800	ug/kg	SW846 8260A	
Chlorodibromomethane	ND	2800	ug/kg	SW846 8260A	
Chloroethane	ND	5500	ug/kg	SW846 8260A	
Chloroform	ND	2800	ug/kg	SW846 8260A	
Chloromethane	ND	5500	ug/kg	SW846 8260A	
2-Chlorotoluene	ND	2800	ug/kg	SW846 8260A	
4-Chlorotoluene	ND	2800	ug/kg	SW846 8260A	
1,2-Dibromo-3-chloro-propane	ND	5500	ug/kg	SW846 8260A	
1,2-Dibromoethane	ND	2800	ug/kg	SW846 8260A	
Dibromomethane	ND	2800	ug/kg	SW846 8260A	
1,2-Dichlorobenzene	ND	2800	ug/kg	SW846 8260A	
1,3-Dichlorobenzene	ND	2800	ug/kg	SW846 8260A	
1,4-Dichlorobenzene	ND	2800	ug/kg	SW846 8260A	
Dichlorodifluoromethane	ND	5500	ug/kg	SW846 8260A	
1,1-Dichloroethane	ND	2800	ug/kg	SW846 8260A	
1,2-Dichloroethane	ND	2800	ug/kg	SW846 8260A	
1,1-Dichloroethene	ND	2800	ug/kg	SW846 8260A	
cis-1,2-Dichloroethene	31000	1400	ug/kg	SW846 8260A	
trans-1,2-Dichloroethene	ND	1400	ug/kg	SW846 8260A	
1,2-Dichloropropane	ND	2800	ug/kg	SW846 8260A	
1,3-Dichloropropane	ND	2800	ug/kg	SW846 8260A	
2,2-Dichloropropane	ND	2800	ug/kg	SW846 8260A	
1,1-Dichloropropene	ND	2800	ug/kg	SW846 8260A	
Ethylbenzene	ND	2800	ug/kg	SW846 8260A	
Hexachlorobutadiene	ND	2800	ug/kg	SW846 8260A	
Isopropylbenzene	1200 J	2800	ug/kg	SW846 8260A	
p-Isopropyltoluene	2500 J	2800	ug/kg	SW846 8260A	
Methylene chloride	ND	2800	ug/kg	SW846 8260A	
Naphthalene	1100 J	2800	ug/kg	SW846 8260A	
n-Propylbenzene	4100	2800	ug/kg	SW846 8260A	
Styrene	ND	2800	ug/kg	SW846 8260A	
1,1,1,2-Tetrachloroethane	ND	2800	ug/kg	SW846 8260A	
1,1,2,2-Tetrachloroethane	ND	2800	ug/kg	SW846 8260A	
Tetrachloroethene	63000	2800	ug/kg	SW846 8260A	
Toluene	ND	2800	ug/kg	SW846 8260A	
1,2,3-Trichlorobenzene	ND	2800	ug/kg	SW846 8260A	

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QUANTERRA INCORPORATED

PRELIMINARY DATA SUMMARY

The results shown below may still require additional laboratory review and are subject to change. Actions taken based on these results are the responsibility of the data user.

Baker Environmental
Camp LeJeune
Project Number: CTO-356

Lot #: H7G290134 Date Reported: 8/05/97

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD
Client Sample ID: IS01-3				
Sample #: 003 Date Sampled: 07/25/97 11:48 Date Received: 07/29/97 Matrix: SOLID				
Volatile Organics by GC/MS				In Review
1,2,4-Trichlorobenzene	ND	2800	ug/kg	SW846 8260A
1,1,1-Trichloroethane	ND	2800	ug/kg	SW846 8260A
1,1,2-Trichloroethane	ND	2800	ug/kg	SW846 8260A
Trichloroethene	24000	2800	ug/kg	SW846 8260A
Trichlorofluoromethane	ND	5500	ug/kg	SW846 8260A
1,2,3-Trichloropropane	ND	2800	ug/kg	SW846 8260A
1,2,4-Trimethylbenzene	30000	2800	ug/kg	SW846 8260A
1,3,5-Trimethylbenzene	14000	2800	ug/kg	SW846 8260A
Vinyl chloride	ND	5500	ug/kg	SW846 8260A
o-Xylene	ND	1400	ug/kg	SW846 8260A
m-Xylene & p-Xylene	ND	1400	ug/kg	SW846 8260A

J Estimated result. Result is less than RL.

Inorganic Analysis				In Review
Percent Moisture	IN PROCESS	0.10	%	MCAWW 160.3 MOD

Client Sample ID: IS01-4				
Sample #: 004 Date Sampled: 07/25/97 12:01 Date Received: 07/29/97 Matrix: SOLID				
Volatile Organics by GC/MS				In Review
Benzene	ND	3400	ug/kg	SW846 8260A
Bromobenzene	ND	3400	ug/kg	SW846 8260A
Bromochloromethane	ND	3400	ug/kg	SW846 8260A
Bromodichloromethane	ND	3400	ug/kg	SW846 8260A
Bromoform	ND	3400	ug/kg	SW846 8260A
Bromomethane	ND	6700	ug/kg	SW846 8260A
n-Butylbenzene	950 J	3400	ug/kg	SW846 8260A
sec-Butylbenzene	860 J	3400	ug/kg	SW846 8260A
tert-Butylbenzene	ND	3400	ug/kg	SW846 8260A
Carbon tetrachloride	ND	3400	ug/kg	SW846 8260A
Chlorobenzene	ND	3400	ug/kg	SW846 8260A
Chlorodibromomethane	ND	3400	ug/kg	SW846 8260A
Chloroethane	ND	6700	ug/kg	SW846 8260A
Chloroform	ND	3400	ug/kg	SW846 8260A
Chloromethane	ND	6700	ug/kg	SW846 8260A

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QUANTERRA INCORPORATED

PRELIMINARY DATA SUMMARY

The results shown below may still require additional laboratory review and are subject to change. Actions taken based on these results are the responsibility of the data user.

Baker Environmental
Camp LeJeune
Project Number: CTO-356

Lot #: H7G290134 Date Reported: 8/05/97

Client Sample ID: IS01-4
Sample #: 004 Date Sampled: 07/25/97 12:01 Date Received: 07/29/97 Matrix: SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD	
Volatile Organics by GC/MS					In Review
2-Chlorotoluene	ND	3400	ug/kg	SW846 8260A	
4-Chlorotoluene	ND	3400	ug/kg	SW846 8260A	
1,2-Dibromo-3-chloro-propane	ND	6700	ug/kg	SW846 8260A	
1,2-Dibromoethane	ND	3400	ug/kg	SW846 8260A	
Dibromomethane	ND	3400	ug/kg	SW846 8260A	
1,2-Dichlorobenzene	ND	3400	ug/kg	SW846 8260A	
1,3-Dichlorobenzene	ND	3400	ug/kg	SW846 8260A	
1,4-Dichlorobenzene	ND	3400	ug/kg	SW846 8260A	
Dichlorodifluoromethane	ND	6700	ug/kg	SW846 8260A	
1,1-Dichloroethane	ND	3400	ug/kg	SW846 8260A	
1,2-Dichloroethane	ND	3400	ug/kg	SW846 8260A	
1,1-Dichloroethene	ND	3400	ug/kg	SW846 8260A	
cis-1,2-Dichloroethene	20000	1700	ug/kg	SW846 8260A	
trans-1,2-Dichloroethene	ND	1700	ug/kg	SW846 8260A	
1,2-Dichloropropane	ND	3400	ug/kg	SW846 8260A	
1,3-Dichloropropane	ND	3400	ug/kg	SW846 8260A	
2,2-Dichloropropane	ND	3400	ug/kg	SW846 8260A	
1,1-Dichloropropene	ND	3400	ug/kg	SW846 8260A	
Ethylbenzene	ND	3400	ug/kg	SW846 8260A	
Hexachlorobutadiene	ND	3400	ug/kg	SW846 8260A	
Isopropylbenzene	ND	3400	ug/kg	SW846 8260A	
p-Isopropyltoluene	850 J	3400	ug/kg	SW846 8260A	
Methylene chloride	ND	3400	ug/kg	SW846 8260A	
Naphthalene	ND	3400	ug/kg	SW846 8260A	
n-Propylbenzene	1100 J	3400	ug/kg	SW846 8260A	
Styrene	ND	3400	ug/kg	SW846 8260A	
1,1,1,2-Tetrachloroethane	ND	3400	ug/kg	SW846 8260A	
1,1,2,2-Tetrachloroethane	ND	3400	ug/kg	SW846 8260A	
Tetrachloroethene	65000	3400	ug/kg	SW846 8260A	
Toluene	ND	3400	ug/kg	SW846 8260A	
1,2,3-Trichlorobenzene	ND	3400	ug/kg	SW846 8260A	
1,2,4-Trichlorobenzene	ND	3400	ug/kg	SW846 8260A	
1,1,1-Trichloroethane	ND	3400	ug/kg	SW846 8260A	
1,1,2-Trichloroethane	ND	3400	ug/kg	SW846 8260A	
Trichloroethene	4800	3400	ug/kg	SW846 8260A	
Trichlorofluoromethane	ND	6700	ug/kg	SW846 8260A	

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QUANTERRA INCORPORATED

PRELIMINARY DATA SUMMARY

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Baker Environmental
Camp LeJeune
Project Number: CTO-356

Lot #: H7G290134

Date Reported: 8/05/97

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD	
Client Sample ID: IS01-4					
Sample #: 004 Date Sampled: 07/25/97 12:01 Date Received: 07/29/97 Matrix: SOLID					
Volatile Organics by GC/MS					In Review
1,2,3-Trichloropropane	ND	3400	ug/kg	SW846 8260A	
1,2,4-Trimethylbenzene	10000	3400	ug/kg	SW846 8260A	
1,3,5-Trimethylbenzene	5000	3400	ug/kg	SW846 8260A	
Vinyl chloride	ND	6700	ug/kg	SW846 8260A	
o-Xylene	ND	1700	ug/kg	SW846 8260A	
m-Xylene & p-Xylene	ND	1700	ug/kg	SW846 8260A	
J Estimated result. Result is less than RL.					
Inorganic Analysis					In Review
Percent Moisture	IN PROCESS	0.10	%	MCAWW 160.3 MOD	
Client Sample ID: IS02-1					
Sample #: 005 Date Sampled: 07/25/97 15:24 Date Received: 07/29/97 Matrix: SOLID					
Volatile Organics by GC/MS					In Review
Benzene	ND	230	ug/kg	SW846 8260A	
Bromobenzene	ND	230	ug/kg	SW846 8260A	
Bromochloromethane	ND	230	ug/kg	SW846 8260A	
Bromodichloromethane	ND	230	ug/kg	SW846 8260A	
Bromoform	ND	230	ug/kg	SW846 8260A	
Bromomethane	ND	460	ug/kg	SW846 8260A	
n-Butylbenzene	320	230	ug/kg	SW846 8260A	
sec-Butylbenzene	240	230	ug/kg	SW846 8260A	
tert-Butylbenzene	69 J	230	ug/kg	SW846 8260A	
Carbon tetrachloride	ND	230	ug/kg	SW846 8260A	
Chlorobenzene	ND	230	ug/kg	SW846 8260A	
Chlorodibromomethane	ND	230	ug/kg	SW846 8260A	
Chloroethane	ND	460	ug/kg	SW846 8260A	
Chloroform	ND	230	ug/kg	SW846 8260A	
Chloromethane	ND	460	ug/kg	SW846 8260A	
2-Chlorotoluene	ND	230	ug/kg	SW846 8260A	
4-Chlorotoluene	ND	230	ug/kg	SW846 8260A	
1,2-Dibromo-3-chloro-propane	ND	460	ug/kg	SW846 8260A	
1,2-Dibromoethane	ND	230	ug/kg	SW846 8260A	

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QUANTERRA INCORPORATED

PRELIMINARY DATA SUMMARY

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Lot #: H7G290134

Baker Environmental
Camp LeJeune
Project Number: CTO-356

Date Reported: 8/05/97

Client Sample ID: IS02-1
Sample #: 005 Date Sampled: 07/25/97 15:24 Date Received: 07/29/97 Matrix: SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD	
Volatile Organics by GC/MS					In Review
Dibromomethane	ND	230	ug/kg	SW846 8260A	
1,2-Dichlorobenzene	ND	230	ug/kg	SW846 8260A	
1,3-Dichlorobenzene	ND	230	ug/kg	SW846 8260A	
1,4-Dichlorobenzene	ND	230	ug/kg	SW846 8260A	
Dichlorodifluoromethane	ND	460	ug/kg	SW846 8260A	
1,1-Dichloroethane	ND	230	ug/kg	SW846 8260A	
1,2-Dichloroethane	ND	230	ug/kg	SW846 8260A	
1,1-Dichloroethene	ND	230	ug/kg	SW846 8260A	
cis-1,2-Dichloroethene	8100	120	ug/kg	SW846 8260A	
trans-1,2-Dichloroethene	ND	120	ug/kg	SW846 8260A	
1,2-Dichloropropane	ND	230	ug/kg	SW846 8260A	
1,3-Dichloropropane	ND	230	ug/kg	SW846 8260A	
2,2-Dichloropropane	ND	230	ug/kg	SW846 8260A	
1,1-Dichloropropene	ND	230	ug/kg	SW846 8260A	
Ethylbenzene	ND	230	ug/kg	SW846 8260A	
Hexachlorobutadiene	ND	230	ug/kg	SW846 8260A	
Isopropylbenzene	120 J	230	ug/kg	SW846 8260A	
p-Isopropyltoluene	290	230	ug/kg	SW846 8260A	
Methylene chloride	ND	230	ug/kg	SW846 8260A	
Naphthalene	ND	230	ug/kg	SW846 8260A	
n-Propylbenzene	330	230	ug/kg	SW846 8260A	
Styrene	ND	230	ug/kg	SW846 8260A	
1,1,1,2-Tetrachloroethane	ND	230	ug/kg	SW846 8260A	
1,1,2,2-Tetrachloroethane	ND	230	ug/kg	SW846 8260A	
Tetrachloroethene	7000	230	ug/kg	SW846 8260A	
Toluene	ND	230	ug/kg	SW846 8260A	
1,2,3-Trichlorobenzene	ND	230	ug/kg	SW846 8260A	
1,2,4-Trichlorobenzene	ND	230	ug/kg	SW846 8260A	
1,1,1-Trichloroethane	ND	230	ug/kg	SW846 8260A	
1,1,2-Trichloroethane	ND	230	ug/kg	SW846 8260A	
Trichloroethene	1100	230	ug/kg	SW846 8260A	
Trichlorofluoromethane	ND	460	ug/kg	SW846 8260A	
1,2,3-Trichloropropane	ND	230	ug/kg	SW846 8260A	
1,2,4-Trimethylbenzene	3900	230	ug/kg	SW846 8260A	
1,3,5-Trimethylbenzene	1900	230	ug/kg	SW846 8260A	
Vinyl chloride	330 J	460	ug/kg	SW846 8260A	
o-Xylene	180	120	ug/kg	SW846 8260A	

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QUANTERRA INCORPORATED

PRELIMINARY DATA SUMMARY

The results shown below may still require additional laboratory review and are subject to change. Actions taken based on these results are the responsibility of the data user.

Baker Environmental
Camp LeJeune
Project Number: CTO-356

Lot #: H7G290134 Date Reported: 8/05/97

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD	
Client Sample ID: IS02-1					
Sample #: 005 Date Sampled: 07/25/97 15:24 Date Received: 07/29/97 Matrix: SOLID					
Volatile Organics by GC/MS					In Review
m-Xylene & p-Xylene	190	120	ug/kg	SW846 8260A	
J Estimated result. Result is less than RL.					
Inorganic Analysis					In Review
Percent Moisture	IN PROCESS	0.10	%	MCAWW 160.3 MOD	
Client Sample ID: IS02-2					
Sample #: 006 Date Sampled: 07/25/97 15:27 Date Received: 07/29/97 Matrix: SOLID					
Volatile Organics by GC/MS					In Review
trans-1,2-Dichloroethene	ND	560	ug/kg	SW846 8260A	
1,2-Dichloropropane	ND	1100	ug/kg	SW846 8260A	
1,3-Dichloropropane	ND	1100	ug/kg	SW846 8260A	
2,2-Dichloropropane	ND	1100	ug/kg	SW846 8260A	
1,1-Dichloropropene	ND	1100	ug/kg	SW846 8260A	
Ethylbenzene	ND	1100	ug/kg	SW846 8260A	
Hexachlorobutadiene	ND	1100	ug/kg	SW846 8260A	
Isopropylbenzene	ND	1100	ug/kg	SW846 8260A	
p-Isopropyltoluene	470 J	1100	ug/kg	SW846 8260A	
Methylene chloride	ND	1100	ug/kg	SW846 8260A	
Naphthalene	ND	1100	ug/kg	SW846 8260A	
n-Propylbenzene	810 J	1100	ug/kg	SW846 8260A	
Styrene	ND	1100	ug/kg	SW846 8260A	
1,1,1,2-Tetrachloroethane	ND	1100	ug/kg	SW846 8260A	
1,1,2,2-Tetrachloroethane	ND	1100	ug/kg	SW846 8260A	
Tetrachloroethene	8900	1100	ug/kg	SW846 8260A	
Toluene	ND	1100	ug/kg	SW846 8260A	
1,2,3-Trichlorobenzene	ND	1100	ug/kg	SW846 8260A	
1,2,4-Trichlorobenzene	ND	1100	ug/kg	SW846 8260A	
1,1,1-Trichloroethane	ND	1100	ug/kg	SW846 8260A	
1,1,2-Trichloroethane	ND	1100	ug/kg	SW846 8260A	
Trichloroethene	1600	1100	ug/kg	SW846 8260A	
Trichlorofluoromethane	ND	2200	ug/kg	SW846 8260A	
1,2,3-Trichloropropane	ND	1100	ug/kg	SW846 8260A	
1,2,4-Trimethylbenzene	7900	1100	ug/kg	SW846 8260A	

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QUANTERRA INCORPORATED

PRELIMINARY DATA SUMMARY

The results shown below may still require additional laboratory review and are subject to change. Actions taken based on these results are the responsibility of the data user.

Lot #: H7G290134

Baker Environmental
Camp LeJeune
Project Number: CTO-356

Date Reported: 8/05/97

Client Sample ID: IS02-2
Sample #: 006 Date Sampled: 07/25/97 15:27 Date Received: 07/29/97 Matrix: SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD	
Volatile Organics by GC/MS					In Review
1,3,5-Trimethylbenzene	3600	1100	ug/kg	SW846 8260A	
Vinyl chloride	ND	2200	ug/kg	SW846 8260A	
o-Xylene	330 J	560	ug/kg	SW846 8260A	
m-Xylene & p-Xylene	ND	560	ug/kg	SW846 8260A	
Benzene	ND	1100	ug/kg	SW846 8260A	
Bromobenzene	ND	1100	ug/kg	SW846 8260A	
Bromochloromethane	ND	1100	ug/kg	SW846 8260A	
Bromodichloromethane	ND	1100	ug/kg	SW846 8260A	
Bromoform	ND	1100	ug/kg	SW846 8260A	
Bromomethane	ND	2200	ug/kg	SW846 8260A	
n-Butylbenzene	610 J	1100	ug/kg	SW846 8260A	
sec-Butylbenzene	460 J	1100	ug/kg	SW846 8260A	
tert-Butylbenzene	ND	1100	ug/kg	SW846 8260A	
Carbon tetrachloride	ND	1100	ug/kg	SW846 8260A	
Chlorobenzene	ND	1100	ug/kg	SW846 8260A	
Chlorodibromomethane	ND	1100	ug/kg	SW846 8260A	
Chloroethane	ND	2200	ug/kg	SW846 8260A	
Chloroform	ND	1100	ug/kg	SW846 8260A	
Chloromethane	ND	2200	ug/kg	SW846 8260A	
2-Chlorotoluene	ND	1100	ug/kg	SW846 8260A	
4-Chlorotoluene	ND	1100	ug/kg	SW846 8260A	
1,2-Dibromo-3-chloro-propane	ND	2200	ug/kg	SW846 8260A	
1,2-Dibromoethane	ND	1100	ug/kg	SW846 8260A	
Dibromomethane	ND	1100	ug/kg	SW846 8260A	
1,2-Dichlorobenzene	ND	1100	ug/kg	SW846 8260A	
1,3-Dichlorobenzene	ND	1100	ug/kg	SW846 8260A	
1,4-Dichlorobenzene	ND	1100	ug/kg	SW846 8260A	
Dichlorodifluoromethane	ND	2200	ug/kg	SW846 8260A	
1,1-Dichloroethane	ND	1100	ug/kg	SW846 8260A	
1,2-Dichloroethane	ND	1100	ug/kg	SW846 8260A	
1,1-Dichloroethene	ND	1100	ug/kg	SW846 8260A	
cis-1,2-Dichloroethene	17000	560	ug/kg	SW846 8260A	

J Estimated result. Result is less than RL.

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QUANTERRA INCORPORATED

PRELIMINARY DATA SUMMARY

The results shown below may still require additional laboratory review and are subject to change. Actions taken based on these results are the responsibility of the data user.

Baker Environmental
Camp LeJeune
Project Number: CTO-356

Lot #: H7G290134 Date Reported: 8/05/97

Client Sample ID: IS02-2
Sample #: 006 Date Sampled: 07/25/97 15:27 Date Received: 07/29/97 Matrix: SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD
Inorganic Analysis				In Review
Percent Moisture	IN PROCESS	0.10	%	MCAWW 160.3 MOD

Client Sample ID: IS02-3
Sample #: 007 Date Sampled: 07/25/97 14:48 Date Received: 07/29/97 Matrix: SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD
Volatile Organics by GC/MS				In Review
Benzene	ND	1800	ug/kg	SW846 8260A
Bromobenzene	ND	1800	ug/kg	SW846 8260A
Bromochloromethane	ND	1800	ug/kg	SW846 8260A
Bromodichloromethane	ND	1800	ug/kg	SW846 8260A
Bromoform	ND	1800	ug/kg	SW846 8260A
Bromomethane	ND	3700	ug/kg	SW846 8260A
n-Butylbenzene	2400	1800	ug/kg	SW846 8260A
sec-Butylbenzene	2100	1800	ug/kg	SW846 8260A
tert-Butylbenzene	ND	1800	ug/kg	SW846 8260A
Carbon tetrachloride	ND	1800	ug/kg	SW846 8260A
Chlorobenzene	ND	1800	ug/kg	SW846 8260A
Chlorodibromomethane	ND	1800	ug/kg	SW846 8260A
Chloroethane	ND	3700	ug/kg	SW846 8260A
Chloroform	ND	1800	ug/kg	SW846 8260A
Chloromethane	ND	3700	ug/kg	SW846 8260A
2-Chlorotoluene	ND	1800	ug/kg	SW846 8260A
4-Chlorotoluene	ND	1800	ug/kg	SW846 8260A
1,2-Dibromo-3-chloro-propane	ND	3700	ug/kg	SW846 8260A
1,2-Dibromoethane	ND	1800	ug/kg	SW846 8260A
Dibromomethane	ND	1800	ug/kg	SW846 8260A
1,2-Dichlorobenzene	ND	1800	ug/kg	SW846 8260A
1,3-Dichlorobenzene	ND	1800	ug/kg	SW846 8260A
1,4-Dichlorobenzene	ND	1800	ug/kg	SW846 8260A
Dichlorodifluoromethane	ND	3700	ug/kg	SW846 8260A
1,1-Dichloroethane	ND	1800	ug/kg	SW846 8260A
1,2-Dichloroethane	ND	1800	ug/kg	SW846 8260A
1,1-Dichloroethene	ND	1800	ug/kg	SW846 8260A
cis-1,2-Dichloroethene	32000	920	ug/kg	SW846 8260A
trans-1,2-Dichloroethene	ND	920	ug/kg	SW846 8260A

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QUANTERRA INCORPORATED

PRELIMINARY DATA SUMMARY

The results shown below may still require additional laboratory review and are subject to change. Actions taken based on these results are the responsibility of the data user.

Baker Environmental
Camp LeJeune
Project Number: CTO-356

Lot #: H7G290134 Date Reported: 8/05/97

Client Sample ID: IS02-3
Sample #: 007 Date Sampled: 07/25/97 14:48 Date Received: 07/29/97 Matrix: SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD
Volatile Organics by GC/MS				In Review
1,2-Dichloropropane	ND	1800	ug/kg	SW846 8260A
1,3-Dichloropropane	ND	1800	ug/kg	SW846 8260A
2,2-Dichloropropane	ND	1800	ug/kg	SW846 8260A
1,1-Dichloropropene	ND	1800	ug/kg	SW846 8260A
Ethylbenzene	ND	1800	ug/kg	SW846 8260A
Hexachlorobutadiene	ND	1800	ug/kg	SW846 8260A
Isopropylbenzene	1100 J	1800	ug/kg	SW846 8260A
p-Isopropyltoluene	2100	1800	ug/kg	SW846 8260A
Methylene chloride	ND	1800	ug/kg	SW846 8260A
Naphthalene	ND	1800	ug/kg	SW846 8260A
n-Propylbenzene	3200	1800	ug/kg	SW846 8260A
Styrene	ND	1800	ug/kg	SW846 8260A
1,1,1,2-Tetrachloroethane	ND	1800	ug/kg	SW846 8260A
1,1,2,2-Tetrachloroethane	ND	1800	ug/kg	SW846 8260A
Tetrachloroethene	7800	1800	ug/kg	SW846 8260A
Toluene	ND	1800	ug/kg	SW846 8260A
1,2,3-Trichlorobenzene	ND	1800	ug/kg	SW846 8260A
1,2,4-Trichlorobenzene	ND	1800	ug/kg	SW846 8260A
1,1,1-Trichloroethane	ND	1800	ug/kg	SW846 8260A
1,1,2-Trichloroethane	ND	1800	ug/kg	SW846 8260A
Trichloroethene	ND	1800	ug/kg	SW846 8260A
Trichlorofluoromethane	ND	3700	ug/kg	SW846 8260A
1,2,3-Trichloropropane	ND	1800	ug/kg	SW846 8260A
1,2,4-Trimethylbenzene	26000	1800	ug/kg	SW846 8260A
1,3,5-Trimethylbenzene	13000	1800	ug/kg	SW846 8260A
Vinyl chloride	980 J	3700	ug/kg	SW846 8260A
o-Xylene	790 J	920	ug/kg	SW846 8260A
m-Xylene & p-Xylene	ND	920	ug/kg	SW846 8260A

J Estimated result. Result is less than RL.

Inorganic Analysis				In Review
Percent Moisture	IN PROCESS	0.10	%	MCAWW 160.3 MOD

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QUANTERRA INCORPORATED

PRELIMINARY DATA SUMMARY

The results shown below may still require additional laboratory review and are subject to change. Actions taken based on these results are the responsibility of the data user.

Baker Environmental
Camp LeJeune
Project Number: CTO-356

Lot #: H7G290134 Date Reported: 8/05/97

Client Sample ID: IS02-4
Sample #: 008 Date Sampled: 07/25/97 18:59 Date Received: 07/29/97 Matrix: SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD
Volatile Organics by GC/MS				In Review
Benzene	ND	29	ug/kg	SW846 8260A
Bromobenzene	ND	29	ug/kg	SW846 8260A
Bromochloromethane	ND	29	ug/kg	SW846 8260A
Bromodichloromethane	ND	29	ug/kg	SW846 8260A
Bromoform	ND	29	ug/kg	SW846 8260A
Bromomethane	ND	58	ug/kg	SW846 8260A
n-Butylbenzene	ND	29	ug/kg	SW846 8260A
sec-Butylbenzene	ND	29	ug/kg	SW846 8260A
tert-Butylbenzene	ND	29	ug/kg	SW846 8260A
Carbon tetrachloride	ND	29	ug/kg	SW846 8260A
Chlorobenzene	ND	29	ug/kg	SW846 8260A
Chlorodibromomethane	ND	29	ug/kg	SW846 8260A
Chloroethane	ND	58	ug/kg	SW846 8260A
Chloroform	ND	29	ug/kg	SW846 8260A
Chloromethane	ND	58	ug/kg	SW846 8260A
2-Chlorotoluene	ND	29	ug/kg	SW846 8260A
4-Chlorotoluene	ND	29	ug/kg	SW846 8260A
1,2-Dibromo-3-chloro-propane	ND	58	ug/kg	SW846 8260A
1,2-Dibromoethane	ND	29	ug/kg	SW846 8260A
Dibromomethane	ND	29	ug/kg	SW846 8260A
1,2-Dichlorobenzene	ND	29	ug/kg	SW846 8260A
1,3-Dichlorobenzene	ND	29	ug/kg	SW846 8260A
1,4-Dichlorobenzene	ND	29	ug/kg	SW846 8260A
Dichlorodifluoromethane	ND	58	ug/kg	SW846 8260A
1,1-Dichloroethane	ND	29	ug/kg	SW846 8260A
1,2-Dichloroethane	ND	29	ug/kg	SW846 8260A
1,1-Dichloroethene	ND	29	ug/kg	SW846 8260A
cis-1,2-Dichloroethene	ND	14	ug/kg	SW846 8260A
trans-1,2-Dichloroethene	ND	14	ug/kg	SW846 8260A
1,2-Dichloropropane	ND	29	ug/kg	SW846 8260A
1,3-Dichloropropane	ND	29	ug/kg	SW846 8260A
2,2-Dichloropropane	ND	29	ug/kg	SW846 8260A
1,1-Dichloropropene	ND	29	ug/kg	SW846 8260A
Ethylbenzene	ND	29	ug/kg	SW846 8260A
Hexachlorobutadiene	ND	29	ug/kg	SW846 8260A
Isopropylbenzene	ND	29	ug/kg	SW846 8260A

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QUANTERRA INCORPORATED

PRELIMINARY DATA SUMMARY

The results shown below may still require additional laboratory review and are subject to change. Actions taken based on these results are the responsibility of the data user.

Baker Environmental
Camp LeJeune
Project Number: CTO-356

Lot #: H7G290134 Date Reported: 8/05/97

Client Sample ID: IS02-4
Sample #: 008 Date Sampled: 07/25/97 18:59 Date Received: 07/29/97 Matrix: SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD
Volatile Organics by GC/MS				In Review
p-Isopropyltoluene	ND	29	ug/kg	SW846 8260A
Methylene chloride	ND	29	ug/kg	SW846 8260A
Naphthalene	ND	29	ug/kg	SW846 8260A
n-Propylbenzene	ND	29	ug/kg	SW846 8260A
Styrene	ND	29	ug/kg	SW846 8260A
1,1,1,2-Tetrachloroethane	ND	29	ug/kg	SW846 8260A
1,1,2,2-Tetrachloroethane	ND	29	ug/kg	SW846 8260A
Tetrachloroethene	67	29	ug/kg	SW846 8260A
Toluene	ND	29	ug/kg	SW846 8260A
1,2,3-Trichlorobenzene	ND	29	ug/kg	SW846 8260A
1,2,4-Trichlorobenzene	ND	29	ug/kg	SW846 8260A
1,1,1-Trichloroethane	ND	29	ug/kg	SW846 8260A
1,1,2-Trichloroethane	ND	29	ug/kg	SW846 8260A
Trichloroethene	ND	29	ug/kg	SW846 8260A
Trichlorofluoromethane	ND	58	ug/kg	SW846 8260A
1,2,3-Trichloropropane	ND	29	ug/kg	SW846 8260A
1,2,4-Trimethylbenzene	11 J	29	ug/kg	SW846 8260A
1,3,5-Trimethylbenzene	ND	29	ug/kg	SW846 8260A
Vinyl chloride	ND	58	ug/kg	SW846 8260A
o-Xylene	ND	14	ug/kg	SW846 8260A
m-Xylene & p-Xylene	ND	14	ug/kg	SW846 8260A

J Estimated result. Result is less than RL.

Inorganic Analysis				In Review
Percent Moisture	IN PROCESS	0.10	%	MCAWW 160.3 MOD

Client Sample ID: IS03-1
Sample #: 009 Date Sampled: 07/25/97 17:50 Date Received: 07/29/97 Matrix: SOLID

Volatile Organics by GC/MS				In Review
Benzene	ND	880	ug/kg	SW846 8260A
Bromobenzene	ND	880	ug/kg	SW846 8260A
Bromochloromethane	ND	880	ug/kg	SW846 8260A
Bromodichloromethane	ND	880	ug/kg	SW846 8260A
Bromoform	ND	880	ug/kg	SW846 8260A

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QUANTERRA INCORPORATED

PRELIMINARY DATA SUMMARY

The results shown below may still require additional laboratory review and are subject to change. Actions taken based on these results are the responsibility of the data user.

Baker Environmental
Camp LeJeune
Project Number: CTO-356

Lot #: H7G290134 Date Reported: 8/05/97

Client Sample ID: IS03-1
Sample #: 009 Date Sampled: 07/25/97 17:50 Date Received: 07/29/97 Matrix: SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD	
Volatile Organics by GC/MS					In Review
Bromomethane	ND	1800	ug/kg	SW846 8260A	
n-Butylbenzene	ND	880	ug/kg	SW846 8260A	
sec-Butylbenzene	ND	880	ug/kg	SW846 8260A	
tert-Butylbenzene	ND	880	ug/kg	SW846 8260A	
Carbon tetrachloride	ND	880	ug/kg	SW846 8260A	
Chlorobenzene	ND	880	ug/kg	SW846 8260A	
Chlorodibromomethane	ND	880	ug/kg	SW846 8260A	
Chloroethane	ND	1800	ug/kg	SW846 8260A	
Chloroform	ND	880	ug/kg	SW846 8260A	
Chloromethane	ND	1800	ug/kg	SW846 8260A	
2-Chlorotoluene	ND	880	ug/kg	SW846 8260A	
4-Chlorotoluene	ND	880	ug/kg	SW846 8260A	
1,2-Dibromo-3-chloro-propane	ND	1800	ug/kg	SW846 8260A	
1,2-Dibromoethane	ND	880	ug/kg	SW846 8260A	
Dibromomethane	ND	880	ug/kg	SW846 8260A	
1,2-Dichlorobenzene	ND	880	ug/kg	SW846 8260A	
1,3-Dichlorobenzene	ND	880	ug/kg	SW846 8260A	
1,4-Dichlorobenzene	250 J	880	ug/kg	SW846 8260A	
Dichlorodifluoromethane	ND	1800	ug/kg	SW846 8260A	
1,1-Dichloroethane	ND	880	ug/kg	SW846 8260A	
1,2-Dichloroethane	ND	880	ug/kg	SW846 8260A	
1,1-Dichloroethene	ND	880	ug/kg	SW846 8260A	
cis-1,2-Dichloroethene	ND	440	ug/kg	SW846 8260A	
trans-1,2-Dichloroethene	ND	440	ug/kg	SW846 8260A	
1,2-Dichloropropane	ND	880	ug/kg	SW846 8260A	
1,3-Dichloropropane	ND	880	ug/kg	SW846 8260A	
2,2-Dichloropropane	ND	880	ug/kg	SW846 8260A	
1,1-Dichloropropene	ND	880	ug/kg	SW846 8260A	
Ethylbenzene	ND	880	ug/kg	SW846 8260A	
Hexachlorobutadiene	ND	880	ug/kg	SW846 8260A	
Isopropylbenzene	ND	880	ug/kg	SW846 8260A	
p-Isopropyltoluene	ND	880	ug/kg	SW846 8260A	
Methylene chloride	ND	880	ug/kg	SW846 8260A	
Naphthalene	ND	880	ug/kg	SW846 8260A	
n-Propylbenzene	ND	880	ug/kg	SW846 8260A	
Styrene	ND	880	ug/kg	SW846 8260A	

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QUANTERRA INCORPORATED

PRELIMINARY DATA SUMMARY

The results shown below may still require additional laboratory review and are subject to change. Actions taken based on these results are the responsibility of the data user.

Baker Environmental
Camp LeJeune
Project Number: CTO-356

Lot #: H7G290134 Date Reported: 8/05/97

Client Sample ID: IS03-1
Sample #: 009 Date Sampled: 07/25/97 17:50 Date Received: 07/29/97 Matrix: SOLID

Volatile Organics by GC/MS — In Review

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD
1,1,1,2-Tetrachloroethane	ND	880	ug/kg	SW846 8260A
1,1,2,2-Tetrachloroethane	ND	880	ug/kg	SW846 8260A
Tetrachloroethene	10000	880	ug/kg	SW846 8260A
Toluene	ND	880	ug/kg	SW846 8260A
1,2,3-Trichlorobenzene	ND	880	ug/kg	SW846 8260A
1,2,4-Trichlorobenzene	310 J	880	ug/kg	SW846 8260A
1,1,1-Trichloroethane	ND	880	ug/kg	SW846 8260A
1,1,2-Trichloroethane	ND	880	ug/kg	SW846 8260A
Trichloroethene	ND	880	ug/kg	SW846 8260A
Trichlorofluoromethane	ND	1800	ug/kg	SW846 8260A
1,2,3-Trichloropropane	ND	880	ug/kg	SW846 8260A
1,2,4-Trimethylbenzene	ND	880	ug/kg	SW846 8260A
1,3,5-Trimethylbenzene	ND	880	ug/kg	SW846 8260A
Vinyl chloride	ND	1800	ug/kg	SW846 8260A
o-Xylene	ND	440	ug/kg	SW846 8260A
m-Xylene & p-Xylene	ND	440	ug/kg	SW846 8260A

J Estimated result. Result is less than RL.

Inorganic Analysis — In Review

Percent Moisture	IN PROCESS	0.10	%	MCAWW 160.3 MOD

Client Sample ID: IS03-2
Sample #: 010 Date Sampled: 07/25/97 17:55 Date Received: 07/29/97 Matrix: SOLID

Volatile Organics by GC/MS — In Review

Benzene	ND	65	ug/kg	SW846 8260A
Bromobenzene	ND	65	ug/kg	SW846 8260A
Bromochloromethane	ND	65	ug/kg	SW846 8260A
Bromodichloromethane	ND	65	ug/kg	SW846 8260A
Bromoform	ND	65	ug/kg	SW846 8260A
Bromomethane	ND	130	ug/kg	SW846 8260A
n-Butylbenzene	ND	65	ug/kg	SW846 8260A
sec-Butylbenzene	ND	65	ug/kg	SW846 8260A
tert-Butylbenzene	ND	65	ug/kg	SW846 8260A
Carbon tetrachloride	ND	65	ug/kg	SW846 8260A

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QUANTERRA INCORPORATED

PRELIMINARY DATA SUMMARY

The results shown below may still require additional laboratory review and are subject to change. Actions taken based on these results are the responsibility of the data user.

Baker Environmental
Camp LeJeune
Project Number: CTO-356

Lot #: H7G290134 Date Reported: 8/05/97

Client Sample ID: IS03-2
Sample #: 010 Date Sampled: 07/25/97 17:55 Date Received: 07/29/97 Matrix: SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD
Volatile Organics by GC/MS				In Review
Chlorobenzene	17 J	65	ug/kg	SW846 8260A
Chlorodibromomethane	ND	65	ug/kg	SW846 8260A
Chloroethane	ND	130	ug/kg	SW846 8260A
Chloroform	ND	65	ug/kg	SW846 8260A
Chloromethane	ND	130	ug/kg	SW846 8260A
2-Chlorotoluene	ND	65	ug/kg	SW846 8260A
4-Chlorotoluene	ND	65	ug/kg	SW846 8260A
1,2-Dibromo-3-chloro-propane	ND	130	ug/kg	SW846 8260A
1,2-Dibromoethane	ND	65	ug/kg	SW846 8260A
Dibromomethane	ND	65	ug/kg	SW846 8260A
1,2-Dichlorobenzene	ND	65	ug/kg	SW846 8260A
1,3-Dichlorobenzene	ND	65	ug/kg	SW846 8260A
1,4-Dichlorobenzene	17 J	65	ug/kg	SW846 8260A
Dichlorodifluoromethane	ND	130	ug/kg	SW846 8260A
1,1-Dichloroethane	ND	65	ug/kg	SW846 8260A
1,2-Dichloroethane	ND	65	ug/kg	SW846 8260A
1,1-Dichloroethene	ND	65	ug/kg	SW846 8260A
cis-1,2-Dichloroethene	29 J	32	ug/kg	SW846 8260A
trans-1,2-Dichloroethene	ND	32	ug/kg	SW846 8260A
1,2-Dichloropropane	ND	65	ug/kg	SW846 8260A
1,3-Dichloropropane	ND	65	ug/kg	SW846 8260A
2,2-Dichloropropane	ND	65	ug/kg	SW846 8260A
1,1-Dichloropropene	ND	65	ug/kg	SW846 8260A
Ethylbenzene	ND	65	ug/kg	SW846 8260A
Hexachlorobutadiene	ND	65	ug/kg	SW846 8260A
Isopropylbenzene	ND	65	ug/kg	SW846 8260A
p-Isopropyltoluene	ND	65	ug/kg	SW846 8260A
Methylene chloride	ND	65	ug/kg	SW846 8260A
Naphthalene	ND	65	ug/kg	SW846 8260A
n-Propylbenzene	ND	65	ug/kg	SW846 8260A
Styrene	ND	65	ug/kg	SW846 8260A
1,1,1,2-Tetrachloroethane	ND	65	ug/kg	SW846 8260A
1,1,2,2-Tetrachloroethane	ND	65	ug/kg	SW846 8260A
Tetrachloroethene	780	65	ug/kg	SW846 8260A
Toluene	ND	65	ug/kg	SW846 8260A
1,2,3-Trichlorobenzene	ND	65	ug/kg	SW846 8260A

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QUANTERRA INCORPORATED

PRELIMINARY DATA SUMMARY

The results shown below may still require additional laboratory review and are subject to change. Actions taken based on these results are the responsibility of the data user.

Baker Environmental
Camp LeJeune
Project Number: CTO-356

Lot #: H7G290134 Date Reported: 8/05/97

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD
Client Sample ID: IS03-2				
Sample #: 010 Date Sampled: 07/25/97 17:55 Date Received: 07/29/97 Matrix: SOLID				
Volatile Organics by GC/MS				In Review
1,2,4-Trichlorobenzene	20 J	65	ug/kg	SW846 8260A
1,1,1-Trichloroethane	ND	65	ug/kg	SW846 8260A
1,1,2-Trichloroethane	ND	65	ug/kg	SW846 8260A
Trichloroethene	ND	65	ug/kg	SW846 8260A
Trichlorofluoromethane	ND	130	ug/kg	SW846 8260A
1,2,3-Trichloropropane	ND	65	ug/kg	SW846 8260A
1,2,4-Trimethylbenzene	ND	65	ug/kg	SW846 8260A
1,3,5-Trimethylbenzene	ND	65	ug/kg	SW846 8260A
Vinyl chloride	ND	130	ug/kg	SW846 8260A
o-Xylene	ND	32	ug/kg	SW846 8260A
m-Xylene & p-Xylene	ND	32	ug/kg	SW846 8260A

J Estimated result. Result is less than RL.

Inorganic Analysis				In Review
Percent Moisture	IN PROCESS	0.10	%	MCAWW 160.3 MOD

Client Sample ID: IS03-3				
Sample #: 011 Date Sampled: 07/25/97 18:00 Date Received: 07/29/97 Matrix: SOLID				
Volatile Organics by GC/MS				In Review
Benzene	ND	280	ug/kg	SW846 8260A
Bromobenzene	ND	280	ug/kg	SW846 8260A
Bromochloromethane	ND	280	ug/kg	SW846 8260A
Bromodichloromethane	ND	280	ug/kg	SW846 8260A
Bromoform	ND	280	ug/kg	SW846 8260A
Bromomethane	ND	560	ug/kg	SW846 8260A
n-Butylbenzene	ND	280	ug/kg	SW846 8260A
sec-Butylbenzene	ND	280	ug/kg	SW846 8260A
tert-Butylbenzene	ND	280	ug/kg	SW846 8260A
Carbon tetrachloride	ND	280	ug/kg	SW846 8260A
Chlorobenzene	ND	280	ug/kg	SW846 8260A
Chlorodibromomethane	ND	280	ug/kg	SW846 8260A
Chloroethane	ND	560	ug/kg	SW846 8260A
Chloroform	ND	280	ug/kg	SW846 8260A
Chloromethane	ND	560	ug/kg	SW846 8260A

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QUANTERRA INCORPORATED

PRELIMINARY DATA SUMMARY

The results shown below may still require additional laboratory review and are subject to change. Actions taken based on these results are the responsibility of the data user.

Baker Environmental
Camp LeJeune
Project Number: CTO-356

Lot #: H7G290134 Date Reported: 8/05/97

Client Sample ID: IS03-3
Sample #: 011 Date Sampled: 07/25/97 18:00 Date Received: 07/29/97 Matrix: SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD
Volatile Organics by GC/MS				In Review
2-Chlorotoluene	ND	280	ug/kg	SW846 8260A
4-Chlorotoluene	ND	280	ug/kg	SW846 8260A
1,2-Dibromo-3-chloro-propane	ND	560	ug/kg	SW846 8260A
1,2-Dibromoethane	ND	280	ug/kg	SW846 8260A
Dibromomethane	ND	280	ug/kg	SW846 8260A
1,2-Dichlorobenzene	ND	280	ug/kg	SW846 8260A
1,3-Dichlorobenzene	ND	280	ug/kg	SW846 8260A
1,4-Dichlorobenzene	ND	280	ug/kg	SW846 8260A
Dichlorodifluoromethane	ND	560	ug/kg	SW846 8260A
1,1-Dichloroethane	ND	280	ug/kg	SW846 8260A
1,2-Dichloroethane	ND	280	ug/kg	SW846 8260A
1,1-Dichloroethene	ND	280	ug/kg	SW846 8260A
cis-1,2-Dichloroethene	100 J	140	ug/kg	SW846 8260A
trans-1,2-Dichloroethene	ND	140	ug/kg	SW846 8260A
1,2-Dichloropropane	ND	280	ug/kg	SW846 8260A
1,3-Dichloropropane	ND	280	ug/kg	SW846 8260A
2,2-Dichloropropane	ND	280	ug/kg	SW846 8260A
1,1-Dichloropropene	ND	280	ug/kg	SW846 8260A
Ethylbenzene	ND	280	ug/kg	SW846 8260A
Hexachlorobutadiene	ND	280	ug/kg	SW846 8260A
Isopropylbenzene	ND	280	ug/kg	SW846 8260A
p-Isopropyltoluene	ND	280	ug/kg	SW846 8260A
Methylene chloride	ND	280	ug/kg	SW846 8260A
Naphthalene	ND	280	ug/kg	SW846 8260A
n-Propylbenzene	ND	280	ug/kg	SW846 8260A
Styrene	ND	280	ug/kg	SW846 8260A
1,1,1,2-Tetrachloroethane	ND	280	ug/kg	SW846 8260A
1,1,2,2-Tetrachloroethane	ND	280	ug/kg	SW846 8260A
Tetrachloroethene	4000	280	ug/kg	SW846 8260A
Toluene	ND	280	ug/kg	SW846 8260A
1,2,3-Trichlorobenzene	ND	280	ug/kg	SW846 8260A
1,2,4-Trichlorobenzene	ND	280	ug/kg	SW846 8260A
1,1,1-Trichloroethane	ND	280	ug/kg	SW846 8260A
1,1,2-Trichloroethane	ND	280	ug/kg	SW846 8260A
Trichloroethene	ND	280	ug/kg	SW846 8260A
Trichlorofluoromethane	ND	560	ug/kg	SW846 8260A

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QUANTERRA INCORPORATED

PRELIMINARY DATA SUMMARY

The results shown below may still require additional laboratory review and are subject to change. Actions taken based on these results are the responsibility of the data user.

Lot #: H7G290134

Baker Environmental
Camp LeJeune
Project Number: CTO-356

Date Reported: 8/05/97

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD
Client Sample ID: IS03-3				
Sample #: 011 Date Sampled: 07/25/97 18:00 Date Received: 07/29/97 Matrix: SOLID				
Volatile Organics by GC/MS				In Review
1,2,3-Trichloropropane	ND	280	ug/kg	SW846 8260A
1,2,4-Trimethylbenzene	ND	280	ug/kg	SW846 8260A
1,3,5-Trimethylbenzene	ND	280	ug/kg	SW846 8260A
Vinyl chloride	ND	560	ug/kg	SW846 8260A
o-Xylene	ND	140	ug/kg	SW846 8260A
m-Xylene & p-Xylene	ND	140	ug/kg	SW846 8260A
J Estimated result. Result is less than RL.				
Inorganic Analysis				In Review
Percent Moisture	IN PROCESS	0.10	%	MCAWW 160.3 MOD
Client Sample ID: IS04-1				
Sample #: 012 Date Sampled: 07/26/97 07:44 Date Received: 07/29/97 Matrix: SOLID				
Volatile Organics by GC/MS				In Review
Benzene	ND	340	ug/kg	SW846 8260A
Bromobenzene	ND	340	ug/kg	SW846 8260A
Bromochloromethane	ND	340	ug/kg	SW846 8260A
Bromodichloromethane	ND	340	ug/kg	SW846 8260A
Bromoform	ND	340	ug/kg	SW846 8260A
Bromomethane	ND	670	ug/kg	SW846 8260A
n-Butylbenzene	ND	340	ug/kg	SW846 8260A
sec-Butylbenzene	ND	340	ug/kg	SW846 8260A
tert-Butylbenzene	ND	340	ug/kg	SW846 8260A
Carbon tetrachloride	ND	340	ug/kg	SW846 8260A
Chlorobenzene	ND	340	ug/kg	SW846 8260A
Chlorodibromomethane	ND	340	ug/kg	SW846 8260A
Chloroethane	ND	670	ug/kg	SW846 8260A
Chloroform	ND	340	ug/kg	SW846 8260A
Chloromethane	ND	670	ug/kg	SW846 8260A
2-Chlorotoluene	ND	340	ug/kg	SW846 8260A
4-Chlorotoluene	ND	340	ug/kg	SW846 8260A
1,2-Dibromo-3-chloro-propane	ND	670	ug/kg	SW846 8260A
1,2-Dibromoethane	ND	340	ug/kg	SW846 8260A

(Continued on next page)

QUANTERRA INCORPORATED

PRELIMINARY DATA SUMMARY

The results shown below may still require additional laboratory review and are subject to change. Actions taken based on these results are the responsibility of the data user.

Baker Environmental
Camp LeJeune
Project Number: CTO-356

Lot #: H7G290134 Date Reported: 8/05/97

Client Sample ID: IS04-1
Sample #: 012 Date Sampled: 07/26/97 07:44 Date Received: 07/29/97 Matrix: SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD
Volatile Organics by GC/MS				In Review
Dibromomethane	ND	340	ug/kg	SW846 8260A
1,2-Dichlorobenzene	ND	340	ug/kg	SW846 8260A
1,3-Dichlorobenzene	ND	340	ug/kg	SW846 8260A
1,4-Dichlorobenzene	ND	340	ug/kg	SW846 8260A
Dichlorodifluoromethane	ND	670	ug/kg	SW846 8260A
1,1-Dichloroethane	ND	340	ug/kg	SW846 8260A
1,2-Dichloroethane	ND	340	ug/kg	SW846 8260A
1,1-Dichloroethene	ND	340	ug/kg	SW846 8260A
cis-1,2-Dichloroethene	ND	170	ug/kg	SW846 8260A
trans-1,2-Dichloroethene	ND	170	ug/kg	SW846 8260A
1,2-Dichloropropane	ND	340	ug/kg	SW846 8260A
1,3-Dichloropropane	ND	340	ug/kg	SW846 8260A
2,2-Dichloropropane	ND	340	ug/kg	SW846 8260A
1,1-Dichloropropene	ND	340	ug/kg	SW846 8260A
Ethylbenzene	ND	340	ug/kg	SW846 8260A
Hexachlorobutadiene	ND	340	ug/kg	SW846 8260A
Isopropylbenzene	ND	340	ug/kg	SW846 8260A
p-Isopropyltoluene	ND	340	ug/kg	SW846 8260A
Methylene chloride	ND	340	ug/kg	SW846 8260A
Naphthalene	ND	340	ug/kg	SW846 8260A
n-Propylbenzene	ND	340	ug/kg	SW846 8260A
Styrene	ND	340	ug/kg	SW846 8260A
1,1,1,2-Tetrachloroethane	ND	340	ug/kg	SW846 8260A
1,1,2,2-Tetrachloroethane	ND	340	ug/kg	SW846 8260A
Tetrachloroethene	4200	340	ug/kg	SW846 8260A
Toluene	ND	340	ug/kg	SW846 8260A
1,2,3-Trichlorobenzene	ND	340	ug/kg	SW846 8260A
1,2,4-Trichlorobenzene	ND	340	ug/kg	SW846 8260A
1,1,1-Trichloroethane	ND	340	ug/kg	SW846 8260A
1,1,2-Trichloroethane	ND	340	ug/kg	SW846 8260A
Trichloroethene	ND	340	ug/kg	SW846 8260A
Trichlorofluoromethane	ND	670	ug/kg	SW846 8260A
1,2,3-Trichloropropane	ND	340	ug/kg	SW846 8260A
1,2,4-Trimethylbenzene	ND	340	ug/kg	SW846 8260A
1,3,5-Trimethylbenzene	ND	340	ug/kg	SW846 8260A
Vinyl chloride	ND	670	ug/kg	SW846 8260A
o-Xylene	ND	170	ug/kg	SW846 8260A

(Continued on next page)

QUANTERRA INCORPORATED

PRELIMINARY DATA SUMMARY

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Baker Environmental
Camp LeJeune
Project Number: CTO-356

Lot #: H7G290134 Date Reported: 8/05/97

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD
Client Sample ID: IS04-1				
Sample #: 012 Date Sampled: 07/26/97 07:44 Date Received: 07/29/97 Matrix: SOLID				
Volatile Organics by GC/MS				In Review
m-Xylene & p-Xylene	ND	170	ug/kg	SW846 8260A
Inorganic Analysis				In Review
Percent Moisture	IN PROCESS	0.10	%	MCAWW 160.3 MOD
Client Sample ID: IS05-1				
Sample #: 013 Date Sampled: 07/26/97 09:15 Date Received: 07/29/97 Matrix: SOLID				
Volatile Organics by GC/MS				In Review
Benzene	ND	8200	ug/kg	SW846 8260A
Bromobenzene	ND	8200	ug/kg	SW846 8260A
Bromochloromethane	ND	8200	ug/kg	SW846 8260A
Bromodichloromethane	ND	8200	ug/kg	SW846 8260A
Bromoform	ND	8200	ug/kg	SW846 8260A
Bromomethane	ND	16000	ug/kg	SW846 8260A
n-Butylbenzene	ND	8200	ug/kg	SW846 8260A
sec-Butylbenzene	ND	8200	ug/kg	SW846 8260A
tert-Butylbenzene	ND	8200	ug/kg	SW846 8260A
Carbon tetrachloride	ND	8200	ug/kg	SW846 8260A
Chlorobenzene	ND	8200	ug/kg	SW846 8260A
Chlorodibromomethane	ND	8200	ug/kg	SW846 8260A
Chloroethane	ND	16000	ug/kg	SW846 8260A
Chloroform	ND	8200	ug/kg	SW846 8260A
Chloromethane	ND	16000	ug/kg	SW846 8260A
2-Chlorotoluene	ND	8200	ug/kg	SW846 8260A
4-Chlorotoluene	ND	8200	ug/kg	SW846 8260A
1,2-Dibromo-3-chloro-propane	ND	16000	ug/kg	SW846 8260A
1,2-Dibromoethane	ND	8200	ug/kg	SW846 8260A
Dibromomethane	ND	8200	ug/kg	SW846 8260A
1,2-Dichlorobenzene	ND	8200	ug/kg	SW846 8260A
1,3-Dichlorobenzene	ND	8200	ug/kg	SW846 8260A
1,4-Dichlorobenzene	ND	8200	ug/kg	SW846 8260A
Dichlorodifluoromethane	ND	16000	ug/kg	SW846 8260A
1,1-Dichloroethane	ND	8200	ug/kg	SW846 8260A
1,2-Dichloroethane	ND	8200	ug/kg	SW846 8260A

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QUANTERRA INCORPORATED

PRELIMINARY DATA SUMMARY

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Baker Environmental
Camp LeJeune
Project Number: CTO-356

Lot #: H7G290134 Date Reported: 8/05/97

Client Sample ID: IS05-1
Sample #: 013 Date Sampled: 07/26/97 09:15 Date Received: 07/29/97 Matrix: SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD	
Volatile Organics by GC/MS					In Review
1,1-Dichloroethene	ND	8200	ug/kg	SW846 8260A	
cis-1,2-Dichloroethene	ND	4100	ug/kg	SW846 8260A	
trans-1,2-Dichloroethene	ND	4100	ug/kg	SW846 8260A	
1,2-Dichloropropane	ND	8200	ug/kg	SW846 8260A	
1,3-Dichloropropane	ND	8200	ug/kg	SW846 8260A	
2,2-Dichloropropane	ND	8200	ug/kg	SW846 8260A	
1,1-Dichloropropene	ND	8200	ug/kg	SW846 8260A	
Ethylbenzene	ND	8200	ug/kg	SW846 8260A	
Hexachlorobutadiene	ND	8200	ug/kg	SW846 8260A	
Isopropylbenzene	ND	8200	ug/kg	SW846 8260A	
p-Isopropyltoluene	ND	8200	ug/kg	SW846 8260A	
Methylene chloride	ND	8200	ug/kg	SW846 8260A	
Naphthalene	ND	8200	ug/kg	SW846 8260A	
n-Propylbenzene	ND	8200	ug/kg	SW846 8260A	
Styrene	ND	8200	ug/kg	SW846 8260A	
1,1,1,2-Tetrachloroethane	ND	8200	ug/kg	SW846 8260A	
1,1,2,2-Tetrachloroethane	ND	8200	ug/kg	SW846 8260A	
Tetrachloroethene	130000	8200	ug/kg	SW846 8260A	
Toluene	ND	8200	ug/kg	SW846 8260A	
1,2,3-Trichlorobenzene	ND	8200	ug/kg	SW846 8260A	
1,2,4-Trichlorobenzene	ND	8200	ug/kg	SW846 8260A	
1,1,1-Trichloroethane	ND	8200	ug/kg	SW846 8260A	
1,1,2-Trichloroethane	ND	8200	ug/kg	SW846 8260A	
Trichloroethene	ND	8200	ug/kg	SW846 8260A	
Trichlorofluoromethane	ND	16000	ug/kg	SW846 8260A	
1,2,3-Trichloropropane	ND	8200	ug/kg	SW846 8260A	
1,2,4-Trimethylbenzene	ND	8200	ug/kg	SW846 8260A	
1,3,5-Trimethylbenzene	ND	8200	ug/kg	SW846 8260A	
Vinyl chloride	ND	16000	ug/kg	SW846 8260A	
o-Xylene	ND	4100	ug/kg	SW846 8260A	
m-Xylene & p-Xylene	ND	4100	ug/kg	SW846 8260A	
Inorganic Analysis					In Review
Percent Moisture	IN PROCESS	0.10	%	MCAWW 160.3 MOD	

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QUANTERRA INCORPORATED

PRELIMINARY DATA SUMMARY

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Lot #: H7G290134

Baker Environmental
Camp LeJeune
Project Number: CTO-356

Date Reported: 8/05/97

Client Sample ID: IS05-2
Sample #: 014 Date Sampled: 07/26/97 09:19 Date Received: 07/29/97 Matrix: SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD
Volatile Organics by GC/MS				In Review
Benzene	ND	15000	ug/kg	SW846 8260A
Bromobenzene	ND	15000	ug/kg	SW846 8260A
Bromochloromethane	ND	15000	ug/kg	SW846 8260A
Bromodichloromethane	ND	15000	ug/kg	SW846 8260A
Bromoform	ND	15000	ug/kg	SW846 8260A
Bromomethane	ND	30000	ug/kg	SW846 8260A
n-Butylbenzene	ND	15000	ug/kg	SW846 8260A
sec-Butylbenzene	ND	15000	ug/kg	SW846 8260A
tert-Butylbenzene	ND	15000	ug/kg	SW846 8260A
Carbon tetrachloride	ND	15000	ug/kg	SW846 8260A
Chlorobenzene	ND	15000	ug/kg	SW846 8260A
Chlorodibromomethane	ND	15000	ug/kg	SW846 8260A
Chloroethane	ND	30000	ug/kg	SW846 8260A
Chloroform	ND	15000	ug/kg	SW846 8260A
Chloromethane	ND	30000	ug/kg	SW846 8260A
2-Chlorotoluene	ND	15000	ug/kg	SW846 8260A
4-Chlorotoluene	ND	15000	ug/kg	SW846 8260A
1,2-Dibromo-3-chloro-propane	ND	30000	ug/kg	SW846 8260A
1,2-Dibromoethane	ND	15000	ug/kg	SW846 8260A
Dibromomethane	ND	15000	ug/kg	SW846 8260A
1,2-Dichlorobenzene	ND	15000	ug/kg	SW846 8260A
1,3-Dichlorobenzene	ND	15000	ug/kg	SW846 8260A
1,4-Dichlorobenzene	ND	15000	ug/kg	SW846 8260A
Dichlorodifluoromethane	ND	30000	ug/kg	SW846 8260A
1,1-Dichloroethane	ND	15000	ug/kg	SW846 8260A
1,2-Dichloroethane	ND	15000	ug/kg	SW846 8260A
1,1-Dichloroethene	ND	15000	ug/kg	SW846 8260A
cis-1,2-Dichloroethene	ND	7400	ug/kg	SW846 8260A
trans-1,2-Dichloroethene	ND	7400	ug/kg	SW846 8260A
1,2-Dichloropropane	ND	15000	ug/kg	SW846 8260A
1,3-Dichloropropane	ND	15000	ug/kg	SW846 8260A
2,2-Dichloropropane	ND	15000	ug/kg	SW846 8260A
1,1-Dichloropropene	ND	15000	ug/kg	SW846 8260A
Ethylbenzene	ND	15000	ug/kg	SW846 8260A
Hexachlorobutadiene	ND	15000	ug/kg	SW846 8260A
Isopropylbenzene	ND	15000	ug/kg	SW846 8260A

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QUANTERRA INCORPORATED

PRELIMINARY DATA SUMMARY

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Lot #: H7G290134

Baker Environmental
Camp LeJeune
Project Number: CTO-356

Date Reported: 8/05/97

Client Sample ID: IS05-2
Sample #: 014 Date Sampled: 07/26/97 09:19 Date Received: 07/29/97 Matrix: SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD	
Volatile Organics by GC/MS					In Review
p-Isopropyltoluene	ND	15000	ug/kg	SW846 8260A	
Methylene chloride	ND	15000	ug/kg	SW846 8260A	
Naphthalene	ND	15000	ug/kg	SW846 8260A	
n-Propylbenzene	ND	15000	ug/kg	SW846 8260A	
Styrene	ND	15000	ug/kg	SW846 8260A	
1,1,1,2-Tetrachloroethane	ND	15000	ug/kg	SW846 8260A	
1,1,2,2-Tetrachloroethane	ND	15000	ug/kg	SW846 8260A	
Tetrachloroethene	390000	15000	ug/kg	SW846 8260A	
Toluene	ND	15000	ug/kg	SW846 8260A	
1,2,3-Trichlorobenzene	ND	15000	ug/kg	SW846 8260A	
1,2,4-Trichlorobenzene	ND	15000	ug/kg	SW846 8260A	
1,1,1-Trichloroethane	ND	15000	ug/kg	SW846 8260A	
1,1,2-Trichloroethane	ND	15000	ug/kg	SW846 8260A	
Trichloroethene	ND	15000	ug/kg	SW846 8260A	
Trichlorofluoromethane	ND	30000	ug/kg	SW846 8260A	
1,2,3-Trichloropropane	ND	15000	ug/kg	SW846 8260A	
1,2,4-Trimethylbenzene	ND	15000	ug/kg	SW846 8260A	
1,3,5-Trimethylbenzene	ND	15000	ug/kg	SW846 8260A	
Vinyl chloride	ND	30000	ug/kg	SW846 8260A	
o-Xylene	ND	7400	ug/kg	SW846 8260A	
m-Xylene & p-Xylene	ND	7400	ug/kg	SW846 8260A	
Inorganic Analysis					In Review
Percent Moisture	IN PROCESS	0.10	%	MCAWW 160.3 MOD	

Client Sample ID: IS05-3
Sample #: 015 Date Sampled: 07/26/97 09:23 Date Received: 07/29/97 Matrix: SOLID

Volatile Organics by GC/MS					In Review
Benzene	ND	75000	ug/kg	SW846 8260A	
Bromobenzene	ND	75000	ug/kg	SW846 8260A	
Bromochloromethane	ND	75000	ug/kg	SW846 8260A	
Bromodichloromethane	ND	75000	ug/kg	SW846 8260A	
Bromoform	ND	75000	ug/kg	SW846 8260A	
Bromomethane	ND	150000	ug/kg	SW846 8260A	
n-Butylbenzene	ND	75000	ug/kg	SW846 8260A	

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QUANTERRA INCORPORATED

PRELIMINARY DATA SUMMARY

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Baker Environmental
Camp LeJeune
Project Number: CTO-356

Lot #: H7G290134 Date Reported: 8/05/97

Client Sample ID: IS05-3
Sample #: 015 Date Sampled: 07/26/97 09:23 Date Received: 07/29/97 Matrix: SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD
Volatile Organics by GC/MS				In Review
sec-Butylbenzene	ND	75000	ug/kg	SW846 8260A
tert-Butylbenzene	ND	75000	ug/kg	SW846 8260A
Carbon tetrachloride	ND	75000	ug/kg	SW846 8260A
Chlorobenzene	ND	75000	ug/kg	SW846 8260A
Chlorodibromomethane	ND	75000	ug/kg	SW846 8260A
Chloroethane	ND	150000	ug/kg	SW846 8260A
Chloroform	ND	75000	ug/kg	SW846 8260A
Chloromethane	ND	150000	ug/kg	SW846 8260A
2-Chlorotoluene	ND	75000	ug/kg	SW846 8260A
4-Chlorotoluene	ND	75000	ug/kg	SW846 8260A
1,2-Dibromo-3-chloro-propane	ND	150000	ug/kg	SW846 8260A
1,2-Dibromoethane	ND	75000	ug/kg	SW846 8260A
Dibromomethane	ND	75000	ug/kg	SW846 8260A
1,2-Dichlorobenzene	ND	75000	ug/kg	SW846 8260A
1,3-Dichlorobenzene	ND	75000	ug/kg	SW846 8260A
1,4-Dichlorobenzene	ND	75000	ug/kg	SW846 8260A
Dichlorodifluoromethane	ND	150000	ug/kg	SW846 8260A
1,1-Dichloroethane	ND	75000	ug/kg	SW846 8260A
1,2-Dichloroethane	ND	75000	ug/kg	SW846 8260A
1,1-Dichloroethene	ND	75000	ug/kg	SW846 8260A
cis-1,2-Dichloroethene	ND	38000	ug/kg	SW846 8260A
trans-1,2-Dichloroethene	ND	38000	ug/kg	SW846 8260A
1,2-Dichloropropane	ND	75000	ug/kg	SW846 8260A
1,3-Dichloropropane	ND	75000	ug/kg	SW846 8260A
2,2-Dichloropropane	ND	75000	ug/kg	SW846 8260A
1,1-Dichloropropene	ND	75000	ug/kg	SW846 8260A
Ethylbenzene	ND	75000	ug/kg	SW846 8260A
Hexachlorobutadiene	ND	75000	ug/kg	SW846 8260A
Isopropylbenzene	ND	75000	ug/kg	SW846 8260A
p-Isopropyltoluene	ND	75000	ug/kg	SW846 8260A
Methylene chloride	ND	75000	ug/kg	SW846 8260A
Naphthalene	ND	75000	ug/kg	SW846 8260A
n-Propylbenzene	ND	75000	ug/kg	SW846 8260A
Styrene	ND	75000	ug/kg	SW846 8260A
1,1,1,2-Tetrachloroethane	ND	75000	ug/kg	SW846 8260A
1,1,2,2-Tetrachloroethane	ND	75000	ug/kg	SW846 8260A

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QUANTERRA INCORPORATED

PRELIMINARY DATA SUMMARY

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Lot #: H7G290134

Baker Environmental
Camp LeJeune
Project Number: CTO-356

Date Reported: 8/05/97

Client Sample ID: IS05-3
Sample #: 015 Date Sampled: 07/26/97 09:23 Date Received: 07/29/97 Matrix: SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD	
Volatile Organics by GC/MS					In Review
Tetrachloroethene	2100000	75000	ug/kg	SW846 8260A	
Toluene	ND	75000	ug/kg	SW846 8260A	
1,2,3-Trichlorobenzene	ND	75000	ug/kg	SW846 8260A	
1,2,4-Trichlorobenzene	ND	75000	ug/kg	SW846 8260A	
1,1,1-Trichloroethane	ND	75000	ug/kg	SW846 8260A	
1,1,2-Trichloroethane	ND	75000	ug/kg	SW846 8260A	
Trichloroethene	ND	75000	ug/kg	SW846 8260A	
Trichlorofluoromethane	ND	150000	ug/kg	SW846 8260A	
1,2,3-Trichloropropane	ND	75000	ug/kg	SW846 8260A	
1,2,4-Trimethylbenzene	ND	75000	ug/kg	SW846 8260A	
1,3,5-Trimethylbenzene	ND	75000	ug/kg	SW846 8260A	
Vinyl chloride	ND	150000	ug/kg	SW846 8260A	
o-Xylene	ND	38000	ug/kg	SW846 8260A	
m-Xylene & p-Xylene	ND	38000	ug/kg	SW846 8260A	
Inorganic Analysis					In Review
Percent Moisture	IN PROCESS	0.10	%	MCAWW 160.3 MOD	

Client Sample ID: IS05-4
Sample #: 016 Date Sampled: 07/26/97 09:28 Date Received: 07/29/97 Matrix: SOLID

Volatile Organics by GC/MS					In Review
Benzene	ND	7300	ug/kg	SW846 8260A	
Bromobenzene	ND	7300	ug/kg	SW846 8260A	
Bromochloromethane	ND	7300	ug/kg	SW846 8260A	
Bromodichloromethane	ND	7300	ug/kg	SW846 8260A	
Bromoform	ND	7300	ug/kg	SW846 8260A	
Bromomethane	ND	15000	ug/kg	SW846 8260A	
n-Butylbenzene	2300 J	7300	ug/kg	SW846 8260A	
sec-Butylbenzene	1800 J	7300	ug/kg	SW846 8260A	
tert-Butylbenzene	ND	7300	ug/kg	SW846 8260A	
Carbon tetrachloride	ND	7300	ug/kg	SW846 8260A	
Chlorobenzene	ND	7300	ug/kg	SW846 8260A	
Chlorodibromomethane	ND	7300	ug/kg	SW846 8260A	
Chloroethane	ND	15000	ug/kg	SW846 8260A	
Chloroform	ND	7300	ug/kg	SW846 8260A	

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QUANTERRA INCORPORATED

PRELIMINARY DATA SUMMARY

The results shown below may still require additional laboratory review and are subject to change. Actions taken based on these results are the responsibility of the data user.

Baker Environmental
Camp LeJeune
Project Number: CTO-356

Lot #: H7G290134 Date Reported: 8/05/97

Client Sample ID: IS05-4
Sample #: 016 Date Sampled: 07/26/97 09:28 Date Received: 07/29/97 Matrix: SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD	
Volatile Organics by GC/MS					In Review
Chloromethane	ND	15000	ug/kg	SW846 8260A	
2-Chlorotoluene	ND	7300	ug/kg	SW846 8260A	
4-Chlorotoluene	ND	7300	ug/kg	SW846 8260A	
1,2-Dibromo-3-chloro-propane	ND	15000	ug/kg	SW846 8260A	
1,2-Dibromoethane	ND	7300	ug/kg	SW846 8260A	
Dibromomethane	ND	7300	ug/kg	SW846 8260A	
1,2-Dichlorobenzene	ND	7300	ug/kg	SW846 8260A	
1,3-Dichlorobenzene	ND	7300	ug/kg	SW846 8260A	
1,4-Dichlorobenzene	ND	7300	ug/kg	SW846 8260A	
Dichlorodifluoromethane	ND	15000	ug/kg	SW846 8260A	
1,1-Dichloroethane	ND	7300	ug/kg	SW846 8260A	
1,2-Dichloroethane	ND	7300	ug/kg	SW846 8260A	
1,1-Dichloroethene	ND	7300	ug/kg	SW846 8260A	
cis-1,2-Dichloroethene	ND	3600	ug/kg	SW846 8260A	
trans-1,2-Dichloroethene	ND	3600	ug/kg	SW846 8260A	
1,2-Dichloropropane	ND	7300	ug/kg	SW846 8260A	
1,3-Dichloropropane	ND	7300	ug/kg	SW846 8260A	
2,2-Dichloropropane	ND	7300	ug/kg	SW846 8260A	
1,1-Dichloropropene	ND	7300	ug/kg	SW846 8260A	
Ethylbenzene	ND	7300	ug/kg	SW846 8260A	
Hexachlorobutadiene	ND	7300	ug/kg	SW846 8260A	
Isopropylbenzene	ND	7300	ug/kg	SW846 8260A	
p-Isopropyltoluene	1800 J	7300	ug/kg	SW846 8260A	
Methylene chloride	ND	7300	ug/kg	SW846 8260A	
Naphthalene	ND	7300	ug/kg	SW846 8260A	
n-Propylbenzene	2800 J	7300	ug/kg	SW846 8260A	
Styrene	ND	7300	ug/kg	SW846 8260A	
1,1,1,2-Tetrachloroethane	ND	7300	ug/kg	SW846 8260A	
1,1,2,2-Tetrachloroethane	ND	7300	ug/kg	SW846 8260A	
Tetrachloroethene	220000	7300	ug/kg	SW846 8260A	
Toluene	ND	7300	ug/kg	SW846 8260A	
1,2,3-Trichlorobenzene	ND	7300	ug/kg	SW846 8260A	
1,2,4-Trichlorobenzene	ND	7300	ug/kg	SW846 8260A	
1,1,1-Trichloroethane	ND	7300	ug/kg	SW846 8260A	
1,1,2-Trichloroethane	ND	7300	ug/kg	SW846 8260A	
Trichloroethene	15000	7300	ug/kg	SW846 8260A	

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QUANTERRA INCORPORATED

PRELIMINARY DATA SUMMARY

The results shown below may still require additional laboratory review and are subject to change. Actions taken based on these results are the responsibility of the data user.

Baker Environmental
Camp LeJeune
Project Number: CTO-356

Lot #: H7G290134 Date Reported: 8/05/97

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD	
Client Sample ID: IS05-4					
Sample #: 016 Date Sampled: 07/26/97 09:28 Date Received: 07/29/97 Matrix: SOLID					
Volatile Organics by GC/MS					In Review
Trichlorofluoromethane	ND	15000	ug/kg	SW846 8260A	
1,2,3-Trichloropropane	ND	7300	ug/kg	SW846 8260A	
1,2,4-Trimethylbenzene	26000	7300	ug/kg	SW846 8260A	
1,3,5-Trimethylbenzene	13000	7300	ug/kg	SW846 8260A	
Vinyl chloride	ND	15000	ug/kg	SW846 8260A	
o-Xylene	ND	3600	ug/kg	SW846 8260A	
m-Xylene & p-Xylene	ND	3600	ug/kg	SW846 8260A	
J Estimated result. Result is less than RL.					
Inorganic Analysis					In Review
Percent Moisture	IN PROCESS	0.10	%	MCAWW 160.3 MOD	
Client Sample ID: IS06-1					
Sample #: 017 Date Sampled: 07/26/97 14:22 Date Received: 07/29/97 Matrix: SOLID					
Volatile Organics by GC/MS					In Review
Benzene	ND	620	ug/kg	SW846 8260A	
Bromobenzene	ND	620	ug/kg	SW846 8260A	
Bromochloromethane	ND	620	ug/kg	SW846 8260A	
Bromodichloromethane	ND	620	ug/kg	SW846 8260A	
Bromoform	ND	620	ug/kg	SW846 8260A	
Bromomethane	ND	1200	ug/kg	SW846 8260A	
n-Butylbenzene	1000	620	ug/kg	SW846 8260A	
sec-Butylbenzene	480 J	620	ug/kg	SW846 8260A	
tert-Butylbenzene	ND	620	ug/kg	SW846 8260A	
Carbon tetrachloride	ND	620	ug/kg	SW846 8260A	
Chlorobenzene	ND	620	ug/kg	SW846 8260A	
Chlorodibromomethane	ND	620	ug/kg	SW846 8260A	
Chloroethane	ND	1200	ug/kg	SW846 8260A	
Chloroform	ND	620	ug/kg	SW846 8260A	
Chloromethane	ND	1200	ug/kg	SW846 8260A	
2-Chlorotoluene	ND	620	ug/kg	SW846 8260A	
4-Chlorotoluene	ND	620	ug/kg	SW846 8260A	
1,2-Dibromo-3-chloro-propane	ND	1200	ug/kg	SW846 8260A	

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QUANTERRA INCORPORATED

PRELIMINARY DATA SUMMARY

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Baker Environmental
Camp LeJeune
Project Number: CTO-356

Lot #: H7G290134

Date Reported: 8/05/97

Client Sample ID: IS06-1
Sample #: 017 Date Sampled: 07/26/97 14:22 Date Received: 07/29/97 Matrix: SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD
Volatile Organics by GC/MS				In Review
1,2-Dibromoethane	ND	620	ug/kg	SW846 8260A
Dibromomethane	ND	620	ug/kg	SW846 8260A
1,2-Dichlorobenzene	ND	620	ug/kg	SW846 8260A
1,3-Dichlorobenzene	ND	620	ug/kg	SW846 8260A
1,4-Dichlorobenzene	ND	620	ug/kg	SW846 8260A
Dichlorodifluoromethane	ND	1200	ug/kg	SW846 8260A
1,1-Dichloroethane	ND	620	ug/kg	SW846 8260A
1,2-Dichloroethane	ND	620	ug/kg	SW846 8260A
1,1-Dichloroethene	ND	620	ug/kg	SW846 8260A
cis-1,2-Dichloroethene	ND	310	ug/kg	SW846 8260A
trans-1,2-Dichloroethene	ND	310	ug/kg	SW846 8260A
1,2-Dichloropropane	ND	620	ug/kg	SW846 8260A
1,3-Dichloropropane	ND	620	ug/kg	SW846 8260A
2,2-Dichloropropane	ND	620	ug/kg	SW846 8260A
1,1-Dichloropropene	ND	620	ug/kg	SW846 8260A
Ethylbenzene	ND	620	ug/kg	SW846 8260A
Hexachlorobutadiene	ND	620	ug/kg	SW846 8260A
Isopropylbenzene	ND	620	ug/kg	SW846 8260A
p-Isopropyltoluene	520 J	620	ug/kg	SW846 8260A
Methylene chloride	ND	620	ug/kg	SW846 8260A
Naphthalene	ND	620	ug/kg	SW846 8260A
n-Propylbenzene	240 J	620	ug/kg	SW846 8260A
Styrene	ND	620	ug/kg	SW846 8260A
1,1,1,2-Tetrachloroethane	ND	620	ug/kg	SW846 8260A
1,1,2,2-Tetrachloroethane	ND	620	ug/kg	SW846 8260A
Tetrachloroethene	1800	620	ug/kg	SW846 8260A
Toluene	ND	620	ug/kg	SW846 8260A
1,2,3-Trichlorobenzene	ND	620	ug/kg	SW846 8260A
1,2,4-Trichlorobenzene	ND	620	ug/kg	SW846 8260A
1,1,1-Trichloroethane	ND	620	ug/kg	SW846 8260A
1,1,2-Trichloroethane	ND	620	ug/kg	SW846 8260A
Trichloroethene	ND	620	ug/kg	SW846 8260A
Trichlorofluoromethane	ND	1200	ug/kg	SW846 8260A
1,2,3-Trichloropropane	ND	620	ug/kg	SW846 8260A
1,2,4-Trimethylbenzene	2000	620	ug/kg	SW846 8260A
1,3,5-Trimethylbenzene	1300	620	ug/kg	SW846 8260A
Vinyl chloride	ND	1200	ug/kg	SW846 8260A

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QUANTERRA INCORPORATED

PRELIMINARY DATA SUMMARY

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Lot #: H7G290134

Baker Environmental
Camp LeJeune
Project Number: CTO-356

Date Reported: 8/05/97

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD
Client Sample ID: IS06-1				
Sample #: 017 Date Sampled: 07/26/97 14:22 Date Received: 07/29/97 Matrix: SOLID				
Volatile Organics by GC/MS				In Review
o-Xylene	ND	310	ug/kg	SW846 8260A
m-Xylene & p-Xylene	ND	310	ug/kg	SW846 8260A
J Estimated result. Result is less than RL.				
Inorganic Analysis				In Review
Percent Moisture	IN PROCESS	0.10	%	MCAWW 160.3 MOD
Client Sample ID: IS07-1				
Sample #: 018 Date Sampled: 07/26/97 15:55 Date Received: 07/29/97 Matrix: SOLID				
Volatile Organics by GC/MS				In Review
Benzene	ND	230	ug/kg	SW846 8260A
Bromobenzene	ND	230	ug/kg	SW846 8260A
Bromochloromethane	ND	230	ug/kg	SW846 8260A
Bromodichloromethane	ND	230	ug/kg	SW846 8260A
Bromoform	ND	230	ug/kg	SW846 8260A
Bromomethane	ND	460	ug/kg	SW846 8260A
n-Butylbenzene	ND	230	ug/kg	SW846 8260A
sec-Butylbenzene	ND	230	ug/kg	SW846 8260A
tert-Butylbenzene	ND	230	ug/kg	SW846 8260A
Carbon tetrachloride	ND	230	ug/kg	SW846 8260A
Chlorobenzene	ND	230	ug/kg	SW846 8260A
Chlorodibromomethane	ND	230	ug/kg	SW846 8260A
Chloroethane	ND	460	ug/kg	SW846 8260A
Chloroform	ND	230	ug/kg	SW846 8260A
Chloromethane	ND	460	ug/kg	SW846 8260A
2-Chlorotoluene	ND	230	ug/kg	SW846 8260A
4-Chlorotoluene	ND	230	ug/kg	SW846 8260A
1,2-Dibromo-3-chloro-propane	ND	460	ug/kg	SW846 8260A
1,2-Dibromoethane	ND	230	ug/kg	SW846 8260A
Dibromomethane	ND	230	ug/kg	SW846 8260A
1,2-Dichlorobenzene	ND	230	ug/kg	SW846 8260A
1,3-Dichlorobenzene	ND	230	ug/kg	SW846 8260A
1,4-Dichlorobenzene	ND	230	ug/kg	SW846 8260A

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QUANTERRA INCORPORATED

PRELIMINARY DATA SUMMARY

The results shown below may still require additional laboratory review and are subject to change. Actions taken based on these results are the responsibility of the data user.

Lot #: H7G290134

Baker Environmental
Camp LeJeune
Project Number: CTO-356

Date Reported: 8/05/97

Client Sample ID: IS07-1
Sample #: 018 Date Sampled: 07/26/97 15:55 Date Received: 07/29/97 Matrix: SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD
Volatile Organics by GC/MS				In Review
Dichlorodifluoromethane	ND	460	ug/kg	SW846 8260A
1,1-Dichloroethane	ND	230	ug/kg	SW846 8260A
1,2-Dichloroethane	ND	230	ug/kg	SW846 8260A
1,1-Dichloroethene	ND	230	ug/kg	SW846 8260A
cis-1,2-Dichloroethene	2100	120	ug/kg	SW846 8260A
trans-1,2-Dichloroethene	ND	120	ug/kg	SW846 8260A
1,2-Dichloropropane	ND	230	ug/kg	SW846 8260A
1,3-Dichloropropane	ND	230	ug/kg	SW846 8260A
2,2-Dichloropropane	ND	230	ug/kg	SW846 8260A
1,1-Dichloropropene	ND	230	ug/kg	SW846 8260A
Ethylbenzene	ND	230	ug/kg	SW846 8260A
Hexachlorobutadiene	ND	230	ug/kg	SW846 8260A
Isopropylbenzene	ND	230	ug/kg	SW846 8260A
p-Isopropyltoluene	ND	230	ug/kg	SW846 8260A
Methylene chloride	ND	230	ug/kg	SW846 8260A
Naphthalene	ND	230	ug/kg	SW846 8260A
n-Propylbenzene	ND	230	ug/kg	SW846 8260A
Styrene	ND	230	ug/kg	SW846 8260A
1,1,1,2-Tetrachloroethane	ND	230	ug/kg	SW846 8260A
1,1,2,2-Tetrachloroethane	ND	230	ug/kg	SW846 8260A
Tetrachloroethene	74 J	230	ug/kg	SW846 8260A
Toluene	ND	230	ug/kg	SW846 8260A
1,2,3-Trichlorobenzene	ND	230	ug/kg	SW846 8260A
1,2,4-Trichlorobenzene	ND	230	ug/kg	SW846 8260A
1,1,1-Trichloroethane	ND	230	ug/kg	SW846 8260A
1,1,2-Trichloroethane	ND	230	ug/kg	SW846 8260A
Trichloroethene	ND	230	ug/kg	SW846 8260A
Trichlorofluoromethane	ND	460	ug/kg	SW846 8260A
1,2,3-Trichloropropane	ND	230	ug/kg	SW846 8260A
1,2,4-Trimethylbenzene	ND	230	ug/kg	SW846 8260A
1,3,5-Trimethylbenzene	ND	230	ug/kg	SW846 8260A
Vinyl chloride	3500	460	ug/kg	SW846 8260A
o-Xylene	ND	120	ug/kg	SW846 8260A
m-Xylene & p-Xylene	ND	120	ug/kg	SW846 8260A

J Estimated result. Result is less than RL.

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QUANTERRA INCORPORATED

PRELIMINARY DATA SUMMARY

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Baker Environmental
Camp LeJeune
Project Number: CTO-356

Lot #: H7G290134 Date Reported: 8/05/97

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD
Client Sample ID: IS07-1				
Sample #: 018 Date Sampled: 07/26/97 15:55 Date Received: 07/29/97 Matrix: SOLID				
Inorganic Analysis				In Review
Percent Moisture	IN PROCESS	0.10	%	MCAWW 160.3 MOD
Client Sample ID: IS07-2				
Sample #: 019 Date Sampled: 07/26/97 15:58 Date Received: 07/29/97 Matrix: SOLID				
Volatile Organics by GC/MS				In Review
Benzene	ND	4400	ug/kg	SW846 8260A
Bromobenzene	ND	4400	ug/kg	SW846 8260A
Bromochloromethane	ND	4400	ug/kg	SW846 8260A
Bromodichloromethane	ND	4400	ug/kg	SW846 8260A
Bromoform	ND	4400	ug/kg	SW846 8260A
Bromomethane	ND	8700	ug/kg	SW846 8260A
n-Butylbenzene	ND	4400	ug/kg	SW846 8260A
sec-Butylbenzene	ND	4400	ug/kg	SW846 8260A
tert-Butylbenzene	ND	4400	ug/kg	SW846 8260A
Carbon tetrachloride	ND	4400	ug/kg	SW846 8260A
Chlorobenzene	ND	4400	ug/kg	SW846 8260A
Chlorodibromomethane	ND	4400	ug/kg	SW846 8260A
Chloroethane	ND	8700	ug/kg	SW846 8260A
Chloroform	ND	4400	ug/kg	SW846 8260A
Chloromethane	ND	8700	ug/kg	SW846 8260A
2-Chlorotoluene	ND	4400	ug/kg	SW846 8260A
4-Chlorotoluene	ND	4400	ug/kg	SW846 8260A
1,2-Dibromo-3-chloro-propane	ND	8700	ug/kg	SW846 8260A
1,2-Dibromoethane	ND	4400	ug/kg	SW846 8260A
Dibromomethane	ND	4400	ug/kg	SW846 8260A
1,2-Dichlorobenzene	ND	4400	ug/kg	SW846 8260A
1,3-Dichlorobenzene	ND	4400	ug/kg	SW846 8260A
1,4-Dichlorobenzene	ND	4400	ug/kg	SW846 8260A
Dichlorodifluoromethane	ND	8700	ug/kg	SW846 8260A
1,1-Dichloroethane	ND	4400	ug/kg	SW846 8260A
1,2-Dichloroethane	ND	4400	ug/kg	SW846 8260A
1,1-Dichloroethene	ND	4400	ug/kg	SW846 8260A
cis-1,2-Dichloroethene	46000	2200	ug/kg	SW846 8260A
trans-1,2-Dichloroethene	ND	2200	ug/kg	SW846 8260A

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QUANTERRA INCORPORATED

PRELIMINARY DATA SUMMARY

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Lot #: H7G290134

Baker Environmental
Camp LeJeune
Project Number: CTO-356

Date Reported: 8/05/97

Client Sample ID: IS07-2
Sample #: 019 Date Sampled: 07/26/97 15:58 Date Received: 07/29/97 Matrix: SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD
Volatile Organics by GC/MS				In Review
1,2-Dichloropropane	ND	4400	ug/kg	SW846 8260A
1,3-Dichloropropane	ND	4400	ug/kg	SW846 8260A
2,2-Dichloropropane	ND	4400	ug/kg	SW846 8260A
1,1-Dichloropropene	ND	4400	ug/kg	SW846 8260A
Ethylbenzene	ND	4400	ug/kg	SW846 8260A
Hexachlorobutadiene	ND	4400	ug/kg	SW846 8260A
Isopropylbenzene	ND	4400	ug/kg	SW846 8260A
p-Isopropyltoluene	ND	4400	ug/kg	SW846 8260A
Methylene chloride	ND	4400	ug/kg	SW846 8260A
Naphthalene	ND	4400	ug/kg	SW846 8260A
n-Propylbenzene	ND	4400	ug/kg	SW846 8260A
Styrene	ND	4400	ug/kg	SW846 8260A
1,1,1,2-Tetrachloroethane	ND	4400	ug/kg	SW846 8260A
1,1,2,2-Tetrachloroethane	ND	4400	ug/kg	SW846 8260A
Tetrachloroethene	110000	4400	ug/kg	SW846 8260A
Toluene	ND	4400	ug/kg	SW846 8260A
1,2,3-Trichlorobenzene	ND	4400	ug/kg	SW846 8260A
1,2,4-Trichlorobenzene	ND	4400	ug/kg	SW846 8260A
1,1,1-Trichloroethane	ND	4400	ug/kg	SW846 8260A
1,1,2-Trichloroethane	ND	4400	ug/kg	SW846 8260A
Trichloroethene	3900 J	4400	ug/kg	SW846 8260A
Trichlorofluoromethane	ND	8700	ug/kg	SW846 8260A
1,2,3-Trichloropropane	ND	4400	ug/kg	SW846 8260A
1,2,4-Trimethylbenzene	3800 J	4400	ug/kg	SW846 8260A
1,3,5-Trimethylbenzene	1700 J	4400	ug/kg	SW846 8260A
Vinyl chloride	4800 J	8700	ug/kg	SW846 8260A
o-Xylene	ND	2200	ug/kg	SW846 8260A
m-Xylene & p-Xylene	ND	2200	ug/kg	SW846 8260A

J Estimated result. Result is less than RL.

Inorganic Analysis				In Review
Percent Moisture	IN PROCESS	0.10	%	MCAWW 160.3 MOD

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QUANTERRA INCORPORATED

PRELIMINARY DATA SUMMARY

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Baker Environmental
Camp LeJeune
Project Number: CTO-356

Lot #: H7G290134 Date Reported: 8/05/97

Client Sample ID: IS07-3
Sample #: 020 Date Sampled: 07/26/97 16:03 Date Received: 07/29/97 Matrix: SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD
Volatile Organics by GC/MS				In Review
Benzene	ND	1200	ug/kg	SW846 8260A
Bromobenzene	ND	1200	ug/kg	SW846 8260A
Bromochloromethane	ND	1200	ug/kg	SW846 8260A
Bromodichloromethane	ND	1200	ug/kg	SW846 8260A
Bromoform	ND	1200	ug/kg	SW846 8260A
Bromomethane	ND	2500	ug/kg	SW846 8260A
n-Butylbenzene	ND	1200	ug/kg	SW846 8260A
sec-Butylbenzene	ND	1200	ug/kg	SW846 8260A
tert-Butylbenzene	ND	1200	ug/kg	SW846 8260A
Carbon tetrachloride	ND	1200	ug/kg	SW846 8260A
Chlorobenzene	ND	1200	ug/kg	SW846 8260A
Chlorodibromomethane	ND	1200	ug/kg	SW846 8260A
Chloroethane	ND	2500	ug/kg	SW846 8260A
Chloroform	ND	1200	ug/kg	SW846 8260A
Chloromethane	ND	2500	ug/kg	SW846 8260A
2-Chlorotoluene	ND	1200	ug/kg	SW846 8260A
4-Chlorotoluene	ND	1200	ug/kg	SW846 8260A
1,2-Dibromo-3-chloro-propane	ND	2500	ug/kg	SW846 8260A
1,2-Dibromoethane	ND	1200	ug/kg	SW846 8260A
Dibromomethane	ND	1200	ug/kg	SW846 8260A
1,2-Dichlorobenzene	ND	1200	ug/kg	SW846 8260A
1,3-Dichlorobenzene	ND	1200	ug/kg	SW846 8260A
1,4-Dichlorobenzene	ND	1200	ug/kg	SW846 8260A
Dichlorodifluoromethane	ND	2500	ug/kg	SW846 8260A
1,1-Dichloroethane	ND	1200	ug/kg	SW846 8260A
1,2-Dichloroethane	ND	1200	ug/kg	SW846 8260A
1,1-Dichloroethene	ND	1200	ug/kg	SW846 8260A
cis-1,2-Dichloroethene	18000	620	ug/kg	SW846 8260A
trans-1,2-Dichloroethene	ND	620	ug/kg	SW846 8260A
1,2-Dichloropropane	ND	1200	ug/kg	SW846 8260A
1,3-Dichloropropane	ND	1200	ug/kg	SW846 8260A
2,2-Dichloropropane	ND	1200	ug/kg	SW846 8260A
1,1-Dichloropropene	ND	1200	ug/kg	SW846 8260A
Ethylbenzene	ND	1200	ug/kg	SW846 8260A
Hexachlorobutadiene	ND	1200	ug/kg	SW846 8260A
Isopropylbenzene	ND	1200	ug/kg	SW846 8260A

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QUANTERRA INCORPORATED

PRELIMINARY DATA SUMMARY

The results shown below may still require additional laboratory review and are subject to change. Actions taken based on these results are the responsibility of the data user.

Baker Environmental
Camp LeJeune
Project Number: CTO-356

Lot #: H7G290134 Date Reported: 8/05/97

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD
Client Sample ID: IS07-3				
Sample #: 020 Date Sampled: 07/26/97 16:03 Date Received: 07/29/97 Matrix: SOLID				
Volatile Organics by GC/MS				In Review
p-Isopropyltoluene	ND	1200	ug/kg	SW846 8260A
Methylene chloride	ND	1200	ug/kg	SW846 8260A
Naphthalene	ND	1200	ug/kg	SW846 8260A
n-Propylbenzene	ND	1200	ug/kg	SW846 8260A
Styrene	ND	1200	ug/kg	SW846 8260A
1,1,1,2-Tetrachloroethane	ND	1200	ug/kg	SW846 8260A
1,1,2,2-Tetrachloroethane	ND	1200	ug/kg	SW846 8260A
Tetrachloroethene	32000	1200	ug/kg	SW846 8260A
Toluene	ND	1200	ug/kg	SW846 8260A
1,2,3-Trichlorobenzene	ND	1200	ug/kg	SW846 8260A
1,2,4-Trichlorobenzene	ND	1200	ug/kg	SW846 8260A
1,1,1-Trichloroethane	ND	1200	ug/kg	SW846 8260A
1,1,2-Trichloroethane	ND	1200	ug/kg	SW846 8260A
Trichloroethene	2200	1200	ug/kg	SW846 8260A
Trichlorofluoromethane	ND	2500	ug/kg	SW846 8260A
1,2,3-Trichloropropane	ND	1200	ug/kg	SW846 8260A
1,2,4-Trimethylbenzene	2300	1200	ug/kg	SW846 8260A
1,3,5-Trimethylbenzene	1000 J	1200	ug/kg	SW846 8260A
Vinyl chloride	ND	2500	ug/kg	SW846 8260A
o-Xylene	ND	620	ug/kg	SW846 8260A
m-Xylene & p-Xylene	ND	620	ug/kg	SW846 8260A

J Estimated result. Result is less than RL.

Inorganic Analysis				In Review
Percent Moisture	IN PROCESS	0.10	%	MCAWW 160.3 MOD

Client Sample ID: IS07-4				
Sample #: 021 Date Sampled: 07/26/97 17:39 Date Received: 07/29/97 Matrix: SOLID				
Volatile Organics by GC/MS				In Review
Benzene	ND	34000	ug/kg	SW846 8260A
Bromobenzene	ND	34000	ug/kg	SW846 8260A
Bromochloromethane	ND	34000	ug/kg	SW846 8260A
Bromodichloromethane	ND	34000	ug/kg	SW846 8260A
Bromoform	ND	34000	ug/kg	SW846 8260A

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QUANTERRA INCORPORATED

PRELIMINARY DATA SUMMARY

The results shown below may still require additional laboratory review and are subject to change. Actions taken based on these results are the responsibility of the data user.

Baker Environmental
Camp LeJeune
Project Number: CTO-356

Lot #: H7G290134 Date Reported: 8/05/97

Client Sample ID: IS07-4
Sample #: 021 Date Sampled: 07/26/97 17:39 Date Received: 07/29/97 Matrix: SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD
Volatile Organics by GC/MS				In Review
Bromomethane	ND	69000	ug/kg	SW846 8260A
n-Butylbenzene	ND	34000	ug/kg	SW846 8260A
sec-Butylbenzene	ND	34000	ug/kg	SW846 8260A
tert-Butylbenzene	ND	34000	ug/kg	SW846 8260A
Carbon tetrachloride	ND	34000	ug/kg	SW846 8260A
Chlorobenzene	ND	34000	ug/kg	SW846 8260A
Chlorodibromomethane	ND	34000	ug/kg	SW846 8260A
Chloroethane	ND	69000	ug/kg	SW846 8260A
Chloroform	ND	34000	ug/kg	SW846 8260A
Chloromethane	ND	69000	ug/kg	SW846 8260A
2-Chlorotoluene	ND	34000	ug/kg	SW846 8260A
4-Chlorotoluene	ND	34000	ug/kg	SW846 8260A
1,2-Dibromo-3-chloro-propane	ND	69000	ug/kg	SW846 8260A
1,2-Dibromoethane	ND	34000	ug/kg	SW846 8260A
Dibromomethane	ND	34000	ug/kg	SW846 8260A
1,2-Dichlorobenzene	ND	34000	ug/kg	SW846 8260A
1,3-Dichlorobenzene	ND	34000	ug/kg	SW846 8260A
1,4-Dichlorobenzene	ND	34000	ug/kg	SW846 8260A
Dichlorodifluoromethane	ND	69000	ug/kg	SW846 8260A
1,1-Dichloroethane	ND	34000	ug/kg	SW846 8260A
1,2-Dichloroethane	ND	34000	ug/kg	SW846 8260A
1,1-Dichloroethene	ND	34000	ug/kg	SW846 8260A
cis-1,2-Dichloroethene	ND	17000	ug/kg	SW846 8260A
trans-1,2-Dichloroethene	ND	17000	ug/kg	SW846 8260A
1,2-Dichloropropane	ND	34000	ug/kg	SW846 8260A
1,3-Dichloropropane	ND	34000	ug/kg	SW846 8260A
2,2-Dichloropropane	ND	34000	ug/kg	SW846 8260A
1,1-Dichloropropene	ND	34000	ug/kg	SW846 8260A
Ethylbenzene	ND	34000	ug/kg	SW846 8260A
Hexachlorobutadiene	ND	34000	ug/kg	SW846 8260A
Isopropylbenzene	ND	34000	ug/kg	SW846 8260A
p-Isopropyltoluene	ND	34000	ug/kg	SW846 8260A
Methylene chloride	ND	34000	ug/kg	SW846 8260A
Naphthalene	ND	34000	ug/kg	SW846 8260A
n-Propylbenzene	ND	34000	ug/kg	SW846 8260A
Styrene	ND	34000	ug/kg	SW846 8260A

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QUANTERRA INCORPORATED

PRELIMINARY DATA SUMMARY

The results shown below may still require additional laboratory review and are subject to change. Actions taken based on these results are the responsibility of the data user.

Baker Environmental
Camp LeJeune
Project Number: CTO-356

Lot #: H7G290134 Date Reported: 8/05/97

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD	
Client Sample ID: IS07-4					
Sample #: 021 Date Sampled: 07/26/97 17:39 Date Received: 07/29/97 Matrix: SOLID					
Volatile Organics by GC/MS					In Review
1,1,1,2-Tetrachloroethane	ND	34000	ug/kg	SW846 8260A	
1,1,2,2-Tetrachloroethane	ND	34000	ug/kg	SW846 8260A	
Tetrachloroethene	1,200,000	34000	ug/kg	SW846 8260A	
Toluene	ND	34000	ug/kg	SW846 8260A	
1,2,3-Trichlorobenzene	ND	34000	ug/kg	SW846 8260A	
1,2,4-Trichlorobenzene	ND	34000	ug/kg	SW846 8260A	
1,1,1-Trichloroethane	ND	34000	ug/kg	SW846 8260A	
1,1,2-Trichloroethane	ND	34000	ug/kg	SW846 8260A	
Trichloroethene	ND	34000	ug/kg	SW846 8260A	
Trichlorofluoromethane	ND	69000	ug/kg	SW846 8260A	
1,2,3-Trichloropropane	ND	34000	ug/kg	SW846 8260A	
1,2,4-Trimethylbenzene	ND	34000	ug/kg	SW846 8260A	
1,3,5-Trimethylbenzene	ND	34000	ug/kg	SW846 8260A	
Vinyl chloride	ND	69000	ug/kg	SW846 8260A	
o-Xylene	ND	17000	ug/kg	SW846 8260A	
m-Xylene & p-Xylene	ND	17000	ug/kg	SW846 8260A	
Inorganic Analysis					In Review
Percent Moisture	IN PROCESS	0.10	%	MCAWW 160.3 MOD	
Client Sample ID: IS08-1					
Sample #: 022 Date Sampled: 07/27/97 08:51 Date Received: 07/29/97 Matrix: SOLID					
Volatile Organics by GC/MS					In Review
Benzene	ND	560000	ug/kg	SW846 8260A	
Bromobenzene	ND	560000	ug/kg	SW846 8260A	
Bromochloromethane	ND	560000	ug/kg	SW846 8260A	
Bromodichloromethane	ND	560000	ug/kg	SW846 8260A	
Bromoform	ND	560000	ug/kg	SW846 8260A	
Bromomethane	ND	1100000	ug/kg	SW846 8260A	
n-Butylbenzene	ND	560000	ug/kg	SW846 8260A	
sec-Butylbenzene	ND	560000	ug/kg	SW846 8260A	
tert-Butylbenzene	ND	560000	ug/kg	SW846 8260A	
Carbon tetrachloride	ND	560000	ug/kg	SW846 8260A	
Chlorobenzene	ND	560000	ug/kg	SW846 8260A	
Chlorodibromomethane	ND	560000	ug/kg	SW846 8260A	

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QUANTERRA INCORPORATED

PRELIMINARY DATA SUMMARY

The results shown below may still require additional laboratory review and are subject to change. Actions taken based on these results are the responsibility of the data user.

Lot #: H7G290134

Baker Environmental
Camp LeJeune
Project Number: CTO-356

Date Reported: 8/05/97

Client Sample ID: IS08-1
Sample #: 022 Date Sampled: 07/27/97 08:51 Date Received: 07/29/97 Matrix: SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD
Volatile Organics by GC/MS				In Review
Chloroethane	ND	1100000	ug/kg	SW846 8260A
Chloroform	ND	560000	ug/kg	SW846 8260A
Chloromethane	ND	1100000	ug/kg	SW846 8260A
2-Chlorotoluene	ND	560000	ug/kg	SW846 8260A
4-Chlorotoluene	ND	560000	ug/kg	SW846 8260A
1,2-Dibromo-3-chloro-propane	ND	1100000	ug/kg	SW846 8260A
1,2-Dibromoethane	ND	560000	ug/kg	SW846 8260A
Dibromomethane	ND	560000	ug/kg	SW846 8260A
1,2-Dichlorobenzene	ND	560000	ug/kg	SW846 8260A
1,3-Dichlorobenzene	ND	560000	ug/kg	SW846 8260A
1,4-Dichlorobenzene	ND	560000	ug/kg	SW846 8260A
Dichlorodifluoromethane	ND	1100000	ug/kg	SW846 8260A
1,1-Dichloroethane	ND	560000	ug/kg	SW846 8260A
1,2-Dichloroethane	ND	560000	ug/kg	SW846 8260A
1,1-Dichloroethene	ND	560000	ug/kg	SW846 8260A
cis-1,2-Dichloroethene	ND	280000	ug/kg	SW846 8260A
trans-1,2-Dichloroethene	ND	280000	ug/kg	SW846 8260A
1,2-Dichloropropane	ND	560000	ug/kg	SW846 8260A
1,3-Dichloropropane	ND	560000	ug/kg	SW846 8260A
2,2-Dichloropropane	ND	560000	ug/kg	SW846 8260A
1,1-Dichloropropene	ND	560000	ug/kg	SW846 8260A
Ethylbenzene	ND	560000	ug/kg	SW846 8260A
Hexachlorobutadiene	ND	560000	ug/kg	SW846 8260A
Isopropylbenzene	ND	560000	ug/kg	SW846 8260A
p-Isopropyltoluene	ND	560000	ug/kg	SW846 8260A
Methylene chloride	ND	560000	ug/kg	SW846 8260A
Naphthalene	ND	560000	ug/kg	SW846 8260A
n-Propylbenzene	ND	560000	ug/kg	SW846 8260A
Styrene	ND	560000	ug/kg	SW846 8260A
1,1,1,2-Tetrachloroethane	ND	560000	ug/kg	SW846 8260A
1,1,2,2-Tetrachloroethane	ND	560000	ug/kg	SW846 8260A
Tetrachloroethene	9500000	560000	ug/kg	SW846 8260A
Toluene	ND	560000	ug/kg	SW846 8260A
1,2,3-Trichlorobenzene	ND	560000	ug/kg	SW846 8260A
1,2,4-Trichlorobenzene	ND	560000	ug/kg	SW846 8260A
1,1,1-Trichloroethane	ND	560000	ug/kg	SW846 8260A

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QUANTERRA INCORPORATED

PRELIMINARY DATA SUMMARY

The results shown below may still require additional laboratory review and are subject to change. Actions taken based on these results are the responsibility of the data user.

Lot #: H7G290134

Baker Environmental
Camp LeJeune
Project Number: CTO-356

Date Reported: 8/05/97

Client Sample ID: IS08-1
Sample #: 022 Date Sampled: 07/27/97 08:51 Date Received: 07/29/97 Matrix: SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD	
Volatile Organics by GC/MS					In Review
1,1,2-Trichloroethane	ND	560000	ug/kg	SW846 8260A	
Trichloroethene	ND	560000	ug/kg	SW846 8260A	
Trichlorofluoromethane	ND	1100000	ug/kg	SW846 8260A	
1,2,3-Trichloropropane	ND	560000	ug/kg	SW846 8260A	
1,2,4-Trimethylbenzene	ND	560000	ug/kg	SW846 8260A	
1,3,5-Trimethylbenzene	ND	560000	ug/kg	SW846 8260A	
Vinyl chloride	ND	1100000	ug/kg	SW846 8260A	
o-Xylene	ND	280000	ug/kg	SW846 8260A	
m-Xylene & p-Xylene	ND	280000	ug/kg	SW846 8260A	
Inorganic Analysis					In Review
Percent Moisture	IN PROCESS	0.10	%	MCAWW 160.3 MOD	

Client Sample ID: IS08-2
Sample #: 023 Date Sampled: 07/27/97 09:15 Date Received: 07/29/97 Matrix: SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD	
Volatile Organics by GC/MS					In Review
Benzene	ND	110000	ug/kg	SW846 8260A	
Bromobenzene	ND	110000	ug/kg	SW846 8260A	
Bromochloromethane	ND	110000	ug/kg	SW846 8260A	
Bromodichloromethane	ND	110000	ug/kg	SW846 8260A	
Bromoform	ND	110000	ug/kg	SW846 8260A	
Bromomethane	ND	220000	ug/kg	SW846 8260A	
n-Butylbenzene	ND	110000	ug/kg	SW846 8260A	
sec-Butylbenzene	ND	110000	ug/kg	SW846 8260A	
tert-Butylbenzene	ND	110000	ug/kg	SW846 8260A	
Carbon tetrachloride	ND	110000	ug/kg	SW846 8260A	
Chlorobenzene	ND	110000	ug/kg	SW846 8260A	
Chlorodibromomethane	ND	110000	ug/kg	SW846 8260A	
Chloroethane	ND	220000	ug/kg	SW846 8260A	
Chloroform	ND	110000	ug/kg	SW846 8260A	
Chloromethane	ND	220000	ug/kg	SW846 8260A	
2-Chlorotoluene	ND	110000	ug/kg	SW846 8260A	
4-Chlorotoluene	ND	110000	ug/kg	SW846 8260A	
1,2-Dibromo-3-chloro-propane	ND	220000	ug/kg	SW846 8260A	

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QUANTERRA INCORPORATED

PRELIMINARY DATA SUMMARY

The results shown below may still require additional laboratory review and are subject to change. Actions taken based on these results are the responsibility of the data user.

Baker Environmental
Camp LeJeune
Project Number: CTO-356

Lot #: H7G290134 Date Reported: 8/05/97

Client Sample ID: IS08-2
Sample #: 023 Date Sampled: 07/27/97 09:15 Date Received: 07/29/97 Matrix: SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD
Volatile Organics by GC/MS				In Review
1,2-Dibromoethane	ND	110000	ug/kg	SW846 8260A
Dibromomethane	ND	110000	ug/kg	SW846 8260A
1,2-Dichlorobenzene	ND	110000	ug/kg	SW846 8260A
1,3-Dichlorobenzene	ND	110000	ug/kg	SW846 8260A
1,4-Dichlorobenzene	ND	110000	ug/kg	SW846 8260A
Dichlorodifluoromethane	ND	220000	ug/kg	SW846 8260A
1,1-Dichloroethane	ND	110000	ug/kg	SW846 8260A
1,2-Dichloroethane	ND	110000	ug/kg	SW846 8260A
1,1-Dichloroethene	ND	110000	ug/kg	SW846 8260A
cis-1,2-Dichloroethene	ND	54000	ug/kg	SW846 8260A
trans-1,2-Dichloroethene	ND	54000	ug/kg	SW846 8260A
1,2-Dichloropropane	ND	110000	ug/kg	SW846 8260A
1,3-Dichloropropane	ND	110000	ug/kg	SW846 8260A
2,2-Dichloropropane	ND	110000	ug/kg	SW846 8260A
1,1-Dichloropropene	ND	110000	ug/kg	SW846 8260A
Ethylbenzene	ND	110000	ug/kg	SW846 8260A
Hexachlorobutadiene	ND	110000	ug/kg	SW846 8260A
Isopropylbenzene	ND	110000	ug/kg	SW846 8260A
p-Isopropyltoluene	ND	110000	ug/kg	SW846 8260A
Methylene chloride	ND	110000	ug/kg	SW846 8260A
Naphthalene	ND	110000	ug/kg	SW846 8260A
n-Propylbenzene	ND	110000	ug/kg	SW846 8260A
Styrene	ND	110000	ug/kg	SW846 8260A
1,1,1,2-Tetrachloroethane	ND	110000	ug/kg	SW846 8260A
1,1,2,2-Tetrachloroethane	ND	110000	ug/kg	SW846 8260A
Tetrachloroethene	4100000	110000	ug/kg	SW846 8260A
Toluene	ND	110000	ug/kg	SW846 8260A
1,2,3-Trichlorobenzene	ND	110000	ug/kg	SW846 8260A
1,2,4-Trichlorobenzene	ND	110000	ug/kg	SW846 8260A
1,1,1-Trichloroethane	ND	110000	ug/kg	SW846 8260A
1,1,2-Trichloroethane	27000 J	110000	ug/kg	SW846 8260A
Trichloroethene	ND	110000	ug/kg	SW846 8260A
Trichlorofluoromethane	ND	220000	ug/kg	SW846 8260A
1,2,3-Trichloropropane	ND	110000	ug/kg	SW846 8260A
1,2,4-Trimethylbenzene	ND	110000	ug/kg	SW846 8260A
1,3,5-Trimethylbenzene	ND	110000	ug/kg	SW846 8260A
Vinyl chloride	ND	220000	ug/kg	SW846 8260A

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QUANTERRA INCORPORATED

PRELIMINARY DATA SUMMARY

The results shown below may still require additional laboratory review and are subject to change. Actions taken based on these results are the responsibility of the data user.

Baker Environmental
Camp LeJeune
Project Number: CTO-356

Lot #: H7G290134 Date Reported: 8/05/97

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD
Client Sample ID: IS08-2				
Sample #: 023 Date Sampled: 07/27/97 09:15 Date Received: 07/29/97 Matrix: SOLID				
Volatile Organics by GC/MS				In Review
o-Xylene	ND	54000	ug/kg	SW846 8260A
m-Xylene & p-Xylene	ND	54000	ug/kg	SW846 8260A
J Estimated result. Result is less than RL.				
Inorganic Analysis				In Review
Percent Moisture	IN PROCESS	0.10	%	MCAWW 160.3 MOD
Client Sample ID: IS08-3				
Sample #: 024 Date Sampled: 07/27/97 09:24 Date Received: 07/29/97 Matrix: SOLID				
Volatile Organics by GC/MS				In Review
Benzene	ND	110000	ug/kg	SW846 8260A
Bromobenzene	ND	110000	ug/kg	SW846 8260A
Bromochloromethane	ND	110000	ug/kg	SW846 8260A
Bromodichloromethane	ND	110000	ug/kg	SW846 8260A
Bromoform	ND	110000	ug/kg	SW846 8260A
Bromomethane	ND	220000	ug/kg	SW846 8260A
n-Butylbenzene	ND	110000	ug/kg	SW846 8260A
sec-Butylbenzene	ND	110000	ug/kg	SW846 8260A
tert-Butylbenzene	ND	110000	ug/kg	SW846 8260A
Carbon tetrachloride	ND	110000	ug/kg	SW846 8260A
Chlorobenzene	ND	110000	ug/kg	SW846 8260A
Chlorodibromomethane	ND	110000	ug/kg	SW846 8260A
Chloroethane	ND	220000	ug/kg	SW846 8260A
Chloroform	ND	110000	ug/kg	SW846 8260A
Chloromethane	ND	220000	ug/kg	SW846 8260A
2-Chlorotoluene	ND	110000	ug/kg	SW846 8260A
4-Chlorotoluene	ND	110000	ug/kg	SW846 8260A
1,2-Dibromo-3-chloro-propane	ND	220000	ug/kg	SW846 8260A
1,2-Dibromoethane	ND	110000	ug/kg	SW846 8260A
Dibromomethane	ND	110000	ug/kg	SW846 8260A
1,2-Dichlorobenzene	ND	110000	ug/kg	SW846 8260A
1,3-Dichlorobenzene	ND	110000	ug/kg	SW846 8260A
1,4-Dichlorobenzene	ND	110000	ug/kg	SW846 8260A

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QUANTERRA INCORPORATED

PRELIMINARY DATA SUMMARY

The results shown below may still require additional laboratory review and are subject to change. Actions taken based on these results are the responsibility of the data user.

Lot #: H7G290134

Baker Environmental
Camp LeJeune
Project Number: CTO-356

Date Reported: 8/05/97

Client Sample ID: IS08-3
Sample #: 024 Date Sampled: 07/27/97 09:24 Date Received: 07/29/97 Matrix: SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD	
Volatile Organics by GC/MS					In Review
Dichlorodifluoromethane	ND	220000	ug/kg	SW846 8260A	
1,1-Dichloroethane	ND	110000	ug/kg	SW846 8260A	
1,2-Dichloroethane	ND	110000	ug/kg	SW846 8260A	
1,1-Dichloroethene	ND	110000	ug/kg	SW846 8260A	
cis-1,2-Dichloroethene	ND	55000	ug/kg	SW846 8260A	
trans-1,2-Dichloroethene	ND	55000	ug/kg	SW846 8260A	
1,2-Dichloropropane	ND	110000	ug/kg	SW846 8260A	
1,3-Dichloropropane	ND	110000	ug/kg	SW846 8260A	
2,2-Dichloropropane	ND	110000	ug/kg	SW846 8260A	
1,1-Dichloropropene	ND	110000	ug/kg	SW846 8260A	
Ethylbenzene	ND	110000	ug/kg	SW846 8260A	
Hexachlorobutadiene	ND	110000	ug/kg	SW846 8260A	
Isopropylbenzene	ND	110000	ug/kg	SW846 8260A	
p-Isopropyltoluene	ND	110000	ug/kg	SW846 8260A	
Methylene chloride	ND	110000	ug/kg	SW846 8260A	
Naphthalene	ND	110000	ug/kg	SW846 8260A	
n-Propylbenzene	ND	110000	ug/kg	SW846 8260A	
Styrene	ND	110000	ug/kg	SW846 8260A	
1,1,1,2-Tetrachloroethane	ND	110000	ug/kg	SW846 8260A	
1,1,2,2-Tetrachloroethane	ND	110000	ug/kg	SW846 8260A	
Tetrachloroethene	1800000	110000	ug/kg	SW846 8260A	
Toluene	ND	110000	ug/kg	SW846 8260A	
1,2,3-Trichlorobenzene	ND	110000	ug/kg	SW846 8260A	
1,2,4-Trichlorobenzene	ND	110000	ug/kg	SW846 8260A	
1,1,1-Trichloroethane	ND	110000	ug/kg	SW846 8260A	
1,1,2-Trichloroethane	ND	110000	ug/kg	SW846 8260A	
Trichloroethene	ND	110000	ug/kg	SW846 8260A	
Trichlorofluoromethane	ND	220000	ug/kg	SW846 8260A	
1,2,3-Trichloropropane	ND	110000	ug/kg	SW846 8260A	
1,2,4-Trimethylbenzene	ND	110000	ug/kg	SW846 8260A	
1,3,5-Trimethylbenzene	ND	110000	ug/kg	SW846 8260A	
Vinyl chloride	ND	220000	ug/kg	SW846 8260A	
o-Xylene	ND	55000	ug/kg	SW846 8260A	
m-Xylene & p-Xylene	ND	55000	ug/kg	SW846 8260A	

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QUANTERRA INCORPORATED

PRELIMINARY DATA SUMMARY

The results shown below may still require additional laboratory review and are subject to change. Actions taken based on these results are the responsibility of the data user.

Lot #: H7G290134

Baker Environmental
Camp LeJeune
Project Number: CTO-356

Date Reported: 8/05/97

Client Sample ID: IS08-3
Sample #: 024 Date Sampled: 07/27/97 09:24 Date Received: 07/29/97 Matrix: SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD
Inorganic Analysis				In Review
Percent Moisture	IN PROCESS	0.10	%	MCAWW 160.3 MOD

Client Sample ID: IS08-4
Sample #: 025 Date Sampled: 07/27/97 07:30 Date Received: 07/29/97 Matrix: SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD
Volatile Organics by GC/MS				In Review
Benzene	ND	86000	ug/kg	SW846 8260A
Bromobenzene	ND	86000	ug/kg	SW846 8260A
Bromochloromethane	ND	86000	ug/kg	SW846 8260A
Bromodichloromethane	ND	86000	ug/kg	SW846 8260A
Bromoform	ND	86000	ug/kg	SW846 8260A
Bromomethane	ND	170000	ug/kg	SW846 8260A
n-Butylbenzene	ND	86000	ug/kg	SW846 8260A
sec-Butylbenzene	ND	86000	ug/kg	SW846 8260A
tert-Butylbenzene	ND	86000	ug/kg	SW846 8260A
Carbon tetrachloride	ND	86000	ug/kg	SW846 8260A
Chlorobenzene	ND	86000	ug/kg	SW846 8260A
Chlorodibromomethane	ND	86000	ug/kg	SW846 8260A
Chloroethane	ND	170000	ug/kg	SW846 8260A
Chloroform	ND	86000	ug/kg	SW846 8260A
Chloromethane	ND	170000	ug/kg	SW846 8260A
2-Chlorotoluene	ND	86000	ug/kg	SW846 8260A
4-Chlorotoluene	ND	86000	ug/kg	SW846 8260A
1,2-Dibromo-3-chloro-propane	ND	170000	ug/kg	SW846 8260A
1,2-Dibromoethane	ND	86000	ug/kg	SW846 8260A
Dibromomethane	ND	86000	ug/kg	SW846 8260A
1,2-Dichlorobenzene	ND	86000	ug/kg	SW846 8260A
1,3-Dichlorobenzene	ND	86000	ug/kg	SW846 8260A
1,4-Dichlorobenzene	ND	86000	ug/kg	SW846 8260A
Dichlorodifluoromethane	ND	170000	ug/kg	SW846 8260A
1,1-Dichloroethane	ND	86000	ug/kg	SW846 8260A
1,2-Dichloroethane	ND	86000	ug/kg	SW846 8260A
1,1-Dichloroethene	ND	86000	ug/kg	SW846 8260A
cis-1,2-Dichloroethene	ND	43000	ug/kg	SW846 8260A
trans-1,2-Dichloroethene	ND	43000	ug/kg	SW846 8260A

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QUANTERRA INCORPORATED

PRELIMINARY DATA SUMMARY

The results shown below may still require additional laboratory review and are subject to change. Actions taken based on these results are the responsibility of the data user.

Baker Environmental
Camp LeJeune
Project Number: CTO-356

Lot #: H7G290134 Date Reported: 8/05/97

Client Sample ID: IS08-4
Sample #: 025 Date Sampled: 07/27/97 07:30 Date Received: 07/29/97 Matrix: SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD
Volatile Organics by GC/MS				In Review
1,2-Dichloropropane	ND	86000	ug/kg	SW846 8260A
1,3-Dichloropropane	ND	86000	ug/kg	SW846 8260A
2,2-Dichloropropane	ND	86000	ug/kg	SW846 8260A
1,1-Dichloropropene	ND	86000	ug/kg	SW846 8260A
Ethylbenzene	ND	86000	ug/kg	SW846 8260A
Hexachlorobutadiene	ND	86000	ug/kg	SW846 8260A
Isopropylbenzene	ND	86000	ug/kg	SW846 8260A
p-Isopropyltoluene	ND	86000	ug/kg	SW846 8260A
Methylene chloride	ND	86000	ug/kg	SW846 8260A
Naphthalene	ND	86000	ug/kg	SW846 8260A
n-Propylbenzene	ND	86000	ug/kg	SW846 8260A
Styrene	ND	86000	ug/kg	SW846 8260A
1,1,1,2-Tetrachloroethane	ND	86000	ug/kg	SW846 8260A
1,1,2,2-Tetrachloroethane	ND	86000	ug/kg	SW846 8260A
Tetrachloroethene	800000	86000	ug/kg	SW846 8260A
Toluene	ND	86000	ug/kg	SW846 8260A
1,2,3-Trichlorobenzene	ND	86000	ug/kg	SW846 8260A
1,2,4-Trichlorobenzene	ND	86000	ug/kg	SW846 8260A
1,1,1-Trichloroethane	ND	86000	ug/kg	SW846 8260A
1,1,2-Trichloroethane	ND	86000	ug/kg	SW846 8260A
Trichloroethene	84000 J	86000	ug/kg	SW846 8260A
Trichlorofluoromethane	ND	170000	ug/kg	SW846 8260A
1,2,3-Trichloropropane	ND	86000	ug/kg	SW846 8260A
1,2,4-Trimethylbenzene	82000 J	86000	ug/kg	SW846 8260A
1,3,5-Trimethylbenzene	41000 J	86000	ug/kg	SW846 8260A
Vinyl chloride	ND	170000	ug/kg	SW846 8260A
o-Xylene	ND	43000	ug/kg	SW846 8260A
m-Xylene & p-Xylene	ND	43000	ug/kg	SW846 8260A

J Estimated result. Result is less than RL.

Inorganic Analysis				In Review
Percent Moisture	IN PROCESS	0.10	%	MCAWW 160.3 MOD

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QUANTERRA INCORPORATED

PRELIMINARY DATA SUMMARY

The results shown below may still require additional laboratory review and are subject to change. Actions taken based on these results are the responsibility of the data user.

Lot #: H7G290134

Baker Environmental
Camp LeJeune
Project Number: CTO-356

Date Reported: 8/05/97

Client Sample ID: IS08-5
Sample #: 026 Date Sampled: 07/27/97 07:35 Date Received: 07/29/97 Matrix: SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD
Volatile Organics by GC/MS				In Review
Benzene	ND	120000	ug/kg	SW846 8260A
Bromobenzene	ND	120000	ug/kg	SW846 8260A
Bromochloromethane	ND	120000	ug/kg	SW846 8260A
Bromodichloromethane	ND	120000	ug/kg	SW846 8260A
Bromoform	ND	120000	ug/kg	SW846 8260A
Bromomethane	ND	230000	ug/kg	SW846 8260A
n-Butylbenzene	ND	120000	ug/kg	SW846 8260A
sec-Butylbenzene	ND	120000	ug/kg	SW846 8260A
tert-Butylbenzene	ND	120000	ug/kg	SW846 8260A
Carbon tetrachloride	ND	120000	ug/kg	SW846 8260A
Chlorobenzene	ND	120000	ug/kg	SW846 8260A
Chlorodibromomethane	ND	120000	ug/kg	SW846 8260A
Chloroethane	ND	230000	ug/kg	SW846 8260A
Chloroform	ND	120000	ug/kg	SW846 8260A
Chloromethane	ND	230000	ug/kg	SW846 8260A
2-Chlorotoluene	ND	120000	ug/kg	SW846 8260A
4-Chlorotoluene	ND	120000	ug/kg	SW846 8260A
1,2-Dibromo-3-chloro-propane	ND	230000	ug/kg	SW846 8260A
1,2-Dibromoethane	ND	120000	ug/kg	SW846 8260A
Dibromomethane	ND	120000	ug/kg	SW846 8260A
1,2-Dichlorobenzene	ND	120000	ug/kg	SW846 8260A
1,3-Dichlorobenzene	ND	120000	ug/kg	SW846 8260A
1,4-Dichlorobenzene	ND	120000	ug/kg	SW846 8260A
Dichlorodifluoromethane	ND	230000	ug/kg	SW846 8260A
1,1-Dichloroethane	ND	120000	ug/kg	SW846 8260A
1,2-Dichloroethane	ND	120000	ug/kg	SW846 8260A
1,1-Dichloroethene	ND	120000	ug/kg	SW846 8260A
cis-1,2-Dichloroethene	ND	58000	ug/kg	SW846 8260A
trans-1,2-Dichloroethene	ND	58000	ug/kg	SW846 8260A
1,2-Dichloropropane	ND	120000	ug/kg	SW846 8260A
1,3-Dichloropropane	ND	120000	ug/kg	SW846 8260A
2,2-Dichloropropane	ND	120000	ug/kg	SW846 8260A
1,1-Dichloropropene	ND	120000	ug/kg	SW846 8260A
Ethylbenzene	ND	120000	ug/kg	SW846 8260A
Hexachlorobutadiene	ND	120000	ug/kg	SW846 8260A
Isopropylbenzene	ND	120000	ug/kg	SW846 8260A

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QUANTERRA INCORPORATED

PRELIMINARY DATA SUMMARY

The results shown below may still require additional laboratory review and are subject to change. Actions taken based on these results are the responsibility of the data user.

Lot #: H7G290134

Baker Environmental
Camp LeJeune
Project Number: CTO-356

Date Reported: 8/05/97

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD
Client Sample ID: IS08-5				
Sample #: 026 Date Sampled: 07/27/97 07:35 Date Received: 07/29/97 Matrix: SOLID				
Volatile Organics by GC/MS				In Review
p-Isopropyltoluene	ND	120000	ug/kg	SW846 8260A
Methylene chloride	ND	120000	ug/kg	SW846 8260A
Naphthalene	ND	120000	ug/kg	SW846 8260A
n-Propylbenzene	ND	120000	ug/kg	SW846 8260A
Styrene	ND	120000	ug/kg	SW846 8260A
1,1,1,2-Tetrachloroethane	ND	120000	ug/kg	SW846 8260A
1,1,2,2-Tetrachloroethane	ND	120000	ug/kg	SW846 8260A
Tetrachloroethene	1,100,000	120000	ug/kg	SW846 8260A
Toluene	ND	120000	ug/kg	SW846 8260A
1,2,3-Trichlorobenzene	ND	120000	ug/kg	SW846 8260A
1,2,4-Trichlorobenzene	ND	120000	ug/kg	SW846 8260A
1,1,1-Trichloroethane	ND	120000	ug/kg	SW846 8260A
1,1,2-Trichloroethane	ND	120000	ug/kg	SW846 8260A
Trichloroethene	180,000	120000	ug/kg	SW846 8260A
Trichlorofluoromethane	ND	230000	ug/kg	SW846 8260A
1,2,3-Trichloropropane	ND	120000	ug/kg	SW846 8260A
1,2,4-Trimethylbenzene	160,000	120000	ug/kg	SW846 8260A
1,3,5-Trimethylbenzene	81,000 J	120000	ug/kg	SW846 8260A
Vinyl chloride	ND	230000	ug/kg	SW846 8260A
o-Xylene	ND	58000	ug/kg	SW846 8260A
m-Xylene & p-Xylene	ND	58000	ug/kg	SW846 8260A

J Estimated result. Result is less than RL.

Inorganic Analysis				In Review
Percent Moisture	IN PROCESS	0.10	%	MCAWW 160.3 MOD

Client Sample ID: IS08-6				
Sample #: 027 Date Sampled: 07/27/97 10:19 Date Received: 07/29/97 Matrix: SOLID				
Extractable Petroleum Hydrocarbons				Reviewed
Diesel Range Organics	690	29	mg/kg	SW846 8015 MOD

Results and reporting limits have been adjusted for dry weight.

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QUANTERRA INCORPORATED

PRELIMINARY DATA SUMMARY

The results shown below may still require additional laboratory review and are subject to change. Actions taken based on these results are the responsibility of the data user.

Baker Environmental
Camp LeJeune
Project Number: CTO-356

Lot #: H7G290134 Date Reported: 8/05/97

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD
Client Sample ID: IS08-6				
Sample #: 027 Date Sampled: 07/27/97 10:19 Date Received: 07/29/97 Matrix: SOLID				
Volatile Petroleum Hydrocarbons				Reviewed
Gasoline Range Organics	5000	230	mg/kg	SW846 8015 MOD
Results and reporting limits have been adjusted for dry weight.				
Inorganic Analysis				Reviewed
Percent Moisture	14.7	0.10	%	MCAWW 160.3 MOD
Results and reporting limits have been adjusted for dry weight.				
Client Sample ID: IS08-7				
Sample #: 028 Date Sampled: 07/27/97 10:24 Date Received: 07/29/97 Matrix: SOLID				
Extractable Petroleum Hydrocarbons				Reviewed
Diesel Range Organics	350	30	mg/kg	SW846 8015 MOD
Results and reporting limits have been adjusted for dry weight.				
Volatile Petroleum Hydrocarbons				Reviewed
Gasoline Range Organics	1000	60	mg/kg	SW846 8015 MOD
Results and reporting limits have been adjusted for dry weight.				
Inorganic Analysis				Reviewed
Percent Moisture	16.1	0.10	%	MCAWW 160.3 MOD
Results and reporting limits have been adjusted for dry weight.				
Client Sample ID: IS09-1				
Sample #: 029 Date Sampled: 07/27/97 10:55 Date Received: 07/29/97 Matrix: SOLID				
Volatile Organics by GC/MS				In Review
Benzene	ND	15000	ug/kg	SW846 8260A
Bromobenzene	ND	15000	ug/kg	SW846 8260A
Bromochloromethane	ND	15000	ug/kg	SW846 8260A
Bromodichloromethane	ND	15000	ug/kg	SW846 8260A

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QUANTERRA INCORPORATED

PRELIMINARY DATA SUMMARY

The results shown below may still require additional laboratory review and are subject to change. Actions taken based on these results are the responsibility of the data user.

Baker Environmental
Camp LeJeune
Project Number: CTO-356

Lot #: H7G290134 Date Reported: 8/05/97

Client Sample ID: IS09-1
Sample #: 029 Date Sampled: 07/27/97 10:55 Date Received: 07/29/97 Matrix: SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD
Volatile Organics by GC/MS				In Review
Bromoform	ND	15000	ug/kg	SW846 8260A
Bromomethane	ND	29000	ug/kg	SW846 8260A
n-Butylbenzene	ND	15000	ug/kg	SW846 8260A
sec-Butylbenzene	ND	15000	ug/kg	SW846 8260A
tert-Butylbenzene	ND	15000	ug/kg	SW846 8260A
Carbon tetrachloride	ND	15000	ug/kg	SW846 8260A
Chlorobenzene	ND	15000	ug/kg	SW846 8260A
Chlorodibromomethane	ND	15000	ug/kg	SW846 8260A
Chloroethane	ND	29000	ug/kg	SW846 8260A
Chloroform	ND	15000	ug/kg	SW846 8260A
Chloromethane	ND	29000	ug/kg	SW846 8260A
2-Chlorotoluene	ND	15000	ug/kg	SW846 8260A
4-Chlorotoluene	ND	15000	ug/kg	SW846 8260A
1,2-Dibromo-3-chloro-propane	ND	29000	ug/kg	SW846 8260A
1,2-Dibromoethane	ND	15000	ug/kg	SW846 8260A
Dibromomethane	ND	15000	ug/kg	SW846 8260A
1,2-Dichlorobenzene	ND	15000	ug/kg	SW846 8260A
1,3-Dichlorobenzene	ND	15000	ug/kg	SW846 8260A
1,4-Dichlorobenzene	ND	15000	ug/kg	SW846 8260A
Dichlorodifluoromethane	ND	29000	ug/kg	SW846 8260A
1,1-Dichloroethane	ND	15000	ug/kg	SW846 8260A
1,2-Dichloroethane	ND	15000	ug/kg	SW846 8260A
1,1-Dichloroethene	ND	15000	ug/kg	SW846 8260A
cis-1,2-Dichloroethene	ND	7300	ug/kg	SW846 8260A
trans-1,2-Dichloroethene	ND	7300	ug/kg	SW846 8260A
1,2-Dichloropropane	ND	15000	ug/kg	SW846 8260A
1,3-Dichloropropane	ND	15000	ug/kg	SW846 8260A
2,2-Dichloropropane	ND	15000	ug/kg	SW846 8260A
1,1-Dichloropropene	ND	15000	ug/kg	SW846 8260A
Ethylbenzene	ND	15000	ug/kg	SW846 8260A
Hexachlorobutadiene	ND	15000	ug/kg	SW846 8260A
Isopropylbenzene	ND	15000	ug/kg	SW846 8260A
p-Isopropyltoluene	ND	15000	ug/kg	SW846 8260A
Methylene chloride	ND	15000	ug/kg	SW846 8260A
Naphthalene	ND	15000	ug/kg	SW846 8260A
n-Propylbenzene	ND	15000	ug/kg	SW846 8260A

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QUANTERRA INCORPORATED

PRELIMINARY DATA SUMMARY

The results shown below may still require additional laboratory review and are subject to change. Actions taken based on these results are the responsibility of the data user.

Lot #: H7G290134

Baker Environmental
Camp LeJeune
Project Number: CTO-356

Date Reported: 8/05/97

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD	
Client Sample ID: IS09-1					
Sample #: 029 Date Sampled: 07/27/97 10:55 Date Received: 07/29/97 Matrix: SOLID					
Volatile Organics by GC/MS					In Review
Styrene	ND	15000	ug/kg	SW846 8260A	
1,1,1,2-Tetrachloroethane	ND	15000	ug/kg	SW846 8260A	
1,1,2,2-Tetrachloroethane	ND	15000	ug/kg	SW846 8260A	
Tetrachloroethene	110,000	15000	ug/kg	SW846 8260A	
Toluene	ND	15000	ug/kg	SW846 8260A	
1,2,3-Trichlorobenzene	ND	15000	ug/kg	SW846 8260A	
1,2,4-Trichlorobenzene	ND	15000	ug/kg	SW846 8260A	
1,1,1-Trichloroethane	ND	15000	ug/kg	SW846 8260A	
1,1,2-Trichloroethane	ND	15000	ug/kg	SW846 8260A	
Trichloroethene	ND	15000	ug/kg	SW846 8260A	
Trichlorofluoromethane	ND	29000	ug/kg	SW846 8260A	
1,2,3-Trichloropropane	ND	15000	ug/kg	SW846 8260A	
1,2,4-Trimethylbenzene	ND	15000	ug/kg	SW846 8260A	
1,3,5-Trimethylbenzene	ND	15000	ug/kg	SW846 8260A	
Vinyl chloride	ND	29000	ug/kg	SW846 8260A	
o-Xylene	ND	7300	ug/kg	SW846 8260A	
m-Xylene & p-Xylene	ND	7300	ug/kg	SW846 8260A	
Inorganic Analysis					In Review
Percent Moisture	IN PROCESS	0.10	%	MCAWW 160.3 MOD	
Client Sample ID: IS09-2					
Sample #: 030 Date Sampled: 07/27/97 10:59 Date Received: 07/29/97 Matrix: SOLID					
Volatile Organics by GC/MS					In Review
Benzene	ND	880	ug/kg	SW846 8260A	
Bromobenzene	ND	880	ug/kg	SW846 8260A	
Bromochloromethane	ND	880	ug/kg	SW846 8260A	
Bromodichloromethane	ND	880	ug/kg	SW846 8260A	
Bromoform	ND	880	ug/kg	SW846 8260A	
Bromomethane	ND	1800	ug/kg	SW846 8260A	
n-Butylbenzene	ND	880	ug/kg	SW846 8260A	
sec-Butylbenzene	ND	880	ug/kg	SW846 8260A	
tert-Butylbenzene	ND	880	ug/kg	SW846 8260A	
Carbon tetrachloride	ND	880	ug/kg	SW846 8260A	
Chlorobenzene	ND	880	ug/kg	SW846 8260A	

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QUANTERRA INCORPORATED

PRELIMINARY DATA SUMMARY

The results shown below may still require additional laboratory review and are subject to change. Actions taken based on these results are the responsibility of the data user.

Baker Environmental
Camp LeJeune
Project Number: CTO-356

Lot #: H7G290134 Date Reported: 8/05/97

Client Sample ID: IS09-2
Sample #: 030 Date Sampled: 07/27/97 10:59 Date Received: 07/29/97 Matrix: SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD	
Volatile Organics by GC/MS					In Review
Chlorodibromomethane	ND	880	ug/kg	SW846 8260A	
Chloroethane	ND	1800	ug/kg	SW846 8260A	
Chloroform	ND	880	ug/kg	SW846 8260A	
Chloromethane	ND	1800	ug/kg	SW846 8260A	
2-Chlorotoluene	ND	880	ug/kg	SW846 8260A	
4-Chlorotoluene	ND	880	ug/kg	SW846 8260A	
1,2-Dibromo-3-chloro-propane	ND	1800	ug/kg	SW846 8260A	
1,2-Dibromoethane	ND	880	ug/kg	SW846 8260A	
Dibromomethane	ND	880	ug/kg	SW846 8260A	
1,2-Dichlorobenzene	ND	880	ug/kg	SW846 8260A	
1,3-Dichlorobenzene	ND	880	ug/kg	SW846 8260A	
1,4-Dichlorobenzene	ND	880	ug/kg	SW846 8260A	
Dichlorodifluoromethane	ND	1800	ug/kg	SW846 8260A	
1,1-Dichloroethane	ND	880	ug/kg	SW846 8260A	
1,2-Dichloroethane	ND	880	ug/kg	SW846 8260A	
1,1-Dichloroethene	ND	880	ug/kg	SW846 8260A	
cis-1,2-Dichloroethene	ND	440	ug/kg	SW846 8260A	
trans-1,2-Dichloroethene	ND	440	ug/kg	SW846 8260A	
1,2-Dichloropropane	ND	880	ug/kg	SW846 8260A	
1,3-Dichloropropane	ND	880	ug/kg	SW846 8260A	
2,2-Dichloropropane	ND	880	ug/kg	SW846 8260A	
1,1-Dichloropropene	ND	880	ug/kg	SW846 8260A	
Ethylbenzene	ND	880	ug/kg	SW846 8260A	
Hexachlorobutadiene	ND	880	ug/kg	SW846 8260A	
Isopropylbenzene	ND	880	ug/kg	SW846 8260A	
p-Isopropyltoluene	ND	880	ug/kg	SW846 8260A	
Methylene chloride	ND	880	ug/kg	SW846 8260A	
Naphthalene	ND	880	ug/kg	SW846 8260A	
n-Propylbenzene	ND	880	ug/kg	SW846 8260A	
Styrene	ND	880	ug/kg	SW846 8260A	
1,1,1,2-Tetrachloroethane	ND	880	ug/kg	SW846 8260A	
1,1,2,2-Tetrachloroethane	ND	880	ug/kg	SW846 8260A	
Tetrachloroethene	15000	880	ug/kg	SW846 8260A	
Toluene	ND	880	ug/kg	SW846 8260A	
1,2,3-Trichlorobenzene	ND	880	ug/kg	SW846 8260A	
1,2,4-Trichlorobenzene	ND	880	ug/kg	SW846 8260A	

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QUANTERRA INCORPORATED

PRELIMINARY DATA SUMMARY

The results shown below may still require additional laboratory review and are subject to change. Actions taken based on these results are the responsibility of the data user.

Baker Environmental
Camp LeJeune
Project Number: CTO-356

Lot #: H7G290134 Date Reported: 8/05/97

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD	
Client Sample ID: IS09-2					
Sample #: 030 Date Sampled: 07/27/97 10:59 Date Received: 07/29/97 Matrix: SOLID					
Volatile Organics by GC/MS					In Review
1,1,1-Trichloroethane	ND	880	ug/kg	SW846 8260A	
1,1,2-Trichloroethane	ND	880	ug/kg	SW846 8260A	
Trichloroethene	ND	880	ug/kg	SW846 8260A	
Trichlorofluoromethane	ND	1800	ug/kg	SW846 8260A	
1,2,3-Trichloropropane	ND	880	ug/kg	SW846 8260A	
1,2,4-Trimethylbenzene	ND	880	ug/kg	SW846 8260A	
1,3,5-Trimethylbenzene	ND	880	ug/kg	SW846 8260A	
Vinyl chloride	ND	1800	ug/kg	SW846 8260A	
o-Xylene	ND	440	ug/kg	SW846 8260A	
m-Xylene & p-Xylene	ND	440	ug/kg	SW846 8260A	
Inorganic Analysis					In Review
Percent Moisture	IN PROCESS	0.10	%	MCAWW 160.3 MOD	
Client Sample ID: IS10-1					
Sample #: 031 Date Sampled: 07/27/97 15:35 Date Received: 07/29/97 Matrix: SOLID					
Volatile Organics by GC/MS					In Review
Benzene	ND	1600	ug/kg	SW846 8260A	
Bromobenzene	ND	1600	ug/kg	SW846 8260A	
Bromochloromethane	ND	1600	ug/kg	SW846 8260A	
Bromodichloromethane	ND	1600	ug/kg	SW846 8260A	
Bromoform	ND	1600	ug/kg	SW846 8260A	
Bromomethane	ND	3200	ug/kg	SW846 8260A	
n-Butylbenzene	ND	1600	ug/kg	SW846 8260A	
sec-Butylbenzene	ND	1600	ug/kg	SW846 8260A	
tert-Butylbenzene	ND	1600	ug/kg	SW846 8260A	
Carbon tetrachloride	ND	1600	ug/kg	SW846 8260A	
Chlorobenzene	ND	1600	ug/kg	SW846 8260A	
Chlorodibromomethane	ND	1600	ug/kg	SW846 8260A	
Chloroethane	ND	3200	ug/kg	SW846 8260A	
Chloroform	ND	1600	ug/kg	SW846 8260A	
Chloromethane	ND	3200	ug/kg	SW846 8260A	
2-Chlorotoluene	ND	1600	ug/kg	SW846 8260A	
4-Chlorotoluene	ND	1600	ug/kg	SW846 8260A	
1,2-Dibromo-3-chloro-propane	ND	3200	ug/kg	SW846 8260A	

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QUANTERRA INCORPORATED

PRELIMINARY DATA SUMMARY

The results shown below may still require additional laboratory review and are subject to change. Actions taken based on these results are the responsibility of the data user.

Baker Environmental
Camp LeJeune
Project Number: CTO-356

Lot #: H7G290134 Date Reported: 8/05/97

Client Sample ID: IS10-1
Sample #: 031 Date Sampled: 07/27/97 15:35 Date Received: 07/29/97 Matrix: SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD	
Volatile Organics by GC/MS					In Review
1,2-Dibromoethane	ND	1600	ug/kg	SW846 8260A	
Dibromomethane	ND	1600	ug/kg	SW846 8260A	
1,2-Dichlorobenzene	ND	1600	ug/kg	SW846 8260A	
1,3-Dichlorobenzene	ND	1600	ug/kg	SW846 8260A	
1,4-Dichlorobenzene	ND	1600	ug/kg	SW846 8260A	
Dichlorodifluoromethane	ND	3200	ug/kg	SW846 8260A	
1,1-Dichloroethane	ND	1600	ug/kg	SW846 8260A	
1,2-Dichloroethane	ND	1600	ug/kg	SW846 8260A	
1,1-Dichloroethene	ND	1600	ug/kg	SW846 8260A	
cis-1,2-Dichloroethene	2200	810	ug/kg	SW846 8260A	
trans-1,2-Dichloroethene	ND	810	ug/kg	SW846 8260A	
1,2-Dichloropropane	ND	1600	ug/kg	SW846 8260A	
1,3-Dichloropropane	ND	1600	ug/kg	SW846 8260A	
2,2-Dichloropropane	ND	1600	ug/kg	SW846 8260A	
1,1-Dichloropropene	ND	1600	ug/kg	SW846 8260A	
Ethylbenzene	ND	1600	ug/kg	SW846 8260A	
Hexachlorobutadiene	ND	1600	ug/kg	SW846 8260A	
Isopropylbenzene	ND	1600	ug/kg	SW846 8260A	
p-Isopropyltoluene	ND	1600	ug/kg	SW846 8260A	
Methylene chloride	ND	1600	ug/kg	SW846 8260A	
Naphthalene	440 J	1600	ug/kg	SW846 8260A	
n-Propylbenzene	ND	1600	ug/kg	SW846 8260A	
Styrene	ND	1600	ug/kg	SW846 8260A	
1,1,1,2-Tetrachloroethane	ND	1600	ug/kg	SW846 8260A	
1,1,2,2-Tetrachloroethane	ND	1600	ug/kg	SW846 8260A	
Tetrachloroethene	48000	1600	ug/kg	SW846 8260A	
Toluene	ND	1600	ug/kg	SW846 8260A	
1,2,3-Trichlorobenzene	ND	1600	ug/kg	SW846 8260A	
1,2,4-Trichlorobenzene	ND	1600	ug/kg	SW846 8260A	
1,1,1-Trichloroethane	ND	1600	ug/kg	SW846 8260A	
1,1,2-Trichloroethane	ND	1600	ug/kg	SW846 8260A	
Trichloroethene	2200	1600	ug/kg	SW846 8260A	
Trichlorofluoromethane	ND	3200	ug/kg	SW846 8260A	
1,2,3-Trichloropropane	ND	1600	ug/kg	SW846 8260A	
1,2,4-Trimethylbenzene	ND	1600	ug/kg	SW846 8260A	
1,3,5-Trimethylbenzene	ND	1600	ug/kg	SW846 8260A	
Vinyl chloride	ND	3200	ug/kg	SW846 8260A	

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QUANTERRA INCORPORATED

PRELIMINARY DATA SUMMARY

The results shown below may still require additional laboratory review and are subject to change. Actions taken based on these results are the responsibility of the data user.

Baker Environmental
Camp LeJeune
Project Number: CTO-356

Lot #: H7G290134 Date Reported: 8/05/97

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD	
Client Sample ID: IS10-1					
Sample #: 031 Date Sampled: 07/27/97 15:35 Date Received: 07/29/97 Matrix: SOLID					
Volatile Organics by GC/MS					In Review
o-Xylene	ND	810	ug/kg	SW846 8260A	
m-Xylene & p-Xylene	ND	810	ug/kg	SW846 8260A	
J Estimated result. Result is less than RL.					
Inorganic Analysis					In Review
Percent Moisture	IN PROCESS	0.10	%	MCAWW 160.3 MOD	
Client Sample ID: IS10-2					
Sample #: 032 Date Sampled: 07/27/97 15:37 Date Received: 07/29/97 Matrix: SOLID					
Volatile Organics by GC/MS					In Review
Benzene	ND	650	ug/kg	SW846 8260A	
Bromobenzene	ND	650	ug/kg	SW846 8260A	
Bromochloromethane	ND	650	ug/kg	SW846 8260A	
Bromodichloromethane	ND	650	ug/kg	SW846 8260A	
Bromoform	ND	650	ug/kg	SW846 8260A	
Bromomethane	ND	1300	ug/kg	SW846 8260A	
n-Butylbenzene	ND	650	ug/kg	SW846 8260A	
sec-Butylbenzene	ND	650	ug/kg	SW846 8260A	
tert-Butylbenzene	ND	650	ug/kg	SW846 8260A	
Carbon tetrachloride	ND	650	ug/kg	SW846 8260A	
Chlorobenzene	ND	650	ug/kg	SW846 8260A	
Chlorodibromomethane	ND	650	ug/kg	SW846 8260A	
Chloroethane	ND	1300	ug/kg	SW846 8260A	
Chloroform	ND	650	ug/kg	SW846 8260A	
Chloromethane	ND	1300	ug/kg	SW846 8260A	
2-Chlorotoluene	ND	650	ug/kg	SW846 8260A	
4-Chlorotoluene	ND	650	ug/kg	SW846 8260A	
1,2-Dibromo-3-chloro-propane	ND	1300	ug/kg	SW846 8260A	
1,2-Dibromoethane	ND	650	ug/kg	SW846 8260A	
Dibromomethane	ND	650	ug/kg	SW846 8260A	
1,2-Dichlorobenzene	ND	650	ug/kg	SW846 8260A	
1,3-Dichlorobenzene	ND	650	ug/kg	SW846 8260A	
1,4-Dichlorobenzene	ND	650	ug/kg	SW846 8260A	

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QUANTERRA INCORPORATED

PRELIMINARY DATA SUMMARY

The results shown below may still require additional laboratory review and are subject to change. Actions taken based on these results are the responsibility of the data user.

Baker Environmental
Camp LeJeune
Project Number: CTO-356

Lot #: H7G290134 Date Reported: 8/05/97

Client Sample ID: IS10-2
Sample #: 032 Date Sampled: 07/27/97 15:37 Date Received: 07/29/97 Matrix: SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD
Volatile Organics by GC/MS				In Review
Dichlorodifluoromethane	ND	1300	ug/kg	SW846 8260A
1,1-Dichloroethane	ND	650	ug/kg	SW846 8260A
1,2-Dichloroethane	ND	650	ug/kg	SW846 8260A
1,1-Dichloroethene	ND	650	ug/kg	SW846 8260A
cis-1,2-Dichloroethene	600	320	ug/kg	SW846 8260A
trans-1,2-Dichloroethene	ND	320	ug/kg	SW846 8260A
1,2-Dichloropropane	ND	650	ug/kg	SW846 8260A
1,3-Dichloropropane	ND	650	ug/kg	SW846 8260A
2,2-Dichloropropane	ND	650	ug/kg	SW846 8260A
1,1-Dichloropropene	ND	650	ug/kg	SW846 8260A
Ethylbenzene	ND	650	ug/kg	SW846 8260A
Hexachlorobutadiene	ND	650	ug/kg	SW846 8260A
Isopropylbenzene	ND	650	ug/kg	SW846 8260A
p-Isopropyltoluene	ND	650	ug/kg	SW846 8260A
Methylene chloride	ND	650	ug/kg	SW846 8260A
Naphthalene	ND	650	ug/kg	SW846 8260A
n-Propylbenzene	ND	650	ug/kg	SW846 8260A
Styrene	ND	650	ug/kg	SW846 8260A
1,1,1,2-Tetrachloroethane	ND	650	ug/kg	SW846 8260A
1,1,2,2-Tetrachloroethane	ND	650	ug/kg	SW846 8260A
Tetrachloroethene	16000	650	ug/kg	SW846 8260A
Toluene	ND	650	ug/kg	SW846 8260A
1,2,3-Trichlorobenzene	ND	650	ug/kg	SW846 8260A
1,2,4-Trichlorobenzene	ND	650	ug/kg	SW846 8260A
1,1,1-Trichloroethane	ND	650	ug/kg	SW846 8260A
1,1,2-Trichloroethane	ND	650	ug/kg	SW846 8260A
Trichloroethene	500 J	650	ug/kg	SW846 8260A
Trichlorofluoromethane	ND	1300	ug/kg	SW846 8260A
1,2,3-Trichloropropane	ND	650	ug/kg	SW846 8260A
1,2,4-Trimethylbenzene	ND	650	ug/kg	SW846 8260A
1,3,5-Trimethylbenzene	ND	650	ug/kg	SW846 8260A
Vinyl chloride	ND	1300	ug/kg	SW846 8260A
o-Xylene	ND	320	ug/kg	SW846 8260A
m-Xylene & p-Xylene	ND	320	ug/kg	SW846 8260A

J Estimated result. Result is less than RL.

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QUANTERRA INCORPORATED

PRELIMINARY DATA SUMMARY

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Lot #: H7G290134

Baker Environmental
Camp LeJeune
Project Number: CTO-356

Date Reported: 8/05/97

Client Sample ID: IS10-2
Sample #: 032 Date Sampled: 07/27/97 15:37 Date Received: 07/29/97 Matrix: SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD	
Inorganic Analysis					In Review
Percent Moisture	IN PROCESS	0.10	%	MCAWW 160.3 MOD	

Client Sample ID: IS10-3
Sample #: 033 Date Sampled: 07/27/97 15:48 Date Received: 07/29/97 Matrix: SOLID

Volatile Organics by GC/MS					In Review
Benzene	ND	1400000	ug/kg	SW846 8260A	
Bromobenzene	ND	1400000	ug/kg	SW846 8260A	
Bromochloromethane	ND	1400000	ug/kg	SW846 8260A	
Bromodichloromethane	ND	1400000	ug/kg	SW846 8260A	
Bromoform	ND	1400000	ug/kg	SW846 8260A	
Bromomethane	ND	2800000	ug/kg	SW846 8260A	
n-Butylbenzene	ND	1400000	ug/kg	SW846 8260A	
sec-Butylbenzene	ND	1400000	ug/kg	SW846 8260A	
tert-Butylbenzene	ND	1400000	ug/kg	SW846 8260A	
Carbon tetrachloride	ND	1400000	ug/kg	SW846 8260A	
Chlorobenzene	ND	1400000	ug/kg	SW846 8260A	
Chlorodibromomethane	ND	1400000	ug/kg	SW846 8260A	
Chloroethane	ND	2800000	ug/kg	SW846 8260A	
Chloroform	ND	1400000	ug/kg	SW846 8260A	
Chloromethane	ND	2800000	ug/kg	SW846 8260A	
2-Chlorotoluene	ND	1400000	ug/kg	SW846 8260A	
4-Chlorotoluene	ND	1400000	ug/kg	SW846 8260A	
1,2-Dibromo-3-chloro-propane	ND	2800000	ug/kg	SW846 8260A	
1,2-Dibromoethane	ND	1400000	ug/kg	SW846 8260A	
Dibromomethane	ND	1400000	ug/kg	SW846 8260A	
1,2-Dichlorobenzene	ND	1400000	ug/kg	SW846 8260A	
1,3-Dichlorobenzene	ND	1400000	ug/kg	SW846 8260A	
1,4-Dichlorobenzene	ND	1400000	ug/kg	SW846 8260A	
Dichlorodifluoromethane	ND	2800000	ug/kg	SW846 8260A	
1,1-Dichloroethane	ND	1400000	ug/kg	SW846 8260A	
1,2-Dichloroethane	ND	1400000	ug/kg	SW846 8260A	
1,1-Dichloroethene	ND	1400000	ug/kg	SW846 8260A	
cis-1,2-Dichloroethene	ND	700000	ug/kg	SW846 8260A	
trans-1,2-Dichloroethene	ND	700000	ug/kg	SW846 8260A	

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QUANTERRA INCORPORATED

PRELIMINARY DATA SUMMARY

The results shown below may still require additional laboratory review and are subject to change. Actions taken based on these results are the responsibility of the data user.

Baker Environmental
Camp LeJeune
Project Number: CTO-356

Lot #: H7G290134 Date Reported: 8/05/97

Client Sample ID: IS10-3
Sample #: 033 Date Sampled: 07/27/97 15:48 Date Received: 07/29/97 Matrix: SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD	
Volatile Organics by GC/MS					In Review
1,2-Dichloropropane	ND	1400000	ug/kg	SW846 8260A	
1,3-Dichloropropane	ND	1400000	ug/kg	SW846 8260A	
2,2-Dichloropropane	ND	1400000	ug/kg	SW846 8260A	
1,1-Dichloropropene	ND	1400000	ug/kg	SW846 8260A	
Ethylbenzene	ND	1400000	ug/kg	SW846 8260A	
Hexachlorobutadiene	ND	1400000	ug/kg	SW846 8260A	
Isopropylbenzene	ND	1400000	ug/kg	SW846 8260A	
p-Isopropyltoluene	ND	1400000	ug/kg	SW846 8260A	
Methylene chloride	ND	1400000	ug/kg	SW846 8260A	
Naphthalene	ND	1400000	ug/kg	SW846 8260A	
n-Propylbenzene	ND	1400000	ug/kg	SW846 8260A	
Styrene	ND	1400000	ug/kg	SW846 8260A	
1,1,1,2-Tetrachloroethane	ND	1400000	ug/kg	SW846 8260A	
1,1,2,2-Tetrachloroethane	ND	1400000	ug/kg	SW846 8260A	
Tetrachloroethene	19000000	1400000	ug/kg	SW846 8260A	
Toluene	ND	1400000	ug/kg	SW846 8260A	
1,2,3-Trichlorobenzene	ND	1400000	ug/kg	SW846 8260A	
1,2,4-Trichlorobenzene	ND	1400000	ug/kg	SW846 8260A	
1,1,1-Trichloroethane	ND	1400000	ug/kg	SW846 8260A	
1,1,2-Trichloroethane	ND	1400000	ug/kg	SW846 8260A	
Trichloroethene	ND	1400000	ug/kg	SW846 8260A	
Trichlorofluoromethane	ND	2800000	ug/kg	SW846 8260A	
1,2,3-Trichloropropane	ND	1400000	ug/kg	SW846 8260A	
1,2,4-Trimethylbenzene	ND	1400000	ug/kg	SW846 8260A	
1,3,5-Trimethylbenzene	ND	1400000	ug/kg	SW846 8260A	
Vinyl chloride	ND	2800000	ug/kg	SW846 8260A	
o-Xylene	ND	700000	ug/kg	SW846 8260A	
m-Xylene & p-Xylene	ND	700000	ug/kg	SW846 8260A	
Inorganic Analysis					In Review
Percent Moisture	IN PROCESS	0.10	%	MCAWW 160.3 MOD	

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QUANTERRA INCORPORATED

PRELIMINARY DATA SUMMARY

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Lot #: H7G290134

Baker Environmental
Camp LeJeune
Project Number: CTO-356

Date Reported: 8/05/97

Client Sample ID: IS10-4
Sample #: 034 Date Sampled: 07/27/97 16:01 Date Received: 07/29/97 Matrix: SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD	
Volatile Organics by GC/MS					In Review
Benzene	ND	150000	ug/kg	SW846 8260A	
Bromobenzene	ND	150000	ug/kg	SW846 8260A	
Bromochloromethane	ND	150000	ug/kg	SW846 8260A	
Bromodichloromethane	ND	150000	ug/kg	SW846 8260A	
Bromoform	ND	150000	ug/kg	SW846 8260A	
Bromomethane	ND	310000	ug/kg	SW846 8260A	
n-Butylbenzene	ND	150000	ug/kg	SW846 8260A	
sec-Butylbenzene	ND	150000	ug/kg	SW846 8260A	
tert-Butylbenzene	ND	150000	ug/kg	SW846 8260A	
Carbon tetrachloride	ND	150000	ug/kg	SW846 8260A	
Chlorobenzene	ND	150000	ug/kg	SW846 8260A	
Chlorodibromomethane	ND	150000	ug/kg	SW846 8260A	
Chloroethane	ND	310000	ug/kg	SW846 8260A	
Chloroform	ND	150000	ug/kg	SW846 8260A	
Chloromethane	ND	310000	ug/kg	SW846 8260A	
2-Chlorotoluene	ND	150000	ug/kg	SW846 8260A	
4-Chlorotoluene	ND	150000	ug/kg	SW846 8260A	
1,2-Dibromo-3-chloro-propane	ND	310000	ug/kg	SW846 8260A	
1,2-Dibromoethane	ND	150000	ug/kg	SW846 8260A	
Dibromomethane	ND	150000	ug/kg	SW846 8260A	
1,2-Dichlorobenzene	ND	150000	ug/kg	SW846 8260A	
1,3-Dichlorobenzene	ND	150000	ug/kg	SW846 8260A	
1,4-Dichlorobenzene	ND	150000	ug/kg	SW846 8260A	
Dichlorodifluoromethane	ND	310000	ug/kg	SW846 8260A	
1,1-Dichloroethane	ND	150000	ug/kg	SW846 8260A	
1,2-Dichloroethane	ND	150000	ug/kg	SW846 8260A	
1,1-Dichloroethene	ND	150000	ug/kg	SW846 8260A	
cis-1,2-Dichloroethene	ND	77000	ug/kg	SW846 8260A	
trans-1,2-Dichloroethene	ND	77000	ug/kg	SW846 8260A	
1,2-Dichloropropane	ND	150000	ug/kg	SW846 8260A	
1,3-Dichloropropane	ND	150000	ug/kg	SW846 8260A	
2,2-Dichloropropane	ND	150000	ug/kg	SW846 8260A	
1,1-Dichloropropene	ND	150000	ug/kg	SW846 8260A	
Ethylbenzene	ND	150000	ug/kg	SW846 8260A	
Hexachlorobutadiene	ND	150000	ug/kg	SW846 8260A	
Isopropylbenzene	ND	150000	ug/kg	SW846 8260A	

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QUANTERRA INCORPORATED

PRELIMINARY DATA SUMMARY

The results shown below may still require additional laboratory review and are subject to change. Actions taken based on these results are the responsibility of the data user.

Lot #: H7G290134

Baker Environmental
Camp LeJeune
Project Number: CTO-356

Date Reported: 8/05/97

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD
Client Sample ID: IS10-4				
Sample #: 034 Date Sampled: 07/27/97 16:01 Date Received: 07/29/97 Matrix: SOLID				
Volatile Organics by GC/MS				In Review
p-Isopropyltoluene	ND	150000	ug/kg	SW846 8260A
Methylene chloride	ND	150000	ug/kg	SW846 8260A
Naphthalene	ND	150000	ug/kg	SW846 8260A
n-Propylbenzene	ND	150000	ug/kg	SW846 8260A
Styrene	ND	150000	ug/kg	SW846 8260A
1,1,1,2-Tetrachloroethane	ND	150000	ug/kg	SW846 8260A
1,1,2,2-Tetrachloroethane	ND	150000	ug/kg	SW846 8260A
Tetrachloroethene	2900000	150000	ug/kg	SW846 8260A
Toluene	ND	150000	ug/kg	SW846 8260A
1,2,3-Trichlorobenzene	ND	150000	ug/kg	SW846 8260A
1,2,4-Trichlorobenzene	ND	150000	ug/kg	SW846 8260A
1,1,1-Trichloroethane	ND	150000	ug/kg	SW846 8260A
1,1,2-Trichloroethane	ND	150000	ug/kg	SW846 8260A
Trichloroethene	ND	150000	ug/kg	SW846 8260A
Trichlorofluoromethane	ND	310000	ug/kg	SW846 8260A
1,2,3-Trichloropropane	ND	150000	ug/kg	SW846 8260A
1,2,4-Trimethylbenzene	ND	150000	ug/kg	SW846 8260A
1,3,5-Trimethylbenzene	ND	150000	ug/kg	SW846 8260A
Vinyl chloride	ND	310000	ug/kg	SW846 8260A
o-Xylene	ND	77000	ug/kg	SW846 8260A
m-Xylene & p-Xylene	ND	77000	ug/kg	SW846 8260A
Inorganic Analysis				In Review
Percent Moisture	IN PROCESS	0.10	%	MCAWW 160.3 MOD
Client Sample ID: IS11-1				
Sample #: 035 Date Sampled: 07/27/97 18:35 Date Received: 07/29/97 Matrix: SOLID				
Volatile Organics by GC/MS				In Review
Benzene	ND	360000	ug/kg	SW846 8260A
Bromobenzene	ND	360000	ug/kg	SW846 8260A
Bromochloromethane	ND	360000	ug/kg	SW846 8260A
Bromodichloromethane	ND	360000	ug/kg	SW846 8260A
Bromoform	ND	360000	ug/kg	SW846 8260A
Bromomethane	ND	720000	ug/kg	SW846 8260A
n-Butylbenzene	ND	360000	ug/kg	SW846 8260A

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QUANTERRA INCORPORATED

PRELIMINARY DATA SUMMARY

The results shown below may still require additional laboratory review and are subject to change. Actions taken based on these results are the responsibility of the data user.

Lot #: H7G290134

Baker Environmental
Camp LeJeune
Project Number: CTO-356

Date Reported: 8/05/97

Client Sample ID: IS11-1
Sample #: 035 Date Sampled: 07/27/97 18:35 Date Received: 07/29/97 Matrix: SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD	
Volatile Organics by GC/MS					In Review
sec-Butylbenzene	ND	360000	ug/kg	SW846 8260A	
tert-Butylbenzene	ND	360000	ug/kg	SW846 8260A	
Carbon tetrachloride	ND	360000	ug/kg	SW846 8260A	
Chlorobenzene	ND	360000	ug/kg	SW846 8260A	
Chlorodibromomethane	ND	360000	ug/kg	SW846 8260A	
Chloroethane	ND	720000	ug/kg	SW846 8260A	
Chloroform	ND	360000	ug/kg	SW846 8260A	
Chloromethane	ND	720000	ug/kg	SW846 8260A	
2-Chlorotoluene	ND	360000	ug/kg	SW846 8260A	
4-Chlorotoluene	ND	360000	ug/kg	SW846 8260A	
1,2-Dibromo-3-chloro-propane	ND	720000	ug/kg	SW846 8260A	
1,2-Dibromoethane	ND	360000	ug/kg	SW846 8260A	
Dibromomethane	ND	360000	ug/kg	SW846 8260A	
1,2-Dichlorobenzene	ND	360000	ug/kg	SW846 8260A	
1,3-Dichlorobenzene	ND	360000	ug/kg	SW846 8260A	
1,4-Dichlorobenzene	ND	360000	ug/kg	SW846 8260A	
Dichlorodifluoromethane	ND	720000	ug/kg	SW846 8260A	
1,1-Dichloroethane	ND	360000	ug/kg	SW846 8260A	
1,2-Dichloroethane	ND	360000	ug/kg	SW846 8260A	
1,1-Dichloroethene	ND	360000	ug/kg	SW846 8260A	
cis-1,2-Dichloroethene	ND	180000	ug/kg	SW846 8260A	
trans-1,2-Dichloroethene	ND	180000	ug/kg	SW846 8260A	
1,2-Dichloropropane	ND	360000	ug/kg	SW846 8260A	
1,3-Dichloropropane	ND	360000	ug/kg	SW846 8260A	
2,2-Dichloropropane	ND	360000	ug/kg	SW846 8260A	
1,1-Dichloropropene	ND	360000	ug/kg	SW846 8260A	
Ethylbenzene	ND	360000	ug/kg	SW846 8260A	
Hexachlorobutadiene	ND	360000	ug/kg	SW846 8260A	
Isopropylbenzene	ND	360000	ug/kg	SW846 8260A	
p-Isopropyltoluene	ND	360000	ug/kg	SW846 8260A	
Methylene chloride	190000 J	360000	ug/kg	SW846 8260A	
Naphthalene	ND	360000	ug/kg	SW846 8260A	
n-Propylbenzene	ND	360000	ug/kg	SW846 8260A	
Styrene	ND	360000	ug/kg	SW846 8260A	
1,1,1,2-Tetrachloroethane	ND	360000	ug/kg	SW846 8260A	
1,1,2,2-Tetrachloroethane	ND	360000	ug/kg	SW846 8260A	

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QUANTERRA INCORPORATED

PRELIMINARY DATA SUMMARY

The results shown below may still require additional laboratory review and are subject to change. Actions taken based on these results are the responsibility of the data user.

Lot #: H7G290134

Baker Environmental
Camp LeJeune
Project Number: CTO-356

Date Reported: 8/05/97

Client Sample ID: IS11-1
Sample #: 035 Date Sampled: 07/27/97 18:35 Date Received: 07/29/97 Matrix: SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD
Volatile Organics by GC/MS				In Review
Tetrachloroethene	9500000	360000	ug/kg	SW846 8260A
Toluene	ND	360000	ug/kg	SW846 8260A
1,2,3-Trichlorobenzene	ND	360000	ug/kg	SW846 8260A
1,2,4-Trichlorobenzene	ND	360000	ug/kg	SW846 8260A
1,1,1-Trichloroethane	ND	360000	ug/kg	SW846 8260A
1,1,2-Trichloroethane	ND	360000	ug/kg	SW846 8260A
Trichloroethene	ND	360000	ug/kg	SW846 8260A
Trichlorofluoromethane	ND	720000	ug/kg	SW846 8260A
1,2,3-Trichloropropane	ND	360000	ug/kg	SW846 8260A
1,2,4-Trimethylbenzene	ND	360000	ug/kg	SW846 8260A
1,3,5-Trimethylbenzene	ND	360000	ug/kg	SW846 8260A
Vinyl chloride	ND	720000	ug/kg	SW846 8260A
o-Xylene	ND	180000	ug/kg	SW846 8260A
m-Xylene & p-Xylene	ND	180000	ug/kg	SW846 8260A

J Estimated result. Result is less than RL.

Inorganic Analysis				In Review
Percent Moisture	IN PROCESS	0.10	%	MCAWW 160.3 MOD

Client Sample ID: IR88-IS0597C *Ground Water*
Sample #: 036 Date Sampled: 07/27/97 23:20 Date Received: 07/29/97 Matrix: WATER

Inductively Coupled Plasma				In Review
Silver	ND	10.0	ug/L	ICLP ILM03.0
Aluminum	4610	200	ug/L	ICLP ILM03.0
Barium	44.2 B	200	ug/L	ICLP ILM03.0
Beryllium	ND	5.0	ug/L	ICLP ILM03.0
Calcium	9750	5000	ug/L	ICLP ILM03.0
Cadmium	ND	5.0	ug/L	ICLP ILM03.0
Cobalt	7.5 B	50.0	ug/L	ICLP ILM03.0
Chromium	7.2 B	10.0	ug/L	ICLP ILM03.0
Copper	ND	25.0	ug/L	ICLP ILM03.0
Iron	15500	100	ug/L	ICLP ILM03.0

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probably includes particulate iron, but will know more after Ph II

QUANTERRA INCORPORATED

PRELIMINARY DATA SUMMARY

The results shown below may still require additional laboratory review and are subject to change. Actions taken based on these results are the responsibility of the data user.

Lot #: H7HZZ0203

Baker Environmental
Camp LeJeune
Project Number: CTO-356

Date Reported: 9/04/97

Client Sample ID: IR88IS12-01
Sample #: 001 Date Sampled: 08/19/97 09:30 Date Received: 08/22/97 Matrix: SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD	Reviewed
Volatile Organics by GC/MS					
Benzene	ND	1800	ug/kg	SW846 8260A	
Bromobenzene	ND	1800	ug/kg	SW846 8260A	
Bromochloromethane	ND	1800	ug/kg	SW846 8260A	
Bromodichloromethane	ND	1800	ug/kg	SW846 8260A	
Bromoform	ND	1800	ug/kg	SW846 8260A	
Bromomethane	ND	3600	ug/kg	SW846 8260A	
n-Butylbenzene	ND	1800	ug/kg	SW846 8260A	
sec-Butylbenzene	ND	1800	ug/kg	SW846 8260A	
tert-Butylbenzene	ND	1800	ug/kg	SW846 8260A	78
Carbon tetrachloride	ND	1800	ug/kg	SW846 8260A	
Chlorobenzene	ND	1800	ug/kg	SW846 8260A	
Chlorodibromomethane	ND	1800	ug/kg	SW846 8260A	
Chloroethane	ND	3600	ug/kg	SW846 8260A	
Chloroform	ND	1800	ug/kg	SW846 8260A	
Chloromethane	ND	3600	ug/kg	SW846 8260A	
2-Chlorotoluene	ND	1800	ug/kg	SW846 8260A	
4-Chlorotoluene	ND	1800	ug/kg	SW846 8260A	
1,2-Dibromo-3-chloro-propane	ND	3600	ug/kg	SW846 8260A	
1,2-Dibromoethane	ND	1800	ug/kg	SW846 8260A	
Dibromomethane	ND	1800	ug/kg	SW846 8260A	
1,2-Dichlorobenzene	ND	1800	ug/kg	SW846 8260A	
1,3-Dichlorobenzene	ND	1800	ug/kg	SW846 8260A	
1,4-Dichlorobenzene	ND	1800	ug/kg	SW846 8260A	
Dichlorodifluoromethane	ND	3600	ug/kg	SW846 8260A	
1,1-Dichloroethane	ND	1800	ug/kg	SW846 8260A	
1,2-Dichloroethane	ND	1800	ug/kg	SW846 8260A	
1,1-Dichloroethene	ND	1800	ug/kg	SW846 8260A	
cis-1,2-Dichloroethene	ND	900	ug/kg	SW846 8260A	
trans-1,2-Dichloroethene	ND	900	ug/kg	SW846 8260A	
1,2-Dichloropropane	ND	1800	ug/kg	SW846 8260A	
1,3-Dichloropropane	ND	1800	ug/kg	SW846 8260A	
2,2-Dichloropropane	ND	1800	ug/kg	SW846 8260A	
1,1-Dichloropropene	ND	1800	ug/kg	SW846 8260A	
Ethylbenzene	ND	1800	ug/kg	SW846 8260A	
Hexachlorobutadiene	ND	1800	ug/kg	SW846 8260A	
Isopropylbenzene	ND	1800	ug/kg	SW846 8260A	

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QUANTERRA INCORPORATED

PRELIMINARY DATA SUMMARY

The results shown below may still require additional laboratory review and are subject to change. Actions taken based on these results are the responsibility of the data user.

Baker Environmental
Camp LeJeune
Project Number: CTO-356

Lot #: H7H220203 Date Reported: 9/04/97

Client Sample ID: IR88IS12-01
Sample #: 001 Date Sampled: 08/19/97 09:30 Date Received: 08/22/97 Matrix: SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD	
Volatile Organics by GC/MS					Reviewed
p-Isopropyltoluene	ND	1800	ug/kg	SW846 8260A	
Methylene chloride	1000 J,B	1800	ug/kg	SW846 8260A	
Naphthalene	ND	1800	ug/kg	SW846 8260A	
n-Propylbenzene	ND	1800	ug/kg	SW846 8260A	
Styrene	ND	1800	ug/kg	SW846 8260A	
1,1,1,2-Tetrachloroethane	ND	1800	ug/kg	SW846 8260A	
1,1,2,2-Tetrachloroethane	ND	1800	ug/kg	SW846 8260A	
Tetrachloroethene	37000	1800	ug/kg	SW846 8260A	
Toluene	ND	1800	ug/kg	SW846 8260A	
1,2,3-Trichlorobenzene	ND	1800	ug/kg	SW846 8260A	
1,2,4-Trichlorobenzene	ND	1800	ug/kg	SW846 8260A	
1,1,1-Trichloroethane	ND	1800	ug/kg	SW846 8260A	
1,1,2-Trichloroethane	ND	1800	ug/kg	SW846 8260A	
Trichloroethene	ND	1800	ug/kg	SW846 8260A	
Trichlorofluoromethane	ND	3600	ug/kg	SW846 8260A	
1,2,3-Trichloropropane	ND	1800	ug/kg	SW846 8260A	
1,2,4-Trimethylbenzene	ND	1800	ug/kg	SW846 8260A	
1,3,5-Trimethylbenzene	ND	1800	ug/kg	SW846 8260A	
Vinyl chloride	ND	3600	ug/kg	SW846 8260A	
o-Xylene	ND	900	ug/kg	SW846 8260A	
m-Xylene & p-Xylene	ND	900	ug/kg	SW846 8260A	

J Estimated result. Result is less than RL.

B Method blank contamination. The associated method blank contains the target analyte at a reportable level.

Client Sample ID: IR88IS12-02
Sample #: 002 Date Sampled: 08/19/97 09:33 Date Received: 08/22/97 Matrix: SOLID

Volatile Organics by GC/MS					Reviewed
Benzene	ND	1000	ug/kg	SW846 8260A	
Bromobenzene	ND	1000	ug/kg	SW846 8260A	
Bromochloromethane	ND	1000	ug/kg	SW846 8260A	
Bromodichloromethane	ND	1000	ug/kg	SW846 8260A	
Bromoform	ND	1000	ug/kg	SW846 8260A	
Bromomethane	ND	2100	ug/kg	SW846 8260A	
n-Butylbenzene	ND	1000	ug/kg	SW846 8260A	

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QUANTERRA INCORPORATED

PRELIMINARY DATA SUMMARY

The results shown below may still require additional laboratory review and are subject to change. Actions taken based on these results are the responsibility of the data user.

Baker Environmental
Camp LeJeune
Project Number: CTO-356

Lot #: H7HZ20203 Date Reported: 9/04/97

Client Sample ID: IR88IS12-02
Sample #: 002 Date Sampled: 08/19/97 09:33 Date Received: 08/22/97 Matrix: SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD	
Volatile Organics by GC/MS					Reviewed
sec-Butylbenzene	ND	1000	ug/kg	SW846 8260A	
tert-Butylbenzene	ND	1000	ug/kg	SW846 8260A	
Carbon tetrachloride	ND	1000	ug/kg	SW846 8260A	
Chlorobenzene	ND	1000	ug/kg	SW846 8260A	
Chlorodibromomethane	ND	1000	ug/kg	SW846 8260A	
Chloroethane	ND	2100	ug/kg	SW846 8260A	
Chloroform	ND	1000	ug/kg	SW846 8260A	
Chloromethane	ND	2100	ug/kg	SW846 8260A	
2-Chlorotoluene	ND	1000	ug/kg	SW846 8260A	
4-Chlorotoluene	ND	1000	ug/kg	SW846 8260A	
1,2-Dibromo-3-chloro-propane	ND	2100	ug/kg	SW846 8260A	
1,2-Dibromoethane	ND	1000	ug/kg	SW846 8260A	
Dibromomethane	ND	1000	ug/kg	SW846 8260A	
1,2-Dichlorobenzene	ND	1000	ug/kg	SW846 8260A	
1,3-Dichlorobenzene	ND	1000	ug/kg	SW846 8260A	
1,4-Dichlorobenzene	ND	1000	ug/kg	SW846 8260A	
Dichlorodifluoromethane	ND	2100	ug/kg	SW846 8260A	
1,1-Dichloroethane	ND	1000	ug/kg	SW846 8260A	
1,2-Dichloroethane	ND	1000	ug/kg	SW846 8260A	
1,1-Dichloroethene	ND	1000	ug/kg	SW846 8260A	
cis-1,2-Dichloroethene	ND	520	ug/kg	SW846 8260A	
trans-1,2-Dichloroethene	ND	520	ug/kg	SW846 8260A	
1,2-Dichloropropane	ND	1000	ug/kg	SW846 8260A	
1,3-Dichloropropane	ND	1000	ug/kg	SW846 8260A	
2,2-Dichloropropane	ND	1000	ug/kg	SW846 8260A	
1,1-Dichloropropene	ND	1000	ug/kg	SW846 8260A	
Ethylbenzene	ND	1000	ug/kg	SW846 8260A	
Hexachlorobutadiene	ND	1000	ug/kg	SW846 8260A	
Isopropylbenzene	ND	1000	ug/kg	SW846 8260A	
p-Isopropyltoluene	ND	1000	ug/kg	SW846 8260A	
Methylene chloride	520 J,B	1000	ug/kg	SW846 8260A	
Naphthalene	ND	1000	ug/kg	SW846 8260A	
n-Propylbenzene	ND	1000	ug/kg	SW846 8260A	
Styrene	ND	1000	ug/kg	SW846 8260A	
1,1,1,2-Tetrachloroethane	ND	1000	ug/kg	SW846 8260A	
1,1,2,2-Tetrachloroethane	ND	1000	ug/kg	SW846 8260A	

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QUANTERRA INCORPORATED

PRELIMINARY DATA SUMMARY

The results shown below may still require additional laboratory review and are subject to change. Actions taken based on these results are the responsibility of the data user.

Baker Environmental
Camp LeJeune
Project Number: CTO-356

Lot #: H7H220203 Date Reported: 9/04/97

Client Sample ID: IR88IS12-02
Sample #: 002 Date Sampled: 08/19/97 09:33 Date Received: 08/22/97 Matrix: SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD	
Volatile Organics by GC/MS					Reviewed
Tetrachloroethene	20000	1000	ug/kg	SW846 8260A	
Toluene	ND	1000	ug/kg	SW846 8260A	
1,2,3-Trichlorobenzene	ND	1000	ug/kg	SW846 8260A	
1,2,4-Trichlorobenzene	ND	1000	ug/kg	SW846 8260A	
1,1,1-Trichloroethane	ND	1000	ug/kg	SW846 8260A	
1,1,2-Trichloroethane	ND	1000	ug/kg	SW846 8260A	
Trichloroethene	160	1000	ug/kg	SW846 8260A	
Trichlorofluoromethane	ND	2100	ug/kg	SW846 8260A	
1,2,3-Trichloropropane	ND	1000	ug/kg	SW846 8260A	
1,2,4-Trimethylbenzene	ND	1000	ug/kg	SW846 8260A	
1,3,5-Trimethylbenzene	ND	1000	ug/kg	SW846 8260A	
Vinyl chloride	ND	2100	ug/kg	SW846 8260A	
o-Xylene	ND	520	ug/kg	SW846 8260A	
m-Xylene & p-Xylene	ND	520	ug/kg	SW846 8260A	

J Estimated result. Result is less than RL.

B Method blank contamination. The associated method blank contains the target analyte at a reportable level.

Client Sample ID: IR88IS12-03
Sample #: 003 Date Sampled: 08/19/97 09:35 Date Received: 08/22/97 Matrix: SOLID

Volatile Organics by GC/MS					Reviewed
Benzene	ND	860	ug/kg	SW846 8260A	
Bromobenzene	ND	860	ug/kg	SW846 8260A	
Bromochloromethane	ND	860	ug/kg	SW846 8260A	
Bromodichloromethane	ND	860	ug/kg	SW846 8260A	
Bromoform	ND	860	ug/kg	SW846 8260A	
Bromomethane	ND	1700	ug/kg	SW846 8260A	
n-Butylbenzene	ND	860	ug/kg	SW846 8260A	
sec-Butylbenzene	ND	860	ug/kg	SW846 8260A	
tert-Butylbenzene	ND	860	ug/kg	SW846 8260A	
Carbon tetrachloride	ND	860	ug/kg	SW846 8260A	
Chlorobenzene	ND	860	ug/kg	SW846 8260A	
Chlorodibromomethane	ND	860	ug/kg	SW846 8260A	
Chloroethane	ND	1700	ug/kg	SW846 8260A	
Chloroform	ND	860	ug/kg	SW846 8260A	

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QUANTERRA INCORPORATED

PRELIMINARY DATA SUMMARY

The results shown below may still require additional laboratory review and are subject to change. Actions taken based on these results are the responsibility of the data user.

Baker Environmental
Camp LeJeune
Project Number: CTO-356

Lot #: H7H220203 Date Reported: 9/04/97

Client Sample ID: IR88IS12-03
Sample #: 003 Date Sampled: 08/19/97 09:35 Date Received: 08/22/97 Matrix: SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD	
Volatile Organics by GC/MS					Reviewed
Chloromethane	ND	1700	ug/kg	SW846 8260A	
2-Chlorotoluene	ND	860	ug/kg	SW846 8260A	
4-Chlorotoluene	ND	860	ug/kg	SW846 8260A	
1,2-Dibromo-3-chloro-propane	ND	1700	ug/kg	SW846 8260A	
1,2-Dibromoethane	ND	860	ug/kg	SW846 8260A	
Dibromomethane	ND	860	ug/kg	SW846 8260A	
1,2-Dichlorobenzene	ND	860	ug/kg	SW846 8260A	
1,3-Dichlorobenzene	ND	860	ug/kg	SW846 8260A	
1,4-Dichlorobenzene	ND	860	ug/kg	SW846 8260A	
Dichlorodifluoromethane	ND	1700	ug/kg	SW846 8260A	
1,1-Dichloroethane	ND	860	ug/kg	SW846 8260A	
1,2-Dichloroethane	ND	860	ug/kg	SW846 8260A	
1,1-Dichloroethene	ND	860	ug/kg	SW846 8260A	
cis-1,2-Dichloroethene	ND	430	ug/kg	SW846 8260A	
trans-1,2-Dichloroethene	ND	430	ug/kg	SW846 8260A	
1,2-Dichloropropane	ND	860	ug/kg	SW846 8260A	
1,3-Dichloropropane	ND	860	ug/kg	SW846 8260A	
2,2-Dichloropropane	ND	860	ug/kg	SW846 8260A	
1,1-Dichloropropene	ND	860	ug/kg	SW846 8260A	
Ethylbenzene	ND	860	ug/kg	SW846 8260A	
Hexachlorobutadiene	ND	860	ug/kg	SW846 8260A	
Isopropylbenzene	ND	860	ug/kg	SW846 8260A	
p-Isopropyltoluene	ND	860	ug/kg	SW846 8260A	
Methylene chloride	510 J,B	860	ug/kg	SW846 8260A	
Naphthalene	ND	860	ug/kg	SW846 8260A	
n-Propylbenzene	ND	860	ug/kg	SW846 8260A	
Styrene	ND	860	ug/kg	SW846 8260A	
1,1,1,2-Tetrachloroethane	ND	860	ug/kg	SW846 8260A	
1,1,2,2-Tetrachloroethane	ND	860	ug/kg	SW846 8260A	
Tetrachloroethene	25000	860	ug/kg	SW846 8260A	
Toluene	ND	860	ug/kg	SW846 8260A	
1,2,3-Trichlorobenzene	ND	860	ug/kg	SW846 8260A	
1,2,4-Trichlorobenzene	ND	860	ug/kg	SW846 8260A	
1,1,1-Trichloroethane	ND	860	ug/kg	SW846 8260A	
1,1,2-Trichloroethane	ND	860	ug/kg	SW846 8260A	
Trichloroethene	ND	860	ug/kg	SW846 8260A	

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QUANTERRA INCORPORATED

PRELIMINARY DATA SUMMARY

The results shown below may still require additional laboratory review and are subject to change. Actions taken based on these results are the responsibility of the data user.

Baker Environmental
Camp LeJeune
Project Number: CTO-356

Lot #: H7H220203 Date Reported: 9/04/97 PAGE 6

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD
Client Sample ID: IR88IS12-03				
Sample #: 003 Date Sampled: 08/19/97 09:35 Date Received: 08/22/97 Matrix: SOLID				
Volatile Organics by GC/MS				Reviewed
Trichlorofluoromethane	ND	1700	ug/kg	SW846 8260A
1,2,3-Trichloropropane	ND	860	ug/kg	SW846 8260A
1,2,4-Trimethylbenzene	ND	860	ug/kg	SW846 8260A
1,3,5-Trimethylbenzene	ND	860	ug/kg	SW846 8260A
Vinyl chloride	ND	1700	ug/kg	SW846 8260A
o-Xylene	ND	430	ug/kg	SW846 8260A
m-Xylene & p-Xylene	ND	430	ug/kg	SW846 8260A

J Estimated result. Result is less than RL.

B Method Blank contamination. The associated method blank contains the target analyte at a reportable level.

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD
Client Sample ID: IR88IS13-01				
Sample #: 004 Date Sampled: 08/19/97 10:26 Date Received: 08/22/97 Matrix: SOLID				
Volatile Organics by GC/MS				Reviewed
Benzene	ND	240000	ug/kg	SW846 8260A
Bromobenzene	ND	240000	ug/kg	SW846 8260A
Bromochloromethane	ND	240000	ug/kg	SW846 8260A
Bromodichloromethane	ND	240000	ug/kg	SW846 8260A
Bromoform	ND	240000	ug/kg	SW846 8260A
Bromomethane	ND	490000	ug/kg	SW846 8260A
n-Butylbenzene	ND	240000	ug/kg	SW846 8260A
sec-Butylbenzene	ND	240000	ug/kg	SW846 8260A
tert-Butylbenzene	ND	240000	ug/kg	SW846 8260A
Carbon tetrachloride	ND	240000	ug/kg	SW846 8260A
Chlorobenzene	ND	240000	ug/kg	SW846 8260A
Chlorodibromomethane	ND	240000	ug/kg	SW846 8260A
Chloroethane	ND	490000	ug/kg	SW846 8260A
Chloroform	ND	240000	ug/kg	SW846 8260A
Chloromethane	ND	490000	ug/kg	SW846 8260A
2-Chlorotoluene	ND	240000	ug/kg	SW846 8260A
4-Chlorotoluene	ND	240000	ug/kg	SW846 8260A
1,2-Dibromo-3-chloro-propane	ND	490000	ug/kg	SW846 8260A
1,2-Dibromoethane	ND	240000	ug/kg	SW846 8260A
Dibromomethane	ND	240000	ug/kg	SW846 8260A

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QUANTERRA INCORPORATED

PRELIMINARY DATA SUMMARY

The results shown below may still require additional laboratory review and are subject to change. Actions taken based on these results are the responsibility of the data user.

Baker Environmental
Camp LeJeune
Project Number: CTO-356

Lot #: H7HZZ0203 Date Reported: 9/04/97

Client Sample ID: IR88IS13-01
Sample #: 004 Date Sampled: 08/19/97 10:26 Date Received: 08/22/97 Matrix: SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD	
Volatile Organics by GC/MS					Reviewed
1,2-Dichlorobenzene	ND	240000	ug/kg	SW846 8260A	
1,3-Dichlorobenzene	ND	240000	ug/kg	SW846 8260A	
1,4-Dichlorobenzene	ND	240000	ug/kg	SW846 8260A	
Dichlorodifluoromethane	ND	490000	ug/kg	SW846 8260A	
1,1-Dichloroethane	ND	240000	ug/kg	SW846 8260A	
1,2-Dichloroethane	ND	240000	ug/kg	SW846 8260A	
1,1-Dichloroethene	ND	240000	ug/kg	SW846 8260A	
cis-1,2-Dichloroethene	ND	120000	ug/kg	SW846 8260A	
trans-1,2-Dichloroethene	ND	120000	ug/kg	SW846 8260A	
1,2-Dichloropropane	ND	240000	ug/kg	SW846 8260A	
1,3-Dichloropropane	ND	240000	ug/kg	SW846 8260A	
2,2-Dichloropropane	ND	240000	ug/kg	SW846 8260A	
1,1-Dichloropropene	ND	240000	ug/kg	SW846 8260A	
Ethylbenzene	ND	240000	ug/kg	SW846 8260A	
Hexachlorobutadiene	ND	240000	ug/kg	SW846 8260A	
Isopropylbenzene	ND	240000	ug/kg	SW846 8260A	
p-Isopropyltoluene	ND	240000	ug/kg	SW846 8260A	
Methylene chloride	ND	240000	ug/kg	SW846 8260A	
Naphthalene	ND	240000	ug/kg	SW846 8260A	
n-Propylbenzene	ND	240000	ug/kg	SW846 8260A	
Styrene	ND	240000	ug/kg	SW846 8260A	
1,1,1,2-Tetrachloroethane	ND	240000	ug/kg	SW846 8260A	
1,1,2,2-Tetrachloroethane	ND	240000	ug/kg	SW846 8260A	
Tetrachloroethene	5500000	240000	ug/kg	SW846 8260A	
Toluene	ND	240000	ug/kg	SW846 8260A	
1,2,3-Trichlorobenzene	ND	240000	ug/kg	SW846 8260A	
1,2,4-Trichlorobenzene	ND	240000	ug/kg	SW846 8260A	
1,1,1-Trichloroethane	ND	240000	ug/kg	SW846 8260A	
1,1,2-Trichloroethane	ND	240000	ug/kg	SW846 8260A	
Trichloroethene	ND	240000	ug/kg	SW846 8260A	
Trichlorofluoromethane	ND	490000	ug/kg	SW846 8260A	
1,2,3-Trichloropropane	ND	240000	ug/kg	SW846 8260A	
1,2,4-Trimethylbenzene	ND	240000	ug/kg	SW846 8260A	
1,3,5-Trimethylbenzene	ND	240000	ug/kg	SW846 8260A	
Vinyl chloride	ND	490000	ug/kg	SW846 8260A	
o-Xylene	ND	120000	ug/kg	SW846 8260A	
m-Xylene & p-Xylene	ND	120000	ug/kg	SW846 8260A	

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QUANTERRA INCORPORATED

PRELIMINARY DATA SUMMARY

The results shown below may still require additional laboratory review and are subject to change. Actions taken based on these results are the responsibility of the data user.

Baker Environmental
Camp LeJeune
Project Number: CTO-356

Lot #: H7H220203 Date Reported: 9/04/97

Client Sample ID: IR88IS13-02
Sample #: 005 Date Sampled: 08/19/97 10:27 Date Received: 08/22/97 Matrix: SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD	
Volatile Organics by GC/MS					Reviewed
Benzene	ND	1200000	ug/kg	SW846 8260A	
Bromobenzene	ND	1200000	ug/kg	SW846 8260A	
Bromochloromethane	ND	1200000	ug/kg	SW846 8260A	
Bromodichloromethane	ND	1200000	ug/kg	SW846 8260A	
Bromoform	ND	1200000	ug/kg	SW846 8260A	
Bromomethane	ND	2400000	ug/kg	SW846 8260A	
n-Butylbenzene	ND	1200000	ug/kg	SW846 8260A	
sec-Butylbenzene	ND	1200000	ug/kg	SW846 8260A	
tert-Butylbenzene	ND	1200000	ug/kg	SW846 8260A	
Carbon tetrachloride	ND	1200000	ug/kg	SW846 8260A	
Chlorobenzene	ND	1200000	ug/kg	SW846 8260A	
Chlorodibromomethane	ND	1200000	ug/kg	SW846 8260A	
Chloroethane	ND	2400000	ug/kg	SW846 8260A	
Chloroform	ND	1200000	ug/kg	SW846 8260A	
Chloromethane	ND	2400000	ug/kg	SW846 8260A	
2-Chlorotoluene	ND	1200000	ug/kg	SW846 8260A	
4-Chlorotoluene	ND	1200000	ug/kg	SW846 8260A	
1,2-Dibromo-3-chloro-propane	ND	2400000	ug/kg	SW846 8260A	
1,2-Dibromoethane	ND	1200000	ug/kg	SW846 8260A	
Dibromomethane	ND	1200000	ug/kg	SW846 8260A	
1,2-Dichlorobenzene	ND	1200000	ug/kg	SW846 8260A	
1,3-Dichlorobenzene	ND	1200000	ug/kg	SW846 8260A	
1,4-Dichlorobenzene	ND	1200000	ug/kg	SW846 8260A	
Dichlorodifluoromethane	ND	2400000	ug/kg	SW846 8260A	
1,1-Dichloroethane	ND	1200000	ug/kg	SW846 8260A	
1,2-Dichloroethane	ND	1200000	ug/kg	SW846 8260A	
1,1-Dichloroethene	ND	1200000	ug/kg	SW846 8260A	
cis-1,2-Dichloroethene	ND	610000	ug/kg	SW846 8260A	
trans-1,2-Dichloroethene	ND	610000	ug/kg	SW846 8260A	
1,2-Dichloropropane	ND	1200000	ug/kg	SW846 8260A	
1,3-Dichloropropane	ND	1200000	ug/kg	SW846 8260A	
2,2-Dichloropropane	ND	1200000	ug/kg	SW846 8260A	
1,1-Dichloropropene	ND	1200000	ug/kg	SW846 8260A	
Ethylbenzene	ND	1200000	ug/kg	SW846 8260A	
Hexachlorobutadiene	ND	1200000	ug/kg	SW846 8260A	
Isopropylbenzene	ND	1200000	ug/kg	SW846 8260A	

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QUANTERRA INCORPORATED

PRELIMINARY DATA SUMMARY

The results shown below may still require additional laboratory review and are subject to change. Actions taken based on these results are the responsibility of the data user.

Baker Environmental
Camp LeJeune
Project Number: CTO-356

Lot #: H7H220203 Date Reported: 9/04/97

Client Sample ID: IR88IS13-02
Sample #: 005 Date Sampled: 08/19/97 10:27 Date Received: 08/22/97 Matrix: SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD	
Volatile Organics by GC/MS					Reviewed
p-Isopropyltoluene	ND	1200000	ug/kg	SW846 8260A	
Methylene chloride	ND	1200000	ug/kg	SW846 8260A	
Naphthalene	ND	1200000	ug/kg	SW846 8260A	
n-Propylbenzene	ND	1200000	ug/kg	SW846 8260A	
Styrene	ND	1200000	ug/kg	SW846 8260A	
1,1,1,2-Tetrachloroethane	ND	1200000	ug/kg	SW846 8260A	
1,1,2,2-Tetrachloroethane	ND	1200000	ug/kg	SW846 8260A	
Tetrachloroethene	18000000	1200000	ug/kg	SW846 8260A	
Toluene	ND	1200000	ug/kg	SW846 8260A	
1,2,3-Trichlorobenzene	ND	1200000	ug/kg	SW846 8260A	
1,2,4-Trichlorobenzene	ND	1200000	ug/kg	SW846 8260A	
1,1,1-Trichloroethane	ND	1200000	ug/kg	SW846 8260A	
1,1,2-Trichloroethane	ND	1200000	ug/kg	SW846 8260A	
Trichloroethene	ND	1200000	ug/kg	SW846 8260A	
Trichlorofluoromethane	ND	2400000	ug/kg	SW846 8260A	
1,2,3-Trichloropropane	ND	1200000	ug/kg	SW846 8260A	
1,2,4-Trimethylbenzene	ND	1200000	ug/kg	SW846 8260A	
1,3,5-Trimethylbenzene	ND	1200000	ug/kg	SW846 8260A	
Vinyl chloride	ND	2400000	ug/kg	SW846 8260A	
o-Xylene	ND	610000	ug/kg	SW846 8260A	
m-Xylene & p-Xylene	ND	610000	ug/kg	SW846 8260A	

Client Sample ID: IR88IS13-03
Sample #: 006 Date Sampled: 08/19/97 10:28 Date Received: 08/22/97 Matrix: SOLID

Volatile Organics by GC/MS					Reviewed
Benzene	ND	340000	ug/kg	SW846 8260A	
Bromobenzene	ND	340000	ug/kg	SW846 8260A	
Bromochloromethane	ND	340000	ug/kg	SW846 8260A	
Bromodichloromethane	ND	340000	ug/kg	SW846 8260A	
Bromoform	ND	340000	ug/kg	SW846 8260A	
Bromomethane	ND	680000	ug/kg	SW846 8260A	
n-Butylbenzene	ND	340000	ug/kg	SW846 8260A	
sec-Butylbenzene	ND	340000	ug/kg	SW846 8260A	
tert-Butylbenzene	ND	340000	ug/kg	SW846 8260A	
Carbon tetrachloride	ND	340000	ug/kg	SW846 8260A	

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QUANTERRA INCORPORATED

PRELIMINARY DATA SUMMARY

The results shown below may still require additional laboratory review and are subject to change. Actions taken based on these results are the responsibility of the data user.

Baker Environmental
Camp LeJeune
Project Number: CTO-356

Lot #: H7H220203 Date Reported: 9/04/97

Client Sample ID: IR88IS13-03
Sample #: 006 Date Sampled: 08/19/97 10:28 Date Received: 08/22/97 Matrix: SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD	
Volatile Organics by GC/MS					Reviewed
Chlorobenzene	ND	340000	ug/kg	SW846 8260A	
Chlorodibromomethane	ND	340000	ug/kg	SW846 8260A	
Chloroethane	ND	680000	ug/kg	SW846 8260A	
Chloroform	ND	340000	ug/kg	SW846 8260A	
Chloromethane	ND	680000	ug/kg	SW846 8260A	
2-Chlorotoluene	ND	340000	ug/kg	SW846 8260A	
4-Chlorotoluene	ND	340000	ug/kg	SW846 8260A	
1,2-Dibromo-3-chloro-propane	ND	680000	ug/kg	SW846 8260A	
1,2-Dibromoethane	ND	340000	ug/kg	SW846 8260A	
Dibromomethane	ND	340000	ug/kg	SW846 8260A	
1,2-Dichlorobenzene	ND	340000	ug/kg	SW846 8260A	
1,3-Dichlorobenzene	ND	340000	ug/kg	SW846 8260A	
1,4-Dichlorobenzene	ND	340000	ug/kg	SW846 8260A	
Dichlorodifluoromethane	ND	680000	ug/kg	SW846 8260A	
1,1-Dichloroethane	ND	340000	ug/kg	SW846 8260A	
1,2-Dichloroethane	ND	340000	ug/kg	SW846 8260A	
1,1-Dichloroethene	ND	340000	ug/kg	SW846 8260A	
cis-1,2-Dichloroethene	ND	170000	ug/kg	SW846 8260A	
trans-1,2-Dichloroethene	ND	170000	ug/kg	SW846 8260A	
1,2-Dichloropropane	ND	340000	ug/kg	SW846 8260A	
1,3-Dichloropropane	ND	340000	ug/kg	SW846 8260A	
2,2-Dichloropropane	ND	340000	ug/kg	SW846 8260A	
1,1-Dichloropropene	ND	340000	ug/kg	SW846 8260A	
Ethylbenzene	ND	340000	ug/kg	SW846 8260A	
Hexachlorobutadiene	ND	340000	ug/kg	SW846 8260A	
Isopropylbenzene	ND	340000	ug/kg	SW846 8260A	
p-Isopropyltoluene	ND	340000	ug/kg	SW846 8260A	
Methylene chloride	ND	340000	ug/kg	SW846 8260A	
Naphthalene	ND	340000	ug/kg	SW846 8260A	
n-Propylbenzene	ND	340000	ug/kg	SW846 8260A	
Styrene	ND	340000	ug/kg	SW846 8260A	
1,1,1,2-Tetrachloroethane	ND	340000	ug/kg	SW846 8260A	
1,1,2,2-Tetrachloroethane	ND	340000	ug/kg	SW846 8260A	
Tetrachloroethene	4800000	340000	ug/kg	SW846 8260A	
Toluene	ND	340000	ug/kg	SW846 8260A	
1,2,3-Trichlorobenzene	ND	340000	ug/kg	SW846 8260A	

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QUANTERRA INCORPORATED

PRELIMINARY DATA SUMMARY

The results shown below may still require additional laboratory review and are subject to change. Actions taken based on these results are the responsibility of the data user.

Baker Environmental
Camp LeJeune
Project Number: CTO-356

Lot #: H7HZZ0203 Date Reported: 9/04/97

Client Sample ID: IR88IS13-03
Sample #: 006 Date Sampled: 08/19/97 10:28 Date Received: 08/22/97 Matrix: SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD	
Volatile Organics by GC/MS					Reviewed
1,2,4-Trichlorobenzene	ND	340000	ug/kg	SW846 8260A	
1,1,1-Trichloroethane	ND	340000	ug/kg	SW846 8260A	
1,1,2-Trichloroethane	ND	340000	ug/kg	SW846 8260A	
Trichloroethene	ND	340000	ug/kg	SW846 8260A	
Trichlorofluoromethane	ND	680000	ug/kg	SW846 8260A	
1,2,3-Trichloropropane	ND	340000	ug/kg	SW846 8260A	
1,2,4-Trimethylbenzene	ND	340000	ug/kg	SW846 8260A	
1,3,5-Trimethylbenzene	ND	340000	ug/kg	SW846 8260A	
Vinyl chloride	ND	680000	ug/kg	SW846 8260A	
o-Xylene	ND	170000	ug/kg	SW846 8260A	
m-Xylene & p-Xylene	ND	170000	ug/kg	SW846 8260A	

Client Sample ID: IR88RW01-01
Sample #: 007 Date Sampled: 08/19/97 12:58 Date Received: 08/22/97 Matrix: SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD	
Volatile Organics by GC/MS					Reviewed
Benzene	ND	610	ug/kg	SW846 8260A	
Bromobenzene	ND	610	ug/kg	SW846 8260A	
Bromochloromethane	ND	610	ug/kg	SW846 8260A	
Bromodichloromethane	ND	610	ug/kg	SW846 8260A	
Bromoform	ND	610	ug/kg	SW846 8260A	
Bromomethane	ND	1200	ug/kg	SW846 8260A	
n-Butylbenzene	ND	610	ug/kg	SW846 8260A	
sec-Butylbenzene	ND	610	ug/kg	SW846 8260A	
tert-Butylbenzene	ND	610	ug/kg	SW846 8260A	
Carbon tetrachloride	ND	610	ug/kg	SW846 8260A	
Chlorobenzene	ND	610	ug/kg	SW846 8260A	
Chlorodibromomethane	ND	610	ug/kg	SW846 8260A	
Chloroethane	ND	1200	ug/kg	SW846 8260A	
Chloroform	ND	610	ug/kg	SW846 8260A	
Chloromethane	ND	1200	ug/kg	SW846 8260A	
2-Chlorotoluene	ND	610	ug/kg	SW846 8260A	
4-Chlorotoluene	ND	610	ug/kg	SW846 8260A	
1,2-Dibromo-3-chloro-propane	ND	1200	ug/kg	SW846 8260A	
1,2-Dibromoethane	ND	610	ug/kg	SW846 8260A	

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QUANTERRA INCORPORATED

PRELIMINARY DATA SUMMARY

The results shown below may still require additional laboratory review and are subject to change. Actions taken based on these results are the responsibility of the data user.

Baker Environmental
Camp LeJeune
Project Number: CTO-356

Lot #: H7K180125 Date Reported: 11/21/97

Client Sample ID: IR88-FBM01
Sample #: 011 Date Sampled: 11/15/97 09:30 Date Received: 11/18/97 Matrix: SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD
Volatile Organics by GC/MS				In Review
Trichloroethene	ND	67	ug/kg	SW846 8260A
Dibromochloromethane	ND	67	ug/kg	SW846 8260A
1,1,2-Trichloroethane	17 J	67	ug/kg	SW846 8260A
Benzene	ND	67	ug/kg	SW846 8260A
trans-1,3-Dichloropropene	ND	67	ug/kg	SW846 8260A
Bromoform	ND	67	ug/kg	SW846 8260A
4-Methyl-2-pentanone	ND	270	ug/kg	SW846 8260A
2-Hexanone	ND	270	ug/kg	SW846 8260A
Tetrachloroethene	ND	67	ug/kg	SW846 8260A
1,1,2,2-Tetrachloroethane	ND	67	ug/kg	SW846 8260A
Toluene	ND	67	ug/kg	SW846 8260A
Chlorobenzene	ND	67	ug/kg	SW846 8260A
Ethylbenzene	ND	67	ug/kg	SW846 8260A
Styrene	ND	67	ug/kg	SW846 8260A
Xylenes (total)	18 J	67	ug/kg	SW846 8260A

J Estimated result. Result is less than RL.

QUANTERRA INCORPORATED

PRELIMINARY DATA SUMMARY

he results shown below may still require additional laboratory review and are subject to change. Actions taken based on these results are the responsibility of the data user.

Baker Environmental
Camp LeJeune
Project Number: CTO-356

Lot #: H7KZ00104 Date Reported: 11/20/97

Client Sample ID: IR88-IS14-02 18.0 ft.
Sample #: 001 Date Sampled: 11/18/97 14:50 Date Received: 11/20/97 Matrix: SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD
Volatile Organics by GC/MS				In Review
1,1-Dichloroethane	ND	84	ug/kg	SW846 8260A
1,2-Dichloroethene (total)	ND	84	ug/kg	SW846 8260A
Chloroform	ND	84	ug/kg	SW846 8260A
1,2-Dichloroethane	ND	84	ug/kg	SW846 8260A
2-Butanone	440	340	ug/kg	SW846 8260A
1,1,1-Trichloroethane	ND	84	ug/kg	SW846 8260A
Carbon tetrachloride	ND	84	ug/kg	SW846 8260A
Bromodichloromethane	ND	84	ug/kg	SW846 8260A
1,2-Dichloropropane	ND	84	ug/kg	SW846 8260A
cis-1,3-Dichloropropene	ND	84	ug/kg	SW846 8260A
Trichloroethene	ND	84	ug/kg	SW846 8260A
Dibromochloromethane	ND	84	ug/kg	SW846 8260A
1,1,2-Trichloroethane	ND	84	ug/kg	SW846 8260A
Benzene	ND	84	ug/kg	SW846 8260A
trans-1,3-Dichloropropene	ND	84	ug/kg	SW846 8260A
Bromoform	ND	84	ug/kg	SW846 8260A
4-Methyl-2-pentanone	ND	340	ug/kg	SW846 8260A
2-Hexanone	ND	340	ug/kg	SW846 8260A
Tetrachloroethene	28 J	84	ug/kg	SW846 8260A
1,1,2,2-Tetrachloroethane	ND	84	ug/kg	SW846 8260A
Toluene	ND	84	ug/kg	SW846 8260A
Chlorobenzene	ND	84	ug/kg	SW846 8260A
Ethylbenzene	ND	84	ug/kg	SW846 8260A
Styrene	ND	84	ug/kg	SW846 8260A
Xylenes (total)	ND	84	ug/kg	SW846 8260A
Chloromethane	ND	170	ug/kg	SW846 8260A
Bromomethane	ND	170	ug/kg	SW846 8260A
Vinyl chloride	ND	170	ug/kg	SW846 8260A
Chloroethane	ND	170	ug/kg	SW846 8260A
Methylene chloride	ND	84	ug/kg	SW846 8260A
Acetone	ND	340	ug/kg	SW846 8260A
Carbon disulfide	ND	84	ug/kg	SW846 8260A
1,1-Dichloroethene	ND	84	ug/kg	SW846 8260A

J Estimated result. Result is less than RL.

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QUANTERRA INCORPORATED

PRELIMINARY DATA SUMMARY

The results shown below may still require additional laboratory review and are subject to change. Actions taken based on these results are the responsibility of the data user.

Baker Environmental
Camp LeJeune
Project Number: CTO-356

Lot #: H7K200104 Date Reported: 11/20/97

Client Sample ID: IR88-IS15-02 18.9 ft
Sample #: 002 Date Sampled: 11/18/97 17:15 Date Received: 11/20/97 Matrix: SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD
Volatile Organics by GC/MS				In Review
1,1-Dichloroethane	ND	62	ug/kg	SW846 8260A
1,2-Dichloroethene (total)	ND	62	ug/kg	SW846 8260A
Chloroform	ND	62	ug/kg	SW846 8260A
1,2-Dichloroethane	ND	62	ug/kg	SW846 8260A
2-Butanone	300	250	ug/kg	SW846 8260A
1,1,1-Trichloroethane	ND	62	ug/kg	SW846 8260A
Carbon tetrachloride	ND	62	ug/kg	SW846 8260A
Bromodichloromethane	ND	62	ug/kg	SW846 8260A
1,2-Dichloropropane	ND	62	ug/kg	SW846 8260A
cis-1,3-Dichloropropene	ND	62	ug/kg	SW846 8260A
Trichloroethene	29 J	62	ug/kg	SW846 8260A
Dibromochloromethane	ND	62	ug/kg	SW846 8260A
1,1,2-Trichloroethane	ND	62	ug/kg	SW846 8260A
Benzene	ND	62	ug/kg	SW846 8260A
trans-1,3-Dichloropropene	ND	62	ug/kg	SW846 8260A
Bromoform	ND	62	ug/kg	SW846 8260A
4-Methyl-2-pentanone	ND	250	ug/kg	SW846 8260A
2-Hexanone	ND	250	ug/kg	SW846 8260A
Tetrachloroethene	1900	62	ug/kg	SW846 8260A
1,1,2,2-Tetrachloroethane	ND	62	ug/kg	SW846 8260A
Toluene	ND	62	ug/kg	SW846 8260A
Chlorobenzene	ND	62	ug/kg	SW846 8260A
Ethylbenzene	ND	62	ug/kg	SW846 8260A
Styrene	ND	62	ug/kg	SW846 8260A
Xylenes (total)	ND	62	ug/kg	SW846 8260A
Chloromethane	ND	120	ug/kg	SW846 8260A
Bromomethane	ND	120	ug/kg	SW846 8260A
Vinyl chloride	ND	120	ug/kg	SW846 8260A
Chloroethane	ND	120	ug/kg	SW846 8260A
Methylene chloride	ND	62	ug/kg	SW846 8260A
Acetone	ND	250	ug/kg	SW846 8260A
Carbon disulfide	ND	62	ug/kg	SW846 8260A
1,1-Dichloroethene	ND	62	ug/kg	SW846 8260A

J Estimated result. Result is less than RL.

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QUANTERRA INCORPORATED

PRELIMINARY DATA SUMMARY

he results shown below may still require additional laboratory review and are subject to change. Actions taken based on these results are the responsibility of the data user.

Baker Environmental
Camp LeJeune
Project Number: CTO-356

Lot #: H7K200104 Date Reported: 11/20/97

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD
Client Sample ID: IR88-IS16-02 18.5 ft				
Sample #: 003 Date Sampled: 11/19/97 09:30 Date Received: 11/20/97 Matrix: SOLID				
Volatile Organics by GC/MS				In Review
1,1-Dichloroethane	ND	62000	ug/kg	SW846 8260A
1,2-Dichloroethene (total)	ND	62000	ug/kg	SW846 8260A
Chloroform	ND	62000	ug/kg	SW846 8260A
1,2-Dichloroethane	ND	62000	ug/kg	SW846 8260A
2-Butanone	ND	250000	ug/kg	SW846 8260A
1,1,1-Trichloroethane	ND	62000	ug/kg	SW846 8260A
Carbon tetrachloride	ND	62000	ug/kg	SW846 8260A
Bromodichloromethane	ND	62000	ug/kg	SW846 8260A
1,2-Dichloropropane	ND	62000	ug/kg	SW846 8260A
cis-1,3-Dichloropropene	ND	62000	ug/kg	SW846 8260A
Trichloroethene	ND	62000	ug/kg	SW846 8260A
Dibromochloromethane	ND	62000	ug/kg	SW846 8260A
1,1,2-Trichloroethane	ND	62000	ug/kg	SW846 8260A
Benzene	ND	62000	ug/kg	SW846 8260A
trans-1,3-Dichloropropene	ND	62000	ug/kg	SW846 8260A
Bromoform	ND	62000	ug/kg	SW846 8260A
4-Methyl-2-pentanone	ND	250000	ug/kg	SW846 8260A
2-Hexanone	ND	250000	ug/kg	SW846 8260A
Tetrachloroethene	1800000	62000	ug/kg	SW846 8260A
1,1,2,2-Tetrachloroethane	ND	62000	ug/kg	SW846 8260A
Toluene	ND	62000	ug/kg	SW846 8260A
Chlorobenzene	ND	62000	ug/kg	SW846 8260A
Ethylbenzene	ND	62000	ug/kg	SW846 8260A
Styrene	ND	62000	ug/kg	SW846 8260A
Xylenes (total)	ND	62000	ug/kg	SW846 8260A
Chloromethane	ND	120000	ug/kg	SW846 8260A
Bromomethane	ND	120000	ug/kg	SW846 8260A
Vinyl chloride	ND	120000	ug/kg	SW846 8260A
Chloroethane	ND	120000	ug/kg	SW846 8260A
Methylene chloride	ND	62000	ug/kg	SW846 8260A
Acetone	ND	250000	ug/kg	SW846 8260A
Carbon disulfide	ND	62000	ug/kg	SW846 8260A
1,1-Dichloroethene	ND	62000	ug/kg	SW846 8260A

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QUANTERRA INCORPORATED

PRELIMINARY DATA SUMMARY

The results shown below may still require additional laboratory review and are subject to change. Actions taken based on these results are the responsibility of the data user.

Baker Environmental
Camp LeJeune
Project Number: CTO-356

Lot #: H7K200104 Date Reported: 11/20/97

Client Sample ID: IR88-IS17-02 18.0 ft
Sample #: 004 Date Sampled: 11/19/97 11:20 Date Received: 11/20/97 Matrix: SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD	
Volatile Organics by GC/MS					In Review
1,1-Dichloroethane	ND	84000	ug/kg	SW846 8260A	
1,2-Dichloroethene (total)	ND	84000	ug/kg	SW846 8260A	
Chloroform	ND	84000	ug/kg	SW846 8260A	
1,2-Dichloroethane	ND	84000	ug/kg	SW846 8260A	
2-Butanone	ND	330000	ug/kg	SW846 8260A	
1,1,1-Trichloroethane	ND	84000	ug/kg	SW846 8260A	
Carbon tetrachloride	ND	84000	ug/kg	SW846 8260A	
Bromodichloromethane	ND	84000	ug/kg	SW846 8260A	
1,2-Dichloropropane	ND	84000	ug/kg	SW846 8260A	
cis-1,3-Dichloropropene	ND	84000	ug/kg	SW846 8260A	
Trichloroethene	ND	84000	ug/kg	SW846 8260A	
Dibromochloromethane	ND	84000	ug/kg	SW846 8260A	
1,1,2-Trichloroethane	ND	84000	ug/kg	SW846 8260A	
Benzene	ND	84000	ug/kg	SW846 8260A	
trans-1,3-Dichloropropene	ND	84000	ug/kg	SW846 8260A	
Bromoform	ND	84000	ug/kg	SW846 8260A	
4-Methyl-2-pentanone	ND	330000	ug/kg	SW846 8260A	
2-Hexanone	ND	330000	ug/kg	SW846 8260A	
Tetrachloroethene	3700000 E	84000	ug/kg	SW846 8260A	
1,1,2,2-Tetrachloroethane	ND	84000	ug/kg	SW846 8260A	
Toluene	ND	84000	ug/kg	SW846 8260A	
Chlorobenzene	ND	84000	ug/kg	SW846 8260A	
Ethylbenzene	ND	84000	ug/kg	SW846 8260A	
Styrene	ND	84000	ug/kg	SW846 8260A	
Xylenes (total)	ND	84000	ug/kg	SW846 8260A	
Chloromethane	ND	170000	ug/kg	SW846 8260A	
Bromomethane	ND	170000	ug/kg	SW846 8260A	
Vinyl chloride	ND	170000	ug/kg	SW846 8260A	
Chloroethane	ND	170000	ug/kg	SW846 8260A	
Methylene chloride	ND	84000	ug/kg	SW846 8260A	
Acetone	ND	330000	ug/kg	SW846 8260A	
Carbon disulfide	ND	84000	ug/kg	SW846 8260A	
1,1-Dichloroethene	ND	84000	ug/kg	SW846 8260A	

E Estimated result. Result concentration exceeds the calibration range.

(Continued on next page)

QUANTERRA INCORPORATED

PRELIMINARY DATA SUMMARY

The results shown below may still require additional laboratory review and are subject to change. Actions taken based on these results are the responsibility of the data user.

Lot #: H7KZ00104

Baker Environmental
Camp LeJeune
Project Number: CTO-356

Date Reported: 11/20/97

Client Sample ID: IR88-IS17-02 18.0 ft Duplicate analysis, w/ dilution
Sample #: 004 Date Sampled: 11/19/97 11:20 Date Received: 11/20/97 Matrix: SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD
Volatile Organics by GC/MS				In Review
1,1-Dichloroethane	ND	170000	ug/kg	SW846 8260A
1,2-Dichloroethene (total)	ND	170000	ug/kg	SW846 8260A
Chloroform	ND	170000	ug/kg	SW846 8260A
1,2-Dichloroethane	ND	170000	ug/kg	SW846 8260A
2-Butanone	ND	670000	ug/kg	SW846 8260A
1,1,1-Trichloroethane	ND	170000	ug/kg	SW846 8260A
Carbon tetrachloride	ND	170000	ug/kg	SW846 8260A
Bromodichloromethane	ND	170000	ug/kg	SW846 8260A
1,2-Dichloropropane	ND	170000	ug/kg	SW846 8260A
cis-1,3-Dichloropropene	ND	170000	ug/kg	SW846 8260A
Trichloroethene	ND	170000	ug/kg	SW846 8260A
Dibromochloromethane	ND	170000	ug/kg	SW846 8260A
1,1,2-Trichloroethane	ND	170000	ug/kg	SW846 8260A
Benzene	ND	170000	ug/kg	SW846 8260A
trans-1,3-Dichloropropene	ND	170000	ug/kg	SW846 8260A
Bromoform	ND	170000	ug/kg	SW846 8260A
4-Methyl-2-pentanone	ND	670000	ug/kg	SW846 8260A
2-Hexanone	ND	670000	ug/kg	SW846 8260A
Tetrachloroethene	3800000 D	170000	ug/kg	SW846 8260A
1,1,2,2-Tetrachloroethane	ND	170000	ug/kg	SW846 8260A
Toluene	ND	170000	ug/kg	SW846 8260A
Chlorobenzene	ND	170000	ug/kg	SW846 8260A
Ethylbenzene	ND	170000	ug/kg	SW846 8260A
Styrene	ND	170000	ug/kg	SW846 8260A
Xylenes (total)	ND	170000	ug/kg	SW846 8260A
Chloromethane	ND	330000	ug/kg	SW846 8260A
Bromomethane	ND	330000	ug/kg	SW846 8260A
Vinyl chloride	ND	330000	ug/kg	SW846 8260A
Chloroethane	ND	330000	ug/kg	SW846 8260A
Methylene chloride	ND	170000	ug/kg	SW846 8260A
Acetone	ND	670000	ug/kg	SW846 8260A
Carbon disulfide	ND	170000	ug/kg	SW846 8260A
1,1-Dichloroethene	ND	170000	ug/kg	SW846 8260A

D Result was obtained from the analysis of a dilution.

(Continued on next page)

QUANTERRA INCORPORATED

PRELIMINARY DATA SUMMARY

he results shown below may still require additional laboratory review and are subject to change. Actions taken based on these results are the responsibility of the data user.

Baker Environmental
Camp LeJeune
Project Number: CTO-356

Lot #: H7K200104 Date Reported: 11/20/97

Client Sample ID: IR88-IS18-02 18.4 ft
Sample #: 005 Date Sampled: 11/19/97 14:30 Date Received: 11/20/97 Matrix: SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD	
Volatile Organics by GC/MS					In Review
1,1-Dichloroethane	ND	130	ug/kg	SW846 8260A	
1,2-Dichloroethene (total)	ND	130	ug/kg	SW846 8260A	
Chloroform	ND	130	ug/kg	SW846 8260A	
1,2-Dichloroethane	ND	130	ug/kg	SW846 8260A	
2-Butanone	350 J	540	ug/kg	SW846 8260A	
1,1,1-Trichloroethane	ND	130	ug/kg	SW846 8260A	
Carbon tetrachloride	ND	130	ug/kg	SW846 8260A	
Bromodichloromethane	ND	130	ug/kg	SW846 8260A	
1,2-Dichloropropane	ND	130	ug/kg	SW846 8260A	
cis-1,3-Dichloropropene	ND	130	ug/kg	SW846 8260A	
Trichloroethene	63 J	130	ug/kg	SW846 8260A	
Dibromochloromethane	ND	130	ug/kg	SW846 8260A	
1,1,2-Trichloroethane	ND	130	ug/kg	SW846 8260A	
Benzene	ND	130	ug/kg	SW846 8260A	
trans-1,3-Dichloropropene	ND	130	ug/kg	SW846 8260A	
Bromoform	ND	130	ug/kg	SW846 8260A	
4-Methyl-2-pentanone	ND	540	ug/kg	SW846 8260A	
2-Hexanone	ND	540	ug/kg	SW846 8260A	
Tetrachloroethene	3100	130	ug/kg	SW846 8260A	
1,1,2,2-Tetrachloroethane	ND	130	ug/kg	SW846 8260A	
Toluene	ND	130	ug/kg	SW846 8260A	
Chlorobenzene	ND	130	ug/kg	SW846 8260A	
Ethylbenzene	ND	130	ug/kg	SW846 8260A	
Styrene	ND	130	ug/kg	SW846 8260A	
Xylenes (total)	ND	130	ug/kg	SW846 8260A	
Chloromethane	ND	270	ug/kg	SW846 8260A	
Bromomethane	ND	270	ug/kg	SW846 8260A	
Vinyl chloride	ND	270	ug/kg	SW846 8260A	
Chloroethane	ND	270	ug/kg	SW846 8260A	
Methylene chloride	ND	130	ug/kg	SW846 8260A	
Acetone	ND	540	ug/kg	SW846 8260A	
Carbon disulfide	ND	130	ug/kg	SW846 8260A	
1,1-Dichloroethene	ND	130	ug/kg	SW846 8260A	

J Estimated result. Result is less than RL.

QUANTERRA INCORPORATED

PRELIMINARY DATA SUMMARY

he results shown below may still require additional laboratory review and are subject to change. Actions taken based on these results are the responsibility of the data user.

Baker Environmental
Camp LeJeune
Project Number: CTO-356

ot #: H7KZZ0110 Date Reported: 11/24/97

Client Sample ID: IR88-IS19-02 17.4 ft
Sample #: 001 Date Sampled: 11/19/97 15:40 Date Received: 11/22/97 Matrix: SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD
Volatile Organics by GC/MS				Reviewed
Chloromethane	ND	170	ug/kg	SW846 8260A
Bromomethane	ND	170	ug/kg	SW846 8260A
Vinyl chloride	ND	170	ug/kg	SW846 8260A
Chloroethane	ND	170	ug/kg	SW846 8260A
Methylene chloride	ND	85	ug/kg	SW846 8260A
Acetone	ND	340	ug/kg	SW846 8260A
Carbon disulfide	ND	85	ug/kg	SW846 8260A
1,1-Dichloroethene	ND	85	ug/kg	SW846 8260A
1,1-Dichloroethane	ND	85	ug/kg	SW846 8260A
1,2-Dichloroethene (total)	ND	85	ug/kg	SW846 8260A
Chloroform	ND	85	ug/kg	SW846 8260A
1,2-Dichloroethane	ND	85	ug/kg	SW846 8260A
2-Butanone	410	340	ug/kg	SW846 8260A
1,1,1-Trichloroethane	ND	85	ug/kg	SW846 8260A
Carbon tetrachloride	ND	85	ug/kg	SW846 8260A
Bromodichloromethane	ND	85	ug/kg	SW846 8260A
1,2-Dichloropropane	ND	85	ug/kg	SW846 8260A
cis-1,3-Dichloropropene	ND	85	ug/kg	SW846 8260A
Trichloroethene	ND	85	ug/kg	SW846 8260A
Dibromochloromethane	ND	85	ug/kg	SW846 8260A
1,1,2-Trichloroethane	ND	85	ug/kg	SW846 8260A
Benzene	ND	85	ug/kg	SW846 8260A
trans-1,3-Dichloropropene	ND	85	ug/kg	SW846 8260A
Bromoform	ND	85	ug/kg	SW846 8260A
4-Methyl-2-pentanone	ND	340	ug/kg	SW846 8260A
2-Hexanone	ND	340	ug/kg	SW846 8260A
Tetrachloroethene	39 J	85	ug/kg	SW846 8260A
1,1,2,2-Tetrachloroethane	ND	85	ug/kg	SW846 8260A
Toluene	ND	85	ug/kg	SW846 8260A
Chlorobenzene	ND	85	ug/kg	SW846 8260A
Ethylbenzene	ND	85	ug/kg	SW846 8260A
Styrene	ND	85	ug/kg	SW846 8260A
Xylenes (total)	ND	85	ug/kg	SW846 8260A

J Estimated result. Result is less than RL.

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QUANTERRA INCORPORATED

PRELIMINARY DATA SUMMARY

he results shown below may still require additional laboratory review and are subject to hange. Actions taken based on these results are the responsibility of the data user.

Baker Environmental
Camp LeJeune
Project Number: CTO-356

ot #: H7K220110 Date Reported: 11/24/97

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD
Client Sample ID: IR88-IS19-03				
Sample #: 002 Date Sampled: 11/19/97 16:25 Date Received: 11/22/97 Matrix: SOLID				
Inorganic Analysis				In Review
Percent Moisture	20.4	0.10	%	MCAWW 160.3 MOD
Client Sample ID: IR88-IS19-04				
Sample #: 003 Date Sampled: 11/19/97 16:30 Date Received: 11/22/97 Matrix: SOLID				
Inorganic Analysis				In Review
Percent Moisture	20.8	0.10	%	MCAWW 160.3 MOD
Client Sample ID: IR88-IS20-02 18.5 ft				
Sample #: 004 Date Sampled: 11/19/97 17:20 Date Received: 11/22/97 Matrix: SOLID				
Volatile Organics by GC/MS				Reviewed
Chloromethane	ND	160	ug/kg	SW846 8260A
Bromomethane	ND	160	ug/kg	SW846 8260A
Vinyl chloride	ND	160	ug/kg	SW846 8260A
Chloroethane	ND	160	ug/kg	SW846 8260A
Methylene chloride	ND	80	ug/kg	SW846 8260A
Acetone	ND	320	ug/kg	SW846 8260A
Carbon disulfide	ND	80	ug/kg	SW846 8260A
1,1-Dichloroethene	ND	80	ug/kg	SW846 8260A
1,1-Dichloroethane	ND	80	ug/kg	SW846 8260A
1,2-Dichloroethene (total)	ND	80	ug/kg	SW846 8260A
Chloroform	ND	80	ug/kg	SW846 8260A
1,2-Dichloroethane	ND	80	ug/kg	SW846 8260A
2-Butanone	96 J	320	ug/kg	SW846 8260A
1,1,1-Trichloroethane	ND	80	ug/kg	SW846 8260A
Carbon tetrachloride	ND	80	ug/kg	SW846 8260A
Bromodichloromethane	ND	80	ug/kg	SW846 8260A
1,2-Dichloropropane	ND	80	ug/kg	SW846 8260A
cis-1,3-Dichloropropene	ND	80	ug/kg	SW846 8260A
Trichloroethene	ND	80	ug/kg	SW846 8260A
Dibromochloromethane	ND	80	ug/kg	SW846 8260A
1,1,2-Trichloroethane	ND	80	ug/kg	SW846 8260A
Benzene	ND	80	ug/kg	SW846 8260A

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QUANTERRA INCORPORATED

PRELIMINARY DATA SUMMARY

The results shown below may still require additional laboratory review and are subject to change. Actions taken based on these results are the responsibility of the data user.

Baker Environmental
Camp LeJeune
Project Number: CTO-356

Lot #: H7K220110 Date Reported: 11/24/97

Client Sample ID: IR88-IS20-02
Sample #: 004 Date Sampled: 11/19/97 17:20 Date Received: 11/22/97 Matrix: SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD	
Volatile Organics by GC/MS					Reviewed
trans-1,3-Dichloropropene	ND	80	ug/kg	SW846 8260A	
Bromoform	ND	80	ug/kg	SW846 8260A	
4-Methyl-2-pentanone	ND	320	ug/kg	SW846 8260A	
2-Hexanone	ND	320	ug/kg	SW846 8260A	
Tetrachloroethene	1800	80	ug/kg	SW846 8260A	
1,1,2,2-Tetrachloroethane	ND	80	ug/kg	SW846 8260A	
Toluene	ND	80	ug/kg	SW846 8260A	
Chlorobenzene	ND	80	ug/kg	SW846 8260A	
Ethylbenzene	ND	80	ug/kg	SW846 8260A	
Styrene	ND	80	ug/kg	SW846 8260A	
Xylenes (total)	ND	80	ug/kg	SW846 8260A	

J Estimated result. Result is less than RL.

Client Sample ID: IR88-IS21-03
Sample #: 005 Date Sampled: 11/20/97 10:15 Date Received: 11/22/97 Matrix: SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD	
Volatile Organics by GC/MS					Reviewed
Chloromethane	ND	41000	ug/kg	SW846 8260A	
Bromomethane	ND	41000	ug/kg	SW846 8260A	
Vinyl chloride	ND	41000	ug/kg	SW846 8260A	
Chloroethane	ND	41000	ug/kg	SW846 8260A	
Methylene chloride	ND	21000	ug/kg	SW846 8260A	
Acetone	ND	82000	ug/kg	SW846 8260A	
Carbon disulfide	ND	21000	ug/kg	SW846 8260A	
1,1-Dichloroethene	ND	21000	ug/kg	SW846 8260A	
1,1-Dichloroethane	ND	21000	ug/kg	SW846 8260A	
1,2-Dichloroethene (total)	ND	21000	ug/kg	SW846 8260A	
Chloroform	ND	21000	ug/kg	SW846 8260A	
1,2-Dichloroethane	ND	21000	ug/kg	SW846 8260A	
2-Butanone	ND	82000	ug/kg	SW846 8260A	
1,1,1-Trichloroethane	ND	21000	ug/kg	SW846 8260A	
Carbon tetrachloride	ND	21000	ug/kg	SW846 8260A	
Bromodichloromethane	ND	21000	ug/kg	SW846 8260A	
1,2-Dichloropropane	ND	21000	ug/kg	SW846 8260A	

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QUANTERRA INCORPORATED

PRELIMINARY DATA SUMMARY

he results shown below may still require additional laboratory review and are subject to hange. Actions taken based on these results are the responsibility of the data user.

Baker Environmental
Camp LeJeune
Project Number: CTO-356

ot #: H7KZZ0110 Date Reported: 11/24/97 PAGE 4

Client Sample ID: IR88-IS21-03
Sample #: 005 Date Sampled: 11/20/97 10:15 Date Received: 11/22/97 Matrix: SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD	
Volatile Organics by GC/MS					Reviewed
cis-1,3-Dichloropropene	ND	21000	ug/kg	SW846 8260A	
Trichloroethene	ND	21000	ug/kg	SW846 8260A	
Dibromochloromethane	ND	21000	ug/kg	SW846 8260A	
1,1,2-Trichloroethane	ND	21000	ug/kg	SW846 8260A	
Benzene	ND	21000	ug/kg	SW846 8260A	
trans-1,3-Dichloropropene	ND	21000	ug/kg	SW846 8260A	
Bromoform	ND	21000	ug/kg	SW846 8260A	
4-Methyl-2-pentanone	ND	82000	ug/kg	SW846 8260A	
2-Hexanone	ND	82000	ug/kg	SW846 8260A	
Tetrachloroethene	610,000 D	21000	ug/kg	SW846 8260A	
1,1,2,2-Tetrachloroethane	ND	21000	ug/kg	SW846 8260A	
Toluene	ND	21000	ug/kg	SW846 8260A	
Chlorobenzene	ND	21000	ug/kg	SW846 8260A	
Ethylbenzene	ND	21000	ug/kg	SW846 8260A	
Styrene	ND	21000	ug/kg	SW846 8260A	
Xylenes (total)	ND	21000	ug/kg	SW846 8260A	

D Result was obtained from the analysis of a dilution.

Volatile Organics by GC/MS					Reviewed
Chloromethane	ND	4100	ug/kg	SW846 8260A	
Bromomethane	ND	4100	ug/kg	SW846 8260A	
Vinyl chloride	ND	4100	ug/kg	SW846 8260A	
Chloroethane	ND	4100	ug/kg	SW846 8260A	
Methylene chloride	ND	2100	ug/kg	SW846 8260A	
Acetone	ND	8200	ug/kg	SW846 8260A	
Carbon disulfide	ND	2100	ug/kg	SW846 8260A	
1,1-Dichloroethene	ND	2100	ug/kg	SW846 8260A	
1,1-Dichloroethane	ND	2100	ug/kg	SW846 8260A	
1,2-Dichloroethene (total)	ND	2100	ug/kg	SW846 8260A	
Chloroform	ND	2100	ug/kg	SW846 8260A	
1,2-Dichloroethane	ND	2100	ug/kg	SW846 8260A	
2-Butanone	ND	8200	ug/kg	SW846 8260A	
1,1,1-Trichloroethane	ND	2100	ug/kg	SW846 8260A	
Carbon tetrachloride	ND	2100	ug/kg	SW846 8260A	
Bromodichloromethane	ND	2100	ug/kg	SW846 8260A	

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QUANTERRA INCORPORATED

PRELIMINARY DATA SUMMARY

The results shown below may still require additional laboratory review and are subject to change. Actions taken based on these results are the responsibility of the data user.

Baker Environmental
Camp LeJeune
Project Number: CTO-356

Lot #: H7KZZ0110 Date Reported: 11/24/97

Client Sample ID: IR88-IS21-03
Sample #: 005 Date Sampled: 11/20/97 10:15 Date Received: 11/22/97 Matrix: SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD	
Volatile Organics by GC/MS					Reviewed
1,2-Dichloropropane	ND	2100	ug/kg	SW846 8260A	
cis-1,3-Dichloropropene	ND	2100	ug/kg	SW846 8260A	
Trichloroethene	ND	2100	ug/kg	SW846 8260A	
Dibromochloromethane	ND	2100	ug/kg	SW846 8260A	
1,1,2-Trichloroethane	ND	2100	ug/kg	SW846 8260A	
Benzene	ND	2100	ug/kg	SW846 8260A	
trans-1,3-Dichloropropene	ND	2100	ug/kg	SW846 8260A	
Bromoform	ND	2100	ug/kg	SW846 8260A	
4-Methyl-2-pentanone	ND	8200	ug/kg	SW846 8260A	
2-Hexanone	ND	8200	ug/kg	SW846 8260A	
Tetrachloroethene	360000 E	2100	ug/kg	SW846 8260A	
1,1,2,2-Tetrachloroethane	ND	2100	ug/kg	SW846 8260A	
Toluene	ND	2100	ug/kg	SW846 8260A	
Chlorobenzene	ND	2100	ug/kg	SW846 8260A	
Ethylbenzene	ND	2100	ug/kg	SW846 8260A	
Styrene	ND	2100	ug/kg	SW846 8260A	
Xylenes (total)	ND	2100	ug/kg	SW846 8260A	

E Estimated result. Result concentration exceeds the calibration range.

Client Sample ID: IR88-IS21-04
Sample #: 006 Date Sampled: 11/20/97 10:40 Date Received: 11/22/97 Matrix: SOLID

Volatile Organics by GC/MS					Reviewed
Chloromethane	ND	460000	ug/kg	SW846 8260A	
Bromomethane	ND	460000	ug/kg	SW846 8260A	
Vinyl chloride	ND	460000	ug/kg	SW846 8260A	
Chloroethane	ND	460000	ug/kg	SW846 8260A	
Methylene chloride	ND	230000	ug/kg	SW846 8260A	
Acetone	ND	920000	ug/kg	SW846 8260A	
Carbon disulfide	ND	230000	ug/kg	SW846 8260A	
1,1-Dichloroethene	ND	230000	ug/kg	SW846 8260A	
1,1-Dichloroethane	ND	230000	ug/kg	SW846 8260A	
1,2-Dichloroethene (total)	ND	230000	ug/kg	SW846 8260A	
Chloroform	ND	230000	ug/kg	SW846 8260A	

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QUANTERRA INCORPORATED

PRELIMINARY DATA SUMMARY

he results shown below may still require additional laboratory review and are subject to hange. Actions taken based on these results are the responsibility of the data user.

Baker Environmental
Camp LeJeune
Project Number: CTO-356

ot #: H7KZ20110 Date Reported: 11/24/97 PAGE 6

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD

Client Sample ID: IR88-IS21-04
Sample #: 006 Date Sampled: 11/20/97 10:40 Date Received: 11/22/97 Matrix: SOLID

Volatile Organics by GC/MS					Reviewed
1,2-Dichloroethane	ND	230000	ug/kg	SW846 8260A	
2-Butanone	ND	920000	ug/kg	SW846 8260A	
1,1,1-Trichloroethane	ND	230000	ug/kg	SW846 8260A	
Carbon tetrachloride	ND	230000	ug/kg	SW846 8260A	
Bromodichloromethane	ND	230000	ug/kg	SW846 8260A	
1,2-Dichloropropane	ND	230000	ug/kg	SW846 8260A	
cis-1,3-Dichloropropene	ND	230000	ug/kg	SW846 8260A	
Trichloroethene	ND	230000	ug/kg	SW846 8260A	
Dibromochloromethane	ND	230000	ug/kg	SW846 8260A	
1,1,2-Trichloroethane	ND	230000	ug/kg	SW846 8260A	
Benzene	ND	230000	ug/kg	SW846 8260A	
trans-1,3-Dichloropropene	ND	230000	ug/kg	SW846 8260A	
Bromoform	ND	230000	ug/kg	SW846 8260A	
4-Methyl-2-pentanone	ND	920000	ug/kg	SW846 8260A	
2-Hexanone	ND	920000	ug/kg	SW846 8260A	
Tetrachloroethene	6100000	230000	ug/kg	SW846 8260A	
1,1,2,2-Tetrachloroethane	ND	230000	ug/kg	SW846 8260A	
Toluene	ND	230000	ug/kg	SW846 8260A	
Chlorobenzene	ND	230000	ug/kg	SW846 8260A	
Ethylbenzene	ND	230000	ug/kg	SW846 8260A	
Styrene	ND	230000	ug/kg	SW846 8260A	
Xylenes (total)	ND	230000	ug/kg	SW846 8260A	

Client Sample ID: IR88-IS22-02 17 ft
Sample #: 007 Date Sampled: 11/20/97 13:40 Date Received: 11/22/97 Matrix: SOLID

Volatile Organics by GC/MS					Reviewed
Chloromethane	ND	250000	ug/kg	SW846 8260A	
Bromomethane	ND	250000	ug/kg	SW846 8260A	
Vinyl chloride	ND	250000	ug/kg	SW846 8260A	
Chloroethane	ND	250000	ug/kg	SW846 8260A	
Methylene chloride	ND	130000	ug/kg	SW846 8260A	
Acetone	ND	500000	ug/kg	SW846 8260A	
Carbon disulfide	ND	130000	ug/kg	SW846 8260A	
1,1-Dichloroethene	ND	130000	ug/kg	SW846 8260A	
1,1-Dichloroethane	ND	130000	ug/kg	SW846 8260A	

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QUANTERRA INCORPORATED

PRELIMINARY DATA SUMMARY

he results shown below may still require additional laboratory review and are subject to change. Actions taken based on these results are the responsibility of the data user.

Baker Environmental
Camp LeJeune
Project Number: CTO-356

_ot #: H7KZ20110 Date Reported: 11/24/97

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD	
Client Sample ID: IR88-IS22-02	17 ft	PA sample			
Sample #: 007 Date Sampled: 11/20/97 13:40 Date Received: 11/22/97 Matrix: SOLID					
Volatile Organics by GC/MS					Reviewed
1,2-Dichloroethene (total)	ND	130000	ug/kg	SW846 8260A	
Chloroform	ND	130000	ug/kg	SW846 8260A	
1,2-Dichloroethane	ND	130000	ug/kg	SW846 8260A	
2-Butanone	ND	500000	ug/kg	SW846 8260A	
1,1,1-Trichloroethane	ND	130000	ug/kg	SW846 8260A	
Carbon tetrachloride	ND	130000	ug/kg	SW846 8260A	
Bromodichloromethane	ND	130000	ug/kg	SW846 8260A	
1,2-Dichloropropane	ND	130000	ug/kg	SW846 8260A	
cis-1,3-Dichloropropene	ND	130000	ug/kg	SW846 8260A	
Trichloroethene	ND	130000	ug/kg	SW846 8260A	
Dibromochloromethane	ND	130000	ug/kg	SW846 8260A	
1,1,2-Trichloroethane	ND	130000	ug/kg	SW846 8260A	
Benzene	ND	130000	ug/kg	SW846 8260A	
trans-1,3-Dichloropropene	ND	130000	ug/kg	SW846 8260A	
Bromoform	ND	130000	ug/kg	SW846 8260A	
4-Methyl-2-pentanone	ND	500000	ug/kg	SW846 8260A	
2-Hexanone	ND	500000	ug/kg	SW846 8260A	
Tetrachloroethene	2000000	130000	ug/kg	SW846 8260A	
1,1,2,2-Tetrachloroethane	ND	130000	ug/kg	SW846 8260A	
Toluene	ND	130000	ug/kg	SW846 8260A	
Chlorobenzene	ND	130000	ug/kg	SW846 8260A	
Ethylbenzene	ND	130000	ug/kg	SW846 8260A	
Styrene	ND	130000	ug/kg	SW846 8260A	
Xylenes (total)	ND	130000	ug/kg	SW846 8260A	
Client Sample ID: IR88-IS22-03					
Sample #: 008 Date Sampled: 11/20/97 13:43 Date Received: 11/22/97 Matrix: SOLID					
Volatile Organics by GC/MS					Reviewed
Chloromethane	ND	130000	ug/kg	SW846 8260A	
Bromomethane	ND	130000	ug/kg	SW846 8260A	
Vinyl chloride	ND	130000	ug/kg	SW846 8260A	
Chloroethane	ND	130000	ug/kg	SW846 8260A	
Methylene chloride	ND	66000	ug/kg	SW846 8260A	
Acetone	ND	270000	ug/kg	SW846 8260A	

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QUANTERRA INCORPORATED

PRELIMINARY DATA SUMMARY

he results shown below may still require additional laboratory review and are subject to change. Actions taken based on these results are the responsibility of the data user.

ot #: H7KZ20110 | Baker Environmental, Camp LeJeune, Project Number: CTO-356 | Date Reported: 11/24/97 | PAGE 8

Client Sample ID: IR88-IS22-03 18 ft: PA sample
Sample #: 008 Date Sampled: 11/20/97 13:43 Date Received: 11/22/97 Matrix: SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD	
Volatile Organics by GC/MS					Reviewed
Carbon disulfide	ND	66000	ug/kg	SW846 8260A	
1,1-Dichloroethene	ND	66000	ug/kg	SW846 8260A	
1,1-Dichloroethane	ND	66000	ug/kg	SW846 8260A	
1,2-Dichloroethene (total)	ND	66000	ug/kg	SW846 8260A	
Chloroform	ND	66000	ug/kg	SW846 8260A	
1,2-Dichloroethane	ND	66000	ug/kg	SW846 8260A	
2-Butanone	ND	270000	ug/kg	SW846 8260A	
1,1,1-Trichloroethane	ND	66000	ug/kg	SW846 8260A	
Carbon tetrachloride	ND	66000	ug/kg	SW846 8260A	
Bromodichloromethane	ND	66000	ug/kg	SW846 8260A	
1,2-Dichloropropane	ND	66000	ug/kg	SW846 8260A	
cis-1,3-Dichloropropene	ND	66000	ug/kg	SW846 8260A	
Trichloroethene	ND	66000	ug/kg	SW846 8260A	
Dibromochloromethane	ND	66000	ug/kg	SW846 8260A	
1,1,2-Trichloroethane	ND	66000	ug/kg	SW846 8260A	
Benzene	ND	66000	ug/kg	SW846 8260A	
trans-1,3-Dichloropropene	ND	66000	ug/kg	SW846 8260A	
Bromoform	ND	66000	ug/kg	SW846 8260A	
4-Methyl-2-pentanone	ND	270000	ug/kg	SW846 8260A	
2-Hexanone	ND	270000	ug/kg	SW846 8260A	
Tetrachloroethene	1,600,000	66000	ug/kg	SW846 8260A	
1,1,2,2-Tetrachloroethane	ND	66000	ug/kg	SW846 8260A	
Toluene	ND	66000	ug/kg	SW846 8260A	
Chlorobenzene	ND	66000	ug/kg	SW846 8260A	
Ethylbenzene	ND	66000	ug/kg	SW846 8260A	
Styrene	ND	66000	ug/kg	SW846 8260A	
Xylenes (total)	ND	66000	ug/kg	SW846 8260A	

Client Sample ID: IR88-IS22-04
Sample #: 009 Date Sampled: 11/20/97 13:45 Date Received: 11/22/97 Matrix: SOLID

Volatile Organics by GC/MS					Reviewed
Chloromethane	ND	51000	ug/kg	SW846 8260A	
Bromomethane	ND	51000	ug/kg	SW846 8260A	
Vinyl chloride	ND	51000	ug/kg	SW846 8260A	

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QUANTERRA INCORPORATED

PRELIMINARY DATA SUMMARY

The results shown below may still require additional laboratory review and are subject to change. Actions taken based on these results are the responsibility of the data user.

Baker Environmental
Camp LeJeune
Project Number: CTO-356

Lot #: H7KZ20110 Date Reported: 11/24/97

Client Sample ID: IR88-IS22-04 19 ft PA sample
Sample #: 009 Date Sampled: 11/20/97 13:45 Date Received: 11/22/97 Matrix: SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD	
Volatile Organics by GC/MS					Reviewed
Chloroethane	ND	51000	ug/kg	SW846 8260A	
Methylene chloride	ND	26000	ug/kg	SW846 8260A	
Acetone	ND	100000	ug/kg	SW846 8260A	
Carbon disulfide	ND	26000	ug/kg	SW846 8260A	
1,1-Dichloroethene	ND	26000	ug/kg	SW846 8260A	
1,1-Dichloroethane	ND	26000	ug/kg	SW846 8260A	
1,2-Dichloroethene (total)	ND	26000	ug/kg	SW846 8260A	
Chloroform	ND	26000	ug/kg	SW846 8260A	
1,2-Dichloroethane	ND	26000	ug/kg	SW846 8260A	
2-Butanone	ND	100000	ug/kg	SW846 8260A	
1,1,1-Trichloroethane	ND	26000	ug/kg	SW846 8260A	
Carbon tetrachloride	ND	26000	ug/kg	SW846 8260A	
Bromodichloromethane	ND	26000	ug/kg	SW846 8260A	
1,2-Dichloropropane	ND	26000	ug/kg	SW846 8260A	
cis-1,3-Dichloropropene	ND	26000	ug/kg	SW846 8260A	
Trichloroethene	ND	26000	ug/kg	SW846 8260A	
Dibromochloromethane	ND	26000	ug/kg	SW846 8260A	
1,1,2-Trichloroethane	ND	26000	ug/kg	SW846 8260A	
Benzene	ND	26000	ug/kg	SW846 8260A	
trans-1,3-Dichloropropene	ND	26000	ug/kg	SW846 8260A	
Bromoform	ND	26000	ug/kg	SW846 8260A	
4-Methyl-2-pentanone	ND	100000	ug/kg	SW846 8260A	
2-Hexanone	ND	100000	ug/kg	SW846 8260A	
Tetrachloroethene	550000	26000	ug/kg	SW846 8260A	
1,1,2,2-Tetrachloroethane	ND	26000	ug/kg	SW846 8260A	
Toluene	ND	26000	ug/kg	SW846 8260A	
Chlorobenzene	ND	26000	ug/kg	SW846 8260A	
Ethylbenzene	ND	26000	ug/kg	SW846 8260A	
Styrene	ND	26000	ug/kg	SW846 8260A	
Xylenes (total)	ND	26000	ug/kg	SW846 8260A	

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QUANTERRA INCORPORATED

PRELIMINARY DATA SUMMARY

ne results shown below may still require additional laboratory review and are subject to change. Actions taken based on these results are the responsibility of the data user.

Baker Environmental
Camp LeJeune
Project Number: CTO-356

ot #: H7KZZ0110 Date Reported: 11/24/97

Client Sample ID: IR88-IS23-01 17.5 ft PA sample
Sample #: 010 Date Sampled: 11/20/97 15:40 Date Received: 11/22/97 Matrix: SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD
Volatile Organics by GC/MS				Reviewed
Chloromethane	ND	300	ug/kg	SW846 8260A
Bromomethane	ND	300	ug/kg	SW846 8260A
Vinyl chloride	ND	300	ug/kg	SW846 8260A
Chloroethane	ND	300	ug/kg	SW846 8260A
Methylene chloride	ND	150	ug/kg	SW846 8260A
Acetone	ND	590	ug/kg	SW846 8260A
Carbon disulfide	ND	150	ug/kg	SW846 8260A
1,1-Dichloroethene	ND	150	ug/kg	SW846 8260A
1,1-Dichloroethane	ND	150	ug/kg	SW846 8260A
1,2-Dichloroethene (total)	ND	150	ug/kg	SW846 8260A
Chloroform	ND	150	ug/kg	SW846 8260A
1,2-Dichloroethane	ND	150	ug/kg	SW846 8260A
2-Butanone	400 J	590	ug/kg	SW846 8260A
1,1,1-Trichloroethane	ND	150	ug/kg	SW846 8260A
Carbon tetrachloride	ND	150	ug/kg	SW846 8260A
Bromodichloromethane	ND	150	ug/kg	SW846 8260A
1,2-Dichloropropane	ND	150	ug/kg	SW846 8260A
cis-1,3-Dichloropropene	ND	150	ug/kg	SW846 8260A
Trichloroethene	ND	150	ug/kg	SW846 8260A
Dibromochloromethane	ND	150	ug/kg	SW846 8260A
1,1,2-Trichloroethane	ND	150	ug/kg	SW846 8260A
Benzene	ND	150	ug/kg	SW846 8260A
trans-1,3-Dichloropropene	ND	150	ug/kg	SW846 8260A
Bromoform	ND	150	ug/kg	SW846 8260A
4-Methyl-2-pentanone	ND	590	ug/kg	SW846 8260A
2-Hexanone	ND	590	ug/kg	SW846 8260A
Tetrachloroethene	5500	150	ug/kg	SW846 8260A
1,1,2,2-Tetrachloroethane	ND	150	ug/kg	SW846 8260A
Toluene	ND	150	ug/kg	SW846 8260A
Chlorobenzene	ND	150	ug/kg	SW846 8260A
Ethylbenzene	ND	150	ug/kg	SW846 8260A
Styrene	ND	150	ug/kg	SW846 8260A
Xylenes (total)	ND	150	ug/kg	SW846 8260A

J Estimated result. Result is less than RL.

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QUANTERRA INCORPORATED

PRELIMINARY DATA SUMMARY

he results shown below may still require additional laboratory review and are subject to change. Actions taken based on these results are the responsibility of the data user.

Baker Environmental
Camp LeJeune
Project Number: CTO-356

ot #: H7K220110 Date Reported: 11/24/97

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD

Client Sample ID: IR88-IS23-02 18.25 ft PA sample
Sample #: 011 Date Sampled: 11/20/97 15:41 Date Received: 11/22/97 Matrix: SOLID

Volatile Organics by GC/MS					Reviewed
Chloromethane	ND	70000	ug/kg	SW846 8260A	
Bromomethane	ND	70000	ug/kg	SW846 8260A	
Vinyl chloride	ND	70000	ug/kg	SW846 8260A	
Chloroethane	ND	70000	ug/kg	SW846 8260A	
Methylene chloride	ND	35000	ug/kg	SW846 8260A	
Acetone	ND	140000	ug/kg	SW846 8260A	
Carbon disulfide	ND	35000	ug/kg	SW846 8260A	
1,1-Dichloroethene	ND	35000	ug/kg	SW846 8260A	
1,1-Dichloroethane	ND	35000	ug/kg	SW846 8260A	
1,2-Dichloroethene (total)	ND	35000	ug/kg	SW846 8260A	
Chloroform	ND	35000	ug/kg	SW846 8260A	
1,2-Dichloroethane	ND	35000	ug/kg	SW846 8260A	
2-Butanone	ND	140000	ug/kg	SW846 8260A	
1,1,1-Trichloroethane	ND	35000	ug/kg	SW846 8260A	
Carbon tetrachloride	ND	35000	ug/kg	SW846 8260A	
Bromodichloromethane	ND	35000	ug/kg	SW846 8260A	
1,2-Dichloropropane	ND	35000	ug/kg	SW846 8260A	
cis-1,3-Dichloropropene	ND	35000	ug/kg	SW846 8260A	
Trichloroethene	ND	35000	ug/kg	SW846 8260A	
Dibromochloromethane	ND	35000	ug/kg	SW846 8260A	
1,1,2-Trichloroethane	ND	35000	ug/kg	SW846 8260A	
Benzene	ND	35000	ug/kg	SW846 8260A	
trans-1,3-Dichloropropene	ND	35000	ug/kg	SW846 8260A	
Bromoform	ND	35000	ug/kg	SW846 8260A	
4-Methyl-2-pentanone	ND	140000	ug/kg	SW846 8260A	
2-Hexanone	ND	140000	ug/kg	SW846 8260A	
Tetrachloroethene	860000	35000	ug/kg	SW846 8260A	
1,1,2,2-Tetrachloroethane	ND	35000	ug/kg	SW846 8260A	
Toluene	ND	35000	ug/kg	SW846 8260A	
Chlorobenzene	ND	35000	ug/kg	SW846 8260A	
Ethylbenzene	ND	35000	ug/kg	SW846 8260A	
Styrene	ND	35000	ug/kg	SW846 8260A	
Xylenes (total)	ND	35000	ug/kg	SW846 8260A	

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QUANTERRA INCORPORATED

PRELIMINARY DATA SUMMARY

he results shown below may still require additional laboratory review and are subject to change. Actions taken based on these results are the responsibility of the data user.

Baker Environmental
Camp LeJeune
Project Number: CTO-356

ot #: H7KZ20110 Date Reported: 11/24/97

Client Sample ID: IR88-IS23-03 19.0 ft PA sample
Sample #: 012 Date Sampled: 11/20/97 15:42 Date Received: 11/22/97 Matrix: SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD
Volatile Organics by GC/MS				Reviewed
Chloromethane	ND	14000	ug/kg	SW846 8260A
Bromomethane	ND	14000	ug/kg	SW846 8260A
Vinyl chloride	ND	14000	ug/kg	SW846 8260A
Chloroethane	ND	14000	ug/kg	SW846 8260A
Methylene chloride	ND	6900	ug/kg	SW846 8260A
Acetone	ND	28000	ug/kg	SW846 8260A
Carbon disulfide	ND	6900	ug/kg	SW846 8260A
1,1-Dichloroethene	ND	6900	ug/kg	SW846 8260A
1,1-Dichloroethane	ND	6900	ug/kg	SW846 8260A
1,2-Dichloroethene (total)	ND	6900	ug/kg	SW846 8260A
Chloroform	ND	6900	ug/kg	SW846 8260A
1,2-Dichloroethane	ND	6900	ug/kg	SW846 8260A
2-Butanone	ND	28000	ug/kg	SW846 8260A
1,1,1-Trichloroethane	ND	6900	ug/kg	SW846 8260A
Carbon tetrachloride	ND	6900	ug/kg	SW846 8260A
Bromodichloromethane	ND	6900	ug/kg	SW846 8260A
1,2-Dichloropropane	ND	6900	ug/kg	SW846 8260A
cis-1,3-Dichloropropene	ND	6900	ug/kg	SW846 8260A
Trichloroethene	ND	6900	ug/kg	SW846 8260A
Dibromochloromethane	ND	6900	ug/kg	SW846 8260A
1,1,2-Trichloroethane	ND	6900	ug/kg	SW846 8260A
Benzene	ND	6900	ug/kg	SW846 8260A
trans-1,3-Dichloropropene	ND	6900	ug/kg	SW846 8260A
Bromoform	ND	6900	ug/kg	SW846 8260A
4-Methyl-2-pentanone	ND	28000	ug/kg	SW846 8260A
2-Hexanone	ND	28000	ug/kg	SW846 8260A
Tetrachloroethene	180000	6900	ug/kg	SW846 8260A
1,1,2,2-Tetrachloroethane	ND	6900	ug/kg	SW846 8260A
Toluene	ND	6900	ug/kg	SW846 8260A
Chlorobenzene	ND	6900	ug/kg	SW846 8260A
Ethylbenzene	ND	6900	ug/kg	SW846 8260A
Styrene	ND	6900	ug/kg	SW846 8260A
Xylenes (total)	ND	6900	ug/kg	SW846 8260A

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QUANTERRA INCORPORATED

PRELIMINARY DATA SUMMARY

The results shown below may still require additional laboratory review and are subject to change. Actions taken based on these results are the responsibility of the data user.

Baker Environmental
Camp LeJeune
Project Number: CTO-356

Lot #: H7K220110 Date Reported: 11/24/97

Client Sample ID: IR88-IS25-02 17 ft
Sample #: 013 Date Sampled: 11/21/97 09:23 Date Received: 11/22/97 Matrix: SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD	
Volatile Organics by GC/MS					Reviewed
Chloromethane	ND	60000	ug/kg	SW846 8260A	
Bromomethane	ND	60000	ug/kg	SW846 8260A	
Vinyl chloride	ND	60000	ug/kg	SW846 8260A	
Chloroethane	ND	60000	ug/kg	SW846 8260A	
Methylene chloride	ND	30000	ug/kg	SW846 8260A	
Acetone	ND	120000	ug/kg	SW846 8260A	
Carbon disulfide	ND	30000	ug/kg	SW846 8260A	
1,1-Dichloroethene	ND	30000	ug/kg	SW846 8260A	
1,1-Dichloroethane	ND	30000	ug/kg	SW846 8260A	
1,2-Dichloroethene (total)	ND	30000	ug/kg	SW846 8260A	
Chloroform	ND	30000	ug/kg	SW846 8260A	
1,2-Dichloroethane	ND	30000	ug/kg	SW846 8260A	
2-Butanone	ND	120000	ug/kg	SW846 8260A	
1,1,1-Trichloroethane	ND	30000	ug/kg	SW846 8260A	
Carbon tetrachloride	ND	30000	ug/kg	SW846 8260A	
Bromodichloromethane	ND	30000	ug/kg	SW846 8260A	
1,2-Dichloropropane	ND	30000	ug/kg	SW846 8260A	
cis-1,3-Dichloropropene	ND	30000	ug/kg	SW846 8260A	
Trichloroethene	ND	30000	ug/kg	SW846 8260A	
Dibromochloromethane	ND	30000	ug/kg	SW846 8260A	
1,1,2-Trichloroethane	ND	30000	ug/kg	SW846 8260A	
Benzene	ND	30000	ug/kg	SW846 8260A	
trans-1,3-Dichloropropene	ND	30000	ug/kg	SW846 8260A	
Bromoform	ND	30000	ug/kg	SW846 8260A	
4-Methyl-2-pentanone	ND	120000	ug/kg	SW846 8260A	
2-Hexanone	ND	120000	ug/kg	SW846 8260A	
Tetrachloroethene	990000	30000	ug/kg	SW846 8260A	
1,1,2,2-Tetrachloroethane	ND	30000	ug/kg	SW846 8260A	
Toluene	ND	30000	ug/kg	SW846 8260A	
Chlorobenzene	ND	30000	ug/kg	SW846 8260A	
Ethylbenzene	ND	30000	ug/kg	SW846 8260A	
Styrene	ND	30000	ug/kg	SW846 8260A	
Xylenes (total)	ND	30000	ug/kg	SW846 8260A	

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QUANTERRA INCORPORATED

PRELIMINARY DATA SUMMARY

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Baker Environmental
Camp LeJeune
Project Number: CTO-356

ɔt #: H7KZZ0110 Date Reported: 11/24/97

Client Sample ID: IR88-IS25-03 18 ft PA sample
Sample #: 014 Date Sampled: 11/21/97 09:24 Date Received: 11/22/97 Matrix: SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD	
Volatile Organics by GC/MS					Reviewed
Chloromethane	ND	510000	ug/kg	SW846 8260A	
Bromomethane	ND	510000	ug/kg	SW846 8260A	
Vinyl chloride	ND	510000	ug/kg	SW846 8260A	
Chloroethane	ND	510000	ug/kg	SW846 8260A	
Methylene chloride	ND	250000	ug/kg	SW846 8260A	
Acetone	ND	1000000	ug/kg	SW846 8260A	
Carbon disulfide	ND	250000	ug/kg	SW846 8260A	
1,1-Dichloroethene	ND	250000	ug/kg	SW846 8260A	
1,1-Dichloroethane	ND	250000	ug/kg	SW846 8260A	
1,2-Dichloroethene (total)	ND	250000	ug/kg	SW846 8260A	
Chloroform	ND	250000	ug/kg	SW846 8260A	
1,2-Dichloroethane	ND	250000	ug/kg	SW846 8260A	
2-Butanone	ND	1000000	ug/kg	SW846 8260A	
1,1,1-Trichloroethane	ND	250000	ug/kg	SW846 8260A	
Carbon tetrachloride	ND	250000	ug/kg	SW846 8260A	
Bromodichloromethane	ND	250000	ug/kg	SW846 8260A	
1,2-Dichloropropane	ND	250000	ug/kg	SW846 8260A	
cis-1,3-Dichloropropene	ND	250000	ug/kg	SW846 8260A	
Trichloroethene	ND	250000	ug/kg	SW846 8260A	
Dibromochloromethane	ND	250000	ug/kg	SW846 8260A	
1,1,2-Trichloroethane	ND	250000	ug/kg	SW846 8260A	
Benzene	ND	250000	ug/kg	SW846 8260A	
trans-1,3-Dichloropropene	ND	250000	ug/kg	SW846 8260A	
Bromoform	ND	250000	ug/kg	SW846 8260A	
4-Methyl-2-pentanone	ND	1000000	ug/kg	SW846 8260A	
2-Hexanone	ND	1000000	ug/kg	SW846 8260A	
Tetrachloroethene	5900000	250000	ug/kg	SW846 8260A	
1,1,2,2-Tetrachloroethane	ND	250000	ug/kg	SW846 8260A	
Toluene	ND	250000	ug/kg	SW846 8260A	
Chlorobenzene	ND	250000	ug/kg	SW846 8260A	
Ethylbenzene	ND	250000	ug/kg	SW846 8260A	
Styrene	ND	250000	ug/kg	SW846 8260A	
Xylenes (total)	ND	250000	ug/kg	SW846 8260A	

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QUANTERRA INCORPORATED

PRELIMINARY DATA SUMMARY

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Baker Environmental
Camp LeJeune
Project Number: CTO-356

ot #: H7K220110 Date Reported: 11/24/97

Client Sample ID: IR88-IS25-04 19 ft PA sample
Sample #: 015 Date Sampled: 11/21/97 09:25 Date Received: 11/22/97 Matrix: SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD	
Volatile Organics by GC/MS					Reviewed
Chloromethane	ND	47000	ug/kg	SW846 8260A	
Bromomethane	ND	47000	ug/kg	SW846 8260A	
Vinyl chloride	ND	47000	ug/kg	SW846 8260A	
Chloroethane	ND	47000	ug/kg	SW846 8260A	
Methylene chloride	ND	24000	ug/kg	SW846 8260A	
Acetone	ND	95000	ug/kg	SW846 8260A	
Carbon disulfide	ND	24000	ug/kg	SW846 8260A	
1,1-Dichloroethene	ND	24000	ug/kg	SW846 8260A	
1,1-Dichloroethane	ND	24000	ug/kg	SW846 8260A	
1,2-Dichloroethene (total)	ND	24000	ug/kg	SW846 8260A	
Chloroform	ND	24000	ug/kg	SW846 8260A	
1,2-Dichloroethane	ND	24000	ug/kg	SW846 8260A	
2-Butanone	ND	95000	ug/kg	SW846 8260A	
1,1,1-Trichloroethane	ND	24000	ug/kg	SW846 8260A	
Carbon tetrachloride	ND	24000	ug/kg	SW846 8260A	
Bromodichloromethane	ND	24000	ug/kg	SW846 8260A	
1,2-Dichloropropane	ND	24000	ug/kg	SW846 8260A	
cis-1,3-Dichloropropene	ND	24000	ug/kg	SW846 8260A	
Trichloroethene	ND	24000	ug/kg	SW846 8260A	
Dibromochloromethane	ND	24000	ug/kg	SW846 8260A	
1,1,2-Trichloroethane	ND	24000	ug/kg	SW846 8260A	
Benzene	ND	24000	ug/kg	SW846 8260A	
trans-1,3-Dichloropropene	ND	24000	ug/kg	SW846 8260A	
Bromoform	ND	24000	ug/kg	SW846 8260A	
4-Methyl-2-pentanone	ND	95000	ug/kg	SW846 8260A	
2-Hexanone	ND	95000	ug/kg	SW846 8260A	
Tetrachloroethene	490000	24000	ug/kg	SW846 8260A	
1,1,2,2-Tetrachloroethane	ND	24000	ug/kg	SW846 8260A	
Toluene	ND	24000	ug/kg	SW846 8260A	
Chlorobenzene	ND	24000	ug/kg	SW846 8260A	
Ethylbenzene	ND	24000	ug/kg	SW846 8260A	
Styrene	ND	24000	ug/kg	SW846 8260A	
Xylenes (total)	ND	24000	ug/kg	SW846 8260A	

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QUANTERRA INCORPORATED

PRELIMINARY DATA SUMMARY

he results shown below may still require additional laboratory review and are subject to change. Actions taken based on these results are the responsibility of the data user.

Baker Environmental
Camp LeJeune
Project Number: CTO-356

ot #: H7KZ20110 Date Reported: 11/24/97

Client Sample ID: IR88-IS26-01 17 ft PA sample
Sample #: 016 Date Sampled: 11/21/97 10:30 Date Received: 11/22/97 Matrix: SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD	Reviewed
Volatile Organics by GC/MS					
Chloromethane	ND	9800	ug/kg	SW846 8260A	
Bromomethane	ND	9800	ug/kg	SW846 8260A	
Vinyl chloride	ND	9800	ug/kg	SW846 8260A	
Chloroethane	ND	9800	ug/kg	SW846 8260A	
Methylene chloride	ND	4900	ug/kg	SW846 8260A	
Acetone	ND	20000	ug/kg	SW846 8260A	
Carbon disulfide	ND	4900	ug/kg	SW846 8260A	
1,1-Dichloroethene	ND	4900	ug/kg	SW846 8260A	
1,1-Dichloroethane	ND	4900	ug/kg	SW846 8260A	
1,2-Dichloroethene (total)	ND	4900	ug/kg	SW846 8260A	
Chloroform	ND	4900	ug/kg	SW846 8260A	
1,2-Dichloroethane	ND	4900	ug/kg	SW846 8260A	
2-Butanone	ND	20000	ug/kg	SW846 8260A	
1,1,1-Trichloroethane	ND	4900	ug/kg	SW846 8260A	
Carbon tetrachloride	ND	4900	ug/kg	SW846 8260A	
Bromodichloromethane	ND	4900	ug/kg	SW846 8260A	
1,2-Dichloropropane	ND	4900	ug/kg	SW846 8260A	
cis-1,3-Dichloropropene	ND	4900	ug/kg	SW846 8260A	
Trichloroethene	ND	4900	ug/kg	SW846 8260A	
Dibromochloromethane	ND	4900	ug/kg	SW846 8260A	
1,1,2-Trichloroethane	ND	4900	ug/kg	SW846 8260A	
Benzene	ND	4900	ug/kg	SW846 8260A	
trans-1,3-Dichloropropene	ND	4900	ug/kg	SW846 8260A	
Bromoform	ND	4900	ug/kg	SW846 8260A	
4-Methyl-2-pentanone	ND	20000	ug/kg	SW846 8260A	
2-Hexanone	ND	20000	ug/kg	SW846 8260A	
Tetrachloroethene	120000	4900	ug/kg	SW846 8260A	
1,1,2,2-Tetrachloroethane	ND	4900	ug/kg	SW846 8260A	
Toluene	ND	4900	ug/kg	SW846 8260A	
Chlorobenzene	ND	4900	ug/kg	SW846 8260A	
Ethylbenzene	ND	4900	ug/kg	SW846 8260A	
Styrene	ND	4900	ug/kg	SW846 8260A	
Xylenes (total)	ND	4900	ug/kg	SW846 8260A	

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QUANTERRA INCORPORATED

PRELIMINARY DATA SUMMARY

ıe results shown below may still require additional laboratory review and are subject to cnange. Actions taken based on these results are the responsibility of the data user.

Baker Environmental
Camp LeJeune
Project Number: CTO-356

ɔt #: H7K220110 Date Reported: 11/24/97

Client Sample ID: IR88-IS26-02 17.75 ft PA sample
Sample #: 017 Date Sampled: 11/21/97 10:33 Date Received: 11/22/97 Matrix: SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD	
Volatile Organics by GC/MS					Reviewed
Chloromethane	ND	65000	ug/kg	SW846 8260A	
Bromomethane	ND	65000	ug/kg	SW846 8260A	
Vinyl chloride	ND	65000	ug/kg	SW846 8260A	
Chloroethane	ND	65000	ug/kg	SW846 8260A	
Methylene chloride	ND	33000	ug/kg	SW846 8260A	
Acetone	ND	130000	ug/kg	SW846 8260A	
Carbon disulfide	ND	33000	ug/kg	SW846 8260A	
1,1-Dichloroethene	ND	33000	ug/kg	SW846 8260A	
1,1-Dichloroethane	ND	33000	ug/kg	SW846 8260A	
1,2-Dichloroethene (total)	ND	33000	ug/kg	SW846 8260A	
Chloroform	ND	33000	ug/kg	SW846 8260A	
1,2-Dichloroethane	ND	33000	ug/kg	SW846 8260A	
2-Butanone	ND	130000	ug/kg	SW846 8260A	
1,1,1-Trichloroethane	ND	33000	ug/kg	SW846 8260A	
Carbon tetrachloride	ND	33000	ug/kg	SW846 8260A	
Bromodichloromethane	ND	33000	ug/kg	SW846 8260A	
1,2-Dichloropropane	ND	33000	ug/kg	SW846 8260A	
cis-1,3-Dichloropropene	ND	33000	ug/kg	SW846 8260A	
Trichloroethene	ND	33000	ug/kg	SW846 8260A	
Dibromochloromethane	ND	33000	ug/kg	SW846 8260A	
1,1,2-Trichloroethane	ND	33000	ug/kg	SW846 8260A	
Benzene	ND	33000	ug/kg	SW846 8260A	
trans-1,3-Dichloropropene	ND	33000	ug/kg	SW846 8260A	
Bromoform	ND	33000	ug/kg	SW846 8260A	
4-Methyl-2-pentanone	ND	130000	ug/kg	SW846 8260A	
2-Hexanone	ND	130000	ug/kg	SW846 8260A	
Tetrachloroethene	910000	33000	ug/kg	SW846 8260A	
1,1,2,2-Tetrachloroethane	ND	33000	ug/kg	SW846 8260A	
Toluene	ND	33000	ug/kg	SW846 8260A	
Chlorobenzene	ND	33000	ug/kg	SW846 8260A	
Ethylbenzene	ND	33000	ug/kg	SW846 8260A	
Styrene	ND	33000	ug/kg	SW846 8260A	
Xylenes (total)	ND	33000	ug/kg	SW846 8260A	

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QUANTERRA INCORPORATED

PRELIMINARY DATA SUMMARY

he results shown below may still require additional laboratory review and are subject to change. Actions taken based on these results are the responsibility of the data user.

Baker Environmental
Camp LeJeune
Project Number: CTO-356

ot #: H7KZ20110 Date Reported: 11/24/97

Client Sample ID: IR88-IS26-03 18.5 ft PA sample
Sample #: 018 Date Sampled: 11/21/97 10:35 Date Received: 11/22/97 Matrix: SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD
Volatile Organics by GC/MS				Reviewed
Chloromethane	ND	1200	ug/kg	SW846 8260A
Bromomethane	ND	1200	ug/kg	SW846 8260A
Vinyl chloride	ND	1200	ug/kg	SW846 8260A
Chloroethane	ND	1200	ug/kg	SW846 8260A
Methylene chloride	ND	610	ug/kg	SW846 8260A
Acetone	ND	2400	ug/kg	SW846 8260A
Carbon disulfide	ND	610	ug/kg	SW846 8260A
1,1-Dichloroethene	ND	610	ug/kg	SW846 8260A
1,1-Dichloroethane	ND	610	ug/kg	SW846 8260A
1,2-Dichloroethene (total)	ND	610	ug/kg	SW846 8260A
Chloroform	ND	610	ug/kg	SW846 8260A
1,2-Dichloroethane	ND	610	ug/kg	SW846 8260A
2-Butanone	370 J	2400	ug/kg	SW846 8260A
1,1,1-Trichloroethane	ND	610	ug/kg	SW846 8260A
Carbon tetrachloride	ND	610	ug/kg	SW846 8260A
Bromodichloromethane	ND	610	ug/kg	SW846 8260A
1,2-Dichloropropane	ND	610	ug/kg	SW846 8260A
cis-1,3-Dichloropropene	ND	610	ug/kg	SW846 8260A
Trichloroethene	ND	610	ug/kg	SW846 8260A
Dibromochloromethane	ND	610	ug/kg	SW846 8260A
1,1,2-Trichloroethane	ND	610	ug/kg	SW846 8260A
Benzene	ND	610	ug/kg	SW846 8260A
trans-1,3-Dichloropropene	ND	610	ug/kg	SW846 8260A
Bromoform	ND	610	ug/kg	SW846 8260A
4-Methyl-2-pentanone	ND	2400	ug/kg	SW846 8260A
2-Hexanone	ND	2400	ug/kg	SW846 8260A
Tetrachloroethene	52000 E	610	ug/kg	SW846 8260A
1,1,2,2-Tetrachloroethane	ND	610	ug/kg	SW846 8260A
Toluene	ND	610	ug/kg	SW846 8260A
Chlorobenzene	ND	610	ug/kg	SW846 8260A
Ethylbenzene	ND	610	ug/kg	SW846 8260A
Styrene	ND	610	ug/kg	SW846 8260A
Xylenes (total)	ND	610	ug/kg	SW846 8260A

J Estimated result. Result is less than RL.

E Estimated result. Result concentration exceeds the calibration range.

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QUANTERRA INCORPORATED

PRELIMINARY DATA SUMMARY

ne results shown below may still require additional laboratory review and are subject to change. Actions taken based on these results are the responsibility of the data user.

Baker Environmental
Camp LeJeune
Project Number: CTO-356

ot #: H7KZ20110 Date Reported: 11/24/97

Client Sample ID: IR88-IS26-03 18.5 ft PA sample
Sample #: 018 Date Sampled: 11/21/97 10:35 Date Received: 11/22/97 Matrix: SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD	
Volatile Organics by GC/MS					Reviewed
Carbon tetrachloride	ND	2900	ug/kg	SW846 8260A	
Bromodichloromethane	ND	2900	ug/kg	SW846 8260A	
1,2-Dichloropropane	ND	2900	ug/kg	SW846 8260A	
cis-1,3-Dichloropropene	ND	2900	ug/kg	SW846 8260A	
Trichloroethene	ND	2900	ug/kg	SW846 8260A	
Dibromochloromethane	ND	2900	ug/kg	SW846 8260A	
1,1,2-Trichloroethane	ND	2900	ug/kg	SW846 8260A	
Benzene	ND	2900	ug/kg	SW846 8260A	
trans-1,3-Dichloropropene	ND	2900	ug/kg	SW846 8260A	
Bromoform	ND	2900	ug/kg	SW846 8260A	
4-Methyl-2-pentanone	ND	12000	ug/kg	SW846 8260A	
2-Hexanone	ND	12000	ug/kg	SW846 8260A	
Tetrachloroethane	63000 D	2900	ug/kg	SW846 8260A	
1,1,2,2-Tetrachloroethane	ND	290[illegible]	[illegible]	[illegible] 8260A	
Toluene	ND	290[illegible]	[illegible]	[illegible] 8260A	
Chlorobenzene	ND	290[illegible]	[illegible]	[illegible] 8260A	
Ethylbenzene	ND	290[illegible]	[illegible]	[illegible] 8260A	
Styrene	ND	290[illegible]	[illegible]	[illegible] 8260A	
Xylenes (total)	ND	290[illegible]	[illegible]	[illegible] 8260A	
Chloromethane	ND	580[illegible]	[illegible]	[illegible] 8260A	
Bromomethane	1800 J,D	580[illegible]	[illegible]	[illegible] 8260A	
Vinyl chloride	ND	580[illegible]	[illegible]	[illegible] 8260A	
Chloroethane	ND	580[illegible]	[illegible]	[illegible] 8260A	
Methylene chloride	980 J,D	2900	ug/kg	SW846 8260A	
Acetone	ND	12000	ug/kg	SW846 8260A	
Carbon disulfide	ND	2900	ug/kg	SW846 8260A	
1,1-Dichloroethene	ND	2900	ug/kg	SW846 8260A	
1,1-Dichloroethane	ND	2900	ug/kg	SW846 8260A	
1,2-Dichloroethene (total)	ND	2900	ug/kg	SW846 8260A	
Chloroform	ND	2900	ug/kg	SW846 8260A	
1,2-Dichloroethane	ND	2900	ug/kg	SW846 8260A	
2-Butanone	ND	12000	ug/kg	SW846 8260A	
1,1,1-Trichloroethane	ND	2900	ug/kg	SW846 8260A	

Dup analysis by dilution should be more accurate

D Result was obtained from the analysis of a dilution.
J Estimated result. Result is less than RL.

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QUANTERRA INCORPORATED

PRELIMINARY DATA SUMMARY

'e results shown below may still require additional laboratory review and are subject to ange. Actions taken based on these results are the responsibility of the data user.

Baker Environmental
Camp LeJeune
Project Number: CTO-356

t #: H7K220110 Date Reported: 11/24/97

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD
Client Sample ID: IR88-IS21-02 18.1 ft				
Sample #: 019 Date Sampled: 11/20/97 10:10 Date Received: 11/22/97 Matrix: SOLID				
Volatile Organics by GC/MS				Reviewed
Chloromethane	ND	360000	ug/kg	SW846 8260A
Bromomethane	ND	360000	ug/kg	SW846 8260A
Vinyl chloride	ND	360000	ug/kg	SW846 8260A
Chloroethane	ND	360000	ug/kg	SW846 8260A
Methylene chloride	ND	180000	ug/kg	SW846 8260A
Acetone	ND	730000	ug/kg	SW846 8260A
Carbon disulfide	ND	180000	ug/kg	SW846 8260A
1,1-Dichloroethene	ND	180000	ug/kg	SW846 8260A
1,1-Dichloroethane	ND	180000	ug/kg	SW846 8260A
1,2-Dichloroethene (total)	ND	180000	ug/kg	SW846 8260A
Chloroform	ND	180000	ug/kg	SW846 8260A
1,2-Dichloroethane	ND	180000	ug/kg	SW846 8260A
2-Butanone	ND	730000	ug/kg	SW846 8260A
1,1,1-Trichloroethane	ND	180000	ug/kg	SW846 8260A
Carbon tetrachloride	ND	180000	ug/kg	SW846 8260A
Bromodichloromethane	ND	180000	ug/kg	SW846 8260A
1,2-Dichloropropane	ND	180000	ug/kg	SW846 8260A
cis-1,3-Dichloropropene	ND	180000	ug/kg	SW846 8260A
Trichloroethene	ND	180000	ug/kg	SW846 8260A
Dibromochloromethane	ND	180000	ug/kg	SW846 8260A
1,1,2-Trichloroethane	ND	180000	ug/kg	SW846 8260A
Benzene	ND	180000	ug/kg	SW846 8260A
trans-1,3-Dichloropropene	ND	180000	ug/kg	SW846 8260A
Bromoform	ND	180000	ug/kg	SW846 8260A
4-Methyl-2-pentanone	ND	730000	ug/kg	SW846 8260A
2-Hexanone	ND	730000	ug/kg	SW846 8260A
Tetrachloroethene	4200000	180000	ug/kg	SW846 8260A
1,1,2,2-Tetrachloroethane	ND	180000	ug/kg	SW846 8260A
Toluene	ND	180000	ug/kg	SW846 8260A
Chlorobenzene	ND	180000	ug/kg	SW846 8260A
Ethylbenzene	ND	180000	ug/kg	SW846 8260A
Styrene	ND	180000	ug/kg	SW846 8260A
Xylenes (total)	ND	180000	ug/kg	SW846 8260A

QUANTERRA INCORPORATED

PRELIMINARY DATA SUMMARY

The results shown below may still require additional laboratory review and are subject to change. Actions taken based on these results are the responsibility of the data user.

Baker Environmental
Camp LeJeune
Project Number: CTO-356

Lot #: H7K240145 Date Reported: 11/25/97

Client Sample ID: IR88-IS29-02
Sample #: 001 Date Sampled: 11/22/97 08:40 Date Received: 11/24/97 Matrix: SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD	
Volatile Organics by GC/MS					In Review
Chloromethane	ND	300000	ug/kg	SW846 8260A	
Bromomethane	ND	300000	ug/kg	SW846 8260A	
Vinyl chloride	ND	300000	ug/kg	SW846 8260A	
Chloroethane	ND	300000	ug/kg	SW846 8260A	
Methylene chloride	ND	150000	ug/kg	SW846 8260A	
Acetone	ND	590000	ug/kg	SW846 8260A	
Carbon disulfide	ND	150000	ug/kg	SW846 8260A	
1,1-Dichloroethene	ND	150000	ug/kg	SW846 8260A	
1,1-Dichloroethane	ND	150000	ug/kg	SW846 8260A	
1,2-Dichloroethene (total)	ND	150000	ug/kg	SW846 8260A	
Chloroform	ND	150000	ug/kg	SW846 8260A	
1,2-Dichloroethane	ND	150000	ug/kg	SW846 8260A	
2-Butanone	ND	590000	ug/kg	SW846 8260A	
1,1,1-Trichloroethane	ND	150000	ug/kg	SW846 8260A	
Carbon tetrachloride	ND	150000	ug/kg	SW846 8260A	
Bromodichloromethane	ND	150000	ug/kg	SW846 8260A	
1,2-Dichloropropane	ND	150000	ug/kg	SW846 8260A	
cis-1,3-Dichloropropene	ND	150000	ug/kg	SW846 8260A	
Trichloroethene	ND	150000	ug/kg	SW846 8260A	
Dibromochloromethane	ND	150000	ug/kg	SW846 8260A	
1,1,2-Trichloroethane	ND	150000	ug/kg	SW846 8260A	
Benzene	ND	150000	ug/kg	SW846 8260A	
trans-1,3-Dichloropropene	ND	150000	ug/kg	SW846 8260A	
Bromoform	ND	150000	ug/kg	SW846 8260A	
4-Methyl-2-pentanone	ND	590000	ug/kg	SW846 8260A	
2-Hexanone	ND	590000	ug/kg	SW846 8260A	
Tetrachloroethene	2600000	150000	ug/kg	SW846 8260A	
1,1,2,2-Tetrachloroethane	ND	150000	ug/kg	SW846 8260A	
Toluene	ND	150000	ug/kg	SW846 8260A	
Chlorobenzene	ND	150000	ug/kg	SW846 8260A	
Ethylbenzene	ND	150000	ug/kg	SW846 8260A	
Styrene	ND	150000	ug/kg	SW846 8260A	
Xylenes (total)	ND	150000	ug/kg	SW846 8260A	

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QUANTERRA INCORPORATED

PRELIMINARY DATA SUMMARY

he results shown below may still require additional laboratory review and are subject to hange. Actions taken based on these results are the responsibility of the data user.

Baker Environmental
Camp LeJeune
Project Number: CTO-356

ot #: H7K240145 Date Reported: 11/25/97

Client Sample ID: IR88-IS30-02 18.8 ft
Sample #: 002 Date Sampled: 11/22/97 10:55 Date Received: 11/24/97 Matrix: SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD
Volatile Organics by GC/MS				In Review
Chloromethane	ND	210000	ug/kg	SW846 8260A
Bromomethane	ND	210000	ug/kg	SW846 8260A
Vinyl chloride	ND	210000	ug/kg	SW846 8260A
Chloroethane	ND	210000	ug/kg	SW846 8260A
Methylene chloride	ND	100000	ug/kg	SW846 8260A
Acetone	ND	420000	ug/kg	SW846 8260A
Carbon disulfide	ND	100000	ug/kg	SW846 8260A
1,1-Dichloroethene	ND	100000	ug/kg	SW846 8260A
1,1-Dichloroethane	ND	100000	ug/kg	SW846 8260A
1,2-Dichloroethene (total)	ND	100000	ug/kg	SW846 8260A
Chloroform	ND	100000	ug/kg	SW846 8260A
1,2-Dichloroethane	ND	100000	ug/kg	SW846 8260A
2-Butanone	ND	420000	ug/kg	SW846 8260A
1,1,1-Trichloroethane	ND	100000	ug/kg	SW846 8260A
Carbon tetrachloride	ND	100000	ug/kg	SW846 8260A
Bromodichloromethane	ND	100000	ug/kg	SW846 8260A
1,2-Dichloropropane	ND	100000	ug/kg	SW846 8260A
cis-1,3-Dichloropropene	ND	100000	ug/kg	SW846 8260A
Trichloroethene	ND	100000	ug/kg	SW846 8260A
Dibromochloromethane	ND	100000	ug/kg	SW846 8260A
1,1,2-Trichloroethane	ND	100000	ug/kg	SW846 8260A
Benzene	ND	100000	ug/kg	SW846 8260A
trans-1,3-Dichloropropene	ND	100000	ug/kg	SW846 8260A
Bromoform	ND	100000	ug/kg	SW846 8260A
4-Methyl-2-pentanone	ND	420000	ug/kg	SW846 8260A
2-Hexanone	ND	420000	ug/kg	SW846 8260A
Tetrachloroethene	1900000	100000	ug/kg	SW846 8260A
1,1,2,2-Tetrachloroethane	ND	100000	ug/kg	SW846 8260A
Toluene	ND	100000	ug/kg	SW846 8260A
Chlorobenzene	ND	100000	ug/kg	SW846 8260A
Ethylbenzene	ND	100000	ug/kg	SW846 8260A
Styrene	ND	100000	ug/kg	SW846 8260A
Xylenes (total)	ND	100000	ug/kg	SW846 8260A

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QUANTERRA INCORPORATED

PRELIMINARY DATA SUMMARY

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he results shown below may still require additional laboratory review and are subject to hange. Actions taken based on these results are the responsibility of the data user.

Baker Environmental
Camp LeJeune
Project Number: CTO-356

ot #: H7K240145 Date Reported: 11/25/97

Client Sample ID: IR88-IS31-02 16.8 ft
Sample #: 003 Date Sampled: 11/22/97 15:45 Date Received: 11/24/97 Matrix: SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD	
Volatile Organics by GC/MS					In Review
Chloromethane	ND	2700	ug/kg	SW846 8260A	
Bromomethane	ND	2700	ug/kg	SW846 8260A	
Vinyl chloride	ND	2700	ug/kg	SW846 8260A	
Chloroethane	ND	2700	ug/kg	SW846 8260A	
Methylene chloride	ND	1300	ug/kg	SW846 8260A	
Acetone	ND	5300	ug/kg	SW846 8260A	
Carbon disulfide	ND	1300	ug/kg	SW846 8260A	
1,1-Dichloroethene	ND	1300	ug/kg	SW846 8260A	
1,1-Dichloroethane	ND	1300	ug/kg	SW846 8260A	
1,2-Dichloroethene (total)	ND	1300	ug/kg	SW846 8260A	
Chloroform	ND	1300	ug/kg	SW846 8260A	
1,2-Dichloroethane	ND	1300	ug/kg	SW846 8260A	
2-Butanone	ND	5300	ug/kg	SW846 8260A	
1,1,1-Trichloroethane	ND	1300	ug/kg	SW846 8260A	
Carbon tetrachloride	ND	1300	ug/kg	SW846 8260A	
Bromodichloromethane	ND	1300	ug/kg	SW846 8260A	
1,2-Dichloropropane	ND	1300	ug/kg	SW846 8260A	
cis-1,3-Dichloropropene	ND	1300	ug/kg	SW846 8260A	
Trichloroethene	ND	1300	ug/kg	SW846 8260A	
Dibromochloromethane	ND	1300	ug/kg	SW846 8260A	
1,1,2-Trichloroethane	ND	1300	ug/kg	SW846 8260A	
Benzene	ND	1300	ug/kg	SW846 8260A	
trans-1,3-Dichloropropene	ND	1300	ug/kg	SW846 8260A	
Bromoform	ND	1300	ug/kg	SW846 8260A	
4-Methyl-2-pentanone	ND	5300	ug/kg	SW846 8260A	
2-Hexanone	ND	5300	ug/kg	SW846 8260A	
Tetrachloroethene	33000	1300	ug/kg	SW846 8260A	
1,1,2,2-Tetrachloroethane	ND	1300	ug/kg	SW846 8260A	
Toluene	ND	1300	ug/kg	SW846 8260A	
Chlorobenzene	ND	1300	ug/kg	SW846 8260A	
Ethylbenzene	ND	1300	ug/kg	SW846 8260A	
Styrene	ND	1300	ug/kg	SW846 8260A	
Xylenes (total)	ND	1300	ug/kg	SW846 8260A	

QUANTERRA INCORPORATED

PRELIMINARY DATA SUMMARY

The results shown below may still require additional laboratory review and are subject to change. Actions taken based on these results are the responsibility of the data user.

Baker Environmental
Camp LeJeune
Project Number: CTO-356

Lot #: H7K180125 PAGE 1 Date Reported: 11/21/97

Client Sample ID: IR88-CPT01-02 15.2 ft
Sample #: 001 Date Sampled: 11/15/97 12:55 Date Received: 11/18/97 Matrix: SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD	
Volatile Organics by GC/MS					In Review
Chloromethane	ND	260	ug/kg	SW846 8260A	
Bromomethane	ND	260	ug/kg	SW846 8260A	
Vinyl chloride	ND	260	ug/kg	SW846 8260A	
Chloroethane	ND	260	ug/kg	SW846 8260A	
Methylene chloride	ND	130	ug/kg	SW846 8260A	
Acetone	ND	520	ug/kg	SW846 8260A	
Carbon disulfide	ND	130	ug/kg	SW846 8260A	
1,1-Dichloroethene	ND	130	ug/kg	SW846 8260A	
1,1-Dichloroethane	ND	130	ug/kg	SW846 8260A	
1,2-Dichloroethene (total)	ND	130	ug/kg	SW846 8260A	
Chloroform	ND	130	ug/kg	SW846 8260A	
1,2-Dichloroethane	ND	130	ug/kg	SW846 8260A	
2-Butanone	800	520	ug/kg	SW846 8260A	
1,1,1-Trichloroethane	ND	130	ug/kg	SW846 8260A	
Carbon tetrachloride	ND	130	ug/kg	SW846 8260A	
Bromodichloromethane	ND	130	ug/kg	SW846 8260A	
1,2-Dichloropropane	ND	130	ug/kg	SW846 8260A	
cis-1,3-Dichloropropene	ND	130	ug/kg	SW846 8260A	
Trichloroethene	ND	130	ug/kg	SW846 8260A	
Dibromochloromethane	ND	130	ug/kg	SW846 8260A	
1,1,2-Trichloroethane	50 J	130	ug/kg	SW846 8260A	
Benzene	ND	130	ug/kg	SW846 8260A	
trans-1,3-Dichloropropene	ND	130	ug/kg	SW846 8260A	
Bromoform	38 J	130	ug/kg	SW846 8260A	
4-Methyl-2-pentanone	ND	520	ug/kg	SW846 8260A	
2-Hexanone	ND	520	ug/kg	SW846 8260A	
Tetrachloroethene	ND	130	ug/kg	SW846 8260A	
1,1,2,2-Tetrachloroethane	ND	130	ug/kg	SW846 8260A	
Toluene	ND	130	ug/kg	SW846 8260A	
Chlorobenzene	ND	130	ug/kg	SW846 8260A	
Ethylbenzene	ND	130	ug/kg	SW846 8260A	
Styrene	ND	130	ug/kg	SW846 8260A	
Xylenes (total)	ND	130	ug/kg	SW846 8260A	

J Estimated result. Result is less than RL.

(Continued on next page)

QUANTERRA INCORPORATED

PRELIMINARY DATA SUMMARY

he results shown below may still require additional laboratory review and are subject to change. Actions taken based on these results are the responsibility of the data user.

Baker Environmental
Camp LeJeune
Project Number: CTO-356

ot #: H7K180125 Date Reported: 11/21/97

Client Sample ID: IR88-CPT02-02 17-17.5 ft
Sample #: 002 Date Sampled: 11/15/97 13:40 Date Received: 11/18/97 Matrix: SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD	
Volatile Organics by GC/MS					In Review
Chloromethane	ND	230	ug/kg	SW846 8260A	
Bromomethane	ND	230	ug/kg	SW846 8260A	
Vinyl chloride	ND	230	ug/kg	SW846 8260A	
Chloroethane	ND	230	ug/kg	SW846 8260A	
Methylene chloride	ND	110	ug/kg	SW846 8260A	
Acetone	ND	450	ug/kg	SW846 8260A	
Carbon disulfide	ND	110	ug/kg	SW846 8260A	
1,1-Dichloroethene	ND	110	ug/kg	SW846 8260A	
1,1-Dichloroethane	ND	110	ug/kg	SW846 8260A	
1,2-Dichloroethene (total)	ND	110	ug/kg	SW846 8260A	
Chloroform	ND	110	ug/kg	SW846 8260A	
1,2-Dichloroethane	ND	110	ug/kg	SW846 8260A	
2-Butanone	790	450	ug/kg	SW846 8260A	
1,1,1-Trichloroethane	ND	110	ug/kg	SW846 8260A	
Carbon tetrachloride	ND	110	ug/kg	SW846 8260A	
Bromodichloromethane	ND	110	ug/kg	SW846 8260A	
1,2-Dichloropropane	ND	110	ug/kg	SW846 8260A	
cis-1,3-Dichloropropene	ND	110	ug/kg	SW846 8260A	
Trichloroethene	ND	110	ug/kg	SW846 8260A	
Dibromochloromethane	ND	110	ug/kg	SW846 8260A	
1,1,2-Trichloroethane	ND	110	ug/kg	SW846 8260A	
Benzene	ND	110	ug/kg	SW846 8260A	
trans-1,3-Dichloropropene	ND	110	ug/kg	SW846 8260A	
Bromoform	ND	110	ug/kg	SW846 8260A	
4-Methyl-2-pentanone	ND	450	ug/kg	SW846 8260A	
2-Hexanone	ND	450	ug/kg	SW846 8260A	
Tetrachloroethene	ND	110	ug/kg	SW846 8260A	
1,1,2,2-Tetrachloroethane	ND	110	ug/kg	SW846 8260A	
Toluene	ND	110	ug/kg	SW846 8260A	
Chlorobenzene	ND	110	ug/kg	SW846 8260A	
Ethylbenzene	ND	110	ug/kg	SW846 8260A	
Styrene	ND	110	ug/kg	SW846 8260A	
Xylenes (total)	ND	110	ug/kg	SW846 8260A	

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QUANTERRA INCORPORATED

PRELIMINARY DATA SUMMARY

he results shown below may still require additional laboratory review and are subject to hange. Actions taken based on these results are the responsibility of the data user.

Baker Environmental
Camp LeJeune
Project Number: CTO-356

ot #: H7K180125 Date Reported: 11/21/97

Client Sample ID: IR88-CPT03-02 18-18.5 ft
Sample #: 003 Date Sampled: 11/15/97 14:10 Date Received: 11/18/97 Matrix: SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD
Volatile Organics by GC/MS				In Review
Chloromethane	ND	1300	ug/kg	SW846 8260A
Bromomethane	ND	1300	ug/kg	SW846 8260A
Vinyl chloride	ND	1300	ug/kg	SW846 8260A
Chloroethane	ND	1300	ug/kg	SW846 8260A
Methylene chloride	ND	670	ug/kg	SW846 8260A
Acetone	ND	2700	ug/kg	SW846 8260A
Carbon disulfide	ND	670	ug/kg	SW846 8260A
1,1-Dichloroethene	ND	670	ug/kg	SW846 8260A
1,1-Dichloroethane	ND	670	ug/kg	SW846 8260A
1,2-Dichloroethene (total)	ND	670	ug/kg	SW846 8260A
Chloroform	ND	670	ug/kg	SW846 8260A
1,2-Dichloroethane	ND	670	ug/kg	SW846 8260A
2-Butanone	470 J	2700	ug/kg	SW846 8260A
1,1,1-Trichloroethane	ND	670	ug/kg	SW846 8260A
Carbon tetrachloride	ND	670	ug/kg	SW846 8260A
Bromodichloromethane	ND	670	ug/kg	SW846 8260A
1,2-Dichloropropane	ND	670	ug/kg	SW846 8260A
cis-1,3-Dichloropropene	ND	670	ug/kg	SW846 8260A
Trichloroethene	ND	670	ug/kg	SW846 8260A
Dibromochloromethane	ND	670	ug/kg	SW846 8260A
1,1,2-Trichloroethane	ND	670	ug/kg	SW846 8260A
Benzene	ND	670	ug/kg	SW846 8260A
trans-1,3-Dichloropropene	ND	670	ug/kg	SW846 8260A
Bromoform	ND	670	ug/kg	SW846 8260A
4-Methyl-2-pentanone	ND	2700	ug/kg	SW846 8260A
2-Hexanone	ND	2700	ug/kg	SW846 8260A
Tetrachloroethene	18000	670	ug/kg	SW846 8260A
1,1,2,2-Tetrachloroethane	ND	670	ug/kg	SW846 8260A
Toluene	ND	670	ug/kg	SW846 8260A
Chlorobenzene	ND	670	ug/kg	SW846 8260A
Ethylbenzene	ND	670	ug/kg	SW846 8260A
Styrene	ND	670	ug/kg	SW846 8260A
Xylenes (total)	ND	670	ug/kg	SW846 8260A

J Estimated result. Result is less than RL.

(Continued on next page)

QUANTERRA INCORPORATED

PRELIMINARY DATA SUMMARY

The results shown below may still require additional laboratory review and are subject to change. Actions taken based on these results are the responsibility of the data user.

Baker Environmental
Camp LeJeune
Project Number: CTO-356

Lot #: H7K180125 Date Reported: 11/21/97

Client Sample ID: IR88-CPT04-02 18-18.5 ft
Sample #: 004 Date Sampled: 11/15/97 15:30 Date Received: 11/18/97 Matrix: SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD
Volatile Organics by GC/MS				In Review
Chloromethane	ND	2100	ug/kg	SW846 8260A
Bromomethane	ND	2100	ug/kg	SW846 8260A
Vinyl chloride	ND	2100	ug/kg	SW846 8260A
Chloroethane	ND	2100	ug/kg	SW846 8260A
Methylene chloride	ND	1100	ug/kg	SW846 8260A
Acetone	ND	4200	ug/kg	SW846 8260A
Carbon disulfide	ND	1100	ug/kg	SW846 8260A
1,1-Dichloroethene	ND	1100	ug/kg	SW846 8260A
1,1-Dichloroethane	ND	1100	ug/kg	SW846 8260A
1,2-Dichloroethene (total)	ND	1100	ug/kg	SW846 8260A
Chloroform	ND	1100	ug/kg	SW846 8260A
1,2-Dichloroethane	ND	1100	ug/kg	SW846 8260A
2-Butanone	820 J	4200	ug/kg	SW846 8260A
1,1,1-Trichloroethane	ND	1100	ug/kg	SW846 8260A
Carbon tetrachloride	ND	1100	ug/kg	SW846 8260A
Bromodichloromethane	ND	1100	ug/kg	SW846 8260A
1,2-Dichloropropane	ND	1100	ug/kg	SW846 8260A
cis-1,3-Dichloropropene	ND	1100	ug/kg	SW846 8260A
Trichloroethene	ND	1100	ug/kg	SW846 8260A
Dibromochloromethane	ND	1100	ug/kg	SW846 8260A
1,1,2-Trichloroethane	ND	1100	ug/kg	SW846 8260A
Benzene	ND	1100	ug/kg	SW846 8260A
trans-1,3-Dichloropropene	ND	1100	ug/kg	SW846 8260A
Bromoform	ND	1100	ug/kg	SW846 8260A
4-Methyl-2-pentanone	ND	4200	ug/kg	SW846 8260A
2-Hexanone	ND	4200	ug/kg	SW846 8260A
Tetrachloroethene	41000	1100	ug/kg	SW846 8260A
1,1,2,2-Tetrachloroethane	ND	1100	ug/kg	SW846 8260A
Toluene	ND	1100	ug/kg	SW846 8260A
Chlorobenzene	ND	1100	ug/kg	SW846 8260A
Ethylbenzene	ND	1100	ug/kg	SW846 8260A
Styrene	ND	1100	ug/kg	SW846 8260A
Xylenes (total)	ND	1100	ug/kg	SW846 8260A

J Estimated result. Result is less than RL.

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QUANTERRA INCORPORATED

PRELIMINARY DATA SUMMARY

'ie results shown below may still require additional laboratory review and are subject to ..hange. Actions taken based on these results are the responsibility of the data user.

Baker Environmental
Camp LeJeune
Project Number: CTO-356

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ɔt #: H7K180125 Date Reported: 11/21/97

Client Sample ID: IR88-CPT05-02 19-20 ft
Sample #: 005 Date Sampled: 11/15/97 11:40 Date Received: 11/18/97 Matrix: SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD	
Volatile Organics by GC/MS					In Review
Chloromethane	ND	140	ug/kg	SW846 8260A	
Bromomethane	ND	140	ug/kg	SW846 8260A	
Vinyl chloride	ND	140	ug/kg	SW846 8260A	
Chloroethane	ND	140	ug/kg	SW846 8260A	
Methylene chloride	ND	71	ug/kg	SW846 8260A	
Acetone	ND	280	ug/kg	SW846 8260A	
Carbon disulfide	ND	71	ug/kg	SW846 8260A	
1,1-Dichloroethene	ND	71	ug/kg	SW846 8260A	
1,1-Dichloroethane	ND	71	ug/kg	SW846 8260A	
1,2-Dichloroethene (total)	ND	71	ug/kg	SW846 8260A	
Chloroform	ND	71	ug/kg	SW846 8260A	
1,2-Dichloroethane	ND	71	ug/kg	SW846 8260A	
2-Butanone	390	280	ug/kg	SW846 8260A	
1,1,1-Trichloroethane	ND	71	ug/kg	SW846 8260A	
Carbon tetrachloride	ND	71	ug/kg	SW846 8260A	
Bromodichloromethane	ND	71	ug/kg	SW846 8260A	
1,2-Dichloropropane	ND	71	ug/kg	SW846 8260A	
cis-1,3-Dichloropropene	ND	71	ug/kg	SW846 8260A	
Trichloroethene	55 J	71	ug/kg	SW846 8260A	
Dibromochloromethane	ND	71	ug/kg	SW846 8260A	
1,1,2-Trichloroethane	ND	71	ug/kg	SW846 8260A	
Benzene	ND	71	ug/kg	SW846 8260A	
trans-1,3-Dichloropropene	ND	71	ug/kg	SW846 8260A	
Bromoform	ND	71	ug/kg	SW846 8260A	
4-Methyl-2-pentanone	ND	280	ug/kg	SW846 8260A	
2-Hexanone	ND	280	ug/kg	SW846 8260A	
Tetrachloroethene	770	71	ug/kg	SW846 8260A	
1,1,2,2-Tetrachloroethane	ND	71	ug/kg	SW846 8260A	
Toluene	ND	71	ug/kg	SW846 8260A	
Chlorobenzene	ND	71	ug/kg	SW846 8260A	
Ethylbenzene	ND	71	ug/kg	SW846 8260A	
Styrene	ND	71	ug/kg	SW846 8260A	
Xylenes (total)	ND	71	ug/kg	SW846 8260A	

J Estimated result. Result is less than RL.

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QUANTERRA INCORPORATED

PRELIMINARY DATA SUMMARY

The results shown below may still require additional laboratory review and are subject to change. Actions taken based on these results are the responsibility of the data user.

Baker Environmental
Camp LeJeune
Project Number: CTO-356

Lot #: H7K180125 Date Reported: 11/21/97

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD

Client Sample ID: IR88-CPT06-02 20 ft (no results reported)
Sample #: 006 Date Sampled: 11/15/97 11:10 Date Received: 11/18/97 Matrix:

Client Sample ID: IR88-CPT07-02 ~ 16.5 - 17.5 ft
Sample #: 007 Date Sampled: 11/15/97 10:40 Date Received: 11/18/97 Matrix: SOLID

Volatile Organics by GC/MS					In Review
Chloromethane	ND	170	ug/kg	SW846 8260A	
Bromomethane	ND	170	ug/kg	SW846 8260A	
Vinyl chloride	ND	170	ug/kg	SW846 8260A	
Chloroethane	ND	170	ug/kg	SW846 8260A	
Methylene chloride	ND	87	ug/kg	SW846 8260A	
Acetone	ND	350	ug/kg	SW846 8260A	
Carbon disulfide	ND	87	ug/kg	SW846 8260A	
1,1-Dichloroethene	ND	87	ug/kg	SW846 8260A	
1,1-Dichloroethane	ND	87	ug/kg	SW846 8260A	
1,2-Dichloroethene (total)	210	87	ug/kg	SW846 8260A	
Chloroform	ND	87	ug/kg	SW846 8260A	
1,2-Dichloroethane	ND	87	ug/kg	SW846 8260A	
2-Butanone	400	350	ug/kg	SW846 8260A	
1,1,1-Trichloroethane	ND	87	ug/kg	SW846 8260A	
Carbon tetrachloride	ND	87	ug/kg	SW846 8260A	
Bromodichloromethane	ND	87	ug/kg	SW846 8260A	
1,2-Dichloropropane	ND	87	ug/kg	SW846 8260A	
cis-1,3-Dichloropropene	ND	87	ug/kg	SW846 8260A	
Trichloroethene	160	87	ug/kg	SW846 8260A	
Dibromochloromethane	ND	87	ug/kg	SW846 8260A	
1,1,2-Trichloroethane	ND	87	ug/kg	SW846 8260A	
Benzene	ND	87	ug/kg	SW846 8260A	
trans-1,3-Dichloropropene	ND	87	ug/kg	SW846 8260A	
Bromoform	ND	87	ug/kg	SW846 8260A	
4-Methyl-2-pentanone	ND	350	ug/kg	SW846 8260A	
2-Hexanone	ND	350	ug/kg	SW846 8260A	
Tetrachloroethene	2500	87	ug/kg	SW846 8260A	
1,1,2,2-Tetrachloroethane	ND	87	ug/kg	SW846 8260A	
Toluene	ND	87	ug/kg	SW846 8260A	
Chlorobenzene	ND	87	ug/kg	SW846 8260A	
Ethylbenzene	ND	87	ug/kg	SW846 8260A	
Styrene	ND	87	ug/kg	SW846 8260A	

(Continued on next page)

QUANTERRA INCORPORATED

PRELIMINARY DATA SUMMARY

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Baker Environmental
Camp LeJeune
Project Number: CTO-356

ot #: H7K180125 Date Reported: 11/21/97 PAGE 7

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD	
Client Sample ID: IR88-CPT07-02 ~~16.5-17.5 ft~~					
Sample #: 007 Date Sampled: 11/15/97 10:40 Date Received: 11/18/97 Matrix: SOLID					
Volatile Organics by GC/MS					In Review
Xylenes (total)	ND	87	ug/kg	SW846 8260A	
Client Sample ID: IR88-CPT08-02 21 ft					
Sample #: 008 Date Sampled: 11/15/97 08:45 Date Received: 11/18/97 Matrix: SOLID					
Volatile Organics by GC/MS					In Review
Chloromethane	ND	580	ug/kg	SW846 8260A	
Bromomethane	ND	580	ug/kg	SW846 8260A	
Vinyl chloride	ND	580	ug/kg	SW846 8260A	
Chloroethane	ND	580	ug/kg	SW846 8260A	
Methylene chloride	ND	290	ug/kg	SW846 8260A	
Acetone	ND	1200	ug/kg	SW846 8260A	
Carbon disulfide	ND	290	ug/kg	SW846 8260A	
1,1-Dichloroethene	ND	290	ug/kg	SW846 8260A	
1,1-Dichloroethane	ND	290	ug/kg	SW846 8260A	
1,2-Dichloroethene (total)	ND	290	ug/kg	SW846 8260A	
Chloroform	ND	290	ug/kg	SW846 8260A	
1,2-Dichloroethane	ND	290	ug/kg	SW846 8260A	
2-Butanone	710 J	1200	ug/kg	SW846 8260A	
1,1,1-Trichloroethane	ND	290	ug/kg	SW846 8260A	
Carbon tetrachloride	ND	290	ug/kg	SW846 8260A	
Bromodichloromethane	ND	290	ug/kg	SW846 8260A	
1,2-Dichloropropane	ND	290	ug/kg	SW846 8260A	
cis-1,3-Dichloropropene	ND	290	ug/kg	SW846 8260A	
Trichloroethene	230 J	290	ug/kg	SW846 8260A	
Dibromochloromethane	ND	290	ug/kg	SW846 8260A	
1,1,2-Trichloroethane	ND	290	ug/kg	SW846 8260A	
Benzene	ND	290	ug/kg	SW846 8260A	
trans-1,3-Dichloropropene	ND	290	ug/kg	SW846 8260A	
Bromoform	ND	290	ug/kg	SW846 8260A	
4-Methyl-2-pentanone	ND	1200	ug/kg	SW846 8260A	
2-Hexanone	ND	1200	ug/kg	SW846 8260A	
Tetrachloroethene	5900	290	ug/kg	SW846 8260A	
1,1,2,2-Tetrachloroethane	ND	290	ug/kg	SW846 8260A	
Toluene	ND	290	ug/kg	SW846 8260A	

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QUANTERRA INCORPORATED

PRELIMINARY DATA SUMMARY

'ıe results shown below may still require additional laboratory review and are subject to ɯange. Actions taken based on these results are the responsibility of the data user.

Baker Environmental
Camp LeJeune
Project Number: CTO-356

ɔt #: H7K180125 Date Reported: 11/21/97

Client Sample ID: IR88-CPT08-02
Sample #: 008 Date Sampled: 11/15/97 08:45 Date Received: 11/18/97 Matrix: SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD	
Volatile Organics by GC/MS					In Review
Chlorobenzene	ND	290	ug/kg	SW846 8260A	
Ethylbenzene	ND	290	ug/kg	SW846 8260A	
Styrene	ND	290	ug/kg	SW846 8260A	
Xylenes (total)	ND	290	ug/kg	SW846 8260A	

J Estimated result. Result is less than RL.

Client Sample ID: IR88-CPT09-02 17.5 ft
Sample #: 009 Date Sampled: 11/15/97 08:15 Date Received: 11/18/97 Matrix: SOLID

Volatile Organics by GC/MS					In Review
Chloromethane	ND	240	ug/kg	SW846 8260A	
Bromomethane	ND	240	ug/kg	SW846 8260A	
Vinyl chloride	ND	240	ug/kg	SW846 8260A	
Chloroethane	ND	240	ug/kg	SW846 8260A	
Methylene chloride	ND	120	ug/kg	SW846 8260A	
Acetone	ND	480	ug/kg	SW846 8260A	
Carbon disulfide	ND	120	ug/kg	SW846 8260A	
1,1-Dichloroethene	ND	120	ug/kg	SW846 8260A	
1,1-Dichloroethane	ND	120	ug/kg	SW846 8260A	
1,2-Dichloroethene (total)	ND	120	ug/kg	SW846 8260A	
Chloroform	ND	120	ug/kg	SW846 8260A	
1,2-Dichloroethane	ND	120	ug/kg	SW846 8260A	
2-Butanone	610	480	ug/kg	SW846 8260A	
1,1,1-Trichloroethane	ND	120	ug/kg	SW846 8260A	
Carbon tetrachloride	ND	120	ug/kg	SW846 8260A	
Bromodichloromethane	ND	120	ug/kg	SW846 8260A	
1,2-Dichloropropane	ND	120	ug/kg	SW846 8260A	
cis-1,3-Dichloropropene	ND	120	ug/kg	SW846 8260A	
Trichloroethene	ND	120	ug/kg	SW846 8260A	
Dibromochloromethane	ND	120	ug/kg	SW846 8260A	
1,1,2-Trichloroethane	ND	120	ug/kg	SW846 8260A	
Benzene	ND	120	ug/kg	SW846 8260A	
trans-1,3-Dichloropropene	ND	120	ug/kg	SW846 8260A	
Bromoform	ND	120	ug/kg	SW846 8260A	

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QUANTERRA INCORPORATED

PRELIMINARY DATA SUMMARY

The results shown below may still require additional laboratory review and are subject to change. Actions taken based on these results are the responsibility of the data user.

Baker Environmental
Camp LeJeune
Project Number: CTO-356

Lot #: H7K180125 Date Reported: 11/21/97

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD
Client Sample ID: IR88-CPT09-02 17.5 ft				
Sample #: 009 Date Sampled: 11/15/97 08:15 Date Received: 11/18/97 Matrix: SOLID				
Volatile Organics by GC/MS				In Review
4-Methyl-2-pentanone	ND	480	ug/kg	SW846 8260A
2-Hexanone	ND	480	ug/kg	SW846 8260A
Tetrachloroethene	2100	120	ug/kg	SW846 8260A
1,1,2,2-Tetrachloroethane	ND	120	ug/kg	SW846 8260A
Toluene	ND	120	ug/kg	SW846 8260A
Chlorobenzene	ND	120	ug/kg	SW846 8260A
Ethylbenzene	ND	120	ug/kg	SW846 8260A
Styrene	ND	120	ug/kg	SW846 8260A
Xylenes (total)	ND	120	ug/kg	SW846 8260A
Client Sample ID: IR88-CPT10-02 18.3 ft				
Sample #: 010 Date Sampled: 11/14/97 16:15 Date Received: 11/18/97 Matrix: SOLID				
Volatile Organics by GC/MS				In Review
Chloromethane	ND	180	ug/kg	SW846 8260A
Bromomethane	ND	180	ug/kg	SW846 8260A
Vinyl chloride	ND	180	ug/kg	SW846 8260A
Chloroethane	ND	180	ug/kg	SW846 8260A
Methylene chloride	ND	91	ug/kg	SW846 8260A
Acetone	ND	360	ug/kg	SW846 8260A
Carbon disulfide	ND	91	ug/kg	SW846 8260A
1,1-Dichloroethene	ND	91	ug/kg	SW846 8260A
1,1-Dichloroethane	ND	91	ug/kg	SW846 8260A
1,2-Dichloroethene (total)	ND	91	ug/kg	SW846 8260A
Chloroform	ND	91	ug/kg	SW846 8260A
1,2-Dichloroethane	ND	91	ug/kg	SW846 8260A
2-Butanone	390	360	ug/kg	SW846 8260A
1,1,1-Trichloroethane	ND	91	ug/kg	SW846 8260A
Carbon tetrachloride	ND	91	ug/kg	SW846 8260A
Bromodichloromethane	ND	91	ug/kg	SW846 8260A
1,2-Dichloropropane	ND	91	ug/kg	SW846 8260A
cis-1,3-Dichloropropene	ND	91	ug/kg	SW846 8260A
Trichloroethene	ND	91	ug/kg	SW846 8260A
Dibromochloromethane	ND	91	ug/kg	SW846 8260A
1,1,2-Trichloroethane	ND	91	ug/kg	SW846 8260A

(Continued on next page)

QUANTERRA INCORPORATED

PRELIMINARY DATA SUMMARY

The results shown below may still require additional laboratory review and are subject to change. Actions taken based on these results are the responsibility of the data user.

Baker Environmental
Camp LeJeune
Project Number: CTO-356

Lot #: H7K180125 Date Reported: 11/21/97

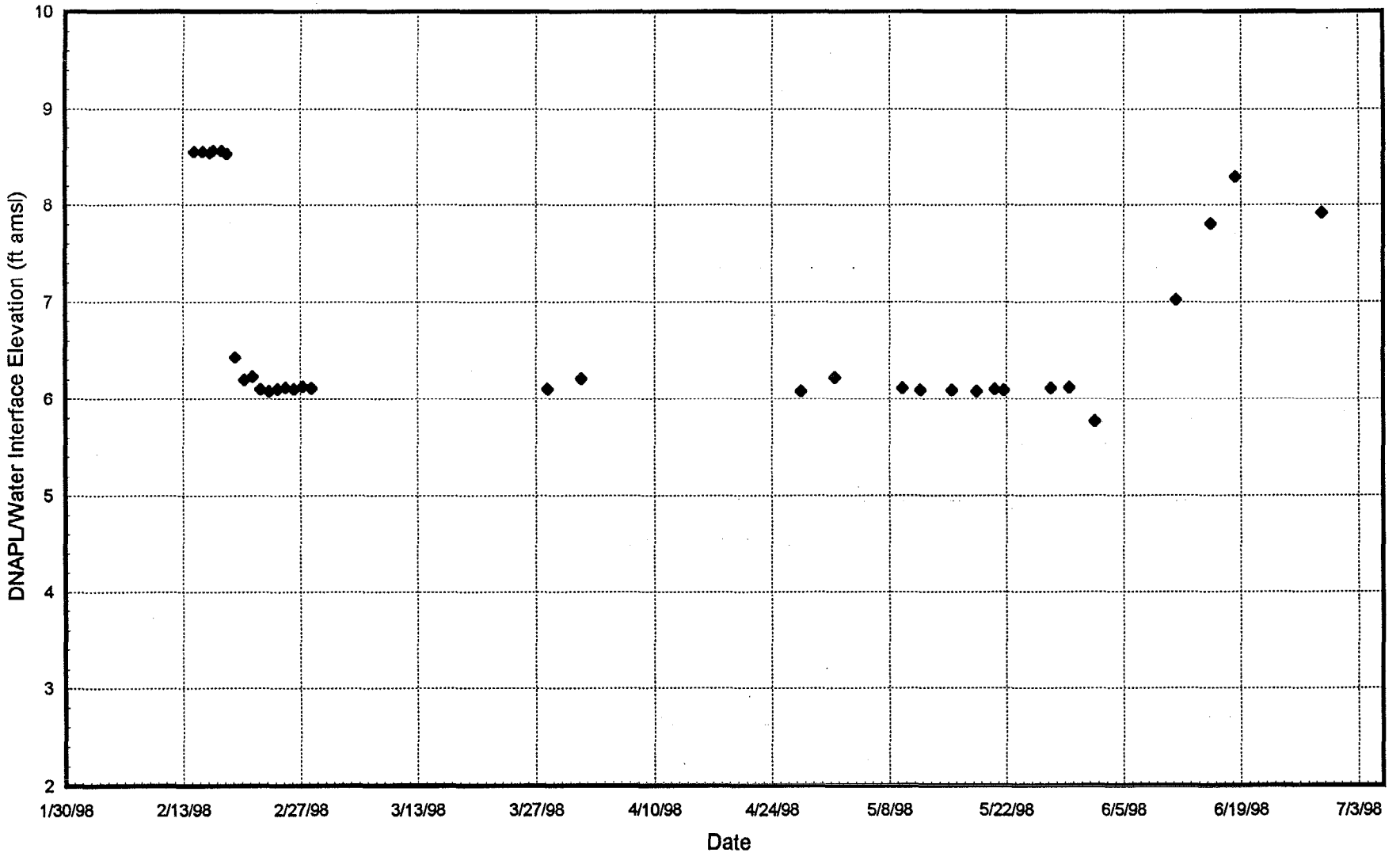
PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD
Client Sample ID: IR88-CPT10-02 18.3 ft				
Sample #: 010 Date Sampled: 11/14/97 16:15 Date Received: 11/18/97 Matrix: SOLID				
Volatile Organics by GC/MS				In Review
Benzene	ND	91	ug/kg	SW846 8260A
trans-1,3-Dichloropropene	ND	91	ug/kg	SW846 8260A
Bromoform	ND	91	ug/kg	SW846 8260A
4-Methyl-2-pentanone	ND	360	ug/kg	SW846 8260A
2-Hexanone	ND	360	ug/kg	SW846 8260A
Tetrachloroethene	320	91	ug/kg	SW846 8260A
1,1,2,2-Tetrachloroethane	ND	91	ug/kg	SW846 8260A
Toluene	ND	91	ug/kg	SW846 8260A
Chlorobenzene	ND	91	ug/kg	SW846 8260A
Ethylbenzene	ND	91	ug/kg	SW846 8260A
Styrene	ND	91	ug/kg	SW846 8260A
Xylenes (total)	ND	91	ug/kg	SW846 8260A
Client Sample ID: IR88-FBM01 Field Blank Methanol QA sample				
Sample #: 011 Date Sampled: 11/15/97 09:30 Date Received: 11/18/97 Matrix: SOLID				
Volatile Organics by GC/MS				In Review
Chloromethane	ND	130	ug/kg	SW846 8260A
Bromomethane	ND	130	ug/kg	SW846 8260A
Vinyl chloride	ND	130	ug/kg	SW846 8260A
Chloroethane	ND	130	ug/kg	SW846 8260A
Methylene chloride	23 J	67	ug/kg	SW846 8260A
Acetone	150 J	270	ug/kg	SW846 8260A
Carbon disulfide	ND	67	ug/kg	SW846 8260A
1,1-Dichloroethene	ND	67	ug/kg	SW846 8260A
1,1-Dichloroethane	ND	67	ug/kg	SW846 8260A
1,2-Dichloroethene (total)	ND	67	ug/kg	SW846 8260A
Chloroform	ND	67	ug/kg	SW846 8260A
1,2-Dichloroethane	ND	67	ug/kg	SW846 8260A
2-Butanone	600	270	ug/kg	SW846 8260A
1,1,1-Trichloroethane	ND	67	ug/kg	SW846 8260A
Carbon tetrachloride	ND	67	ug/kg	SW846 8260A
Bromodichloromethane	ND	67	ug/kg	SW846 8260A
1,2-Dichloropropane	ND	67	ug/kg	SW846 8260A
cis-1,3-Dichloropropene	ND	67	ug/kg	SW846 8260A

(Continued on next page)

Appendix G

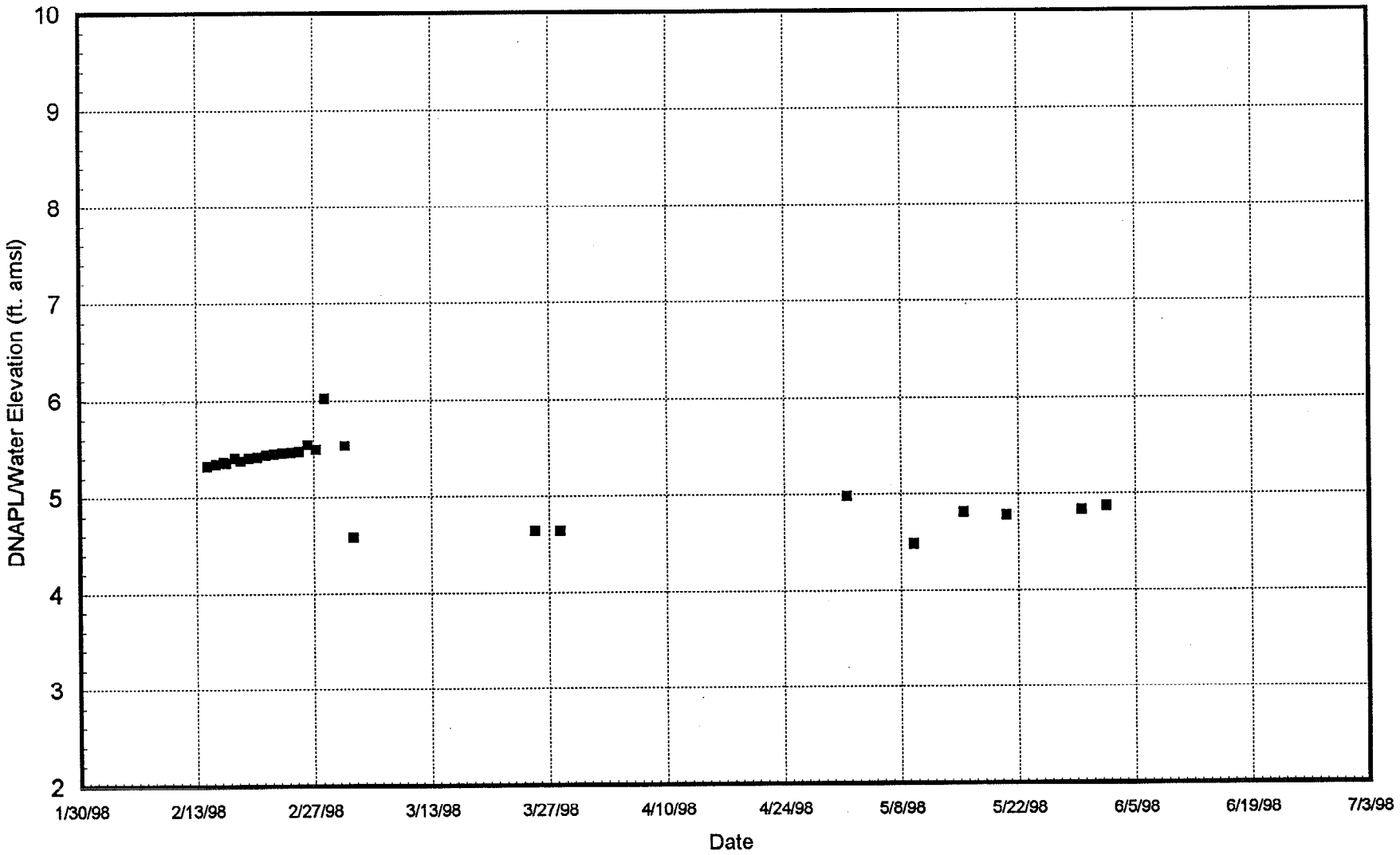
Plots of DNAPL/Water Interface Elevations

EX01 plot



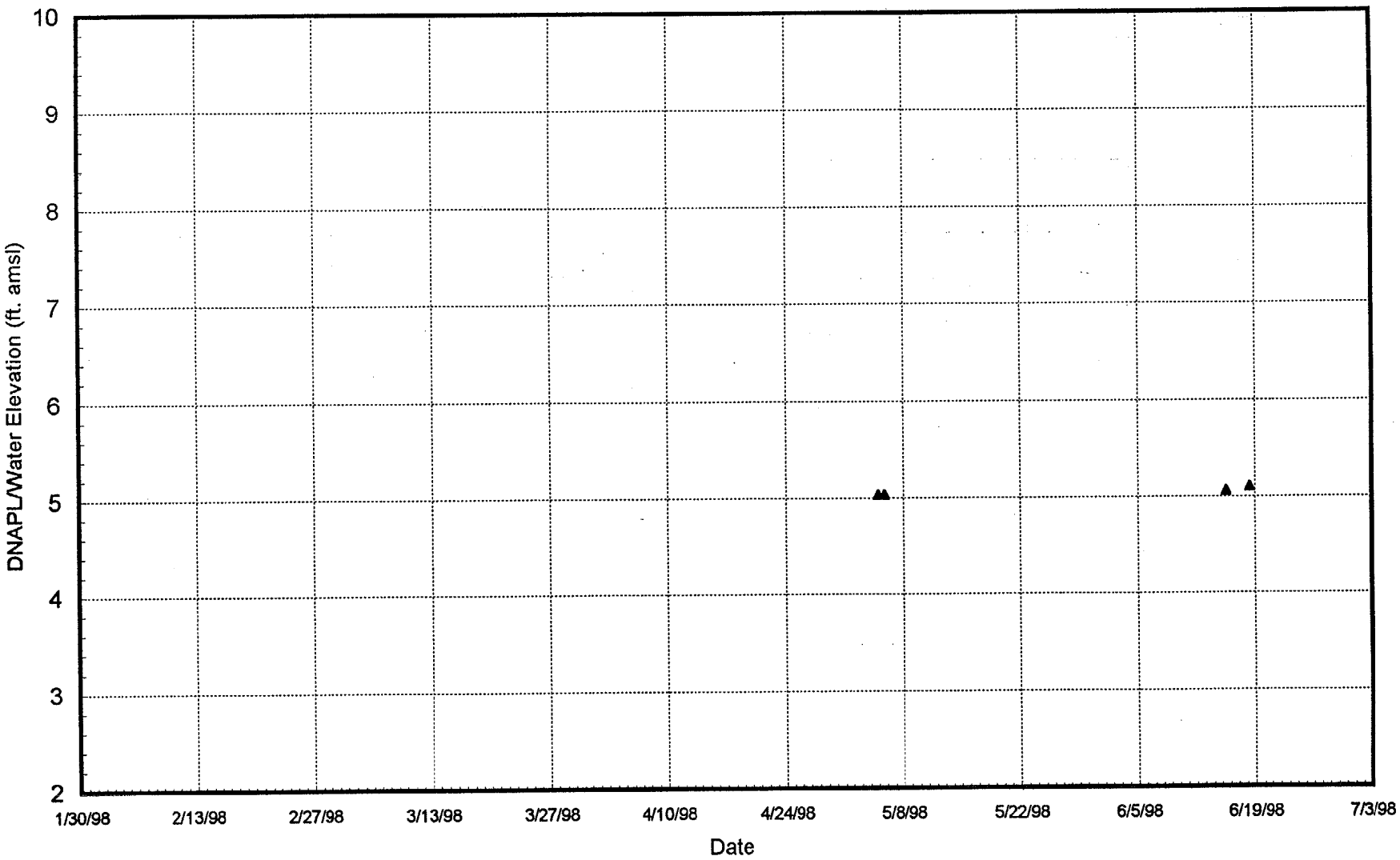
DNAPL/Water Interface Elevation During Field Operations in Well EX01

EX02 Plot



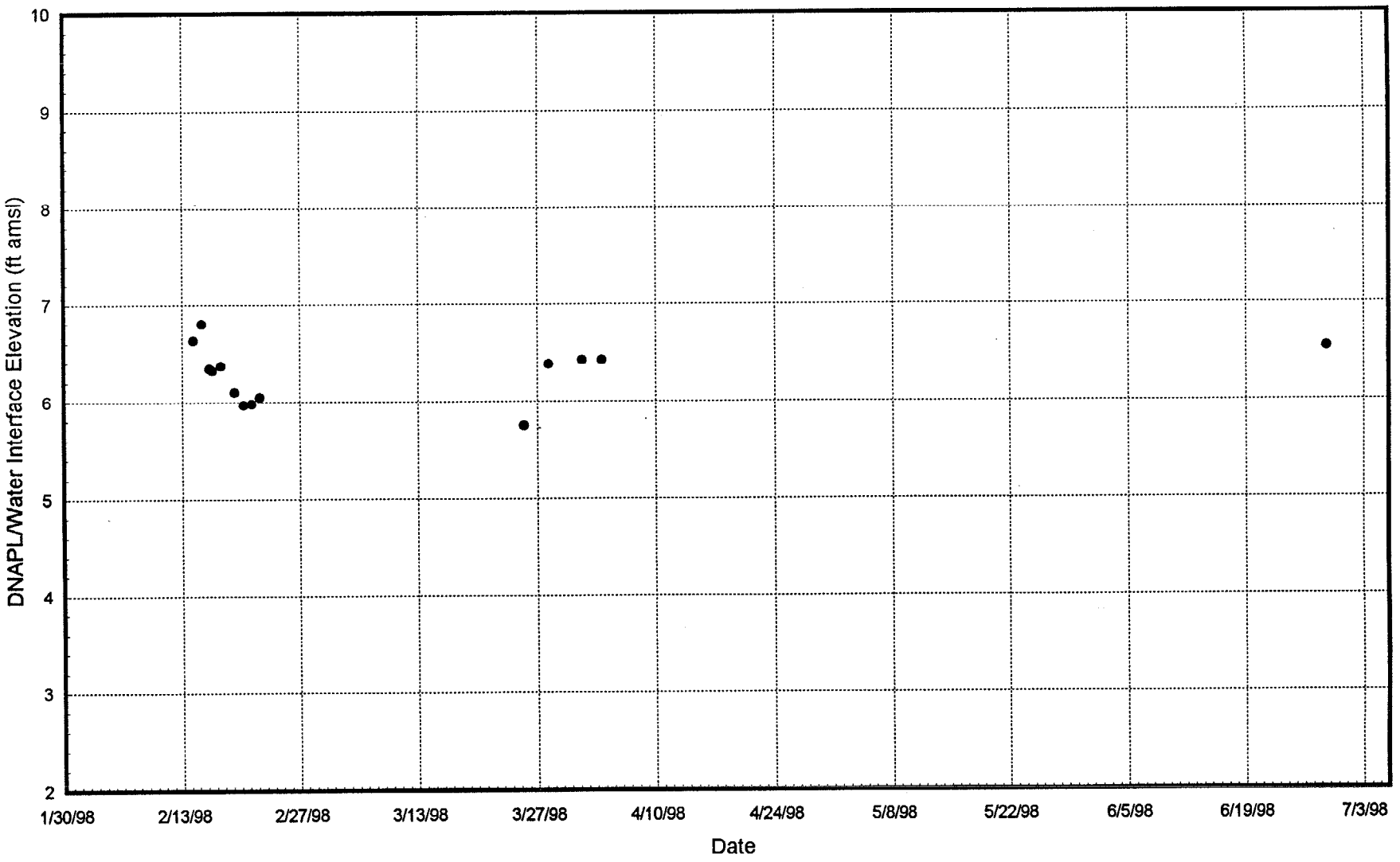
DNAPL/Water interface Elevation During Field Operations in Well EX02

EX04 Plot



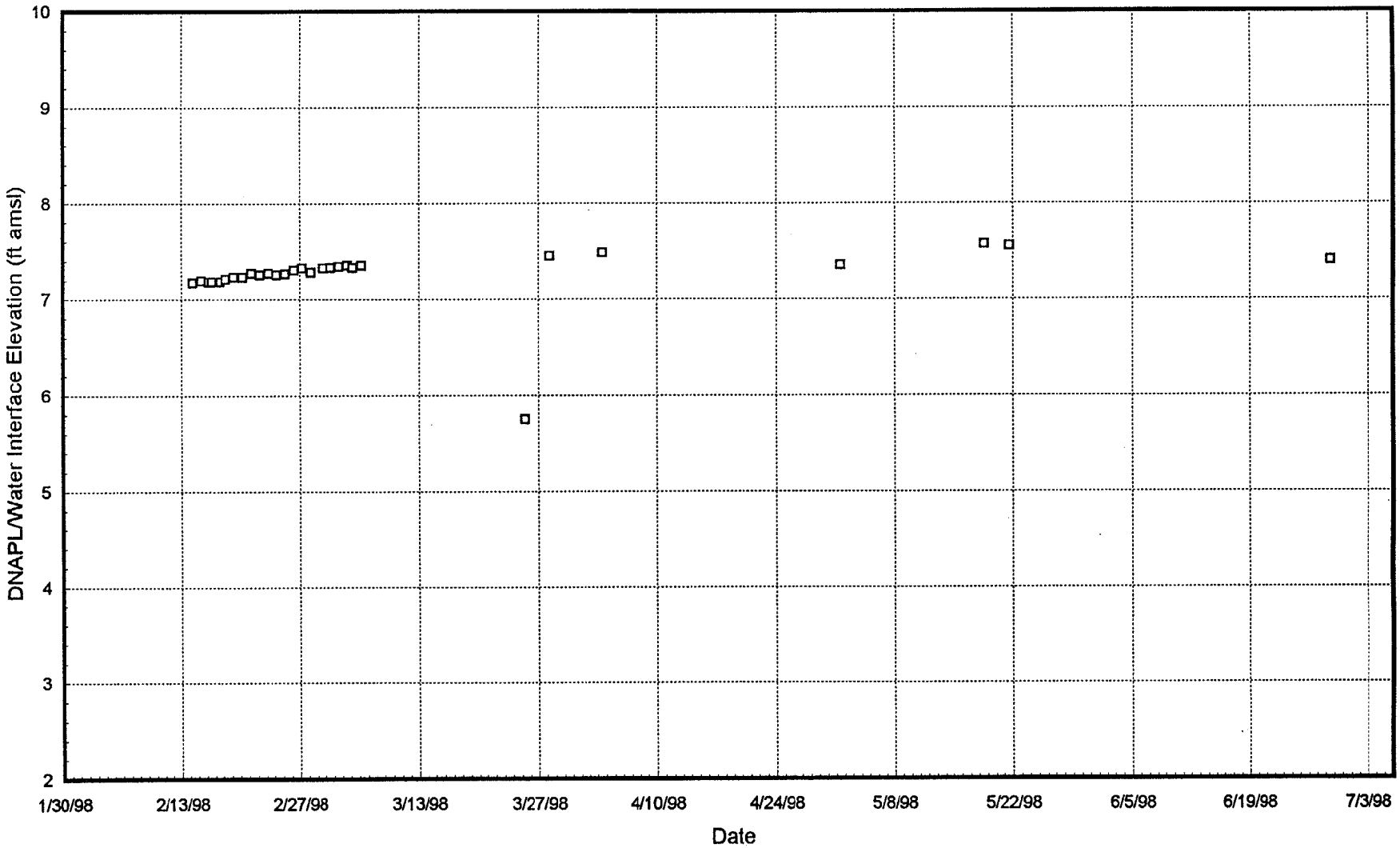
DNAPL/Water interface Elevation During Field Operations in Well EX04

RW01 Plot



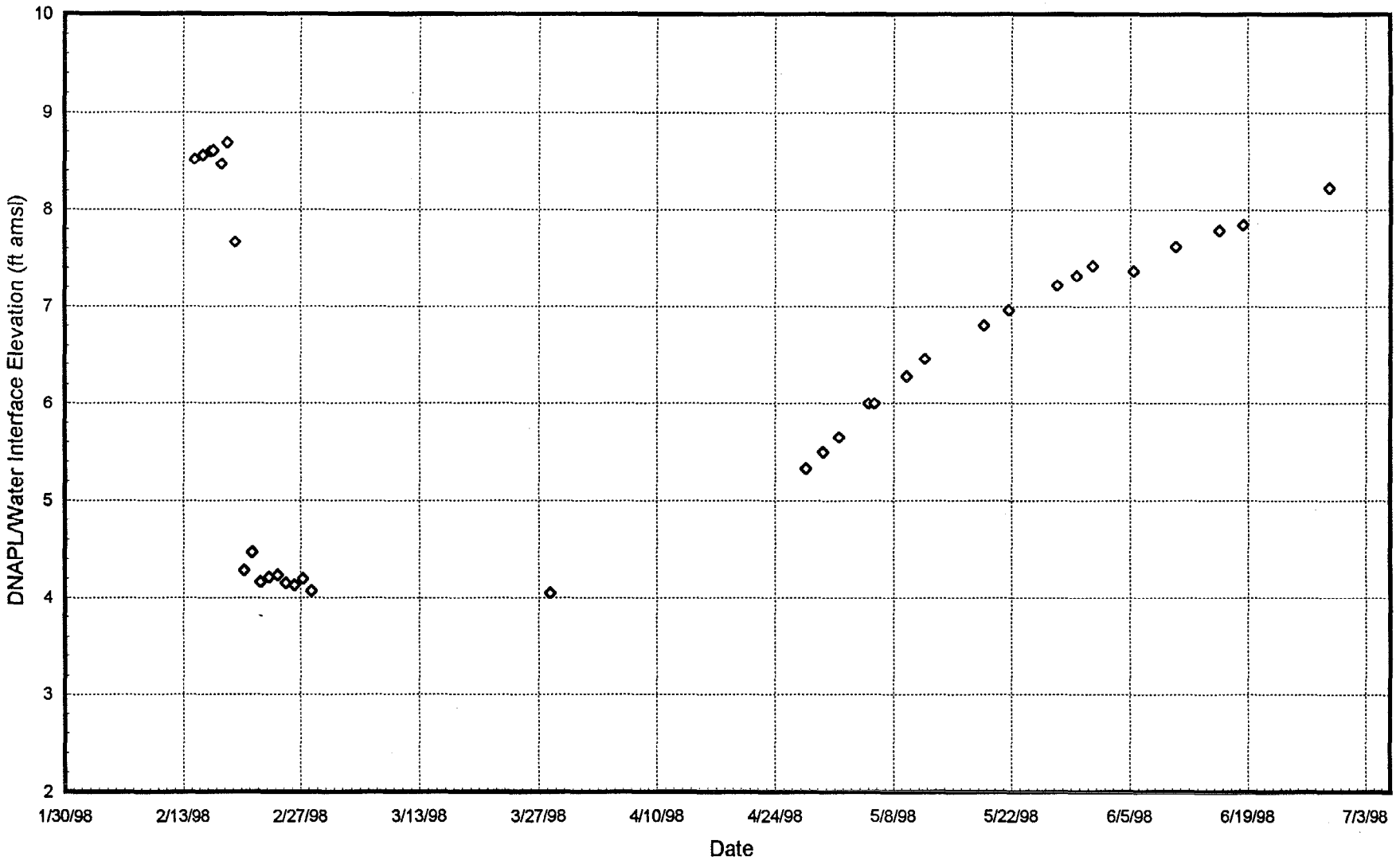
DNAPL/Water Interface Elevation During Field Operations in Well RW01

RW02 Plot



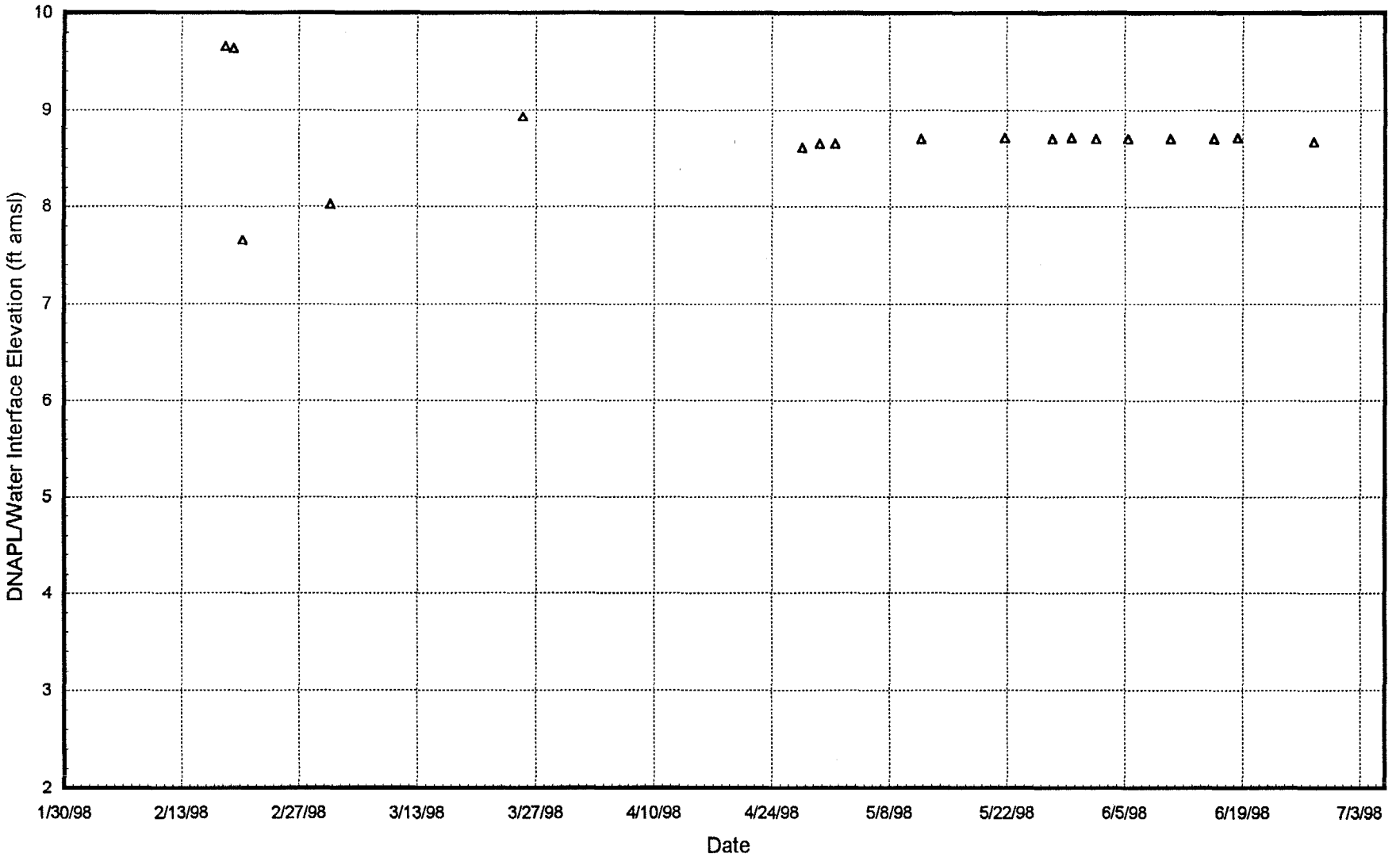
DNAPL/Water Interface Elevation During Field Operations in Well RW02

RW04 Plot



DNAPL/Water Interface Elevation During Field Operations in Well RW04

RW06 Plot



DNAPL/Water Interface Elevation During Field Operations in Well RW06

Appendix H

DE&S Standard Operating Procedures

Standard Operating Procedures
for

Bromide Analysis

SOP-BR-1
February 14, 1997
Revision 0

I. SCOPE AND APPLICATION

This procedure is used to ensure proper preparation, start up, monitoring, and operation of the DE&S bromide analysis method. The procedure includes methods for calibration, quality control checks, sample analysis and instrument setup.

II. PREPARATION

1. Electrodes.

   a.) The reference electrode should contain no liquid. If it does empty the old liquid out and clean any filling solution residue that may remain. Failure to do so will result in leaks of the filling solutions and inaccurate measurements.

   b.) Cleaning of the reference electrode can be done by rinsing with deionized water. Caution should be used to not touch the sensory ends of the electrodes. See the electrode instruction manual for specific instructions for electrode disassembly.

   c.) The ion specific electrode needs no filling solution. The cap should be removed from the electrode and it should be rinsed with deionized water. This should be followed by buffing of the sensor end of the electrode with a polishing strip and a second rinse.

   d.) The inside of the reference electrode should be filled with the inner solution (green) and the band replaced over the hole (or parafilm). The outer chamber should then be filled with the outer solution (KNO_3).

   e.) The reference electrode should then be re-assembled and rinsed with deionized water.

2. Meter

   a.) The electrodes should be plugged into the meter and the power turned on. The electrodes should be kept wet anytime the meter is on. The meter should be allowed to warm up for several minutes.

   b.) Instructions should then be followed to program the meter as given in the meter s instruction manual:

   1) The alarm setting should be five minutes. The reading at the sounding of the alarm should be recorded as the measured value.

III. CALIBRATION

1. Preparing Standards.

a.) Standards should be prepared which encompass the expected range of concentrations in the samples. A three point calibration curve should be constructed. The calibration standards should be run once a day. The r-squared value obtained from this calibration should be at least .999. The slope-intercept equation should also be determined to calculate the concentrations in the samples. This is obtained by the log of the concentration representing the x value and the mV reading representing the y value.

b.) A calibration check standard should be prepared at a low midpoint in the calibration range. This solution should be used to check the calibration for every batch and to determine the precision at the beginning of the analyses.

c.) Deionized water should be run at the beginning of each batch, before and after the calibration, and before and after the precision check. Additionally the deionized water rinse measurement should be allowed to reach a reading of at least 125 mV prior to the next analysis.

d.) All samples and standards should have ionic strength adjuster added at a concentration of ###% for $NaNO_3$, or ###% for KNO_3 prior to analysis.

IV. SAMPLES

1. Sample Selection

a.) Samples should be run for every three samples collected prior to and just after the peak. This can be extended to every four samples for the tail of the curve. A single well should be selected and the samples should be run in chronological order. All samples should have ionic strength adjuster added as prescribed in section III.1.d.

2. Sample Batch

a.) A sample batch consists of a deionized water blank and a calibration check, followed by ten samples. The samples should be run only after the calibration check falls within +/- 20% of the average concentration, as determined by the precision checks.

b.) Once a sample is analyzed over the five minute timed interval, the meter should be turned off and the electrodes should be rinsed with deionized water and placed in a separate deionized water rinse beaker until the mV reading reaches at least 125.

c.) The electrodes should then be rinsed again and BLOTTED dry with a Kimwipe. The electrodes can then be immersed in the next sample and the meter turned on. Once a reading is obtained on the meter the timer button should be reset for another five minute interval.

3. Storage

a.) At the end of a day of sampling the meter should be turned off and the electrodes stored with their tips submerged in deionized water. If no more analyses are to be performed on the given project, the reference electrode should be emptied of the filling solutions and rinsed. The ion selective electrode should be rinsed and capped. The meter should be unplugged.

Appendix A — Standard Operating Procedures
MONITOR-WELL SAMPLING

This Standard Operating Procedure is concerned with the collection of valid and representative samples from ground-water monitor wells. Ground-water samples are collected and analyzed to determine the presence or absence and/or quantity of various contaminants as part of site characterization, remediation, and/or monitoring activities.

Equipment

The following list identifies the types of equipment that may be used for a range of ground-water sampling applications. A project-specific equipment list will be selected from this list, based on project objectives and well conditions.

- Bailer and/or pump
- pH meter
- Specific conductance meter
- Water-level measurement equipment
- Water-sampling data form
- Filtration apparatus (project-dependent)
- Sample shuttles
- Sample containers and laboratory-supplied preservatives (if any)
- Sample labels
- Custody seals
- Personal protective equipment
- Decontamination equipment
- Waterproof pens
- Field logbook
- Chain-of-custody forms
- Sample control logs

Water-Level Measurement

Before obtaining a water-level measurement, cut a slit in one side of the plastic sheet and slip it over and around the well, creating a clean surface onto which the sampling equipment can be positioned. This clean working area should be a minimum of 8 feet square. Care will be taken not to kick, transfer, drop, or in any way allow soil or other materials to fall onto this sheet, unless it comes from inside the well. Do not place meters, tools, equipment, etc. on the sheet unless they have been cleaned first.

Appendix A — Standard Operating Procedures

MONITOR-WELL SAMPLING

After unlocking and/or opening a monitor well, the first task will be to obtain a water-level measurement. Water-level measurements will be made using an electronic measurement device.

Water-Level Measurement Procedures

- Unlock and/or open the monitor well. Enter a description of the condition of the security system and protective casing in the field logbook.

- Check for the measuring point for the well. The measuring point location should be clearly marked on the outermost casing or identified in previous sample-collection records. If no measuring point can be determined, a measuring point should be established. Typically, the top (highest point) of the protective or outermost well casing will be used as the measuring point. The measuring-point location should be described on the water-sampling data form and should be the same point used for all subsequent sampling efforts.

- To obtain a water-level measurement, lower the level indicator into the monitor well. Care must be taken to assure that the water-level measurement device hangs freely in the monitor well and does not adhere to the wall of the well casing. The water-level measuring tape will be lowered into the well until the sound and light on the electronic sounder are activated. At this time, the precise measurement should be determined (to a hundredth of a foot) by repeatedly raising and lowering the tape to converge on the exact measurement. The water-level measurement should be entered on the water-sampling data form.

- The measurement device will be decontaminated after use. Generally only that portion of the tape that enters the water table will be cleaned. It is important that the measuring tape is never placed directly on the ground surface.

Well Purging

Prior to sample collection, purging must be performed for all ground-water monitor wells to remove stagnant water from within the well casing and to ensure that a representative sample is obtained. Wells will be purged of at least three well volumes (moderate- to high-yield formations) or at least one well volume for low-yield formations.

MONITOR-WELL SAMPLING

Well casing volume is determined using the following equation:

$$V_{WC} = \frac{\pi D^2 h}{4}$$

where: V_W (ft^3) = well volume
D (ft) = internal diameter of the well casing
h (ft) = length of the water column in the well casing

Well casing volumes can also be determined graphically using the information presented in Figure A.8-1.

The volume of the filter pack can be determined by calculating the volume of the portion of the borehole with one filter pack, less the casing volume.

Filter pack volume is calculated using the following equation:

$$V_{FP} = \left[\frac{\pi D^2 h}{4} - V_{WC}\right](n)$$

where: V_{FP} (ft^3) = filter pack volume
D (ft) = diameter of the borehole
h (ft) = lesser of (a) length of filter pack, or (b) length of water column in the casing
n = filter pack porosity (assume 30%)
V_{WC} (ft^3) = well casing volume
Well Volume Total = $V_{FP} + V_{WC}$

Conversion: 1 ft^3 = 7.48 gal; 1 gal = 0.134 ft^3

Indicator parameters (pH, temperature, and conductivity) will be monitored and recorded for each well volume removed. Generally, well purging will continue until the pH is within 0.2 standard units, temperature is within 1°C, and electrolytic conductivity is within 10% of the three previous determinations. Very low-yield wells that are dry after removal of one well volume are considered purged and should be allowed to recharge for 24 hours before sampling.

Purged water will be placed in the project effluent tanker.

Appendix A — Standard Operating Procedures

MONITOR-WELL SAMPLING

Well-Purging Methods

Three general types of equipment are used for well purging: bailers, surface pumps, or down-well submersible pumps.

Bailing

In many cases, bailing is the most convenient method for well purging. Bailers are constructed using a variety of materials; generally, PVC, stainless steel, and Teflon®. Care must be taken to select a specific type of bailer that suits a study's particular needs. Teflon® bailers are generally most "inert" and are used most frequently. It is preferable to use one bailer per well, but field decontamination is a relatively simple task if required.

Bailing presents two potential problems with well purging. First, increased suspended solids may be present in samples as a result of the turbulence caused by raising and lowering the bailer through the water column. High solids concentrations may require that total suspended solids (TDS) and the chemical character of solids be evaluated during sample analyses.

Second, bailing may not be feasible for wells which require that more than 20 gallons be removed during purging. Such bailing conditions mandate that long periods be spent during purging and sample collection, or that centrifugal pumps be used.

Surface Pumping

Ground-water withdrawal using pumps located at the ground surface is commonlyperformed with centrifugal or peristaltic pumps.

All applications of surface pumping will be governed by the depth to the ground-water surface. Peristaltic and centrifugal pumps are limited to conditions where ground water need only be raised through approximately 20 feet of vertical distance. The lift potential of a surface-pumping system will depend on the net positive suction head of the pump and the friction losses associated with the particular suction line, as well as the relative percentage of suspended particulates.

Surface pumping can be used for many applications of well purging and ground-water-sample collection. In all cases, pumping cannot be used for the collection of samples to be analyzed for volatile organic compounds (VOCs).

- *Peristaltic pumps* provide a low rate of flow, typically in the range of 0.02 to 0.2 gallons per minute (75 to 750 ml/min). For this reason, peristaltic pumps are not particularly effective for well purging. Peristaltic pumps are suitable for purging situations where disturbance of the water column must be kept minimal for particularly sensitive analyses. Peristaltic pumps are most often used in conjunction with field filtering of samples and therefore can be used to obtain water samples for direct filtration at the wellhead.

- *Centrifugal pumps* are designed to provide a high rate of pumping, in the range of 10 to 40 gallons per minute (gpm), depending on pump capacity. Discharge rates can also be regulated somewhat, provided the pump has an adjustable throttle.

  When centrifugal pumps are used, samples should be obtained from the suction (influent) line during pumping by an entrapment scheme. Construction of this sampling scheme is relatively simple and will not be explained as part of this SOP. It is suggested that, if samples cannot be obtained from the influent line in front of the pump, they be obtained by using a bailer once pumping has ceased. Collecting samples from the pump discharge is not recommended.

- *Submersible pumps* provide an effective means for well purging, and, in some cases, sample collection. Submersible pumps are particularly useful for situations where the depth to water table is greater than 20 to 30 feet and the depth or diameter of the well requires that a large purge volume be removed during purging.

  As with other pump-type purge/sample-collection methods, submersible pumps will not be used for the collection of samples to be analyzed for volatile organic compounds. Submersible pumps should never be used for well development, *as this can seriously damage the pump.*

Purging and Sample-Collection Procedures — Method Specific

Bailing

Obtain a clean/decontaminated bailer and a spool of polypropylene rope or equivalent bailer cord. Using the rope at the end of the spool, tie a bowline knot or equivalent through the bailer loop. Test the knot for security and the bailer itself to ensure that all parts are intact before inserting the bailer into the well.

MONITOR-WELL SAMPLING

Remove the protective wrapping from the bailer. Lower the bailer to the bottom of the monitor well and cut the cord at a proper length. Bailer rope should never touch the ground surface at any time during the purge routine.

Raise the bailer by grasping a section of cord using each hand alternately in a "rocking" action. This method requires the sampler's hands to be kept approximately 2 to 3 feet apart and the bailer rope to be alternately looped onto or off each hand as the bailer is raised and lowered. Bailed ground water is poured from the bailer into a graduated bucket to measure the purged water volume.

For slowly recharging wells, the bailer is generally lowered to the bottom of the monitor well and withdrawn slowly through the entire water column. Rapidly recharging wells should be purged by varying the level of bailer insertion to ensure that all stagnant water is removed. The water column should be allowed to recover to 70-90% of its static volume before a sample is collected. Water samples should be obtained from midpoint or lower within the water column.

Samples collected by bailing will be poured directly into sample containers from full bailers. During sample collection, bailers will not be allowed to contact the sample container.

Peristaltic Pump

Place a new suction and discharge line to the peristaltic pump. Silicon tubing must be used through the pump head. A second type of tubing may be attached to the silicon tubing to create the suction and discharge lines. Such connection is advantageous for the purpose of reducing tubing costs, but can only be used if airtight connections can be achieved. Tygon tubing will not be used when performing well purging or collecting samples for organic analysis. The suction line must be long enough to extend to the static ground-water surface and reach further, should drawdown occur during pumping.

Measure the length of the suction line and lower it down the monitor well until the end is 2 to 5 inches below the water level in the well. Start the pump and direct the discharge into a graduated bucket.

Measure the pumping rate in gallons per minute by recording the time required to fill a selected volume of a bucket. Flow measurements shall be performed three times to obtain an average rate.

The pumping shall be monitored to assure continuous discharge. If drawdown causes the discharge to stop, the suction line will be lowered very slowly further down into the well until pumping restarts.

Measurements of pH and specific conductance will be made periodically during well purging. All readings will be entered on the Ground-Water Sample Collection Record.

Samples will be collected after the required purge volume has been withdrawn and the field parameters (pH and specific conductance) have stabilized.

When the sample bottles are prepared, each shall be filled directly from the discharge line of the peristaltic pump. Care will be taken to keep the pump discharge line from contacting the sample bottles. Ground-water samples requiring filtration prior to placement in sample containers will be placed in intermediate containers for subsequent filtration, or filtered directly.

At each monitoring point, when the peristaltic pumping has been completed, all tubing including the suction line, pump head, and discharge line must be disposed of. In some cases, where sampling will be performed frequently at the same point, the peristaltic pump tubing may be retained between each use in a clean ziplock plastic bag.

Centrifugal Pump

- *Direct Connection Method.*

  Note: this method requires that the well casing be threaded at the top.

  Establish direct connection to the top of the monitor well, if possible, using pipe connections, extensions, and elbows, with Teflon® tape wrapping on all threaded connections. If the centrifugal pump will subsequently be used for sample collection, a sample isolation chamber will be placed in the suction line configuration in front of the pump.

  Prime the pump by adding tap water to the pump housing until the housing begins to overflow.

  Start the pump and direct the discharge into a graduated bucket or a bucket of known capacity (> 2.5 gallons).

Start the pump and measure the pumping rate in gallons per minute by recording the time required to fill the graduated bucket. Flow measurement should be checked periodically to determine if pumping rates are continuous, fluctuating, or diminishing. If discharge stops, the pump will be throttled back to determine if pumping will restart at a lower rate. If pumping does not restart, the pump should be shut off to allow the well to recharge.

Measurements of pH and specific conductance will be made periodically during well purging. All readings will be entered on the Ground-Water Sample Collection Record. Samples will be collected after the required purge volume has been withdrawn and the field parameters (pH and specific conductance) have stabilized. Samples should be collected from an in-line discharge valve. The pump should be properly decontaminated between wells.

- *Down-Well Suction-Line Method*

  Lower a new suction line into the well. The suction line will have a total length great enough to extend to the water table and account for a minimum of 5 feet of drawdown. It should be noted that the pump may draw the water in the well down to the depth where pumping will terminate as a result of a limitation derived from the lift potential of the pump. All connections should be made using Teflon® ferrules and Teflon® thread wrapping tape. Run the pump as for the direct connection method described above.

  At each monitor well, when use of a centrifugal pump is complete, all suction line tubing should be disposed of properly.

Submersible Pump

Before using a submersible pump, a check will be made of well diameter and alignment. If deemed necessary, a decontaminated cylindrical tube of the proper diameter should be lowered to the bottom of each monitor well to determine if the alignment or plumbness of a well is adequate to accommodate the submersible pump. All observations will be entered in the Ground-Water Sample Collection Record.

Slowly lower the submersible pump into the monitor well, taking notice of any roughness or restrictions within the riser. Stop lowering the pump when the stainless-steel motor is approximately 3 feet above the bottom of the monitor well. Secure the discharge line and power cord to the well casing.

Appendix A — Standard Operating Procedures

MONITOR-WELL SAMPLING

Connect the power cord to the power source (e.g., rechargeable battery pack or auto battery monitor) and turn the pump on (forward mode). When running, the pump can usually be heard by listening near the well head.

The pump manufacturer's specified operating voltage and amperage ratings should be noted and verified, and voltage and amperage meter readings on the pump discharge should be checked continuously. The voltage reading from battery-powered pumps will decline slowly during the course of a field day, representing the use of power from the battery. Amperage readings will vary, depending on the depth to water table. Above-normal amperage readings usually indicate a high solids content in the ground water, which may cause pump clogging and serious damage. If a steady increase in amperage is observed, the pump should be shut off, allowed to stop, switched to the reverse mode, stopped again, and then placed in forward mode. If high amperage readings persist, the pump should be withdrawn and checked using an upright cylinder (e.g., a drum) and tap water. Ground-water conditions such as high solids may require that an alternate purge/sample method be used.

Drawdown must also be monitored continuously by remaining near the well at all times and listening to the pump. When drawdown to the pump intake occurs, a metallic rotary sound will be heard as the pump intake becomes exposed and ceases to discharge water, but continues to run. The pump should be lowered immediately to continue pumping water within the uppermost section of the static water column. *NOTE: the submersible pump cannot be allowed to run while not pumping, or the pump motor will burn out .*

If drawdown continues to the extent that the well may be pumped dry, the discharge rate of the pump can be reduced to slow the rate of drawdown. Care should be taken to avoid cutting the pump back below its minimum operating standard. If drawdown is such that the well is still pumped dry, the pump should be shut off and the well allowed to recharge. This on/off cycle may need to be repeated several times to purge the well properly.

Measurements of the pumping rate, pH, and specific conductance should be made periodically during well purging. All readings and respective purge volumes should be entered on the Ground-Water Sample Collection Record.

Sample bottles will be filled directly from the discharge line of the pump during pumping, taking care not to touch sample bottles to the discharge line.

At each monitor well, after pumping has been completed, the pump, discharge line, and power cord shall be decontaminated according to the procedures contained in *Standard Operating Procedures, Decontamination.*

Appendix A — Standard Operating Procedures

MONITOR-WELL SAMPLING

Sample Collection Procedures — Method Independent

- Samples intended for volatile organic analysis should be collected first. Sample containers should be filled quickly and smoothly to avoid agitation, aeration, and loss of volatile components. To further avoid loss of volatile components, samples should be filled completely so that no headspace is present, and capped securely with a Teflon®-lined lid.

- Samples for semivolatile, metal, or other analyses will be collected in the proper sample containers.

- Replicate samples will be collected when QA/QC samples are needed for volatile organic analysis (VOA). VOA samples typically consist of two sample vials, referred to as the sample set. Alternating between the primary sample set and the replicate sample set, each vial will be filled completely and capped immediately in the order shown below:

  (i) fill vial #1 - primary sample set;
  (ii) fill vial #1 - replicate sample set;
  (iii) fill vial #2 - primary sample set; and
  (iv) fill vial #2 - replicate sample set.

  Duplicate samples will be collected when QA/QC samples are required for sample analyses other than VOA. Duplicates are collected by alternately filling the sample containers as in the VOA procedure, except that containers are filled incrementally instead of completely and the filling procedure continues until the sample containers are full.

- All sample containers will be labeled with the following information:

  — project name and/or number;
  — company (DE&S);
  — field sample number;
  — initials of collector;
  — date and time of collection;
  — analysis required; and
  — sample type and preservative, if any.

Appendix A — Standard Operating Procedures

MONITOR-WELL SAMPLING

- Samples should be placed in the sample shuttles as soon as possible and, if required, stored and transported at <4°C (39°F), using frozen ice packs or double-bagged ice.
- The use of protective packaging will be dictated by the mode of transport.
- Sample information will be recorded in the field logbook and on the sample control log as soon as possible after sample collection.
- Chain-of-custody forms will be completed and placed in the sample shuttle for shipment to the laboratory.
- Custody seals will be placed across sample shuttle lids so that sample shuttles cannot be opened without breaking the custody seal. Custody seals will contain the following information:
  - collector's signature or initials; and
  - date of sampling.
- Samples will be shipped to the laboratory for analysis, carefully observing all minimum holding-time requirements for degradable constituents.

Appendix I

PITT Flow Rates and Water Levels

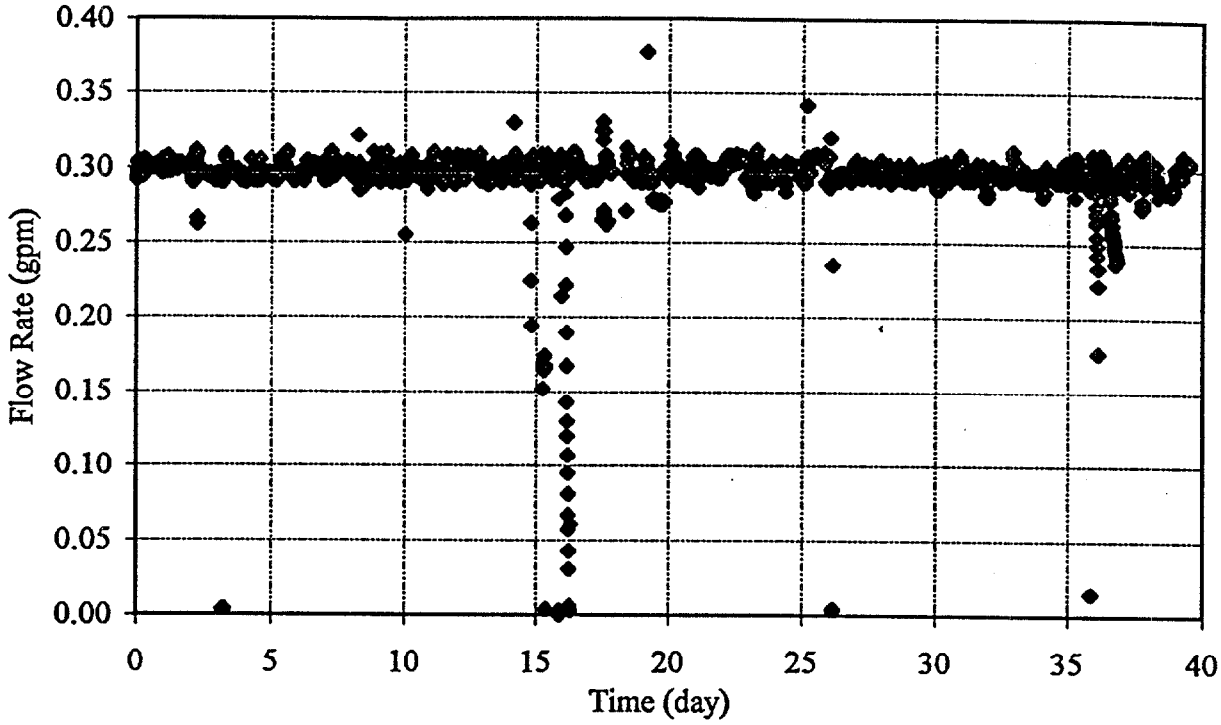


Figure 23 Hydraulic control well HC02 flow rate as a function of time

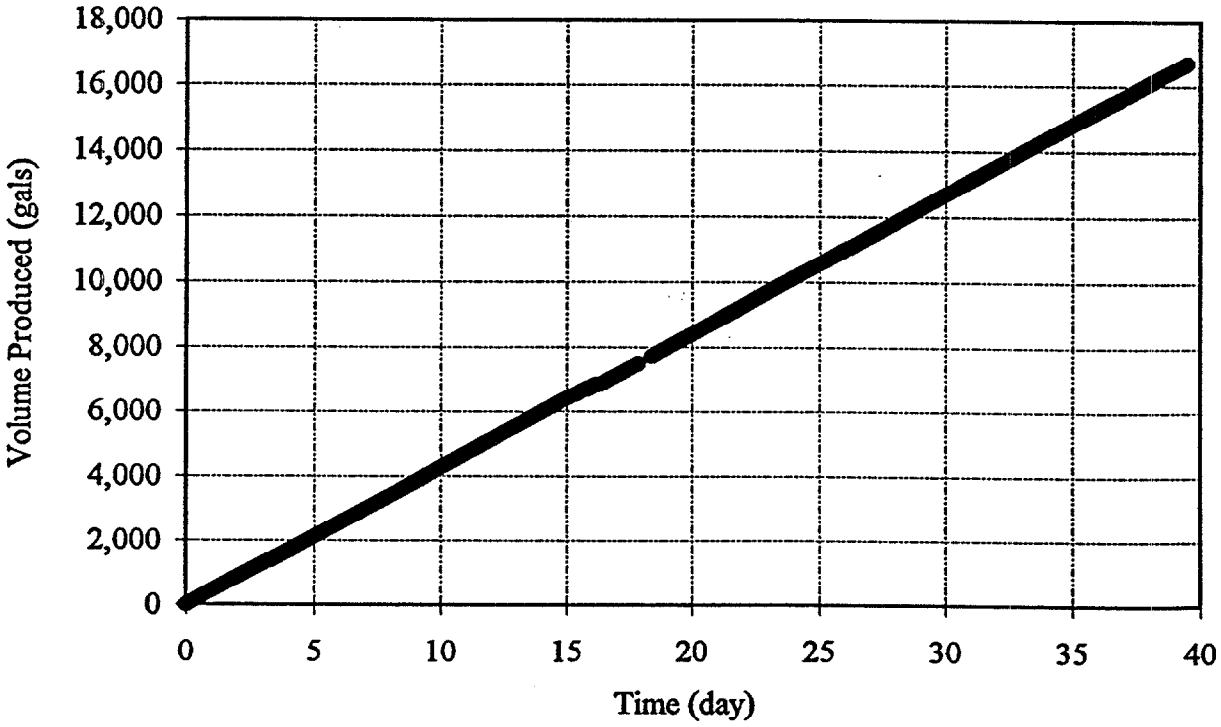


Figure 24 Hydraulic control well HC02 cumulative volume injected as a function of time

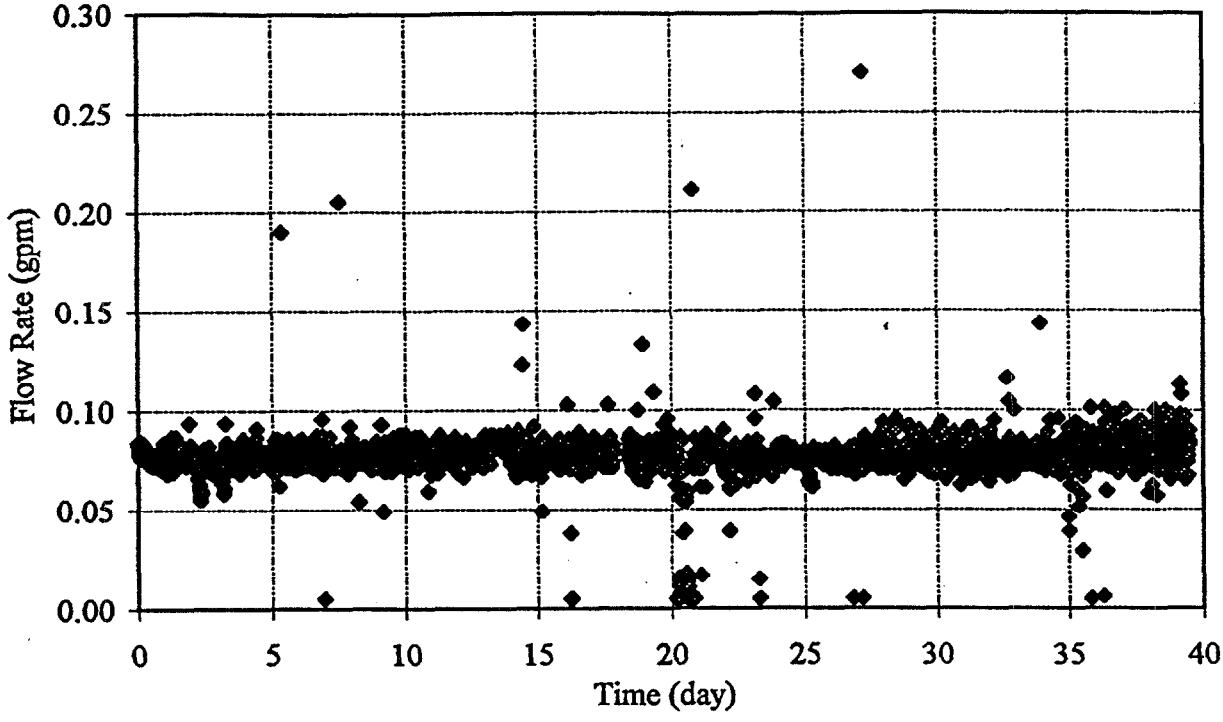


Figure 25 Upper injection well IN01up flow rate as a function of time

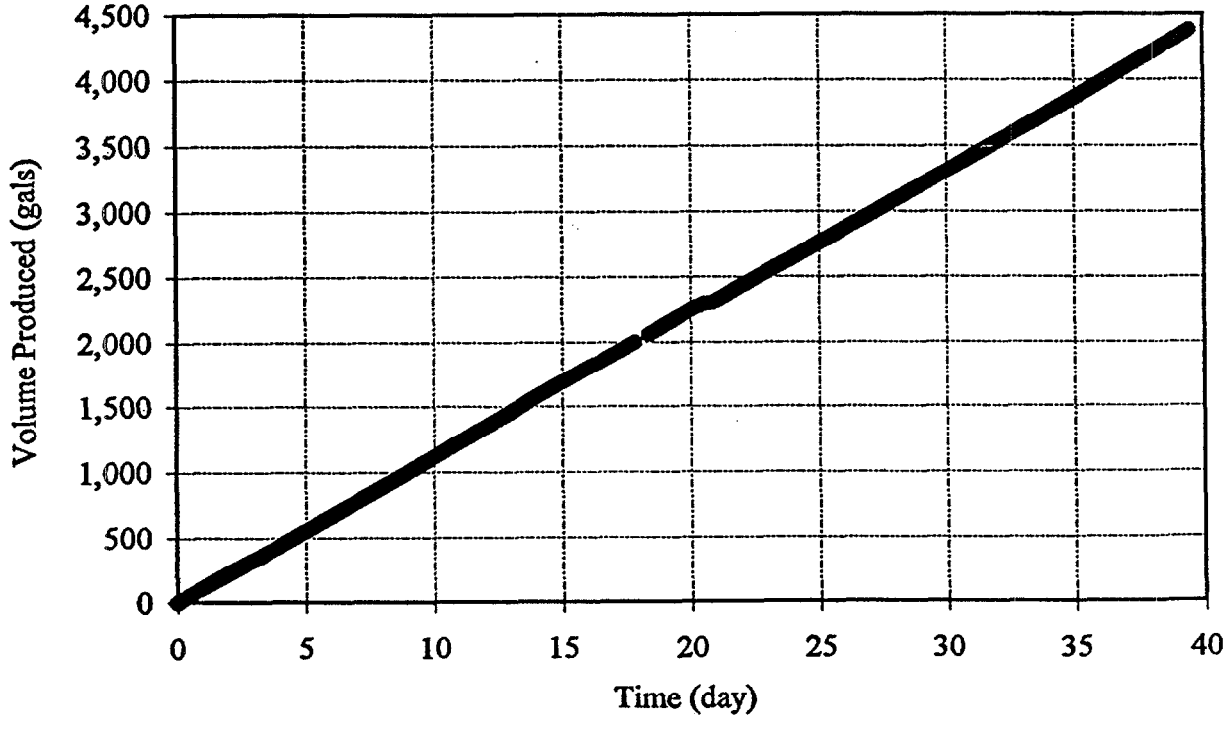


Figure 26 Upper injection well IN01up cumulative volume injected as a function of time

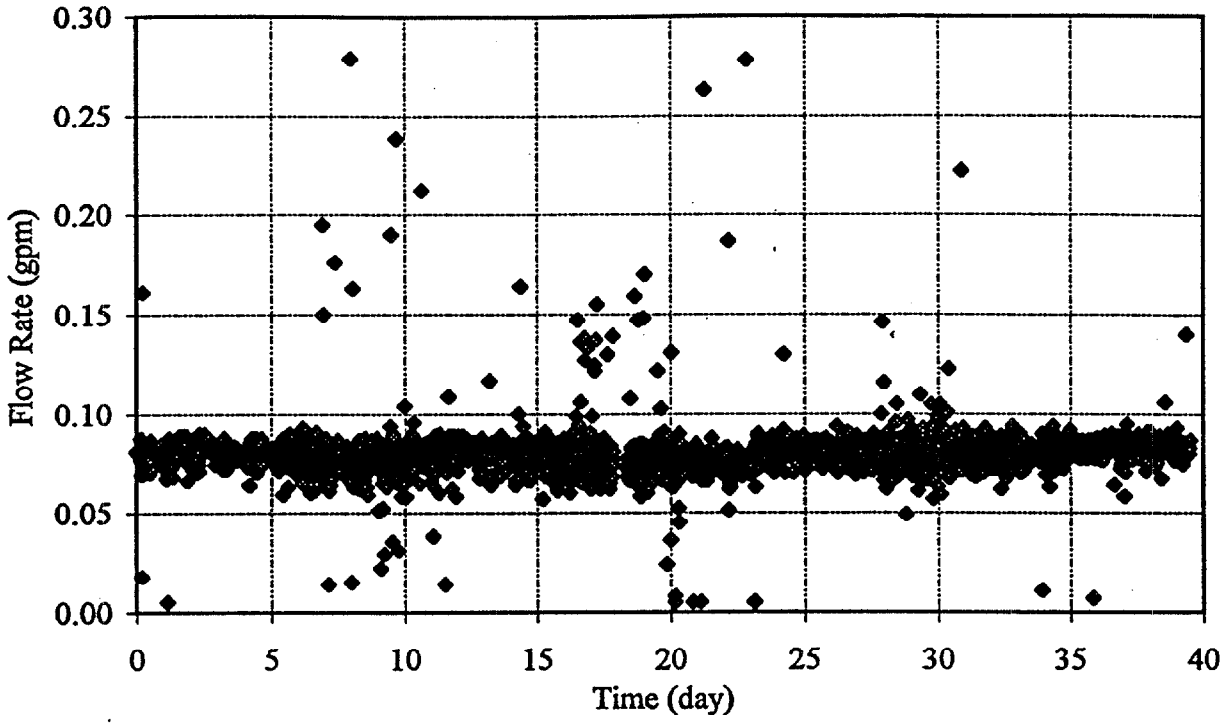


Figure 27 Upper injection well IN02up flow rate as a function of time

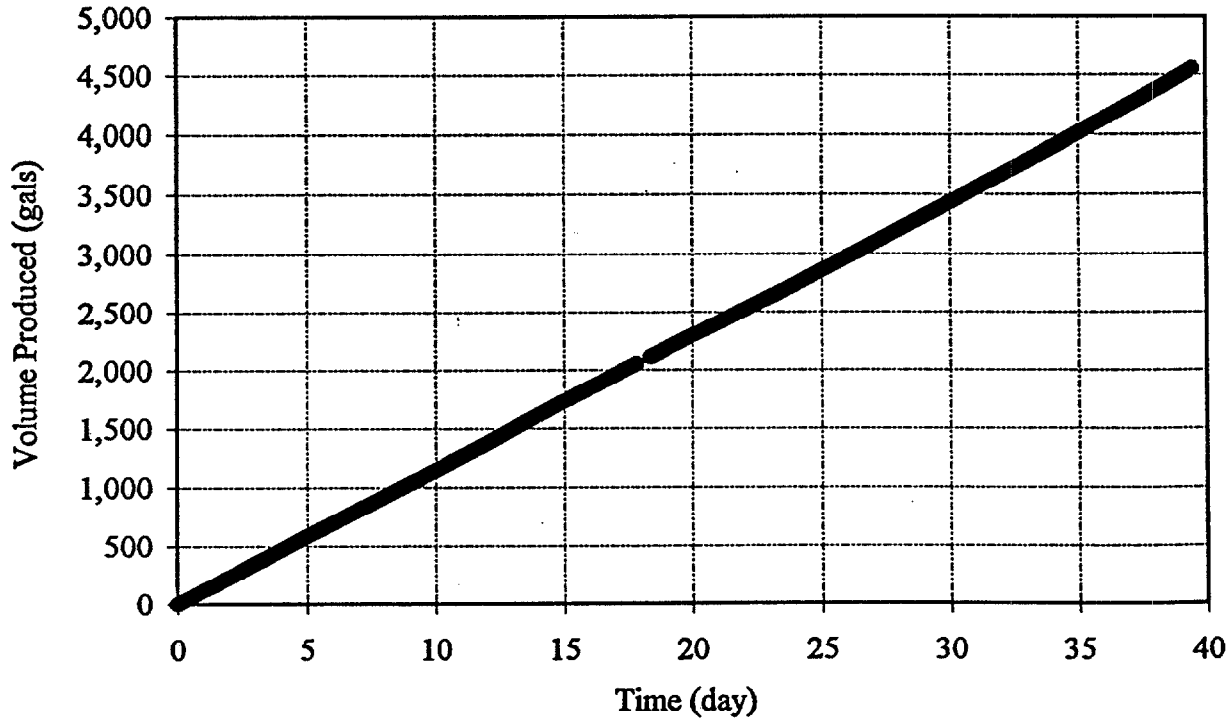


Figure 28 Upper injection well IN02up cumulative volume injected as a function of time

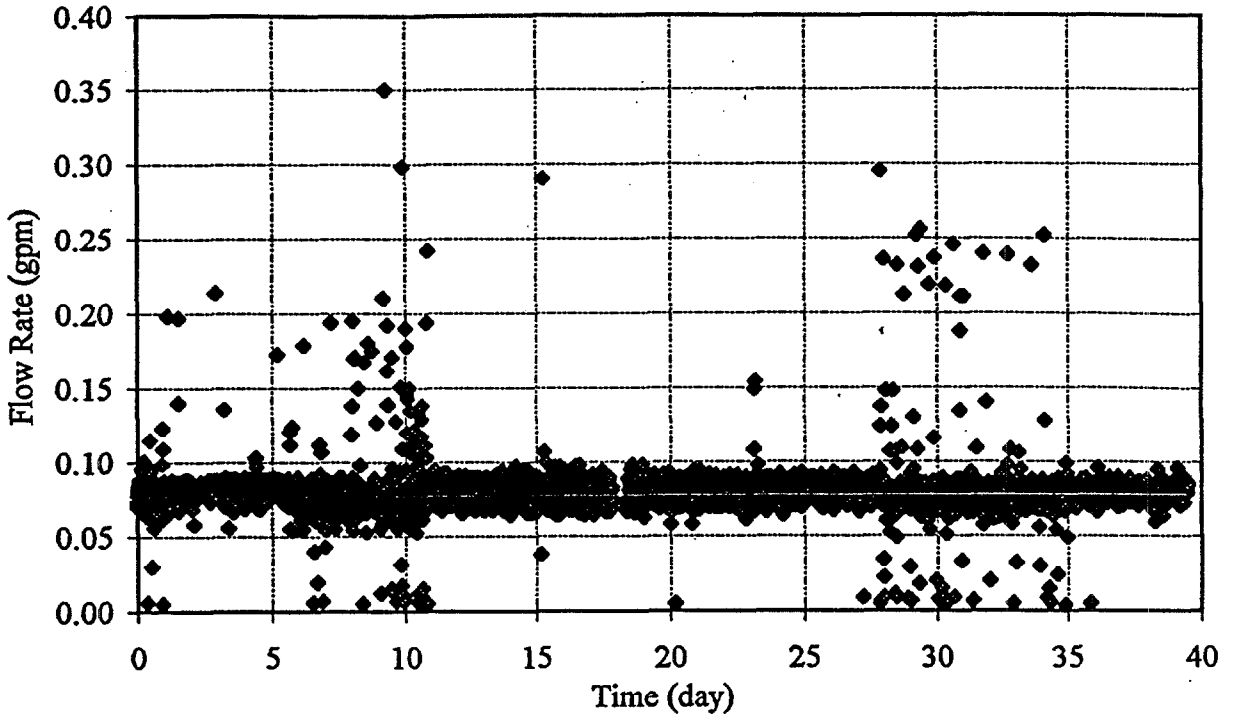


Figure 29 Upper injection well IN03up flow rate as a function of time

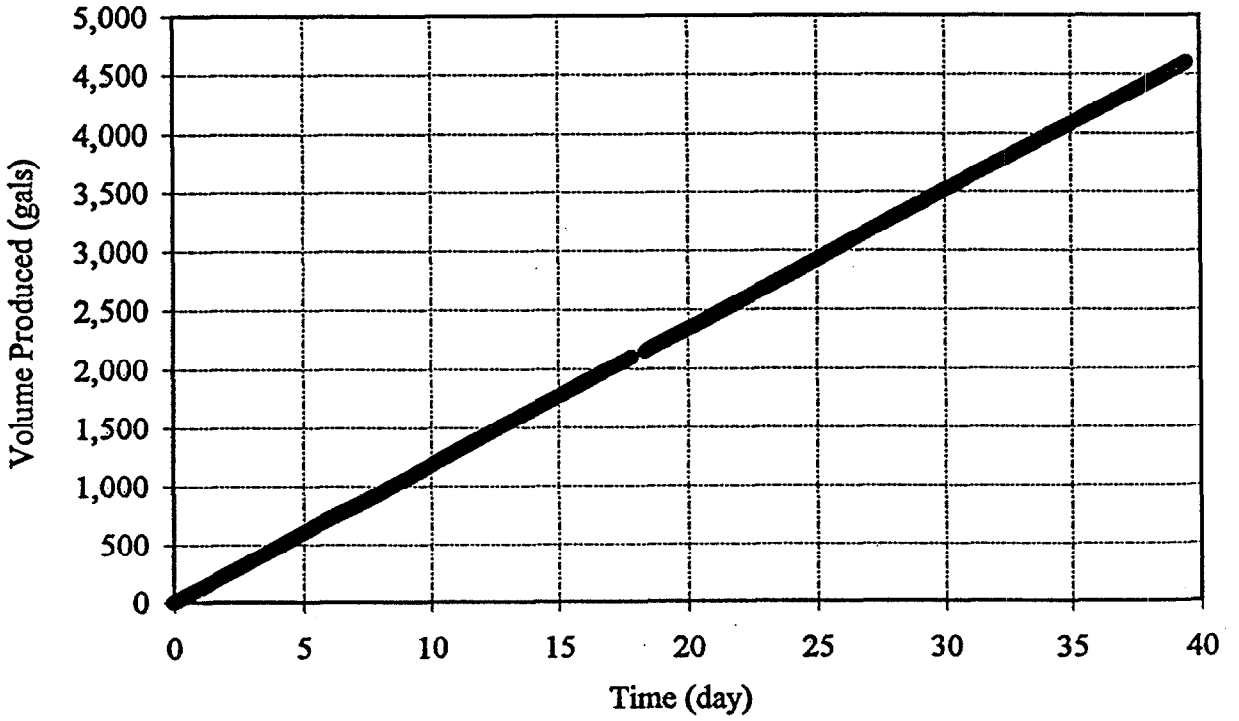


Figure 30 Upper injection well IN03up cumulative volume injected as a function of time

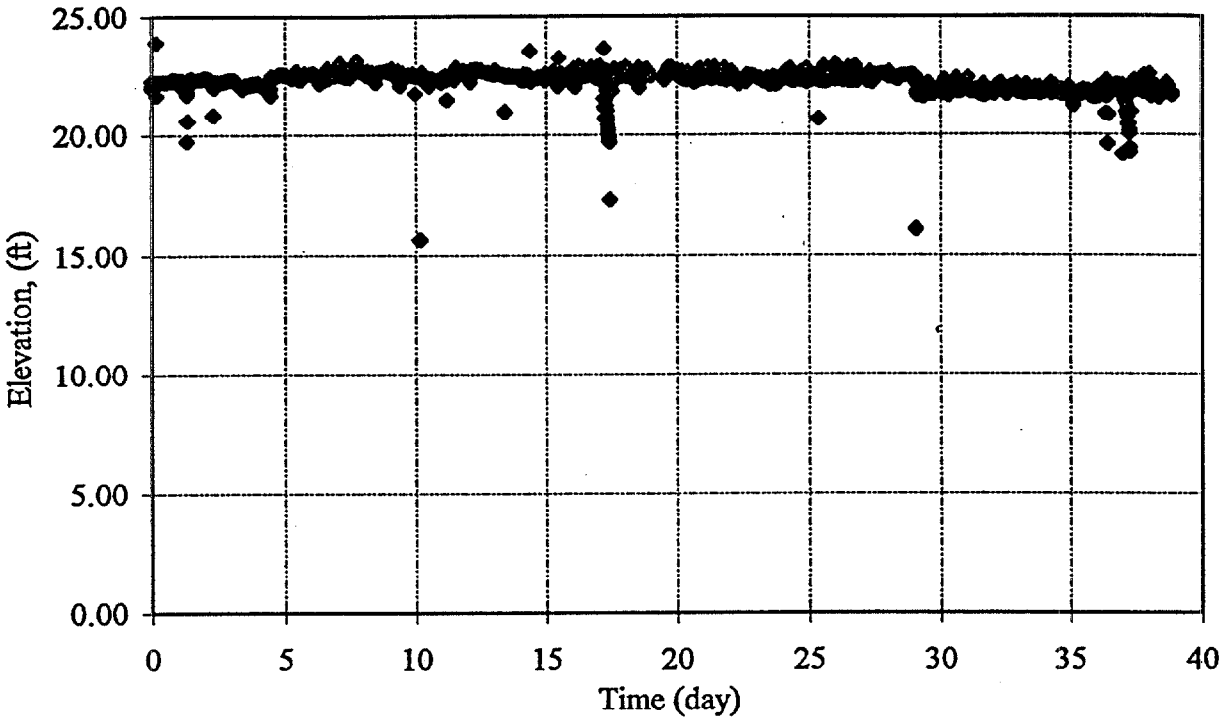


Figure 31 Elevation of injection well IN01 as a function of time

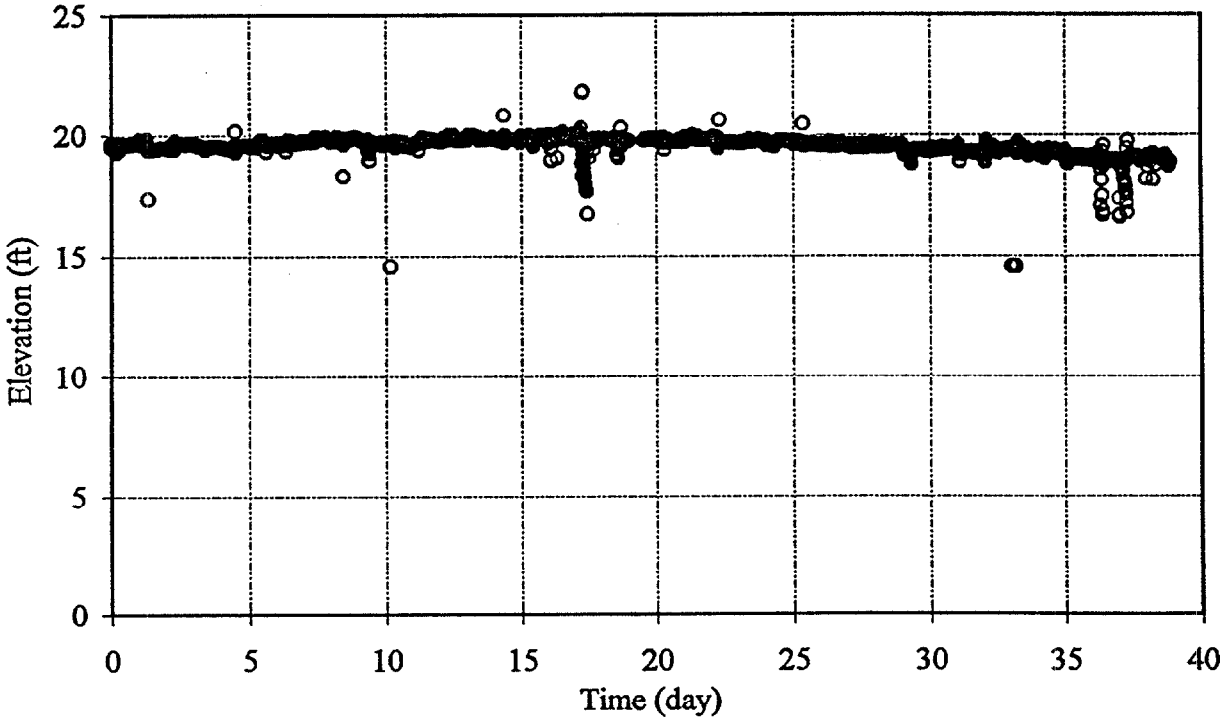


Figure 32 Elevation of injection well IN02 as a function of time

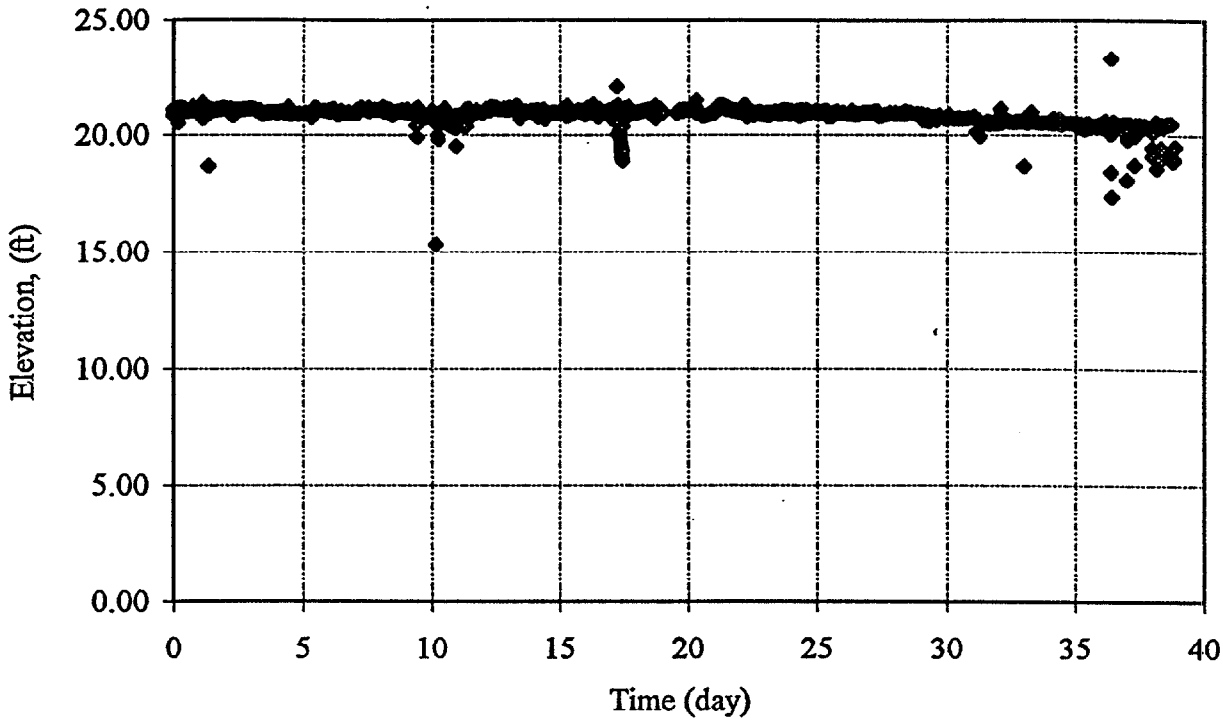


Figure 33 Elevation of injection well IN03 as a function of time

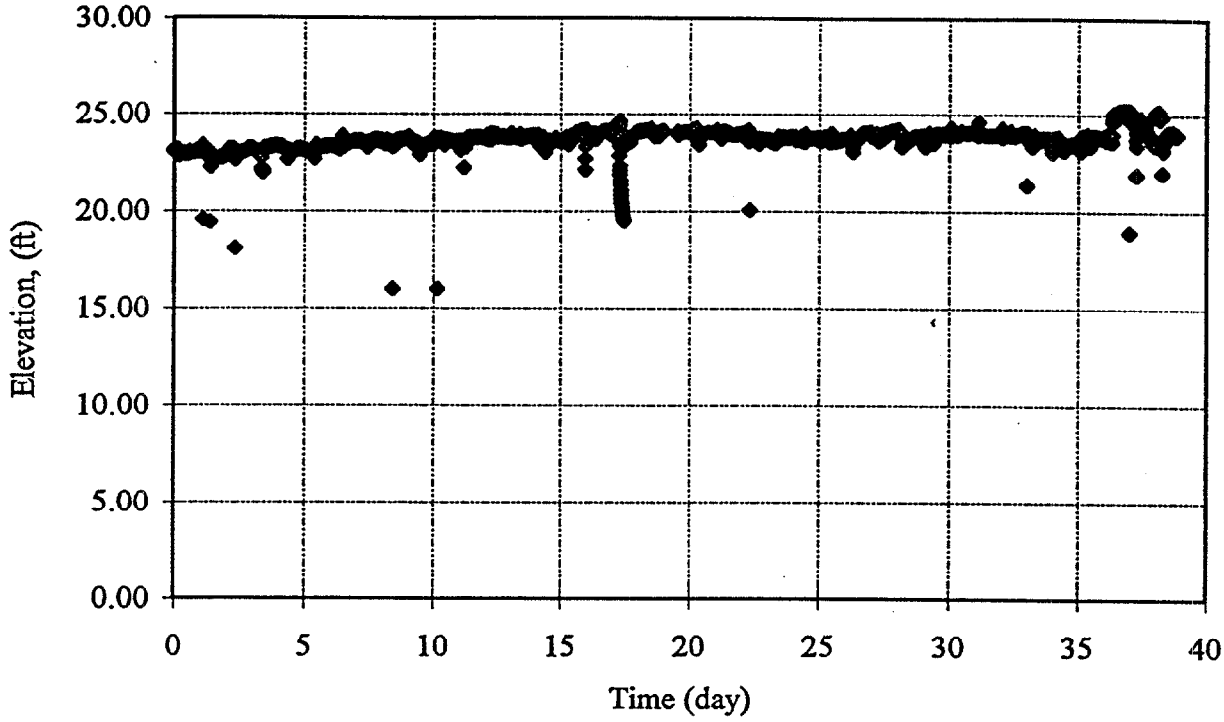


Figure 34 Elevation of hydraulic control well HC01 as a function of time

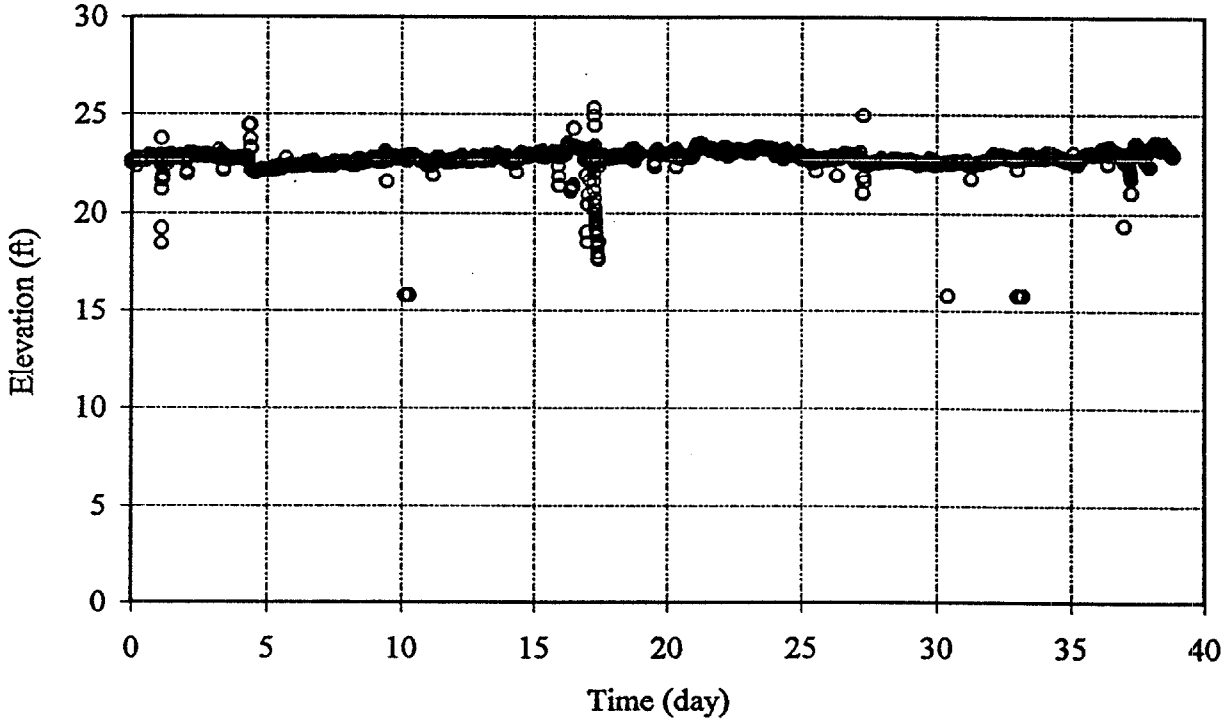


Figure 35 Elevation of hydraulic control well HC02 as a function of time

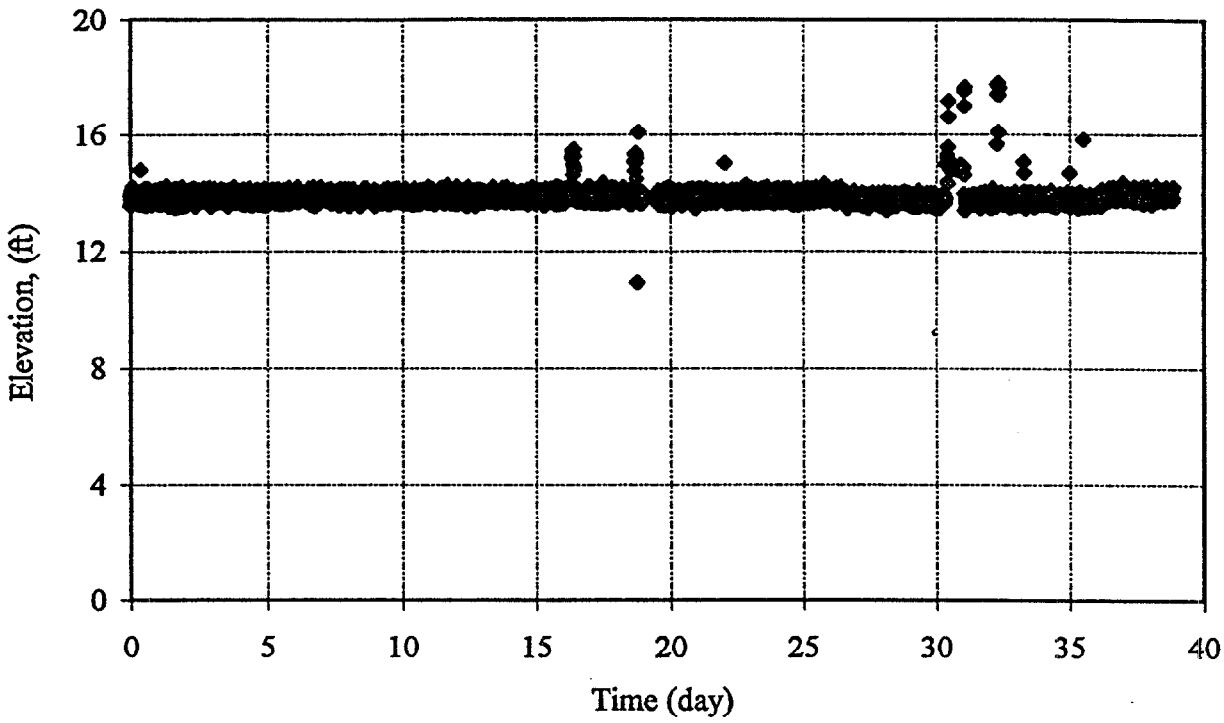


Figure 36 Elevation of extraction well EX01 as a function of time

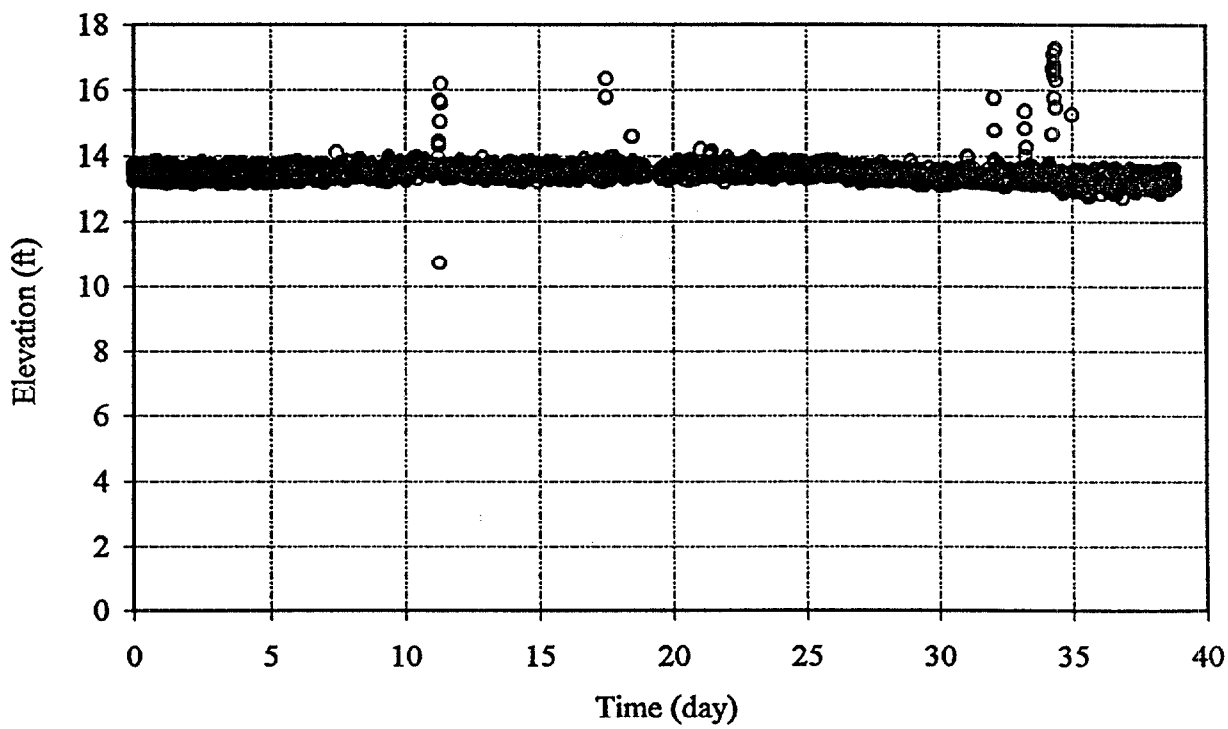


Figure 37 Elevation of extraction well EX02 as a function of time

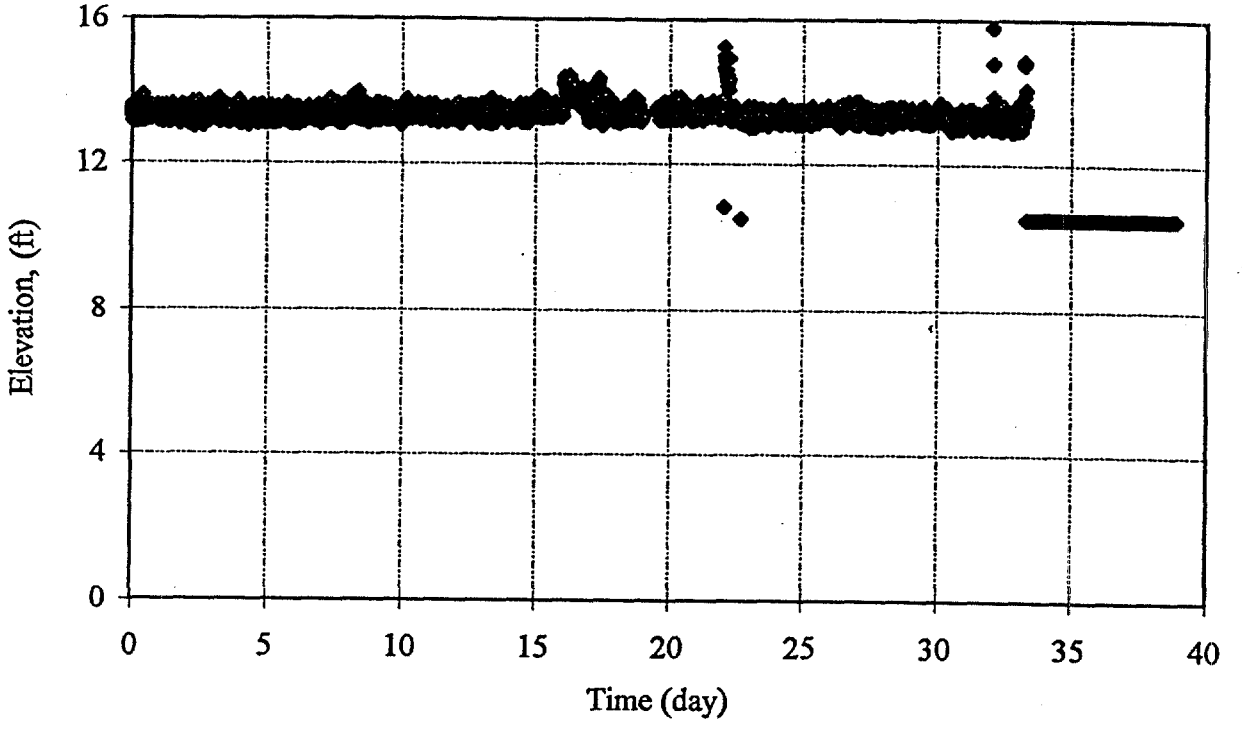


Figure 38 Elevation of extraction well EX03 as a function of time

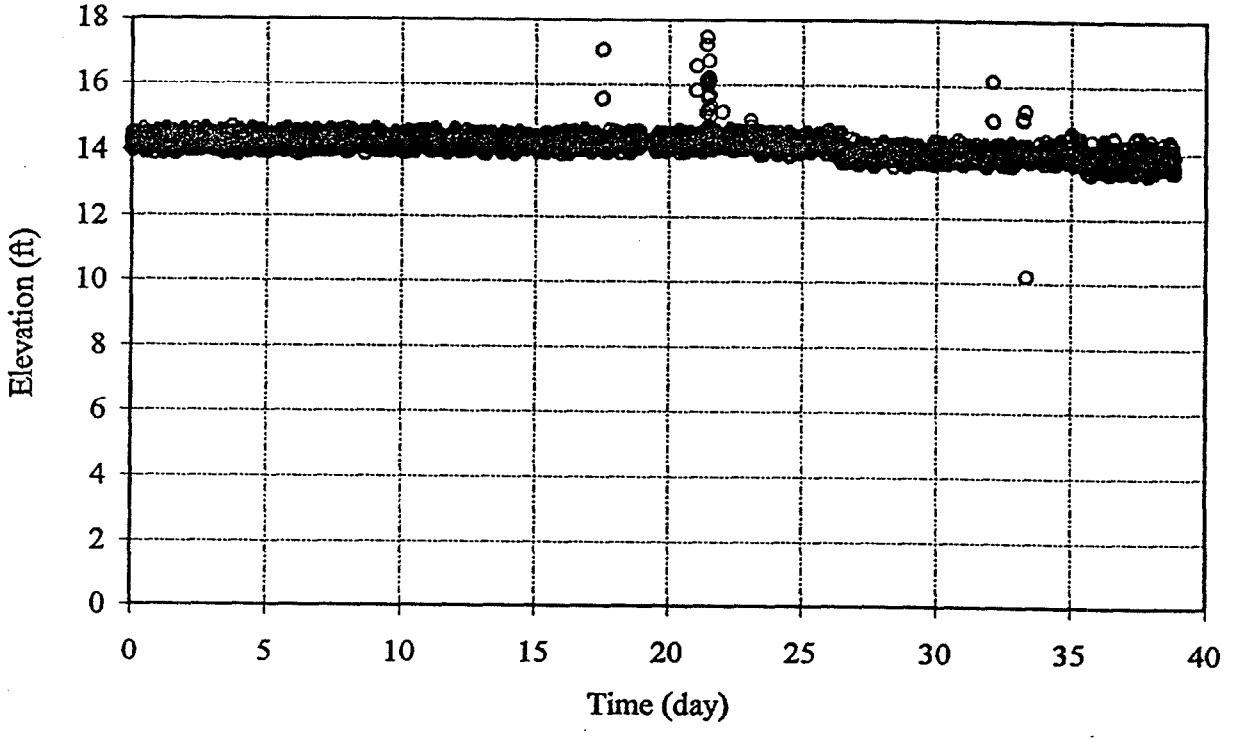


Figure 39 Elevation of extraction well EX04 as a function of time

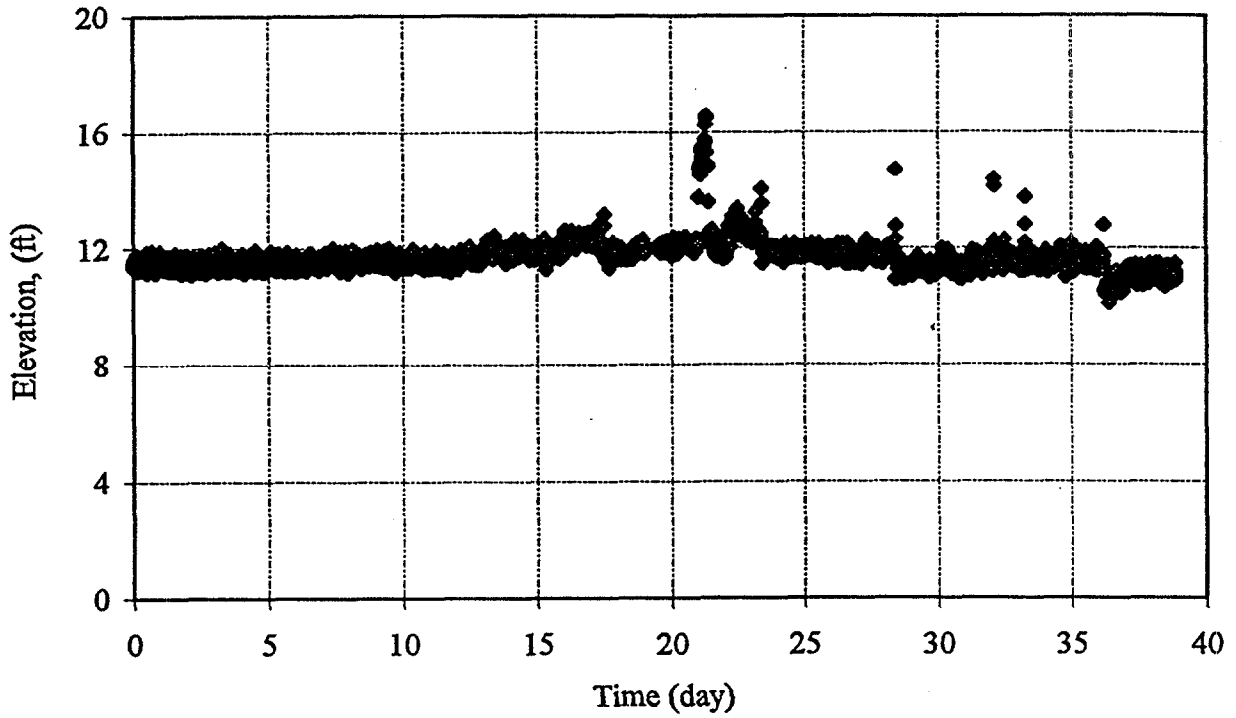


Figure 40 Elevation of extraction well EX05 as a function of time

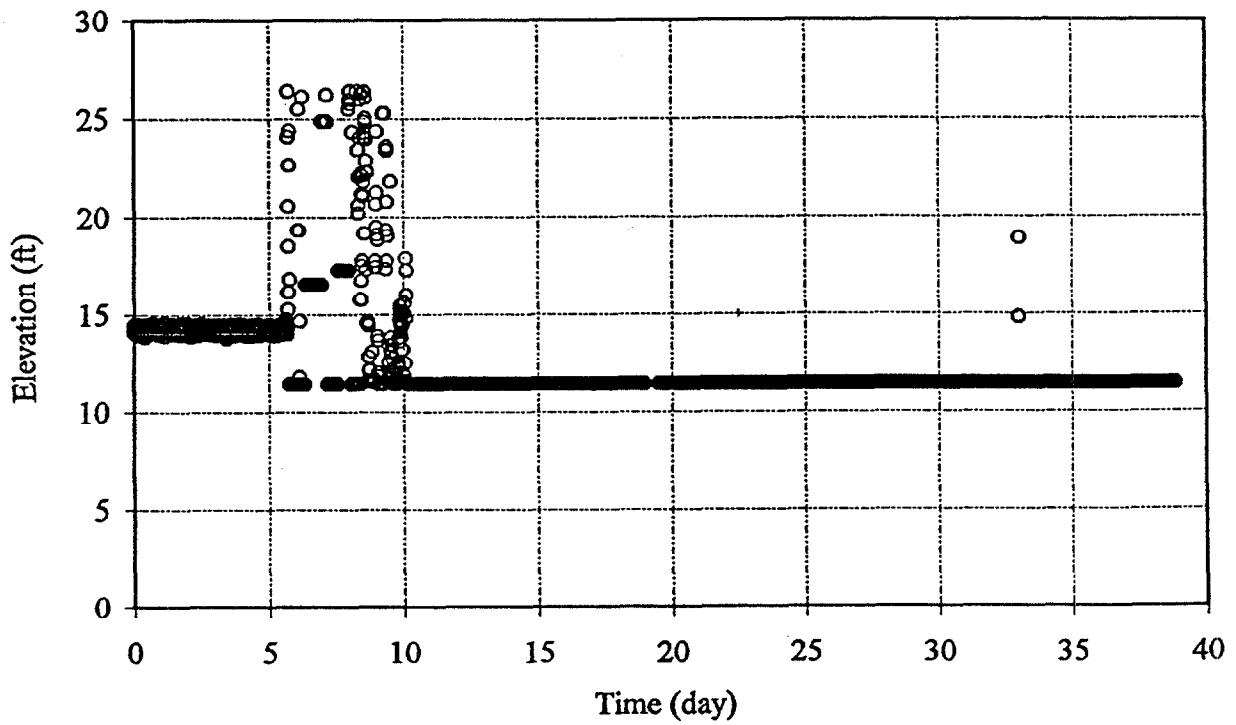


Figure 41 Elevation of extraction well EX06 as a function of time

Appendix J

PITT Operations – Water Quality Data

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MW05 WATER QUALITY DATA & Sampling

PROJECT NAME: CAMP LEJEUNE PITT PROJECT NO.: TON 307
WATER QUALITY INSTRUMENT:

WELL	DATE	TIME	TOTAL WATER PURGED (gal)	TEMP ☐°C ☐°F	CONDUCTIVITY (µS)	pH	TECH	COMMENTS
MW05	5/29/98	0959	3.0	24.3	119.3	5.12	GY	TD: 23.00
		1015	6.0	23.7	125	5.46		SWL: 6.63
		1032	9.0	23.0	131.9	5.55		WC: 16.37
		1040	Sample collected for ARSNIC					1 Vol: 2.7 gallons
	6/26/98	1310	Ø				JC	SWL: 7.33
	↓	1415	9.0	Collected Sample			JC	DTW: 8.28

Note: Water quality readings listed are assumed to be final water quality readings obtained at the end of development/redevelopment, at the time of ground-water sampling, or at any other time the well was sufficiently purged.

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Exo1

WATER QUALITY DATA

PROJECT NAME: Camp Lejeune PITT PROJECT NO.: TDN-307
WATER QUALITY INSTRUMENT:

WELL	DATE	TIME	TOTAL WATER PURGED (gal)	TEMP ☒°C ☐°F	CONDUCTIVITY (µS)	pH	TECH	COMMENTS
EXO1	5/12/98	15:39		23.9	1416 µS		HCL	PH Meter giving SIP E-23 Env mess
	5/13	1337		22.9	1447		HCL	PH Meter down
	5/14	11:40		26.4	1370		KJS	"
	5/18	1416		28.3	1,460	4.2	MKD	From AC manual port
	5/20	1502		27.8	1,450	3.63	MKD	From filter port
	5/22	1340		25.3	383	4.18	MKD	from wellhead
	5/27	1512		25.2	1145	4.0	GY	
	5/28	0817		24.8	418	3.91	GY	
	5/28	0910		25.2	1490	3.62	GY	Top of pump
	5/30	0750		24.6	1465	4.08	GY	
	5/31	0840		25.3	1436	3.81	GY	
	6/2	1007		26.4	1250	[illegible]	JC	3.90 PH
	6-6-98	0815		26.7	1540	3.88	RJH	From AC filter port
*	6-11-98	0852		26.	1630	3.90	"	" "
	6-15-98	0827		26.5	1540	3.68	JC	" "
	6-18-98	1000		27.7	1530	3.65	JC	" "

* Good representative data taken in morning with minimal temp. interference (ie: sun low, overcast, ambient temp = 28.3°C), & good sample purging at AC filter port.

Note: Water quality readings listed are assumed to be final water quality readings obtained at the end of development/redevelopment, at the time of ground-water sampling, or at any other time the well was sufficiently purged.

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Ex02

WATER QUALITY DATA

PROJECT NAME: Camp Lejeune PITT PROJECT NO.: TDN-307
WATER QUALITY INSTRUMENT:

WELL	DATE	TIME	TOTAL WATER PURGED (gal)	TEMP °C °F	CONDUCTIVITY (µS)	pH	TECH	COMMENTS
EX01	5/12	1557		24.1	1219 µs	?	HCL	PH Meter giving Slope Error-2
	5/13	1341		22.6	1261		HCL	"
	5/14	11:46		26.9	1190		KJS	"
	5/18	1421		28.0	1,240	4.12	MKD	From AC manual port
	5/20	1505		27.6	1,290	3.89	MKD	From Filter port
	5/22	1348		25.9	564	4.27	MKD	from wellhead
	5/27	1517		25.3	1087	4.01	GY	
	5/28	0824		25.4	566	3.96	GY	
	5/28	0905		25.4	1085	4.05	GY	Top of pump
	5/30	0755		25.1	1163	4.13	GY	
	5/31	0845		25.5	1162	4.0	GY	
	6/2	1030		26.8	1270	[illegible]	JC	38.12d
*	6-6-98	0821		27.0	1320	4.22	FJH	From AC Filter Port
*	6-11-98	0858		26.9	1366	4.00 ~~3.97~~ 3.76	"	" " " (mixed NAPL from Ex2
	6-15-98	0833		26.9	1360	3.94	JC	From AC Filter Port
	6/18/98	1005		27.6	1360	3.99	JC	" "

* See Note on EX 01

Note: Water quality readings listed are assumed to be final water quality readings obtained at the end of development/redevelopment, at the time of ground-water sampling, or at any other time the well was sufficiently purged.

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Ex03

WATER QUALITY DATA

PROJECT NAME: Camp Lejeune PITT PROJECT NO.: TDN-307
WATER QUALITY INSTRUMENT:

WELL	DATE	TIME	TOTAL WATER PURGED (gal)	TEMP ☒°C ☐°F	CONDUCTIVITY (µS)	pH	TECH	COMMENTS
Ex03	5/12	1601		25.2	1144 µs		HCL	
	5/13	1346		23.3	1220		HCL	
	5/14	1150		27.5	1160		KJS	
	5/18	1426		28.8	1190	4.08	MKD	From AC manual port
	5/20	1508		28.8	1,230	3.93	MKD	From filter port
	5/20	1406		29.2	348	4.35	MKD	from wellhead
	5/27	1523		27.4	1180	3.84	GY	
	5/28	0829		28.1	397	3.95	GY	
	5/28	0900		26.9	1295	3.92	GY	Top of pump
	5/30	0800		27.5	980	3.92	GY	
	5/31	0848		27.6	1230	3.86	GY	
	6/2	1038		29.4	460	3.83	JC	
	6/2	1042		29.5	450	3.77	JC	
*	6-6-98	0818		28.1	1330	4.3	FJH	From AC filter port
*	6-11-98	0905		28.7	1430	3.92	"	" " "
	6-15-98	0837		28.6	1460	3.72	JC	" " "
	6-18-98	1010		29.9	1430	3.77	JC	

* Good representative data taken in morning (sun low) & overcast for minimal temp. interference, and good purging at AC filter ports.

Note: Water quality readings listed are assumed to be final water quality readings obtained at the end of development/redevelopment, at the time of ground-water sampling, or at any other time the well was sufficiently purged.

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EX04R

WATER QUALITY DATA

PROJECT NAME: Camp Lejeune PITT PROJECT NO.: TDN-307
WATER QUALITY INSTRUMENT:

WELL	DATE	TIME	TOTAL WATER PURGED (gal)	TEMP ☐°C ☐°F	CONDUCTIVITY (µS)	pH	TECH	COMMENTS
EX04	5/12	1605		22.6	1274 µs		HCL	
	5/13	1350	21.1	~~23.7~~	1307		HCL	
	5/14	1155		24.9	1260		KJS	
	5/18	1431		27.1	1,350	3.79	MKD	From AC manual port
	5/20	1512		26.6	1,360	4.10	MKD	from filter port
	5/22	1413		23.8	1,330	4.10	MKD	from wellhead
	5/27	1550		23.7	~~[illegible]~~.5 1236	4.30	GY	Bottom of well
	5/28	0834		24.6	[575] 510	4.14	GY	- ~~[illegible]~~ up from Bottom
	5/28	0847		23.6	1370	3.92	GY	top of pump
	5/30	0807		24.0	1285	3.98	GY	
	5/31	0855		24.5	1370	3.92	GY	
	6/2	1057		25.8	1390	3.68	JC	
*	6-6-98	0832		25.8	1430	4.25	FJH	From AC Filter port
*	6-11-98	0910		25.9	1470	3.93	"	" " "
	6-15-98	0845		26.0	1500	3.75	JC	" " "
	6-18-98	1014		26.5	1490	3.80	JC	

* See note on EX01

Note: Water quality readings listed are assumed to be final water quality readings obtained at the end of development/redevelopment, at the time of ground-water sampling, or at any other time the well was sufficiently purged.

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Ex05

WATER QUALITY DATA

PROJECT NAME: Camp Lejeune PITT PROJECT NO.: TDN-307
WATER QUALITY INSTRUMENT:

WELL	DATE	TIME	TOTAL WATER PURGED (gal)	TEMP ☐°C ☐°F	CONDUCTIVITY (µS)	pH	TECH	COMMENTS
EX05	5/12	1608		21.9	1184 µs		HCL	PM See Ex01
	5/13	1352		21.6	1227		HCL	
	5/14	1200		25.2	1150		KJS	
	5/18	1436		26.1	1,250	3.89	MKD	From AC manual port
	5/20	1515		24.0	1,250	4.17	MKD	From filter port
	5/22	1420		22.0	1,143	4.11	MKD	from wellhead
	5/27	1600		22.7	1434	4.74	GY	
	5/28	0837		22.9	145	4.77	GY	MID
	5/29	0843		22.6	1019	4.10	GY	ON TOP of pump
	5/30	0810		23.0	924	4.19	GY	
	5/31	0900		23.3	1170	4.14	GY	
	6/2	1105		25.4	1310	3.90	JC	
*	6-6-98	0837		24.8	1280	4.24	FJH	From AC Filter Port
	6-11-98	0915		24.6	1300	4.20	FJH	" " "
	6-15-98	0849		24.5	1310	3.99	JC	" " "
	6/18/98	1019		25.2	1320	4.20	JC	" " "

* See Note on Ex01

Note: Water quality readings listed are assumed to be final water quality readings obtained at the end of development/redevelopment, at the time of ground-water sampling, or at any other time the well was sufficiently purged.

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EX06.

WATER QUALITY DATA

PROJECT NAME: Camp Lejeune PITT PROJECT NO.: TDN-307
WATER QUALITY INSTRUMENT:

WELL	DATE	TIME	TOTAL WATER PURGED (gal)	TEMP ☒°C ☐°F	CONDUCTIVITY (µS)	pH	TECH	COMMENTS
EX06	5/12	1615		21.8	1200		HCL	PH See Ex01
	5/13	1355		21.5	1233		HCL	"
	5/14	1155		24.8	1180		KJS	"
	5/18	1439		25.9	1,230	4.10	MKD	From AC manual port
	5/20	1518		23.3	1,310	4.20	MKD	from filter port
	5/20	1425		21.5	847	4.50	MKD	from wellhead
	5/27	1110		22.4	1277	4.12	GY	@ Bottom
	5/28	0852		22.1	1303	4.19	GY	top of pump
	5/30	0814		22.7	1252	4.24	GY	
	5/31	0904		23.1	1265	4.42	GY	
	6/1			25.3	1015	4.0	JC	
	6/2	1116		25.3	1240	4.87	JC	
*	6-5-98	0840		24.0	1330	4.28	FJH	From AC Filter Port
*	6-11-98	0921		24.1	1380	4.15	FJH	" " "
	6-15-98	0856		24.6	1390	4.00	JC	" " "
	6-18-98	1026		24.9	1400	4.09	JC	" "

* See Note on EX01

Note: Water quality readings listed are assumed to be final water quality readings obtained at the end of development/redevelopment, at the time of ground-water sampling, or at any other time the well was sufficiently purged.

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RW01

WATER QUALITY DATA

PROJECT NAME: Camp Lejeune PITT PROJECT NO.: TDN307
WATER QUALITY INSTRUMENT:

WELL	DATE	TIME	TOTAL WATER PURGED (gal)	TEMP ☒°C ☐°F	CONDUCTIVITY (µS)	pH	TECH	COMMENTS
RW01	5/18/96	1529	1.5	24.0	969	5.04	MKD	Measured at wellhead
	5/21	1601	3.0	24.4	1,009	5.15	MKD	" " "
	5/27	1753	~~5.0~~ 10	24.6	263	5.33	GY	
		1758	2.0	24.6	314	5.31		
		1803	3.0	24.6	425	5.26		
		1808	4.0	24.5	493	5.23		
		1812	5.0	24.6	669	5.11		
	5/28	1002	1.0	26.3	726	5.10	GY	TOP
		1007	2.0	25.1	734	5.10		
		1012	3.0	24.7	729	5.15		12" from bottom
		1018	1.0	24.7	1111	4.94		
		1023	2.0	24.8	1156	4.91		
		1027	3.0	24.8	1173	4.89		
	5/30	0825	1.0	25.1	1105	5.10	GY	
		0830	2.0	24.9	1109	5.04		
		0834	3.0	24.9	1129	4.99		
	5/31	0914	1.0	25.2	1104	4.97	GY	
		0917	2.0	25.1	1075	5.00		
		0922	3.0	24.9	1031	5.04		
	6/3	1437	1.0	27.6	1050		JC	
		1441	2.0	27.6	1020			
		1445	3.0	27.4	1020			
	6/10	1447	2.0	26.1	740	5.08	JC	2 FT. from Top - Approx 11 ft.
		1500	3.0	26.0	760	5.02		" " "
		1513	4.0	26.0	1315	4.93		13 ft.

Note: Water quality readings listed are assumed to be final water quality readings obtained at the end of development/redevelopment, at the time of ground-water sampling, or at any other time the well was sufficiently purged.

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RW 01

WATER QUALITY DATA

PROJECT NAME: PITT 1: Camp Lejeune PROJECT NO.: TDN 307
WATER QUALITY INSTRUMENT:

WELL	DATE	TIME	TOTAL WATER PURGED (gal)	TEMP ☐°C ☐°F	CONDUCTIVITY (µS)	pH	TECH	COMMENTS
RW01	6-16-98	0833	1.0	26.2	843	5.14	JC	Measured at 11 Ft.
	↓	0845	2.0	26.7	857	5.10	↓	↓
	↓	0857	3.0	26.2	1474	4.89	↓	Measured at 15 Ft
	6-19-98	0831	1.0	26.9	896	5.12	JC	Measured at 11 ft
	↓	0845	2.0	27.1	901	5.16	↓	↓
	↓	0858	3.0	26.6	1450	4.70	↓	" " 15 Ft

Note: Water quality readings listed are assumed to be final water quality readings obtained at the end of development/redevelopment, at the time of ground-water sampling, or at any other time the well was sufficiently purged.

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RW02

WATER QUALITY DATA

PROJECT NAME: Camp Lejeune PITT 1 PROJECT NO.: TDN 307
WATER QUALITY INSTRUMENT:

WELL	DATE	TIME	TOTAL WATER PURGED (gal)	TEMP ☒°C ☐°F	CONDUCTIVITY (µS)	pH	TECH	COMMENTS
RW02	5/18	1545	2.5	23.2	2,220	6.55	MKD	Measured at wellhead
	5/21	1620	2.5	24.4	2,160	6.62	MKD	" " "
	5/27	1816	3.0	24.6	1990	6.41	GY	
		1821		24.8	1940	6.48		
		1825		24.7	1980	6.55		
	5/28	1035	1.0	25.4	2080	6.30	GY	Top
		1040	2.0	25.1	2090	6.36		
		1043	3.0	24.9	2085	6.42		
		1048	1.0	25.6	2100	6.46		Bottom
		1053	2.0	26.1	2090	6.49		
		1057	3.0	26.2	2080	6.50		
	5/30	0841	1.0	26.3	2080	6.34	GY	
		0845	2.0	25.9	2090	6.45		
		0849	3.0	25.6	2100	6.51		
	5/31	0930	1.0	25.8	2080	6.36	GY	
		0934	2.0	25.4	2090	6.45		
		0938	3.0	25.4	2090	6.51		
	6/3	1420	1.0	29.1	1980		JC	
		1425	2.0	28.8	2020			
		1429	3.0	28.5	2000			
	6/10	1529	1.0	26.6	2100	6.57	JC	Measured 2ft. below top
		1537	2.0	26.5	2090	6.61		
		1555	3.0	26.2	2080	6.75		measured at 15[illegible]

Note: Water quality readings listed are assumed to be final water quality readings obtained at the end of development/redevelopment, at the time of ground-water sampling, or at any other time the well was sufficiently purged.

INTERA
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RW02 WATER QUALITY DATA

PROJECT NAME: PITT 1: Camp Lejeune PROJECT NO.: TDN 307
WATER QUALITY INSTRUMENT:

WELL	DATE	TIME	TOTAL WATER PURGED (gal)	TEMP. (°C or °F)	CONDUCTIVITY (µS)	pH	TECH	COMMENTS
RW02	6/16/98	0918	1.0	27.8	2110	6.50	JC	Measured at 9 FT.
	↓	0930	2.0	28.1	2110	6.54	↓	↓
	↓	0944	3.0	27.4	2110	6.59	↓	Measured at 13 FT
	6/19/98	0912	1.0	28.0	2140	6.50	JC	Measured at 9 FT
		0925	2.0	28.0	2120	6.60	↓	↓
		0939	3.0	28.1	2120	6.50	↓	Measured at 13 FT

Note: Water quality readings listed are assumed to be final water quality readings obtained at the end of development/redevelopment, at the time of ground-water sampling, or at any other time the well was sufficiently purged.

INTERA
A Duke Engineering & Services Company

RW 04 WATER QUALITY DATA

PROJECT NAME: PITT 1 : Camp Lejeune PROJECT NO.: TDN 307
WATER QUALITY INSTRUMENT:

WELL	DATE	TIME	TOTAL WATER PURGED (gal)	TEMP ☒°C ☐°F	CONDUCTIVITY (µS)	pH	TECH	COMMENTS
RW4	5/21	1708	3.5	24.3	235	4.36	MKD	Measured at wellhead
	5/27	1850	3.0	24.5	194	4.35	GY	
		1853		24.5	227	4.31		
		1857		24.5	227	4.32		
	5/29	1135	1.0	27.1	231	4.18	GY	TOP
		1139	2.0	26.3	233	4.19		
		1144	3.0	25.2	235	4.20		
		1150	1.0	25.3	228	4.18		Bottom
		1154	2.0	25.5	228	4.16		
		1158	3.0	25.8	229	4.16		
	5/30	0910	1.0	26.1	229	4.19	GY	
		0914	2.0	25.6	228	4.19		
		0918	3.0	25.6	228	4.17		
		1000	1.0	25.4	233	4.20		
		1004	2.0	24.8	231	4.18		
		1008	3.0	24.9	233	4.20		
	6/3	1335	1.0	28.9	230		JC	
		1340	2.0	28.3	220		JC	
		1345	3.0	27.3	220		JC	
	6/10	1638	1.0	25.7	232	4.34	JC	Measured at 11 ft.
		1644	2.0	25.8	236	4.32		
		1650	3.0	25.7	231	4.30		Measured at 15 ft.

Note: Water quality readings listed are assumed to be final water quality readings obtained at the end of development/redevelopment, at the time of ground-water sampling, or at any other time the well was sufficiently purged.

INTERA
the Engineering & Services Company

(RW04) WATER QUALITY DATA

PROJECT NAME: PITT 1 : Camp Lejeune PROJECT NO.: TDN 307
WATER QUALITY INSTRUMENT:

WELL	DATE	TIME	TOTAL WATER PURGED (gal)	TEMP. °C °F	CONDUCTIVITY (µS)	pH	TECH	COMMENTS
RW04	6.16.98	1047	1.0	26.8	224	4.08	JC	Measured at 11FT
	↓	1101	2.0	27.3	227	4.09	↓	" ↓ "
		1116	3.0	26.7	223	4.07	↓	" " 15FT
	6.19.98	1045	1.0	27.2	232	4.16	JC	Measured at 11FT
	↓	1058	2.0	26.8	229	4.15	↓	↓
		1110	3.0	26.5	224	4.08	↓	" " 15FT

Note: Water quality readings listed are assumed to be final water quality readings obtained at the end of development/redevelopment, at the time of ground-water sampling, or at any other time the well was sufficiently purged.

INTERA
A Duke Engineering & Services Company

IW 01

WATER QUALITY DATA

PROJECT NAME: Camp Lejeune PITT 1 PROJECT NO.: TDN307
WATER QUALITY INSTRUMENT:

WELL	DATE	TIME	TOTAL WATER PURGED (gal)	TEMP ☒°C ☐°F	CONDUCTIVITY (µS)	pH	TECH	COMMENTS
IW01	5/18/98	1558	2.0	22.0	2,200	4.90	MKD	Measured at well head
	5/21	1640	2.5	22.7	1,770	4.97	MKD	" " "
	5/27	1832	4.0	23.3	1620	4.74	GY	
		1836		23.1	1650	4.71		
		1840		23.1	1760	4.59		
		1844		23.1	1810	4.55		
	5/28	1104	1.0	25.6	1700	4.53	GY	TOP
		1109	2.0	24.8	1775	4.61		
		1117	3.0	25.4	1800	4.46		
		1120	1.0	25.4	1850	4.47		Bottom
		1124	2.0	25.4	1860	4.40		
		1128	3.0	25.4	1870	4.36		
	5/30	0855	1.0	24.6	1785	4.64	GY	
		0859	2.0	24.3	1823	4.59		
		0903	3.0	24.5	1855	4.49		
	5/31	0942	1.0	24.2	1840	46		
		0946	2.0	24.0	1880	4.55		
		0950	3.0	24.2	1880	4.51		
	6/3	1401	1.0	26.8	1820		JC	
		1407	2.0	26.9	1840			
		1413	3.0	26.9	1860			
	6/10	1612	1.0	26.0	1943	4.44	JC	Measured at Approx. 11 ft
		1621	2.0	25.8	1929	4.49		
		1630	3.0	25.8	1957	4.42		Measured at 15 ft

Note: Water quality readings listed are assumed to be final water quality readings obtained at the end of development/redevelopment, at the time of ground-water sampling, or at any other time the well was sufficiently purged.

INTERA
Engineering & Services Company

WATER QUALITY DATA

PROJECT NAME: PITT 1: Camp Lejeune PROJECT NO.: TDN 307
WATER QUALITY INSTRUMENT:

WELL	DATE	TIME	TOTAL WATER PURGED (gal)	TEMP °C °F	CONDUCTIVITY (µS)	pH	TECH	COMMENTS
IW01	6-16-98	1002	1.0	26.4	1930	4.25	JC	Measured at 11 ft
	↓	1017	2.0	26.7	1910	4.21	↓	↓
	↓	1034	3.0	26.4	1930	4.36	↓	Measured at 15 ft
	6-19-98	1000	1.0	26.9	1920	4.49	JC	Measured at 11 ft
		1018	2.0	27.4	1930	4.47	↓	" ↓ "
	↓	1025	3.0	27.3	1950	4.36	↓	Measured at 15 ft

Note: Water quality readings listed are assumed to be final water quality readings obtained at the end of development/redevelopment, at the time of ground-water sampling, or at any other time the well was sufficiently purged.

Appendix K

PITT Analytical Data

Sample ID	Date and Time Sampled	Date Analyzed	methanol (ppm)	1-propanol (ppm)	4-me-2-pentanol (ppm)	1-hexanol (ppm)	1-heptanol (ppm)	PCE (ppm)
Extraction Wells								
EX1/003 M	05/14/98 @ 0733	5/19/98	nd	nd	nd	156	nd	nd
EX1/004 A	05/13/98 @ 1730	5/19/98	nd	nd	nd	107	nd	nd
EX1/005 A	05/14/98 @ 0740	5/19/98	nd	nd	nd	129	nd	nd
EX1/006 M	05/14/98 @ 1947	5/19/98	nd	nd	nd	*~239*	nd	nd
EX1/008 M	05/15/98 @ 1954	5/20/98	0.08	0.20	0.16	*~217*	0.16	nd
EX1/009 M	05/16/98 @ 0742	5/20/98	2.90	3.15	2.45	*~232*	1.55	0.35
EX1/010 A	05/14/98 @ 1330	5/19/98	nd	nd	nd	*~204*	nd	nd
EX1/011 A	05/14/98 @ 1930	5/19/98	nd	nd	nd	*~227*	nd	nd
EX1/012 A	05/15/98 @ 0130	5/20/98	nd	nd	nd	*~220*	nd	nd
EX1/013 A	05/15/98 @ 0730	5/20/98	nd	nd	nd	*~232*	nd	nd
EX1/014 A	05/15/98 @ 1330	5/20/98	nd	nd	nd	*~235*	nd	nd
EX1/015 A	05/15/98 @ 1930	5/20/98	0.10	0.22	0.14	*~221*	0.15	nd
EX1/016 AD	05/15/98 @ 1940	5/20/98	0.17	0.19	0.14	*~230*	0.15	nd
EX1/017 A	05/16/98 @ 0130	5/20/98	0.59	0.68	0.57	*~198*	0.40	0.18
EX1/018 A	05/16/98 @ 0730	5/20/98	2.52	2.79	2.12	*~216*	1.34	0.31
EX1/020 M	05/16/98 @ 2020	5/25/98	13.1	16.3	11.3	*~239*	7.76	1.53
EX1/021 M	05/17/98 @ 0740	5/26/98	36.1	38.3	27.4	*~270*	19.1	4.44
EX1/022 A	05/16/98 @ 1330	5/25/98	5.58	7.20	5.37	150	3.77	0.53
EX1/023 A	05/16/98 @ 1940	5/25/98	11.0	12.5	8.89	92.5	6.25	1.12
EX1/024 A	05/17/98 @ 0705	5/26/98	34.2	39.0	27.0	*~276*	18.4	4.18
EX1/026 M	05/18/98 @ 0800	6/4/98		97.2	63.5		54.0	16.4
EX1/028 M	05/19/98 @ 0737	6/5/98		146	76.5		57.3	17.6
EX1/029 A	05/17/98 @ 1340	5/26/98	50.2	53.0	37.1	*~309*	26.2	7.18
EX1/030 A	05/17/98 @ 1940	5/26/98	68.5	74.6	51.5	*~220*	36.6	8.49
EX1/031 A	05/18/98 @ 0140	5/27/98	82.0	83.6	59.7	*~217*	43.5	10.2
EX1/032 A	05/18/98 @ 0740	5/27/98	90.1	93.4	67.3	*~234*	50.4	12.5
EX1/033 AD	05/18/98 @ 0750	5/27/98	87.2	90.4	65.9	*~207*	50.2	12.5
EX1/035 A	05/18/98 @ 1340	5/27/98	99.1	103	75.0	*~222*	56.8	15.4
EX1/036 A	05/18/98 @ 1940	5/27/98	116	120	82.8	*~227*	63.1	16.9
EX1/037 A	05/19/98 @ 0140	6/5/98		136	77.9		68.1	15.3
EX1/038 A	05/19/98 @ 0740	6/5/98		145	87.6		77.2	15.2
EX1/039 M	05/19/98 @ 1953	6/5/98		187	95.1		65.9	20.3
EX1/040 A	05/19/98 @ 1340	6/5/98		183	114		96.3	19.6
EX1/041 A	05/19/98 @ 1940	6/5/98		228	129		106	23.7
EX1/042 A	05/20/98 @ 0150	6/6/98		>200	172		134	32.8
EX1/042 A (1:10)	05/20/98 @ 0150	6/30/98		181	138		125	60.1
EX1/043 A	05/20/98 @ 0750	6/6/98		>200	182		143	39.1
EX1/043 A (1:10)	05/20/98 @ 0750	6/30/98		204	155		111	32.5
EX1/044 M	05/20/98 @ 2140	6/7/98		228	152		120	29.9
EX1/045 A	05/20/98 @ 2100	6/6/98		>200	191		148	36.5
EX1/045 A (1:10)	05/20/98 @ 2100	6/30/98		224	153		104	29.8
EX1/046 A	05/21/98 @ 0900	6/7/98		>200	167		131	28.3
EX1/046 A (1:10)	05/21/98 @ 0900	6/30/98		215	157		125	40.0
EX1/047 M	05/21/98 @ 2101	6/7/98		227	165		134	40.0
EX1/048 A	05/21/98 @ 2100	6/7/98		215	171		149	46.9
EX1/048 A (1:10)	05/21/98 @ 2100	7/1/98		210	141		148	55.5
EX1/049 A	05/22/98 @ 0900	6/7/98		214	181		153	53.1
EX1/050 M	05/22/98 @ 2101	6/8/98		200	163		140	47.4
EX1/051 A	05/22/98 @ 2100	6/7/98		196	172		150	48.4
EX1/052 A	05/23/98 @ 0850	6/8/98		175	178		167	61.7
EX1/053 M	05/23/98 @ 1906	6/8/98		154	156		161	62.6
EX1/054 M	05/25/98 @ 1030	6/9/98		46.5	63.4		59.9	nd

Sample ID	Date and Time Sampled	Date Analyzed	methanol (ppm)	1-propanol (ppm)	4-me-2-pentanol (ppm)	1-hexanol (ppm)	1-heptanol (ppm)	PCE (ppm)
EX1/055 A	05/23/98 @ 2100	6/8/98		117	118		114	49.8
EX1/056 A	05/24/98 @ 0900	6/9/98		90.2	104		96.7	37.2
EX1/057 A	05/24/98 @ 2100	6/9/98		86.2	116		113	46.7
EX1/058 A	05/25/98 @ 0900	6/9/98		74.1	104		106	42.5
EX1/058 A [dup]	05/25/98 @ 0900	6/9/98		60.4	83.6		86.7	39.8
EX1/059 A	05/25/98 @ 2100	7/14/98		67.10	105.0		134.00	55.60
EX1/060 A	05/26/98 @ 0850	6/10/98		112	145		198	84.7
EX1/060 A	05/26/98 @ 0850	6/10/98		36.3	55.2		64.6	nd
EX1/061 AD	05/26/98 @ 0900	6/10/98		65.8	86.4		120	52.4
EX1/061 AD	05/26/98 @ 0900	6/10/98		0.14	8.08		nd	nd
EX1/062	05/26/98 @ 0920	6/10/98		>200	>200		181	87.8
EX1/063 M	05/26/98 @ 1210	6/10/98		56.7	67.9		108	49.0
EX1/064A	05/27/98 @ 1100	6/11/98		34.1	47.0		107	53.4
EX1/065 A	05/28/98 @ 1100	6/11/98		27.8	40.5		73.2	48.0
EX1/066 M	05/28/98 @ 1235	6/11/98		26.5	34.5		66.6	35.9
EX1/067 A	05/28/98 @ 1050	6/11/98		20.4	26.3		47.1	34.6
EX1/068 M	05/29/98 @ 2040	6/12/98		16.4	18.4		34.0	nd
EX1/069 M	05/30/98 @ 1124	6/12/98		15.8	20.6		31.4	25.1
EX1/070 A	05/30/98 @ 1100	6/12/98		16.3	19.2		34.3	36.6
EX1/071 A	05/31/98 @ 1100	6/12/98		11.7	16.7		24.6	29.0
EX1/072 M	05/31/98 @ 1131	6/12/98		12.5	17.0		24.5	21.8
EX1/073 A	06/01/98 @ 1050	6/12/98		10.6	14.2		19.8	23.5
EX1/074 M	06/01/98 @ 1129	6/15/98		12.6	17.9		27.0	35.4
EX1/075 A	06/02/98 @ 1100	6/15/98		9.45	11.3		14.7	26.4
EX1/076 A	06/03/98 @ 1100	6/20/98		6.79	10.4		17.1	31.5
EX1/077 M	06/03/98 @ 1139	6/21/98		6.28	8.26		12.3	23.9
EX1/078 M	06/04/98 @ 1137	6/21/98		5.70	7.92		15.6	34.4
EX1/079 A	06/05/98 @ 1100	6/21/98		5.79	7.98		13.9	30.5
EX1/080 M	06/05/98 @ 1108	6/21/98		4.59	6.68		11.2	33.2
EX1/081 A	06/06/98 @ 1100	6/21/98		4.09	8.63		14.4	35.7
EX1/082 A	06/07/98 @ 1050	6/24/98		6.67	6.75		12.9	29.9
EX1/083 M	06/07/98 @ 1119	6/24/98		5.35	6.52		6.13	25.4
EX1/084 A	06/08/98 @ 1100	6/24/98		5.06	5.24		7.72	25.7
EX1/085 A	06/09/98 @ 1100	6/24/98		5.21	7.71		8.55	27.6
EX1/086 M	06/09/98 @ 1105	6/25/98		6.24	7.10		11.6	28.7
EX1/086 M [dup]	06/09/98 @ 1105	6/25/98		5.80	9.04		9.68	39.4
EX1/087 A	06/10/98 @ 1050	6/16/98		2.85	3.73		6.69	18.1
EX1/088 M	06/11/98 @ 1116	6/16/98		5.31	4.38		6.89	21.8
EX1/089 A	06/11/98 @ 1100	6/16/98		4.28	4.29		5.34	20.2
EX1/089 A	06/11/98 @ 1100	6/16/98		5.75	4.29		5.34	20.2
EX1/090 M/A	06/12/98 @ 1156	6/16/98		3.25	3.11		4.13	14.0
EX1/091 M/A	06/13/98 @ 1107	6/17/98		4.01	4.04		4.71	18.2
EX1/092 M	06/13/98 @ 1108	6/17/98		2.86	3.04		3.38	14.5
EX1/092 M [dup]	06/13/98 @ 1108	6/17/98		5.12	3.22		3.41	15.8
EX1/093 M/A	06/14/98 @ 1103	6/23/98		5.95	3.06		5.38	14.1
EX1/094 M/A	06/15/98 @ 1110	6/23/98		6.02	1.89		2.82	10.0
EX1/095 M	06/15/98 @ 1132	6/23/98		6.45	3.28		3.84	5.18
EX1/096 A	06/16/98 @ 1050	6/23/98		5.34	4.40		3.16	3.82
EX1/097 AD	06/16/98 @ 1100	6/23/98		6.69	2.68		3.12	9.06
EX1/099 A	06/17/98 @ 1100	6/22/98		3.64	2.90		3.51	8.16
EX1/100 M	06/17/98 @ 1125	6/22/98		4.11	2.66		3.94	8.83
EX1/101 A	06/18/98 @ 1100	6/22/98		4.16	3.16		4.40	9.17
EX1/102 A	06/19/98 @ 1050	6/25/98		4.66	3.46		3.97	10.8

Sample ID	Date and Time Sampled	Date Analyzed	methanol (ppm)	1-propanol (ppm)	4-me-2-pentanol (ppm)	1-hexanol (ppm)	1-heptanol (ppm)	PCE (ppm)
EX1/103 M	06/19/98 @ 1129	6/25/98		4.88	5.17		4.81	4.01
EX1/104 A	06/20/98 @ 1100	6/25/98		5.38	4.86		4.35	7.92
EX1/105 A	06/21/98 @ 1100	6/26/98		5.90	4.77		8.12	8.87
EX1/107 A	06/22/98 @ 1050	6/26/98		6.38	7.80		4.68	7.53
EX2/003 M	05/14/98 @ 0734	5/19/98	nd	nd	nd	56.3	nd	nd
EX2/004 A	05/13/98 @ 1730	5/19/98	nd	nd	nd	52.3	nd	nd
EX2/005 A	05/14/98 @ 0740	5/19/98	nd	nd	nd	49.1	nd	nd
EX2/007 M	05/14/98 @ 1950	5/20/98	nd	nd	nd	82.5	nd	nd
EX2/009 M	05/15/98 @ 1955	5/20/98	nd	nd	nd	111	nd	nd
EX2/010 M	05/16/98 @ 0744	5/20/98	0.99	1.24	1.05	98.5	0.68	0.23
EX2/011 A	05/14/98 @ 1330	5/20/98	nd	nd	nd	84.1	nd	nd
EX2/012 A	05/14/98 @ 1930	5/20/98	nd	nd	nd	131	nd	nd
EX2/013 A	05/15/98 @ 0130	5/20/98	nd	nd	nd	90.5	nd	nd
EX2/013 A [dup]	05/15/98 @ 0130	5/20/98	nd	nd	nd	90.2	nd	nd
EX2/014 A	05/15/98 @ 0730	5/20/98	nd	nd	nd	80.9	nd	nd
EX2/015 A	05/15/98 @ 1330	5/20/98	nd	nd	nd	94.8	nd	nd
EX2/016 A	05/15/98 @ 1930	5/20/98	nd	nd	nd	90.7	nd	nd
EX2/017 A	05/16/98 @ 0130	5/20/98	0.11	0.27	0.21	99.8	0.18	nd
EX2/018 A	05/16/98 @ 0730	5/20/98	0.92	1.15	0.97	154	0.60	0.23
EX2/019 M	05/16/98 @ 2022	5/25/98	8.51	10.7	9.56	98.6	7.43	2.83
EX2/022 A	05/16/98 @ 1330	5/25/98	1.95	3.20	2.69	57.8	1.88	0.47
EX2/022 M	05/17/98 @ 0742	5/26/98	34.0	37.8	34.1	98.0	27.5	11.3
EX2/023 A	05/16/98 @ 1940	5/25/98	6.23	7.85	6.74	44.2	5.18	1.96
EX2/024 A	05/17/98 @ 0705	5/26/98	30.6	36.1	31.5	119	24.9	9.95
EX2/026 M	05/18/98 @ 0802	6/4/98		177	132		125	59.7
EX2/028 M	05/19/98 @ 0739	6/5/98		209	138		122	63.8
EX2/029 A	05/17/98 @ 1340	5/26/98	53.6	62.2	55.3	106	46.3	20.0
EX2/030 A	05/17/98 @ 1940	5/26/98	80.7	92.5	81.8	107	70.6	32.3
EX2/031 A	05/18/98 @ 0140	5/27/98	104	108	98.7	152	87.4	42.9
EX2/032 A	05/18/98 @ 0740	5/27/98	8.19	132	121	*~172*	111	56.0
EX2/033 A	05/18/98 @ 1340	5/27/98	151	159	145	*~171*	132	70.9
EX2/034 A	05/18/98 @ 1940	5/27/98	173	179	163	*~233*	150	83.3
EX2/035 A	05/19/98 @ 0140	6/5/98		191	155		177	76.3
EX2/036 A	05/19/98 @ 0740	6/5/98		178	160		183	91.4
EX2/037 M	05/19/98 @ 1954	6/5/98		183	148		133	101
EX2/038 A	05/19/98 @ 1340	6/5/98		217	191		218	111
EX2/039 A	05/19/98 @ 1940	6/5/98		291	225		257	129
EX2/040 AD	05/19/98 @ 1950	6/5/98		241	202		234	110
EX2/040 AD [dup]	05/19/98 @ 1950	6/5/98		237	200		224	105
EX2/043 A	05/20/98 @ 0750	6/6/98		>200	>200		>200	186
EX2/043 A (1:10)	05/20/98 @ 0750	6/30/98		271	238		250	110
EX2/044 M	05/20/98 @ 2141	6/7/98		>200	>200		>200	158
EX2/044 M (1:10)	05/20/98 @ 2141	6/30/98		267	224		212	127
EX2/045 A	05/20/98 @ 2100	6/6/98		>200	>200		>200	152
EX2/045 A (1:10)	05/20/98 @ 2100	6/30/98		311	266		267	163
EX2/046 A	05/21/98 @ 0900	6/7/98		>200	>200		>200	156
EX2/046 A (1:10)	05/21/98 @ 0900	7/1/98		335	307		292	152
EX2/047 M	05/21/98 @ 2102	6/7/98		>200	>200		>200	177
EX2/047 M (1:10)	05/21/98 @ 2102	7/1/98		285	265		251	143
EX2/048 A	05/21/98 @ 2100	6/7/98		>200	239		>200	156
EX2/049 A	05/22/98 @ 0900	6/7/98		3.72	14.0		24.3	35.6
EX2/050 M	05/22/98 @ 2102	6/8/98		>200	208		215	151
EX2/050 M (1:10)	05/22/98 @ 2102	7/1/98		238	180		211	143

Sample ID	Date and Time Sampled	Date Analyzed	methanol (ppm)	1-propanol (ppm)	4-me-2-pentanol (ppm)	1-hexanol (ppm)	1-heptanol (ppm)	PCE (ppm)
EX2/050 M (1:10) [dup]	05/22/98 @ 2102	7/1/98		229	169		206	129
EX2/051 A	05/22/98 @ 2100	6/7/98		236	196		195	136
EX2/052 A	05/23/98 @ 0850	6/8/98		209	209		223	203
EX2/053 AD	05/23/98 @ 0900	6/8/98		216	213		227	207
EX2/055 M	05/23/98 @ 1909	6/8/98		180	213		197	176
EX2/055 M [dup]	05/23/98 @ 1909	6/9/98		178	206		192	176
EX2/056 M	05/25/98 @ 1032	6/9/98		77.7	73.0		70.6	52.9
EX2/057 A	05/23/98 @ 2100	6/8/98		152	135		135	125
EX2/058 A	05/24/98 @ 0900	6/9/98		120	104		100	84.9
EX2/059 A	05/24/98 @ 2100	6/9/98		130	126		127	111
EX2/060 AD	05/24/98 @ 2110	6/9/98		137	123		124	113
EX2/062 A	05/25/98 @ 0900	6/9/98		74.7	66.3		65.7	29.0
EX2/063 A	05/25/98 @ 2100	7/14/98		88.70	87.6		101.00	72.80
EX2/064 A	05/26/98 @ 0850	6/10/98		90.7	75.3		84.7	67.4
EX2/065 M	05/26/98 @ 1212	6/10/98		83.8	70.2		78.6	60.7
EX2/066A	05/27/98 @ 1100	6/11/98		63.3	52.2		71.5	53.0
EX2/067 A	05/28/98 @ 1100	6/11/98		46.9	40.5		49.0	35.4
EX2/068 M	05/28/98 @ 1237	6/11/98		69.3	53.4		62.0	44.3
EX2/068 M [dup]	05/28/98 @ 1237	6/11/98		88.1	65.6		73.7	50.5
EX2/069 A	05/29/98 @ 1050	6/11/98		33.4	33.5		38.9	27.2
EX2/069 A [dup]	05/29/98 @ 1050	6/11/98		34.4	32.8		35.9	27.7
EX2/070 M	05/29/98 @ 2041	6/12/98		33.1	28.9		38.2	23.9
EX2/071 M	05/30/98 @ 1125	6/12/98		24.0	24.3		26.4	16.6
EX2/072 A	05/30/98 @ 1100	6/12/98		29.0	27.3		31.8	25.2
EX2/073 A	05/31/98 @ 1100	6/12/98		22.3	20.3		25.5	23.3
EX2/074 M	05/31/98 @ 1132	6/12/98		19.2	20.6		22.0	16.6
EX2/075 A	06/01/98 @ 1050	6/12/98		16.6	17.7		20.3	9.71
EX2/076 M	06/01/98 @ 1134	6/15/98		22.2	22.1		24.0	22.5
EX2/077 A	06/02/98 @ 1100	6/15/98		17.7	17.8		20.3	16.4
EX2/078 A	06/03/98 @ 1100	6/21/98		11.9	11.2		14.5	11.8
EX2/079 M	06/03/98 @ 1141	6/21/98		11.9	12.1		14.0	12.6
EX2/080 A	06/04/98 @ 1050	6/21/98		12.2	11.0		12.2	13.4
EX2/081 AD	06/04/98 @ 1100	6/21/98		10.9	10.4		12.4	12.9
EX2/083 A	06/05/98 @ 1100	6/21/98		11.3	12.1		13.5	13.9
EX2/083 A [dup]	06/05/98 @ 1100	6/21/98		9.63	9.83		11.7	12.2
EX2/084 M	06/05/98 @ 1106	6/21/98		8.27	9.55		10.1	11.8
EX2/085 A	06/06/98 @ 1100	6/21/98		7.85	11.7		13.7	13.7
EX2/086 A	06/07/98 @ 1050	6/24/98		9.92	8.77		10.2	8.87
EX2/087 M	06/07/98 @ 1107	6/24/98		8.68	8.35		10.1	10.3
EX2/088 A	06/08/98 @ 1100	6/24/98		8.73	8.04		8.09	10.9
EX2/088 A [dup]	06/08/98 @ 1100	6/24/98		8.48	7.77		7.92	9.64
EX2/089 A	06/09/98 @ 1100	6/24/98		9.32	9.72		10.4	9.33
EX2/090 M	06/09/98 @ 1107	6/25/98		11.1	10.9		10.8	13.1
EX2/091 A	06/10/98 @ 1050	6/17/98		10.0	9.33		8.03	9.27
EX2/092 M	06/11/98 @ 1118	6/17/98		12.4	9.45		8.28	5.99
EX2/093 A	06/11/98 @ 1100	6/17/98		9.59	7.49		7.59	5.83
EX2/094 A	06/12/98 @ 1100	6/17/98		7.93	7.37		6.61	6.02
EX2/095 M	06/13/98 @ 1109	6/17/98		7.91	8.83		9.20	7.19
EX2/096 A	06/13/98 @ 1050	6/17/98		8.30	6.44		5.92	5.01
EX2/097 A	06/14/98 @ 1100	6/23/98		8.63	6.00		5.80	7.27
EX2/098 A	06/15/98 @ 1100	6/23/98		8.15	6.27		7.79	7.28
EX2/099 M	06/15/98 @ 1134	6/23/98		9.49	6.83		7.30	4.88
EX2/100 A	06/16/98 @ 1050	6/23/98		11.6	6.79		7.07	4.53

Sample ID	Date and Time Sampled	Date Analyzed	methanol (ppm)	1-propanol (ppm)	4-me-2-pentanol (ppm)	1-hexanol (ppm)	1-heptanol (ppm)	PCE (ppm)
EX2/100 A [dup]	06/16/98 @ 1050	6/23/98		10.9	6.66		6.71	4.35
EX2/101 A	06/17/98 @ 1100	6/22/98		5.62	6.59		7.08	4.28
EX2/102 M	06/17/98 @ 1129	6/22/98		5.07	4.28		5.14	nd
EX2/103 M/A	06/18/98 @ 1132	6/22/98		4.86	6.11		6.01	4.49
EX2/103 M/A [dup]	06/18/98 @ 1132	6/22/98		5.98	5.87		5.17	4.56
EX2/104 A	06/19/98 @ 1050	6/25/98		6.81	8.46		9.26	9.58
EX2/105 M	06/19/98 @ 1131	6/25/98		5.63	7.11		7.14	8.68
EX2/106 A	06/20/98 @ 1100	6/25/98		5.77	7.30		9.43	14.4
EX2/107 A	06/21/98 @ 1100	6/26/98		5.51	7.69		8.19	6.39
EX2/108 M	06/21/98 @ 1128	6/26/98		4.97	5.93		5.60	5.12
EX2/109 A	06/22/98 @ 1050	6/26/98		5.35	6.32		5.58	6.15
EX3/003 M	05/14/98 @ 0737	5/19/98	nd	nd	nd	2.33	nd	nd
EX3/004 A	05/13/98 @ 1730	5/19/98	nd	nd	nd	2.22	nd	nd
EX3/005 A	05/14/98 @ 0740	5/19/98	nd	nd	nd	2.30	nd	nd
EX3/006 M	05/14/98 @ 1951	5/20/98	nd	nd	nd	2.92	nd	nd
EX3/008 M	05/15/98 @ 1957	5/23/98	nd	nd	nd	2.39	nd	nd
EX3/009 M	05/16/98 @ 0745	5/23/98	0.22	0.34	0.27	2.04	0.22	nd
EX3/009 M [dup]	05/16/98 @ 0745	5/23/98	0.23	0.37	0.27	2.43	0.23	nd
EX3/010 A	05/14/98 @ 1330	5/20/98	nd	nd	nd	2.88	nd	nd
EX3/012 A	05/14/98 @ 1930	5/20/98	nd	nd	nd	2.81	nd	nd
EX3/013 A	05/15/98 @ 0130	5/20/98	nd	nd	nd	2.84	nd	nd
EX3/015 A	05/15/98 @ 0730	5/20/98	nd	nd	nd	2.82	nd	nd
EX3/016 A	05/15/98 @ 1330	5/20/98	nd	nd	nd	2.98	nd	nd
EX3/017 A	05/15/98 @ 1930	5/23/98	nd	nd	nd	2.33	nd	nd
EX3/018 AD	05/15/98 @ 1940	5/23/98	nd	nd	nd	2.29	nd	nd
EX3/019 A	05/16/98 @ 0130	5/23/98	nd	nd	nd	2.32	nd	nd
EX3/020 A	05/16/98 @ 0730	5/23/98	0.20	0.35	0.25	2.29	0.20	nd
EX3/021 M	05/16/98 @ 2024	5/25/98	2.18	3.55	2.99	1.71	2.10	0.74
EX3/022 M	05/17/98 @ 0743	5/26/98	12.3	16.5	14.7	2.19	11.5	4.30
EX3/023 A	05/16/98 @ 1330	5/25/98	nd	0.68	0.50	1.94	0.26	nd
EX3/024 A	05/16/98 @ 1940	5/25/98	1.46	2.11	1.90	1.37	1.28	0.29
EX3/025 A	05/17/98 @ 0705	5/26/98	11.2	13.3	11.8	2.03	9.04	3.59
EX3/027 M	05/18/98 @ 0803	6/4/98		78.7	75.5		66.3	31.1
EX3/029 M	05/19/98 @ 0741	6/5/98		106	86.1		76.6	41.4
EX3/031 A	05/17/98 @ 1940	5/26/98	36.6	42.5	38.5	2.31	31.4	14.0
EX3/032 A	05/18/98 @ 0140	5/27/98	49.4	46.8	45.4	3.86	39.5	18.8
EX3/033 A	05/18/98 @ 0740	5/27/98	66.3	66.3	64.2	3.36	57.8	29.5
EX3/034 A	05/18/98 @ 1340	5/27/98	68.0	67.9	66.5	4.04	61.4	33.7
EX3/035 A	05/18/98 @ 1940	5/27/98	84.7	85.1	82.6	4.94	77.5	44.5
EX3/036 A	05/19/98 @ 0140	6/5/98		91.0	101		95.7	54.7
EX3/037 A	05/19/98 @ 0740	6/5/98		134	122		111	61.8
EX3/038 M	05/19/98 @ 1955	6/5/98		109	94.6		88.1	66.5
EX3/039 A	05/19/98 @ 1340	6/5/98		111	129		117	67.8
EX3/040 A	05/19/98 @ 1940	6/5/98		118	129		117	69.9
EX3/041 AD	05/19/98 @ 1950	6/5/98		125	137		123	72.4
EX3/043 A	05/20/98 @ 0150	6/6/98		180	159		143	86.6
EX3/044 A	05/20/98 @ 0750	6/6/98		144	142		130	83.2
EX3/045 M	05/20/98 @ 2142	6/7/98		154	149		141	92.2
EX3/046 A	05/20/98 @ 2100	6/6/98		145	138		131	84.9
EX3/047 A	05/21/98 @ 0900	6/7/98		168	184		178	114
EX3/048 M	05/21/98 @ 2103	6/7/98		175	160		151	102
EX3/049 M	05/22/98 @ 2103	6/8/98		157	140		131	100
EX3/050 A	05/21/98 @ 2100	6/7/98		161	157		150	98.3

Sample ID	Date and Time Sampled	Date Analyzed	methanol (ppm)	1-propanol (ppm)	4-me-2-pentanol (ppm)	1-hexanol (ppm)	1-heptanol (ppm)	PCE (ppm)
EX3/051 A	05/22/98 @ 0900	6/7/98		153	138		130	89.5
EX3/052 A	05/22/98 @ 2100	6/7/98		141	122		113	83.6
EX3/053 A	05/23/98 @ 0850	6/8/98		3.51	12.7		13.4	7.79
EX3/054 M	05/23/98 @ 1911	6/9/98		95.3	107		112	110
EX3/055 M	05/25/98 @ 1033	6/9/98		26.4	22.3		24.3	nd
EX3/056 A	05/23/98 @ 2100	6/8/98		96.4	107		106	108
EX3/056 A	05/24/98 @ 0900	6/9/98		67.4	66.1		64.8	63.8
EX3/058 A	05/24/98 @ 2100	6/9/98		49.4	50.5		48.7	50.8
EX3/059 A	05/25/98 @ 0900	7/14/98		39.00	46.5		45.10	37.80
EX3/060 A	05/25/98 @ 2100	6/9/98		21.0	19.6		19.6	0.15
EX3/061 A	05/26/98 @ 0850	6/10/98		32.2	30.5		31.5	27.2
EX3/062 M	05/26/98 @ 1214	6/10/98		36.3	34.4		34.4	26.5
EX3/063 A	05/27/98 @ 1100	6/11/98		21.8	16.6		24.4	23.2
EX3/064 A	05/28/98 @ 1100	6/11/98		16.0	15.0		17.6	13.0
EX3/065 M	05/28/98 @ 1239	6/11/98		25.5	26.5		25.1	21.8
EX3/066 A	05/29/98 @ 1050	6/11/98		14.0	14.3		13.7	11.3
EX3/067 AD	05/29/98 @ 1100	6/12/98		12.2	11.8		11.7	10.4
EX3/069 M	05/29/98 @ 2043	6/12/98		11.6	11.6		11.6	7.97
EX3/070 M	05/30/98 @ 1126	6/12/98		9.29	8.68		7.91	4.13
EX3/071 A	05/30/98 @ 1100	6/12/98		9.10	8.71		8.06	4.49
EX3/072 A	05/31/98 @ 1100	6/12/98		9.97	6.91		8.65	6.51
EX3/073 A	06/01/98 @ 1050	6/12/98		9.87	8.77		9.40	nd
EX3/074 M	06/01/98 @ 1135	6/15/98		9.36	8.78		8.93	5.13
EX3/075 A	06/02/98 @ 1100	6/15/98		11.0	10.0		12.0	3.30
EX3/076 A	06/03/98 @ 1100	6/21/98		8.30	7.66		8.35	6.23
EX3/077 M	06/03/98 @ 1143	6/21/98		7.32	6.99		6.94	5.03
EX3/078 A	06/04/98 @ 1050	6/21/98		6.16	6.03		6.39	4.28
EX3/078 A [dup]	06/04/98 @ 1050	6/21/98		6.57	6.06		6.94	4.49
EX3/079 A	06/05/98 @ 1100	6/21/98		7.43	7.44		7.12	4.76
EX3/080 M	06/05/98 @ 1113	6/21/98		6.84	7.13		8.00	6.58
EX3/081 A	06/06/98 @ 1100	6/21/98		7.14	8.83		9.07	6.11
EX3/082 A	06/07/98 @ 1050	6/24/98		8.79	8.27		8.55	7.26
EX3/083 M	06/07/98 @ 1109	6/24/98		8.47	7.68		8.40	6.90
EX3/084 A	06/08/98 @ 1100	6/24/98		7.68	6.33		6.34	6.77
EX3/085 A	06/09/98 @ 1100	6/24/98		7.68	6.81		6.89	6.79
EX3/086 M	06/09/98 @ 1108	6/25/98		8.22	6.67		8.08	6.24
EX3/087 A	06/10/98 @ 1050	6/17/98		7.84	7.41		7.39	4.10
EX3/088 M	06/11/98 @ 1119	6/17/98		9.92	6.10		5.39	3.59
EX3/089 A	06/11/98 @ 1100	6/17/98		10.1	5.80		5.05	3.59
EX3/090 A	06/12/98 @ 1100	6/17/98		12.0	6.58		6.56	3.52
EX3/091 M	06/13/98 @ 1112	6/17/98		8.60	6.06		6.75	3.10
EX3/091 M [dup]	06/13/98 @ 1112	6/17/98		10.5	5.60		5.70	2.00
EX3/092 A	06/13/98 @ 1050	6/17/98		nd	5.45		5.69	2.63
EX3/093 A	06/14/98 @ 1100	6/23/98		8.56	5.69		6.11	3.01
EX3/094 A	06/15/98 @ 1100	6/23/98		8.99	5.47		3.95	2.86
EX3/095 M	06/15/98 @ 1135	6/23/98		8.19	5.17		5.90	2.72
EX3/096 A	06/16/98 @ 1050	6/23/98		8.75	5.62		6.87	2.84
EX3/097 A	06/17/98 @ 1100	6/22/98		5.40	3.71		4.40	nd
EX3/098 M	06/17/98 @ 1131	6/22/98		5.84	4.41		5.17	2.34
EX3/099 A	06/18/98 @ 1100	6/22/98		5.26	4.29		4.59	2.07
EX3/100 A	06/19/98 @ 1050	6/25/98		7.27	7.25		7.80	9.81
EX3/100 AD	06/19/98 @ 1100	6/25/98		6.26	7.12		7.42	5.86
EX3/100 AD [dup]	06/19/98 @ 1100	6/25/98		6.12	6.49		5.35	6.35

Sample ID	Date and Time Sampled	Date Analyzed	methanol (ppm)	1-propanol (ppm)	4-me-2-pentanol (ppm)	1-hexanol (ppm)	1-heptanol (ppm)	PCE (ppm)
EX3/103 M	06/19/98 @ 1132	6/25/98		5.40	5.77		5.88	5.09
EX3/103 M [dup]	06/19/98 @ 1132	6/25/98		6.68	7.71		7.40	6.69
EX3/104 A	06/20/98 @ 1100	6/25/98		5.68	6.64		6.63	6.62
EX3/105 A	06/21/98 @ 1100	6/26/98		4.82	5.60		5.55	6.28
EX3/106 M	06/21/98 @ 1130	6/26/98		4.14	5.22		2.45	3.49
EX3/107 A	06/22/98 @ 1050	6/26/98		4.51	5.48		4.80	nd
EX4R/003 M	05/14/98 @ 0738	5/19/98	nd	nd	nd	72.5	nd	nd
EX4R/004 A	05/13/98 @ 1730	5/19/98	nd	nd	nd	61.3	nd	nd
EX4R/005 A	05/14/98 @ 0740	5/19/98	nd	nd	nd	89.4	nd	nd
EX4R/005 A [dup]	05/14/98 @ 0740	5/19/98	nd	nd	nd	91.1	nd	nd
EX4R/006 M	05/14/98 @ 1952	5/21/98	nd	nd	nd	79.0	nd	nd
EX4R/008 M	05/15/98 @ 1958	5/23/98	nd	nd	nd	95.2	nd	nd
EX4R/009 M	05/16/98 @ 0747	5/23/98	0.89	1.08	0.66	90.0	0.39	nd
EX4R/010 A	05/14/98 @ 1330	5/21/98	nd	nd	nd	81.6	nd	nd
EX4R/011 A	05/14/98 @ 1930	5/21/98	nd	nd	nd	96.6	nd	nd
EX4R/012 A	05/15/98 @ 0130	5/23/98	nd	nd	nd	73.7	nd	nd
EX4R/013 A	05/15/98 @ 0730	5/23/98	nd	nd	nd	86.3	nd	nd
EX4R/014 A	05/15/98 @ 1330	5/23/98	nd	nd	nd	87.5	nd	nd
EX4R/015 A	05/15/98 @ 1930	5/23/98	nd	nd	nd	84.8	nd	nd
EX4R/016 A	05/16/98 @ 0130	5/23/98	0.14	0.21	0.12	78.9	nd	nd
EX4R/016 A [dup]	05/16/98 @ 0130	5/24/98	0.15	0.23	nd	86.2	nd	nd
EX4R/017 A	05/16/98 @ 0730	5/23/98	0.90	1.08	0.64	84.9	0.34	nd
EX4R/018 M	05/16/98 @ 2025	5/25/98	10.0	12.3	8.23	89.4	4.79	0.54
EX4R/019 M	05/17/98 @ 0744	5/26/98	34.1	42.3	31.7	77.5	21.1	2.98
EX4R/020 A	05/16/98 @ 1330	5/25/98	2.19	3.36	2.12	54.5	1.03	nd
EX4R/021 A	05/16/98 @ 1940	5/25/98	8.02	9.93	6.54	50.7	3.81	0.48
EX4R/021 A [dup]	05/16/98 @ 1940	5/25/98	9.06	10.9	7.48	35.3	4.46	0.41
EX4R/022 A	05/17/98 @ 0705	5/26/98	31.7	33.6	24.6	78.7	16.1	2.50
EX4R/024 M	05/18/98 @ 0805	6/4/98		102	72.0		61.5	12.9
EX4R/026 M	05/19/98 @ 0742	6/5/98		189	107		78.4	19.9
EX4R/027 A	05/17/98 @ 1340	5/26/98	49.0	56.4	41.3	82.8	28.4	4.94
EX4R/027 A [dup]	05/17/98 @ 1340	5/26/98	58.3	66.4	49.7	75.7	34.3	5.79
EX4R/028 A	05/17/98 @ 1940	5/26/98	66.5	69.9	52.3	76.2	37.9	6.93
EX4R/029 A	05/18/98 @ 0140	5/27/98	84.1	85.6	63.8	111	47.5	9.59
EX4R/030 A	05/18/98 @ 0740	5/28/98	97.2	96.7	71.8	101	53.9	11.8
EX4R/031 AD	05/18/98 @ 0750	6/4/98		258	152		118	25.4
EX4R/031 AD [dup]	05/18/98 @ 0750	6/4/98		96.7	78.1		62.9	14.4
EX4R/033 A	05/18/98 @ 1340	6/4/98		119	77.6		61.6	13.5
EX4R/034 A	05/18/98 @ 1940	6/4/98		119	84.2		67.8	15.6
EX4R/035 A	05/19/98 @ 0140	6/5/98		199	122		98.2	27.6
EX4R/036 A	05/19/98 @ 0740	6/5/98		215	127		98.0	24.6
EX4R/036 A [dup]	05/19/98 @ 0740	6/5/98		207	123		97.5	24.9
EX4R/037 M	05/19/98 @ 1956	6/5/98		158	116		89.2	26.4
EX4R/038 A	05/19/98 @ 1340	6/5/98		243	157		124	24.6
EX4R/039 A	05/19/98 @ 1940	6/5/98		239	169		141	26.1
EX4R/040 A	05/20/98 @ 0150	6/6/98		232	169		139	37.8
EX4R/041 A	05/20/98 @ 0750	6/6/98		>200	182		149	38.0
EX4R/041 A (1:10)	05/20/98 @ 0750	6/30/98		225	212		145	42.2
EX4R/042 M	05/20/98 @ 2143	6/7/98		>200	191		167	42.1
EX4R/042 M (1:10)	05/20/98 @ 2143	6/30/98		208	177		143	38.9
EX4R/043 A	05/20/98 @ 2100	6/6/98		>200	206		175	45.4
EX4R/043 A (1:10)	05/20/98 @ 2100	6/30/98		257	221		151	30.2
EX4R/044 A	05/21/98 @ 0900	6/7/98		>200	193		168	47.3

Sample ID	Date and Time Sampled	Date Analyzed	methanol (ppm)	1-propanol (ppm)	4-me-2-pentanol (ppm)	1-hexanol (ppm)	1-heptanol (ppm)	PCE (ppm)
EX4R/044 A (1:10)	05/21/98 @ 0900	7/1/98		223	217		148	61.2
EX4R/044 A [dup]	05/21/98 @ 0900	6/7/98		>200	203		173	43.0
EX4R/045 M	05/21/98 @ 2104	6/7/98		>200	212		179	50.8
EX4R/045 M (1:10)	05/21/98 @ 2104	7/1/98		261	239		177	50.7
EX4R/046 M	05/22/98 @ 2104	6/8/98		227	201		191	65.3
EX4R/047 A	05/21/98 @ 2100	6/7/98		>200	202		181	53.9
EX4R/047 A (1:10)	05/21/98 @ 2100	7/1/98		237	215		157	48.8
EX4R/048 A	05/22/98 @ 0900	6/7/98		226	171		154	48.6
EX4R/049 A	05/22/98 @ 2100	6/7/98		191	156		154	48.4
EX4R/050 A	05/23/98 @ 0850	6/8/98		177	187		194	87.9
EX4R/051 AD	05/23/98 @ 0900	6/8/98		191	208		215	101
EX4R/053M	05/23/98 @ 1913	6/9/98		154	187		202	107
EX4R/054 M	05/25/98 @ 1035	6/9/98		39.8	50.3		64.9	nd
EX4R/055 A	05/23/98 @ 2100	6/8/98		139	174		182	91.7
EX4R/056 A	05/24/98 @ 0900	6/9/98		101	130		137	72.8
EX4R/057 A	05/24/98 @ 2100	6/9/98		75.8	106		124	69.7
EX4R/058 A	05/25/98 @ 0900	7/14/98		71.90	90.6		129.00	62.30
EX4R/059 A	05/25/98 @ 2100	6/9/98		43.9	53.8		73.5	18.8
EX4R/059 A [dup]	05/25/98 @ 2100	6/9/98		44.4	51.8		75.5	41.2
EX4R/060 A	05/26/98 @ 0850	6/10/98		64.7	68.0		111	57.1
EX4R/060 A [dup]	05/26/98 @ 0850	6/10/98		66.0	67.5		119	62.2
EX4R/061 M	05/26/98 @ 1216	6/10/98		53.4	54.2		91.9	65.0
EX4R/062 A	05/27/98 @ 1100	6/11/98		44.9	47.9		80.5	60.8
EX4R/063 A	05/28/98 @ 1100	6/11/98		29.8	29.8		43.7	36.6
EX4R/064 M	05/28/98 @ 1241	6/11/98		50.1	48.4		73.2	87.1
EX4R/065 A	05/29/98 @ 1050	6/12/98		19.9	22.7		31.9	49.4
EX4R/066 M	05/29/98 @ 2044	6/12/98		18.0	21.5		28.1	50.3
EX4R/066 M [dup]	05/29/98 @ 2044	6/12/98		19.1	22.4		31.7	52.9
EX4R/067 M	05/30/98 @ 1127	6/12/98		14.0	18.1		21.9	28.8
EX4R/068 A	05/30/98 @ 1100	6/12/98		13.3	14.9		21.0	36.0
EX4R/069 A	05/31/98 @ 1100	6/12/98		12.3	14.0		22.1	49.5
EX4R/070 A	06/01/98 @ 1050	6/12/98		9.68	9.77		15.5	41.4
EX4R/071 M	06/01/98 @ 1136	6/15/98		11.0	12.2		18.6	44.9
EX4R/072 A	06/02/98 @ 1100	6/15/98		10.3	9.52		15.4	46.2
EX4R/073 A	06/03/98 @ 1100	6/21/98		5.46	7.34		9.27	33.2
EX4R/074 M	06/03/98 @ 1144	6/21/98		4.60	5.58		8.35	26.4
EX4R/074 M [dup]	06/03/98 @ 1144	6/21/98		4.17	5.32		7.51	32.9
EX4R/075 A	06/04/98 @ 1050	6/21/98		5.64	6.11		8.43	30.0
EX4R/076 A	06/05/98 @ 1100	6/21/98		4.40	5.30		8.01	31.5
EX4R/077 M	06/05/98 @ 1117	6/21/98		4.70	7.32		12.0	38.1
EX4R/078 A	06/06/98 @ 1100	6/21/98		1.57	5.06		9.82	33.3
EX4R/079 A	06/07/98 @ 1050	6/24/98		4.65	4.46		5.76	22.3
EX4R/080 M	06/07/98 @ 1110	6/24/98		4.88	5.14		6.40	19.8
EX4R/081 A	06/08/98 @ 1100	6/24/98		3.71	3.51		2.91	14.2
EX4R/082 A	06/09/98 @ 1100	6/24/98		3.59	3.95		4.41	16.3
EX4R/083 M	06/09/98 @ 1111	6/25/98		4.23	4.53		6.91	21.9
EX4R/084 A	06/10/98 @ 1050	6/17/98		6.81	2.61		2.98	12.2
EX4R/085 AD	06/10/98 @ 1100	6/17/98		4.59	2.24		3.24	9.89
EX4R/087 M	06/11/98 @ 1120	6/17/98		4.14	1.47		1.87	10.7
EX4R/088 A	06/11/98 @ 1100	6/17/98		4.31	2.65		2.14	11.0
EX4R/089 A	06/12/98 @ 1100	6/17/98		4.30	2.64		2.00	9.30
EX4R/090 M	06/13/98 @ 1114	6/17/98		7.06	2.35		2.74	7.50
EX4R/091 A	06/13/98 @ 1050	6/17/98		3.41	1.71		1.75	6.96

Sample ID	Date and Time Sampled	Date Analyzed	methanol (ppm)	1-propanol (ppm)	4-me-2-pentanol (ppm)	1-hexanol (ppm)	1-heptanol (ppm)	PCE (ppm)
EX4R/091 A [dup]	06/13/98 @ 1050	6/17/98		4.03	1.71		1.84	5.54
EX4R/092 A	06/14/98 @ 1100	6/23/98		5.20	1.16		3.55	6.58
EX4R/093 A	06/15/98 @ 1100	6/23/98		4.21	0.70		2.47	3.31
EX4R/094 M	06/15/98 @ 1137	6/23/98		3.19	3.57		5.78	9.63
EX4R/095 A	06/16/98 @ 1050	6/23/98		4.60	1.01		2.98	8.39
EX4R/096 A	06/17/98 @ 1100	6/22/98		2.76	1.36		2.54	3.87
EX4R/097 M	06/17/98 @ 1132	6/23/98		2.47	0.60		1.53	nd
EX4R/098 A	06/18/98 @ 1100	6/23/98		2.94	0.96		1.92	nd
EX4R/099 A	06/19/98 @ 1050	6/25/98		4.25	5.49		3.78	7.66
EX4R/100 M	06/19/98 @ 1134	6/25/98		4.00	3.66		3.60	7.26
EX4R/101 A	06/20/98 @ 1100	6/25/98		4.18	3.03		2.93	5.79
EX4R/102 A	06/21/98 @ 1100	6/26/98		3.65	3.39		2.89	4.77
EX4R/103 M	06/21/98 @ 1131	6/26/98		2.97	2.29		2.08	nd
EX4R/104 A/M	06/22/98 @ 1050	6/26/98		3.90	3.34		4.44	3.04
EX4R/104 A/M [dup]	06/22/98 @ 1050	6/26/98		3.32	4.70		2.32	4.20
EX5/003 M	05/14/98 @ 0735	5/19/98	nd	nd	nd	17.4	nd	nd
EX5/004 A	05/13/98 @ 1730	5/19/98	nd	nd	nd	16.8	nd	nd
EX5/005 A	05/14/98 @ 0740	5/19/98	nd	nd	nd	16.5	nd	nd
EX5/006 M	05/14/98 @ 1953	5/21/98	nd	nd	nd	16.9	nd	nd
EX5/008 M	05/15/98 @ 1959	5/23/98	nd	nd	nd	16.8	nd	nd
EX5/009 M	05/16/98 @ 0748	5/23/98	3.61	3.89	3.21	17.5	2.01	nd
EX5/010 A	05/14/98 @ 1330	5/21/98	nd	nd	nd	15.7	nd	nd
EX5/011 A	05/14/98 @ 1930	5/21/98	nd	nd	nd	15.9	nd	nd
EX5/012 A	05/15/98 @ 0130	5/23/98	nd	nd	nd	17.9	nd	nd
EX5/013 A	05/15/98 @ 0730	5/23/98	nd	nd	nd	16.4	nd	nd
EX5/014 A	05/15/98 @ 1330	5/23/98	nd	nd	nd	17.2	nd	nd
EX5/015 A	05/15/98 @ 1930	5/23/98	nd	nd	nd	17.1	nd	nd
EX5/016 AD	05/15/98 @ 1940	5/23/98	0.08	0.23	nd	15.1	nd	nd
EX5/017 A	05/16/98 @ 0130	5/23/98	0.60	0.73	0.54	16.8	0.27	nd
EX5/018 A	05/16/98 @ 0730	5/23/98	3.25	3.55	2.84	16.3	1.67	nd
EX5/020 M	05/16/98 @ 2026	5/25/98	30.6	35.9	31.1	16.6	24.2	8.84
EX5/022 M	05/17/98 @ 0745	5/26/98	97.5	117	106	23.6	90.8	39.8
EX5/023 A	05/16/98 @ 1330	5/25/98	8.15	10.3	8.71	13.4	6.56	2.35
EX5/024 A	05/16/98 @ 1940	5/25/98	24.4	nd	22.6	13.5	17.3	6.30
EX5/025 A	05/17/98 @ 0705	5/26/98	80.7	85.0	77.4	14.8	67.6	29.2
EX5/027 M	05/18/98 @ 0806	6/4/98		176	175		157	74.2
EX5/029 M	05/19/98 @ 0743	6/5/98		191	158		132	70.8
EX5/029 M [dup]	05/19/98 @ 0743	6/5/98		264	221		189	104
EX5/030 A	05/17/98 @ 1340	5/26/98	111	119	108	15.8	98.2	48.6
EX5/031 A	05/17/98 @ 1940	5/26/98	133	140	129	15.6	120	63.1
EX5/032 A	05/18/98 @ 0140	6/4/98		140	144		115	60.7
EX5/033 A	05/18/98 @ 0740	6/4/98		155	166		136	71.5
EX5/034 A	05/18/98 @ 1340	6/4/98		193	206		185	87.6
EX5/035 A	05/18/98 @ 1940	6/4/98		372	304		274	146
EX5/036 A	05/19/98 @ 0140	6/5/98		281	241		226	110
EX5/037 A	05/19/98 @ 0740	6/5/98		275	232		221	111
EX5/038 M	05/19/98 @ 1957	6/5/98		186	176		151	107
EX5/039 A	05/19/98 @ 1340	6/5/98		261	239		227	118
EX5/040 A	05/19/98 @ 1940	6/5/98		263	229		221	116
EX5/041 AD	05/19/98 @ 1950	6/5/98		299	237		224	120
EX5/043 A	05/20/98 @ 0150	6/6/98		>200	239		222	129
EX5/043 A (1:10)	05/20/98 @ 0150	6/30/98		263	245		188	118
EX5/044 A	05/20/98 @ 0750	6/6/98		>200	>200		>200	154

Sample ID	Date and Time Sampled	Date Analyzed	methanol (ppm)	1-propanol (ppm)	4-me-2-pentanol (ppm)	1-hexanol (ppm)	1-heptanol (ppm)	PCE (ppm)
EX5/044 A (1:10)	05/20/98 @ 0750	6/30/98		263	239		228	123
EX5/045 M	05/20/98 @ 2144	6/7/98		>200	>200		>200	163
EX5/045 M (1:10)	05/20/98 @ 2144	6/30/98		302	292		265	149
EX5/046 A	05/20/98 @ 2100	6/6/98		>200	>200		>200	153
EX5/046 A (1:10)	05/20/98 @ 2100	6/30/98		266	239		228	73.1
EX5/046 A (1:10) [dup]	05/20/98 @ 2100	6/30/98		270	249		228	145
EX5/046 A [dup]	05/20/98 @ 2100	6/6/98		>200	>200		>200	146
EX5/047 A	05/21/98 @ 0900	6/7/98		>200	>200		230	140
EX5/047 A (1:10)	05/21/98 @ 0900	7/1/98		243	230		209	121
EX5/048 M	05/21/98 @ 2105	6/7/98		>200	>200		>200	156
EX5/048 M (1:10)	05/21/98 @ 2105	7/1/98		273	259		211	111
EX5/049 M	05/22/98 @ 2105	6/8/98		196	187		174	130
EX5/050 A	05/21/98 @ 2100	6/7/98		>200	>200		>200	172
EX5/050 A (1:10)	05/21/98 @ 2100	7/1/98		264	228		229	117
EX5/050 A [dup]	05/21/98 @ 2100	6/7/98		>200	>200		>200	181
EX5/051 A	05/22/98 @ 0900	6/7/98		>200	233		219	159
EX5/051 A (1:10)	05/22/98 @ 0900	7/1/98		220	220		250	176
EX5/052 A	05/22/98 @ 2100	6/7/98		199	192		179	137
EX5/052 A [dup]	05/22/98 @ 2100	6/7/98		218	199		183	138
EX5/053 A	05/23/98 @ 0850	6/8/98		141	141		126	116
EX5/054 M	05/23/98 @ 1916	6/9/98		143	170		158	144
EX5/055 M	05/25/98 @ 1037	6/9/98		69.7	62.8		57.4	12.0
EX5/056 A	05/23/98 @ 2100	6/8/98		137	143		151	128
EX5/057 A	05/24/98 @ 0900	6/9/98		111	112		103	93.2
EX5/057 A [dup]	05/24/98 @ 0900	6/9/98		118	120		113	99.0
EX5/058 A	05/24/98 @ 2100	6/9/98		92.8	96.7		90.3	81.7
EX5/059 A	05/25/98 @ 0900	7/14/98		88.20	91.0		85.00	62.70
EX5/061 A	05/26/98 @ 0850	6/10/98		73.3	63.7		66.9	50.3
EX5/062 M	05/26/98 @ 1218	6/10/98		73.4	61.8		69.5	55.5
EX5/063 A	05/27/98 @ 1100	6/11/98		56.2	58.6		66.7	53.1
EX5/064 A	05/28/98 @ 1100	6/11/98		36.5	33.8		44.8	23.3
EX5/065 M	05/28/98 @ 1242	6/11/98		68.7	56.9		64.1	50.1
EX5/066 A	05/29/98 @ 1050	6/12/98		24.7	25.6		29.7	22.7
EX5/067 M	05/29/98 @ 2045	6/12/98		23.7	24.5		27.7	23.4
EX5/068 M	05/30/98 @ 1128	6/12/98		19.9	20.3		21.9	14.1
EX5/069 A	05/30/98 @ 1100	6/12/98		19.4	20.5		21.0	12.8
EX5/069 A [dup]	05/30/98 @ 1100	6/12/98		18.7	21.3		21.4	14.2
EX5/070 A	05/31/98 @ 1100	6/12/98		16.7	21.5		22.4	17.7
EX5/071 A	06/01/98 @ 1050	6/12/98		16.2	15.6		17.5	15.8
EX5/072 AD	06/01/98 @ 1100	6/12/98		16.0	15.1		18.3	18.7
EX5/074 M	06/01/98 @ 1138	6/15/98		17.5	16.8		20.2	12.7
EX5/075 A	06/02/98 @ 1100	6/15/98		21.3	17.3		21.4	17.4
EX5/076 A	06/03/98 @ 1100	6/21/98		9.58	10.1		11.8	12.8
EX5/077 M	06/03/98 @ 1145	6/21/98		10.0	9.55		18.3	13.4
EX5/078 A	06/04/98 @ 1050	6/21/98		7.43	7.18		6.90	7.98
EX5/079 A	06/05/98 @ 1100	6/21/98		8.40	10.8		11.5	10.1
EX5/080 M	06/05/98 @ 1121	6/21/98		6.21	7.15		8.57	8.58
EX5/081 A	06/06/98 @ 1100	6/21/98		4.51	7.38		7.78	8.62
EX5/082 A	06/07/98 @ 1050	6/24/98		8.09	7.75		8.19	9.22
EX5/083 M	06/07/98 @ 1112	6/24/98		9.38	11.4		10.4	12.9
EX5/084 A	06/08/98 @ 1100	6/24/98		7.81	7.53		9.93	8.18
EX5/085 A	06/09/98 @ 1100	6/24/98		7.11	7.63		5.39	8.29
EX5/086 M	06/09/98 @ 1113	6/25/98		7.08	8.58		7.77	8.24

Sample ID	Date and Time Sampled	Date Analyzed	methanol (ppm)	1-propanol (ppm)	4-me-2-pentanol (ppm)	1-hexanol (ppm)	1-heptanol (ppm)	PCE (ppm)
EX5/087 A	06/10/98 @ 1050	6/17/98		9.79	6.59		5.85	4.68
EX5/088 M	06/11/98 @ 1122	6/17/98		7.83	6.21		5.13	3.24
EX5/089 A	06/11/98 @ 1100	6/17/98		8.71	6.14		5.43	3.62
EX5/090 A	06/12/98 @ 1100	6/17/98		10.2	5.84		4.71	4.79
EX5/091 M	06/13/98 @ 1116	6/17/98		7.74	5.95		6.28	4.22
EX5/092 A	06/13/98 @ 1050	6/17/98		6.75	4.99		5.60	3.14
EX5/093 AD	06/13/98 @ 1100	6/17/98		8.85	5.55		5.41	3.92
EX5/095 A	06/14/98 @ 1100	6/23/98		8.31	5.33		6.17	7.60
EX5/096 A	06/15/98 @ 1100	6/23/98		5.48	5.20		5.31	3.29
EX5/096 A [dup]	06/15/98 @ 1100	6/23/98		6.27	5.10		5.17	4.15
EX5/097 M	06/15/98 @ 1138	6/23/98		5.41	4.15		4.41	3.15
EX5/098 A	06/16/98 @ 1050	6/23/98		4.57	3.52		3.59	2.39
EX5/099 A	06/17/98 @ 1100	6/23/98		4.31	3.77		3.98	2.20
EX5/100 M	06/17/98 @ 1134	6/23/98		4.15	3.19		2.19	nd
EX5/101 A	06/18/98 @ 1100	6/23/98		4.28	2.47		3.51	nd
EX5/102 A	06/19/98 @ 1050	6/25/98		4.38	6.32		5.71	4.94
EX5/103 M	06/19/98 @ 1136	6/25/98		3.86	4.32		4.46	6.24
EX5/104 A	06/20/98 @ 1100	6/25/98		4.33	4.75		5.64	6.41
EX5/104 A [dup]	06/20/98 @ 1100	6/25/98		4.21	6.24		5.51	5.02
EX5/105 A	06/21/98 @ 1100	6/26/98		3.90	5.26		6.59	3.38
EX5/106 M	06/21/98 @ 1132	6/26/98		3.87	5.02		4.62	nd
EX5/107 A	06/22/98 @ 1050	6/26/98		3.53	4.40		3.74	2.81
EX5/108 AD	06/22/98 @ 1100	6/26/98		3.34	4.73		3.78	3.36
EX6/003 M	05/14/98 @ 0734	5/19/98	nd	nd	nd	2.60	nd	nd
EX6/004 A	05/13/98 @ 1730	5/19/98	nd	nd	nd	2.40	nd	nd
EX6/005 A	05/14/98 @ 0740	5/19/98	nd	nd	nd	2.29	nd	nd
EX6/006 M	05/14/98 @ 1954	5/24/98	nd	nd	nd	2.00	nd	nd
EX6/008 M	05/15/98 @ 2000	5/24/98	0.20	0.32	0.25	2.47	0.20	nd
EX6/009 M	05/16/98 @ 0749	5/24/98	3.80	4.03	3.39	2.49	2.39	0.74
EX6/010 A	05/14/98 @ 1330	5/24/98	nd	nd	nd	1.89	nd	nd
EX6/011 A	05/14/98 @ 1930	5/24/98	nd	nd	nd	1.80	nd	nd
EX6/012 A	05/15/98 @ 0130	5/23/98	nd	nd	nd	2.01	nd	nd
EX6/013 A	05/15/98 @ 0730	5/23/98	nd	nd	nd	1.86	nd	nd
EX6/014 A	05/15/98 @ 1330	5/23/98	nd	nd	nd	2.00	nd	nd
EX6/014 A [dup]	05/15/98 @ 1330	5/24/98	nd	nd	nd	2.16	nd	nd
EX6/015 A	05/15/98 @ 1930	5/24/98	0.20	0.28	0.18	2.16	nd	nd
EX6/016 A	05/16/98 @ 0130	5/24/98	1.11	1.25	0.99	2.12	0.63	0.26
EX6/017 A	05/16/98 @ 0730	5/24/98	3.38	3.55	3.04	2.19	2.08	0.61
EX6/018 M	05/16/98 @ 2028	5/25/98	15.9	19.2	16.8	1.97	13.3	5.95
EX6/018 M [dup]	05/16/98 @ 2028	5/26/98	16.9	18.6	16.7	2.15	13.2	5.92
EX6/019 M	05/17/98 @ 0747	5/26/98	61.5	77.1	70.0	2.36	57.9	25.2
EX6/020 A	05/16/98 @ 1330	5/25/98	5.07	6.47	5.80	1.67	4.74	2.17
EX6/021 A	05/16/98 @ 1940	5/25/98	12.9	14.5	12.7	1.68	10.1	4.50
EX6/022 A	05/17/98 @ 0705	5/26/98	55.3	58.3	53.4	1.72	44.6	19.4
EX6/024 M	05/18/98 @ 0808	6/4/98		145	140		129	67.8
EX6/026 M	05/19/98 @ 0745	6/5/98		165	135		115	72.4
EX6/027 A	05/17/98 @ 1340	5/26/98	75.6	79.8	72.8	2.04	64.6	32.2
EX6/028 A	05/17/98 @ 1940	5/26/98	97.1	101	94.6	2.02	87.2	46.8
EX6/029 A	05/18/98 @ 0140	6/4/98		124	119		101	56.9
EX6/030 A	05/18/98 @ 0740	6/4/98		133	136		116	66.3
EX6/031 AD	05/18/98 @ 0750	6/4/98		160	146		126	70.1
EX6/033 A	05/18/98 @ 1340	6/4/98		155	145		128	73.9
EX6/033 A [dup]	05/18/98 @ 1340	6/4/98		155	172		157	90.4

Sample ID	Date and Time Sampled	Date Analyzed	methanol (ppm)	1-propanol (ppm)	4-me-2-pentanol (ppm)	1-hexanol (ppm)	1-heptanol (ppm)	PCE (ppm)
EX6/034 A	05/18/98 @ 1940	6/4/98		167	162		149	84.0
EX6/035 A	05/19/98 @ 0140	6/5/98		180	125		108	57.3
EX6/036 A	05/19/98 @ 0740	6/5/98		184	139		123	72.9
EX6/037 M	05/19/98 @ 1958	6/5/98		144	119		115	82.6
EX6/038 A	05/19/98 @ 1340	6/5/98		217	159		139	80.7
EX6/039 A	05/19/98 @ 1940	6/5/98		212	169		151	92.6
EX6/039 A [dup]	05/19/98 @ 1940	6/5/98		205	154		141	83.5
EX6/040 A	05/20/98 @ 0150	6/6/98		224	210		200	132
EX6/041 A	05/20/98 @ 0750	6/6/98		197	190		184	122
EX6/042 M	05/20/98 @ 2145	6/7/98		220	217		202	138
EX6/042 M [dup]	05/20/98 @ 2145	6/7/98		227	215		205	133
EX6/043 A	05/20/98 @ 2100	6/6/98		237	218		207	135
EX6/044 A	05/21/98 @ 0900	6/7/98		215	210		197	128
EX6/045 M	05/21/98 @ 2106	6/7/98		199	191		185	124
EX6/046 M	05/22/98 @ 2106	6/8/98		177	159		156	118
EX6/047 A	05/21/98 @ 2100	6/7/98		>200	>200		237	166
EX6/047 A (1:10)	05/21/98 @ 2100	7/1/98		204	203		195	143
EX6/048 A	05/22/98 @ 0900	6/7/98		232	204		197	142
EX6/049 A	05/22/98 @ 2100	6/7/98		181	162		156	121
EX6/050 A	05/23/98 @ 0850	6/8/98		93.6	92.2		87.5	89.0
EX6/050 A [dup]	05/23/98 @ 0850	6/8/98		133	142		139	144
EX6/051 AD	05/23/98 @ 0900	6/8/98		126	139		137	138
EX6/053 M	05/23/98 @ 1917	6/9/98		108	121		118	118
EX6/054 M	05/25/98 @ 1039	6/9/98		42.2	38.3		38.0	30.7
EX6/055 A	05/23/98 @ 2100	6/8/98		103	112		115	110
EX6/056 A	05/24/98 @ 0900	6/9/98		92.8	74.0		72.6	71.7
EX6/057 A	05/24/98 @ 2100	6/9/98		85.8	63.2		61.7	64.6
EX6/058 A	05/25/98 @ 0900	7/14/98		53.80	52.3		57.80	44.00
EX6/059 A	05/25/98 @ 2100	6/9/98		25.7	24.1		22.3	nd
EX6/060 A	05/26/98 @ 0850	6/10/98		40.1	31.9		40.2	33.7
EX6/061 M	05/26/98 @ 1220	6/10/98		39.5	41.6		45.9	42.4
EX6/062 A	05/27/98 @ 1100	6/11/98		25.4	30.5		28.0	29.6
EX6/063 A	05/28/98 @ 1100	6/11/98		18.3	21.7		20.8	18.4
EX6/064 M	05/28/98 @ 1245	6/11/98		18.0	18.3		17.7	17.4
EX6/065 A	05/29/98 @ 1050	6/12/98		13.1	12.1		13.2	10.9
EX6/066 M	05/29/98 @ 2046	6/12/98		10.1	13.2		13.3	10.2
EX6/067 M	05/30/98 @ 1130	6/12/98		10.3	10.4		9.70	6.05
EX6/068 A	05/30/98 @ 1100	6/12/98		10.4	10.6		10.3	6.18
EX6/069 A	05/31/98 @ 1100	6/12/98		8.21	7.02		7.33	5.59
EX6/070 A	06/01/98 @ 1050	6/12/98		7.80	8.40		8.43	6.03
EX6/070 A [dup]	06/01/98 @ 1050	6/13/98		7.85	7.38		8.13	6.64
EX6/071 M	06/01/98 @ 1139	6/15/98		9.14	8.09		9.37	2.66
EX6/072 A	06/02/98 @ 1100	6/15/98		8.14	6.37		7.48	3.95
EX6/073 A	06/03/98 @ 1100	6/21/98		4.55	5.30		6.45	5.68
EX6/074 M	06/03/98 @ 1147	6/21/98		4.28	4.36		6.35	6.69
EX6/075 A	06/04/98 @ 1050	6/21/98		4.52	5.26		5.09	4.70
EX6/076 A	06/05/98 @ 1100	6/21/98		3.23	4.15		5.00	nd
EX6/077 M	06/05/98 @ 1125	6/21/98		2.15	3.47		5.10	3.47
EX6/077 M [dup]	06/05/98 @ 1125	6/21/98		2.46	4.68		4.55	3.98
EX6/078 A	06/06/98 @ 1100	6/21/98		1.26	3.25		3.95	nd
EX6/079 A	06/07/98 @ 1050	6/24/98		4.69	3.68		4.46	5.06
EX6/080 AD	06/07/98 @ 1100	6/24/98		4.36	3.59		4.16	4.49
EX6/082 M	06/07/98 @ 1113	6/25/98		4.79	5.02		5.83	7.08

Sample ID	Date and Time Sampled	Date Analyzed	methanol (ppm)	1-propanol (ppm)	4-me-2-pentanol (ppm)	1-hexanol (ppm)	1-heptanol (ppm)	PCE (ppm)
EX6/083 A	06/08/98 @ 1100	6/24/98		3.88	3.44		4.13	nd
EX6/084 M	06/09/98 @ 1115	6/25/98		4.03	4.07		3.51	nd
EX6/085 A	06/09/98 @ 1100	6/24/98		3.48	3.62		4.22	4.03
EX6/085 A [dup]	06/09/98 @ 1100	6/24/98		3.28	3.42		3.17	6.14
EX6/086 A	06/10/98 @ 1050	6/17/98		3.74	2.32		2.28	1.16
EX6/087 M	06/11/98 @ 1123	6/17/98		5.70	2.33		1.47	2.46
EX6/088 A	06/11/98 @ 1100	6/17/98		4.29	2.31		1.59	1.99
EX6/088 A [dup]	06/11/98 @ 1100	6/17/98		4.94	2.48		2.13	1.61
EX6/089 A	06/12/98 @ 1100	6/17/98		4.36	2.12		1.56	0.79
EX6/090 M	06/13/98 @ 1118	6/17/98		0.89	2.68		2.17	1.29
EX6/091 A	06/13/98 @ 1050	6/17/98		5.38	2.23		1.73	0.94
EX6/092 A	06/14/98 @ 1100	6/23/98		3.05	2.03		3.63	nd
EX6/093 A	06/15/98 @ 1100	6/23/98		3.02	1.57		3.56	nd
EX6/094 M	06/15/98 @ 1139	6/23/98		3.38	1.47		1.21	nd
EX6/095 A	06/16/98 @ 1050	6/23/98		1.94	1.60		1.46	1.44
EX6/096 A	06/17/98 @ 1100	6/23/98		2.89	1.59		1.87	nd
EX6/096 A [dup]	06/17/98 @ 1100	6/23/98		3.30	1.88		2.15	nd
EX6/097 M	06/17/98 @ 1135	6/23/98		2.88	1.77		1.64	nd
EX6/098 A	06/18/98 @ 1100	6/23/98		3.17	1.77		1.98	nd
EX6/099 A	06/19/98 @ 1050	6/25/98		3.10	3.71		3.56	nd
EX6/100 M	06/19/98 @ 1137	6/25/98		2.83	3.43		3.51	nd
EX6/101 A	06/20/98 @ 1100	6/25/98		3.18	3.28		3.32	nd
EX6/102 A	06/21/98 @ 1100	6/26/98		2.68	2.56		2.92	nd
EX6/103 M	06/21/98 @ 1135	6/26/98		2.37	3.87		2.03	2.40
EX6/103 M [dup]	06/21/98 @ 1135	6/26/98		2.10	2.48		2.17	nd
EX6/104 A	06/22/98 @ 1050	6/26/98		2.58	2.25		1.99	nd
Multi-Level Sampler								
1-16.0 (1)	05/15/98 @ 0958	5/24/98	0.12	nd	nd	48.6	nd	nd
1-16.0 (2)	05/15/98 @ 1436	5/24/98	0.09	nd	nd	41.5	nd	nd
1-16.0 (3)	05/15/98 @ 1957	5/24/98	nd	nd	nd	44.9	nd	nd
2-17.0	05/13/98 @ 1958	5/19/98	nd	nd	nd	2.28	nd	nd
2-17.0 (1)	05/14/98 @ 0835	5/19/98	nd	nd	nd	72.8	nd	nd
2-17.0 (1)	05/15/98 @ 0939	5/24/98	0.06	nd	nd	73.8	nd	nd
2-17.0 (1)	05/16/98 @ 0901	5/24/98	3.53	3.88	1.17	59.8	0.17	nd
2-17.0 (1) D	05/14/98 @ 0840	5/19/98	nd	nd	nd	68.9	nd	nd
2-17.0 (2)	05/15/98 @ 1447	5/24/98	nd	nd	nd	71.4	nd	nd
2-17.0 (3)	05/15/98 @ 2003	5/24/98	nd	nd	nd	71.7	nd	nd
2-17.0/011	05/16/98 @ 1953	5/26/98	516	601	473	4.43	350	33.3
2-17.0/012	05/17/98 @ 0825	5/26/98	930	1050	940	nd	849	309
2-17.0/013	05/17/98 @ 1338	5/26/98	999	1100	1010	38.1	945	420
2-17.0/014	05/17/98 @ 1910	5/26/98	914	964	890	14.7	840	435
2-17.0/015	05/18/98 @ 0854	6/4/98		>200	>200		>200	>200
2-17.0/015 (1:10)	05/18/98 @ 0854	7/8/98		1000	895		815	380
2-17.0/015 A	05/18/98 @ 1339	6/4/98		>200	>200		>200	>200
2-17.0/015 A (1:10)	05/18/98 @ 1339	7/8/98		947	798		751	336
2-17.0/016	05/18/98 @ 1940	6/5/98		>200	>200		>200	>200
2-17.0/016 (1:10)	05/18/98 @ 1940	7/8/98		968	856		782	433
2-17.0/017	05/19/98 @ 0814	6/5/98		>200	>200		>200	>200
2-17.0/017 (1:10)	05/19/98 @ 0814	7/8/98		981	829		765	386
2-17.0/018	05/19/98 @ 1920	6/5/98		>200	>200		>200	>200
2-17.0/018 (1:10)	05/19/98 @ 1920	7/8/98		1020	863		839	444
2-17.0/019 (1:10)	05/20/98 @ 0920	6/30/98		1050	991		901	529

Sample ID	Date and Time Sampled	Date Analyzed	methanol (ppm)	1-propanol (ppm)	4-me-2-pentanol (ppm)	1-hexanol (ppm)	1-heptanol (ppm)	PCE (ppm)
2-17.0/020 (1:10)	05/20/98 @ 1957	6/30/98		1070	997		910	539
2-17.0/021 (1:10)	05/21/98 @ 1043	7/1/98		973	838		846	432
2-17.0/021 (1:10) [dup]	05/21/98 @ 1043	7/1/98		1050	1020		963	606
2-17.0/022 (1:10)	05/21/98 @ 1936	7/1/98		566	633		750	453
2-17.0/023 (1:10)	05/22/98 @ 0822	7/1/98		67.0	89.8		183	309
2-17.0/025	05/23/98 @ 0856	6/9/98		19.3	20.0		44.0	163
2-17.0/026	05/23/98 @ 1846	6/9/98		7.37	17.2		32.7	143
2-17.0/027	05/24/98 @ 0905	6/9/98		3.11	5.74		16.3	88.9
2-17.0/028	05/24/98 @ 1928	6/9/98		38.8	2.39		6.04	37.1
2-17.0/029	05/25/98 @ 0805	6/9/98		39.9	55.3		71.0	33.8
2-17.0/029	05/25/98 @ 0805	6/9/98		nd	nd		nd	nd
2-17.0/030	05/25/98 @ 2048	6/10/98		nd	2.79		7.60	41.2
2-17.0/031	05/26/98 @ 0728	6/10/98		nd	nd		nd	16.6
2-17.0/032	05/27/98 @ 0755	6/11/98		nd	nd		nd	22.8
2-17.0/033	05/28/98 @ 0740	6/11/98		nd	nd		nd	6.93
2-17.0/034	05/29/98 @ 0740	6/12/98		nd	nd		nd	1.70
2-17.0/035	05/30/98 @ 0740	6/12/98		nd	nd		nd	nd
2-17.0/036	05/31/98 @ 0730	6/12/98		nd	nd		nd	nd
2-17.0/036 [dup]	05/31/98 @ 0730	6/12/98		nd	nd		nd	nd
2-17.0/037	06/01/98 @ 0950	6/13/98		nd	nd		nd	nd
2-17.0/038	06/02/98 @ 0735	6/15/98		nd	nd		nd	nd
2-17.0/039	06/03/98 @ 0735	6/21/98		nd	nd		nd	nd
2-17.0/040	06/04/98 @ 0800	6/21/98		nd	nd		nd	nd
2-17.0/041	06/05/98 @ 0837	6/21/98		nd	1.50		nd	nd
2-17.0/042	06/06/98 @ 0845	6/22/98		nd	nd		nd	nd
2-17.0/043	06/07/98 @ 0848	6/17/98		nd	nd		nd	nd
2-17.0/044	06/08/98 @ 0848	6/17/98		0.25	nd		nd	nd
2-17.0/045	06/09/98 @ 0814	6/17/98		0.41	1.29		2.83	4.48
2-17.0/046	06/10/98 @ 0855	6/17/98		1.58	nd		nd	nd
2-17.0/046D	06/10/98 @ 0855	6/17/98		1.67	nd		nd	nd
2-17.0/047	06/11/98 @ 0920	6/17/98		0.89	nd		nd	nd
2-17.0/047 [dup]	06/11/98 @ 0920	6/17/98		0.81	nd		nd	0.21
2-17.0/048	06/12/98 @ 0900	6/17/98		2.16	nd		nd	nd
2-17.0/049	06/13/98 @ 0907	6/17/98		1.16	nd		nd	nd
2-17.0/055	06/19/98 @ 0740	6/25/98		nd	1.89		nd	nd
2-17.0/056	06/20/98 @ 0806	6/25/98		nd	nd		2.10	nd
2-17.0/057	06/21/98 @ 0840	6/26/98		nd	nd		nd	nd
2-17.0/058	06/22/98 @ 0720	6/26/98		nd	nd		nd	nd
2-18.5	05/13/98 @ 2005	5/19/98	nd	nd	nd	*~243*	nd	nd
2-18.5 (1)	05/14/98 @ 0850	5/19/98	nd	nd	nd	*~236*	nd	nd
2-18.5 (1)	05/15/98 @ 0946	5/24/98	0.21	nd	nd	84.5	nd	nd
2-18.5 (1)	05/16/98 @ 0845	5/24/98	0.10	nd	nd	157	nd	nd
2-18.5 (2)	05/14/98 @ 1430	5/21/98	nd	nd	nd	48.7	nd	nd
2-18.5 (2)	05/15/98 @ 1506	5/24/98	0.30	nd	nd	139	nd	nd
2-18.5 (3)	05/14/98 @ 1958	5/22/98	nd	nd	nd	108	nd	nd
2-18.5 (3)	05/15/98 @ 2014	5/24/98	0.47	nd	nd	60.8	nd	nd
2-18.5/011 (1:1)	05/16/98 @ 1958	5/26/98	nd	nd	nd	212	nd	nd
2-18.5/012 (1:3)	05/17/98 @ 0835	5/26/98	nd	nd	nd	67.0	1.43	nd
2-18.5/013 (1:3)	05/17/98 @ 1342	5/26/98	nd	nd	nd	70.9	0.82	nd
2-18.5/014 (1:3)	05/17/98 @ 1915	5/27/98	nd	nd	nd	63.8	0.73	nd
2-18.5/015 (1/3)	05/18/98 @ 0906	6/4/98		12.0	18.9		37.4	32.3
2-18.5/015 A (1/3)	05/18/98 @ 1347	6/4/98		11.8	18.2		23.9	24.8
2-18.5/016 (1/3)	05/18/98 @ 1946	6/5/98		13.0	19.9		51.2	44.7

Sample ID	Date and Time Sampled	Date Analyzed	methanol (ppm)	1-propanol (ppm)	4-me-2-pentanol (ppm)	1-hexanol (ppm)	1-heptanol (ppm)	PCE (ppm)
2-18.5/017 (1/3)	05/19/98 @ 0820	6/5/98		nd	nd		10.2	0.91
2-18.5/024	05/22/98 @ 1952	6/8/98		nd	nd		nd	0.21
2-18.5/025	05/23/98 @ 0901	6/9/98		nd	nd		nd	1.02
2-18.5/026	05/23/98 @ 1852	6/9/98		nd	nd		nd	nd
2-18.5/027	05/24/98 @ 0917	6/9/98		0.16	nd		nd	nd
2-18.5/028	05/24/98 @ 1933	6/9/98		2.03	nd		nd	nd
2-18.5/029	05/25/98 @ 0811	6/9/98		3.90	45.1		nd	nd
2-18.5/029 [dup]	05/25/98 @ 0811	6/9/98		3.26	39.7		nd	nd
2-18.5/030	05/25/98 @ 2053	6/10/98		18.4	2.34		nd	5.24
2-18.5/030	05/25/98 @ 2053	6/9/98		6.89	26.1		nd	nd
2-18.5/031	05/26/98 @ 0735	6/11/98		16.5	nd		nd	nd
2-18.5/032	05/27/98 @ 0805	6/11/98		38.7	11.0		nd	nd
2-18.5/032 [dup]	05/27/98 @ 0805	6/11/98		36.7	6.65		nd	nd
2-18.5/033	05/28/98 @ 0750	6/11/98		62.5	12.0		1.98	nd
2-18.5/034	05/29/98 @ 0750	6/12/98		81.0	17.6		3.64	nd
2-18.5/035	05/30/98 @ 0750	6/12/98		114	31.1		9.49	nd
2-18.5/035 [dup]	05/30/98 @ 0750	6/12/98		118	31.7		9.09	nd
2-18.5/036	05/31/98 @ 0740	6/12/98		136	50.0		15.4	nd
2-18.5/037	06/01/98 @ 1000	6/15/98		163	70.6		30.0	17.9
2-18.5/038	06/02/98 @ 0745	6/15/98		200	105		46.2	nd
2-18.5/039	06/03/98 @ 0740	6/21/98		153	93.3		45.7	nd
2-18.5/040	06/04/98 @ 0807	6/21/98		144	109		56.3	nd
2-18.5/041	06/05/98 @ 0844	6/21/98		153	127		72.1	nd
2-18.5/042	06/06/98 @ 0850	6/22/98		112	100		66.5	nd
2-18.5/043	06/07/98 @ 0855	6/17/98		128	123		84.0	nd
2-18.5/044	06/08/98 @ 0855	6/17/98		107	107		79.9	nd
2-18.5/045	06/09/98 @ 0823	6/17/98		112	100		98.0	0.39
2-18.5/046	06/10/98 @ 0902	6/18/98		112	119		103	0.59
2-18.5/047	06/11/98 @ 0926	6/18/98		97.6	93.8		79.8	nd
2-18.5/048	06/12/98 @ 0916	6/18/98		97.3	87.1		83.6	nd
2-18.5/049	06/13/98 @ 0916	6/18/98		83.7	86.6		77.0	2.43
2-18.5/055	06/19/98 @ 0745	6/25/98		65.0	65.3		67.7	15.5
2-18.5/056	06/20/98 @ 0815	6/25/98		55.4	57.4		52.2	15.9
2-18.5/057	06/21/98 @ 0830	6/26/98		46.8	41.8		44.3	12.0
2-18.5/058	06/22/98 @ 0735	6/26/98		53.8	53.7		58.9	20.1
3-17.5	05/13/98 @ 2020	5/19/98	nd	nd	nd	*~221*	nd	nd
3-17.5 (1)	05/14/98 @ 0915	5/19/98	nd	nd	nd	*~213*	nd	nd
3-17.5 (1)	05/15/98 @ 0920	5/24/98	0.18	nd	nd	55.4	nd	nd
3-17.5 (1)	05/16/98 @ 0831	5/24/98	nd	nd	nd	49.1	nd	nd
3-17.5 (2)	05/15/98 @ 1512	5/24/98	0.15	nd	nd	78.0	nd	nd
3-17.5 (2) D	05/15/98 @ 1512	5/24/98	0.11	nd	nd	80.4	nd	nd
3-17.5 (3)	05/15/98 @ 2020	5/24/98	0.21	nd	nd	65.6	nd	nd
3-17.5/011	05/16/98 @ 1950	5/26/98	nd	nd	nd	7.09	nd	nd
3-17.5/012	05/17/98 @ 0850	5/26/98	nd	nd	nd	19.5	nd	nd
3-17.5/013	05/17/98 @ 1323	5/26/98	nd	nd	nd	14.1	nd	nd
3-17.5/014	05/17/98 @ 1903	5/27/98	nd	nd	nd	13.8	nd	nd
3-17.5/014 [dup]	05/17/98 @ 1903	5/27/98	nd	nd	nd	10.6	nd	nd
3-17.5/015	05/18/98 @ 0915	6/4/98		nd	nd		3.86	nd
3-17.5/015 [dup]	05/18/98 @ 0915	6/4/98		nd	nd		3.56	nd
3-17.5/015 A	05/18/98 @ 1354	6/5/98		nd	nd		4	nd
3-17.5/016	05/18/98 @ 1950	6/5/98		nd	nd		5	nd
3-17.5/017	05/19/98 @ 0828	6/5/98		nd	nd		1.31	nd
3-17.5/018	05/19/98 @ 1917	6/6/98		1.12	1.07		0.44	nd

Sample ID	Date and Time Sampled	Date Analyzed	methanol (ppm)	1-propanol (ppm)	4-me-2-pentanol (ppm)	1-hexanol (ppm)	1-heptanol (ppm)	PCE (ppm)
3-17.5/018 [dup]	05/19/98 @ 1917	6/6/98		2.15	1.57		0.54	nd
3-17.5/019	05/20/98 @ 0943	6/7/98		3.09	0.89		nd	nd
3-17.5/020	05/20/98 @ 1948	6/7/98		3.62	1.24		nd	nd
3-17.5/021	05/21/98 @ 1055	6/7/98		19.5	11.1		6.97	nd
3-17.5/022	05/21/98 @ 1947	6/7/98		25.8	15.8		10.0	4.91
3-17.5/022 [dup]	05/22/98 @ 1947	6/7/98		31.3	19.7		13.3	5.14
3-17.5/023	05/22/98 @ 0815	6/8/98		31.0	19.0		14.2	5.69
3-17.5/024	05/22/98 @ 1942	6/8/98		71.2	48.0		39.9	12.3
3-17.5/024D	05/22/98 @ 1942	6/8/98		88.9	60.7		52.1	16.1
3-17.5/025	05/23/98 @ 0906	6/9/98		84.2	65.0		58.7	26.1
3-17.5/026	05/23/98 @ 1838	6/9/98		81.4	57.7		46.9	24.6
3-17.5/026 [dup]	05/23/98 @ 1838	6/9/98		82.3	57.0		47.6	19.4
3-17.5/027	05/24/98 @ 0926	6/9/98		98.1	74.5		59.7	23.7
3-17.5/028	05/24/98 @ 1920	6/9/98		130	97.0		82.7	33.9
3-17.5/029	05/25/98 @ 0817	6/9/98		90.4	67.5		55.8	nd
3-17.5/029 (1:10)	05/25/98 @ 0817	7/1/98		118	81.9		84.0	40.1
3-17.5/030	05/25/98 @ 2100	6/10/98		299	198		170	75.2
3-17.5/030	05/25/98 @ 2100	6/9/98		84.6	62.4		49.6	nd
3-17.5/031	05/26/98 @ 0740	6/11/98		208	147		134	59.0
3-17.5/032	05/27/98 @ 0750	6/11/98		188	139		118	54.7
3-17.5/033	05/28/98 @ 0730	6/11/98		176	142		126	60.4
3-17.5/034	05/29/98 @ 0730	6/12/98		180	169		154	77.0
3-17.5/035	05/30/98 @ 0730	6/12/98		199	159		154	78.7
3-17.5/036	05/31/98 @ 0720	6/12/98		186	160		141	59.9
3-17.5/037	06/01/98 @ 1005	6/15/98		208	195		188	108
3-17.5/038	06/02/98 @ 0750	6/15/98		193	189		179	110
3-17.5/038	06/02/98 @ 0750	6/15/98		193	202		179	110
3-17.5/038 [dup]	06/02/98 @ 0750	6/15/98		192	184		180	107
3-17.5/039	06/03/98 @ 0745	6/21/98		144	136		140	74.8
3-17.5/040	06/04/98 @ 0812	6/21/98		153	152		150	93.9
3-17.5/041	06/05/98 @ 0850	6/21/98		105	105		107	74.8
3-17.5/042	06/06/98 @ 0837	6/22/98		80.3	73.7		75.0	51.7
3-17.5/043	06/07/98 @ 0902	6/18/98		78.8	75.7		72.7	50.5
3-17.5/043 [dup]	06/07/98 @ 0902	6/18/98		70.7	68.4		66.7	46.5
3-17.5/044	06/08/98 @ 0902	6/18/98		74.7	70.2		68.0	46.3
3-17.5/045	06/09/98 @ 0833	6/18/98		65.5	63.8		59.5	39.9
3-17.5/046	06/10/98 @ 0907	6/18/98		62.4	59.2		58.1	35.9
3-17.5/047	06/11/98 @ 0932	6/18/98		61.8	56.5		55.9	35.7
3-17.5/048	06/12/98 @ 0926	6/18/98		63.6	60.7		58.1	37.6
3-17.5/049	06/13/98 @ 0922	6/18/98		54.6	54.7		48.6	30.7
3-17.5/050	06/14/98 @ 1025	6/24/98		42.0	40.8		37.1	25.7
3-17.5/051	06/15/98 @ 0930	6/24/98		48.3	43.3		41.3	25.3
3-17.5/052	06/16/98 @ 0753	6/24/98		47.0	45.7		44.0	26.3
3-17.5/053	06/17/98 @ 1131	6/23/98		48.7	46.2		41.5	28.5
3-17.5/054	06/17/98 @ 1135	6/23/98		41.2	42.5		33.3	24.1
3-17.5/055	06/19/98 @ 0750	6/25/98		37.5	41.5		39.1	24.9
3-17.5/056	06/20/98 @ 0820	6/25/98		28.0	31.7		29.2	19.8
3-17.5/057	06/21/98 @ 0820	6/26/98		26.0	31.2		31.3	18.0
3-17.5/058	06/22/98 @ 0745	6/26/98		26.3	35.2		26.8	21.8
3-17.5/058	06/22/98 @ 0745	6/26/98		26.3	35.2		26.8	21.8

Tracer Injectate								
INJ/010	05/13/98 @ 1125	5/19/98	nd	nd	nd	5.23	nd	nd

Sample ID	Date and Time Sampled	Date Analyzed	methanol (ppm)	1-propanol (ppm)	4-me-2-pentanol (ppm)	1-hexanol (ppm)	1-heptanol (ppm)	PCE (ppm)
INJ/011 (1:10)	05/13/98 @ 1145	5/19/98	752	780	717	nd	706	494
INJ/011 (1:10)	05/13/98 @ 1145	7/9/98		772	690		672	452
INJ/011 (1:10) [dup]	05/13/98 @ 1145	5/19/98	766	778	730	nd	730	506
INJ/012 (1:10)	05/14/98 @ 1040	5/19/98	957	1050	974	nd	973	682
INJ/012 (1:10)	05/14/98 @ 1040	7/9/98		989	898		856	587
INJ/014 (1:10)	05/15/98 @ 1205	7/9/98		936	824		846	565
INJ/014 (1:10)	05/15/98 @ 1205	5/24/98	890	942	901	nd	926	672
INJ/014 (1:10)	05/15/98 @ 1205	5/24/98	1060	1060	1010		1030	726
INJ/015 (1:10)	05/16/98 @ 1625	7/9/98		956	885		863	584
INJ/015 (1:10)	05/16/98 @ 1625	5/25/98	855	876	815	nd	832	587
INJ/016 (1:10)	05/18/98 @ 0828	5/27/98	925	943	895	nd	898	647
INJ/016 (1:10)	05/18/98 @ 0828	7/9/98		950	850		827	516
INJ/016 (1:10) [dup]	05/18/98 @ 0828	5/27/98	806	812	755	nd	770	551
INJ/017 (1:10)	05/18/98 @ 1625	7/9/98		963	895		890	595
INJ/017 (1:10)	05/18/98 @ 1625	5/27/98	824	853	782	nd	803	569
INJ/018	05/18/98 @ 1635	5/27/98	nd	nd	nd	nd	nd	nd
INJ/019	05/18/98 @ 1650	5/27/98	nd	nd	nd	nd	nd	nd

Tracer Calibration Checks

2 ppm tracers	N/A	5/24/98	1.76	1.98	1.95	nd	1.92	1.84
2 ppm tracers	N/A	5/27/98	0.95	1.51	1.67	nd	1.64	1.66
5 ppm tracers	N/A	5/26/98	5.00	5.00	4.94	nd	5.01	4.80
5 ppm tracers	N/A	5/28/98	3.26	3.46	3.75	nd	3.68	3.59
5 ppm tracers	N/A	6/11/98		4.61	5.11		5.14	6.35
5 ppm tracers	N/A	6/12/98		5.85	6.85		9.68	7.25
5 ppm tracers	N/A	6/15/98		5.35	4.44		4.83	4.30
5 ppm tracers	N/A	6/16/98		4.08	4.57		4.80	4.89
5 ppm tracers	N/A	6/17/98		8.66	4.57		4.40	5.45
5 ppm tracers	N/A	6/18/98		5.55	4.96		5.44	5.60
5 ppm tracers	N/A	6/8/98		4.81	4.65		5.23	3.26
5 ppm tracers	N/A	6/9/98		4.93	3.50		4.13	2.11
5 ppm tracers	N/A	6/11/98		4.97	5.59		5.71	6.79
5 ppm tracers	N/A	6/20/98		4.51	4.77		4.97	4.21
5 ppm tracers	N/A	6/21/98		4.14	3.40		4.54	4.78
5 ppm tracers	N/A	6/22/98		2.68	4.96		6.30	4.99
5 ppm tracers	N/A	6/22/98		4.39	2.88		4.65	4.23
5 ppm tracers	N/A	6/22/98		4.99	4.86		5.00	4.74
5 ppm tracers	N/A	6/23/98		4.71	4.56		3.77	4.07
5 ppm tracers	N/A	6/24/98		6.44	4.33		5.17	7.80
5 ppm tracers	N/A	6/24/98		5.28	5.35		5.32	6.68
5 ppm tracers	N/A	6/25/98		5.31	5.98		5.41	6.78
5 ppm tracers	N/A	6/25/98		5.09	5.55		3.59	5.96
5 ppm tracers	N/A	6/26/98		4.85	5.78		8.23	5.97
5 ppm tracers	N/A	6/26/98		4.94	4.28		5.08	3.23
5 ppm tracers	N/A	6/27/98		3.37	3.26		2.52	3.55
5 ppm tracers	N/A	6/27/98		3.37	3.26		2.52	3.55
5 ppm tracers	N/A	6/30/98		5.07	4.88		4.40	5.88
5 ppm tracers	N/A	7/1/98		3.01	3.78		3.65	4.11
5 ppm tracers	N/A	7/8/98		5.15	5.92		5.66	5.54
5 ppm tracers	N/A	7/9/98		5.44	4.28		6.49	5.33
5 ppm tracers	N/A	7/14/98		4.74	4.8		5.42	4.88
10 ppm tracers	N/A	5/25/98	7.11	8.26	8.20	8.32	8.10	nd
10 ppm tracers	N/A	6/4/98		19.5	16.4	15.3	15.0	

Sample ID	Date and Time Sampled	Date Analyzed	methanol (ppm)	1-propanol (ppm)	4-me-2-pentanol (ppm)	1-hexanol (ppm)	1-heptanol (ppm)	PCE (ppm)
10 ppm tracers	N/A	6/5/98		10.0	9.95	9.58	10.1	
10 ppm tracers	N/A	6/11/98		10.8	10.1	11.1	10.3	
10 ppm tracers	N/A	6/12/98		9.61	10.5	10.8	10.1	
10 ppm tracers	N/A	6/15/98		11.0	11.5	11.8	10.4	
10 ppm tracers	N/A	6/16/98		9.64	10.7	9.93	10.4	
10 ppm tracers	N/A	6/17/98		12.6	8.20	7.46	7.97	
10 ppm tracers	N/A	6/18/98		10.2	10.5	10.6	10.0	
10 ppm tracers	N/A	6/8/98		10.1	12.4	11.6	9.32	
10 ppm tracers	N/A	6/11/98		9.72	9.23	10.3	10.4	
10 ppm tracers	N/A	6/20/98		12.4	10.3	10.4	9.99	
10 ppm tracers	N/A	6/21/98		10.5	10.6	11.1	9.16	
10 ppm tracers	N/A	6/22/98		5.57	7.12	8.12	4.21	
10 ppm tracers	N/A	6/24/98		9.13	8.00	8.33	9.23	
10 ppm tracers	N/A	6/24/98		8.91	9.17	11.2	10.8	
10 ppm tracers	N/A	6/25/98		9.10	11.9	9.45	9.88	
10 ppm tracers	N/A	6/26/98		7.91	5.62	7.10	9.02	
10 ppm tracers	N/A	6/26/98		12.1	13.1	12.6	13.2	
10 ppm tracers	N/A	6/27/98		9.59	9.35	8.06	8.46	
10 ppm tracers	N/A	6/27/98		9.59	9.35	8.06	8.46	
10 ppm tracers	N/A	6/30/98		10.6	10.7	9.98	10.0	
10 ppm tracers	N/A	7/1/98		7.88	7.06	8.32	7.22	
10 ppm tracers	N/A	7/8/98		9.74	7.81	8.76	9.62	
10 ppm tracers	N/A	7/9/98		10.0	9.67	10.1	9.50	
10 ppm tracers	N/A	7/14/98		10.20	9.6	8.94	10.40	
50 ppm tracers	N/A	5/25/98	51.7	49.7	50.2	nd	50.4	50.0
50 ppm tracers	N/A	5/26/98	51.1	51.5	51.4	nd	51.4	51.5
50 ppm tracers	N/A	6/4/98		50.2	54.7		52.6	49.6
50 ppm tracers	N/A	6/12/98		46.2	47.4		44.9	38.2
50 ppm tracers	N/A	6/15/98		49.9	50.1		49.6	50.7
50 ppm tracers	N/A	6/16/98		52.7	50.5		48.7	52.3
50 ppm tracers	N/A	6/17/98		48.9	44.9		44.8	43.2
50 ppm tracers	N/A	6/18/98		50.7	51.0		52.1	47.8
50 ppm tracers	N/A	6/8/98		46.4	44.5		44.7	56.5
50 ppm tracers	N/A	6/9/98		53.9	49.1		48.1	44.8
50 ppm tracers	N/A	6/20/98		50.2	50.0		45.8	45.6
50 ppm tracers	N/A	6/21/98		53.3	52.3		51.6	52.2
50 ppm tracers	N/A	6/22/98		46.5	48.2		50.4	49.7
50 ppm tracers	N/A	6/6/98		44.5	45.8		48.1	51.1
50 ppm tracers	N/A	6/8/98		52.1	48.1		45.2	45.4
50 ppm tracers	N/A	6/22/98		55.9	57.3		55.3	58.1
50 ppm tracers	N/A	6/23/98		52.9	46.2		49.4	47.4
50 ppm tracers	N/A	6/24/98		49.8	50.0		48.4	50.3
50 ppm tracers	N/A	6/24/98		47.6	47.0		46.2	47.5
50 ppm tracers	N/A	6/24/98		53.9	58.6		56.3	57.5
50 ppm tracers	N/A	6/25/98		50.5	53.4		48.6	51.6
50 ppm tracers	N/A	6/26/98		48.7	50.8		49.8	52.6
50 ppm tracers	N/A	6/27/98		52.7	51.6		51.8	48.6
50 ppm tracers	N/A	6/27/98		52.7	51.6		51.8	48.6
50 ppm tracers	N/A	6/30/98		56.9	55.4		53.8	50.8
50 ppm tracers	N/A	6/30/98		44.3	47.3		45.3	47.4
50 ppm tracers	N/A	7/1/98		50.6	55.2		51.9	54.8
50 ppm tracers	N/A	7/8/98		49.0	48.6		47.0	46.6
50 ppm tracers	N/A	7/9/98		49.7	48.0		47.2	46.4

Sample ID	Date and Time Sampled	Date Analyzed	methanol (ppm)	1-propanol (ppm)	4-me-2-pentanol (ppm)	1-hexanol (ppm)	1-heptanol (ppm)	PCE (ppm)
50 ppm tracers	N/A	7/14/98		51.00	50.7		52.70	50.10
50 ppm tracers	N/A	6/9/98		44.4	40.9		40.6	nd
50 ppm tracers	NA	6/11/98		49.5	49.1		49.9	47.4
100 ppm tracers	N/A	5/26/98	98.5	99.1	99.6	nd	99.5	99.8
100 ppm tracers	N/A	5/27/98	98.3	97.1	97.4	nd	97.2	97.4
100 ppm tracers	N/A	6/5/98		100	105		104	100
100 ppm tracers	N/A	6/11/98		102	98.1		96.7	101
100 ppm tracers	N/A	6/12/98		100	104		100	95.3
100 ppm tracers	N/A	6/16/98		107	104		103	106
100 ppm tracers	N/A	6/17/98		105	99.3		99.1	93.9
100 ppm tracers	N/A	6/18/98		100	102		102	102
100 ppm tracers	N/A	6/9/98		98.8	100		99.1	130
100 ppm tracers	N/A	6/10/98		106	107		104	103
100 ppm tracers	N/A	6/10/98		128	114		111	116
100 ppm tracers	N/A	6/20/98		105	103		107	113
100 ppm tracers	N/A	6/21/98		105	105		105	110
100 ppm tracers	N/A	6/22/98		94.9	97.1		94.7	96.0
100 ppm tracers	N/A	6/5/98		80.7	75.9		73.8	92.9
100 ppm tracers	N/A	6/24/98		86.6	84.2		82.6	84.6
100 ppm tracers	N/A	6/25/98		106	109		102	111
100 ppm tracers	N/A	6/25/98		98.3	97.8		98.7	102
100 ppm tracers	N/A	6/26/98		104	106		101	109
100 ppm tracers	N/A	6/27/98		105	109		107	112
100 ppm tracers	N/A	6/27/98		105	109		107	112
100 ppm tracers	N/A	6/30/98		107	104		107	104
100 ppm tracers	N/A	7/1/98		104	106		100	102
100 ppm tracers	N/A	7/1/98		110	112		108	106
100 ppm tracers	N/A	7/8/98		102	104		105	104
100 ppm tracers	N/A	7/9/98		94.5	92.9		95.1	94.0
100 ppm tracers	N/A	7/14/98		97.90	99.4		97.90	100.00
200 ppm tracers	N/A	5/26/98	196	193	199	nd	199	201
200 ppm tracers	N/A	5/27/98	202	191	198	nd	199	197
200 ppm tracers	N/A	5/28/98	206	189	196	nd	199	204
200 ppm tracers	N/A	6/4/98		192	203		204	198
200 ppm tracers	N/A	6/5/98		208	209		208	202
200 ppm tracers	N/A	6/12/98		202	195		195	201
200 ppm tracers	N/A	6/12/98		218	213		219	211
200 ppm tracers	N/A	6/16/98		240	247		251	253
200 ppm tracers	N/A	6/17/98		198	189		191	192
200 ppm tracers	N/A	6/18/98		191	203		195	193
200 ppm tracers	N/A	6/9/98		166	160		157	199
200 ppm tracers	N/A	6/10/98		194	194		193	196
200 ppm tracers	N/A	6/20/98		202	210		207	196
200 ppm tracers	N/A	6/21/98		186	192		189	194
200 ppm tracers	N/A	6/22/98		191	194		203	195
200 ppm tracers	N/A	6/6/98		200	199		199	200
200 ppm tracers	N/A	6/6/98		211	210		206	207
200 ppm tracers	N/A	6/7/98		186	187		189	196
200 ppm tracers	N/A	6/8/98		214	198		200	198
200 ppm tracers	N/A	6/23/98		198	201		196	194
200 ppm tracers	N/A	6/24/98		201	205		200	204
200 ppm tracers	N/A	6/24/98		186	183		179	187
200 ppm tracers	N/A	6/25/98		211	211		213	211

Sample ID	Date and Time Sampled	Date Analyzed	methanol (ppm)	1-propanol (ppm)	4-me-2-pentanol (ppm)	1-hexanol (ppm)	1-heptanol (ppm)	PCE (ppm)
200 ppm tracers	N/A	6/25/98		212	208		222	202
200 ppm tracers	N/A	6/26/98		211	215		214	210
200 ppm tracers	N/A	6/27/98		179	170		176	169
200 ppm tracers	N/A	6/27/98		179	170		176	169
200 ppm tracers	N/A	6/30/98		210	224		218	220
200 ppm tracers	N/A	7/1/98		194	202		199	185
200 ppm tracers	N/A	7/1/98		221	241		236	241
200 ppm tracers	N/A	7/8/98		199	197		198	198
200 ppm tracers	N/A	7/9/98		196	192		198	194
200 ppm tracers	N/A	7/14/98		202.00	199.0		202.00	200.00
PCE Calibration Checks								
2 ppm PCE	N/A	5/24/98	nd	nd	nd	2.09	nd	nd
2 ppm PCE	N/A	5/27/98	nd	nd	nd	1.89	nd	nd
5 ppm PCE	N/A	5/26/98	nd	nd	nd	5.00	nd	nd
10 ppm PCE	N/A	5/25/98	nd	nd	nd	nd	nd	9.20
25 ppm PCE	N/A	5/26/98	nd	nd	nd	25.1	nd	nd
50 ppm PCE	N/A	5/25/98	nd	nd	nd	50.4	nd	nd
50 ppm PCE	N/A	5/27/98	nd	nd	nd	50.0	nd	nd
50 ppm PCE	N/A	5/27/98	nd	nd	nd	52.7	nd	nd
50 ppm PCE	N/A	5/28/98	nd	nd	nd	41.7	nd	nd
100 ppm PCE	N/A	5/26/98	nd	nd	nd	96.0	nd	nd
150 ppm PCE	N/A	5/26/98	nd	nd	nd	142	nd	nd
150 ppm PCE	N/A	5/27/98				150		
Method Blanks								
blk	N/A	6/4/98		4.23	nd		nd	nd
blk H2O	N/A	5/24/98	nd	nd	nd	nd	nd	nd
blk H2O	N/A	5/27/98	0.12	nd	nd	nd	nd	nd
blk H2O	N/A	5/27/98	nd	nd	nd	nd	nd	nd
blk H2O	N/A	6/11/98		nd	nd		nd	nd
blk H2O	N/A	6/16/98		1.02	nd		nd	nd
blk H2O	N/A	6/8/98		2.00	1.95		nd	nd
blk H2O	N/A	6/9/98		nd	nd		nd	nd
blk H2O	N/A	6/11/98		nd	2.04		2.98	nd
blk H2O	N/A	6/20/98		nd	nd		nd	nd
blk H2O	N/A	6/6/98		nd	nd		nd	nd
blk H2O	N/A	6/6/98		0.73	1.06		2.25	4.56
blk H2O	N/A	6/8/98		nd	nd		nd	nd
blk H2O	N/A	6/22/98		nd	nd		nd	nd
blk H2O	N/A	6/24/98		2.30	2.25		nd	4.38
blk H2O	N/A	6/25/98		nd	nd		nd	nd
blk H2O	N/A	6/26/98		1.15	nd		nd	nd
blk H2O	N/A	6/26/98		nd	nd		nd	nd
blk H2O	N/A	6/26/98		nd	nd		nd	nd
blk H2O	N/A	6/30/98		nd	nd		nd	4.86
blk H2O	N/A	7/8/98		nd	nd		nd	nd
blk H2O	N/A	7/8/98		nd	0.82		5.10	6.41
blk H2O	N/A	7/9/98		nd	nd		nd	nd
blk H2O	N/A	7/9/98		0.54	0.55		3.95	6.05
blk H2O	N/A	7/14/98		nd	nd		nd	nd
blk H2O	N/A	7/14/98		nd	0.6		4.20	4.09

Sample ID	Date and Time Sampled	Date Analyzed	methanol (ppm)	1-propanol (ppm)	4-me-2-pentanol (ppm)	1-hexanol (ppm)	1-heptanol (ppm)	PCE (ppm)
Equipment Blanks								
EX1/019 EB	05/16/98 @ 1040	5/24/98	nd	nd	nd	~264	nd	nd
EX1/019 EB	05/16/98 @ 1040	5/24/98	nd	nd	nd	183	0.34	nd
EX1/019 EB	05/16/98 @ 1040	5/24/98	nd	nd	nd	~264	nd	nd
EX1/019 EB	05/16/98 @ 1040	5/24/98	nd	nd	nd	183	0.34	nd
EX1/034 EB	05/19/98 @ 1039	6/5/98		nd	nd		4.78	nd
EX1/062 EB	05/26/98 @ 0920	6/10/98		nd	1.75		5.09	nd
EX1/098 EB	06/16/98 @ 1122	6/23/98		nd	nd		nd	nd
EX2/006 EB	05/14/98 @ 1130	5/19/98	nd	nd	nd	0.71	nd	nd
EX2/006 EB	05/14/98 @ 1130	5/19/98	nd	nd	nd	0.71	nd	nd
EX2/041 EB	05/20/98 @ 1822	6/6/98		1.12	1.16		nd	1.13
EX2/054 EB	05/23/98 @ 1045	6/8/98		nd	nd		4.15	3.37
EX2/061 EB	05/25/98 @ 1235	6/9/98		nd	nd		nd	nd
EX2/082 EB	06/04/98 @ 1140	6/21/98		nd	1.31		nd	nd
EX3/014 EB	05/16/98 @ 1152	5/24/98	nd	nd	nd	nd	nd	nd
EX3/014 EB	05/16/98 @ 1152	5/24/98	0.16	nd	nd	nd	nd	nd
EX3/014 EB	05/16/98 @ 1152	5/24/98	nd	nd	nd	nd	nd	nd
EX3/014 EB	05/16/98 @ 1152	5/24/98	0.16	nd	nd	nd	nd	nd
EX3/042 EB	05/20/98 @ 1840	6/6/98		0.91	nd		nd	nd
EX3/042 EB [dup]	05/20/98 @ 1840	6/6/98		0.84	nd		nd	nd
EX3/068 EB	05/29/98 @ 1133	6/12/98		nd	nd		nd	nd
EX3/102 EB	06/19/98 @ 1102	6/25/98		nd	nd		nd	4.27
EX4R/032 EB	05/19/98 @ 1210	6/5/98		3.64	5.51		8.79	7.28
EX4R/052 EB	05/23/98 @ 1130	6/8/98		nd	nd		3.59	nd
EX4R/086 EB	06/10/98 @ 1235	6/17/98		nd	nd		nd	nd
EX5/019 EB	05/16/98 @ 1245	5/24/98	nd	nd	nd	0.71	nd	nd
EX5/019 EB	05/16/98 @ 1245	5/24/98	nd	nd	nd	1.01	nd	nd
EX5/019 EB	05/16/98 @ 1245	5/24/98	nd	nd	nd	0.71	nd	nd
EX5/019 EB	05/16/98 @ 1245	5/24/98	nd	nd	nd	1.01	nd	nd
EX5/042 EB	05/20/98 @ 1706	6/6/98		nd	0.35		1.21	nd
EX5/073 EB	06/01/98 @ 1130	6/12/98		0.97	3.07		nd	1.97
EX5/094 EB	06/13/98 @ 1138	6/17/98		0.08	0.28		1.42	nd
EX5/109 EB	06/22/98 @ 1129	6/26/98		nd	nd		nd	nd
EX6/032 EB	05/19/98 @ 1310	6/5/98		3.69	5.28		9.73	5.85
EX6/052 EB	05/23/98 @ 1205	6/8/98		nd	nd		1.69	nd
EX6/081 EB	06/07/98 @ 1146	6/24/98		nd	nd		nd	nd
Trip Blanks								
INJ/013 TB	05/14/98 @ 1150	5/19/98	nd	nd	nd	nd	nd	nd
INJ/021 TB	05/26/98 @ 1205	6/10/98		nd	nd		nd	nd
INJ/022 TB	05/26/98 @ 1236	6/10/98		nd	nd		nd	nd
INJ/022 TB [dup]	05/26/98 @ 1236	6/10/98		nd	nd		nd	nd
INJ/024 TB	05/28/98 @ 1314	6/11/98		nd	nd		nd	nd
INJ/025 TB	05/28/98 @ 1328	6/11/98		nd	nd		nd	nd
INJ/026 TB	05/30/98 @ 1201	6/12/98		nd	nd		nd	nd
INJ/027 TB	06/02/98 @ 1213	6/15/98		nd	nd		nd	nd
INJ/027 TB [dup]	06/02/98 @ 1213	6/15/98		nd	nd		nd	nd
INJ/028 TB	06/02/98 @ 1216	6/15/98		nd			nd	nd
TB/029	06/04/98 @ 1428	6/21/98		nd	nd		nd	nd
TB/030	06/04/98 @ 1430	6/21/98		nd	nd		nd	nd
TB/031	06/06/98 @ 1205	6/21/98		nd	nd		nd	nd
TB/031 [dup]	06/06/98 @ 1205	6/22/98		nd	nd		nd	nd
TB/032	06/06/98 @ 1206	6/22/98		nd	nd		nd	nd

Sample ID	Date and Time Sampled	Date Analyzed	methanol (ppm)	1-propanol (ppm)	4-me-2-pentanol (ppm)	1-hexanol (ppm)	1-heptanol (ppm)	PCE (ppm)
TB/033	06/09/98 @ 1214	6/24/98		nd	nd		nd	nd
TB/034	06/09/98 @ 1215	6/25/98		nd	nd		nd	nd
TB/035	06/11/98 @ 1206	6/16/98		nd	1.27		4.45	6.02
TB/036	06/11/98 @ 1206	6/16/98		nd	nd		0.75	1.75
TB/036	06/11/98 @ 1206	6/16/98		nd	nd		0.75	nd
TB/038	06/13/98 @ 1130	6/16/98		nd	nd		nd	nd
TB/039	06/13/98 @ 1153	6/23/98		nd	nd		2.24	nd
TB/040	06/15/98 @ 1250	6/23/98		nd	nd		nd	nd
TB/040 [dup]	06/15/98 @ 1250	6/23/98		nd	nd		nd	nd
TB/041	06/18/98 @ 1115	6/22/98		nd	nd		3.41	4.85
TB/042	06/18/98 @ 1117	6/22/98		nd	nd		0.88	nd
TB/043	06/20/98 @ 0908	6/25/98		nd	nd		nd	nd
TB/044	06/20/98 @ 1018	6/25/98		nd	nd		nd	nd
TB/045	06/22/98 @ 1226	6/26/98		nd	nd		nd	nd
TB/046	06/22/98 @ 1226	6/26/98		nd	nd		nd	nd
TB/06	5/20/98	6/7/98		0.56	0.11		nd	nd
TB/07	5/20/98	6/6/98			0.18		nd	0.87
TB02	5/16/98	5/24/98	nd	nd	nd	nd	nd	nd
TB02	5/16/98	5/24/98	nd	nd	nd	nd	nd	nd
TB03	5/16/98	5/25/98	nd	nd	nd	nd	nd	nd
TB03	5/16/98	5/25/98	nd	nd	nd	nd	nd	nd
TB04	5/16/98	5/25/98	nd	nd	nd	nd	nd	nd
Perimeter Monitor Wells								
PER/001 (MW02/01)	05/12/98 @ 1705	5/19/98	nd	nd	nd	5.71	nd	nd
MW02/02	05/20/98 @ 1650	6/6/98		nd	nd		nd	nd
MW02/05	06/08/98 @ 1327	6/24/98		nd	1.76		nd	nd
MW02/06	06/16/98 @ 1413	6/22/98		nd	nd		nd	nd
MW02/626	06/26/98 @ 0910	7/1/98		nd	nd		nd	nd
MW02-3	05/27/98 @ 1405	6/11/98		nd	nd		nd	nd
MW02IW/02	05/20/98 @ 1925	6/7/98		nd	nd		nd	0.34
MW02IW/04	06/08/98 @ 1528	6/24/98		nd	1.66		nd	nd
MW02IW/05	06/16/98 @ 1407	6/22/98		nd	nd		nd	nd
MW02IW/626	06/26/98 @ 1110	7/1/98		nd	nd		nd	nd
MW02IW-03	05/27/98 @ 1150	6/11/98		nd	nd		nd	nd

Perimeter Monitor Wells for Arsenic

Sample ID	Date and Time Sampled	Date Analyzed	Arsenic (ppm)	(Detection Limit for Arsenic = 0.005 ppm)
MW02 (S)	4/10/98	4/20/98	nd	
MW03 (S)	4/10/98	4/20/98	nd	
MW05 (S)	4/10/98	4/20/98	nd	
MW02-4	5/29/98	6/8/98	nd	
MW03-4	5/29/98	6/8/98	nd	
MW05-4	5/29/98	6/8/98	nd	
MW02/07	6/26/98	7/14/98	nd	
MW03/05	6/26/98	7/14/98	nd	
MW05/05	6/26/98	7/14/98	nd	